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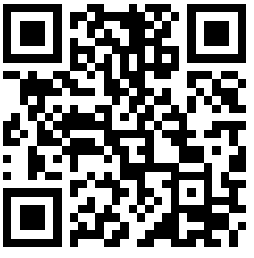
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Medical

Lecture
ON
THE LIMITS OF AURAL SURGERY.

Delivered at St. George's Hospital on June 7th, 1889,

BY SIR W. B. DALBY, F.R.C.S., M.B. CANTAB.,
AURAL SURGEON TO THE HOSPITAL.

GENTLEMEN,—To-day it is not my intention to enter into any details as to the pathology of diseases of the ear, or as to the treatment acknowledged on all hands to be useful, but by references to and comments upon these matters to indicate as briefly as possible the limits of aural surgery in a few of its principal areas. There are, indeed, some points in the onward course of aural surgery at which there may be discerned great hopes of its future, but also some points where its limits run a risk of being exceeded, and to pass beyond which, unless any advance is guided and restrained by accurate knowledge is the surest method of setting a limit to its true progress. The treatment, for example, of ordinary troubles caused by catarrh of the middle ear—such as a passing obstruction of the Eustachian tubes, effusion into the tympana, and so on—is pretty well agreed upon, and, indeed, happily now a large proportion of these troubles in early life are cut short, and their return prevented by the timely removal of adenoid growths from the pharynx, which proceeding has the effect of completely restoring not only the hearing but also nasal respiration. But if these cases get well, and ordinary catarrhs and inflammation of the middle ear get well under appropriate treatment, there remains an immense number of chronic, stationary, and progressive conditions, which are neither purely catarrhal nor purely nervous, which do not respond to any known treatment, but the subjects of which submit themselves to all sorts of remedies and procedures: sometimes to treatment which, if the disease was purely catarrhal, would relieve them; at other times to treatment which could have no effect on any known disease of the ear. It is needless to say they do so without any benefit. It is most desirable, therefore, that it should be estimated in what degree treatment will or will not be of service to these people; in short, that the limits of aural surgery for them should be defined.

Then there is another very large class of cases, persons with perforations of the tympanic membrane. That the mass of these cases can be relieved up to a point, that many of them can obtain very fair and even good hearing, and keep their perforations in a condition quite compatible with comfort and safety to life, is well known; but there is no question that in the case of some who obtain only slight benefit to their hearing, if not satisfied with what has been done for them, they seek for and obtain treatment outside the limits of aural surgery, they court complications which are dangerous to life, which complications, let it be said, in a certain proportion of cases nothing they could do would avoid.

I have noticed of late years that, coincident with the advancement of surgical knowledge, the public has become acquainted with the appliances which so often are of great service in cases suited to their use, and, oblivious of the fact that deafness is no more than a symptom of countless conditions, it (the public), so so speak, helps itself, encouraged by some acquaintance who has been successfully treated by one or other remedy in use. This wholesale application of remedies is traceable to a very natural anxiety to help by local means a symptom which is known to be frequently due to local causes, and so within reach of surgical treatment. When, however, the special knowledge necessary for diagnosis does not exist, a valuable agent is often applied for indefinite periods, with the negative results that might be anticipated. This course of events may now constantly be seen in the instances of two—viz., Politzer's method and the muriate of ammonia vapour. Amongst the useful procedures of a minor kind, perhaps nothing that has been introduced into surgery has done more good service than Politzer's method. It is used for the purpose of opening the Eustachian tube and for diagnosis every hour of the day by hundreds of surgeons throughout the world. I can remember the time when I was seeing a number of aural patients daily, and it scarcely ever happened that any of them had been subjected to Politzer's method. Now (except those in whom the trouble has been of recent origin) most are familiar with it. Many come provided with a Politzer bag, and have used it themselves almost regularly, sometimes every day for months, the ailment at one time being a piece of cerumen, at another perhaps inherited syphilis or one of the many nervous conditions. The satisfaction derived from its use lasts for the longest periods when by a happy chance there has been a temporary obstruction of one or both Eustachian tubes, which the daily process for the time being has removed. Even if a passing relief is obtained, it by no means follows that the constant use of a Politzer bag is an unmixed advantage; as a matter of fact it is very much the reverse, as anyone in the habit of treating diseases of the ear well knows. It strains the membrane, rendering it flaccid, giving rise to thinning of it in places, and causing bulgings; and this condition after a time becomes permanent. Again, to take the case of muriate of ammonia vapour. It was brought under my notice when it was first introduced from America. I at once began to employ it largely for recent catarrh with increased secretion in the middle ear, and with satisfactory results. It rapidly came into use, and soon all sorts of modifications of the machine for making the vapour were invented by London chemists, most of which fulfilled all the requirements. Now it is not only prescribed constantly, but patients purchase it and use it largely when they suffer from deafness, and quite irrespectively of the causes which induced the symptom. The public tympanum, therefore, is now subjected to muriate of ammonia vapour almost as freely as to the air douche.

To take another subject—viz., tinnitus. Few things are more delusive or tend more to narrow the limits of aural surgery—in other words, to prevent its intelligent progress—than the numberless vaunted remedies for tinnitus. The explanation of the marvellous literature that has been written upon this subject is probably to be found in the fact that a good many cases do not admit of relief. The truth is that, like pain, it is a symptom, and, like pain, it has to be endured, unless and until the cause can be removed or disappears. In many cases it can be removed; in others it goes away as it began, without any apparent reason; in others it is of a lasting nature, since the causes which produce it are of a kind which remain with life. Amongst these latter must be counted the degeneration of the arterial system after middle life. Inasmuch, then, as in such instances the symptom is incurable and outside the limits of surgery, advertisers in the daily press volunteer to cure it by means of electricity (always an attractive remedy with the public) and other methods. Perhaps because tinnitus due to degeneration and some other causes is of a constant character, the kind of electricity which finds most favour amongst its advocates is the constant current; but, whether this or the interrupted is employed, it is generally the personally conducted and continuous as long as possible. This sort of treatment seems likely to go on until it becomes known that the cause of tinnitus is very often situated behind the tympanic cavity. I say this with a reservation, as I shall presently show; but, in a large proportion of cases in which patients are troubled with noises in the head, I have no sort of doubt that it is due to nervous causes, and it is most necessary to state this, since it rarely happens within my experience that patients with tinnitus are not submitted to treatment of the middle ear. In order to understand why this trouble is so frequently of nervous origin, the numerous conditions under which it is produced, and in which it is found to be a constant symptom, must be considered; then overwhelming evidence of its seat-origin may be made plain.

First, to take examples in which one ear only is affected. An unexpected explosion of a gun near an ear will instantly produce it, and it will remain for long periods—sometimes for years, or even a lifetime. An unexpected blow on the ear—i.e., a box on the ear from a person behind. A loud whistle or other violent noise close to the ear—sounded, perhaps, in play. After concussion or fracture of the skull, it is generally present. One curious instance of starting this symptom I will relate.

In the spring of 1888, a middle-aged lady, clever, sensible, and not at all imaginative, went to stay in a large country

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house, and was placed in a bedroom which had not been occupied for twenty-five years. In this room which was well warmed with fires before she went into it, there was a quantity of antique furniture. The first evening she heard the clicking noise (unmistakable to anyone who has heard it once) made by the small insect called the "death watch." There are two varieties, I am told, of these insects, both of which infest old wood and sometimes dried skins—Anobium striatum, the ordinary death watch, and Vestobium tesselatum, the large death watch. I now show you a specimen of each. These animals were afterwards found in the furniture. On the second night one of them crawled into her ear and awoke her by its peculiar noise. She was perfectly aware of what had happened, and had the ear syringed and freed from it next day. Notwithstanding this, she was at times annoyed with this noise at all hours of the day or night for many months. One day the noise ceased and has never returned. I offer no explanation of this, but narrate the occurrence to show that the causes of tinnitus are more than can be named.

Again, most cases in which the nervous power of hearing is lost without any perceptible local change and without any inflammation or catarrh of the middle ear are accompanied with tinnitus, and this is especially so if both ears are affected. For example, when prolonged anxieties, mental shock, typhoid, typhus, mumps, the fevers of India, &c., are followed by deafness (the middle ear never having suffered), tinnitus is present. When the hearing is lost or impaired by constitutional or inherited syphilis, or by advancing age; with those in whom the hearing fails in most members of the family towards middle age, a deafness whose cause is unknown, without a name, and without a remedy, with no evidence by which to discover such cause; with good health and healthy middle ears; with these and their like there is generally tinnitus. If there is a noteworthy presence of tinnitus in these cases, so in the large proportion of middle-ear diseases there is a noteworthy absence. In case after case of middle-ear disease that come day by day before our notice, such as an obstructed Eustachian tube, recent catarrh, subacute or acute inflammation of the tympanum, perforations accompanied by purulent discharge, polypus, or other details, is it the rule to meet with tinnitus? When the tympanum has been completely disorganised and membrane destroyed in its entirety, is it the rule to meet with tinnitus? Quite the contrary; it is extremely rare, and then only of passing character. Then, surely, if the source and origin of tinnitus is to be sought and found in the middle ear, it would be common in these examples. If this reasoning is sound, and if it becomes accepted as logical, there ought to be a fair prospect of seeing an end of the restless agitation of the tympana of persons who suffer from tinnitus. It may be asked, what is proposed to put in its place? To this I would reply that, before any substitute for unscientific treatment is proposed, it should be discontinued; let it be recognised that, compared with an open-minded attempt to discover the source of symptoms, all treatment is quite unimportant; that when the cause is discovered, rational treatment will suggest itself; that when the cause is found to be a condition that does not admit of remedy, an abstention of all treatment, especially surgical interference, should be insisted on.

Let me exemplify this for a moment. There is a particular class of men whom it is accustomed to describe, and who so speak of themselves, as being overworked. I do not here refer to men of great mental ability, who work assiduously for many hours at occupations which involve intellectual work, but to those men who appear to be unable to bear the worries of business and private life, and who perhaps take a good deal of wine during the day because they feel relief from its sedative action. These sort of people often suffer from tinnitus, and if they can be persuaded to work for a less number of hours and to give up the sedative get well without any further treatment. The truth is, these men do not start with very strong brains, and what is overwork for them would be child's play for more powerful brains. They may not be very interesting people excepting so far as what relates to their maladies, but it is with these we are now concerned. On several occasions I have seen patients who have complained of tinnitus of a very persistent kind, whose minds were evidently much disturbed by it, and who in the course of conversation have described a variation in the symptom as if they heard distinctly spoken words. This form of tinnitus is without doubt of a very serious character, for the subjects have shortly afterwards become insane. This is of course well known to those who have to deal with insanity. It would be an endless task to mention the noises which tinnitus simulates, as described by patients. From the sound of a sea-shell held up to the ear—the mildest of all forms—to the letting off of steam and the distracting noise of machinery; but it may be accepted as a rule that tinnitus of (so to speak) a furious character is the commencement of very great, if not total, loss of hearing. I observed just now that tinnitus is absent in most cases of perforations which have lasted for years, and in which the loss of hearing has been tolerably uniform throughout; but if in such instances tinnitus sets in, the partial hearing is generally lost or nearly so. This bears out the view that the tinnitus, in this case at least, is distinctly of nervous origin. The sensation of a pulse in the ear, combined with general tinnitus, is such a common symptom in quite young people (especially the anæmic), with loss of hearing not due to middle-ear disease, that it is desirable not to attach too much importance to it. At the same time, in elderly people with degeneration of the arterial system and deafness depending on this cause, it must be admitted that it possesses a significance which it does not in other cases; and I am led to say this, because I have observed a considerable number of cases in which patients who have consulted me for this symptom have at a period not very remote succumbed to apoplexy.

Another example of the undoubtedly nervous origin of tinnitus might be instanced in the class of cases which go by the name of "Menière's disease." It is a useful term, because it serves to designate a disorder which shows itself by a train of symptoms alarming to the patient, but in no way dangerous to life. These symptoms begin by severe attacks of giddiness—so severe sometimes that the subjects fall down, but are never unconscious; a feeling of nausea, even vomiting at times; sweating; great prostration, lasting for hours and even for days; inability to move without feeling giddy. After such an attack, it is noticed that there is tinnitus and deafness in one ear. By-and-by these attacks become less frequent and finally cease, but the deafness and tinnitus remain. The seat of the lesion in these cases is quite uncertain, but at any rate it is central and in the auditory tract. I cannot satisfy myself that the semicircular canals are the position of the lesion, for many reasons that it is not necessary to go into here; nor, indeed, do I think that the semicircular canals have been satisfactorily proved to influence the equilibrium. The cases are very common, but I only refer to them now to show the nervous origin of the tinnitus, which is one of their distinguishing characteristics.

Amongst the minority of instances in which tinnitus depends on disorders of the external or middle ear must be included the familiar one of cerumen in the external canal, and that stage of catarrh where a quantity of mucus is in the tympanic cavity; but the chief place in which this symptom figures must be given to that slow and gradual in progress, insidious, obscure in origin, intractable disease termed proliferous catarrh of the middle ear—that change in the whole lining membrane of the tympanum causing progressive deafness, and accompanied by tinnitus. The treatment of this disease is a problem which has exercised the mind of aural surgeons throughout the world, and is still doing so—how to check in its onset, how to improve the hearing in its later stages. There are three points which at once present themselves to those who approach this subject: First, that the tuning fork is heard well through the cranial bones; second, that ordinary catarrh slightly increases the deafness, showing that the lining membrane of the tympanum is the seat of pathological change; and third, that in all the operative proceedings that have been devised for its treatment one fact stands out in relief—viz., that when an opening has been made as a preliminary step in the tympanic membrane, at that moment, and so long as it remains patent (it only does so for a few days, so rapidly does the opening close up), the hearing in many cases has become much better. This would point to the fact that some tension has been relieved, and that if sonorous vibrations could reach the fenestræ without the intervention of the tympanic membrane the hearing would be better. I say these are the points which always have been, and still are, before the minds of those who have made persevering attempts to enlarge the field of aural surgery in the treatment of the disorder. This was notably so in the case of the late Mr.

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Hinton of Guy's Hospital. He was a man of original mind, great ability, industry, and perseverance, and at a time when I was daily associated with him from 1869 to 1872 he was firmly convinced that he would be able to relieve the loss of hearing in these cases. During the period referred to, it is no exaggeration to say that he seldom passed a day without making an incision into the tympanic membrane. He had found by experience that he could do so without injuring the hearing, and that in a certain number of cases the hearing was better, in some much better, after healing had taken place. But it must be remembered that in his first attempts he had selected cases, not of true proliferous catarrh, but those in which he had reason to believe that there was an accumulation of mucus within the tympanic cavity. The results of this proceeding may be found most carefully detailed in two papers in the Guy's Hospital Reports. How careful he was in his observations may be judged by the fact that he used to have a drawing made of the membrane before he operated (this drawing took the artist several hours to execute), and another after the membrane had healed. Of the extraordinary accuracy of these drawings I had daily opportunity of observing. The cases in the Guy's Hospital Reports speak for themselves, but of the rest what were, broadly speaking, the results? A certain small proportion of these derived considerable relief, but whenever this was so it happened in those cases where there was ocular demonstration of mucus in the tympanum—i.e., after the incision it was expelled through the cut. I could not say that the results were encouraging in the cases of dry (proliferous) catarrh. Now at that time I was conducting the same kind of tentative treatment, and my results were precisely the same. If further confirmation were wanted in this direction, it can be obtained from the experience of Mr. Purves, who succeeded Mr. Hinton at Guy's Hospital in 1874, and who published his experiences in a paper which may be seen in the Medical and Chirurgical Society's Transactions. Here may be seen most carefully collected details and a most dispassionate view of the results which followed incision of the membrane in these cases. No one can say, therefore, that this proceeding has not had a fair trial; the results are before the profession, and how has it stood the only true test, the test of time? In the opinion of those whose opinion is worth having, it is universally agreed that the exceptions are rare when it is necessary to incise the membrane, and these exceptions are limited to those cases where there is evidence of secretion within the tympanum.

I now come to the mention merely of the operation of the division of the tensor tympani. It may be dismissed in a few words. Its history includes a flight of the imagination, a brief notoriety, and a burial in oblivion so rapid as falls to the lot of few achievements in surgery. It is sufficient to add that if it possessed any usefulness and was free from disasters it would at this moment be practised by some at least of the numerous aural surgeons in Europe and America. Such, however, is *not* the case, and the matter is summed up by Politzer in the following words: "Division of the tensor tympani is, therefore, one of those operations which are not only of trifling use, but which sometimes also have a deleterious influence on the function of hearing." As to the division of the posterior fold of the membrane, which received a fair trial at the hands of Politzer, the results as to the permanent benefit are frankly confessed by him not to have realised what at first was expected from it. For he says, "as regards the duration of improvement, we can only fairly judge from such cases as we have had an opportunity of observing for years," and, later on, "only in a very small number of cases have I observed an improvement in the hearing lasting for several years."

And now as to the treatment of perforations of the tympanic membrane. The principles of scientific treatment of perforations, and all those complications which include the extremely various routes which pus takes, and the very numerous points at which these routes terminate, may be said to consist in the following:—1. Drainage whenever practicable. 2. Protection of the tympanic cavity from the entrance of external air when drainage is not practicable. 3. Added to this protection, pressure (or rather support) on the ossicles when such pressure improves the conduction of sound. 4. When none of the three first-named principles are practicable, cleanliness and antiseptic remedies when applicable. 5. The avoidance of irritating influences, and still more the avoidance of irritating applications, amongst which must be included the mineral astringents, which used to be so constantly employed, but are now happily abandoned by most aural surgeons. The course of events when a complete drainage is rapidly and *nearly* established by inflammation and becomes *quite* established by a little aid from surgery points directly to the curative aid which drainage affords. For example, if in a little child the tympanic cavity becomes inflamed, the membrane gives way and the mastoid cells become quickly involved; if the mastoid cells are then opened, and the inflamed area is kept for a time well cleansed by frequent daily washing from the external wound through the tympanic cavity, the fluid coming out through the external meatus as repair takes place, the almost invariable rule is that the membrane heals. I have noted this so frequently that I can with almost certainty prognosticate healing of the membrane, although the ulcerative process has destroyed a large part of the membrane. In fact, except when the loss of tissue is small and heals up pretty soon, as so many perforations do in early life, this is not a bad way for a child to have a perforation (if I may use such an expression).

It must be allowed that for the mastoid cells to be involved used to be, and I believe generally is now, considered an unfavourable complication. With children my own experience shows that it is quite the reverse. Certainly no one will deny that the course and termination I have named—namely, inflammation, ending with a scar behind the ear and a sound membrane—is much to be preferred to a membrane remaining perforate for years, or perhaps always, with all its possible complications in view. It will be observed that I am speaking of a child, and this is a very different matter to an adult with suppuration of the mastoid cells. Still, the same principles apply in the case of adults. I would even go so far as to say in regard to perforations that the only way to learn how to treat them, or rather to teach patients how to manage them, is to observe the behaviour of perforations after the serious complications which they so often involve. It is this fact which makes it so difficult to lay down any rules for treatment. Indeed, anyone who attempts to teach how perforations should be treated on any particular plan or by any especial application shows at once that he has failed to notice carefully how they behave under certain conditions. The only way to attempt instruction in this matter is to call attention to what happens to a perforation after some special complication in which the perforation has displayed some characteristic, some capacity for repair at a certain time during the progress of the case. For example, I have seen many instances in which this has happened. A child with a perforation and mastoid cells involved has what looks like, and is often called, a large fleshy polypus in the ear, blocking the canal. Now this is known to arise from the cavity of the tympanum. The mastoid cells are opened, the drainage I spoke of established, and in the course of a few days the large polypus (let us call it so for the moment) disappears completely.

Now suppose the mastoid had not been involved, what is the ordinary course to which this child would have been subjected? The polypus would have been extracted, the root treated with some form of caustic, various applications made to the tympanum, and perhaps in six months after all the trouble be there again exactly as before. Does not this teach us something about polypus or so-called polypus? And does it not teach us that some discretion should be used in taking out some sort of polypus, and that this sort may be recognised and its probable future foretold?—in short, that if left alone for a time, it might soon be possible to drain and radically cure the condition? How different is the course of inflammation in this child's case chosen as an illustration to the tedious method which the inflammatory process pursues in adults. A number of these cases form the subject of a paper by myself in the Medical and Chirurgical Transactions on "Diseases of the Mastoid Bone." There appears to be no sort of rule or limit in these cases to the direction which pus took. Sometimes after the tympanum became inflamed and the membrane ruptured, the mastoid was affected, and it was necessary to open the cells, the external plate being often found healthy. In others the cells were not affected, and the inflammation commenced at the outer table. At one time the pus got down the neck to the level of the first ring of the trachea, and passed under the scalp in all directions into the parietal and temporal regions, and even under the splenius capitis. It is very noteworthy that

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in most of these serious cases, after the recovery of the patients from the complications, the perforations gave very little trouble. Some of them healed, and this was no doubt due to the drainage which had existed for some time. By no means, however, did they all heal in the uniform manner that was observed in children; but of those that did not, many fell into a state of marked quiescence, so marked with some that they became dry perforations. By this term "dry" I mean when not only no moisture is present, but when not even a trace of inspissated pus can be detected. Now this condition of a dry perforation has for many years been a matter of wonder to me. I can understand a perforation being dry for a few years, but I constantly see people with a complete history of how the perforation took place, and yet no knowledge of discharge for periods of twenty years and more. If ever the old proverb of "let sleeping dogs lie" was of practical application, it is in the case of a dry perforation, for the very slightest interference will bring back a discharge which may last for even the remainder of a life; and this is why I wonder how such slight irritation is avoided in ordinary life for so many years. A little water getting into the tympanum is often enough to excite suppuration. Bathing in the sea will always do it. Numberless times I have known it done by a person either getting his ear syringed or syringing it himself.

This extraordinary susceptibility was once brought most forcibly to my mind about the spring of 1876. A gentleman thirty years old, having been deaf with one ear since he had scarlet fever as a child, thinking himself rather more so than usual, came to me for advice. The ear was filled with cerumen, and I removed a plug by gentle syringing. There then became visible a large perforation in a dry quiescent state, from which there had been no discharge since childhood. No discomfort of any sort followed the syringing, and the hearing was improved to its wonted state. I have no doubt that a dry plug of cerumen had formed a natural protection to the tympanum. Some days after this he crossed the Channel in rough weather, and was, whilst on deck, drenched by the spray of a wave breaking. Some of the sea water got into the ear, and shortly after this the ear began to discharge; there was profuse suppuration; a rigor followed, and he had empyema, the result of septicæmic poisoning. The pleura was tapped, and he happily recovered; but I always remember this case whenever I see a dry perforation. The folly of persons in putting every conceivable fluid into their ears is very great, and the rashness of those who without due thought suggest it is considerable; but the fact remains that for dry perforations nothing better is yet known, I believe, than a masterly inactivity, and that for them, at any rate, the limits of aural surgery have been reached when they have been discovered.

I observe in the two papers on Disease of the Mastoid in the Transactions of the Royal Medical and Chirurgical Society (one I have already referred to) that I made no mention of two or three conditions. One is that in which the mastoid cells become inflamed and suppurate without the tympanic cavity being at all involved. The membrane is therefore entire and the hearing good. This state of things is not at all common; and when I have seen it I have failed to find out its origin, except when it appeared traceable to a blow. Another is when the mastoid cells in very aged people have suppurated in the usual manner, but with this difference, that the process extended over many months instead of days or weeks, and that there never was any severe pain, even up to the time when an opening was made. A third condition is simple periostitis of the mastoid in children, which nothing but a free incision succeeds in removing permanently and completely.

NATIONAL HEALTH SOCIETY.—The Duchess of Westminster on June 29th distributed, at the Town Hall, Westminster, the certificates awarded, after the examinations on domestic hygiene, sick nursing, and first aid to the injured, under the auspices of the National Health Society. There was a large gathering, the prize-winners being, with very few exceptions, ladies. Sir Spencer Wells, who presided, said he desired, on behalf of the medical profession, to express the great interest they had always evinced in the important work of the Society. Resolutions were passed affirming the necessity of increasing the funds of the Society with a view of widely extending the area of its operations.

A Lecture
ON
DISEASES OF FAULTY HABIT.

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GENTLEMEN,—As a natural outcome of what I have said in a former lecture upon the relationships of morbid anatomy and pathology,[1] we will to-day consider Faulty Habit in some of its many aspects.

Now, bad habits have roots of considerable length, which crop up in many a pathological process that would not, perhaps, occur to you; and it is not difficult to show that albeit to cursory glances the subject might be estimated as "unpractical," it is nevertheless one that presses, by the frequency with which diseases of its kind occur, and by the want of intelligence with which the treatment of the results of bad habit are handled. What is a habit? I have said before that we are sometimes killed by the perfection of our physiology, and I am now intending to give further proof of that proposition. From a physiological point of view, well-ordered habit is the means by which we live. Expressed in short, it is automatonism. All tissues have certain functions to perform; and if we trace the development of these, we find that in all there is a preliminary stage of hesitation and of imperfect and laboured action, which gradually under the process of education becomes less and less so, until at last the stimulus provokes a definite and constant result with certainty. Having already developed this idea as regards the rudimentary cell units of animal life, this may be taken as sufficient recognition of the existence of a reflex arc from stimulus to response, in such rudimentary forms of life as simple protoplasm—that is to say, independently of a nervous centre, or at any rate of any differentiated one. And for our further purpose we will take the more complex organism and express or define habit in terms of reflex action. Reflex action is a natural physiological one, but all reflex action tends to become over-perfect. A certain stimulus finds its way along one or other particular nerve strand to a centre, and then provokes it to a particular response. The next time the arc is traversed the result comes more easily, and so on, until the stimulus has passed so often that the centre works constantly and readily. But when does disease step in? When the perfection of the working is detrimental to the organism, either in its own person or in its relation to its environment. As the "autocrat" puts it, habit "is a confession of failure in the highest function of being, which involves a perpetual self-determination in full view of all existing circumstances." And inasmuch as all the more complex activities of man are due to an elaborate mechanism of reflex centres, controlled by a central bureau, many of the diseases of faulty habit come to be reflex action out of touch with this bureau; the check action is at fault, and round goes the spring until it is exhausted. Two illustrations occur to me which can hardly be called diseases, and which are yet, to my mind, very instructive, as illustrating this passage of physiology into pathology.

Take the one the most familiar to us: written speech and its faults. The art of writing is acquired by a slow and very laborious process. There is no need to recall this to the memory of anyone. Watch any child learning to write, and you will see it in all probability with its tongue out or its face contorted, clutching the pen like grim death, and all its movements indicative of exertion. And as a further evidence, valuable at this time of life, it very soon tires of a lesson of this kind. Time flies and facility comes with the practice, and if a man have not too much writing to do, or has plenty of time in which to do it, he may still continue to write well, although after a time he has little conscious control over the formation of individual letters. He sets the machine going, and it goes. If, however, a man have much writing to do and inadequate time, subjectively or actually, his writing reflex gradually becomes more rapid, the letters run one into the other, and

[1] THE LANCET, vol. ii. 1887, p. 1.

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he writes a short hand which is a perfect expression of automatic action on the part of the writing centre, but which is a very imperfect one as regards its utility and power of communication with the external world. Did you ever think before of illegible writing being an expression of disease? Alienists are fond of studying the handwriting, and find in it valuable symptoms of various mental conditions and of the power of muscular control. But my present contention is a wider one than that: it is that illegibility, inasmuch as, and in so far as, it is the expression of perfect and automatic action, is a disease; it unfits the organism in some measure for its environment, as do several other conditions that I shall have to mention. And it is probable, too, that there is a similar state of things for speech. It is not so easy to trace the various stages in the individual; but we meet with speakers of the most varied rapidity, from the man who enunciates with much deliberation and precision to the one who unites indistinctness with rapidity, and whose utterance is mostly lost in a lingual shorthand, so to speak. And then there is the man—such a one has lately been in Philip ward,—but not by any means uncommon as age advances, who has become quite unintelligible, whose inflexions of speech are all lost and words run one into the other, in what, if represented by the graphic method, would be but a tremulous line.

One other example I will adduce—that of the man who walks quickly, and more quickly, until in the course of years his pace takes a constant mongrel trot. These are not very common, but I have known one or two. I could point to one now in the suburbs of London who is well known in his district. He, no doubt, did a fair heel-and-toe at one time; he would certainly not be allowed in a walking match now. I can fancy the neurologist eyeing him with interest and muttering "Where is his lesion?" But I venture to contend that no lesion exists. The central ganglia which control his pace have simply gone on unto perfection, and that man is an illustration of functional development.

Now the hypothesis of the gradual evolution of function applied to the nervous system explains many a case of insanity. If the tendency be to evolve or develop along such lines as are most used, it is obviously of immense importance that as many lines as possible should be opened up and developed, otherwise those in use will be over-frequented, and the roadway will either fall out of repair or become so macadamised that the journey of thought is made with no conscious perception of its purpose. By passages of this kind memory is not stirred, mental association and activity are not awakened: the function is automatic; a machine could produce an equally good result. And single-line brains supply a fair proportion of insanity. Here is a common type: Picture to yourselves a lady (of the pre-high-school period) of the ordinary run as regards accomplishments, and with just enough permanent income to enable her to live without the necessity of gaining a livelihood. She is one of a family of, and she herself has imbibed, a strong religious bias. She never marries, and all her life, up to fifty-three or fifty-four years of age, her chief sources of mental exercise, save what little is obtained from a by no means active intercourse with friends, are derived from the study of her Bible and volumes devoted to personal religion. Thus the history of such a life—and the type is, alas! pitifully common—is one of few stirring duties, of no sustained effort, of nothing that can be called in our present use of the word "education." A brain of this kind is worked almost entirely on one or two lines, and, good as these in themselves may be, it has wanted variety, just as the stomach wants, and will have, if its work is to be done properly, a variety of food. In its absence you can predict the result. The poor patient passes her later years in an asylum, a sufferer from religious mania, the natural outcome of this macadamisation of one or two roadways of thought, and the consequent grass-grown obliteration of all the rest.

Take another case as an illustration of the value of this line of thought in the treatment of such moods. A young man came to me one day in a state of extreme mental depression. There was a very strong family history of insanity in his case; he had been working hard for an examination, and had become overwrought and depressed. In consequence, he was convinced that he was going out of his mind, as his relatives had done before him. What was to be done? To shrug one's shoulders and sympathise with him would be but a thinly veiled recommendation that in his leisure he should visit some of the surrounding lunatic asylums in order to see which looked the most comfortable and enjoyable. He must see through that in a second or two. I talked physiology to him instead. Admitting his facts, I could honestly minimise their meaning. I did not think so much of the family history as he did, not being a believer in a foreordained insanity for anyone. Heredity does not count for nothing by any means, but lunacy in the family is no more than the gout that has been passed on by the unconscious good fellowship of a grandfather. Either is a thorn in the flesh which may buffet at any time if a man is not careful; but with care we may be in great measure the masters of our own destiny. A man with insanity in near relatives I regard as one who has a small amount of reserve capital at his bankers. But, as has been well said, it is just those whose capital is small who need to choose the best investments, and thus I said to my friend: "You can be a madman if you choose, or a sane man either, just as well as anyone else. A madman a little more easily perhaps than some; a sane man by a little harder work or care. If you cherish the idea that you came into the world for the express purpose of becoming a lunatic, you will of a surety fulfil what you assume to be your mission. If, on the other hand, you realise that insanity is in a large measure the result of faulty education, of ill-regulated indulgence in the lazy licence of freedom from the trammels of any laws of thought, and go and live your life in strict accord with that conviction, never overworking yourself, but giving your mind free play in as many healthful directions as possible, you need not fear." That may be some ten years ago. I have seen him several times since, and mentally he has never flagged. It is to my mind terrible to see this widespread horror of insanity. Even the most trustful and religious regard it in a way that, if they could only reason about it, they would see was the making it a matter of blind fate. A relative goes out of his mind, and henceforth his name is hardly mentioned as a member of the family, and the hospital in which he is placed—I do not like the word asylum,—so far as the family is concerned, might as well have been his grave. But a common-sense view of the pathology of insanity sees little that is dreadful save the wreck of mind. There is nothing more dreadful truly than the noisy improprieties and the vacant face of one who has been known to us when of intelligent mien. But, apart from this and from the special difficulties of management, there is nothing else in madness to excite our dread. For when we deduct the madness of accidental disease—that due to disease of the vessels, of the membranes of the brain, and so on,—that form of insanity which comes of faulty education, a local and preventable factor, assumes such a frequency and importance that hereditary tendencies are quite subordinate. Mind, I do not say they are unimportant—it must be allowed that occasionally they do apparently lead to a sudden explosion, even in such as have invested their brain-power well,—but that these cases are few, the others the many, I verily believe.

Thus far I have chiefly alluded to disease as due to a habit of thought produced by allowing the mind to run too much in one groove. I might have given several other instances than that I have done. There is, indeed, the common case of the hypochondriac, whom all must have seen. Hypochondriasis may be seen any day in one or other of its many phases. There is the simple depression of spirits and thought for ills that have no existence, that are not within the horizon even of an unjaundiced vision, and that are dispersed at once by cheery companionship or resolute occupation. There are the varied types, generally dyspeptic in some measure, with the careful scrutiny of the diet sheet for the next meal, and the verdict beforehand that it will certainly disagree, up to the most extreme self-consciousness that ends in self-destruction. Such people go mad simply because they give in to the bad practice of indulging a faulty habit of mental exercise. If they would but let themselves alone, earn half-a-crown a day by work which they really give good heed to, and live upon it, live in fact and in deed for others, and not for themselves, it would be, in truth, to live for themselves in the best possible way, and the remedy for many a case of incipient madness.

But it is, as I have said, equally a physiological law that, whereas such parts as are used or used overmuch tend to increase in size and power of function, so those parts that go unused tend to become rudimentary. And to rudimentary brains of this sort another large element of insanity

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is due. I was once walking in the Derbyshire dales, and, wanting to get to one of the mines, we asked our way of a rustic swain at work in a neighbouring field. There was every reason to suppose that we were quite near our destination, but this poor fellow was quite unable to direct us, although he had all the appearance of being a native of that part. It turned out, as we had supposed, that we were quite near our journey's end—in fact, the mine was under the very hill on the side of which the man was at work. By climbing the hill and dropping down on the other side we were there in no time; but the ordinary route would have been somewhat circuitous. Telling this one day to a friend, he told me that he knew of an old woman past seventy, living in a small town, who had never once in the course of her life gone outside it, and such cases are by no means uncommon. Now what I want to to ask you is this: What kind of mind can such persons as these have in comparison with those who go about and have intercourse with their fellows, even the best of them, and allowing that the best of them—perhaps a fair proportion of them—do take in a marvellous amount from the attentive observation and common-sense reflection upon a very contracted field of thought? The duller brains, succumbing to their circumstances, the sport indeed of such, can have few ideas beyond those begotten of mere animalism, the radiations from the primary necessities and impulses of nature, of eating, sleeping, and the continuation of the species. Can one wonder that a brain like this is superstitious, may be brutal upon occasion, is at best swayed much by emotions of low standard? Can one wonder that, where the conditions are so adverse to mental growth and exercise, impulsive insanity, acquired imbecility, are occasional results? One wonders rather that such an outcome, natural as it is, is not more frequent. But there is no need to limit the possession of a rudimentary brain to any one district or stratum of society. Everyone knows how common a fault anywhere and everywhere is that of allowing the brain to lie fallow or half stocked in the midst of abounding opportunities. And what right therefore have we to make so much of hereditary defect? A congenitally dull brain, a slowly responsive brain, a too easily tired brain, an excitable brain, should never be regarded as so many "makes for" insanity, but rather as so many opportunities for studied training, for skilful guidance into well-regulated and well-ordered habit.

But I have not yet done with the brain; there are other diseases of faulty habit which I would yet like to mention, and the first is epilepsy. Here, again, the tendency is to think the peccant organ the victim of unkindly fate. An individual has a convulsion, and probably the first question that will be asked you is: Is it epilepsy? And why? Because if it be, then fitfulness becomes, it is thought, the main spring and order of the sufferer's being. I would try to combat such a notion with determination. It is true, unfortunately, that it is often so. Nevertheless, we may always hope against it, and on this very hypothesis of habit which I am now labouring to impress upon you. And there are one or two points about convulsions that are worth attention in this light. Eclampsia may arise, of course, from various causes, but such as are due to known conditions—such as tumours, syphilitic thickening of the membranes, alcoholism, lead, anæmia, and so on—we relegate to their proper cause. They at any rate are capable of explanation, and some of them of remedy. Epilepsy may be defined to be recurrent convulsion which owns no obvious cause. Now of these a certain number have their origin in infancy, and are, a very large number of them, associated with rickets. So much is this the case that it may be said with a fair amount of accuracy that the conditions of body existing in rickets beget a state of brain which leads to sudden explosions of this kind. But if this is the case it would seem to follow that the convulsive tendency is in a great measure under control; that by preventing rickets convulsions are prevented; that by taking care of the rickety child, and preventing the occurrence of convulsions until such time as the rachitic state has been effaced by the substitution of a healthy one, there would in the end be little risk of any further convulsions. There is abundant evidence to show that this can be done by the careful treatment of such cases by appropriate remedies, and that if not—sometimes, too, it must be added, in spite of the remedies—the child has one fit, then another and another, and so on until the epileptic habit is produced, and not much can be done for its complete abrogation. Therefore, when a child or an adult has a first fit, after excluding all possible causes, do not call it epileptic, but speak for the comfort of the patient and his friends in physiological language: epilepsy is a habit. One swallow does not make a summer, and the occurrence of one convulsion does not constitute epilepsy. One fit having occurred, it becomes our earnest business to try to prevent the onset of any more. But there is no inborn necessity of this in the mere fact of the having had one. But every additional fit makes another the more likely, until at last a habit is formed which is not easy to control. I will further add, in conformity with what I have already said upon the effect of habit in monopolising all the trade, that the brain power of the confirmed epileptic may almost be said to run away in gymnastics, for these poor people, while ever becoming greater adepts at convulsing, if I may coin a word, correspondingly decrease in mental power, until they become hopelessly imbecile. And may I pause for one moment just to say that it has several times occurred to me that this running away of intellectual power is sometimes visible in the great athlete. I do not, of course, mean to class athleticism and epilepsy together as coequal, for it is obvious that the phenomena of convulsions are particular, and specially adapted for the destruction of brain power, by the coma that is part of the process. But what I do mean to say is, in pursuance of the idea of correlation developed in the former lecture, that it is only the exceptional man who can be at the same time a great athlete and a great genius. I am sure that the study of the physiognomy of any large number of those who devote themselves to the excessive culture of muscular Christianity will often show that for the time being there is a distinct deterioration in that dignity of mien which betokens the man who is obedient to the physiological law, "moderation in all things."

Let us take now a minor mental ailment or bad habit—what I will call inconsequence of thought. At its worst it is insanity, and no doubt about it; but in its earlier or milder phases it is the direct outcome of a faulty education of the mind; it is often the result of indulgence in mental sloth, and one may well suspect that, could we but trace back many a rambling dementia, we should see its origin and slow accentuation in and from some such early and at first trifling fault. To arrive at a logical habit is a most laborious mental process to the great majority of minds, and but few men in comparison to the multitude attain it; and, like all the complex habits in which the hand soon loses its cunning for want of practice, the logical habit, unlike the more rudimentary tricks, unfortunately, soon blunts of its keenness, and it may be said to require a lifetime of labour devoted to its service. The possessor of such an article, however, might well pride himself on being a great mental surgeon and anatomist, for his skill in dissection is indisputable, and the instrument with which he works is a weapon of the finest and the coldest steel.

Another bad habit easily cultivated and very common is drowsy-mindedness. Take it as actual sleep, its most extreme form, and it is by no means uncommon. Natural sleep is only a habit. Much has been written about it and its peculiar punctuality. But there is nothing wonderful in sleep when once the organism has been commissioned with what we may still call the "principle of life." It has been well said that all nature sleeps; and so it does, each organism after its own fashion. The amœba has intervals of rest between the outputs of fresh processes, and these are sleep to it. The breast and the uterus have their rest, a long sleep that sometimes ends in *death* of function, which is their life, by having been too long. The heart has its diastole, a twelve hours' sleep in snatches; it wants and has no other. The sleep of the upper nervous system is a temporary insensibility, a cessation of its functions, so much for so much work, an absolutely ineradicable habit engendered by ages of custom. What else could it be? The cessation of the function of thought is sleep; the other characteristics are secondary and obedient even unto death. And, as a habit run to excess, sleep can by some be so much indulged that there is practically little limit to the duration to which it may extend. Try it anyone for himself—at any rate, such as are of the sleeping habit, for I shall have to speak directly of the opposite of this—viz., the habit of sleeplessness. Make a point of taking a nap after dinner for a few days, and see how much resistance will be requisite the first time you renew your accustomed activity, unless the in-

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elination is counteracted by some occupation of preponderating exhilaration or interest. Sleep late into the morning—sleep at any time—cultivate a general drowsiness, and there are, I say, a large number of us who could with ease so develop the habit as virtually to sleep twelve, fourteen, or sixteen or even more hours, with practically no intermission of the state. But I am more concerned to insist upon a state of sub-sleep than this, a prolongation of natural sleep. For one such case as the latter, there are hundreds of the Pickwickian Joe type passing through life half asleep—that is, not thinking. Or, like David Copperfield, his thoughts not intent upon his calamity, "but idly loitering near it." A thought comes into the heads of such occasionally, and tickles the brain for a few seconds into a few fitful sparks, but the best part of the wakeful hours is spent in "mooning," they could not tell you any definite purport in their thought. This is a bad habit, and too readily indulged by all of us, for the simple reason that it is more difficult to keep out of than to fall into, and no doubt it rolls some minds down the hill into dementia.

One word as regards the other side of the picture—the sleeplessness I have alluded to. There are few more distressing cases to the physician, both on account of its effects on the sufferer and its obstinacy, than this. But I want to point out that there are two classes of cases of sleeplessness. There are first—and I think most important for the due apprehension of the second class—those who habitually have no more than three, or at the outside four hours' sleep, and, what is more particularly the point, who thrive upon it. People of this kind do not make anything of it, and you only find it out in casual intercourse. And the other class who come and complain, and want treatment, as a rule get quite as much sleep, but because they do not get what is the natural allowance of six or seven hours at a stretch they worry about it. But if you go into the history of these cases you will almost invariably find that they have always been light sleepers; in many cases their parents, or one or other of them, have been so before them; and it is the habit of their nervous system to sleep in snatches. And if you can only make them understand that this is so, that in their case the brain is like the heart in the matter of its sleep, and like the heart will do as well if they let it take its own way, a snatch sleep of this kind is not a serious thing—let my former group of cases bear witness. Nevertheless such cases are serious, not because of the sleeplessness, but because, deeper than that, the rhythm of the brain is inherently bad. These patients are neurotics; their ancestors in many cases very much so before them; the habit of brain is faulty by inheritance, and has become still more inveterate by faulty education and the inexorable friction of circumstance; and the distress because of sleeplessness is one symptom of many that point to cerebral malnutrition. There is another neurosis of which all that I have said of insomnia might be said—I think with nearly equal point: the singing or other noises in the ears that go under the name of Menière's disease. There are those who suffer and whose mental action is robust and independent enough to put it aside as no more than an inconvenience. There are others, and more numerous, who go from one doctor to another seeking relief and finding none. These people take all the medicine that the various Pharmacopœias of this country and of that can offer, and not only do the majority obtain only very transitory relief, but for the many every fresh failure is an additional element making for a total wreck.

Again, morbid sensitiveness to trifling subjective sensations is a faulty habit. I saw the other day a poor old man who had spent his all, over £300, he said, in an attempt to relieve himself of an itching skin. A sensitive skin in one way or another is a common thing. We all know the man who is afraid of draughts, and how unpleasant he can make himself; the man with pruritus is less objective. But take a case of this kind, one who is subject to itching or to formication. If he give way to either, the sufferer will tear himself into a state of the most abject misery, or spend his days a victim of general creeps and crawls, which is but too likely to end in a state of mental dejection. These feelings come to all more or less—sufficiently so, indeed, that all may know by their own experience that sensations of this kind can be, and must be, controlled at *their* onset, or woe betide us. Quite as much could be said of *pain*. The conscious direction of attention upon any pain, however slight, for a length of time will gradually make a trifle unbearable, and even apparently agonising. And there is many a sufferer whose sole ailment is thus generated, and whose successful treatment is to be compassed, not by drugs directed to the symptoms, but by lifting the nervous centres out of their monotonous and now customary groove. This is no easy task, but the moral of it is, when concreted down into a practical application—There is no drug for chronic neuralgia that is equal all round to cod-liver oil.

But time flies, and not a tithe of the diseases of faulty habit have been mentioned. I might instance incontinence of urine in children and chorea as other good illustrations enforcing much of what I have already said, for there are few diseases from which medicine obtains less credit. Random firing seldom scores a bull's-eye. But I have spoken of these elsewhere, and there are one or two other common seats of disease where faulty habit enters largely into the cause, and is indeed the all-important element to recognise in dealing with it successfully. These are the uterus that aborts time after time, and the stomach in chronic vomiting. Both are muscular organs, and the mechanism of the expulsion of their contents is much the same for each. In both some local condition may be at fault, but the organ is worried into a contraction at the wrong time, the disordered rhythm repeats itself over and over again, and thus a habit is engendered. As regards the uterus, perhaps, one may say that few mistakes in treatment are likely, for if a woman has miscarried once or twice at a particular time, she is kept to her couch for some time both before and after the disordered rhythm is expected to exert itself, in order that rest may allay the excessive instability and restore a natural action. But with the stomach there is a wider range of conditions in which the habit is produced, and it often happens that disease is not cured because of the want of appreciation of this element of the case. Who does not know of the stomach that has vomited week after week, or month after month, and even sometimes with organic disease behind it to produce it, which has been at once relieved or permanentiy cured by attention to the muscular action from this point of view. All of you must have seen at least one or two such cases in women, and how troublesome they are to cure; but taken into a hospital, the routine and health hunger of a hospital ward, combined with a diet which gives the nervous circuit no excuse for action, and with drugs—chiefly iron—that at the same time raise its tone, they seldom give any persistent trouble, and the vomiting quickly ceases. Much of the vomiting of infancy is certainly due to the same faulty action. When the stomach is young and ignorant, it naturally becomes frightened and bolts readily. And just occasion for its bad behaviour is but too often given. Perhaps cow's milk is given on the if-you-don't-like-it-you-must-lump-it principle. A solid mass of curd is formed with which the gastric juice is incompetent to deal satisfactorily, and a slight inflammatory state is set up. The diet is altered, but still fails to suit the case, and the primary condition is increased, and thus it passes on from one of simple indigestion, that judicious *starvation* would have cured, into one of the most miserable and troublesome diseases of infancy—chronic vomiting. It is a like case with many of the diarrhœas of childhood—the food does not agree, the bowel is irritated into over-action, and the child has diarrhœa. Food of one kind or another is nevertheless poured in with increasing persistence because the child begins to waste—it wants "keeping up." But the frequent evacuations not only continue; they become worse until no absorption of any kind takes place from the mucous surface, and the patient dies by the faulty habit of the intestinal action; at any rate, in many a case of this sort no adequate morbid changes are to be discovered in the intestine after death. What is wanted in these cases in great part is so to feed the over-sensitive mucous membrane and so to medicate as to give the nerves and muscles no excuse for indulging in temper—if I may put it so,—and by so doing the organ may often be coaxed back into stable and well-regulated action. I might give you several other good examples of the part played by habit of this kind in disease. I could have shown cause for spasmodic asthma being sometimes kept up in this way; palpitation of the heart of particular kind also; as well as some of the so-called vaso-motor disturbances that are met with not uncommonly in women. But these I must leave for want of time. What I have said will serve to direct your attention to the subject; and, this done, I am well assured you will find the ground neither unintereating nor unfruitful.

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SUMMARY OF

Lectures

ON

SOME AFFECTIONS OF THE GENITO-URINARY ORGANS.

Delivered at the Royal College of Surgeons,

BY MATTHEW BERKELEY HILL, F.R.C.S.,
PROFESSOR OF CLINICAL SURGERY IN UNIVERSITY COLLEGE.

LECTURE III.

PROSTATITIS.

IN inflammation of the substance of the organ, besides the symptoms of granular prostatitis, there are aching or stabbing pains at the anus, sacrum, or perineum; pain at the supra-pubic region is a common sign. There are also radiating lumbar or femoral pains after exercise or long journeys, general languor, malaise, or depressed spirits. Increased frequency of micturition is often absent; when present, it is felt by day, not by night. The flow of urine is altered by delay at the beginning, which may amount to retention. Dull pain after micturition, sometimes spasm at the end of the flow with a sense of more to come, are complained of. In cases of long-standing, micturition during sleep is a symptom; constipation is almost invariable. When the congestion is great, there is pain during defecation, and between these acts a sense of weight at the anus or in the perineum. Pain in the testes, when it comes, is simply a neuralgia. There is constantly hypersecretion of mucus. In some patients the organ recovers its natural condition in a few weeks, but usually the disease drags on a course more or less wearisome; thus the termination is very uncertain. Relapses are almost sure to follow if the patient exceed in his diet or regimen. In relapses, small abscesses often collect in obstructed ducts, which usually empty themselves through a duct before accumulating much. Sometimes the inflammation spreads to the parenchyma, and the prostate then becomes unyielding to the touch, hard, and sensitive. The enlargement of the organ may last long. The increase in size may be symmetrical or only affect one part, giving the sensation of irregularity or lobular form when felt by the finger. In course of time the nodules may disappear, and the organ regain its natural size or even shrink below it, and feel quite firm and smooth.

The treatment of chronic prostatitis is very tedious. Of the many remedies in use but few are trustworthy. General treatment only assists local remedies. In the first place, the dyspepsia must be cured. The tonic most beneficial is iron in non-astringent forms. Nux vomica or strychnine is usefully added to the iron. Belladonna also may be added to the tonics if micturition during sleep be a symptom. Ergotine is especially useful when the organ is large, and aching is caused by walking or standing or by railway journeys.

Local treatment.—When the organ is enlarged, soft and not tender, a very good remedy is the cold sitz bath, taken at first for one or two minutes, once or twice daily, at a temperature of 50° F., gradually prolonged to ten minutes, and lowered to 35°. The cold douche on the perineum or anus is also useful. Cold enemata are more generally beneficial than baths: two to four ounces of cold water thrown into the rectum daily and retained there, beginning at 45°, and gradually lowered to 35°. Among recognised remedies is blistering the perineum, but the lecturer had no faith in its efficacy. Caustic injections are valuable if used after other means. The solution of twenty to thirty grains of nitrate of silver to the ounce, and ten minims injected at a time, is a good preparation; this has to be repeated several times.

Masturbation is a frequent provocation of prostatitis, sometimes in the acute form, more often in the subacute or chronic forms. In the mildest form of prostatitis through masturbation the prostate bleeds easily, so that the urine is often tinged with blood, smoky or even coffee-coloured. If felt per rectum, the organ is found little changed from the natural condition. General malaise, inappetence, and slight elevation of temperature usually accompany the bleeding.

Bleeding from the slightly congested prostate may be copious in young men when it follows prolonged venereal excitement and excessive copulation; commonly very copious when thus originated; it may be profuse for an hour or two, and exhaustive. In these affections, the liquid extract of salix nigra, a drachm three times daily, has often a marked effect in checking involuntary emissions, and thereby preventing the irritation, exhaustion, and neuralgia which some persons feel after these attacks. Persons who have suffered from a congested prostate are liable to too speedy ejaculation during copulation. This may be so rapid and erection so fugitive that effective coitus is impossible. For such cases the liquid extract of damiana has sometimes a powerful effect. But cure is almost hopeless if continence is neglected. Some persons give way to this appetite without limit. Then follows a condition of great helplessness. The intense neuralgia of the lower extremities which follow the shortest walk renders exercise impossible. Pain is rarely absent even when at rest; it extends from the sacrum along the spinal column to the occiput. The digestion also is deteriorated. Topical treatment, after the mucous catarrh and chronic inflammation of the prostate are quelled, must be laid aside. The best remedy is a life of quiet, absence of exertion of any kind. A long sea voyage is one of the best remedies. In rare cases, chronic parenchymatous prostatitis excites temporary mania, which has erotic irritation for an early or leading symptom. It disappears if the patient recovers from the physical affection.

TUBERCULOUS DISEASE OF THE PROSTATE.

This frequently follows gonorrhœa. In the early stages the symptoms, being those of catarrh, escape notice, and the tubercle in the prostate cannot be detected by the finger until it has become considerably developed. The catarrhal condition of the prostate, with slight irritation of the bladder, lasts an indefinite time; eventually attention is directed to the prostate by the occurrence of other symptoms, such as frequent seminal emissions or by weight in the perineum and pain in the sacrum. In other cases the patient notices increased frequency of call to micturate, but a slowness in starting the stream of urine; then he feels a burning or cutting pain during the flow. As soon as the shape and consistence of the prostate are altered, the finger in the rectum finds the prostate irregular, perhaps larger than natural, tender, particularly at the posterior part near the trigone. The disposition of these irregular thickenings is variable. When cystitis is developed, copious viscid pus, mixed with shreds and blood-clot, form the urinary sediment, and the urine contains albumen in considerable quantity. The further progress of the case is accompanied by gradual participation of the ureters and kidneys in the septic inflammation, and the patient is gradually exhausted. Acute general tuberculosis may terminate his sufferings. The ages of the patients usually range between nineteen and forty years. The lecturer had inspected two cases of advanced disease by the cystoscope, and the surface was irregular, with pits at the uvula vesicæ or neighbouring part of the floor of the bladder, partly filled with shreds of tissue, muco-pus, and blood-clot, though in those cases cystitis, ulceration, burrowing abscess in the floor and walls of the bladder are usually superadded before death.

The differential diagnosis of tubercle in the prostate.—In early cases the presence of tubercle elsewhere may be wanting, as the prostate is often affected before other organs. The disease most commonly suspected when tubercle is irritating the prostate is stone in the bladder. The urine is at first only moderately turbid in both. In prostatic tubercle there is often a gleet or history of such having continued since an attack of gonorrhœa; a little shreddy mucus may be washed out with the first portion of urine voided, the remainder being only slightly turbid. In stone, on the other hand, a drop of blood often comes at the end of the stream, instead of pus at the beginning. When blood comes from the prostate, it is usually washed out first as coagula mixed with curdy pus. If the patient be sounded and stone be there, it can be generally detected. Sounding does not always discover any alteration in the shape of the prostate or trigone, unless the tuberculous disease be far advanced. The distinction of vesical tumour from prostatic tubercle is so great that confusion is not likely to occur. Tuberculous pyelo-nephritis creates symptoms which often suggest disease of the neck of the bladder. In these cases

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the absence of change in the condition of the prostate and the presence of tenderness in the renal regions indicate the real seat of disease.

The treatment of tuberculous prostatitis.—In the early stages the catarrh must be cured, and the general treatment for tubercle applied. In the later stages the ragged cavities must be carefully washed out. A good antiseptic solution is two grains to the ounce of sulphate of quinine, two ounces being injected and left in the bladder after the pus and urine are well cleared out by repeated small injections of boric-acid solution. Still more antiseptic is an emulsion of iodoform. In cases of chronic cystitis, if the bladder is well washed out, and a couple of drachms of this emulsion injected, the most fetid ammoniacal urine is replaced by acid urine; fetor disappears, and the pus rapidly diminishes. Again, in cases of cystitis caused by neglect of prostatic retention, the urine in ten days becomes quite free from deposit, and even when calculus or tumour or malignant ulceration coexists, the improvement is enormous.

The lecturer exhibited two diagrams copied from drawings made of the floor of the bladder, viewed by the cystoscope, which showed an early tuberculous ulcer of the mucous membrane before and after healing. This was cured by washing out the bladder, and then injecting iodoform emulsion, so that in a fortnight the patient—a man with advancing pulmonary tubercle—was cured of his bladder trouble. When the pain of washing the bladder is severe, cocaine previously injected often renders the operation bearable. When things are too far gone for this, ether should be given while the bladder is thoroughly washed with a large silver catheter, and Clover's extracting bottle, then a drachm of iodoform emulsion is injected and left in. The subsequent washings may then be carried out with very little suffering. The formula for the emulsion is—iodoform, two parts; mucilage, four parts; glycerine, two parts; water, twenty parts.

In former years the lecturer had found it necessary to do perineal section in order to obtain constant drainage when the urine could not be restored to a healthy state by other means. But the use of iodoform emulsion may prevent this necessity. When perineal drainage is carried out the daily washing is still needful. The effect of thorough drainage is so great that patients feel strong and well while it is continued, and a permanent cure by this method may be attainable. In a patient under the lecturer's care in University College Hospital, the bladder trouble was kept in complete abeyance, if not quite cured, and the patient grew stout and strong, until he sank under rapid tuberculous meningitis.

At the conclusion of the lecture the endoscope and cystoscope were shown. Grünfeld's endoscope, illuminated with light from a kerosene lamp, was inserted into the urethra of an ox. Leiter's endoscope, illuminated with electric light, was used to explore the urethra in a patient with chronic urethritis. There were several cystoscopes—two of Dr. Nitze's and two of Leiter's (a modification of Nitze's). Nitze's is of better shape than Leiter's, but Leiter's has the most powerful illumination. One of Nitze's has been reconstructed by Mayer and Meltzer so as to permit of a free flow of water through the bladder during introspection, by which blood and pus are cleared away and the contents of the bladder kept transparent. Introspection was made in "phantom" or dummy bladders, on the interior of which mock papillæ, orifices of ureters, had been painted. These were borrowed from Mr. R. Schall, of Wigmore-street, Leiter's agent in England, who also superintended the batteries employed for illuminating the electric lights. Just too late for this exhibition, Mr. Schall received an irrigating cystoscope from Leiter, which is of extremely ingenious construction and promises to be efficacious.

MARYLEBONE TRAINING HOME FOR NURSES.—The annual meeting of this institution was held at the Home, Notting-hill, on June 27th, there being a large attendance. The home was opened in July, 1884, by the Princess Christian as a training school for nurses in connexion with the St. Marylebone Infirmary, and has proved very useful in providing efficient nurses for that and kindred institutions. Mr. Croft gave a report of the examination recently held by him, in which thirteen probationers were examined as to their knowledge of anatomy, physiology, and surgery; the results were highly satisfactory, for out of the thirteen seven were entitled to be placed in the first class, and all were qualified to be registered as efficient nurses.

A CASE OF

RAYNAUD'S SYMMETRICAL GANGRENE IN A PATIENT SUFFERING FROM CONSTITUTIONAL SYPHILIS.

WITH SOME REMARKS ON THE HISTORY, NATURE, AND MANIFESTATIONS OF THE DISEASE.

BY JOHN ED. MORGAN, M.A., M.D. OXON.,
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W. H——, a farm labourer, aged twenty-eight, admitted under my care into the Manchester Royal Infirmary on Aug. 7th, 1888, is an intelligent man, somewhat sallow and cachectic in his looks; he has dark hair and eyes, the body is well nourished, and the muscular system fairly developed. Though married for eight years, he has no children. He belongs to a healthy family. Both his parents are alive and well; his father's age is fifty-five, and his mother's fifty-six. He has five brothers and three sisters, all healthy. He is a hard-working man, generally temperate in his habits, though towards the "week end" he occasionally indulges in a somewhat copious allowance of beer. This patient enjoyed robust health till about six years ago, when he contracted a hard chancre; for this disease he was under treatment for six weeks. He afterwards suffered more or less severely from secondary symptoms for about twelve months. He subsequently remained well for some three years, and then came under my care in the infirmary for extensive ulceration of the fauces and soft palate. During his stay in the hospital the whole of the right half of his soft palate sloughed away. On his return home he regained his health, and was able to resume his employment for about fifteen months. He was then attacked with excruciating pains in different parts of his body. Sometimes these pains were especially severe in the lower extremities, and radiated round his hips and sacrum; at other times they seemed to settle in and about his shoulders, and, again, attacked his spine, being so severe as to compel him to utter screams. The pains appeared to be within his bones, and in no way superficial or external; they were invariably aggravated at night. For several months he was more or less confined to his bed. After a time he found that the pains first became bearable and then finally ceased. These were succeeded by a severe tingling sensation in his fingers and in his ears, which burned and itched as though they had been stung by nettles. The feeling of tingling was followed by an icy coldness of these parts. He noticed at this time that tactile sensation in his fingers was altogether lost. If he picked up any small object he was not conscious of holding it unless his eyes were fixed upon it. There was not only anæsthesia, but also analgesia; for he asserts that it his fingers had been nipped off with a pincers he would not have felt it. The extreme coldness in the fingers lasted for five or six weeks, the parts feeling icy to the touch and looking white and bloodless; but though at this time constantly blanched and never thoroughly resuming their natural tint, an excessive pallor came over the digits in paroxysms; still, about these paroxysms there was no periodicity. The fingers of the two hands were both affected, one a few days after the other—none escaped. The thumbs also of both hands suffered, the nails being perfectly exsanguine. After remaining in this state for six weeks, the tips of the fingers assumed a livid bluish shade. In the course of a few days they turned black, as though dipped in ink; the nails also were black, with the exception of the lunula, which took on a slaty hue. As the parts became blue they got painful; as long as they remained white they merely felt numb; but just in proportion as the black colour was more pronounced, so was the pain more severe. The black tint occupied nearly the whole of the phalanges of the several fingers; it was most marked in the first and second fingers of both hands, where the bluish shade extended as far as the metacarpo-phalangeal joints. On the palmar surface of all the fingers a zone of congestion extended half-way round their base. The fingers of the right hand, though symmetrically affected, were not so deep a shade as those of the left. Soon after the fingers became blue the ears also were similarly affected. On the right side, from the highest point of the helix to the lower

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portion of the lobule, the ear was of a deep purple colour. This colour extended in front over the fossa of the helix to the ante-helix. Along the upper portion of the helix there was a black patch about the size of a shilling. The left ear was similarly affected, though to a somewhat less extent. The tip of the nose also was of a bluish-black shade, the alæ nasi on each side looking purple and congested. In the course of a few days the skin over the black portions of the fingers, more especially over the bulbs, separated from the subjacent parts. It was then observed that the derma beneath was extensively destroyed; it looked honeycombed, and numerous little ulcers seemed to be eroding the deeper tissues. Such was the man's state on admission on August 7th, all these symptoms having come on in warm summer weather. A few days after his arrival at the hospital a considerable portion of the helix of his right ear sloughed away, part of the cartilage of the ear being at the same time destroyed. In this case it was apparent that the patient had never thoroughly recovered from the effects of the syphilitic taint which he had contracted six years before his admission. For about twelve months he had suffered from secondary symptoms, and at a later period from tertiary manifestations of the disease, sloughing of the soft palate, and excruciating pains in the bones, especially severe at night. For the relief of these symptoms he had merely had recourse to a "rubbing bottle." He was therefore placed on antisyphilitic treatment, iodide of potassium and the liquor hydrargyri bichloridi being administered in moderate doses. The effect produced by these remedies was immediate and decided: the pains gradually ceased; the black parts became blue, and subsequently of a greenish-yellow tint; the sloughs on the tops of the fingers separated, and were succeeded by healthy granulations. The growth of the nails was renewed; during the height of the disorder their growth had been arrested, a roughened indentation indicating the time when growth was in abeyance. The tips of the toes were of a slightly bluish shade, and on the tops of the three outer toes of the left foot were small patches of pigmentation. In so far as the feet were concerned, however, the affection was comparatively insignificant. The heart and lungs were in all respects healthy. The liver and spleen were normal in size. The urine on one occasion contained blood, but no albumen or sugar was at any time detected. The sight was good, but a considerable narrowing and contraction in the arteries of the retina were observable with the ophthalmoscope, though none of that paroxysmal contraction was noticed which Raynaud refers to in one of his cases. No changes were discoverable in connexion with the radial or any of the other arteries of the arms. The man remained at the infirmary till Aug. 29th, when he was sent to the convalescent hospital at Cheadle. At the time of his discharge he was comparatively well, all his pains had entirely ceased, the anæsthesia had disappeared, the inky colour of the tips of the fingers was no longer perceptible, and little remained of the gangrenous processes which eroded the bulbs of the digits, with the exception of small, white, horny cicatrices, situated on the palmar aspects of the bulbs, like so many little corns. The extremities of the fingers, also, were greatly contracted, and looked thin and tapering, as though the structures between the epidermis and the periosteum had to a great extent been destroyed. The patient, after remaining at Cheadle for some weeks, returned home comparatively well. He stayed at home for about four months, and then once more returned to the infirmary, where he was admitted on Jan. 2nd, 1889, under the care of my friend and colleague, Dr. Dreschfeld, and to his kindness I am indebted for the further history of the case. The patient now stated that, after remaining well for about three months, he was attacked with violent pains in his head. These pains were not like those experienced in any ordinary headache; they were severe shooting pains, darting across his forehead in violent paroxysms. When they were present, his sight was strangely affected; he felt mazy, and different objects looked dim; they appeared as he had been accustomed to see them when under the influence of drink. It was these pains which induced him to return to the hospital; they were altogether intolerable, and prevented him from following his ordinary employment. At the infirmary the same antisyphilitic treatment which had formerly relieved him was again ordered, and the beneficial effects were no less marked. The pains and dimness of vision daily grew less, and in the course of a fortnight his frontal neuralgia had entirely disappeared, and he left the infirmary perfectly cured. On this occasion the extremities were in no way affected. During his stay in the hospital at this time no change was observed in the urine; the specific gravity was 1024; it was faintly acid, and contained no albumen, sugar, or blood; no phosphates or mucus. Some weakness of the extensor muscles of the hands was, however, noticed; when his arms were extended the hands dropped, the left slightly more than the right. The eyes were carefully examined. The pupils reacted to accommodation and to light. The area of vision likewise was fairly normal; the ocular muscles fulfilled their functions in a natural manner.

I have described this case at some length, as it appears to me to be one of very considerable interest. From what I have stated, I think it will be generally admitted that this was a case in which Raynaud's disease supervened in a patient thoroughly tainted by the syphilitic poison. Many of his symptoms were plainly ascribable to this disease. The enlarged glands in the groin and in the neck, the partial destruction of the soft palate, the extreme pains in the bones, especially severe at night, no less than the marked and immediate effects of the antisyphilitic remedies, all pointed to this case as one of syphilis complicated with symmetrical gangrene. Indeed, the pains in the bones, which are characteristic of the former disease, seemed to be replaced by those changes in the extremities which constitute the very essence of Raynaud's disease, and which might not unreasonably be looked upon as a manifestation of tertiary syphilis.

Since this patient was under my care at the Manchester Infirmary, I have collected a very large number of cases of symmetrical gangrene—in all, ninety-three—which have been published in the medical journals of this country, of America, and in those of the Continent. I have not, however, been able to discover any other case where the symptoms of Raynaud's disease were so directly associated with those of acquired syphilis as in this patient. Raynaud,[1] in his original thesis, refers to two cases out of twenty-five in which the patients, at some time in their lives, had suffered from syphilis. One was a man of thirty-four, of "robust" constitution and of bilious temperament, who had abandoned himself without restraint to pleasure and debauchery, and had contracted numerous syphilitic affections, which had been only partially cured. In this case the gangrene proved severe, and it was deemed necessary to remove the phalanges of the fingers and toes. The man, however, made a good recovery. In another case quoted by Raynaud, and recorded by Dr. Bernard Henry in the *American Medical Examiner* for December, 1855, the patient was a dressmaker who had led a dissipated life and contracted syphilis, for which she had been treated at the Blockley Hospital. In the case of this woman, the hands, the ears, and the nose were black and gangrenous, and it was found necessary to remove her right hand and left arm by operation. She died apparently of exhaustion two months after admission into hospital. Another case of symmetrical gangrene complicated with congenital syphilis was brought before the Manchester Medical Society in October, 1884, by Mr. A. H. Young. The patient was a man aged twenty-one; almost the whole of the distal phalanges of the fingers of each hand had become gangrenous. The family history here pointed unmistakably to the probability of this patient being the subject of inherited syphilis. Another case, never fully published, has been communicated to me by Dr. Henry Humphreys. The patient, a girl aged nine, was under his care at the Pendlebury Hospital. Here the gangrene ran its course, ending with destruction of the two terminal phalanges of the toes. The patient died some weeks afterwards of congenital syphilis. She had characteristic bone lesions, of which the most notable was great thickening of the tibias. Dr. Humphreys informs me that he did not consider that the congenital syphilis had had much to do with the gangrene, except that it had reduced the patient to an extremely debilitated condition. Another case, under the care of Mr. Liston, is recorded in THE LANCET.[2] The patient was a prostitute, aged twenty-four. There was gangrene of the nose, and the toes also became black. There were also gangrenous patches the size of a saucer over each of the nates. In another case, reported by Mr. Alford of Taunton,[3] a boy aged ten was affected at different times with gangrenous patches in both of his ears; his eyes also suffered from corneitis and iritis; the incisor teeth were pegged; the second and

[1] This and all other quotations from Raynaud's papers are taken from Dr. Barlow's excellent translation, published by the New Sydenham Society. [2] Vol. ii. 1836. [3] Brit. Med. Jour., vol. i. 1884.

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third phalanges of the forefinger were removed; there was a distinct syphilitic taint. In addition to the foregoing, I find in the *British Medical Journal*[4] a curious case which must, I think, be looked upon as an example of Raynaud's disease. It is reported by Mr. Chauncey Puzey. The patient was a man aged thirty-seven. He contracted a chancre in 1869, which was followed by secondaries in 1870. He subsequently suffered from ague in India. On his return to England, a sore on the penis was followed by a wrinkled and shrivelled condition of the gland. In a few days the whole organ turned dusky; the skin also became cold and dark. In this patient the circulation was very feeble, and his nose frequently turned blue, while the tips of his fingers were exceedingly taper. Two other cases of a brother and sister have been recorded by Mr. Makins in the St. Thomas's Hospital Reports. The girl was fourteen and the boy seven years of age. Both of them suffered from symmetrical gangrene. Here there was a doubtful history of congenital syphilis. In another case related by Englisch[5] a woman was the subject of symmetrical gangrene in her two feet, in whom he suspected a syphilitic taint. These ten cases, in some of which the connexion with syphilis is somewhat doubtful, are the only ones in which, so far as I can discover, a distinct allusion is made to the latter disease. Of the ten cases five were acquired and five congenital. But, with the exception of the one under my care, syphilis seemed to have exercised but little influence on the course and development of the gangrenous disorder. In my case, however, the connexion with that malady was clearly shown, not alone by the manner in which the two diseases ran into one another, and the symptoms passed, as it were, from one to the other, but likewise by the effect of remedies. On two occasions the patient was immediately relieved by antisyphilitic treatment; nor can it be urged that the improvement in the symptoms was due to the warmth and rest in bed which he enjoyed in the hospital, as for some months before his admission into the infirmary this man had been bedridden at home. It has been suggested that in these cases syphilitic endarteritis may have caused vascular obstruction; certainly in my case no such morbid change could be detected. As far as the arteries of the arms could be followed, they were perfectly pervious and natural. Moreover, although syphilitic arteritis is more especially prone to attack certain portions of the vascular system, no instance, as far as I am aware, has been recorded in which the symptoms occasioned by that disease were so symmetrically distributed over the terminal arterioles of the fingers, ears, and nose as in the case I have here detailed.

In studying the history of symmetrical gangrene I have strongly felt how deeply the science of medicine is indebted to Maurice Raynaud for his profoundly philosophical and able treatment of this subject. In his investigations we have, I believe, the key which will assist us in unlocking many supremely difficult problems connected with the more obscure diseases to which humanity is subject—diseases closely connected with abnormal changes in the sympathetic system. From the very earliest times symmetrical gangrene probably occurred in young persons among all nations as frequently (at least proportionately to population) as in the present day. Still, the disease was not, before the time of Raynaud, recognised as a distinct form of gangrene. Among the old writers I have not been able to discover any very distinct reference to this disorder. Hochenegg[6] says that the earliest case on record was that of a woman aged twenty-six, who suffered from sensations of heat and pain in her fingers and toes for a long time, and ultimately lost several of them through gangrene. This was published by Christopher Hertius in 1685. One of Raynaud's cases, however, dates back to the year 1629. Among the cases I have collected are several long anterior to the time of Raynaud, in which the symptoms are sufficiently characteristic to justify us in classing them among the examples of this disease. Some of these cases may be found among the medical chronicles of the last century, but far more during the last fifty or sixty years. In the years 1839 and 1840 Mr. Solly brought before two meetings of the Medico-Chirurgical Society the case of a little boy aged three years and seven months who had a dark spot on his nose and whose right forearm was gone; the left arm also was in a state of dry gangrene, and his left foot was completely removed just above the ankle; on the right foot the second and third toes had separated. After a time this child partially recovered, but eventually the gangreneous processes recurred, and he succumbed to the disease. In this case, Mr. Solly himself dissected the sympathetic in the neck, the chest, and abdomen, but could discover nothing abnormal. The arteries also appeared natural in structure and distribution. When this case was discussed at the Medico-Chirurgical Society, many of the leaders of medical opinion in this country—men like Sir Benjamin Brodie, Dr. Watson, Dr. Bright, and others—were present, and expressed their views on the nature of the case. They spoke of having seen similar cases, but attributed the symptoms to arteritis or coagulation of blood, or to some mechanical obstruction within the vessels, and in some instances assumed that the patient might have partaken of bread contaminated with ergot of rye. Still, these were assumptions only; they did not admit of proof. Yet even at this time there were men who did not blindly bow to authority; for I find that in a discussion on this subject held at the Medical Society of London on Jan. 10th, 1840, when it was asserted that permanent cessation of pulsation in an artery was always dependent on mechanical obstruction, Mr. Dendy inquired "whether arteries were not subject to spasms as were the intestines"; and a few years later THE LANCET for 1845 contains a case reported by Dr. Craig, of Paisley, evidently of symmetrical gangrene. The patient was a woman aged forty-two; she experienced much pain in her fingers; they were icy cold, and of an inky colour, and eventually separated. In discussing the symptoms Dr. Craig remarks: "In idiopathic gangrene the nerves are the parts first affected, and afterwards the vessels and circulating fluids." These, however, were merely isolated opinions casually thrown out; they were not generally accepted, and received but little notice at the time they were promulgated. Raynaud, however, thoroughly worked out the difficult problem regarding the etiology of the disease. He showed that in many instances there are three stages in its development: the first accompanied by icy coldness and pallor, the dead finger stage; this he termed local syncope; here the affection is usually paroxysmal. The second stage, that of local asphyxia, is that in which blood unsuited to the nutritive requirements of the parts stagnates in the extremities. And the third stage is that of gangrene when mortification occurs. In dealing with this subject, Raynaud trod upon ground which was in a great measure new. It was not alone incumbent on him to demonstrate the data on which his theory rested, but to overthrow and eradicate many deeply-rooted misconceptions and errors. He showed, in the first place, that there could be no closure or obstruction within the arteries, due either to arteritis or any mechanical obstruction, because an injection made in corpses penetrated readily and fully into all the gangrenous parts. He further proved that it was not due to any congenital or acquired narrowing of the calibre of the arteries, that it was not dependent on embolism, and that it was altogether distinct from diabetic gangrene and gangrenous ergotism. Finally, he expounded the true nature of the affection; strengthening the views he had laid down in his original thesis, by his beautiful and suggestive observations on the changes seen in the retinal arteries in a remarkable case of symmetrical gangrene which came under his care in April, 1872.

(To be continued.)

[4] Vols. I., II., 1874. [5] Wiener Med. Wochenschrift. [6] *Med. Jahrbücher*, 1885.

CASE OF CARCINOMA OF THE LARYNX; TRACHEOTOMY.

BY WILLIAM ROBERTSON, M.D.,
SURGEON TO THE THROAT AND EAR HOSPITAL, NEWCASTLE-ON-TYNE.

E. S. E——, aged forty-nine, married, came under notice eighteen months ago at the Newcastle-on-Tyne Throat and Ear Hospital, suffering from symptoms of laryngeal disease. Twenty-three years ago he suffered from syphilis, which was said then to have been properly treated and cured. Shortly afterwards he married, and is the father of ten healthy children; his wife is strong and well.

At the first examination of his larynx the left local band was noticed to be irregular in outline, immobile, and covered with a thin grumous discharge; the right band was apparently normal. The symptoms were: distressing cough, vox rauca,

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and emaciation; chest organs normal. Specific treatment was at once adopted — for the first few weeks iodide of potassium alone, then in combination with grey powder,— with little benefit; corrosive chloride and other inhalations were likewise used. In about three months' time the left wall of the larynx had become invaded by a pathological deposit effacing the local band of the same side, and fixing the left arytenoid cartilage. In another two months this deposit had extended to the right side of the larynx, causing destruction of the same vocal cord in a similar fashion, without, however, implicating the right arytenoid cartilage.

The patient was then lost sight of for six months. On returning, examination showed the larynx on each side up to the level of the false cords to be the seat of fungating growths, that of the left side being the largest. The patient had by this time become markedly emaciated and voiceless. The cough was incessant at night, and swallowing gave pain. The left arytenoid was now fixed, abducted, and depressed. A variety of remedies were applied locally to the larynx—e.g., lactic acid, menthol, and (once) chromic acid,—but without effect. The galvano-cautery was once used, but with no good result. The chink left for respiration between the two fungating masses in the larynx becoming almost daily smaller, tracheotomy was suggested to the patient, but was declined. Chloral and paregoric were used as sedatives for the cough during the interval. One month before operation a phlegmonous swelling with pain began over the left side of the larynx, which rapidly increased in its dimensions, and, extending from the left angle of the jaw (and fixing the same) down to the middle of the neck and round the front of the larynx, obscured all its landmarks. The patient's condition with this became much more serious, respiration and swallowing being both alike difficult.

Consent was now obtained for operation. After chloroform had been given, a straight incision, as that for tracheotomy, was made along the middle line as far as that could be made out, and on penetrating the deep layer of cervical fascia, which was clearly seen, a large escape (two ounces) of foul-smelling pus took place from a considerable cavity, extending the length of the larynx on the left side. Further operative procedure was postponed until this cavity should be effectually treated and closed, more especially as it was noticed that, as the pus escaped, the breathing became easier. It was, besides, thought that, were the trachea to be opened at once, disaster might follow the trickling of any of this foul pus into the lungs.

All trace of the abscess cavity and swelling had disappeared in the course of ten days. No necrosis of cartilage could be made out as a cause for the suppuration, nor was there any sinus found leading from the abscess. The patient was accordingly once more put under chloroform, the first incision extended downward through the isthmus (which gave little trouble and was tied on either side), and the tube inserted through an incision in the upper three rings of the trachea.

For four days after operation the patient suffered severely from cough, difficulty in swallowing, and stiffness of the jaws; but since then, up to the present date, he has enjoyed fair sleep at night, freedom from cough, and a good appetite. His appearance has improved, and he has put on flesh. Once or twice fetor of breath has been noticed, and a slight staining with blood of the discharge from the mouth. Examination of neoplasm in the larynx shows that that of the left side is enlarged and overlaps that of the right, thus almost closing the glottis. The musculature of the right side of the larynx is still free, and, when acting, a crater-like cavity is seen, lined with granulations. The growth extends quite up to the line of false band, the upper surface of which on each side as yet is only infiltrated and inflamed. The external configuration of the larynx is normal, with very little enlargement of the cervical glands.

Remarks.—The affection began, as was clearly seen, in the left local band (or closely in its neighbourhood), rendering it pale, flaccid, and immobile; that to this succeeded ulceration with disappearance of cord, and, later, on granulations; that the same course was observed on the right side; that fully twelve months passed before ulceration was established and sprouting commenced. The abscess that formed at the side of the larynx is probably to be accounted for by putrid absorption from perichondritis. Fully five months has now elapsed since the tracheotomy was performed, and so far the patient is in a much better condition than he was for months before the operation.

Newcastle-on-Tyne.

KEHRER'S OPERATION FOR DEPRESSED NIPPLE.

BY G. ERNEST HERMAN, M.B. LOND., F.R.C.P.,
OBSTETRIC PHYSICIAN TO THE LONDON HOSPITAL, ETC.

PROFESSOR F. A. KEHRER of Heidelberg has suggested[1] and practised an operation for the cure of depressed nipple. The cases in which this operation is indicated are those in which the nipple lies in a sort of cup, so that it does not project enough above the surface for the child to seize it, but is otherwise well formed, as in Fig. 1. The operation consists in the excision of a ring of skin, or of two crescentic pieces of skin, surrounding the nipple; so that in the healing of the denuded surface the approximation of the internal and external edges of the ring or crescent may so pull upon the skin immediately surrounding the nipple, and forming the cup in which it lies, as to obliterate this cup and render the nipple accessible to the child.

So far as I am aware, this small, but I think useful

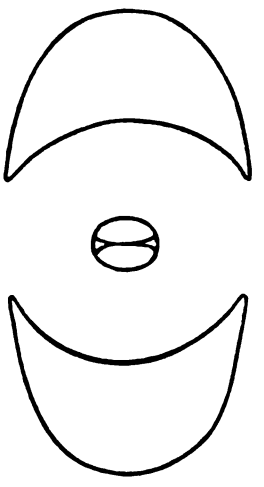
FIG. 1.



operation, has not yet attracted attention in this country. I have performed it twice. One of the cases I have been unable to keep under observation. In the other I am now able to judge of the effect of the operation.

The patient, aged thirty, has had three children. The first child she suckled with the left breast, the nipple of which was well-shaped and prominent, but not with the right. The right nipple was sunk in a hollow, so that the child could not seize it, and its apex was drawn in so as to form a dimple (Fig. 1). In May, 1887, she was delivered of her second child in the General Lying-in Hospital. She suckled, as before, with the left breast, but the child was unable to take the right. Five days after delivery I performed Kehrer's operation on the right breast. As the dimple on the nipple ran horizontally, I removed two crescent-shaped pieces of skin, one above the other below the nipple, each piece measuring about two inches long by about an inch across its widest part (see Fig. 2). The patient returned to the hospital to be delivered of her third child in May, 1889. She can now suckle with both breasts. The right nipple, although not so prominent or well-shaped as the left, yet projects enough for the child to grasp it. The object of the operation has therefore been attained.

FIG. 2.



Harley-street, W.

A MALLEABLE TRUSS FOR CORRECTING DEFORMITIES OF THE NOSE.

BY W. J. WALSHAM, F.R.C.S.,
ASSISTANT SURGEON TO ST. BARTHOLOMEW'S HOSPITAL, AND SURGEON IN CHARGE OF THE ORTHOPÆDIC DEPARTMENT.

IN THE LANCET of Sept. 20th, 1884, I described a nasal mask for gaining a fixed point whereon to secure the nasal truss; and, again, in the number of Feb. 25th, 1888, a poroplastic cap for the same purpose. I have now to describe a new form of truss. In the older contrivances the correction

[1] Beiträge, Band ii., Heft 3.

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of the deformed nose is usually accomplished by two pads so arranged that pressure is exerted by means of springs or screws on the projecting parts. The objections, however, pertaining to this method are that the pressure is too localised, and cannot be sufficiently diffused over the deformed area, and that in the pads we do not possess that moulding power which it is desirable to bring to bear on the displaced cartilages or bones. It seemed to me that to deal efficiently with the minor shades of the deformity some soft and impressionable, but at the same time moderately firm and resisting, material was required—a material that could be made to take the shape of the nose, and then, by gently bending this way or that, by pressing in slightly here and out a little there, could be made to exercise the same sort of moulding effect on the nose as can be done by the finger and thumb, and whilst thus malleable having sufficient consistency and resisting power to hold the parts in position when the desired shape had been obtained. After many trials, with the aid of Messrs. Arnold and Son, the requisite material was at length found in pewter. The truss in its simplest form (Fig. 1) consists of a piece of pewter, which is cut

FIG. 1.



FIG. 2.



out to the size and shape of the nose, and is secured above to the poroplastic cap before described. The upper part of the truss corresponding to the bridge of the nose is made of sufficient thickness to resist bending by any moderate force, and is prolonged upwards in the form of a stem ending in a flattened plate, which is rivetted to the cap. The pewter, as shown in the illustration, is perforated to avoid excessive heat and retention of perspiration. The metal below the part corresponding to the bridge of the nose is beaten out, so that at the tip and sides the truss is quite malleable, and can be made to take and retain any shape and position to which it is moulded by the fingers. When complete, the truss is lined on the inner surface with soft chamois leather, and covered with black silk or other suitable material on the outside. In its simplest form, however, the truss is a little difficult to put on, especially when the forehead is at all prominent. To overcome this difficulty, a hinge, as shown in Fig. 2, may be intercalated at the junction of the truss with the poroplastic cap. This hinge is fixed when the cap and truss have been adjusted by the little spring shown in the woodcut. Where there is much deflection of the lateral cartilages the general pressure on the nose can be increased by means of a spring lever after the ordinary pattern, or after the improved form shown in Fig. 2. The cap has also lately been made lighter by cutting away part of the felt, leaving only a band round the head, and a strip of felt stretching across the head from side to side and from before backwards. This truss alone will be found sufficient for correcting slight deformities in young subjects, but it must be worn for long periods. The slightest possible pressure should be employed, and all care taken that the skin is not rubbed or abraded. For severe malformations, the nose must be forcibly straightened by operation before the truss is used.

Weymouth-street, W.

EDINBURGH SCHOOL OF COOKERY. — Dr. Peel Ritchie presided over the recent annual meeting of this institution, the audience consisting wholly of ladies. The hon. secretary, Miss Guthrie Wright, read the report, which was unanimously adopted. The balance sheet showed a profit for the year 1887 of £40 11*s.* 9*d.*, and for last year of £63 3*s.* 11*d.* The committee noted with satisfaction the large number of lessons given to the working classes at nominal fees in the departments of cooking, sick nursing, and hygiene.

ACUTE TYMPANITES OF THE ABDOMEN TREATED BY ACUPUNCTURE.

BY THOMAS OLIVER, M.A., M.D., M.R.C.P.,
PROFESSOR OF PHYSIOLOGY, UNIVERSITY OF DURHAM; PHYSICIAN, ROYAL INFIRMARY, NEWCASTLE-UPON-TYNE.

IN addition to the several cases of acupuncture of the intestine, already reported in THE LANCET, I should like briefly to mention the result of this treatment in two cases which within the last few months have come under my observation.

Towards the end of last year I was in a neighbouring town, when a medical friend, with whom I was in consultation, asked me casually to see another case with him of intestinal obstruction, all but moribund. No stool had been passed for over ten days. The man, about middle age, had at the commencement of his illness experienced severe pain in the abdomen, localised in the right side, and had vomited. The pain and vomiting, now fæcal, had been unrelieved by ordinary medicinal measures. When I saw him, he was propped up in bed, much exhausted by recent vomiting of a thin fluid fæcal matter, and which was the cause of a most disagreeable odour in the room. The pulse was extremely small and rapid; the tongue dry and brown; there were cough and dyspnœa; the abdomen was enormously distended and painful; the heart's sounds were extremely feeble, and numerous bronchial and mucous râles were audible all over the chest. No dulness was detected in the abdomen, which was generally distended and painful, coils of intestine being seen and felt through the abdominal parietes. The urine was high-coloured and scanty. As everything almost had been tried, yet without effect, and it was clear that the patient would die unless soon relieved, I suggested puncture of the intestines, which was agreed upon. Into the intestine, at several places, a large hollow needle was at once driven, and there escaped in a few minutes a large volume of very fetid gas. In addition to this escape of gas, there came away through the needle at one spot a small quantity of the same thin brown fæcal matter that the patient was vomiting. The relief was immediate and permanent. On the following day, when I saw him, the pain, vomiting, and distension of the abdomen had disappeared, and, the lungs being now clear of all râles, dyspnœa was no longer present. The use of the long tube, which had hitherto failed to remove anything per rectum, was now successful, but only moderately so. By degrees all his urgent symptoms disappeared, and the signs of intestinal obstruction vanished, but not until five or six days after my first visit, when he passed a slough of small intestine, much invaginated within itself and measuring four or five inches. The man made a good recovery. But for timely acupuncture, this case would have ended fatally.

The second case is equally interesting. A few weeks ago Dr. Arnison asked me to see in consultation with him a gentleman aged forty, who was the subject of chronic intestinal obstruction. No stool had been passed for several days, in spite of the administration of reliable drugs and the repeated employment of enemata carefully administered and carried well up the intestine. The patient, though not the subject of such urgent symptoms as detailed in the preceding case, was gradually getting worse, and it was clear that unless relieved he would soon pass beyond the reach of human care. In fact, my object in seeing him was more with the view of giving an opinion as to the advisability of abdominal section than anything else. The pulse on the whole was good, and vomiting absent, but I never saw such a distended and tympanitic condition of the abdomen. The patient was stout to begin with, and was therefore not a good patient for operative measures of any kind. But the chief difficulty lay in the extreme distension. It was apparent to Dr. Arnison and myself that, even if the abdomen were opened—the treatment in one sense called for,—it would be almost impossible to find the seat of obstruction or replace the distended coils of intestine. Acupuncture was therefore agreed upon. Into several coils of intestine Dr. Arnison carried a large hollow needle. It took several minutes to empty the intestine, the air rushing out the while with a loud hissing noise. Relief, however, was immediate. On the following day a large stool was passed, and in a few days thereafter the patient, who had

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been the subject of intestinal obstruction from extreme atony of the bowel, was quite convalescent, and has ever since remained well.

These cases, amongst others which I have met with, fully illustrate the importance of a line of treatment so ably advocated by Dr. Ogle in his monograph on the treatment of abdominal distension by acupuncture. Having had such satisfactory experience of its utility, and never yet having witnessed any bad effects from it, I place these results before the profession in advocacy of its employment.

Newcastle-on-Tyne.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE IN WHICH A TRANSIENT ATTACK OF LOCAL ASPHYXIA (RAYNAUD) WAS DETERMINED BY A DOG-BITE.

By WILLIAM PASTEUR, M.D.,
ASSISTANT PHYSICIAN TO THE MIDDLESEX HOSPITAL.

HERBERT B——, aged nine, a very anæmic but well-nourished boy, of lymphatic temperament, was bitten on the back of the left hand by a puppy-dog on April 23rd. His previous health had been good on the whole. He had snuffles in early childhood, and is now suffering from chronic ulceration of the back of the pharynx, which is probably syphilitic. He has never been subject to cold hands and feet, and is certain they never turned blue. There is no history of any urinary trouble.

The wound, which was quite superficial, was cauterised and poulticed. On one or two occasions during the first two days his mother noticed that the left hand was slightly blue. On April 28th the wound began to suppurate, and on the same day the whole hand became icy cold and very painful, and turned a dark-blue colour. On the application of a warm poultice it soon regained its normal state. The boy was admitted under my care at the North-Eastern Children's Hospital on April 30th. When seen by me at 2 o'clock the left hand was slightly œdematous, and of a deep blue-black, inky colour, especially well seen in the matrix of the nails. The hand had been wrapped in cotton-wool, and was no more cold. The discolouration reached half-way up the forearm, and was of a uniform colour. There was no venous mottling above the level of the discolouration. The radial pulse on the affected side was decidedly less full than in the corresponding limb. The patient complained of considerable pain in the hand. There was also very slight lividity of both ears. The right hand and arm were perfectly healthy. Some urine passed shortly after admission was quite normal. It was tested every day for a fortnight for albumen and blood, with negative results. There was a deposit of urates on the second day after admission. Two hours after admission the attack had completely passed off. On the morning of May 6th the left hand became slightly blue and cold, and somewhat painful. The attack lasted only ten minutes. Later in the day a mild attack of local asphyxia was induced by immersing the hand in cold water for some minutes. Sensation was never blunted to any appreciable extent during the attacks. There were two very mild attacks on May 8th and 9th. On the 12th both hands were immersed in cold water for fifteen minutes, with negative result. No difference was observed on the two sides. On the 13th, after being washed in warm water, the left hand became blue and cold for about an hour. During his stay in the hospital the temperature varied between 97·6° and 99·8°. The wound healed rapidly under suitable treatment, and the patient was discharged cured on May 14th. Three days later he had a well-marked attack affecting the whole hand for about an hour. The left hand is now often colder than the right. On May 26th, after a warm bath, the left foot became cold and the great toe turned blue. Since that date there have been no attacks. The boy is again in the hospital on account of the pharyngeal ulceration. I am indebted for the notes of the case to Mr. E. Brock, M.B.

Remarks.—The anæmia and syphilis may be held to have been predisposing causes in this case, but there seems no reason to doubt that traumatism was the immediate determining cause of the attack. Although it would be profitless to speculate on the bearings of this observation, one may legitimately draw attention to the limited distribution of the asphyxia, to its asymmetry, and to its primary location in the wounded extremity. It is also of interest to note, in connexion with the reflex vaso-motor neurosis theory of Raynaud's disease, that in the present instance there was a well-defined source of irritation in that part of the periphery which subsequently became the seat of the asphyxia.

Queen-street, Mayfair.

ON THE TREATMENT OF HYDROCELE.

By A. E. HIND, F.R.C.S.

THE treatment of hydrocele of the testis by injection of solution of perchloride of mercury was discussed, I believe, in the medical journals some years ago, but has not yet received the attention it deserves. In my hands it has always given complete satisfaction, but my cases have only been a limited number. I use a solution three times the strength of liquor hydrarg. perchlor., and first draw off the hydrocele fluid and then wash out the cavity with the perchloride solution and draw off any remaining fluid. The last case on which I operated was an old double hydrocele with thick walls. The result was quite satisfactory. The injection does not cause pain, and is not followed by inflammation. In these respects it is superior to iodine. Its action depends on its power of forming an insoluble albuminate of mercury, by which the walls of the cavity are glued together. As far as my experience goes, there is no danger of mercurial poisoning. The albuminate is fairly insoluble, and a large amount of mercury is not required. I have tried this treatment with success in a case of infantile hydrocele after tapping had failed. Iodine causes pain when used, and often much pain afterwards by setting up more inflammation than is required to cure. Iodine also is not always efficacious, and may be followed by abscess. I believe perchloride is sure in its action, and its use does not necessitate rest in bed afterwards. I should like to know if the experience of others who may have used it coincides with mine. Have any ill results been known to follow? Has it ever been known to fail? What is the weakest solution that is effectual?

Jersey.

A CASE OF PUERPERAL CONVULSIONS TREATED BY ADMINISTRATION OF OPIUM; RECOVERY.

By R. E. JOHNSON, L.S.A.

I WAS called on Christmas morning, 1887, at 1 A.M., to see a young woman, aged sixteen, reported to be suffering from convulsions. Her confinement was expected, so I administered twenty minims of tincture of opium. This had the effect of soothing the patient, who was in a highly excited state after the first attack. In half an hour another fit, decidedly epileptiform, came on. I gave the patient fifteen minims of the same drug, and made a vaginal examination, when I found the fœtal head well down, nearly on the perineum, the os being widely dilated and the membranes unruptured. She had another fit and then the child was born. Immediately after its birth she was seized with a severe rigor. This was at 3 A.M. Being a long way from home, I did not dare to leave her to go for any other remedy, so persevered with the opium, at last getting her well under the influence of the drug. At 6 A.M. the fits, though still occurring about every twenty minutes, were not so severe in character. At 10 A.M. I was informed that she had had seven fits since 6 o'clock. There was profuse diaphoresis. About four ounces of urine, containing a little albumen, were drawn off by the catheter. 12 noon: Two more fits. Still administering opiates. 7 P.M.: Has had eight fits since noon. 10 P.M.: Had one fit since last seen. Had one while I was present. Catheterisation: about eight ounces of urine.

Dec. 26th.—10 A.M.: No fits since last night. Adminis-

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tration of tincture of opium stopped. Cannot pass urine. Catheterisation: a pint and a half of urine. Has had a good night's rest.—8 P.M.: Passed catheter: more than a pint of urine. Still no fits.

27th.—10 A.M.: Catheterisation: about a pint of urine. Symptoms of slight pelvic cellulitis—viz., tenderness on pressure, temperature 100° F., and cessation of lochia. Ordered injections of hot water and half an ounce of castor oil. Sent saline mixture.—8 P.M.: Catheterisation.

28th.—10 A.M.: Catheterisation. In the evening the patient had passed urine naturally, and the lochia had returned.

On Jan. 1st. the patient got up to have the bed made; on the 3rd she sat up for an hour and a half; and by the 14th she had perfectly recovered, except that she suffered from slight attacks of vertigo occasionally.

Chester-le-Street.

PARALDEHYDE AS A HYPNOTIC.

BY MORGAN FINUCANE, M.R.C.S., L.S.A.,
ASSISTANT MEDICAL OFFICER, HANTS COUNTY ASYLUM.

THE use of the above drug is, I believe, becoming extensively known and its qualities appreciated. I find it a perfectly safe and, if given in large enough doses, a very effective remedy. The usually known dose is practically useless, anything less than one drachm and a half producing little or no effect. The immediate observed effects are quiet and refreshing sleep, the average being seven to eight hours; on waking patients do not feel the effects produced by other drugs such as hyoscyamine—e.g., headache, drowsiness, and dryness of mouth, &c.; the heart and pulse are increased in frequency and force; and the general effect is that of a diffusible stimulant. It is of the greatest use in all forms of maniacal excitement, with extreme restlessness, and in cases of restlessness with dementia, whether paralytic or otherwise. The value of the drug is seen in cases such as general paralysis, where hyoscyamine is obviously wrong, and opium and its preparations often contraindicated by the presence of renal disease.

Knowle.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

CHARING-CROSS HOSPITAL.

ANEURYSM OF ANTERIOR COMMUNICATING ARTERY; RUPTURE; MENINGEAL HÆMORRHAGE ACCOMPANIED BY OPTIC NEURITIS.

(Under the care of Mr. BELLAMY.)

THIS case presents many features of considerable interest which are brought forward in the comments appended to it. The mode of onset; the extent of the hæmorrhage, its source, the symptoms to which it gave rise; the pyrexia; and the presence of optic neuritis, with its exact causation, are worthy of attention. Clinical evidence as to the presence of heat centres in the brain of man is accumulating, and the possible aid to more definite localisation of brain lesions which this suggests is very attractive. Dr. Hale White[1] has brought forward many cases which bear on this subject, and in our issue of last week[2] there is a paper by him on the Influence of the Corpus Striatum and Optic Thalamus upon the Bodily Temperature, in which he mentions cases of pyrexia due to lesions of the corpus striatum, and refers to the recent literature on the subject. Dr. Pasteur also records two cases of cerebral pyrexia in the same number.[3] Much has been done in the elucidation of the cause of pyrexia in cerebral disease or injury, both experimentally on animals (especially by Otto, who gives six centres) and by clinical observation in man. Mr. Page's case of trephining for compound fracture of the skull with injury to the posterior part of the temporo-sphenoidal lobe and a rise of temperature to 104°, without other symptoms, is some evidence in favour of a Sylvian centre.[4] For the following account we are indebted to Dr. Fredk. W. Mott, medical registrar, and Dr. F. O. J. Stedman, surgical registrar.

J. Y——, a man aged fifty-one, was admitted on March 1st, 1889. He was supposed to be suffering from a fall he had had eight days previously. The friends of the patient gave the following history. He had always enjoyed good health, and followed his occupation as a coach painter till Feb. 21st. On the evening of this date, while walking across the room, he suddenly fell without apparent cause, striking the back of his head against a sofa. He was picked up unconscious, and remained so till Feb. 23rd, when he recovered sufficiently to talk, but he still seemed drowsy. He continued in the same condition, complaining of vague general pains, but not suffering from any paralysis, till March 1st, when he was admitted into the hospital.

Condition on admission.—A well-nourished man, looking older than his age would suggest. He is lying on his back, answers questions rationally, but when left alone he closes his eyes and seems to drop off to sleep almost immediately. There is no paralysis; he can stand up out of bed, but seems weak. The knee-jerks are somewhat active, and there is decided but not marked ankle-clonus on either side. Sensation is normal everywhere. Superficial reflexes present, and equal on the two sides. The patient complains of pains all over, but especially over the back of the head; he also complains of pain when his legs are moved. He suffers when his head is moved or pressed upon; the pain is evidently severe, causing contortion of the muscles of his face. The pupils are equal, and react to light and accommodation. There is no paralysis of any ocular muscles. On examining the fundus, optic neuritis is seen in each eye, but rather more marked in the right. The margins of the discs are quite obscured, and the points of emergence of the vessel in the centres of the discs are concealed by exudation; the swelling was estimated at 1 D.

For the next two days his condition remained the same, excepting that the drowsiness was increased, and there was more tendency to snore when asleep. On the night of March 3rd the drowsiness gradually deepened into coma. On the following morning (March 4th) he had some convulsive movements, which lasted intermittently for half an hour. The movement consisted of clonic twitchings of arms and legs on both sides, and of the face on the left side only. The same evening he had a similar attack, except that the twitching continued in the left levator alæ nasi for some time after the other movements had ceased. He is now in a condition of deep coma, and does not feel anything; but if the head is pressed or moved he screws up his face as if in pain. There is a tendency to rigidity in the lower limbs, more marked on the left side; the deep reflexes remain as before; the superficial are absent, with the exception of the plantar, which are, however, only slight. The corneal reflex is present. Pupils equal, sluggish action to light, partially dilated; discs as before. The temperature, which since admission had ranged from 99° to 101°, had risen by the evening to 102°.

March 5th.—The patient is much the same; conjunctival reflex still present, but feeble. The temperature had been rising steadily, and by the evening it reached 104·2°.

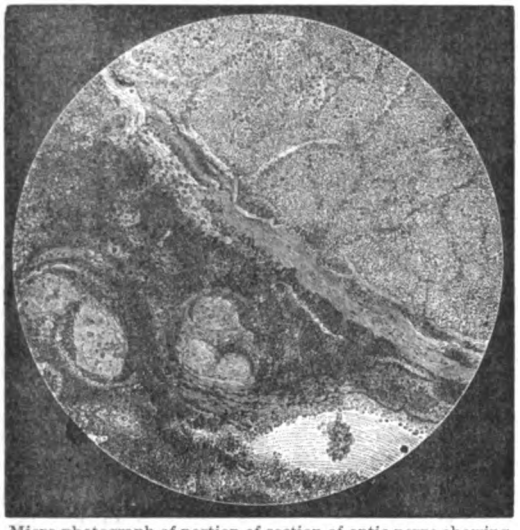
6th.—Deep coma. Temperature 105°. Pupils unequal, the left being much dilated, the right of medium size. In the morning the temperature fell a little below 104°, and then rapidly rose to 106·4°, when the patient died.

Necropsy, twenty-five hours after death.—Body well nourished; slight rigor mortis; very little post-mortem staining. No injury of the scalp; nor was there any fracture detected of the calvaria before or after its removal. On reflecting the dura mater and exposing the brain, the whole of the hemispheres were seen covered with a thin layer of blood beneath the arachnoid. The layer of blood was thickest over the anterior part of the brain. The brain was carefully removed and the base of the skull examined, but no trace of a fracture was discovered. The whole of the subarachnoid space at the base of the brain was filled

[1] Guy's Hospital Reports, 1884.
[2] THE LANCET, vol. i. 1889, p. 1295.
[3] Ibid. p. 1296.
[4] Ibid., Mirror of Hospital Practice, vol. ii. 1887, p. 1216.

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with a soft dark clot, extending over the lower surface of the frontal lobes and along the fissures of Sylvius, and to a less degree beneath the arachnoid over the whole surface of the brain. On removal of the roof of the orbits, the blood was seen to extend along the sheaths of the optic nerves. The clot was now washed away with a stream of water, and the vessels very carefully examined. A clot about the size of a small bean was found firmly adherent to the under surface of the anterior communicating branch, uniting the two anterior cerebral arteries in the front of the circle of Willis. This clot was of a reddish yellow variegated appearance, and differed from the soft clot around. It was



Micro-photograph of portion of section of optic nerve showing hæmorrhage into the sheath. Magnified 70 diameters.

removed, and then a hole was discovered in what appeared to be the sac of a small aneurysm. A coarse bristle was then readily passed into the vessel. The arteries of the brain generally were free from atheroma, and with the exception of a few patches in the internal carotid none was visible to the naked eye. There was no hæmorrhage into the lateral ventricles, and only a little into the fourth ventricle. The heart weighed fifteen ounces; early atheroma of aorta; wall of left ventricle a little thicker than normal; no valvular disease. Kidneys, liver, and spleen normal. Lungs: some slight hypostatic congestion and a little emphysema, otherwise fairly normal.

Comments by Drs. MOTT *and* STEDMAN.—There are some points of interest in this case which make it worth recording. Firstly, the attack was sudden, the notion of the patient's friends that his disease was the result of the fall was really the confusion of cause and effect. The sudden giving way of the bloodvessel caused the unconsciousness; his partial recovery was no doubt due to arrest of the hæmorrhage, and then a further effusion of blood took place, which accounted for the further symptoms and fatal termination. A small aneurysm in any situation may cause no symptoms, and its existence may be unsuspected until rupture occurs. Such latency is most common in aneurysms of the anterior communicating and the cerebellar arteries. Aneurysm of the anterior communicating artery is usually small, the wall is thin, and rupture occurs early in most cases (Gowers[1]) So that the fact of an aneurysm of the anterior communicating artery having ruptured and so suddenly producing symptoms in an apparently healthy man is quite in accord with the experience and teaching of this eminent authority. On account of the optic neuritis, which was well marked in both eyes, together with the other symptoms, Mr. Bellamy was at first inclined to consider it a case of intracranial tumour, but the symptoms were not defined enough to localise the lesion. Later on the symptoms pointed rather to meningitis, and that was eventually the diagnosis arrived at. Was the optic neuritis occasioned by the aneurysm?—for we are assuming that it was a small aneurysm of the anterior communicating artery that had ruptured, and not an atheromatous patch which had given way—or was it due to the meningeal hæmorrhage extending along the sheath of the optic nerves? Byrom Bramwell[2] states that he has reported a case in which intense neuritis was produced by hæmorrhagic extravasation at the base of the brain, extending into the sheaths of the optic nerves. He has also reported a case[3] in which rupture of an aneurysm at the base of the brain was attended by hæmorrhage into the vaginal sheath of the optic nerves, and consequent neuritis. Mackenzie has also reported a case in which rupture of an aneurysm of the middle cerebral was attended by hæmorrhage into the sheath of the optic nerve and neuritis. Dr. Gowers (Medical Ophthalmoscopy) says that optic neuritis may occur to a slight degree in meningeal hæmorrhage, but in this case it was pretty intense and there was considerable swelling, the hæmorrhage was very coextensive, and the sheaths of the optic nerves were distended irregularly with blood (*vide* micro-photograph). There was some pyrexia all the while he was in the hospital, but as drowsiness came on deepening into coma, so the temperature increased, and finally just before death it reached 106·4°. I think this is best explained by supposing that a fresh escape of blood took place, and as the intracranial pressure was increased, so the temperature rose. The cause of this rise of temperature from the pressure of the extravasated blood may be due to pressure upon the basal ganglia, or perhaps the pons. The situation of the blood-clot at the necropsy would agree with either hypothesis. The former seems highly probable, judging from the papers read by Dr. Hale White, Mr. Dean, and Professor Horsley at the last meeting of the Neurological Society.

[1] Diseases of the Nervous System.

[2] Intracranial Tumours, p. 60.

[3] Edinburgh Medical Journal, 1886, p. 97.

YORK COUNTY HOSPITAL.

TWO CASES OF INTESTINAL OBSTRUCTION (BY MECKEL'S DIVERTICULUM AND BY ADHESIONS); OPERATION; DEATH.

(Under the care of Mr. JALLAND.)

THE first of these two cases is one of obstruction of the bowel due to its constriction by Meckel's diverticulum, or the incompletely obliterated portion of the vitelline duct, the free extremity of which had become attached near the umbilicus and acted as a band. Usually a blind tube with a free end, this diverticulum has been found adhering to the inguinal ring, the mesentery, omentum, various parts of the intestine, and with less frequency to the neighbourhood of the umbilicus. Sometimes it is represented by a ligamentous structure which forms a strangulating band, the intestine passing either under or over it; it may form a knot round the bowel, especially when long and narrow with a clubbed extremity, or "acute kinking" may follow from traction on an isolated band. In a recent issue[4] we have drawn attention to the manner in which obstruction of the bowel is produced either as a primary or secondary result of a peritonitis. In Mr. Beck's case the strangulation was produced in a secondary manner by a band; and in Mr. Barker's an adherent coil of ileum had become twisted upon itself and fixed in the altered position, causing mechanical obstruction. In this case the exact mode in which the peritonitis was produced is evident; there was a perforation of the small intestine, but whether this was due to giving of the base of a small idiopathic ulcer or not did not appear at the post-mortem examination. For the notes of these cases we are indebted to the house-surgeon, Mr. L. Williams.

CASE 1. *Intestinal obstruction by Meckel's diverticulum; abdominal section; death.*—Elizabeth H——, aged thirty-five, was admitted on Dec. 18th, 1888. She stated that she had been married nine months. There was no history of any previous illness. Six weeks previously to admission she had an attack of severe abdominal pain, which lasted seven days. The bowels acted during the time the pain was most severe. On the fourth day, three weeks afterwards, she had another similar attack, but the pain was worse; she had had cramps, which lasted three days. She was attended by a medical man on both occasions. On Monday, Dec. 10th, she did her ordinary household work, and went out shopping in the afternoon. She awoke on the following morning about 5 o'clock with great pain in the abdomen, chiefly about the umbilicus; it was intermittent in character, returning about every hour. Local fomenta-

[4] THE LANCET, Mirror of Hospital Practice, vol. i. 1889, p. 730.

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tions were applied, and she had some aperient medicine, which did not relieve her. Through the week she had pain at intervals, and slight vomiting occurred on Saturday, the 15th; the vomiting began to be more frequent, and smelt strongly; this continued up to the day of admission.

On admission she was a strongly built woman, and well nourished. Her face was rather pinched and flushed. She complained of severe pain in the abdomen, chiefly about the umbilicus. She stated that she had passed no fæces since Dec. 10th, and she thought she had passed no flatus, but was not sure. She had been treated outside with frequent enemata, which had had no effect. She passed a normal quantity of urine during the first part of the week, but lately it had become scanty. Temperature normal. Abdomen soft, not very tender on pressure, but distended; it was resonant everywhere except in the left iliac region, where there was some dulness. No hernia could be detected. She vomited some fæcal matter soon after admission. Pulse small, about 90 in the minute. The patient was very restless, but the thighs were not flexed on the pelvis. She was ordered the fourth of a grain of morphia hypodermically every four hours, nutrient suppositories, and ice to suck. Vomiting continued throughout the afternoon, and she vomited eight times during the night.

Dec. 19th.—The vomiting still continuing, and being fæcal in character, after a consultation it was decided to open the abdomen. At 3 P.M., ether having been given, Mr. Jalland made an incision in the median line, about six inches long. There was no hæmorrhage. As soon as the abdominal cavity was opened, coils of intestine presented, distended, congested, but glistening in appearance. On passing a hand into the abdomen, a tight band was felt attached above to the umbilicus, passing directly backwards, and fastened at the other end to a part of the small intestine (ileum?), and between this and a portion of the omentum some of the small intestine was constricted. A double ligature was passed round this band, and it was divided between the two ligatures. The band was apparently tubular, and about the thickness of a tobacco-pipe (Meckel's diverticulum). The edges of the wound were brought together by wire sutures, the wound dressed with iodoform and salicylic wool, and the patient put to bed. She never seemed to recover from the shock of the operation, but was very restless, and, although no vomiting recurred, she died about 2 o'clock on the following morning.

Necropsy, twelve hours after death.—Permission was only given to examine the neighbourhood of the wound. The abdomen being opened, the bowels were found ecchymosed and the surface rather dull (? recent peritonitis). There was no hæmorrhage, and the constriction had evidently been relieved. The portion of the bowel which had been constricted was so thin that in endeavouring to take it out it was ruptured. The bowel was evidently connected with the ileum, but unfortunately the distance from the ileo-cæcal valve was not measured.

CASE 2. *Intestinal obstruction; old peritonitis; abdominal section; artificial anus; death.*—Charles W——, aged sixty, a groom, living at Malton, was admitted on Feb. 14th, 1889. He had been ailing for some months. He was not in regular work, and sometimes had bad food. About Christmas time he caught a chill, his body became swollen, he had great pain in the abdomen, felt very hot and feverish, and was in bed for about three weeks. He got better and went to work again, but had another attack of pain about three weeks before admission; he then had constipation for ten days and great pain in the abdomen. He went to work for two days, and then was obliged to lay up again. He had not passed any flatus since Feb. 8th. The abdomen had become greatly distended, and he had vomited at long intervals since the 10th.

On admission, he was a well-built, spare man, with drawn face and harassed expression; cheeks flushed; temperature 99°; pulse 90; respirations normal; abdomen greatly distended and tympanitic. On the right side of the umbilicus and above was a rounded swelling, dull on percussion, firm at the edge, and soft in the centre. The rest of the abdomen was evenly distended. There was no pain on pressure. He complained of great pain when lying on his back, and invariably lay on his right side.

Feb. 15th.—There had been no vomiting. He slept fairly well, and took a little soda-water and milk. Enemata were ordered. No flatus had been passed.

16th.—The patient had passed a small piece of fæcal matter after an enema, but no flatus. He complained of feeling sick. Took a little milk, but vomited after it.

17th.—The patient vomited several times this morning, the matter vomited being distinctly fæcal. Finding the patient was gradually getting worse, it was decided to make an exploratory operation. Accordingly, chloroform having been given, an incision was made a little to the right of the median line, commencing a little below the umbilicus, and the abdomen was opened. The bowel in the lower part of the abdomen seemed normal; but, on feeling inside, the intestines were found to be fixed by some firm adhesions above, matting the coils together and causing them to be adherent to the abdominal walls in front. The incision was then carried upwards, but in doing so an escape of fæces occurred. It was then thought best to make an artificial anus above, and sew up the wound into the abdominal cavity below, there being about an inch of tissue between the incision into the abdominal cavity and the artificial anus. The edges of the wound were brought together by silver sutures through the whole thickness of the abdominal walls, and two separate dressings put on to the wounds.

18th.—The man vomited after the operation yesterday. At first the vomit was fæcal, but afterwards only the contents of the stomach. The top wound, or artificial anus, was dressed frequently. He slept a little during the night, and has vomited less to day. He complains of much less pain and discomfort. The distension of the abdomen has gone down, and there has been free discharge of fæces from the opening,

19th.—Pulse irregular and rapid. Patient flushed. Vomiting not so frequent. Has taken a little essence of beef, milk, and ice. Nothing has been passed per rectum.

20th.—The patient is weaker. He vomited persistently throughout the night. Ordered morphia and whisky. Great pain in left side.

21st.—Patient died this morning at 2 A.M.

Necropsy, twelve hours after death.—A fistula was found to run from the artificial anus down to the opening into the peritoneal cavity, through which fæces passed, setting up purulent peritonitis. The opening above (artificial anus) led into a cavity filled with fæces, about the size of an orange; this communicated with the small intestine, and was surrounded by firm adhesions separating it from the general abdominal cavity.

Medical Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

The Prevalence, Causation, and Treatment of Acute Cardiac Affections—Trichomycosis Nodosa.

A MEETING of the Medical Section was held on April 5th.

Mr. COX read a paper on the Prevalence, Causation, and Treatment of Acute Cardiac Affections, dealing especially with acute endocarditis and acute pericarditis. As to the varieties of these affections, he selected the idiopathic, the rheumatic, and the septic; and adduced examples, as they seemed to him, of each variety. As to frequency, he stated that he had recently met with so many cases of acute endocarditis that he had come to regard it as one of the most prevalent of acute constitutional diseases—more common possibly than, for instance, acute pleuritis or acute pneumonia. Whether the experience of others coincided with his he did not know; but if it were so, he thought it pointed to a change in the form or type of disease, such as had undoubtedly occurred in some other diseases—such as, notably, with regard to the relative prevalence of typhus and typhoid fever. As to the relative frequency of acute endocarditis and acute pericarditis of rheumatic origin, Mr. Cox found himself in direct antagonism to the experience of such authorities as Stokes and Hayden. Both these great authorities have described acute pericarditis as being far more common than acute endocarditis; whilst Mr. Cox finds the contrary condition to prevail—namely, that acute endocarditis is far more prevalent than acute pericarditis. Again, Stokes and Hayden found the frequency and the severity of the heart affection in rheumatic fever to be in direct proportion to the severity of the joint trouble, and to the elevation of the temperature above the normal. Mr. Cox, on the contrary, finds the heart affection to occur

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regardless of rise of temperature, being often unattended by pyrexia, and to be more often in indirect, rather than in direct, ratio to the joint trouble. Again, with regard to the curability of rheumatic heart affection, he finds himself justified in taking a more favourable view than Dr. Hayden has enunciated in his *magnum opus*. Dr. Hayden laments that he found few cured, whilst Mr. Cox finds himself in accord with Fuller and others who record a large proportion of recoveries.—Dr. A. W. FOOT said that it was astonishing to hear that acute endocarditis and pericarditis were more common in Dublin than those most common diseases, bronchitis, phthisis, and pleuritis; and yet the number of cases which Mr. Cox brought forward was very small. Mr. Cox considered there was a relation between the tendency to cardiac affection and the height of temperature; but he (Dr. Foot) had not found that to be the case. On the contrary, there was no relationship between cardiac complication and rheumatism, except that of age—namely, the younger the person the more liable to some form of cardiac complication. But they were entitled and naturally anxious to hear upon what Mr. Cox's diagnosis was based, for all turned upon that. The principal point, it seemed, consisted of murmurs emanating from two very suspicious orifices—the aortic outlet and the still more suspicious pulmonary outlet. Indeed, the latter was called "the area of romance," from the phantasmal character of the murmurs originating and audible in that region. Myocarditis was spoken of as not of common occurrence. His own experience was that it was observed more as a post-mortem than an ante-mortem condition; for the diagnosis of myocarditis would be extremely difficult to make during life. Some anomalous phenomena, he suggested, might be accounted for by the toxic effects of the salicylic compounds; for instance, he had himself seen mutism and blindness resulting from over-doses of salicylic compounds. Next, as to treatment, Mr. Cox advocated blisters; but he (Dr. Foot) had found blisters a most disturbing mode of therapeutics to a clinical teacher. He never found blistering do any good, except in pericardial effusion; and in those cases it would be better to remove the serum with a cannula or a trocar than by the slow method of a blister.—Dr. C. J. NIXON said that on some points he thoroughly agreed with Mr. Cox—(1) that endocarditis was more common than pericarditis—indeed, of late years, pericarditis in the course of rheumatism was comparatively rare; (2) that the most severe forms of articular rheumatism are uncomplicated with inflammation of the endocardium or the pleura; and (3) as to the very remarkable frequency of mitral valve disease, especially mitral regurgitation, in comparison with all other valvular affections of the heart. But, on the other hand, he was doubtful about certain other points put forward; for instance, that endocarditis was associated with a falling temperature. It would be too much to regard the existence of a murmur of the heart in the cardiac area as a sign of endocarditis. He believed murmurs were frequently present independently of any inflammation of the endocardium, and that they owed their origin in rheumatic fever to purely functional causes; hence the mitral systolic murmur completely subsiding with returning strength. That applied to a murmur in the pulmonary area which had been described as the "region of romance" in cardiac pathology. It was not because of the uncertainty with regard to the locality of the murmur that it was called the "region of romance," but because the murmur was met with under such a variety of conditions—e.g., sexual excess, excessive smoking, forms of neurosis and rheumatism. One of the commonest things in acute rheumatism was a rough, grating systolic murmur of the heart over the pulmonary area, while it was a purely functional murmur. Therefore, the point which he desired to advance was that where cardiac murmurs developed in the course of rheumatism with a subnormal temperature, the murmurs were not to be regarded as signs of endocarditis. The question of myocarditis must be eminently problematical. He did not know any sign that would enable the physician to say definitely there was myocarditic present. He was inclined to agree with Dr. Foot that it was very rare to have any case of rheumatic endocarditic murmurs of the aortic area.—Mr. Cox replied that he had observed two or three cases of myocarditis which were marked by signs of collapse and cardiac failure. With regard to the relation of temperature to the heart affection, he drew the same conclusion as Dr. Foot himself—namely, that there was no relation between the temperature and the cardiac affection. As regards the toxic effects of salicylic compounds, for his part he eschewed those compounds. He gave salicylate of soda merely for a few doses to ease the pains. The application of blistering was so valuable he was prepared to use it in spite of its disturbing influence; and it was gratifying that Dr. Nixon confirmed his opinion that endocarditis was more common than pericarditis, although Stokes and Hayden held to the contrary. With regard to murmurs, he did not regard these as a sign of endocarditis except on the theory of being due to inflammation; nor did he speak of a murmur at the outlet of the aorta—only of a softening sound.

Dr. R. G. PATTESON read a paper on Trichomycosis Nodosa, a bacillary disease of the hair, which he demonstrated with diagrams and the exhibition of microscopic specimens. Twenty years ago Paxton described a diseased condition of the hairs of the axillæ, named afterwards by Erasmus Wilson lepothrix. A similar condition was found in the hairs of the scrotum, and, though a parasitic origin was suspected, none could be demonstrated. Behrend and Eberth found zoogloea masses of micrococci adherent to hairs and forming nodes, but a bacillary origin has not hitherto been demonstrated. The hairs present an abnormally dull and dry appearance, and feel rough and knotted. They are not unnaturally brittle, the outlying concretions which form the irregularities of the surface acting as splints to those weakened portions where the fibres are split or ruptured. The substance forming these nodes is very hard and insoluble, and can only be scraped away with much damage to the hair. It consists of a homogeneous or slightly granular material, embedded in which the bacilli lie. The bacilli are short fine rods, with slightly rounded ends, about two to three times as long as broad, and about one-fourth the diameter of a red blood-corpuscle in length. They stain readily in any of the aniline dyes; best by Gram's method. They are non-motile, are sometimes joined in twos or threes, rarely forming longer filaments. Cultivations made in the laboratory of Trinity College, by kind permission of Dr. Purser, yielded negative results. Dr. Walter Smith furnished hairs from a similar case, and in them the presence of identical bacilli was easily demonstrated. It is probable they bear a causal relation to the disease. They are not found in the skin or hair follicles. The term "trichomycosis nodosa" had been adopted; the first word to indicate the bacterial origin of the disease, the second to indicate its most prominent characteristic, and the one which, when present, usually leads to its recognition.—Dr. WALTER SMITH said Dr. Patteson's communication was to be welcomed as throwing new light on a minor, though not uninteresting, class of affections. It was exactly fifty years since Schönlein made the first discovery in regard to the influence of fungi as a cause of producing disease of the skin and hair. Soon afterwards a parasite of ringworm was discovered. For a considerable time matters, from a histological point of view, seemed to have come to a standstill, and it was only possible by that important method of investigation to add much to the stock of knowledge. Dr. Patteson's discovery was a step in the light of modern research. Twelve years ago he himself obtained, from the axilla of a patient, hairs in which he recognised a condition corresponding to what had been described as lepothrix, scaly hair. Dr. Patteson's discovery tended to show that the invasion of bacilli might be one of the causes of the breaking up of hair. The difficulty, however, arose in dealing with such localities as the scrotum and axilla, which were hotbeds of bacilli, whether they were merely accidentally on the hair—i.e., whether they invaded the substance or were parasitic. Dr. Patteson seemed to show that there was a true invasion of the hair by those organisms.

THE LEVEE. — The following members of the medical profession were presented at the Levée held on June 29th at St. James's Palace by H.R.H. the Prince of Wales on behalf of the Queen:—Deputy Surgeon-General George Farrell, Bengal Medical Service, on being made a C.B. (by the Secretary of State); Professor Michael G. Foster (by Sir Henry Roscoe); Surgeon F. J. Greig (by the Deputy Adjutant-General to the Forces); Surgeon T. H. Openshaw, M.B., Volunteer Medical Staff Corps (by Surgeon-Commandant Norton); Dr. Quain, F.R.S., on appointment as one of the Physicians Extraordinary to Her Majesty (by the Lord Chamberlain).

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Reviews and Notices of Books.

Lectures on Bright's Disease. By ROBERT SAUNDBY, M.D. Edin., F.R.C.P.L., Physician to the General Hospital, Birmingham. Bristol: John Wright. 1889.

DR. SAUNDBY has long been known as a diligent and indefatigable worker in the field of renal pathology and therapeutics, so that these lectures will command for themselves a recognition beyond what any words of commendation can bestow. And, indeed, these lectures are full of good things, for, though not an "epoch-making" book, it is one of those works which throws a clear and steady light on doubtful and obscure questions, while arranging and classifying facts already accepted, but to which no recognised position had as yet been assigned them. In other words, Dr. Saundby in these lectures has focussed for us the point to which our knowledge of the disease in question has reached, and placed that knowledge concisely and lucidly before us.

The opening chapters deal with the symptomatology of Bright's disease, albuminuria, dropsy, cardio-vascular changes, retinal changes, polyuria, &c. With regard to albuminuria, the author is of opinion that albumen may be present in the urine of healthy persons and persist for long periods without causing derangement of the general health; that it may also occur in weakly and overgrown persons without being an indication of actual or potential renal disease. The presence of albumen in the urine Dr. Saundby attributes to many causes, which may be referred to the three following conditions:—*Hæmatogenous*, or alterations in the diffusibility of the blood albuminoids; *parenchymatous* changes in the renal epithelium, either by causing an albuminous exudate, or by destroying the cell wall and so allowing a direct transudation from the lymphatic vessels into the tubules; *vascular*, as from alteration of pressure, slowing of the blood current, or œdema of the whole organ. With reference to the dropsy present in Bright's disease, Dr. Saundby states that it is present in about 90 per cent. of cases of large white kidney, but in uncomplicated contracting kidney it is absent in at least 90 per cent. of those able to get about. In the later stages, however, of contracting kidney it is more frequent, being about 25 per cent. In contracting kidney the dropsy is undoubtedly due to heart failure, but in acute nephritis and its sequelæ it is due to more obscure causes, which Dr. Saundby would refer to a watery state of the blood, accompanied by increased permeability of the capillaries, caused possibly by the presence of an acid or some other toxic substance in the blood. Cardiac hypertrophy, according to the author, is met with in all forms of Bright's disease, including even acute nephritis. This condition he assigns to two causes—(*a*) stimulation of the heart to increased activity by the presence of non-eliminated poisonous matter, and (*b*) increased capillary resistance, which latter may be ascribed to alterations in the density of the blood plasma. With regard to the retinal changes occurring in Bright's disease, Dr. Saundby very properly warns us that they do not possess any specific characters which enable the observer to diagnose the disease with absolute certainty; they are usually met with in advanced cases, and are of grave import.

The second section comprises an excellent summary with regard to the clinical examination of the urine, and discusses the much-vexed question of the best clinical test for the presence of albumen in urine. The author gives his verdict in favour of heating the upper portion of urine in a test tube filled three parts full, and then acidulating it with two or three drops of *dilute* acetic acid, when the faintest haze will be made apparent by contrast with the layer of unboiled urine below. Although perhaps Heller's test with nitric acid is more generally in use with practitioners than the above, we are convinced that the heat test carried out in this manner is less liable to error than any other.

The concluding section deals with the history, classification, and etiology of Bright's disease. Dr. Saundby, instead of holding that the difference between the large white kidney and the small red one is the difference between a parenchymatous and an interstitial inflammation, as Virchow maintained, holds that the small red and large white kidney, and the intermediate varieties, are the result of a diffuse inflammation which affects all the tissues, but varies greatly in intensity. The large pale kidney is the result of prolonged or repeated severe inflammation; on the other hand, according to the author, the small red kidney indicates an inflammatory process of prolonged duration but of minimum intensity, and the intermediate varieties correspond to all the different degrees of intensity possible between the two extremes. The existence of an indefinite number of intermediate or mixed forms between the two typical varieties is a strong argument in favour of the view of the doctrine of unity. Although the doctrines of Virchow are still held and taught by many, in this country the doctrine of the unity of the disease is gaining ground among the younger pathologists, and Dr. Ralfe in his recent work on kidney diseases has fully accepted this view. Having recorded the failure of attempts to classify the various forms of Bright's disease upon an anatomical basis, Dr. Saundby proposes an etiological classification, which he hopes will adapt itself to the facts of clinical observation as well as pathology, and enumerates the following divisions—(1) febrile nephritis, (2) toxæmic nephritis, (3) obstructive nephritis. These almost speak for themselves, though it may be specially mentioned that in the second division is included that great group of chronic Bright's disease due to lithæmia. The following chapters are devoted to an able description of the above forms, as regards their etiology, pathology, and complications; whilst the final chapter is reserved for the consideration of the important subject of the treatment of chronic Bright's disease. Dr. Saundby discusses the value of various drugs in restraining albuminuria, but the results are hardly encouraging so far as any direct effect can be obtained. He is also convinced that absolute milk diet is in many cases not only distasteful, but unnecessary, and even harmful, as it does not supply enough nourishment. Coming from such a careful observer, this statement is deserving of respect and attention. As far as we are in a position, however, to speak, we have obtained good results from the employment of the absolute milk diet among both hospital and private patients, though in some difficulties had at first to be overcome, but with perseverance were got over. Much, however, depends on the stage of the disease and the condition of the patient; and clinical observations on this point are much to be desired, since the degree of improvement attained by this treatment varies considerably in different cases. In conclusion, we say that these lectures should be attentively read by all who are desirous of gaining a clear insight into what is meant by Bright's disease, and who may wish to follow intelligently the various changes and complications likely to occur in any given case under their care.

Essentials of Physiology: by H. A. HARE, M.D. *Essentials of Surgery:* by EDWARD MARTIN, A.M., M.D. *Essentials of Medical Chemistry:* by LAWRENCE WOLFF, M.D. *Essentials of Obstetrics:* by W. E. ASHTON, M.D. *Essentials of Pathology and Morbid Anatomy:* by ARMAND SEMPLE, B.A., M.B. Cantab, M.R.C.P. Lond. London: Henry Renshaw. 1889.

IT is a moot point whether the medical student of to-day is to be pitied for, or congratulated on, having at his disposal

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so many and such ingenious plans for enabling him to acquire the maximum of knowledge within the minimum of time. Certainly there is no lack of such epitomes of the various parts of medical science, and it may hardly seem necessary to have made any further additions to the series. We confess to a certain degree of old-fashioned prejudice against the free use of such aids to knowledge, believing that the student is better off with a good text-book and practical exercises than with an epitome of another's making. But the fact is that the subjects have outgrown the limits within which they used to be sufficiently acquired, and the examination system is responsible for a great deal of the change that has come over the face of medical education. The student is coming to rely less and less upon his own resources, tutorial classes take the place of practical exercises, and the time-honoured method of lecture is fast dwindling in importance. The series of manuals to which the books named above belong stand to the student more in the position of the tutor rather than of the professor. Indeed, all but one of these "Essentials" is planned on the style of "Sandford and Merton" or the "Guide to Knowledge," a question being propounded and its answer appended. There is not much room for independent thinking or the cultivation of the higher mental faculties in such exercises as these; but yet we do not doubt that, under the present condition of things, there is probably a considerable demand for literature of this sort. It is fortunate for the student that these books should be undertaken by competent hands—by men who, being themselves engaged in teaching, know where the subjects require most elucidation, and who, moreover, are careful to be accurate in their statements. We certainly concur with the remark by Dr. H. A. Hare, the author of the "Physiology Essentials," to the effect that "a manual of this character is in no one way intended to supplant any of the text-books"; but in proportion as this class of work is accurate and careful, the greater is the risk of its being solely depended upon by the student, to the exclusion of works of wider scope. We do not want our medical men to be trained up on the mechanical plan of the village school, but we desire to see every means employed to awaken their powers of observation and thinking. Although, owing to their general scheme, there could hardly be much added to these works, yet they must be considered rather as useful adjuncts to systematic reading than as sufficient in themselves to impart the necessary knowledge of the subjects with which they deal.

OUR LIBRARY TABLE.

Select Methods in the Administration of Nitrous Oxide and Ether. By F. HEWITT, M.A., M.D. Cantab. Pp. 48. London: Baillière, Tindall, and Cox. — The professed object of this little book is to explain certain methods whereby ether can be administered in combination with, or in succession to, nitrous oxide gas. With the exception of an account of Dr. Hewitt's modification of Mr. Clover's well-known portable regulating ether inhaler, the apparatus described and the methods detailed are familiar to those who have read the general manuals dealing with anæsthetics. The descriptions are in some cases less clearly expressed than is desirable, and tend to over-elaborate a simple subject. There seems to be a pretty general feeling existing at the present time that if we employ ether in every-day practice, it is necessary to overcome its nauseous smell and deliriant properties by an initial administration of nitrous oxide gas. For surgical anæsthesia this has been accomplished for many years with more or less success, and by the employment of very simple apparatus, so that we cannot welcome any change which increases their complexity by multiplying stopcocks, movable bags, and so on. An additional drawback involved in Dr. Hewitt's arrangement exists in the fact that he advises the administrator "to allow the patient to breathe the remainder (one gallon of nitrous oxide) backwards and forwards" (p. 13). This re-breathing of once respired gases is not only most disagreeable to the patient, but is actually deleterious. The apparatus Dr. Hewitt recommends possesses certain disadvantages: it is made in pieces, and so, even when as carefully constructed as the author very properly points out should be the case, it is liable to work loose and permit of ether leakage; there is also a fear of its component parts separating. Besides these drawbacks, it must necessarily be held in the hand, even when momentarily removed from the face. Dr. Hewitt appears not to be familiar with an older apparatus designed by Mr. Clover, for he says: "By filling and detaching the gas-bag before the administration commences—a proceeding which is impossible in other methods—the patient is not frightened by the noise made by nitrous oxide issuing from the gas-bottles." In the older and simpler scheme, the gas-bag may be filled, a stopcock turned, and the gas apparatus detached; the patient then only sees the face-piece, and without the smell of ether can be rendered unconscious. This apparatus (Clover's) hangs suspended from the waistcoat button, and can be kept out of sight with the coat. Nor is it a necessity for noise to result from the gas leaving the bottle and entering the bag, unless it be permitted to flow too rapidly. Another method now commonly in use, but which Dr. Hewitt has not noticed, is to have a stopcock fixed in the metal knee-piece which connects the dome of Clover's portable ether inhaler to the bag. To this is attached an indiarubber tube, and through it the gas is allowed to enter. The method of using this contrivance is practically the same as that for Dr. Hewitt's, only fewer valves and stopcocks are required. We must altogether dissent from Dr. Hewitt when (p. 33) he says it is better in some cases to administer ether from a cone or towel rather than from a Clover's inhaler. Any competent person accustomed to that instrument can regulate to a nicety the amount of ether given, and can allow any proportion of air to be admitted. With a cone this is impossible; nor can the administrator avoid a sudden increase in the strength of the ether vapour, which must induce suffocative cough and struggling, both undesirable complications in cases of strangulated hernia, severe hæmorrhage, and obesity, the cases in which Dr. Hewitt advises its use. The book is well printed, and contains some excellent woodcuts illustrating Dr. Hewitt's apparatus and mode of using it.

On Syphilitic Affections of the Nervous System; their Diagnosis and Treatment. By T. MCCALL ANDERSON, M.D. Glasgow: J. Maclehose and Sons. 1889.—This is eminently a clinical work. It consists in the records of twenty-four cases of syphilitic nervous disease selected from the practice of the author to illustrate most of the various forms in which such disease is manifested. Professor McCall Anderson quite agrees with those who regard syphilitic nerve disease as being common, and also as being most variable in its appearance as well as in its manifestations. In the concluding pages of the essay he sums up certain points in the diagnosis and treatment of such cases, which are well worthy the attention of practical physicians. It is interesting to learn that among thirteen of the twenty-four cases described, in which the time of syphilitic infection was known, the interval elapsing between that date and the onset of nervous symptoms varied from two years and a half to thirty years. The author is an advocate of the use of mercury, which he prefers to administer by inunction or by subcutaneous injection, although he admits that in many cases iodide of potassium is all-sufficient. The *brochure* is supplemented by a full report of the discussion which followed upon Professor McCall Anderson's remarks on this

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subject at the Glasgow meeting of the British Medical Association.

Mikrophotographischer Atlas der Bakterienkunde. Von Dr. CARL FRAENKEL und Dr. RICHARD PFEIFFER. Erste und zweite Lieferung. Berlin: A. Hirschwald. 1889.—The application of photography to microscopical research has been in no department better illustrated than with respect to bacteriology. In this country Prof. Crookshank has published a volume containing many successful micro-photographs of bacteria, and the work before us forms the commencement of an Atlas having the same object in view. Its authors are well known as assistants in the Hygienic Institute at Berlin, of which Dr. R. Koch is the director, and to him the work is dedicated. In an introductory chapter full details are given with regard to the methods employed; and there are ten plates, each containing two photographs of various forms of micrococci, bacilli, and spirilla. The plates are excellent examples of the art of microphotography, the definition of even the minutest forms (e.g., Fig. 12, minute spirilla in the blood of the mouse) being very successfully obtained. By such works as this the morphology of bacteria is well illustrated, and the extent to which bacteriology has been studied is brought home to those who may have failed hitherto to grasp the fact, whilst to those who are actually engaged in the pursuit the possession of such an Atlas must prove invaluable.

What shall we have for Breakfast? or Everybody's Breakfast-book. By AGNES C. MAITLAND. Pp. 120. London: John Hogg. 1889.—This book is remarkably well fitted to relieve the monotony and add to the enjoyment of the breakfast-table. It contains 181 recipes, which have the great merit of being described in plain intelligible language, and having the quantities of the various ingredients clearly stated. They are within the compass of a fairly good cook, and bear the impress of having been written by a person who had actually put them in practice. It is a book in every respect to be commended.

Puddings and Pastry à la mode. By Mrs. DE SALIS. Pp. 70. *Cakes and Confections à la mode.* By Mrs. DE SALIS. Pp. 61. London: Longmans. 1889.—These two little volumes complete Mrs. De Salis's *à la mode* series of cookery-books. They contain recipes for some very delicious and palatable articles, but are open to the same objection as some of the previous volumes—disregard of expense, and the need of a first-rate cook to carry out some of them. They will be found useful by those who have good artistes and to whom expense is no object.

HEALTH REPORT OF INDIA FOR 1887.

No. III.

THE returns of the births and deaths in the civil population are so defective that we shall not go into detail in their consideration. In some of the provinces an attempt has been made to obtain more accurate figures, but apparently in many of them without success. The ratio of mortality as stated in the appendix has ranged between 16·18 in Lower Burma and 45·30 in Berar. In all of the provinces except Berar and Coorg, the town mortality is shown to have been higher than in the rural circles, but we are disposed to think very little reliance can be placed on the returns. For instance, in Lower Burma the death-rate of the towns is stated to be 27·17, while that of the rural districts is only 14·72. Fevers were reported as the cause of the greatest amount of deaths throughout India, contributing apparently about two-thirds of the whole. Cholera appears to have caused a high death-rate in Berar, 5·5 per 1000; in the North-West Provinces and Oudh, 4·54 per 1000; and in Bengal proper, 2·60 per 1000. In none of the other provinces does it seem to have reached 2 per 1000, at least so far as the deaths were reported, and in most of these the ratio was under the average of the five preceding years. The months in which the deaths by cholera were highest were June, July, and August; and those in which they were lowest were February, November, and March. The death-rate by cholera in the town of Calcutta in 1887 was 2·76 per 1000; among the seamen in the port, whose deaths are not included in this, the ratio was as high as 10·03 per 1000. A number of details are given showing the beneficial effects of removing soldiers from their barracks and prisoners from the gaols into camp on the outbreak of this disease. It was occasionally found necessary to move the camp before the disease ceased, but in a large number of instances the first change seemed to secure immunity. In an interesting "Memorandum on Cholera as a Preventable Disease," Surgeon-Major Hutcheson, the officiating statistical officer to the Government of India in the sanitary and medical departments, has given a summary of the mortality from that disease of the European and Native troops of the Bengal Presidency and in the gaols of Bengal for the thirty years 1858–87. The death-rate from cholera during the first fifteen years of that period compared with the last fifteen was, among the European troops, 8·27 and 3·01; among the Native troops, 2·57 and 1·34; and in the gaols, 7·94 and 3·27. Dr. Hutcheson remarks "that this lessening mortality is real, and not a mere statement based on inaccurate statistics, and the manipulation of figures is proved by the gradual diminishing number of deaths year by year from this cause in all the important stations of the Bengal Presidency and among communities regarding whom the vital statistics are as accurate as any other community in the civilised world." This reduction in the mortality has been experienced in all the principal stations of Bengal. Diagrams are given illustrating this for several of the most important, and tables showing the deaths per 1000 at each of the stations during the two periods of fifteen years respectively. Similar tables are given showing the reduction in the cholera death-rate in the gaols. It is impossible to make any accurate comparison of the death-rate from cholera of these special groups and the general population, as owing to the defective registration of deaths "even an approximate to the actual mortality from cholera is not indicated by the record." But a glance at the table of annual deaths from cholera in India from 1875 to 1887, imperfect as it is, shows that there has been no such gradual reduction in the death-rate among the general population as among the three specially protected classes. In Bengal it was higher in 1887 than in nine of the preceding twelve years; in the North-West Provinces and Oudh it was more than thrice as high as in any of the twelve years except 1882, and more than twice as high as in that year; and in all the other provinces except the Central and Lower Burma it was very much in excess of the preceding year. "The enormous totals, representing deaths from a preventable disease and one single cause are sufficiently striking." We agree with Dr. Hutcheson in his conclusion that "the incidence of disease is greatly less in all more or less protected communities than it was, and that the average mortality from cholera was cent. per cent. more during the fifteen years antecedent to 1873 than it has been during the more recent period. ..... Again, where local sanitary protection is greatest and palpable sanitary defects are fewest, there the improvement, as shown, is marked by the enormous total of 1300 per cent. greater mortality in former as compared with later years." From a consideration of all the points connected with the prevalence of cholera in India, Surgeon-General Sir B. Simpson, the Sanitary Commissioner with the Government, arrives at the conclusion, "that it is to improvement in local sanitation, and not to the enforcement of quarantine regulations, that we must look as a means of preventing the occurrence of spreading epidemics."

In an appendix to the report is a reprint of a resolution of the Government of India in the Home Department on the application of sanitary principles to towns and villages in India. This directs the formation of a sanitary board in every province, "not only as a consultative body, but also as the executive agency through which the Government acts in the sanitary department." The Government of India seems to be alive to the difficulties of introducing and carrying out sanitary improvements involving expenditure by local authorities, and it will doubtless be a work of considerable time to develop an efficient system; but the steps which have been taken are in the right direction, and, if judiciously carried out, will doubtless be the means of reducing the high rate of preventable mortality, and improving the health, comfort, and well-being of the general population.

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THE LANCET.

LONDON: SATURDAY, JULY 6, 1889.

THE people of England are not generally credited with meanness or ingratitude; and it must be placed to the credit of Lord Mayor WHITEHEAD that he has afforded them an opportunity of relieving themselves of a reproach which might justly have been cast at them. The nation is really vastly indebted to M. PASTEUR, not only indirectly for his splendid record of discoveries in the sphere of fermentation and infection, but more directly for the crowning discovery of a method of prophylaxis for so terrible a malady as rabies, whereby no fewer than 214 English patients have been treated at his hands without fee or reward. The efficacy of this treatment has been proved as conclusively as is possible, and the proposal to raise a fund in this country to support the Pasteur Institute in Paris and to defray the expenses of patients proceeding thither should be heartily taken up. With his usual sagacity and readiness to promote any good cause, his Royal Highness the Prince of WALES has placed himself at the head of the movement, and, by his letter addressed to the Lord Mayor and read at the Mansion House meeting on Monday last, he shows that he fully appreciates the worth of M. PASTEUR'S discovery, whilst he has taken care to visit the Institute, and so to acquaint himself with all the details of the method carried on therein. In so doing His Royal Highness has incurred the criticism of those who assert that the Pasteur treatment is still *sub judice*, or who go so far as to affirm that it is not only inefficacious but even harmful. The same line of argument might be applied to the treatment of any disease, and it is perhaps unfortunate that in estimating the value of any line of treatment reliance has to be placed upon statistical returns. Prior to the introduction of the Pasteurian method of protective inoculation, there were no trustworthy statistics available of the mortality amongst persons bitten by rabid animals. But as was pointed out by Professor RAY LANKESTER in his letter to *The Times*, and again by Sir JAMES PAGET in his convincing speech at the Mansion House, the average mortality after such bites is on the whole number quite 15 per cent., and on those of bites on exposed parts as high as 60 or 80 per cent. M. PASTEUR has treated nearly 7000 patients, but he has been careful to discriminate between the three classes of persons bitten — viz.: (*a*) those where the animal was suspected, but not proved to be rabid; (*b*) those where the rabidity was recognised by veterinary experts; and (*c*) those where it was proved by the experimental test; and, if the last category alone be considered, it appears that out of 1077 persons treated by inoculation there has been a mortality of only 1·39 per cent. Still more striking as a test of the value of the treatment is the result of inoculations in cases of the severest type—viz., those bitten on the head and face,—where a mortality rate of from 60 to 80 per cent. has been lowered to one of 3·89. Further reductions are also to be made, and with justice, by the elimination of cases where too long a delay occurred between the infliction of the bite and the inoculation. Moreover, it must be pointed out that the lapse of time since the practice has been adopted is, in a majority of the cases, sufficient to exclude the possibility of the occurrence of hydrophobia after a prolonged incubation period.

We must, then, frankly admit that M. PASTEUR has succeeded, where hitherto no success was ever chronicled, in saving from a frightful death many individuals. Yet he is being bitterly attacked for his researches on behalf of mankind, and even men in high position have not scrupled to impute to him a character which is wholly foreign to him. Sir JAMES PAGET, Sir JOSEPH LISTER, and Professor HUXLEY did well to draw attention to the self-sacrificing career of one of the most modest and kindly of men. That career is open to the inspection of all. It is without reproach and without blemish. Science can afford to pass such imputations by with the contempt they deserve. However, no better refutation of these groundless charges could be cited than is contained in the admirable letter from M. PASTEUR which was read by Sir HENRY ROSCOE at the meeting. It is noteworthy that in this letter M. PASTEUR affirms that by proper supervision and regulation hydrophobia could be stamped out from the British Isles. Our country is exceptionally favoured by its insular position for the enforcement of such regulations, and we regard it as not the least important of the results of the Mansion House meeting that it resolved to direct the attention of the Legislature to this point. Such measures must be *thorough* to be effective,—and nothing short of universal muzzling ought to be contemplated. "Let England," says M. PASTEUR, "which has exterminated its wolves, make a vigorous effort, and it will easily succeed in extirpating rabies." Meanwhile, however, it is incumbent upon us as a profession to insist that our hydrophobic patients should have the benefit of the only course of treatment that can promise them (with the least possible risk) immunity from the fatal consequences of bites of rabid animals.

We trust, therefore, for the credit of our country, that the movement in support of the Pasteur Institute will be widely taken up. For some reasons it is to be regretted that the original plan to found such an institute (which, be it remembered, would by no means be confined to the one subject of rabies) in England was not adhered to. This regret was expressed in the letter addressed to the Lord Mayor by the President of the Society of Medical Officers of Health. It was pointed out that England and Belgium are the only two civilised countries where such institutions have not been established, and that it would not be difficult or expensive to form an antirabic laboratory in connexion with some existing institution like the Brown Institution. But the Lord Mayor stated that the expense of endowing such an institute would be far greater than his proposed scheme of a fund on behalf of the Paris Institute and for sending cases to Paris for treatment.

DURING the past eighteen months we have frequently called the attention of our readers to the rise and progress of the British Nurses' Association, to the causes which called it into existence, and to the results which it has already achieved, or which in the future it hopes to

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accomplish. Last week we were, as our readers will have observed, taken to task by Dr. A. ERNEST SANSOM for the statement of our belief that the primary object of the Association—the registration of trained nurses by legal authority—would speedily be carried into effect, and that medical men keenly felt the importance of such a system being enforced and urged its adoption. In the letter to which we refer, Dr. SANSOM admits that the scheme to be proposed by the Association is not yet "intelligible" to him, but proceeds to state his opinion that it "is fraught with danger to the best interests of the public, the medical profession, and the nurses themselves." In our judgment it would have been wiser for Dr. SANSOM to have possessed himself of the fullest knowledge before publicly pronouncing such a condemnation. We propose, under these circumstances, briefly to recall the past history of this important movement, and to state the present condition of affairs. It is well known that skilled nursing has within the past few years become an important factor in the treatment of accident and disease; that the more successful results at present obtained after many operations and in many acute affections are due in no small measure to the fact that the directions given for the patient's treatment are more efficiently, skilfully, and thoroughly carried out than was formerly the case; and that the average nurse of to-day is a woman of more education and refinement than her predecessors were. It is not surprising therefore that a strong feeling arose that nurses should become organised into a united professional body. But this has come about in an unexpected way. Nearly four years ago it was suggested by a well-known hospital matron that it would be well to form a register of trained nurses. The idea was after some months adopted by an official of the Stock Exchange, who was the founder of a certain Association. A sub-committee of influential hospital matrons was brought together to consider the matter; they, however, soon found that it would be most difficult, and might be even dangerous, to carry out such an intention under the management chiefly of laymen. A circular was nevertheless issued by this Association, offering to register any nurse who had had one year's training upon the payment of half-a-crown. The matrons to whom we have alluded immediately withdrew their names, and consulted the heads of the medical profession, pointing out the risk of allowing nurses to be formed into an organised body under the control of any layman, however philanthropic or sincere. The danger of any disturbance of the harmony which should always exist between medical men and nurses, and the prejudicial effect which such a rupture would have on the interests of the sick, were clearly foreseen. The British Nurses' Association was therefore formed, H.R.H. Princess CHRISTIAN becoming its President, and at a well attended meeting held at St. George's Hall in February of last year it was announced that English nurses, for the good alike of their profession and of the public, desired to be formed into a united body under the sole control of the medical profession. As a first step towards this, it was resolved that a Royal Charter should be sought to incorporate the Association upon an unalterable basis, and also to authorise the formation of a legal register of trained nurses. It was determined that for twelve months, as a matter of mere justice to the thousands of estimable and skilful nurses who commenced to work before training schools and certificates were established, the Association should admit to the benefits of its membership women who had worked for three years or more in constant attendance upon the sick, provided that, if they possessed no certificate, the fullest proofs should be given, by personal or written testimonials, of their professional competence and their personal character. We understand that the members are elected by the Executive Committee, which comprises many well-known medical men and hospital matrons, after most careful scrutiny of their qualifications in these particulars, and that, as a matter of fact, very few nurses have been admitted who do not possess some well-recognised certificate of training. It is easy to imagine, however, what vials of wrath would have been poured over the Association if it had decided at once to exclude from its membership all those who from age or poverty had never had the opportunity of passing through a training school. It is evidence of the straits to which the opponents of the Association are driven to find arguments against it, that they should accuse it of attempting to bring all nurses to one inferior level, because it has admitted a few uncertificated nurses as members at the commencement of its career. We are informed that now, after less than eighteen months' existence, the Association has enrolled 2500 nurses, including the matrons of half the large hospitals in England, besides a large number of influential medical men in all parts of the country; that branches are being formed in the colonies; and that leading nurses in the United States have adopted its constitution as a model whereon they hope to found a similar organisation for American nurses. It is needless to add that the Association has been unprecedentedly successful.. The views held by the Association upon the question of the legal registration of nurses may be thus succinctly stated:—

1. There is at present no means of preventing any woman, however ignorant of the duties or responsibilities of nursing she may be, from proclaiming herself to be a trained nurse and obtaining employment as such, to the discomfort, if not the danger, of the patient, and to the frustration of the best efforts and the probable discredit of the medical attendant. 2. There is at present no check against any certificated nurse who may prove herself unworthy of trust, or has been even convicted of crime, from continuing to obtain employment upon her certificate of professional knowledge. To remedy these undoubted evils the scheme which is proposed by the Association is simply as follows. 1. That a Royal Charter should be obtained, authorising the formation of a register for nurses under the control of an influential registration board of medical men and hospital matrons. 2. That upon this register should be entered the names only of those who hold certificates of efficiency, their addresses, the date of their registration, and the name of the Nurses' Training School which granted the certificate. (There is, therefore, not the slightest intention, it appears, of interference with these authorities, as the opponents of the Association are never tired of declaring. These institutions train, they examine, they certificate their pupils already.

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Will Dr. SANSOM seriously assert that the effect of the Medical Register has been to "level down" the different qualifications thereon enrolled to one inferior grade? If not, how can he expect that a nurse's register would produce such an effect upon the certificates of different training schools?) 3. That from this register should be removed the name of anyone who, after the fullest and most impartial inquiry, should be considered by the Board to have shown herself unworthy to be trusted as a nurse. (Will Dr. SANSOM assert that such a measure of protection as this should not most undoubtedly be afforded, both to the public, to medical men, and to nurses themselves?) 4. That the register should be published yearly, so that the authoritative information it would contain should be readily accessible to all. Dr. SANSOM suggests that the public might choose a nurse from the register without consulting the medical attendant. Does he not see that, even were such action taken, a nurse would be engaged who would be under professional control to an extent impossible of attainment at present? Is he not aware of the facility with which nurses discharged for drunkenness or disobedience or other faults from one institution can now obtain employment at another on the strength of some previous testimonials or a certificate of training? Dr. SANSOM complains of our statement that those who oppose this professional scheme are in "an altogether untenable position." We repeat our conviction that their position cannot be defended for a moment. They are aware—or they have no excuse for their ignorance, for it is no secret—that an undertaking, founded by the same official of the Stock Exchange to whom we have previously alluded, has already obtained the necessary legal powers to open a register for nurses; and that this gentleman, whose good intentions we do not question, has publicly announced that, if the British Nurses' Association fails to gain its charter, the work of registration will be undertaken by his company. It is needless to point out, on the one hand, the enormous inducement a scheme of registration under such auspices offers to women who are anxious for organisation, and protection both from unskilled competition and from the black sheep within their ranks; and, on the other, the inevitable dangers to the medical profession and to the sick public if the nursing profession of the future is to fall under the management of an undertaking, necessarily independent of professional control or criticism. To all thoughtful men it is clear that registration of trained nurses is wise and necessary and absolutely certain to be enforced. Those who are working to defeat the proposals of the British Nurses' Association are surely aware that, were they successful, they could not delay this measure of protection to the public and of justice to the nursing profession. It is evident that they would merely transfer the control of nurses as an organised and therefore powerful body entirely out of the hands of medical men and into the hands of a lay undertaking. If such a disaster were to occur, the opponents of the British Nurses' Association would speedily discover the opinion formed of their action by medical practitioners throughout the kingdom.

THE defence of special hospitals has been incidentally the subject of public discussion in the Sheldonian Theatre at Oxford. The audience was academic. It was presided over by the Dean of CHRISTCHURCH, and included Sir JAMES PAGET, on whom reliance was chiefly placed for advocating the special claims of the Oxford Eye Hospital. The Dean of CHRISTCHURCH spoke with proper caution. He was not there, he said, to advocate the extreme subdivision of hospitals, but he believed the Eye Hospital was one in favour of which an exception ought to be made. There can be nothing but concurrence in his chief contention that we ought to try to reduce blindness and all defects of sight to a minimum, and that such work among the poor was true charity. The advantage of doing such a work in a separate hospital is of course a distinct question. It is pleasant to notice that Sir HENRY ACLAND was present, and seconded, in characteristic style, the chief resolution, "commending the work of the Oxford Eye Hospital to the generous support of all who have at heart the welfare of the poor in the city and in the neighbourhood." He vindicated the establishment of Eye Hospitals as separate from General Hospitals, partly on the ground that he had found that in twenty towns in England having general hospitals there were twenty-two Eye Hospitals; and he dwelt on the extreme care with which the eye and its diseases had been studied in the last fifty years. Sir JAMES PAGET, who arrived in the course of Sir HENRY ACLAND'S speech, delivered, as we have indicated, the principal defence of a separate eye hospital. It is needless to say that Sir JAMES PAGET made out the best case possible for a separate eye hospital in Oxford. The experience of nearly a century had proved, he said, the utility of eye hospitals, especially that of Moorfields—the best amongst all ophthalmic hospitals—whose good work it would be difficult to estimate, and which had promoted good work throughout not only this country but Europe. He dwelt on the many relations of the eye and its structure to many sciences, and the way in which it repaid special and precise study, eulogising highly Sir WILLIAM BOWMAN, as in his time "the most accurate, the most precise, the most far-searching of all anatomists," as a teacher of the whole range of anatomy, and from being that becoming the most successful and perfect of eye surgeons of the day. Coming to himself and his relation to ophthalmic work, Sir JAMES PAGET spoke with great modesty, but most interestingly. In his early practice he did his fair share of the treatment of eyes; but before eight or ten years were over he found his time so engrossed with other subjects that he could not compete with those who were giving ophthalmic work all the attention it deserved, and so from that time to this he had not "seen an eye." He, however, carefully abstained from defending all sorts of special hospitals. He plainly intimated in regard to them that the question often arose whether they were created for the advancement of knowledge or of those who were to be their medical officers. "He could not, and he would not, venture to speak on special hospitals in general," but he had no difficulty in speaking, and apparently quite favourably, of the existence of an eye hospital in Oxford.

The profession generally has fully recognised the advantages of specialising the study and treatment of eye diseases. The organ itself so invites observation, it is of such exquisite importance and interest, and its ailments are so frequent and serious, while their treatment is often rewarded with

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such brilliant results, that by common consent it is entitled to special study. But Sir JAMES PAGET himself supplied the checks to any abuse of these considerations for multiplying special hospitals. He carefully told his audience that even the first surgeons of the Ophthalmic Hospital, such as Sir WILLIAM LAWRENCE and Mr. TRAVERS, had never separated themselves from general surgery in its widest range, and that even now most of those who were surgeons of the eye hospitals of London were also surgeons at the general hospitals. The same is largely true in the provinces. The eye in its diseases, we all know, reflects largely the constitutional diseases of the body—and without knowledge of these an ophthalmic surgeon would make the greatest mistakes.

We cannot admit that anything was said at the meeting to show that the ophthalmic work done in Oxford at the Eye Hospital could not be done as effectually at the Radcliffe Infirmary, thus saving money and gathering under one roof the hospital practice of the city. This is certainly the tendency of things in London, where nearly all the general hospitals have their special departments, and where the surgeons of the Ophthalmic Hospital very generally hold ophthalmic appointments in general hospitals. But at the very least we have to gather from this meeting at Oxford that the arguments adduced do not go beyond the case of eye hospitals, and that even for them now the case is not nearly so strong as it was, seeing that general hospitals provide specially for the treatment of eye cases.

Annotations.

"Ne quid nimis."

ROYAL MARRIAGES.

THE betrothal of the eldest daughter of the Prince of Wales to a Scotch nobleman, to which Her Majesty has just given her sanction, has been received by the country with much satisfaction. Her Majesty and the Prince of Wales have, by this engagement, evidently recognised the spirit of the times, and have acted on what has been for some time a growing national sentiment. No people feel more strongly than the English the undesirability of repeated marriages of blood relatives; but, in the case of Royal personages, it has been thought that diplomatic interest should overrule the disposition of nature. As our own great poet says, "Marriage is a matter of more worth than to be dealt in by mere attorneyship," for "what is wedlock, if forced, but a hell." In Royal alliances this cannot be too strongly borne in mind. Now that the admission of members of our aristocracy into relationship by marriage with the Royal Family is admitted in principle, and has already been established in fact, and is shortly to be repeated, it naturally opens the question how far, on diplomatic grounds, it would be prudent to act on the same principle in the case of the sons of the Prince of Wales, and especially his eldest son. Why should not the young Prince be allowed to find a wife from among the daughters of our own nobility, or even commoners? Finer, fairer, or better examples of the human race are not to be found. If Prince Albert Victor should choose from among these, it is to be hoped that the good sound sense of H.R.H. the Prince of Wales will prevail on Her Majesty to give her assent. For a young man to be thwarted in a choice which is the offspring of a natural affection, for imperial and diplomatic reasons, is apt to kindle waywardness, and is, as Shakspeare says, "a deadly banishment." Imperial interests no longer make frequent Royal marriages of consanguinity desirable, and nature will be more and more violated by their repetition.

SHOULD THERE BE A HOSPITAL FOR BRITISH LEPERS?

AMONG the recommendations of the executive committee which have been accepted by the committee of the Damien Memorial Fund is one to the following effect: That a fund be formed, the interest of which shall be devoted to the medical treatment and care of indigent British lepers in the United Kingdom, and that the application of such fund be placed in the hands of three trustees, and that these trustees be appointed—one by the Royal College of Physicians, one by the Royal College of Surgeons, and one by the general committee of the Father Damien Memorial Fund. This is so far satisfactory, as it seems to show an abandonment of the idea of endowing a British hospital for the accommodation of British lepers, or wards in a hospital. But we are still of opinion that it will be a great mistake to spend any material proportion of the fund in providing a hospital, or even wards in a hospital, for "British lepers." There are scarcely any such to be found, and it would be absurd to draw other lepers from remote corners of the earth to seek the doubtful benefits of such accommodation. We venture to suggest that this part of the committee's proposal should be absolutely abandoned, and that the money raised should be devoted to the personal relief of lepers and investigations into the nature and treatment of leprosy in our possessions abroad, where it really is a most serious and pitiable calamity. The retention of such a doubtful proposal in the scheme of the committee will seriously hinder subscriptions, which we should greatly regret.

THE EFFECTS OF FEAR ON THE DEVELOPMENT OF HYDROPHOBIA.

IN a "Review of Therapeutics" published on the Continent some instructive examples are given showing the influence which the mental attitude exerts, or may exert, on the development of hydrophobia in persons who have been bitten by animals really or presumably rabid. It has, indeed, been declared that the increase of mortality from hydrophobia of late years is due far more to the generally diffused dread of the disease than to any increase in the number of rabid dogs, and that fully four-fifths of the persons who are returned in official lists as having died from hydrophobia have really succumbed to "nervous hydrophobia" or "lyssophobia." A striking instance of this is preserved in the records of the Montpellier Academy. Two sisters were bitten by a dog that was rabid, or supposed to be so. One of them went away immediately afterwards to Holland, and remained there for ten years without developing any of the symptoms of the disease. At the end of that time she returned and made inquiries about her sister, of whom she had heard nothing during the whole time she was away. She then heard that she had died shortly after they had parted from one another. This brought back to her remembrance the circumstance of the bite, which she seems to have forgotten; and, believing that it must have been the cause of death, she was seized with such great alarm about herself that she was attacked with a malady which was very much like hydrophobia, and died in a terrible fit. As, according to Trousseau, the effects of the virus of rabies only endure for a single year, this death at the end of ten years must have been due to spurious or nervous hydrophobia. Again, a gentleman's dog bit a number of sheep while out for a walk with his master, and the same day, while swimming a river, the animal got drowned. Shortly afterwards the gentleman was informed

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that several of the sheep had died, and he then remembered that the dog had been licking his hand the same morning that it had bitten the sheep. He fancied, too, that he could detect some small scars on his hand. He was seized with fright, and did not dare to touch water or to shave himself. He fully believed he had got hydrophobia, and took to his bed and was quite delirious for some days. A medical man did his best to calm his fears, but without success; however, after being repeatedly assured that if he had been the subject of hydrophobia he would have died at once, he took courage and recovered. Not only may the real disease be simulated by the nervous imitation of it, but, in some instances at least, it would almost seem that the true disease, even after it has begun to show itself unmistakably, may by the persistent effort of the will be shaken off. It is reported that Dr. Barthélemy, a well-known French physician, was one day bitten by a dog, and, though the wound was immediately cauterised, felt, some ten days afterwards, the commencement of throat spasm and difficulty in swallowing, which suggested to him that he had been seized with hydrophobia. He made up his mind to carry on his avocations as usual, and to go to the theatre and into society just as if nothing had occurred. He did so, and six days later the last signs of the terrible symptoms entirely disappeared. Another instance is given of a scientific man who, after being bitten by a rabid cat, experienced pains in the arms and spasms in the throat. He, too, made up his mind to face the matter like a man and to brave it out. He consequently went out hunting, and, although the pain in the arms was excruciating, he walked about during the whole afternoon. In the evening he was better, and by the end of the week he had quite recovered. The article referred to points out that men of undoubted courage have doubtless succumbed to the disease, but that, nevertheless, to put a bold front on and face the matter out greatly increases the chances of safety.

THE LOW DEATH-RATE IN LONDON.

THE remarkable decline in the death-rate of the huge aggregation of urban population in London continues. The Registrar-General reports that the annual death-rate in the London population during the thirteen weeks of the second quarter of this year was as low as 16·0 per 1000, against 18·0 and 16·9 in the corresponding periods of 1887 and 1888. The death-rate in London in 1888 was far the lowest recorded in the metropolis since the commencement of civil registration; and yet during the first half of this year the annual death-rate was 17·8 per 1000, against 19·5 in the first six months of 1888. In connexion with all vital statistics of large towns, there is at the present time an unpleasant element of doubt arising from the fact that it is now more than eight years since the last census was taken in England, and that consequently we have no accurate and trustworthy knowledge of the present population of our towns. The Registrar-General estimates, on the doubtful hypothesis that the metropolitan population has increased since 1881 at the same rate that prevailed between the two censuses of 1871 and 1881, the present population of London to be rather more than four and a quarter millions, and it is upon this figure that the official death-rates are calculated. It is, therefore, quite possible either that the present population of London is over-estimated and the death-rate under-stated, or that it is under-estimated and the death-rate over-stated. Experience, however, has shown the rate of increase of the London population to have been very steady in previous intercensal periods; and on other grounds there appears to be no good reason to doubt the approximate accuracy either of the present official estimate of population or of the recent death-rate. That it has been abnormally low, and that its decline has been continuous in recent years, is indisputable, although more authoritative facts as to the present population of the metropolis, as well as of other towns, would add materially to the confidence inspired by the calculated death-rates. The recent low death-rate from zymotic diseases, as well as the decline of infant mortality, moreover, corroborate the assumption, based upon the low death-rate, that continuous improvement in the health condition of the metropolitan population is in active progress. The annual death-rate from the principal zymotic diseases in Registration London in the thirteen weeks ending last Saturday was 1·9 per 1000, and very considerably below the average, notwithstanding the epidemic prevalence of measles during the greater part of the quarter. Not a single death from small-pox has occurred among the population of London since the beginning of the year, and the mortality from enteric fever and from scarlet fever was considerably less than half the corrected average. The recorded deaths from whooping-cough were also considerably below the average; and the deaths attributed to diarrhœa only showed a slight excess in the last week or two of the quarter in consequence of the high temperature. The only zymotic disease which considerably exceeded the average during last quarter was diphtheria, which caused 318 deaths, against 188, 193, and 226 in the corresponding second quarters of 1886, 1887, and 1888. The rate of infant mortality, measured by the deaths under one year of age to registered births, was 120 per 1000 last quarter, and 5 below the exceptionally low rate that prevailed in the corresponding quarter of last year. Such facts as these place beyond doubt the fact that the mortality of the London population during the first half of this year has been unprecedentedly low.

PREVALENCE OF VENEREAL DISEASE IN THE ARMY DURING 1888.

ON the motion of Mr. Cavendish Bentinck, M.P., a return was prepared showing (1) the ratio of admissions into hospital and of constantly sick in hospital per 1000 of strength of troops serving in the United Kingdom during the year 1888; (2) the ratio of admissions into hospital for primary venereal sores and gonorrhœa per 1000 of strength of the troops at certain large stations in the United Kingdom (formerly under the provisions of the Contagious Diseases Acts) during the year 1888. From this it appears that the ratio per 1000 of primary syphilis was 93·2, that of secondary syphilis 40·2, and of gonorrhœa 91·1 respectively, making a total ratio of 224·6 per 1000 of admissions for venereal disease during the year. The ratios of men constantly sick from these diseases were—primary syphilis 8·20, secondary syphilis 3·92, and gonorrhœa 6·06 respectively, or a total of 18·19 per 1000. Turning to the second part of the return, we find that the ratio of primary sores and gonorrhœa in the districts formerly under the Contagious Diseases Acts varied considerably. The total ratio was 99 per 1000 of primary venereal sores; 85 per 1000 of gonorrhœa. The highest ratios are those of Portsmouth, where that of primary sores was 170, and of gonorrhœa 132 per 1000. The next highest were those of Devonport and Plymouth; primary sores 134, gonorrhœa 109. At Windsor the ratios were 104 and 90. At Shorncliffe and Colchester the ratio of primary sores was the same, 97; the ratio of gonorrhœa was in the former place 56, in the latter 107. At Winchester, primary sores were in the ratio of 39, and gonorrhœa 73; at Canterbury, 87 and 79; in Cork, 68 and 98; at the Curragh, 55 and 57. At Maidstone there were no primary sores; gonorrhœa was at the ratio of 46 per 1000. It has been often said that statistics can be made to prove anything, but this cannot be said of such returns as these, which are simply a summary of facts which cannot be gainsaid. It is a serious reflection that out of every 1000

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admissions into hospital last year, 225, or more than one-fourth, were for venereal diseases. It is still more serious to realise the fact that since the Acts were repealed the ratios have much increased, being, in fact, double and treble those of former years when the Acts were in force, and diseased prostitutes were sent to hospital till they were cured, instead of being permitted, as they now are, to spread these diseases broadcast.

LEICESTER AND ITS SANITARY ADMINISTRATION.

THE recent proceedings of the Leicester County Council are very disappointing. They indicate a lack of appreciation for skilled scientific work, an attitude which has culminated in a refusal to grant any increase of salary to Dr. Tomkins, their medical officer of health. It was pointed out by a minority that since Dr. Tomkins has held that office the borough had increased in population, a number of additions had been made to his duties, and also that the sanitary state of the town had largely improved. But, on the other hand, it was contended that the good results achieved had been brought about by the action of the Sanitary Committee; and although one member of the Council reminded his fellows that the success of the committee's proceedings was largely due to the advice of their skilled officer, it soon become evident that a majority altogether failed properly to appreciate the character of the services which have now for some years been placed at their disposal; indeed, as Alderman Wright informed them, they seemed to think that they could have done as well without any medical officer of health at all. During the discussion it was hinted that Dr. Tomkins might possibly seek a post where services such as he is capable of rendering would be more fully appreciated, and although the requirements of Leicester are peculiarly such as call for matured scientific knowledge on the part of a medical officer of health, no one can hereafter blame Dr. Tomkins if he acts upon the suggestion which has been made. A very similar attitude was adopted by the Corporation towards Dr. Ballard's report on Summer Diarrhœa; they seemed almost indignant because Dr. Ballard's practical suggestions, as they understood them, contained nothing novel, and did not go beyond the advice already tendered to them by Dr. Tomkins, a view which indirectly contained a high compliment to their own health officer. One member felt strongly that, whereas the people of Leicester had asked for bread, nothing but a stone had been given them; indeed, "they did not want to know how to cultivate bacteria." We could have wished for better things from a town such as Leicester, where scientific interests may be said to centre in the matter of the prevention of one of our most fatal diseases; one, too, which most observers hope to see practically eradicated as the result of efficient sanitary work based on sound scientific principles.

A SUBALPINE "VICHY."

A MINERAL WATER, possessing all the therapeutic virtues of the famous Vichy source, has lately been discovered in the Borgata Madonna del Pilone near Turin, in the grounds of the Villa Gandolfi. Signor Gandolfi, from whom the demesne takes its name, was, before his retirement, one of the leading pharmacists of Piedmont, and he had already persuaded himself that the spring above referred to would prove a formidable rival to Vichy, when Dr. König, of the Stazione Agraria, in co-operation with the well-known balneologist, Dr. Vinoj, and Baron Gamba, himself a physician and president of the Institute for Rachitic Children, came to confirm his analysis. Bicarbonate of magnesia, of soda, and of lime, phosphate of iron and chloride of sodium, nitrate of potash and nitrate of soda, are richly represented in the spring water and in very nearly the same proportions as at Vichy. Baron Gamba within the last few weeks has been experimenting with it in the hospital over which he presides, and other physicians have tried it in cases of gastritis, rheumatism, rheumatoid arthritis, and in oligæmia, all with highly encouraging results. Signor Gandolfi has, accordingly, undertaken to construct on his estate an establishment on lines similar to the Vichy one, and, aided by the medical school of Turin, he will ere long have succeeded in adding another to the therapeutic springs of Europe at which patients may follow out their cure under every advantage of professional advice and personal comfort. Thus early have the resolutions carried at the Bologna Congress in October last begun to bear fruit, and before the century closes we may find Italy proving as prolific in mineral waters as she has hitherto been in health resorts for the phthisical and the brain-weary.

CRIMINAL TRIALS IN ENGLAND AND SCOTLAND CONTRASTED.

THE mode of procedure in criminal cases in Scotland differs very materially in several important points from that pursued in England. Speaking generally, the Scotch method is simpler, more exact, and probably much less expensive than that on this side of the border, having the additional advantage of saving much trouble and inconvenience, not only to all concerned, but to others who, were the case an English one, would also be pressed into the service. The contrast is apparent in every case, however simple; it is enhanced in all *causes célèbres*. In England, in cases of murder, there is the double inquiry before the coroner and magistrate, the consideration of the case by the grand jury, and, lastly, the trial before the judge and assize jury. Thus three different sets of jurors inquire into the same case in addition to the magisterial inquiry. In Scotland, the inquiry is conducted by the Procurator Fiscal before the sheriff or magistrate, who commits the accused to trial. The body is identified by three witnesses in the presence of the medical examiners before the post-mortem examination is made, instead of, as in England, before the coroner and jury. The documentary evidence, called in England depositions and in Scotland precognitions, is in the last-named country transmitted to the Crown counsel in Edinburgh, who determine on the propriety of a prosecution, and who have power to terminate the proceedings and liberate the prisoner, to remit the case to an inferior judge for immediate trial, or to direct the accused to be detained for indictment before the higher courts. In other words, the Crown counsel discharge the functions of grand jury, in addition to their other duties. Then comes the trial either at the High Court in Edinburgh or at the Circuit, analogous to the English Assize, where for the first and only time does a jury inquire into the case. The superiority of the Scotch procedure must be apparent. Such was the work of procedure in the cases of Madeline Smith, Pritchard, M'Lachlan, Chevallier, &c., and it has never been asserted that justice has been defeated by the absence of the triple jury system. Contrast this with the procedure of a case now *sub judice*. The coroner's inquest extended over four or five days; the magistrates' inquiry over two entire days. There is still the grand jury, before whom any or all of the witnesses may have to appear, and the final trial before the judge and jury. The witnesses are numerous and the costs will be very heavy, being made proportionately more so by this multiplication of tribunals. The English mode of proceeding to administer justice certainly admits of improvement, being cumbrous, superfluous, costly, and inconvenient. Only those who have been medical witnesses at trials, who have had experience

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of what "going before the grand jury" means, and who are familiar with the wretched accommodation provided for witnesses, know fully the horrors of an "assize case"; but others are perfectly willing to take this for granted, and to decline to perform a post-mortem examination which may lead from the Coroner's to the Assize Court, held perhaps at a distant town. Some modification of the present system in England and its adaptation to that of Scotland would be in every sense of the word an improvement, and a welcome relief to those who are at present liable to be called as coroners' or grand jurors.

CONCURRENCE OF MEASLES AND CHICKEN-POX IN THE SAME SUBJECT.

THE concurrent appearance of two of the exanthemata is sufficiently rare to have led some to question whether it is possible for an individual to be attacked simultaneously with two specific diseases. To be sure, there is no *a priori* reason against such a phenomenon, since it is conceivable that more than one virus may be introduced into the body at the same time; but there has been an impression that the presence of one such disease excludes the possibility of the other being also present. Every now and then, however, cases are recorded which refute such objections, and at a recent meeting of the Paris Clinical Society Dr. J. Comby read notes of a case (*La France Médicale*, No. 72) where a child of two years of age was attacked simultaneously with measles and varicella. On the third day of the child manifesting febrile and catarrhal symptoms there was a vesicular eruption on the forehead and back, some of the vesicles being umbilicated. There occurred also erythematous patches and a miliary rash scattered over the trunk and limbs; whilst the skin of the face was uniformly reddened, almost erysipelatous, the eyelids œdematous, the nares obstructed, the tongue coated, and the velum palati reddened. There was a frequent cough, and abundant râles throughout the chest. On the fifth day of the eruption the measles rash had faded, being replaced by desquamation, whilst the "varicellar" eruption still persisted, the vesicles not showing signs of desiccation, as if the presence of the measles rash had caused a retardation in the usual evolution of the vesicles, which were not fully desiccated until another week had elapsed. There was considerable bronchitis, also some otorrhœa, and, lastly, a transitory anasarca, without albuminuria.

A WARNING FOR THE BATHING SEASON.

EXPERIENCE forbids us to imagine that the bathing season can come and go without exacting its never-failing tribute of human life. Among the numerous causes of accidental drowning it may be instructive to consider some of those which are mainly or entirely personal, and so far preventable. Chief among these, we need hardly say, is cramp. To a large extent this is practically identical with fatigue, for it is not the fresh and vigorous muscle which most readily passes into spasm. It is that which is wearied with over-action, in which effete products are in excess, nutrition consequently impaired, all molecular changes languid; where, finally, the movement of contraction, once initiated, gives way but slowly, and tends to linger and become tetanic. The numbing influence of cold is another well-known obstacle to muscular activity, and for this reason it is not as a rule advisable to remain more than a few minutes in the water. Malnutrition of muscles is a factor which ought not to be forgotten. It supplies a reason why bathing very soon after a meal is not advisable, much of the blood required for muscular exertion being then diverted to the digestive organs. So likewise must it impose a check upon the rashness of those, adult and youth alike, who after a period of town life, with little physical exercise, find themselves at the coast, and insist on trying whether with jaded energies they cannot safely accomplish feats of swimming. Yet one more caution. This is that every bather should know the state of tide, the currents, and the ground. Unless he is thus careful, he may find himself at any time confronted by unexpected dangers, the end of which it is impossible to foresee. It may seem ridiculous to urge that only those who really can swim should bathe in deep water, yet neglect of even this precaution is by no means uncommon.

THE ART OF EATING.

THERE is little if any doubt that cooking has been employed by man in the preparation of food from the remotest ages. It is probable also that empirical ideas of what conduces to comfort in diet early formed the basis of a gastronomic art not without some relation to physiological truth. It has been reserved for later times, however, and for civilised man, to discover and formulate a regular method of dining. By a process of natural selection, the work of elaborating this system has in great measure passed into the hands of our French neighbours, who have thus been able to develop an art characteristically their own. Our simpler national customs relating to the table have, in common with those of most other peoples, attracted less attention, though it is not likely that they will ever disappear. It is needless here, however, to discuss in detail each local peculiarity. We should rather aim at understanding those common principles which underlie all rightly constituted systems, and give to each its value as an aid to wholesome nutrition. The time of eating is a matter of no small consequence. This is to some extent subject to individual convenience, but we may take it that as a general rule not less than five hours should separate one meal from another. The short interval of rest usual after meals will commend itself as being in strict accordance with physiological necessity. The quantity and quality of food taken also require careful attention, and these again must be regulated by reference to the work to be done by a given person. Some difference of opinion has always existed as to the proper daily allowance of meat. We shall probably do justice to the digestive powers of most persons, however, by advising that only one substantial meat meal be taken daily. More than this would tend, if continued, to overload the tissues with digestive products, and less would hardly suffice for full nutrition. Drink, if alcoholic, should be sparingly taken, or not used at all. Cookery has in these days been elaborated almost to excess. Variety and delicacy are carried to an extreme, and we should probably gain rather than lose if plainness combined with care were adopted as our rule of practice in such matters.

LONDON DUST.

A CORRESPONDENT of a daily contemporary has recently complained of the burning of dust and garbage in North London. We do not doubt that the increase of the metropolis renders the destruction of house dust by fire a necessity, and that this need will increase as London grows. But there is a right and a wrong way of attaining this object, and there appears to be much evidence that this can be accomplished successfully and without nuisance if suitable apparatus be provided. It cannot be expected that dust contractors will provide themselves with proper furnaces for the purpose; London therefore must make arrangements independently of contractors for getting rid of this waste material; if the parishes and district boards fail, they should point out their difficulties, and ascertain whether they cannot receive assistance from the central London authority.

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PHTHISIS IN ARMIES.

ACCORDING to Dr. R. Schmidt of Munich, who has collected a mass of material connected with the statistics of phthisis, the number of soldiers who suffer from phthisis in the German army (excluding Saxony and Bavaria) is 3 per 1000, and the number of deaths from this cause 0·9 per 1000. In the Austrian army the numbers per 1000 are 6·4 and 2·2 respectively; in the Italian army 4·3 and 2·9. In the Russian and French armies only the number of fatal cases is given, which is 12·5 per 1000 in the former and 2·2 per 1000 in the latter case. In the English army, which on account of long service and foreign service is not to be compared with continental armies, the number of cases per 1000 is 11·8 and the number of deaths 6·2. At first sight, one would expect that, as only men who are found on examination to be healthy are taken as recruits, the number of cases of phthisis ought to be very low. As a matter of fact, however, it is, in Bavaria at least, higher than amongst civilians of similar age and sex. The reason of this remarkable circumstance is discussed in an article in the *Koenigsberger Zeitung*. How important a factor direct contagion is the experiments of Cornet show, as well as the fact that hospital attendants fall easy victims to the disease; but Dr. Schmidt believes that the most frequent explanation is that recruits come into the army with a latent tendency to phthisis, and that the conditions under which they are then suddenly placed cause a more or less rapid development of the disease. The knapsack, for instance, appears to have a decidedly prejudicial effect, as is shown by the fact that those regiments which do not wear it present a lower phthisis mortality than those in which it is worn. Again, the diet and the whole regimen of the soldier are, according to Dr. Schmidt, calculated to lessen the power of resistance to the development of phthisis; consequently it is not to be wondered at that a larger proportion of soldiers than of civilians develop it.

M. PASTEUR'S LATEST RETURN.

AT the Academy of Sciences M. Pasteur recently presented a note of the results observed in the Pasteur Institute from May 1st, 1888, to May 1st, 1889 (*La France Médicale*, No. 73). During this period 1673 persons bitten by rabid or presumably (*très suspects de rage*) rabid dogs had been treated, 1487 French and 186 foreigners. Of this number—viz., 1673—118 had been bitten in the head or face. Six persons (4 bitten on the head and 2 on the limbs) had been attacked with rabies during treatment, 4 others were attacked within a fortnight after the close of the treatment. Three persons bitten on the head died after the treatment had been completely finished, and these therefore represent the total cases of failure—viz., in the ratio of 1 in 557. Or, if, "which would be illogical," adds M. Pasteur, to these 3 cases were to be added the 10 above mentioned, there would still be a mortality of only 1 in 128.

ENFORCING SANITARY ADMINISTRATION.

MR. JOHN HAMER, the indefatigable honorary secretary of the Mansion House Council, has called attention to two convictions which have recently been obtained in the London courts. The one relates to the neglect to abate overcrowding, the defendant being committed for fourteen days owing to his omission to pay a fine. The other, which is of considerable importance, is that of the owner of a house who was proceeded against under Section 12 of the Housing of the Working Classes Act, 1885. The plaintiff had lost his wife and three children under circumstances which led the County Court judge to conclude that their illness was occasioned by defective drainage. Assuming the evidence to justify this opinion, the award of £50 damages was not too large; the effect will undoubtedly be to make the letting of tenemented houses a source of risk to landlords unless they are in proper habitable condition. Mr. Hamer has done service in making the facts widely known both in the interest of landlord and tenant.

ST. THOMAS'S HOSPITAL.

ON Thursday evening, June 27th, the Medical and Physical Society of this hospital held a conversazione in the Governors' Hall, when there was a large attendance. The guests, including the treasurer, some of the governors, members of the staff, and friends, were received by the President of the Society, Dr. Hadden. This was the first occasion on which ladies have been present at these entertainments. The band of the Royal Artillery performed a selection of music in the large room, in which were many objects of great interest. Sir Henry Doulton exhibited some valuable specimens of pottery. Pictures by Millais, Holman Hunt, Paul Brill, and rare etchings were shown; also a valuable collection of caricatures lent by the Medical and Chirurgical Society. Dr. Payne showed old herbals and books of old physicians and surgeons of St. Thomas's Hospital. The Medical Society lent specimens of medical works of the fifteenth and sixteenth centuries, also the Common-place Book of John Ward, the vicar of Stratford-on-Avon at the time of Shakspeare, containing the only known reference to the cause of Shakspeare's death. Mr. Anderson exhibited many valuable Japanese bronzes, screens, &c.; also "The Pictorial Arts of Japan." Mr. Eadward Muybridge gave two demonstrations on animal locomotion. The graphophone was demonstrated by Dr. Edmunds, and a short instrumental and vocal concert was given during the evening. Drugs and chemicals recently introduced into medicine, new surgical instruments, various electrical appliances, &c., were also shown. The entertainment was a pronounced success. On Tuesday, July 2nd, at 4 P.M., Sir Henry Doulton distributed the prizes for the past year to the successful students, and congratulated the Dean, Mr. Nettleship, the staff, and lecturers on the prosperity of the School, both with regard to success at examinations and in the inter-hospital athletic contests. Sir Henry Doulton, who is one of the governors of the hospital, has done much to advance its interests and promote the good feeling which exists between the governing body and Medical School.

INTERNATIONAL MEDICAL CONGRESS, BERLIN, 1890.

STEPS are being actively taken to promote the success of the tenth International Medical Congress, which is fixed to take place in Berlin in August, 1890, under the presidency of Professor Virchow. An influential committee has been formed, composed of delegates from the various important medical bodies in Germany, and a meeting of this committee will, on the invitation of Professors von Bergmann, Virchow, and Waldeyer, be held at Heidelberg on Sept. 17th, when, doubtless, it will be arranged to communicate the order of procedure to the medical authorities in other countries.

TETANUS.

THE subject of the pathology of tetanus has been greatly discussed at the Paris Academy of Medicine during the present year. It was further dealt with at a recent congress held at the Sorbonne, in a paper by M. Guelpa, who gave the results arrived at by himself and M. Weber (*L'Union Médicale*, No. 79). These are: 1. That tetanus is an infective disease. 2. There is no rheumatic tetanus in the true sense of the word. 3. The tetanic phenomena are not the direct effect of the microbe or microbes, but of toxic

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agents assisted by these. 4. The microbic multiplication remains confined to the site of entrance of the infection, at any rate during the first symptoms; it being only later, and that but rarely (6 per cent. according to Rosenbach), that any generalisation of the organisms within the body takes place. Treatment, the authors add, should aim at (*a*) the destruction of the bacillary focus; (*b*) the elimination from the organism of the products of the pathogenic microbe; and (*c*) calming the nervous system—e. g., by chloral. They further say that the consumption of meat from tetanic animals should be absolutely forbidden.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE alterations and improvements in the new house in Hanover-square taken by the Royal Medical and Chirurgical Society have been commenced, and the building will be adapted to the needs of the various societies which hold their meetings there. We are glad to learn that an "Endowment Fund" has been started by the Society, which has received from Dr. Quain the liberal donation of £100. As the Society expends the whole of its annual income upon its Transactions and library, and has never before received any pecuniary donation, we think the Council have done wisely in instituting such a fund, which it is to be hoped will, as time goes on, be reinforced by donations and legacies from other Fellows of the Society.

THROMBOSIS OF THE CAVERNOUS SINUS.

AT a recent meeting of the Royal and Imperial Society of Physicians at Vienna, Professor Nothnagel related a case of which the diagnosis was thrombosis of the cavernous sinus (*Revue Générale de Clinique et de Thérapeutique*, No. 26). The patient, a female aged seventy, three years ago suffered from severe pain on the right side of the head, resembling neuralgia of the fifth nerve. Some time later there occurred diplopia and strabismus, which afterwards was succeeded by immobility of the eyeball. There is now closure of the right eye, œdema of the upper eyelid and right cheek, increase of temperature of that side of the face, and attacks of tic douleureux; anæsthesia involving the same region and also the tongue, conjunctiva, and cornea; vascular injection of the conjunctiva; intense keratitis and iritis. These symptoms referable to involvement of the fifth nerve and all the ocular nerves suggested a localised lesion at the base of the brain, and were most likely due to cavernous thrombosis, caused probably by localised chronic meningitis rather than a tumour.

IS THE BATH WHOLESOME?

NOTHING in human affairs has a reputation so fixed that it may not be called in question by someone in a moment of originality. This has happened repeatedly in the case of the daily bath. Some critics, for example, suggest that the bather, in consequence of his very cleanliness, lives too fast, is functionally too active, and that delayed and more gradual excretion would better accord with health. Others appear to think that by daily ablution the skin loses a part, or all, of the protection against weather, derived from its own effete products. Yet the bath not only continues to hold its own, but its popularity increases year by year. As regards amenity, both personal and relative, to one's neighbours, there can be no doubt that this is usually much assisted by a habit of regular bathing. Other advantages are not lacking. Among these are, when cold water is used, the invigorating exercise of the nervous and circulatory systems, the resistance to weather changes, and the tonicity of skin engendered by immersion. Further, it is undeniable that the non-removal of effete matters from the body surface imposes a most unwholesome check upon waste excretion in deeper tissues. It is said that some savage races maintain a robust life in spite of personal uncleanliness; but these tribes, it must be remembered, are exceptionally favoured in regard to fresh air and exercise. It is probable, also, that even they do not thrive as they should, and would, under purer conditions. For civilised men of sedentary habits, the advantage of possessing a clean and freely-acting skin is a virtual necessity of healthy existence.

"THE HIGHGATE APOTHECARY."

IN the recently published letters of Mrs. Carlyle there is a sentence in one of her husband's which it will be interesting to medical men to read. Coleridge, the poet, worn down by intellectual strain and the pernicious habit of indulging in opium, wellnigh penniless, neglected by friends and former patrons, was received into the family of Mr. Gilman, No. 3, The Grove, Highgate, a medical practitioner of considerable local repute, in whose family he lived for eighteen years, and was much esteemed. "Poor Coleridge died on Friday," writes Carlyle; "he had been sick and decaying for years, was well waited on, and, one may hope, prepared to die. Carriages in long files, as I hear, were rushing all round Highgate when the old man lay near to die. Foolish carriages! Not one of them would roll near him (except to splash him with their mud) while he lived; *had it not been for the noble-mindedness of Gilman, the Highgate Apothecary, he might have died twenty years ago in a hospital or in a ditch.*" Distracted in mind, weakened in body, and impecunious—

> "O! who can tell what days, what nights he spent
> Of tideless, waveless, sailless, shoreless woe!"

Estranged from former social enjoyments and neglected by friends, he found in Mr. Gilman's family a haven of rest, such as Cowper, the poet, had found in the family of Dr. Cotton, at St. Albans, under similar circumstances. These instances tend to rivet the attention to the beneficence of the profession, and reflect what in a minor degree may be found in every district of the country. Medical men are thought to be hardened by the suffering their daily vocation obliges them to witness, but it is not so. Authors, artists, literary men of every kind and degree, clergymen, widows and orphans, as well as the poorer portions of the community, could tell how the practice of the medical profession tends, as Watson says, "to temper the feelings and touch the heart."

THE POWER OF THE WILL.

THE will and its influence is a subject which cannot at any time fail to be interesting. It is one which we feel must and does possess a peculiar interest for those who live in the present century, and whose energies are employed in almost any sphere of that work which is its most characteristic feature. A lecture on "The Power of the Will," published recently by Dr. Tom Robinson, and originally delivered at the Working Men and Women's College, should therefore meet with general acceptance, and will be received by no circle of readers more heartily than by those of the class to whom it was first offered. It contains interesting and instructive remarks on the power of will in shaping individual destinies, on its vitality amid the most adverse conditions, on the training of the will in childhood, and on its influence over morbid or vicious moral tendencies. The importance of concentration and purpose in work is well put, and the concluding words, which assert that all have controlling wills whose right use constitutes the best guarantee for a successful future, give a fair idea of the spirit of this useful paper.

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THE HIGH OPERATION FOR STONE IN TIFLIS.

DR. ROSENBAUM gives in the *Meditsinski Sbornik* an analysis of thirty-six cases of stone operated on in the Michael Hospital in Tiflis. The ages of the patients varied from two to forty years, and the weights of the stones from 0·3 gramme to 80 grammes. The number of fatal cases was seven, the stones in these cases weighing from 10 to 35 grammes. What appeared to exercise far more influence on the result than the mere size of the stone was the general nutrition of the patients and the existence of vesical catarrh. Thus five out of the seven patients who succumbed are described as being badly nourished, exceedingly weak, and suffering from a great amount of vesical catarrh. Only one death occurred in a really well-nourished patient, and he had vesical catarrh, the actual cause of the fatal result being an attack of peritonitis.

THE ROYAL COMMISSION ON VACCINATION.

THE second meeting of this Commission was held last Wednesday, when Sir John Simon and Dr. William Ogle, of the General Register Office, were examined. The proceedings were private.

THE Bill introduced by Sir Henry Roscoe to amend the Dogs Act of 1871 proposes to put in force a series of stringent regulations on the subject. The owner of any dog (not specially exempted) that is "permitted or suffered to be at large" in any part of the United Kingdom without wearing a muzzle, "of a form to be approved by the Privy Council," shall be liable to a penalty of twenty shillings; the owner shall also be liable for all "injury done to the person" by the dog, without any proof being required of "previous mischievous propensity" on the part of the dog or of negligence on the part of the owner. Every dog must wear a metal ticket with date and number of licence, the penalty being as before—the seizure of the animal and fining of the owner. Every dog lost shall be reported to the police within three days, under pain of penalty. Any "appearance or symptom" of rabies shall be immediately reported to the police. Every dog seized by the police shall be examined by a veterinary surgeon, and, if condemned, "disposed of under the provisions of the Act," and "the carcase shall be burned."

DR. PELLIZZARI of Florence, the "Ricord of Italy," as he has been called, has been presented by his pupils with a finely illuminated parchment, executed in the Tre Cento style by the great artist in that *genre*, Signor Petri. The inscription on it is as follows:—"To Pietro Pellizzari, Clinical Professor of Dermosyphilopathy in the Florentine School, on the recurrence of the thirtieth anniversary of his course of lectures, this parchment is presented in token of the gratitude, respect, and love of his assistants and pupils."

THE Stratford Bench last Saturday ordered that for two months from that date all dogs permitted to be abroad within the jurisdiction of the court should be muzzled. This order will affect the parishes of Barking, Dagenham, East Ham, Ilford, Leyton, Walthamstow, Wansted, Woodford, and the districts of Chigwell and Loughton. Similar measures have been taken at Oxford.

ACCORDING to the *Revista Médica de Chile*, there has been a serious amount of whooping-cough in the Republic of Chili, extending to all the localities comprised in it. In some cities the number of children who have died from this disease is said to have been several hundreds.

MR. R. CLEMENT LUCAS'S case of ligature of the common iliac artery for aneurysm, mentioned in THE LANCET of June 29th, has continued to make satisfactory progress, and the patient is believed to be out of danger.

W. J. DODDS, M.D., D.Sc. Edin., senior assistant medical officer Montrose Royal Lunatic Asylum, has been appointed Medical Superintendent of the new asylum at Capetown, and Visiting Physician to the asylums of Robben Island, Grahamstown, and Albany.

Pharmacology and Therapeutics.

DANGEROUS CHLOROFORM.

Some chloroform obtained from a highly respectable German firm having aroused the suspicions of operators by the frequency with which patients anæsthetised with it presented grave symptoms, Professor Menthin, of Warsaw, undertook to examine it, along with a number of chloroforms obtained from other firms. The results were that not a single sample entirely answered the tests of the Russian Pharmacopœia, which are somewhat stringent, though less so than those of the French Codex. Professor Menthin—whose article is published in the *Vrach*, giving details and names of the firms from which the different samples were obtained—found that all the specimens left a residue on evaporation, some of these residues being evidently of a very prejudicial character, causing headache and giddiness on prolonged smelling. One of them smelt at first like nitro-benzol with an admixture of tobacco, the odour changing in two days to one like benzoic acid. When heated, this residue gave off an odour resembling burnt indiarubber. One of these samples came from a British firm, and appears to have been by far the best of them all, 39 cub. centim. leaving only a residue weighing 0·0001 grm., and having a transitory smell of malic ether; whereas 49 cub. centim. of one of the German specimens left a residue weighing 0·0022 grm., and of a peculiarly offensive character. Professor Menthin's investigations would seem to offer some explanation of the extreme care taken by some of our continental brethren in regard to the use of chloroform. If much of what is used is as impure as some of the specimens referred to, it is scarcely to be wondered at that the results are sometimes disastrous. The specimen which was the immediate cause of the investigation is stated to have produced in no less than half of the patients such dangerous symptoms that its administration had to be discontinued. To all appearance, however, it was perfectly good, having a specific gravity of 1·487, neutral reaction, containing no free chlorine, and not undergoing any change of colour when mixed with hot sulphuric acid and left to stand for twenty-four hours. The sequel of course shows that these preliminary tests are very insufficient.

MENTHOL IN LARYNGEAL TUBERCULOSIS.

Dr. Osendovski has found menthol, applied locally as well as taken internally, of great value in several cases of tuberculosis, where the inter-arytenoid region was affected, as well as where the vocal cords were ulcerated. Solutions of the strength of from 10 to 30 per cent. were applied by means of a Heryng's brush, and in two instances inhalations of menthol and magnesia were ordered. Except in one case where there was perichondritis, this treatment was followed by the diminution of the inflammation and pain and a cleaner appearance of the ulcers, but not by actual healing. When there is also pulmonary tuberculosis, Dr. Osendovski finds that it is advantageous to combine internal medication with menthol along with the local applications, which, by the way, must be persisted in for some weeks. The best strength to begin with for the local applications is 10 per cent.; this may be gradually increased to 30 per cent., but solutions of greater strength than this usually cause a good deal of irritation.

TREATMENT OF ERYSIPELAS.

Dr. Kohn reports in the *Internationale Klinische Rundschau* a local epidemic of erysipelas migrans of some severity which had broken out in a house inhabited by a hundred people. The following case is specially mentioned. A. L——, fifteen years old, contracted erysipelas migrans. The author prescribed quinine, salicylate of soda, and antipyrin in full doses without any effect in lowering the temperature, which continued between 39·5° and 40° C. He

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also used subcutaneous injections of a 2 per cent. solution of carbolic acid near the limit of the erysipelas, but the progress of the latter continued. Carbolic turpentine and carbolic vaseline were also applied with the same negative results. At last he turned to the plan recommended by Rosenbach of Breslau. He washed the whole surface of the skin well with soap, the affected as well as the non-affected portion, but each by itself; and once a day rubbed a 5 per cent. solution of carbolic acid in absolute alcohol well into the whole of the skin. The result was brilliant; the erysipelatous blush, which had already spread over the face, scalp, chest, and back, quickly passed off, the fever decreased, and in five days the patient had recovered.

THE NEW KINGSTON SEWAGE WORKS.

ON Saturday, June 29th last, the new works for the purification of the sewage of Kingston, Surbiton, and Hampton Wick were opened in the presence of a large number of official and non-official spectators, who were able to inspect the system in active operation. There can be no doubt about the importance of the occasion. The difficulties attendant upon the removal of sewage in the Thames valley are well known, and have for years defied satisfactory solution. They are by no means peculiar to the district, but are substantially identical with those presented in countless other places. As so often happens, there is an increasing population—in this case a wealthy one,—a river which can no longer be polluted, land too valuable and otherwise unfitted for sewage irrigation, and neighbours who decidedly and properly object to the transmission of the nuisance into their territory. It has long been evident that somehow the sewage must be disposed of, and that unless it could be carried down into the metropolitan system some satisfactory local treatment must be adopted. Local treatment is, for the present at any rate, the only one that is possible, and the authorities may claim to have succeeded in their object if they dispose of their sewage without nuisance to their own district, without injury to the river, which must receive the effluent water, and without too great a tax upon the inhabitants.

The proposed solution of this great problem which has, after mature deliberation, found favour with the authorities of the Kingston district, is that which has been offered by the directors of the Native Guano Company. It is, of course, the well-known A B C process which has for years been in use at Aylesbury and elsewhere. We have often discussed the merits of this process, and must candidly confess that, in spite of its manifold advantages, we have been doubtful whether it was suitable for general adoption. We cannot even now say that our doubts are entirely removed, but the recent inspection has certainly produced a most favourable impression, and there now seems fair ground for hope that the system will in many places, possibly even in the metropolitan area, prove successful.

The Kingston works have been erected on a plot of land close to the railway station and river, and just below the railway bridge. They are planned for a population of 50,000, which may be taken roughly as one-hundredth of that of London. The sewage of Kingston and Surbiton, to which will shortly be added that of Hampton Wick, is admitted by meter, and the company is under contract to deal with a quantity not exceeding forty-five gallons per head per day of the population. Of course, this does not provide for storm water, the greatest difficulty in all sewage schemes; but no system is quite satisfactory in this respect. For the sewage to be treated, the plant provided seems to be in all respects sufficient and suitable. Great experience has in the last few years been gained, and important improvements effected in the mechanism of the process. During our visit there was not the slightest local nuisance, for it would be absurd to apply such a term to the faint smell incident to all works in which sewage is dealt with—a smell which could hardly travel outside of the premises, and which, even on an extremely hot day, was hardly perceptible; the effluent water was clear, and fit for addition to any river not used as a water-supply; while the manure—the "native guano"—was inoffensive in the pressed and almost absolutely inodorous in the dried condition. Every precaution against possible nuisance is evidently taken, and, as far as the sanitary aspect of the question goes, it may safely be said that the Native Guano Company, working under the conditions and with the quantities existent at the time of our visit, clarify sewage and render both the effluent and the precipitate innocuous without producing any nuisance in the neighbourhood of the works. As the sewage enters the works, it is screened, measured by metre, and mixed in regulated proportion with the clarifying mixture of charcoal, clay, and blood. Here, as at Aylesbury, the charcoal at present employed is prussiate refuse, but other kinds might easily be substituted. The blood is mixed with a portion of the clay; its quantity is small and its value doubted by some, although by others it is regarded as essential. A few yards further on a solution of sulphate of alumina is added by a well-contrived distributor. It is asserted, with apparent truth, that the former mixture brings much of the organic matter into suspension, while the latter causes its rapid precipitation. Whatever the theory may be, the evident fact is that rapid subsidence takes place, and that as the black stream flows through four successive precipitating tanks, in each of which a baffle wall divides the flow, so much solid matter is deposited that an effluent which looks like pure water passes from the last tank into the river. The sediment is pumped to a sludge well, whence it is forced into filter-presses of improved construction. The cake is then dried in a Borwick's drying cylinder, the fumes being condensed by a scrubber. The dry mass is finally reduced to a powder for sale as "native guano."

The advantages of this system of sewage treatment may be summed up as follows. First, the complete defecation, and, for practical sanitary purposes, the purification, of a moderate and tolerably uniform quantity of sewage, without local nuisance or injury to a river not used as a water-supply. Secondly, the production from human sewage of a really valuable, transportable, and perfectly innocuous manure, in which some part, at any rate, of the fertilising constituents of the sewage is recovered. This is a most important economic and even national consideration, for the time evidently approaches when the demand for foreign fertilisers will increase their price, and so raise a new difficulty for the already overburdened British farmer. Waste of sewage is waste of food-supply, and will sooner or later breed want. Thirdly, and as a minor consideration, it may be urged that such works as those of the Native Guano Company occupy but little space, and can be erected in almost any town at an initial and permanent cost, which can readily be determined. The Mayor of Kingston informed us that the total expense of the new sewage system will be covered by a rate of 4½*d.* in the pound, which will of course diminish as the population increases, and will be greatly reduced after a period of twenty-five years. As a set-off against these advantages, it must be remembered, first, that sewage farming, where practicable, is generally to be preferred to any precipitation system, because it allows of a greater recovery of fertilising material from sewage and a greater variation in the volume of sewage treated; and, secondly, that the value of native guano is still to some extent a matter of speculation. It is admitted that chemical analysis does not support the price that commercial experience has fixed for it, and at which it is said to sell readily. It may well be that in this case analysis is no accurate guide to the real value of the manure, but larger experience will be required before the present price of £3 10*s.* per ton can be maintained for native guano.

FACTORY INSPECTION.

THE annual report of H.M. Chief Inspector of Factories is usually a document of very considerable interest, and this year it quite reaches its accustomed level in that respect. In statistical summaries it is somewhat deficient, and this shortcoming makes the task of getting a general or comprehensive view difficult or almost impossible. But the lively interest which the Chief Inspector and his suffragans take in their work, and the very thorough way in which they discuss the questions which arise for their consideration, go far to compensate the reader for the want of tabulated information. Upon the whole, the impression which the

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present report produces is that the work of factory and workshop inspection is being fairly successfully carried on. In very large measure it is, and of necessity, matter of detail. Only experience can show how dangerous machinery may be most advantageously guarded, or what kind of accident is most to be feared. This, however, though it indicates a large part of the inspector's work, indicates a part only, and not the largest part. Of still greater importance is the protection of the health of the operative by proper sanitary precautions. These for the more part are not matters of experiment and doubt. On the contrary, it is in most circumstances perfectly obvious what is wanted to make an insanitary building perfectly wholesome, and only expense, and sometimes defect of room or faults of situation, stand in the way. For instance, we are much disposed to agree with Mr. Richmond when he says (p. 106): "I see no reason why the workroom of an ordinary tailor should not be as clean as that of a dressmaker of equal standing." The comparison, however, which he goes on to draw abundantly justifies his dictum that at present there is no comparison between them. The same writer, speaking of tailoring establishments in Liverpool says: "I have spent considerable time in visiting, not only the so-called sweating shops, but also the workshops attached to the shops of the master tailors, and I can unhesitatingly state that the comparison is not altogether in favour of the latter—at least so far as Liverpool is concerned. Certainly the worst workroom of all was attached to the shop of a master tailor in one of the chief streets of Liverpool; both as regards light, ventilation, and cleanliness, it was utterly unfit for a workroom for human beings, but as male adults only were employed I could do nothing." It is not alone the workrooms "in which male adults only are employed" that enjoy a bad immunity from effective supervision. Mr. Bowling, reporting on the east of London and adjacent parts, very pertinently asks, "Why are steam laundries removed from our inspection? They are full of dangerous machinery, the work is almost entirely done by women, its nature very trying, and the hours worked excessive." He then proceeds to illustrate this point by the case of a very large steam laundry in his district, where "it was admitted by the manager that the girls in the drying room were worked for months together from 6 A.M. to 10 P.M." He adds, with much point, "I wonder what any medical man would say as to the probable effect of such hours at such work on young women from eighteen to twenty-two. And yet I was powerless to help them."

Of the familiar shortcomings which arise from ignorance, heedlessness, and negligence, this report, like every other of its kind, affords numerous examples. The case of a master who took the inspector with great pride to view his workshop, which was built over a stable, and consisted of a converted hayloft, beneath which lay, at a distance of a few feet, a reeking dung-heap, is a typical case of the first. How largely the latter two contribute to the total result may be gathered from the summarised experience of the Leeds inspector, who contributes one of the very few tabulated statements which the volume contains. In the year 1887 he registered 460 fatal accidents, of which 90 were unavoidable and 370 would have been preventable with greater care. In the year 1888 the total has mounted to 496, and the tale of preventable accidents, rising yet more rapidly, has reached 450, leaving only 46 to be accounted for by causes beyond control. It is abundantly plain that neither the legislative work of Parliament, nor the administrative work of the inspector and his staff, nor yet, again, the educational work of those who have young operatives in charge, can yet be dispensed with. Much has been done, but much still remains to be accomplished along all these various lines.

SOUTH WALES BRANCH OF THE MEDICAL ASSOCIATION.—On June 27th, the annual meeting of this Branch of the Association was held at Swansea, Mr. Fry, of that town, presiding. About fifty members attended. The President opened a discussion on the surgical treatment of wounds. Numerous replies had been received to questions Mr. Fry had sent to eminent surgeons on the various points connected with the subject, which, with the discussion that ensued, exhibited opinions of a very varied character. Mr. W. Price, of Cardiff, was selected as president-elect. The members were subsequently entertained by the President at Caswell Bay.

LUNACY ACTS AMENDMENT BILL, 1889.

A DEPUTATION from the Royal College of Physicians, consisting of the President (Sir Andrew Clark, Bart.), Sir Edward Sieveking (chairman of the Lunacy Bill Committee), Dr. Maudsley, and the Registrar, waited on the Home Secretary on Monday last, the 1st inst., in support of the amendments to the Lunacy Bill, which the committee of the College had agreed to recommend, and which had already been submitted to Mr. Matthews.

The deputation was very courteously received by the Home Secretary, and the President opened the subject of their interview by adverting to the widespread disapproval of the Bill as a whole which prevailed very generally in the profession, and more particularly among those entrusted with the curative treatment of the insane; the intervention of the judge or justice, which is a fundamental principle of the measure, being especially objected to. He pointed out how the dread of publicity, especially in its effects on the future of their children, and which could hardly fail to attend an inquiry by a local magistrate, would lead the heads of families to postpone as long as possible the petition for an order, and thus interfere with the early treatment of patients, on which so much depended. He ventured to express a hope that the Government might see fit to postpone legislation on the subject to a future session.

Mr. Matthews replied that he could give no encouragement to this hope, and that the intention was to proceed with the Bill, and that, with regard to the intervention of the judge or justice, it came with the recommendation of three successive Chancellors, and could not be abandoned.

Sir Andrew Clark then proceeded to address the Home Secretary in support of the amendments. The principal points insisted on were those which have been already set forth in the report of the Lunacy Bill Committee, and in the petition of the College to the House of Commons on the second reading of the Bill. Sir Andrew Clark observed that if an application to a justice, and an inquiry by him, were to be made the condition of the issue of a reception order, it was hoped the inquiry would be as little public as possible, and the time allowed as short as possible. With respect to the provision that the magistrate may visit the patient before making the order if he thinks fit, the speaker pointed out that this is no part of the practice in Scotland, to which it is the avowed intention of the Bill to assimilate that of England. Referring to the section of the Bill which provides that the alleged lunatic may have a personal interview with a judge or justice after his reception, Sir Andrew Clark insisted on the unsettling and injurious effect this might have on the patient's mind, and pointed out how undesirable it was that the duty of refusing permission should be thrown on the medical superintendent. In this contention he was ably supported by Dr. Maudsley, and the hope was expressed that this section of the Bill might be abandoned, more especially as sufficient provision is already made against the needless confinement of patients by the periodical visits of the State-appointed Commissioners. In the matter of "single patients" in private houses, both the President and Dr. Maudsley insisted with much force on the undesirability and injustice of placing the houses of medical men in an exceptional position in this respect, by requiring an order from a judge in lunacy before a patient can be received. They also pointed out that this "boarding out" under proper care of two or three patients should be rather encouraged than hindered, and that, in view of the gradual abolition of private asylums, the development of this system offered the best opportunities of future progress and improvement in the care and treatment of a large class of insane patients. Lastly, the proposal to establish a monopoly of existing private asylums was strenuously opposed on the grounds of public policy, and free competition was advocated. The impression left on the mind of the deputation was that the Home Secretary himself scarcely considered this provision of the Bill as defensible in principle.

Sir Edward Sieveking, fully endorsing the statements made by the President of the College of Physicians, dwelt upon the unanimity of the profession in its objections to the Bill in its present form. Giving full credit to the framers of the Bill for their desire to meet the necessities of the case, he ventured to suggest that as the College of Physicians had

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the benefit of the community and the welfare of the patients specially at heart, it would be most desirable that, to ensure a perfectly satisfactory result, conferences should take place between the legal and medical representatives of opinion before the passing of the Bill.

Mr. Matthews expressed his satisfaction at having had an opportunity of hearing the opinions of representatives of the medical profession so well informed on the subject as the members of the deputation, and his desire to give full consideration to the views they had expressed. The deputation then thanked the Home Secretary and took their leave.

It is hoped that, although the leading features of the measure will probably be retained, some small concessions may be made in response to these representations, which will have the effect of modifying the more objectionable provisions of the Act, and of facilitating the working of it.

THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

Sanitary Accommodation at the Exhibition.—The Housing of the Poor International Congress.

FROM the sanitary point of view the most practical exhibit is undoubtedly that of Messrs. Doulton and Co., for they have fitted up all the closets available to the public. There are at present thirteen châlets, some with twenty-eight closets, others with less; but in all there are 250 closets. This is not sufficient, and more are being constructed; but the inconvenience through want of sufficient accommodation is in the main due to the thoughtlessness of the public. The châlets just by the Eiffel Tower, the main entrance, or Porte Rapp, and in the main body of the building, near the nave leading to the central dome, are often thronged with people. But a little further on, between the machine gallery and the École Militaire, there are four châlets, and on the Quai d'Orsay, between the Champ de Mars and the Esplanade des Invalides, there are two more châlets, which are often quite deserted. The public should take some account of the difficulties of the case, and not crowd together like sheep on the same spot. Messrs. Doulton and Co. have had the excellent idea of causing several hundred thousand little plans of the Exhibition to be published and gratuitously distributed, so that the public will better be able to avoid crowding all in the same direction. In any case, crowd or no crowd, it must be recognised that the closets are admirably constructed and flushed; for, in spite of the very severe trial to which they are exposed they give rise to no nuisance. The French administration is well pleased with the neatness, brightness, and cleanliness of these installations, though sometimes they stint a little the supply of water; this of course is a fatal mistake. Messrs. Doulton's sanitary exhibits are to be found in the machinery gallery, and among these should be noticed a closet with a separate flush for the trap of the overflow pipe from the pan. This is an important improvement, as it often happens that the water in this minor trap does not get changed with sufficient frequency or thoroughness. The simplex Hopper closet also merits attention. The peculiarity of this closet is that the entrance into the syphon is pinched so that the water bursts through with greater violence and cleanses better. There is also here a bath water-heater, with automatic regulator for turning down the gas when the water-supply fails. Thus explosions are avoided. This is done by means of a float valve in a small separate cylinder which is in connexion with the gas cock. As the water falls into this cylinder the floater presses on the cock and turns out the gas. Of course there are among Messrs. Doulton's exhibits many other things of interest to the sanitarian, but these are for the most part already familiar to our readers; and after all, as mentioned above, the best of all exhibits is the practical tests to which the closets are put in the Exhibition châlets.

The first of the Social Economy Congresses has just terminated its labours; it dealt with many questions of great importance to the sanitary reformer. There were representatives present from France, Belgium, Germany, Austria, Denmark, Spain, England, and the Brazils, and communications had been received from Japan and Russia. Among the honorary presidents elected were Señor Canovas del Castello, recently Prime Minister in Spain, the Lord Mayor of London, and Sir Sidney Waterlow. The active presidency, however, devolved on M. Jules Siegfried, member of the National Assembly, who, in his opening speech, congratulated the Congress on its numerous adherents. Now that the struggle for existence was becoming more and more keen, the necessity of providing the workers with such home comforts as would combat and triumph over the temptations of out-door dissipations would become more and more urgent. For this the worker should be the owner of his own house; he would then value what with difficulty he has acquired. Nevertheless, he had to confess that but little had been done in France in this direction. There were more persons who desired to help than was generally admitted, but people did not know what to do, and it would be the purpose of this Congress to indicate the available means. He therefore wished to form a National Society on the Housing of the Poor; not a building or speculating society, but a society of study to assist all who desire to work in this cause; a society to organise lectures, publish reports, and hold competitions for the best types of houses. After this opening speech, M. Bechmann reported on Norway, and showed that what had been done was due exclusively to private initiative, and that the authorities had not ventured to interfere. The most important building society had applied a barrack system of discipline, and paid 4 per cent. interest on the capital. The speaker did not state how this benefited the poorest members of the community, but lamented the inability of the Norwegians to form associations. The movement only helped the aristocracy of labour. He concluded that transportable wooden houses, which could be moved from place to place, might help to solve the difficulties of the case. Such houses, with two rooms and a kitchen, cost in Norway £40. M. Naeyer of Belgium, who has built at the Exhibition some model dwellings, and owns a large factory, explained how he had enabled his workers to become owners of their own houses. For this it was necessary to purchase materials and build on the very cheapest possible terms, and then to let the houses at somewhat less than the market value. The workman always mistrusted the employer, and this cheapness was the best proof to give him that the houses were built in his own interest. He had contrived in this manner to let cottages at 2fr. 15c. per week, which were generally considered to be worth 2fr. 40c. Yet out of this reduced sum he was able to pay 7 per cent. interest on the capital. By putting 4 per cent. aside for amortisation, and contenting himself with 3 per cent. for his investment, the tenant became owner of his house at the end of eighteen years.

These figures were greatly applauded by the Congress, and give some idea of the sort of enterprise the Congress is anxious to encourage. Undoubtedly the majority of the Congress would wish to see the problem solved by the benevolence and the ability of capitalists and employers on the one hand, and the steadiness, thrift, and industry of the workers on the other hand. The first resolution carried was absolutely in this sense: "individual initiative" and "private association" were best able to solve each particular case, and the direct intervention of the public authorities ought to be opposed. But no sooner did the Congress touch the matter of ways and means than it promptly repudiated the principles just proclaimed. The next resolution proposed was based on the superior accommodation to be obtained in the suburbs of towns, and therefore demanded that the cost of the means of communication, tramways, district railways, &c., should be reduced, thus already opening the door to State intervention. The next resolution was to the effect that the reserve funds of saving-banks should be employed for building artisans' dwellings. But the saving-banks, like the railways, are either State concerns or under the control of the State. Then it was proposed to lessen the taxation on artisans' dwellings, and to call upon the State Bank, the Credit Foncier, to discuss with the insurance companies the best method for advancing money to a workman who was desirous of building his own house, when he insured his life. With this the Congress terminated its first sitting.

On the second day the first question discussed was whether the Legislature should take special measures to bring about the building of artisans' dwellings. Mr. Adolphe Smith rose and explained that in England Parliament did act in this sense. As representative of THE LANCET he had recently made inquiries at Birmingham, and the proprietors of that journal were glad to assist in the work of

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the Congress by deputing him to submit to their consideration the information obtained. The law in England enabled the local authorities not merely to condemn and pull down unhealthy property; but they could, if they chose, acquire the power to rebuild and to furnish labourers' dwellings, and let them out in tenements. For these purposes the local authority might borrow money at the low rate of only 3 per cent. interest. Unfortunately the local authorities were not as prompt as might be desired to avail themselves of these powers. Nevertheless, some great improvements have been effected, and notably at Birmingham. In the heart of that town forty-five acres, or 218,000 square yards, of ground had been cleared, at a total cost to the town of £1,600,000; 1900 houses were purchased, 900 of them totally destroyed, and the remainder in a great measure rebuilt. As a result, there had been a marvellous saving of human life. Taking the average death-rate, three years before the commencement and three years after the completion of these works, it was found that the proportion of deaths had fallen in the Lower Priory district from 62·5 per 1000 to 21·9; in Bailey-street from 97·0 to 25·6; in Russell-street from 55·0 to 19·1. In the face of such splendid results it was impossible to deny the beneficent effect of State intervention. No private company could have carried out so gigantic a scheme or have obtained the money to do it on such cheap terms. The Congress might advocate the *laissez-faire* and *laissez-passer* theories, but personally he was not in favour of giving any such freedom of action to the spread of disease and death. These observations were warmly applauded, and Mr. Smith was asked several questions,—notably, whether the reduction of the death-rate only applied to the improved districts. He replied that this was not so, that the improvement had affected the health of the entire town, the death-rate falling from 26 to 21 per 1000. The Congress then decided, with only five votes in opposition, that the State should enact special laws to bring about the construction of artisans' dwellings &c.

The adoption of this resolution by so emphatic a majority caused no small sensation. It was a direct repudiation of the opinions of the chief promoters of the Congress, and also of the first resolution adopted by the Congress. In the midst of general inattention and conversation the next resolution, to the effect that legislation should encourage the formation of local committees of patronage was lost; and then a very hard tussle took place on the proposal that cheap dwellings should enjoy special exemptions from taxation. This was carried, but only by a very narrow majority. The Congress then discussed the report presented by M. Emile Muller, Professor of the Central School, and Dr. Du Mesnil, member of the Government Commission on Unwholesome Dwellings. This report goes into the minute details as to construction, but the Congress failed to discuss these technical matters, and adopted the report in a general sense. It adopted two important resolutions: first, that the authorities might destroy all insanitary dwellings; and, secondly, that they should compel householders to supply water to their tenants. It was further decided that very small houses should be exempt from succession duty, and that the cost of legal procedure for recovery of rent should be reduced. The Congress also adopted resolutions to the effect that all plans for the construction of artisans' dwellings must first be submitted to the local authorities, so that these buildings should not in any way be defective from a sanitary point of view.

At the opening of the third sitting, M. Lalande read an interesting paper on the difficulties of providing proper dwellings. He wished to avoid all the inconveniences and dangers of the barrack life of a large tenement house, and advocated small cottages. In practice, however, as the cost of the soil and of the roof had to be paid for by one single tenant, the rent was too high. As a rule the workman took a cottage too small for his needs; then, when he had bought it and had no longer any rent to pay, he regretted it was so small. To avoid this, most of the tenants took in lodgers; thus crowding themselves up till the house was paid for, and then the owner could afford to do without lodgers. The object of the promoters of such schemes was thereby defeated. They argued for a cottage so that the family might be separated from strangers—that they might live healthily and free from over-crowding. Stipulations at Mulhouse, where so much had been done in this direction, were always made in the contracts for sale by instalments of the cottages that there should be no sub-letting, but in practice these contracts were never observed. According to the plans made, the cottages ought to have from four to five inhabitants. The census returns proved that they had from seven to eight inhabitants, thus showing how prevalent the system of taking in lodgers had become, and how general was the overcrowding. M. Lalande advocated houses where two families could lodge as a sort of intermediary measure, and said these could be built in France for £280. Colonel Kepler described how cottages had been built for the workmen and clerks in the employ of the Danish Government. M. Naud gave financial details concerning the houses visited by members of the Congress that morning, and built at Issy, in the outskirts of Paris. These are rented so as to pay 5 per cent. cost and interest, and 3 per cent. amortisation. These are principally inhabited by clerks who earn town wages and profit by the cheapness of the country. The Congress then proceeded to vote various resolutions, to the effect that, wherever economic conditions rendered it possible, a separate cottage dwelling was to be preferred. Where block buildings had to be constructed, every care should be taken to thoroughly separate the different families. There must be no dark corridors, the staircases must be well lit, and "within each tenement there must be a closet with a window opening on to the outer air, and the closet must be provided with water." Another resolution stipulated that, where there are more than three persons in a family, the tenement should have three rooms, so as to permit the separation of the sexes; and "all crowding that interferes with the absolute independence of the tenant and his family must be forbidden."

This last resolution exhausted the agenda for the Congress. But, so that the work commenced might continue, it was decided that the organisers of the Congress should form a National Society for the Promotion of Artisans' Dwellings, and that the foreign patrons of the Congress should constitute themselves into an international society for the same purpose. This having been carried, M. George Picot, member of the Institute, and author of the report presented to the Congress on the moral aspects of the question, delivered a concluding speech. He urged that, in spite of serious difficulties, great good had been done, and spoke of the workman's little garden, which fights and beats the public-house. Those who devoted themselves to the cause of the housing of the poor must not, he urged, be actuated by any thought of speculation. They must feel a profound affection and respect for the working man, and if they approach the subject in any other spirit they will not succeed.

In a few words, the President declared the Congress had accomplished its task, and the delegates separated.

Paris, July 2nd.

METROPOLITAN ASYLUMS BOARD.

AT the usual meeting of the managers of the Metropolitan Asylums Board, held last Saturday afternoon, a letter was read from the Local Government Board, stating, with regard to the proposal of the managers to adapt the incomplete ward at the Western Hospital for the isolation of a few small-pox cases, that, owing to the proximity of the adjacent fever ward, they would not be prepared to sanction the proposed alteration except on the distinct condition that when the small-pox ward is occupied the next ward shall remain vacant, and suggesting that, in view of the serious difficulty that might then be created in making provision for fever cases sufficient provision might be made at the Eastern and South-Eastern Hospitals for the "very small number of small-pox patients whom it may be necessary temporarily to detain in London." The returns of patients in fever hospitals showed that the total for the last two weeks was 872, showing an increase in the number remaining under treatment of seventeen. The Lunacy Commissioners' report respecting Caterham Asylum was presented to the Board. The Commissioners said: "We visited all the wards during our inspection. Numerous appeals were made to us for discharge; but no complaints of any importance. The patients appeared to be all of the class for whom the asylum is intended, and we saw no one whose removal to an acute asylum seemed to be necessary at present." The report of the Commissioners showed that the patients were well cared for, and that the treatment left nothing necessary to be enlarged upon. The report of the committee was adopted.

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METROPOLITAN HOSPITAL SUNDAY FUND, 1889.

WE publish below further returns of the sums collected at various places of public worship on Sunday, June 23rd, in aid of the Metropolitan Hospital Fund. As stated last week, St. Jude's Church, South Kensington, headed the list with £1208 15*s.* 10*d.*, the largest single collection on record. Since then a further sum of £8 5*s.* 3*d.* has been forwarded to the Mansion House, thus raising the collection at St. Jude's to the splendid total of £1217 1*s.* 1*d.* Another gratifying collection, which we have much pleasure in recording, is that of Christ Church, Hampstead (Rev. G. F. Head)—viz., £625 7*s.* 5*d.*, against £112 18*s.* 8*d.* last year. The amount to hand is about £30,000, a sum considerably in excess of that received at the corresponding date last year.

Church of England.

		1888. £	s.	d.		1889. £	s.	d.
Christ Church, Lancaster Gate	Rev. C. J. Ridgway	745	12	8	.....	844	8	9
Christ Church, Hampstead	Rev. G. F. Head	112	18	8	.....	625	7	5
All Saints, Ennismore Gardens	Rev. Ravenscroft Stewart	459	0	8	.....	392	15	2
Holy Trinity, Paddington	Rev. Prebendary D. Moore	213	4	0	.....	253	15	7
St. Peter, Vere-street	Rev. W. Page Roberts	258	13	9	.....	211	2	11
Portman Chapel, Baker-street	Rev. H. N. Sherbrooke	185	14	0	.....	173	11	2
Holy Trinity, Chelsea	Rev. Prebendary Eyton	148	18	5	.....	170	14	10
St. James, Paddington	Rev. W. Abbott	186	15	1	.....	160	0	8
St. Gabriel, Pimlico	Rev. J. H. J. Ellison	85	15	9	.....	128	3	5
St. Paul, New Beckenham	Rev. Charles Green	110	3	0	.....	120	0	0
St. George's Parish Church, Bickley	Rev. G. W. Weldon	70	5	2	.....	110	4	8
St. Mary, Kilburn	Rev. J. Robertson	89	4	8	.....	107	10	8
St. Alban, Streatham Park	Rev. S. M. Ranson	82	13	5	.....	101	6	11
St. Stephen, Castle Hill, Ealing	Rev. B. S. Tupholme	57	2	7	.....	98	12	2
Chapel Royal, Hampton Court	Rev. W. L. McAnally	56	17	10	.....	90	6	4
Trinity Church, Marylebone	Rev. Canon Cadman	100	1	2	.....	88	14	6
St. Michael and All Angels, Blackheath	Rev. A. E. Barnes-Lawrence				.....	81	14	0
St. John, Forest-hill	Rev. F. F. Kelly				.....	81	3	0
Church of the Ascension, Balham-hill	Rev. H. Curtis	78	8	0	.....	80	5	0
St. Leonard's Parish Church, Streatham	Rev. J. R. Nicholl	82	5	2	.....	80	0	0
Holy Trinity Parish Church, Wandsworth	Rev. W. Reed	43	3	0	.....	74	13	0
Christ Church, Highbury	Rev. W. J. Chapman	69	12	6	.....	74	1	7
Berkeley Chapel, Mayfair	Rev. T. Teignmouth Shore	100	11	4	.....	70	0	6
Roehampton Parish Church	Rev. R. Carrington	70	0	3	.....	64	16	1
St. Stephen, Avenue-road, N.W.	Rev. F. K. Povah	36	8	1	.....	64	5	4
St. Giles's Parish Church, Camberwell	Rev. F. F. Kelly	60	17	9	.....	62	16	5
Dulwich College Chapel	Rev. G. W. Daniell	55	0	0	.....	60	15	9
St. Mary, West Kensington	Rev. H. J. Alcock	41	19	6	.....	59	3	0
Christ Church, North Brixton	Rev. Canon Hussey, D.D.	65	5	3	.....	57	0	9
Holy Trinity Parish Church, Clapham	Rev. C. P. Greene	47	3	5	.....	56	8	8
St. Jude, East Brixton	Rev. R. B. Ransford	54	15	3	.....	55	12	9
St. Augustine, Kilburn	Rev. R. C. Kirkpatrick	67	5	4	.....	52	4	10
St. George's Chapel, Albemarle-street	Rev. F. Palmer	7	13	3	.....	50	16	3
Church of the Annunciation, Chislehurst	Rev. H. Lloyd Russell	70	10	6	.....	50	15	0
Holy Innocents, Hornsey	Rev. R. W. Powell	51	15	2	.....	48	9	0
St. John, Blackheath	Rev. J. W. Marshall	59	0	9	.....	48	3	1
Christ Church, Brondesbury	Rev. C. W. Williams, D.D.	21	4	10	.....	47	4	7
St. Luke, Chelsea	Rev. G. Blunt	40	15	0	.....	45	10	0
St. John the Divine, Kennington	Rev. C. E. Brooke	49	5	7	.....	45	4	0
St. Luke, Redcliffe-square	Rev. W. F. Handcock	40	0	0	.....	45	0	0
Holy Trinity, Lee, Kent	Rev. B. W. Bucke	50	17	7	.....	44	3	9
St. Luke, West Holloway	Rev. R. Glover	48	0	0	.....	44	1	9
St. Mary, Shortlands, Kent	Rev. H. F. Wolley	34	19	6	.....	44	1	2
All Saints, Putney Common	Hon. and Rev. R. Henley	37	0	0	.....	43	0	0
St. Dunstan, East Acton	Rev. T. Miller Hayter	27	13	6	.....	40	11	3
St. James, Hatcham	Rev. S. A. Selwyn	34	7	6	.....	40	5	0
St. Saviour, Clapham	Rev. C. P. Greene	26	3	0	.....	38	19	3
St. Mary, Graham-street	Rev. H. M. Villiers	34	8	5	.....	38	10	11
St. Paul, Greenwich	Rev. Alfred Love	30	17	6	.....	38	8	10
Chipping Barnet (Herts) Parish Church	Rev. D. W. Barrett	38	14	6	.....	37	6	10
St. Andrew, West Kensington	Rev. J. H. Cardwell	60	2	2	.....	37	2	6
St. Mark, Kennington	Rev. H. H. Montgomery	44	0	0	.....	36	18	4
Holy Trinity, Blackheath	Rev. S. F. Hooper, M.A.	47	13	0	.....	36	8	0
Aldenham Parish Church	Rev. Kenneth F. Gibbs	37	0	0	.....	36	0	0
St. Paul, Hammersmith	Rev. J. H. Snowden	33	18	6	.....	35	18	0
Christ Church, Wanstead	Rev. M. Drummond	28	8	6	.....	35	5	0
Female Lock Hospital Chapel, Paddington	Rev. Flavel Cook, D.D.	39	2	4	.....	34	11	9
Boys' Home Chapel, Regent's Park	Rev. G. Street, M.A.	42	18	0	.....	34	4	0
St. Matthew, Redhill, Surrey	Rev. H. Brass	26	13	0	.....	32	17	9
St. Michael, Stockwell	Rev. M. H. Begbie	41	0	0	.....	32	0	0
St. Philip, Sydenham	Rev. J. G. Holmes	19	6	0	.....	30	6	5
St. Margaret's Parish Church, Barking, Essex	Rev. J. Richardson	11	0	5	.....	28	1	2
St. Saviour, Southwark	Rev. W. Thompson	31	0	0	.....	28	0	0
All Saints' Parish Church, Carshalton, Surrey	Rev. Lord Victor Seymour	33	7	6	.....	27	6	7
West Ham Parish Church	Rev. Canon Scott	29	0	7	.....	26	18	7
St. Mark, Tollington Park	Rev. Canon Hurst	26	10	0	.....	26	0	0
Christ Church, Chelsea	Rev. A. J. Spencer	31	16	2	.....	25	17	10
Park-street Meeting					.....	25	14	5
St. James, Muswell-hill	Rev. E. P. Cachemaille	31	13	11	.....	25	11	3
St. Andrew, Stockwell Green	Rev. C. E. Escreet	20	10	1	.....	25	4	8
St. Giles-in-the-Fields' Parish Church	Rev. Canon Nisbet	37	1	1	.....	25	3	1
St. Paul, Kilburn	Rev. Dr. Bonavia Hunt	22	13	0	.....	25	0	0
St. John the Baptist, Leytonstone	Rev. W. J. Bettison	20	12	8	.....	24	10	10
St. Stephen, South Lambeth	Rev. J. S. Pratt	23	5	7	.....	24	0	9
St. Mary's Parish Church, Woodford	Rev. A. Hughes	21	1	10	.....	23	17	8
All Saints, Child's-hill	Rev. J. H. Clay	26	3	4	.....	23	15	9
St. Mark, Myddelton-square, Clerkenwell	Rev. R. L. Giveen	25	0	8	.....	23	3	4
St. Anne Brookfield, Highgate-rise	Rev. C. J. Acland	28	3	8	.....	22	14	11
St. Mary's Parish Church, Islington	Rev. W. H. Barlow, B.D.	27	0	1	.....	22	5	0
Hatfield Parish Church and Chapels	Rev. G. M. Squib	8	9	7	.....	22	2	1
Hersham Parish Church	Rev. W. F. Fagan	14	8	5	.....	21	16	3
Merton (Surrey) Parish Church	Rev. E. A. Kempson	21	16	11	.....	21	15	5
St. Paul, Mill-hill	Rev. J. Hawes	16	14	3	.....	21	13	1
St. Mark, Battersea-rise	Rev. A. C. Woodhouse	15	15	0	.....	21	7	6
St. John, Clerkenwell	Rev. W. Dawson	13	8	7	.....	21	3	0
Thames Ditton Parish Church	Rev. E. H. Rogers	21	9	3	.....	20	15	9
All Saints, Clapton-park	Rev. B. M. Kitson	24	13	3	.....	20	5	11
St. Chrysostom, Peckham	Rev. I. Haycroft	21	4	0	.....	20	1	6
Chapel Royal, Tower	Rev. E. C. Alwyn Forster	17	3	1	.....	16	9	2

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		1888. £ s. d.		1889. £ s. d.
Later Returns.				
St. Mary's Parish Church, Wimbledon	Rev. Canon Haygarth			
Christ Church ,,	Ditto			
St. John ,,	Ditto			
St. Mark ,,	Ditto	190 3 8	.....	172 4 0
St. Columba, Pont-street, S.W.			.....	152 2 0
Immanuel Church, Streatham Common	Rev. G. S. Streatfield, M.A.	100 13 2	.....	117 10 0
All Souls, Langham-place	Rev. W. Hay Chapman	117 17 9	.....	91 17 2
St. Mary Aldermary, with St. Thomas the Apostle, St. Antholin, and St. John Baptist upon Walbrook, E.C.	Rev. L. B. White, D.D.	85 2 6	.....	85 3 0
St. Mary, Bryanston-square	Hon. and Rev. Canon Leigh	105 10 5	.....	83 17 1
St. Philip, Earl's Court	Rev. W. Smale	90 0 0	.....	82 17 8
St. Augustine, Highbury	Rev. Gordon Calthrop	94 16 8	.....	79 14 4
St. James, Beckenham	Rev. G. B. Howard	11 4 2	.....	75 14 9
St. Saviour, Paddington	Rev. M. Tweddell	113 8 10	.....	73 11 8
Immanuel Church, Wimbledon	Rev. E. W. Moore	44 0 6	.....	70 4 4
Christ Church, Chislehurst	Rev. W. Fleming	67 0 0	.....	51 16 0
St. Luke, Westbourne Park	Rev. R. J. Knowles	37 6 0	.....	50 0 0
Christ Church, Beckenham	Rev. J. Harding	42 8 2	.....	48 1 2
St. Matthew, Upper Clapton	Rev. L. H. Bradford	66 2 5	.....	47 12 2
St. Mary Parish Church, Finchley	Rev. S. Bardsley	52 2 4	.....	47 11 5
St. Mary Parish Church, Hornsey	Rev. J. Jeakes	50 3 5	.....	45 3 11
St. Thomas, Regent-street	Rev. P. Bainbrigge	57 6 4	.....	49 13 2
St. Matthew and Schools, Denmark-hill	Rev. Sinclair Carolin	52 5 4	.....	49 6 2
St. Luke, Marylebone	Rev. B. H. Alford	43 12 4	.....	45 17 9
St. Michael and All Angels, North Kensington	Rev. H. G. Hellier	44 0 6	.....	43 2 7
Parish Church and St. John's, Hendon	Rev. Prebendary Scrivener, LL.D.	42 7 6	.....	42 6 4
Christ Church, Marylebone	Rev. J. Llewelyn Davies	50 12 0	.....	35 14 6
St. Luke, Nightingale-lane			.....	33 15 1
All Saints, Margaret-street	Rev. W. A. Whitworth	60 9 3	.....	33 8 8
St. Mary's Parish Church, Willesden	Rev. B. T. Atlay	34 9 2	.....	33 6 1
Christ Church, Westminster-road			.....	35 16 9
St. Germain's, Kidbrooke, Blackheath	Rev. R. Hayes Robinson	47 0 0	.....	35 16 3
St. Luke, Hackney	Rev. W. H. Langhorne	34 8 0	.....	29 5 7
Parish Church, Betchworth, Surrey	Rev. C. E. Sanders		.....	27 4 1
St. Saviour, Highbury	Rev. J. Bicknell	25 6 0	.....	26 11 0
Christ Church, Jamaica-street, Stepney	Rev. F. J. Hobbins	9 4 2	.....	25 17 10
Parish Church, Hayes, Kent	Rev. G. Clowes	31 16 1	.....	21 16 11
Colet Chapel, St. Paul's School, and Preparatory School, West Kensington	Rev. R. B. Gardiner	20 4 2	.....	21 1 0
St. Anne, Tollington-park	Rev. W. H. Chambers, D.D.	18 7 0	.....	20 13 6
St. James and Holy Trinity, New Barnet	Rev. C. E. Gardner	19 14 11	.....	20 10 9
Baptist.				
Bloomsbury Chapel	Rev. J. Baillie	40 7 3	.....	47 0 2
Westbourne-grove Chapel, Bayswater	Rev. J. Tuckwell	30 15 6	.....	28 15 2
Upper Holloway Chapel	Rev. J. R. Wood	40 1 10	.....	28 10 2
South-street Chapel, Greenwich	Rev. C. Spurgeon	30 0 0	.....	28 8 0
Brockley-road Chapel, New-cross	Rev. J. S. Wigner	33 2 6	.....	27 14 0
Congregational or Independent.				
Allen-street Chapel, Kensington	Rev. E. White	94 0 6	.....	73 6 4
Grafton-square Church, Clapham	Rev. J. G. Rogers, M.A.	101 4 6	.....	70 0 0
Clapton Park Chapel	Rev. W. J. Woods, B.A.	76 18 11	.....	64 11 4
Holy Trinity Church, Anerley	Rev. J. Halsey	25 0 0	.....	61 1 6
Stamford Hill Church	Rev. R. Vaughan Price, M.A., LL.B.	54 3 8	.....	53 10 7
Highbury Quadrant Church	Rev. S. Pearson, M.A.	45 8 10	.....	39 3 2
Abney Church, Stoke Newington	Rev. W. Spensley	40 2 3	.....	35 17 2
Lewisham High-road Church	Rev. J. Morley Wright	40 0 0	.....	33 0 0
Lower Clapton Church	Rev. F. Soden		.....	25 0 0
Queen's-road Church, Forest-hill	Rev. J. Craig Kelly	27 0 0	.....	22 10 0
Seven Sisters'-road, Finsbury Park Chapel	Rev. T. E. Davies	19 0 0	.....	20 4 3
Rectory-place Chapel, Woolwich	Rev. A. J. Viner	20 3 6	.....	20 3 0
Worple-road Church, Wimbledon	Rev. V. C. Talbot	9 4 10	.....	20 0 0
Friends (Society of).				
Wanstead Meeting House	Mr. J. Lister Godlee	47 9 3	.....	67 18 4
German Lutheran.				
Windsor-road Church, Denmark-hill	Rev. A. Wysard	40 6 0	.....	64 15 0
Presbyterian.				
St. John's-wood Church	Rev. J. Monro Gibson, D.D.	85 0 0	.....	79 0 0
Willesden Church	Rev. James Durran	22 0 0	.....	24 0 0
Lordship-lane Church, Stoke Newington	Rev. A. C. Alexander	14 15 6	.....	20 13 1
St. Andrew's Church, Upper Norwood	Rev. R. Taylor	50 0 0	.....	40 0 0
Reformed Episcopal Church.				
Christ Church, Harlesden	Rev. J. Anderson	10 12 4	.....	20 13 0
Unitarian.				
The Mall Church, Kensington	Rev. W. Carey Walters	55 18 2	.....	61 2 0
Rosslyn-hill Chapel, Hampstead	Rev. Thos. Sadler, Ph.D.	95 7 8	.....	99 2 2
Roman Catholic.				
Pro-Cathedral, Kensington	Rev. C. H. Moore	28 17 10	.....	25 14 9
St. Dominic's Priory, Haverstock-hill	Rev. A. M. Rooke	25 16 6	.....	22 9 8
Carmelite Church, Kensington	Rev. L. Echevarria	25 0 0	.....	20 0 0
Theistic.				
Theistic Church, Swallow-street	Rev. Charles Voysey, B.A	58 3 3	.....	76 7 10

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		1888. £ s. d.	1889. £ s. d.
Wesleyan.			
Barry-road Chapel, Dulwich	Rev. J. H. Grubb	17 16 7	20 0 0
Clayton Chapel	Rev. G. Kenyon	18 4 7	20 12 4

Donations.

	£. s. d.
Box outside Mansion House (second collection)	27 11 2
Bristol Orpheus Glee Society	21 0 0
Lion Brewery Company	21 0 0
H. A. Soames, Esq.	20 0 0
W. J. Blandford, Esq.	20 0 0
Charles Hemery, Esq.	20 0 0
Box outside Mansion House (third collection)	14 14 11

THE PASTEUR INSTITUTE.

A MEETING was held in the Egyptian Hall of the Mansion House on Monday afternoon, "for the purpose of hearing statements from Sir James Paget, and other representatives of scientific and medical opinion, with regard to the recent increase of rabies in this country, and as to the efficacy of the treatment discovered by M. Pasteur for the prevention of hydrophobia." The Lord Mayor presided, and amongst those present were the Duke of Westminster, the Duke of Northumberland, Sir G. Stokes, M.P., Sir H. Roscoe, M.P., Sir J. Lubbock, M.P., and Dr. Farquharson, M.P.

Professor Lankester read a letter written at the instance of the Prince of Wales, in which His Royal Highness expressed his pleasure at the meeting having been called, and his sympathy with the objects of the meeting. The Prince also announced his satisfaction that the Lord Mayor is about to support a recommendation that all dogs at large in this country should be muzzled, and added his opinion that if that step were adopted throughout the kingdom for twelve months, rabies, which, he feared, was greatly on the increase amongst us, would be stamped out.

A letter was also read from M. Pasteur to Sir H. Roscoe, M.P., in which he states that up to the end of June over 7000 patients had been treated at the antirabic laboratory of Paris alone, and the general mortality applicable to the whole of the operations was 1 per cent. Of sixty-four English persons bitten by mad dogs during 1888 and 1889 and treated in Paris, not a single case had succumbed, although the sufferers were often bitten to a very serious extent. M. Pasteur also expresses his profound conviction that a rigorous observance of simple police regulations would altogether stamp out hydrophobia in a country like the British Isles.

Sir Andrew Clark, Bart., President of the Royal College of Physicians, also wrote warmly approving M. Pasteur's work, and giving his cordial support to the objects of the meeting. A letter from Professor Huxley was also read.

A communication was read from the Association of Medical Officers of Health, expressing the hope that a similar institute to the one in Paris might be established in London.

The Lord Mayor, addressing the meeting, said that since granting the use of the Egyptian Hall for that meeting he had been subjected to an enormous amount of anonymous and scurrilous abuse. He thought it would be much more desirable to raise a fund for sending over poor patients for treatment in Paris than to establish an institute in London.

A number of resolutions in accordance with the objects of the meeting, supported by Sir James Paget, Sir H. Roscoe, Sir Joseph Lister, Professor M. Foster, Dr. Lauder Brunton, Prof. Horsley, and others, were put and carried unanimously.

THE FATHER DAMIEN MEMORIAL.

A MEETING of the Father Damien Memorial Committee was held at Marlborough House on Saturday, the Prince of Wales presiding. A distinguished company was present. The recommendations of the Executive Committee—that £500 should be spent on erecting a memorial to Father Damien at Kalawao, and that funds should be formed for the treatment of British lepers and the endowment of two studentships for the study of the disease, one in Europe and one in China, the colonies, and elsewhere—were passed. Copies of these resolutions were ordered to be sent to the Presidents of the Royal Colleges of Physicians and Surgeons respectively. Each of these Colleges will be invited to nominate a member to act on a commission of three to go out to India for the purpose of investigating the disease of leprosy there, the Indian Committee being requested to add two members.

MALCOLM MORRIS INDEMNITY FUND.

IT is felt by many of Mr. Morris's friends that he should not be allowed to bear the heavy costs of the recent trial in addition to the months of anxiety and worry he has been compelled to undergo. By his courage and promptitude Mr. Morris has done a service both to the profession and to the public which requires a more solid recognition than a simple expression of sympathy. The following subscriptions have already been promised, and those who desire to contribute are requested to communicate without delay with Mr. G. P. Field, 34, Wimpole-street; or Dr. Sidney Phillips, 21, Upper Berkeley-street.

	£ s. d.		£ s. d.
Sir Andrew Clark	£5 5 0	Sir William Mac Cormac	£2 2 0
Sir James Paget	5 5 0	Dr. Douglas Powell	2 2 0
Dr. Quain	5 5 0	Dr. Symes Thompson	2 2 0
Sir Alfred Garrod	5 5 0	Dr. Braxton Hicks	2 2 0
Sir Edwin Saunders	5 5 0	Dr. C. H. Ralfe	2 2 0
Dr. Broadbent	5 5 0	Dr. Sidney Phillips	2 2 0
Dr. Ord	5 5 0	Dr. Percy Boulton	2 2 0
Thomas Smith	5 5 0	Dr. Maguire	2 2 0
Dr. Cheadle	5 5 0	Henry Juler	2 2 0
Dr. John Anderson	5 5 0	J. Ouston Smith (Shrewsbury)	2 2 0
Dr. Stephen Mackenzie	5 5 0		
Walter Coulson	5 5 0	J. E. Lane	1 1 0
Dr. Danford Thomas	5 5 0	H. Kiallmark	1 1 0
G. A. Critchett	5 5 0	Henry Davis	1 1 0
G. P. Field	5 5 0	F. B. Hulke (Deal)	1 1 0
W. Adams Frost	5 5 0	Alfred Matcham	1 1 0
The Proprietors of THE LANCET	5 5 0	George Pollock	1 0 0
Dr. Gervis	3 3 0	Dr. J. Swain Scriven (Derby)	10 6
Dr. Woakes	3 3 0		

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

The Sanitary Condition of Hatfield, by Dr. BRUCE LOW.—From Dr. Low's report it would appear that the Local Government Board have since 1887 been dissatisfied with the nature of the information received from Hatfield; and it now transpires that when the medical officer of health dilated on the unsatisfactory character of a number of the prevailing sanitary circumstances, the authority were in the habit of submitting what can only be regarded as a counter-report prepared by the inspector of nuisances, and on the strength of which it was contended that no special measures were required as to the sanitary state of Hatfield. Then came fresh evidence as to blocking of a main sewer; a further reference by the authority to the inspector of nuisances, who stated that he was quite satisfied with the sewer; and, finally, the determination of the Local Government Board to ascertain for themselves how matters really stood. The Old Town, which is mainly in question, was sewered some fifty years ago, the older of the sewers being half-round brick culverts, with flat bottoms of pebbles laid in cement. Some of these burst about thirteen years ago, and were imperfectly repaired; others run under inhabited houses; no ventilators are provided,

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whilst the gully holes are professedly trapped, sewer air being thus bottled up; there is no systematic flushing; private drains are rarely disconnected or ventilated; and "under any pressure of sewer air in the sewers, the discharge is into houses instead of into the general atmosphere." One old sewer complained of sank out of its level and then ruptured, and the repairs have resulted in a sewer partly of brickwork and partly of glazed pipes. When seen by Dr. Low, the mortar between the brickwork had crumbled away, the sewer was not water-tight, and there was considerable deposit of black sludge within it; in short, the description given of it is that of an elongated cesspool. Hatfield is thus in a most retrograde state as to sewers and drainage. The state of the place as to closets is equally to be deplored. Dirty structures besmeared with filth, closets with no closet-pans constructed over a square brick drain, deficient closet accommodation, and other similar shortcomings were brought to light by the inquiry. Fortunately, there is an excellent water-supply, which is in the hands of the Marquis of Salisbury; but in one part of the town private wells liable to pollution are still retained. Naturally the question of sanitary administration came under review under the circumstances detailed. Dr. L. Drage, the medical officer of health, is reported to have set himself ever since his appointment to get some of the most pressing of the unwholesome conditions remedied, and we have seen how his efforts have been met. Dr. Low comes to the conclusion that the medical officer of health's discontent with the condition of the sewers, the house-drainage, &c., is abundantly justified; and he adds that since Dr. Drage first took the matter up there has been evidence of an increased activity in sanitary work. Unfortunately, there is room for much greater activity still, and there is especially pressing need for a systematic inspection of the district to serve as a record by which the authority may learn what are the conditions with which they are called to deal.

Diphtheria in the Fareham District, by Mr. SPEAR.[1]—The main portion of this report deals with occurrences of diphtheria in a portion of the Fareham rural district, including the hamlets of Swanwich and Sarisbury, and the town of Titchfield. The locality in question had been comparatively free from diphtheria for many years previously to 1886, and the first case of a prolonged prevalence in Titchfield parish happened in July, 1886, where, in a row of houses, 26 per cent. of the inhabitants were attacked, some cases of sore-throat occurring. The sanitary conditions of the community were exceedingly unfavourable both as regards houses, their surroundings, dampness of site, sewerage, and water-supply. But much of the interest of the outbreak centres on the question of school attendance, and especially on that of the so-called mixed school. This and the infant school were closed and reopened again and again over a period spreading from October, 1886, into 1888; and looking at the whole evidence as to school influence, which is set forth at length both in the text and in a tabular form, it would seem that the disease spread in the mixed school either by the repeated introduction there of convalescent but still infected children, or by their infected clothing, or by some continuing focus of infection attaching to the school itself. Whilst, however, evidence is not wholly wanting of the spread of the disease by convalescents and clothing from infected houses, there is the fact that in the majority of the cases amongst school children the attacks were single ones in the respective families. "If," says Mr. Spear, "personal infection were the sufficient factor in these repeated outbreaks at the mixed school, it would seem to have gained a potency there, not possessed either outside or in the infant school." This observation carries us back to somewhat similar ones made by Mr. W. H. Power as to the occasional development, under school influence, of a diphtheria poison extremely retentive of its power of mischief. Certain sanitary defects are noted as regards this school; but, in view of like occurrences in connexion with school attendance in cases where no such defects were observable, it is not easy to associate any special feature of this diphtheria prevalence with any one or more of these conditions. An occurrence of diphtheria in the Fareham urban district is also dealt with. The report concludes by giving some account of a remarkably persistent and maintained prevalence of enteric fever in the County Lunatic Asylum, and this notwithstanding the application of a number of sanitary arrangements which were devised under skilled supervision. A recent exacerbation of the disease is believed to have been due to a movement of underground water from an adjoining cemetery and plots of ground upon which the sewage of the asylum is discharged, in the direction of a deep well from which the water is drawn. The result is that efforts are now being made to procure an entirely different water-service.

[1] Eyre and Spottiswoode, East Harding-street, E.C.; Adam and Charles Black, Edinburgh; Hodges, Figgis, and Co., Dublin. Price 6d.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Wem Rural District.—School closure was resorted to in several parts of this rural district during the past year on account of measles and whooping-cough; satisfactory progress has been made in the provision of certain water-supplies; and powers have been obtained to secure sanction as to certain codes of bye-laws. The voluntary notification of infectious diseases which is in operation has given additional work in the health department, but it has been very useful for purposes of disease prevention, and no friction has been occasioned by it. The death-rate was exceptionally high, but the details given of it by Dr. B. F. Giles show that the increase can only very partially have been due to preventable diseases.

Tunbridge Wells Urban District.—This district is now becoming populous, but its death-rate remains satisfactory; thus it was 14·0 per 1000 in 1888. The zymotic rate is also low. The sanatorium is stated by Mr. W. Stamford to have dealt efficiently with certain occurrences of scarlet fever, and efforts have been made to secure a good water-supply to cottage property. A good account of current work is contained in the report of the inspector of the sanitary department.

Bridlington Urban District.—Mr. Wetwan reports a general death-rate for last year of 14·4 per 1000, a rate which is distinctly below the average; but it is unequally divided between the old town and the Quay, the rate for the latter being 12·2. The conditions prevailing in the old town include some property much huddled together, and having no back windows or doors; there are also conditions of closet accommodation which lead both to nuisance and to ill health. Indeed, the improvement promised during the current year is much called for. According to the account given, systematic inspection of the district is maintained with a view to the prevention of nuisances; the bath-houses, common lodging-houses, and slaughterhouses are looked after, and a general improvement in sanitary circumstances is in progress. Lack of funds has unfortunately led to the postponement of a necessary piece of work involved in the completion of the northern outfall for sewage.

Scarborough Urban District.—Dr. J. W. Taylor commences his report by a complete account of the meteorological conditions which prevailed during the past year, and he shows the general death-rate to have been 15·6 per 1000, or lower than in any recorded occasion. The rate from so-called zymotic death was also extremely low—namely, 0·6 per 1000, as opposed to 1·4, the mean for the past sixteen years. Steady work is maintained in the control and supervision of new buildings, in the extension of sewage works, in private street improvements, and in the supervision of all such establishments as come within the control of a sanitary authority. Special visits are paid on any rumour of infectious disease; a large amount of cleansing and disinfection is carried out; indeed, apart from the provision for the town of a hospital for infectious diseases—more worthy of Scarborough and more calculated to promote early isolation in all classes suffering from such diseases,—the health department of this seaside resort is evidently being worked up to a state of considerable efficiency. Appended to the report is a statement compiled by Dr. Taylor as to the working of the system of compulsory notification in towns where that system is in force.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5792 births and 3170 deaths were registered during the week ending June 29th. The annual rate of mortality in these towns, which had been 16·6 and 16·7 per 1000 in the preceding two weeks, further rose last week to 17·3. During the thirteen weeks ending on Saturday last the death-rate in these towns averaged 18·2 per 1000, and was 2·1 below the

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mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 13·0 in Bristol, 13·7 in Brighton, 14·6 in Huddersfield, and 14·9 in Nottingham and in Norwich. The rates in the other towns ranged upwards to 22·6 in Leeds, 23·5 in Preston, 24·2 in Sunderland, and 25·9 in Manchester. The deaths referred to the principal zymotic diseases in these towns, which had been 429 and 400 in the previous two weeks, rose last week to 476; they included 184 from diarrhœa, 99 from measles, 93 from whooping-cough, 41 from scarlet fever, 35 from "fever" (principally enteric), 24 from diphtheria, and not one from small-pox. No death from any of these zymotic diseases was registered last week in Norwich, whereas they caused the highest death-rates in Salford, Hull, and Preston. The greatest mortality from diarrhœa occurred in Bradford, Salford, Leeds, and Leicester; from measles in Bolton, Halifax, Hull, and Preston; from whooping-cough in Birkenhead, Oldham, Cardiff, and Wolverhampton; and from scarlet fever in Plymouth. The death-rate from "fever" showed no noticeable excess in any of these large towns. The 24 deaths from diphtheria included 13 in London, 2 in Birmingham, 2 in Salford, 2 in Leeds, and 2 in Hull. Small-pox caused no death in any of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and London Fever Hospitals at the end of last week was 569, against 570 and 559 on the preceding two Saturdays; 64 cases were admitted to these hospitals during the week, against 33 and 44 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 205, 169, and 171 in the preceding three weeks, were last week 169, and were 45 below the corrected average. The causes of 66, or 2·2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leeds, Newcastle-upon-Tyne, Leicester, Sunderland, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Oldham, Halifax, Huddersfield, and Blackburn.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 20·5 and 19·4 per 1000 in the preceding two weeks, further declined to 18·4 in the week ending June 29th; this rate exceeded, however, by 1·1 the mean rate during the same week in the twenty-eight large English towns. The rates in these Scotch towns ranged last week from 14·2 in Edinburgh and 15·0 in Dundee to 20·8 in Paisley and 21·6 in Glasgow. The 471 deaths in the eight towns showed a further decline of 25 from the numbers in the previous two weeks, and included 24 which were referred to whooping-cough, 24 to measles, 17 to diarrhœa, 5 to scarlet fever, 5 to diphtheria, 4 to "fever," and not one to small-pox; in all, 79 deaths resulted from these principal zymotic diseases, against 95 and 83 in the preceding two weeks. These 79 deaths were equal to an annual rate of 3·1 per 1000, which exceeded by 0·5 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 35 and 33 in the preceding two weeks, further declined last week to 24, of which 15 occurred in Glasgow, 6 in Dundee, and 3 in Edinburgh. The 24 deaths from measles showed an increase of 3 upon the number in the previous week, and included 10 in Glasgow, 8 in Aberdeen, and 4 in Leith. The deaths attributed to diarrhœa, which had steadily increased in the preceding five weeks from 10 to 18, were last week 17, of which 7 occurred in Glasgow, 3 in Dundee, 2 in Edinburgh, 2 in Greenock, and 2 in Paisley. The 5 fatal cases of scarlet fever corresponded with the number in the previous week, and included 3 in Glasgow and 2 in Edinburgh. The deaths from diphtheria, which had been 10 and 6 in the previous two weeks, further declined last week to 5, of which 2 occurred in Glasgow. The deaths from the principal diseases of the respiratory organs, which had been 93, 88, and 72 in the preceding three weeks, further declined last week to 71, and were 18 below the number in the corresponding week of last year. The causes of 54, or more than 11 per cent., of the deaths registered during the week in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 22·2 and 18·6 per 1000 in the preceding two weeks, rose again to 23·2 in the week ending June 29th. During the thirteen weeks ending on that day the death-rate in the city averaged 23·6 per 1000, the mean rate during the same period being 16·0 in London and 16·6 in Edinburgh. The 157 deaths in Dublin showed an increase of 31 upon the number in the previous week; they included 7 which were referred to "fever" (typhus, enteric, or ill-defined), 4 to measles, 2 to whooping-cough, 2 to diarrhœa, and not one to small-pox, scarlet fever, or diphtheria. Thus the deaths from these principal zymotic diseases, which had been 7 in each of the previous two weeks, rose last week to 15; they were equal to an annual rate of 2·2 per 1000, the rates from the same diseases being 1·8 in London and 1·6 in Edinburgh. The deaths from "fever" showed an increase upon those in recent weeks, and exceeded the number in any week since the beginning of March last. The deaths of infants had further declined, while those of elderly persons exceeded the number in the previous week. Four inquest cases and 2 deaths from violence were registered; and 56, or more than a third, of the deaths occurred in public institutions. The causes of 21, or more than 13 per cent., of the deaths in the city were not certified.

THE SERVICES.

ARMY MEDICAL RESERVE OF OFFICERS.—The undermentioned Officers to be Surgeons, ranking as Captains (dated July 3rd, 1889):—Surgeon Stephen Henry Moore, F.R.C.S. Edin., 2nd South Middlesex Rifle Volunteer Corps; Surgeon and Honorary Surgeon-Major Richard Charles Mason Pooley, 1st Volunteer Battalion, the Duke of Cornwall's Light Infantry.

INDIA OFFICE.—The Queen has approved of the undermentioned Officers of the Staff Corps and Indian Military Forces being permitted to retire from the Service:—Deputy Surgeon-General Alexander Morison Dallas, C.I.E., Bengal Medical Establishment (dated April 2nd, 1889); Deputy Surgeon-General Alexander John Cowie, Bengal Medical Establishment (dated April 19th, 1889); Brigade Surgeon Robert Edmund Pearse, Madras Medical Establishment (dated April 30th, 1889); Surgeon-Major Joseph Patrick McDermott, M.D., Madras Medical Establishment (dated May 1st, 1889). The Queen has also approved of the date of retirement of Deputy Surgeon-General Alfred Eteson, M.D., Bengal Medical Establishment, being altered from Jan. 13th to Jan. 14th, 1889. The Queen has approved of the following promotions among the Officers of the Staff Corps and Indian Military Forces made by the Governments in India:—To be Deputy Surgeons-General (Bengal Medical Establishment): Brigade Surgeon Edwd. Ord Tandy (dated April 2nd, 1889); Brigade Surgeon John Richardson (dated April 19th, 1889). To be Brigade Surgeon: Surgeon-Major Lionel Dixon Spencer, M.D. (dated Jan. 27th, 1889) To be Surgeons-Major (dated March 31st, 1889): Surgeon Wm. Owen, M.D., Surgeon David Morton Jack, Surgeon Walter Conry, Surgeon George Jerome Kellie, Surgeon Dharmadas Basu, Surgeon Alexander William Mackenzie, Surgeon Jeremiah Mullane, M.D., Surgeon Douglas Mullen, M.D., Surgeon James Alexander Nelis, Surgeon Aylmer Martin Crofts, Surgeon James Crofts, M.D., Surgeon Wm. Coates, M.D., and Surgeon Joseph Blood. To be Surgeons-Major (Madras Medical Establishment): Surgeon Henry Augustus Fitzroy Nailer (dated March 31st, 1889); Surgeon Donald Elcum (dated March 31st, 1889); Surgeon Nityananda Chatterjie (dated March 31st, 1889). To be Surgeons-Major (Bombay Medical Establishment): Surgeon William Keith Hatch (dated March 31st, 1889); Surgeon Hormasji Dadabhai Masani (dated March 31st, 1889); Surgeon Kanoba Ranchoddas Kirtikar (dated March 31st, 1889.) The Queen has approved of the date of promotion of Brigade Surgeon Geo. Cocket Chesnaye and of Surgeon-Major John Bennett, M.D., Bengal Medical Establishment, to the rank of Deputy Surgeon-General and Brigade Surgeon respectively, being altered from Jan. 13th to Jan. 14th, 1889.

ADMIRALTY.—The following appointment has been made: Surgeon William E. Home to the *Britannia*.

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VOLUNTEER CORPS.—*Artillery:* 1st West Riding of Yorkshire: Sydney Rumboll, Gent., to be Acting Surgeon (dated June 29th, 1889).—1st Argyll and Bute: John Cunningham, M.B., to be Acting Surgeon (dated June 29th, 1889).—*Engineers* (Fortress and Railway Forces): 1st Middlesex: Guy Budd Courtney, M.B., to be Acting Surgeon (dated June 29th, 1889).—2nd Tower Hamlets: Acting Surgeon R. H. Hodgson to be Surgeon (dated June 29th, 1889).—2nd (the Weald of Kent) Volunteer Battalion, the Buffs (East Kent Regiment): Acting Surgeon T. Joyce to be Surgeon (dated June 29th, 1889); Surgeon T. Joyce to be Surgeon-Major ranking as Major (dated June 29th, 1889); Acting Surgeon W. M. Harmer to be Surgeon (dated June 29th, 1889).—1st Volunteer Battalion, the East Yorkshire Regiment: Acting Surgeon R. Hagyard to be Surgeon (dated Feb. 1st, 1889).

Correspondence.

"Audi alteram partem."

THE TREATMENT OF DISEASES OF THE SPINAL COLUMN.

To the Editors of THE LANCET.

SIRS,—Something has been gained by my protest, as Mr. Bigg now writes (THE LANCET, June 22nd) that "he had especially in mind rotato-lateral curvature." Since Mr. Bigg insists on the mechanical treatment of lateral curvature, I hope you will allow me to make a few remarks.

Most surgeons are now agreed that lateral curvature is generally induced or predisposed to by muscular weakness; even inequality in the lengths of the legs will not produce lateral curvature in my opinion unless the spinal muscles are weak. Before osseous—i.e., incurable—deformity occurs in lateral curvature, the patient has become so accustomed to a vicious physiological posture that attempts to correct the deformity without the directing aid of the surgeon generally increase it; the patient has lost the "muscular sense" of the normal erect posture; this applies still more forcibly where osseous deformity has set in. A strong Committee on Lateral Curvature, appointed on March 11th, 1887, by the Clinical Society, accepted my views on the prognosis by stating that "the amount of improvement which may be hoped for in any given case may not unsafely be gauged by the improvement which the patient can voluntarily effect (*directed or helped by the surgeon*) in his or her position when first seen."[1] Now, it is generally impossible for an ordinary case of lateral curvature to assume this temporary improvement while encased in a spinal support. The proper treatment of lateral curvature should be, first, to re-educate the patient's muscular sense of the normal or best possible posture; and, secondly, to strengthen the spinal muscles &c. by methodical exercise. In my experience, "slight cases of non-osseous lateral curvature can generally be cured in one month by one hour's daily treatment; other cases, on an average, require three months' treatment for an hour daily to effect either a cure in those cases which can be cured (postural or non-osseous stage), or the utmost improvement possible in others where there is more or less osseous deformity present (osseous stage)." The comparison of this with the following is startling. In a series of 200 consecutive cases of lateral curvature under my care, published a few years ago, many had been previously under instrumental treatment for years without success. "Case 9 wore a steel support sixteen years; Case 19 a steel support four years, during which period it was screwed up 195 times by the surgeon; Case 32 a steel support seven years; Case 73 a steel support eight years; Case 125 a steel support eighteen years; Case 155 a steel support six years, and a felt jacket for a year or two longer; and Case 166 a steel support twelve years. From all these cases I removed the spinal support at once, and so strengthened the spinal muscles that the patients were able to hold themselves permanently in a much better position than when wearing the support, with much benefit to the general health." Most of the cases of lateral curvature which now come to me have been previously treated more or less partially by exercise, but the latter has been without method, and even where it has been properly carried out, too frequently any benefits resulting have been neutralised by the paralysing or weakening effects of the spinal support worn under the delusion of maintaining an improved posture in the intervals.

I am, Sirs, your obedient servant,

Queen Anne-street, June 24th, 1889. BERNARD ROTH.

[1] *See Clin. Soc. Trans.*, vol. xxi., 1888, p. 301.

ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—In reference to Mr. Pearce Gould's letter, published in your journal of June 29th, permit me on behalf of the committee of the Association of Fellows to mention the following facts. The circumstance to which Mr. Pearce Gould refers was not his election but his re-election as a member of the committee of the Association, of which committee he has been a member since its formation in June, 1884. Last year—viz., 1888—he was re-elected in the belief—right or wrong—that it was with his knowledge and consent, and he has never until now repudiated his re-election. Notices of all the committee meetings have throughout been regularly sent to him, and he has never asked that these notices should not be sent. Indeed, the first intimation we have had of Mr. Gould's want of sympathy with the Association was the letter above referred to. I need not trouble you with any criticisms concerning Mr. Gould's opinion of the character of the reform which the Association has in view. I am, Sirs, yours obediently,

HERBERT W. ALLINGHAM,
Hon. Sec. of the Association of Fellows.

Grosvenor-street, W., June, 1889.

"TWO EXAMINATIONS: A CONTRAST."

To the Editors of THE LANCET.

SIRS,—Your correspondent's suggestion that there is room for improvement in the conduct of the examinations at the Royal College of Surgeons will meet with sympathy among many of your readers. May I, a rejected candidate, be allowed a few words on my personal experience?

I only aspired to the Membership, but worked very hard to attain that exalted position. After passing the "primary" I put in two years' hard work, chiefly attending to surgical subjects, my ultimate bourne being the services. I attended diligently two courses of operative surgery, was dresser for nine months, and held a resident dressership for six months at one of the largest hospitals. Three weeks before going in for the examination under the supervision of the able and painstaking Professor of Operative Surgery at my school, I did a Syme's operation on the dead body, attending carefully to all the minutiæ, after having a week to prepare for a limited number of operations. Consequently I thought myself rather fortunate when asked at the College to "mark out a Syme's operation." I was handed a sort of carpenter's pencil, and proceeded to go through this very trying manœuvre, but, having finished, was somewhat staggered at being roughly asked if that were the way I should hold the knife, and if that were the flap I should make first. I endeavoured to explain, but was quite sure that a very bad impression had been made, and was allowed very little chance of showing that I knew something about it. If I had been allowed sufficient time, or had the opportunity of performing the operation on the dead (or living) subject, I am sure the impression would have been very different. I do not presume to say that that was why I was "plucked," but everyone knows men who were among the "good" men of their year, who have come to grief because their knowledge was of the laborious and painstaking kind rather than the superficial and ready. I should suggest to candidates to get under a good "crammer" who will teach them to be quick with replies on the principle of small profits and quick returns, to know the instruments at sight, and learn a little showy bandaging. I am sure the examination is not nearly sufficiently exhaustive and thorough for so important a matter as testing the result of several years of more or less hard work.—I am, Sirs, yours faithfully,

Birmingham, July 2nd, 1889. B.A., L.R.C.P., L.S.A.

THE CRIPPLES' HOME FOR GIRLS.—On June 29th Princess Christian opened the new buildings of the Cripples Home for Girls in the Marylebone-road, in the presence of a large number of the friends of the charity.

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LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Hospital Saturday.

THE amount raised in this city by the working classes on behalf of the medical charities through the Hospital Saturday organisation reaches £3200—nearly £300 more than the same fund of last year, and £50 more than in any previous year. This is encouraging, but it is only a proportion of what ought to be raised in Liverpool. The working men of Birmingham, in the amount of their contributions, have put their fellow-workmen of Liverpool and other towns to the blush. Continuous efforts will be made here to ensure all-year-round collections at all the various centres of labour.

Remarkable Case of Hydrophobia at Warrington.

An inquest was recently held at Warrington by Mr. Brighouse, county coroner, on the body of Emma Sefton, aged forty-two, who died on the 21st ult. Mr. Cocker, the landlord of the Star Inn, deposed that the deceased was bitten on the thumb two years and a half ago by a dog belonging to him. The wound was bathed in hot water and salt, but otherwise the patient was not treated. The wound healed, and from her own statement she suffered no pain; the dog was shot the day she was bitten. Mr. Adams, surgeon, of Warrington, deposed to deceased visiting him on the afternoon of the 20th, when she complained of tightness in the throat, and inability to swallow. She was seized from time to time with convulsive tremors; her mental condition was one of considerable excitement, at first suggesting hysteria. His assistant and he thoroughly examined her, and though the indications were not very positive, he treated her for hydrophobia. He saw her the following day, and was with her when she died the same night. He was clearly of opinion that death was due to hydrophobia. In reply to the coroner as to the long interval which had elapsed between the bite and the occurrence of symptoms, Mr. Adams said that this was one of the main elements of doubt, but that there were no fixed limits. A verdict in accordance with the medical evidence was returned.

Poisoning by Cyanide of Potassium at St. Helens.

An inquest was also held by Mr. Brighouse on the body of a Manchester hairdresser who left his home on Saturday, June 22nd, his wife noticing nothing unusual, and concluding that he had gone to work. She never saw him alive again. He had been unfortunate in business, and of late had been very forgetful; he had complained of pain in his back and legs. He called at the Raven Hotel, St. Helens, the same day, and asked for a bed. The landlord observed that he was sober and that there was nothing strange about him beyond his saying that he did not wish to be called early in the morning. At 11 A.M. the next day the door was forced open, and the deceased was found in bed quite dead. A chemist deposed to selling the deceased two pennyworth of cyanide of potassium, to remove stains caused by hair dye, for which it was often used. The post-mortem examination was made by Dr. Jackson, who found that cyanide of potassium had been the cause of death.

The Sanitary Condition of Prescot.

Prescot is a very ancient though small town, situated within a few miles of Liverpool, having near to it the ancestral homes of the Earls of Derby and Sefton, named respectively Knowsley Park and Croxteth Hall. It has also its own coroner for the Prescot Liberty. Its population at the last census was over 6000, and it has been a seat of the watchmaking industry for 150 years. This, after several fluctuations and much recent depression, promises revival. Though standing high and favourably situated, Prescot possesses many sanitary defects, being overcrowded, while many of the older houses are quite unfit for human habitation. It is a satisfactory proof of the increasing interest taken in sanitary affairs that a local daily paper has published several articles on the state of Prescot and its inhabitants, pointing out all the sanitary defects and showing the proper remedies. The following is the concluding paragraph of the last article: "Why should not the hovels and slums of the town give place to good and decent dwellings and open streets? Why should not the place, which boasts not only of the birth of reputed mechanicians, but of more than one eminent scholar, and of at least one great actor—the tragedian Kemble,—become as flourishing as the growing and comparatively mushroom towns around it."

Alleged Starvation of a Child at Widnes.

A man and his wife have been committed for trial at the assizes for the manslaughter of their infant daughter aged three months. The medical evidence showed that the child measured 22 in. and weighed 5 lb. 6 oz. There were no marks of violence, but internally the body was ill-nourished, pale, and bloodless. Both the medical witnesses, Drs. McCambridge and McLennan, attributed death to starvation and neglect.

Fatal Accident at a Shooting Gallery.

A girl sixteen years of age, who was employed as a waitress in New Brighton, was fatally shot on June 22nd by another girl with whom she was acquainted, and who was employed at a shooting gallery which the deceased used to visit. The latter was holding a loaded gun in her hand, when the trigger accidentally caught in her dress and it went off, the bullet entering the left nostril of the deceased, who was removed to the Wallasey Cottage Hospital, and died there. In returning a verdict of "Accidental death," the jury considered that all loaded rifles should be placed on the rack, and not kept in the hand.

Liverpool, July 2nd.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Victoria University and Owens College.

AT a recent meeting of the Court of the University it was stated by the Vice-Chancellor that steps were being taken with the proper authorities for obtaining and using a coat of arms and heraldic device of its own. At the same meeting also it was announced that it was hoped that the subscriptions now being raised in the north of England for the erection of a statue of the late John Bright would show a sufficient surplus to found a scholarship in the University either in English literature or in some way to encourage the study of English literature. At the annual meeting and prize day of Owens College a most encouraging and satisfactory report for the past year was submitted, and showed progress and increase of work in every direction. The total number of students attending in the whole of the departments numbered 1297, of whom 380 were medical students. Seventy-seven of these are said to be preparing for degrees in Medicine in the Victoria University, and forty-one for those of London University. During the year thirty-three students have taken a medical degree in the Victoria and twenty-four in the London University. At the time the medical school became part of Owens College there were less than 100 students; the above figures show this number to have nearly quadrupled at the present time, and it is felt that before long additional accommodation will have to be provided for the medical department. The proposed new hospital in connexion with the College was also alluded to, and it is hoped that during the current year a satisfactory conclusion will have been arrived at respecting it. During the year the College has received a number of munificent bequests, amongst them being £35,000 from the late Sir Joseph Whitworth, £1000 from the Richard Trevithick Memorial Committee, £10,000 from the late John Rylands, £1000 from the late Mr. Robert Platt, £4000 from the late Mr. Richardson, and numerous donations &c. to the museum and collections.

Royal Infirmary.

At the last monthly meeting of the infirmary board one or two questions of public interest came up for discussion. A correspondence had taken place between the board and the committee of the Hospital Sunday Fund, owing to the greatly diminished amount of money granted to the infirmary this year. The explanation given was that the fever hospital of this institution, which has always been considered as a part of the same charity, has a large balance to its credit at the bank, owing to the profits made from the treatment of patients paid for by the surrounding corporations and local boards. It also seems that the Salford corporation are threatening some action with a view to obtaining the repayment from the infirmary of some of the money paid for the treatment of Salford patients in the

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Monsall Fever Hospital, alleging that Salford, in common with the rest of the community, has certain rights under Act of Parliament in sending patients there. A thoughtful act of kindness worthy of other societies has lately been shown by the Manchester Amateur Photographic Society, in preparing and presenting to the infirmary and to the Salford Royal Hospital some very handsome books of photographic scraps and pictures.

Salford Hospitals.

The Local Government inquiry respecting the new Fever Hospital and its proposed site has at last terminated. It was adjourned some weeks ago because it was thought that another site could be found near Barr-hill, to which less objection would be offered. The corporation have, however, decided that this site is unsuitable, and now ask the board to sanction the first proposal for building it near Eccles New-road. The decision of the inspectors is not yet known, but it is expected to be a favourable one. The same matter figured in the Court of Queen's Bench on Friday last, when a member of the Salford corporation unsuccessfully applied for a *mandamus* against the mayor and town clerk to compel them to place upon the agenda of the next Council notice of a motion to rescind a resolution the Council had passed recommending the purchase of the above site. Another Local Government Board inquiry has just been held at the Hope Infirmary, belonging to the Salford guardians, touching some charges brought against the medical superintendent by some nurses who had been discharged. This inquiry terminated on Saturday, and the inspector, Mr. H. J. Fust, will report to the Local Government Board. Judging from the published report of the proceedings, some of the charges were trivial.

Special Hospitals.

Last year we had started a small institution styled the Manchester Eye and Ear Hospital. The grounds for its existence it would be difficult to state; it has, however, just held its annual meeting, and it would appear that an income of £245 has been received during the year. Some legal correspondence has passed between it and the Eye Hospital proper, with a view to compel this new venture to abandon the above designation, but apparently without success.

Water-supply.

Singular to relate, the rainfall in this neighbourhood the past month has been lower than in many other parts of the country. At Whitsuntide, when London and the south of England was being drenched with rain, we had perfectly fine weather. The long-continued dry weather is beginning to cause a little uneasiness again about our water-supply, and consumers are being urged to practise economy in its consumption, as the store is being diminished at the rate of upwards of 20,000,000 gallons a day.

Manchester, July 3rd.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle Cathedral Nurse Society.

THE report of the Newcastle Cathedral Nurse Society is a record of good work done for the past year, as 1169 cases had been nursed, 12,954 visits paid, and 295 night nurses employed. Over 21,000 dinners had been supplied. It was mentioned at the meeting that this beneficent work had originated with Mrs. R. J. Johnson—who was now leaving Newcastle—five years ago.

Stockton: a Post-mortem Examination under Difficulties.

At a late inquest at South Stockton the coroner said that Dr. Pearson had furnished him with a reason why, in his post-mortem examination he had not opened the deceased's head. It was because the examination had to be made in a small back yard with but a rickety door separating it from a crowd of people who were surging around it, and had he used a saw he believed the people would have burst the door in. The jury, on the suggestion of the coroner, recommended the urgent need of a mortuary for the town.

Darlington.

The classification of tobacco, whether as a drug or an article of grocery, appears to be a knotty point for Darlington guardians. It seems that the old people of the workhouse were deprived of this solace for five weeks, and of course the complaints became deep, and at last loud. Ultimately the subject came up before the full board, when it appeared that the surgeon was not to blame, having ordered six pounds of tobacco for the poor people, which they did not receive. It was explained by the surgeon, Mr. Middlemiss, that at first tobacco was considered a drug, and the druggist had to supply it; then it was passed on to the grocer. It is to be hoped, for the benefit of the paupers, that "the weed" will be properly classified, and regularly supplied in future.—Dr. Walker, the medical officer of the Aycliffe district, has reported the extension of an outbreak of typhoid at Aycliffe—eight or nine new cases in two or three days; the symptoms were well defined. Most of those attacked were children, and as a rule the cases were mild. As was suspected, the public pump had been the cause of the outbreak, surface impurities having found their way into the well. In every case of the disease its source was traced to the pump, which had been undergoing repairs, but meantime the well had not been efficiently closed.

The late Mr. Wm. Arras, Surgeon, of Wetheral.

A meeting of the friends and patients of the late Mr. Wm. Arras, of Wetheral, near Carlisle, has been held to commemorate the respect in which he was held in the district during a practice of fifty years, and it was unanimously resolved to erect a stained-glass window in the parish church with that object.

Outbreak of Fever in Leeds.

The local papers report an outbreak of typhoid and scarlet fever in Leeds, which has spread to a rather serious extent within the last few days. There are now, it is said, fourteen cases of typhoid, mostly from the Woodhouse and Headingly districts. Four of these were admitted on Monday, and it is stated that a larger number are being treated at their homes. As to scarlet fever, the disease prevails to a more serious extent than typhoid. On Monday there were twenty-five cases in hospital, three having come in during the day. The prevalent ill-health is said to depend on the escape of sewer gas favoured by the prolonged dry weather; but the water-supply and the sale of fruit to the poor should be looked to.—A beautiful drinking-fountain has been just erected on the moor edge and corner of the principal road leading to Newcastle. It has been formally presented to the city by Dr. Whylock of Folkestone in the name of his aunt, Miss Colvill, by whom the gift was made in commemoration of her brother, long a resident here.

Newcastle-on-Tyne, July 4th.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

Easter Craiglockhart Hill and the Royal Edinburgh Asylum.

DR. JOHN SIBBALD, Commissioner in Lunacy, in his report recently issued, points out that the usefulness of the Asylum as a public institution has been year by year more impaired by the fact that the East House and its grounds are so overlooked by the high buildings that have been erected in its vicinity. The managers of the Asylum have been for some time fully aware of the necessity for taking steps to provide accommodation for the patients on a more suitable site, as already mentioned in THE LANCET, which site would have been almost perfectly adapted to the requirements of the case had it not been found that it will be impossible, without incurring great expense, to prevent the grounds from being overlooked from the rising ground immediately outside the boundary. The *Scotsman's* version of the report states that it is understood the Asylum managers have endeavoured unsuccessfully to acquire the ground known as Easter Craiglockhart Hill, which includes the rising ground referred to. If this ground were acquired the only objection to the site would be removed, and the usefulness of the institution would be greatly increased. The failure to obtain it is, in the interests of the insane, and therefore in the interests of the public—all classes of the community being liable to insanity,—much to be regretted. It is to be hoped, indeed, that the matter may still be open to reconsideration, and that, if no more can be done, the managers may at least be able to acquire a narrow strip of ground outside the western boundary of the estate. This, even if of

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so small extent as not seriously to affect the suitability of the hill for other purposes, would be of the utmost advantage to the patients. It does not seem to admit of doubt that a willingness will be shown to aid in preventing them from being subjected to the gaze of idle curiosity. Dr. Sibbald's report should certainly have great weight with the authorities, and it is to be hoped that his strong recommendation will be followed by a reconsideration of the decision already arrived at. This is a more important matter than most people seem to realise, and it is only by frequently calling attention to its importance that it can receive full consideration and fair treatment.

Meteorological Notes for June.

Some most interesting facts are published by the officials at the Government Navigation School at Leith. The highest reading of the barometer was on June 5th, when the mercury rose to 30·495 inches; the lowest on the 2nd, 29·673 inches, the mean being 30·067, or 0·138 inch higher than the average of the last twenty-four years. The highest recorded temperature (in the shade, four feet above the grass) was on the 26th, when it reached 78·4°; the lowest on the 11th, 40·1°. Mean temperature was 50·2°, greater than the average for the month during the last twenty-four years by 1·7°. Rain fell on eight days; amount 1·44 inch, less by ·44 inch than the average for the last twenty years. No rain fell after the 12th, so that we have now had three weeks of absolutely fine weather, and the crops are suffering very considerably in consequence. The death-rate is, however, again very low.

Royal Society of Edinburgh.

At the meeting of the Royal Society, held on Monday evening, Professor Sir William Turner read a paper on the Placentation of the Halicori Dugong. The subject of placentation is one in which Sir William Turner is peculiarly well versed, and his observations on the structure of the mucous membrane of the uterine wall and the relation of the placenta to this were of peculiar interest. Dr. Nausen, the arctic explorer and biologist, spoke of the importance of the paper in its relation to the classification of the dugong. In its complete and published form it will be looked for with interest by naturalists. A paper on the Renal Organs of the Hematoidea was contributed by Dr. A. B. Griffiths.

Edinburgh, July 3rd.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Child Mortality in Dublin.

THE deaths of young children in Dublin, as compared with the general death-rate, have always been exceptionally high, and various causes have been suggested for this unenviable notoriety. Dr. Grimshaw (Registrar-General), at a meeting of the Statistical Society this week, read a paper on this subject, and offered some suggestions as to the main causes which lead to the excessive death-rate among children in Dublin. If we compare the annual death-rate per 1000 among infants under one year in the three countries, we find it to be in England 167·8, in Scotland 135·3, and in Ireland 115·5; while for children under five years of age the rates are—England 58·4, Scotland 51·4, and Ireland 36·6. So far the death-rate of infants and young children in Ireland compares favourably as contrasted with the sister countries, and may be explained by the fact that the proportion of the population living in towns in England and Scotland far exceeds that of Ireland; and we know that the mortality among town children far exceeds that of country children. If we now compare the child mortality of Dublin with other large towns of the United Kingdom, we shall find that it is comparatively high, not only as compared with English and Scotch towns, but also with the large Irish cities, as Belfast and Cork. During the ten years 1877–86 the deaths in Dublin averaged 11,111 per annum, or 27·6 per cent.; and of these, 3511, or 31·6 per cent., were of children under five years of age. Of these an average of 1959 per annum were infants under one year, or at the rate of 210·1 per 1000 of children living at that age according to the census of 1881. The following have been assigned as the principal causes of this exceptional mortality: the large proportion of very poor in Dublin, the inferior house accommodation of the artisan and labouring classes, and the extremely intemperate habits of the lower classes. As regards this latter, it cannot well be denied that the children of drunken parents are not born so healthy as the children of sober parents, and when born are neglected in every conceivable way, and are exposed to dangers from a reckless negligence which is almost inconceivable among civilised people. Recently a movement has been started in Dublin for the prevention of cruelty to children, and one of the objects Dr. Grimshaw had in view in bringing the subject of child mortality before the Society was that the information contained in his paper might serve as an indication of the necessity there is for taking measures to improve the conditions of child-life in Dublin.

Omagh District Lunatic Asylum.

The Local Government Board are of opinion that the Gortin Workhouse and Fever Hospital, now unoccupied, would be suitable for a lunatic asylum, and have requested the opinions of the Board of Governors as to the suggestion being carried out. Dr. Nugent, inspector of lunatic asylums, has reported that he saw no objection to its being rendered available for about eighty lunatic inmates of the imbecile, aged, demented, and homeless classes, provided the same system be carried out there as at the asylum. The governors have resolved not to take any action at present in the matter.

Galway County Infirmary.

A special meeting of the governors was held last week for the purpose of considering what steps should be taken with regard to the *mandamus* of the Court of Queen's Bench, addressed to the governors, calling upon them to proceed to the election of a surgeon to the infirmary. The matter having been discussed, it was resolved by a large majority to take the opinion of the Court of Appeal on the judgment of the Queen's Bench. Colonel O'Hara, who obtained the *mandamus*, proposed an amendment that an election for a surgeon take place on July 19th, but it was lost by 40 to 6.

Chemists and Druggists' Association of Ireland.

The committee of this Association had a meeting last week for the purpose of taking steps to induce the Government to introduce the Pharmacy Amendment Bill as agreed to at a recent conference with the Law Committee of the Pharmaceutical Council. A deputation from Belfast were afterwards entertained at luncheon in the Gresham Hotel.

South Dublin Union Workhouse.

At a meeting of the guardians held last week, Dr. Greene was elected resident medical officer, at a salary of £200 a year and residence. There were twelve candidates for the post.

Outbreak of Scarlatina in Athy Union.

Scarlatina has been rather prevalent in this union for some time past, and on the recommendation of Mr. Kilbride the guardians have decided to order the closing of the schools in the town during the continuance of the epidemic.

Dublin, July 2nd.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Lactose as a Diuretic.

A propos of the communication recently made to the Academy of Medicine by Professor Germain Sée on Lactose as a Diuretic, Dr. Dujardin-Beaumetz, in continuing the subject at a subsequent meeting, stated that he had verified the diuretic action of this substance. He had tried to ascertain whether glucose had not the same diuretic action as lactose. He found that with a dose of 100 grammes of glucose in two litres of milk per day an abundant diuresis was produced, whereas two litres of milk given alone did not produce any, and he mentioned as a curious fact that at this dose the glucose did not appear in the urine—at least, not in the first days. He was led to deduce from M. Sée's communication that all saccharine principles may possess diuretic properties. He, however, recognises the advantage of lactose over glucose, because the first does not pass into the urine, whereas the second renders patients diabetic. He therefore considers it necessary to make further researches on this subject, with the view of ascertaining whether there would be any inconvenience in rendering a subject glycosuric in order to cause his dropsy to disappear.

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Discovery of a Gigantic Mastodon.

At the Academy of Sciences, M. Gaudry drew attention to a gigantic animal of the middle of the miocenic period of the Wyoming, to the west of the Rocky Mountains. This Dinocera mirabile was found by the American palæontologist Marsch, who sent M. Gaudry the elements necessary for its reconstruction. This great mastodon is now to be seen in the Palæontological Department of the Museum of Natural History. M. Gaudry believes that this is certainly the most gigantic being of the miocenic epoch, and he says that it is interesting to remark that this species became rapidly extinct, notwithstanding its enormous strength and the length of its powerful tusks. Here the correctness of Darwin's theory was called into question. M. Gaudry observed that "the struggle for life" should have saved this species so well prepared for combat, and caused other species much less endowed to disappear. Instead, however, it is the animals of smaller size and less strength which have outlasted the larger species. We must, therefore, seek another argument than that of the "struggle for life" to explain the resistance of certain species during a long geological period. Hitherto no ancestor of the Dinocera mirabile has been discovered. It appeared suddenly, and disappeared in the same way—at least no trace has been found of any transformation either before or after its appearance on the globe. Mr. Francis Darwin, son of the celebrated naturalist, was present at the meeting.

Criminal Anthropology.

One of the subjects to be treated of at the International Congress at the Paris Exhibition is "Criminal Anthropology," by Dr. Manouvrier, Professor at the School of Anthropology at Paris. This eminent authority, after most painstaking researches, has come to the conclusion that there is no anatomical character whatever special to criminals; therefore the fate-theory of the Arabs cannot be admitted. Every criminal act depends on the organisation of the individual, and especially on his exterior surroundings. It can be perfectly conceived that education, instruction, social condition, &c., are so many soils suitable to modify organisations. But the largest field open to the study of anthropologists is certainly that of responsibility, and it is there that we witness the lamentable cases of "impulsives" and "cerebrals." We certainly see many skulls and many brains of criminals presenting in their size and in their form irregular characters and certain anomalies, but these same irregularities are met with equally in other men, and even in those who had never been guilty of a criminal act. There is therefore no certainty in craniological characters; and the author adds that it is very fortunate that this is the case, for if justice were to be swayed by these coarse and inferior characters, innocent persons who may not have a sympathetic face would be unjustifiably condemned, whilst a seeming gentleman would be acquitted. Dr. Manouvrier concludes with the advice that no great importance should be attached to craniological characters for criminal diagnosis.

School Paper and Eyesight.

The attention of the Superior Council of Hygiene has been drawn to the opinion that the employment of paper with blue lines, generally used in schools, is very detrimental to the sight, and would in some measure be the cause of the gradual weakness of the vision which has for many years been observed among school children. If this opinion be found correct there will be an interdiction of this paper in schools.

The Contagion and Prophylaxis of Crime.

At one of the meetings of the Congress of Learned Societies, Dr. Moreau, the well-known alienist, read a note on "The Contagion of Crime and on its Prophylaxis." Owing to the increasing number of crimes, the author made some researches on the causes and the proper means for diminishing them, and he has arrived at the conclusion that the causes are double. 1. It is hereditary, and associated with a special nervous state, which, more than anything else, renders the individual liable to the baneful influence of imitation. In the same way that certain bad habits are rapidly communicated from one person to another, so do we see the idea of crime spring up by the reading of an analogous fact, and conception give place to execution. 2. To the too great publicity given to the relation of assaults of all sorts, assaults which are reproduced with full details in the newspapers, particularly illustrated papers which publish all kinds of sensational crimes, and lay them before the eyes of the public. To put a stop to this terrible increase of assaults on persons, and to the ravages exercised by this epidemic, the only means really useful would be to observe the most complete silence concerning all the crimes that are committed, or, if they must be reported, it should be done in brief, concise terms, and with extreme reserve.

One of the recent visitors to the Paris Exhibition is M. Harduin, aged 102 years. He intends, it is said, to ascend the Eiffel Tower. He is an inhabitant of Compalay, in the department of the Seine and Marne. Notwithstanding his great age, he enjoys good health and retains all his faculties.

In anticipation of the approaching inauguration of the new buildings of the School of Medicine, the Minister of Public Instruction has ordered a bust of Chaussier, the celebrated anatomist, to be in readiness.

Paris, July 2nd.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Internal Arrangement of a Military Hospital.

THE international jury appointed to award the prizes offered by the Empress Augusta for the best internal arrangement of a movable military hospital has awarded the gold medal, bearing the portrait of the Empress, together with 2000 marks (about £100), to Dr. L. Gutsch of Karlsruhe; to Messrs. Christoph, Doogs, and Goldschmidt, of Berlin; and to Mr. Norton of London, and Captain Tomkins, respectively.

Beri-beri in Brazil.

The *Vossische Zeitung* has received the following communication from Porto Alegre: "The Brazilian Government cannot get rid of its hygienic anxieties. The yellow fever epidemic has just run its course in Rio and Lantos, and is nearly extinct in Campinas; and now it appears that beri-beri is spreading in an alarming manner. Beri-beri, a disease which attacks the peripheral nerves, is not, like yellow fever, a periodical phenomenon, connected with the season and the weather. It has always been endemic in the northern provinces, but has spread farther and farther within the last ten years, and taken firm root in many places—in Rio Janeiro for instance, where especially large numbers of soldiers and sailors have been seized by it, and special isolated hospitals have had to be erected in consequence. The civil population, however, has not been spared, and though the number of deaths is not nearly so great as in fever epidemics, the percentage of fatal cases is very considerable, and the death-list contains from two to four deaths from this disease daily. Its contagious character is beyond doubt; at the same time change of place at the beginning of the disease has saved the patient in many cases. Dr. Baptista de Lacerda, to whom we owe the introduction of injections of hypermanganate of potassa against venomous serpent bites, has studied the nature and causes of beri-beri since 1884, and published the results of his investigations in 1887 in a treatise entitled 'The Microbe of Beri-beri.' Professor Pekelhäring of Utrecht [see THE LANCET, vol. i. 1889, pp. 892, 941], who was sent to the East Indies by the Dutch Government to study this disease, which is very frequent in Java, has confirmed Lacerda's results in all points. They are agreed that beri-beri is an infectious disease, carried by a microbe, which they isolated from the blood of patients and cultivated, and which produces the same disease in animals inoculated with it. Pekelhäring's microscopic preparations leave no doubt that the beri-beri microbe is the same in the Dutch East Indies as in Brazil. The commission appointed by the Brazilian Government to investigate the disease may therefore confine its efforts to the discovery of remedies and of means for combating its spread."

The Tercentenary of the Microscope.

In honour of the tercentenary of the microscope, which was invented by Hans and Zacharias Jannsen at Middelburg in 1590, the Cercle Floral in Antwerp will combine an exhibition of microscopes with its botanical exhibition next year. It will consist of two parts—a historical exhibition of microscopes from the oldest to the newest, and an exhibition of microscopes, auxiliary microscopic apparatus,

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and microphotographs, by the best opticians of the present day. In connexion with this exhibition there will be a series of discussions on the photo-electric microscope.

The Berlin Society of Domestic Hygiene.

The Berlin Society of Domestic Hygiene, of which the Empress Friedrich is patroness, held its tenth annual meeting on June 17th, under the presidency of Dr. von Bunsen. The report showed that the committee for sending children to the country had extended this inestimable benefit to 1650 children during the past year. It hopes to be able to send 200 more this year.

The Health of Berlin.

Despite the extraordinary heat of May, the greatest that has been observed here since 1719, the death-rate of Berlin in that month was only between 20·7 and 23. In the first week of June, however, it rose suddenly to 38·3, 58·8 per cent. being children.

June 17th was the seventieth birthday of Professor Rudolf Voltolini, one of the leading German aurists. His scientific fame rests chiefly on his work entitled "The Dissection of the Organ of Hearing," which appeared in 1862.

Berlin, June 24th.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Notes of the Johnstown Flood.

THE destruction by a flood of the towns in the Conemaugh valley, Johnstown being chief, has a phase not unlike that of a great battle during hot weather. In the former case a population estimated at from 10,000 to 15,000 is suddenly overwhelmed with a flood of waters which, in its resistless course, bodily lifts a whole town, churches, mills, houses, barns, and every movable object, carries them a score of miles, and finally deposits the drift in a chaotic mass. With the recovery from the first shock of horror at the dreadful catastrophe arose the great question of immediate relief of the survivors, and, with the generosity so frequently manifested in our commercial centres, the contributions of money and clothing were ample to meet every need. Next came the question of meeting the dangers of pestilence which must follow the decomposition of this immense mass of putrefiable material. The State Board of Health of Pennsylvania was early on the ground, directing operations. The dead were collected, as far as discoverable, and at once buried. The enormous collections of refuse at different points were opened to allow of free drainage and the rescue of dead bodies. Disinfection was systematically pursued throughout the district. At one point, where a strong stone bridge had intercepted the drift, dynamite had to be used to open the mass. The number of labourers employed has been 3000. It is now believed that by the burial of dead persons, the cremation of dead animals, the burning of waste materials, and constant disinfection the danger of a pestilence has been prevented. Nervous shock was found to be a prominent feature among all survivors; several persons were so overcome on hearing of the death of their relatives that functional activity was paralysed, nutrition suspended, and death ensued. In the bodies of the dead the eyeballs appeared protruded as a rule, and the eyes widely open. It was also noticed that many who were exposed to great peril and survived had ecchymosis of the conjunctiva. Six physicians, one-fourth of the entire number, perished while engaged in saving others. One rushed again and again from safety into peril, urging the way of escape to many, until he was killed. Another had two ribs broken, but still took charge of several women who had premature confinements.

National Association of Railway Surgeons.

This body has recently held its second annual meeting. The most important subject discussed was the Railway Hospital System of the Mississippi Valley. This system sustains a hospital service on the assessment plan, and is very popular with railway *employés*. Resolutions condemning contracts with hospitals in towns and cities to furnish persons holding certificates of associations with board, lodging, nursing, and medical and surgical attendance for small considerations were passed. Primary amputation in railway injuries necessitating that operation was strongly recommended.

New York, June 17th.

THE COLLEGE ELECTION.

THE first election of three members to the Council of the Royal College of Surgeons under the new regulations and voting by means of proxy papers was held in the Library of the College on the afternoon of Thursday, the 4th inst., from two to four o'clock, and resulted as follows:—

Mr. HEATH	397,	including	5	plumpers.
Mr. HULKE	385	,,	8	,,
Mr. HOWSE	241	,,	2	,,
Mr. Rivington	180	,,	3	,,
Mr. Lawson Tait ...	177	,,	8	,,
Mr. Tweedy	145	,,	2	,,
Mr. Charles Steele ...	99	,,	3	,,
Mr. Cowell	51	,,	2	,,

Mr. Heath and Mr. Hulke were therefore declared by the President to be duly re-elected, and Mr. Howse to be elected to the vacancy caused by the resignation of Sir James Paget. Six hundred Fellows voted. Out of the 462 voting-papers sent in response to applications, 424 were received in time for the election and 5 arrived too late. Only 6 papers were declared invalid. Of those which were valid, 308 were from Fellows outside the London Postal District, and 116 from within the district. The number of Fellows who personally recorded their votes was 176. Last year the total number of votes recorded was 180; in 1887 it was 199. Unusual interest was manifested in the election, and many who had recorded their votes by proxy paper attended to hear the votes counted, a process which occupied more than an hour.

The usual exhibition of the specimens which have been added to the museum during the last year was held in the council room. These are above the average in interest and variety. The following are those to which the Conservator draws special attention in his report, in the department of Pathology: congenital displacement of femora taken from Dr. Carnochan's original case, anthrax of intestines, actinomycosis of human liver, cirrhosis of liver with extensive calcification, cystic disease of liver associated with cystic disease of the kidneys in an adult female, congenital cystic disease of thyroid gland, psorospermial cysts of ureters, syphilitic disease of knee-joint and of hip, syphilitic epiphysitis of infants, dermoid of testicle, avulsion of the lower limb with the whole length of the sciatic nerve, a series of experimental operations on the intestines in which Senn's bone-plates were employed, and a series of specimens of injuries of epiphyses accompanying the Jacksonian Prize Essay. The collection of drawings has received a large and valuable addition by the gift of Dr. Matthews Duncan's series illustrating lupus, malignant and other ulcerative affections of the pudenda; and by drawings and photographs executed by the artist, Mr. Burgess, who is now employed in delineating rare or curious diseases from the living subject, or from original drawings and plates. In the department of Comparative Anatomy the larger number of additions have been made to the series devoted to the tegumentary system, an effort having been made to bring together preparations in illustration of some laws of colour, distribution, mimicry, &c. Amongst these perhaps the most valuable is that of the fish Phyllopteryx eques. A preparation showing the erupted teeth of Ornithorhynchus, and the horny plates which replace them in the adult, is of great interest. In the osteological series there are the skeleton of a rare goat (Haploceros montanus), and, by purchase, an exceptionally large skull of a lioness, together with many other specimens.

Obituary.

EDWARD HALL, M.R.C.S., J.P., &c.

ALL who had the privilege of the above-named gentleman's friendship and acquaintance will no doubt receive with profound regret the announcement of his death.

The deceased was a son of the late Mr. Christopher Hall, of Newtown, Montgomery, was born in 1825, and was one of nine children. Showing early a preference for the medical profession, he was apprenticed to the late Messrs. Slyman and Jones, of Newtown. In a few years he went to London to receive his university education, where he was a diligent and earnest student. He distinguished himself in his classes by

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taking prizes, and was especially happy and successful in his clinical work. About this time he was fortunate in making the acquaintance of some very eminent members of the profession, among them being Sir Benjamin Brodie, who greatly esteemed him. Mr. Hall qualified early, and, after a short sojourn in London, preferred, notwithstanding many enticing offers, starting in practice in his native town, where he ere long acquired a very extensive connexion, his skill and marked ability being speedily recognised.

Notwithstanding his many professional calls, he found time and made opportunity to employ his talents and his energies for the advantage of his townsfolk. Among many of the honourable offices he filled may be mentioned the coronership of the Newtown division of the county of Montgomery, the duties of which, so far as his health permitted, he discharged with unerring fidelity. He was also Commissioner of Taxes, member and chairman of the Newtown and Llanllwchaiarn Local Board, medical officer of the Llanllwchaiarn division of the Newtown and Llanidloes Union, &c. A few years ago he was nominated as a Justice of the Peace by the late Lord Sudeley and approved by the Lord Chancellor, though for obvious reasons, as he held the coronership, he never took his seat on the bench. Rarely, if ever, has it been the lot of any public and professional man to win and retain to the hour of his death with more complete unanimity than Mr. Hall did the gratitude, affection, and regard of all who knew him. A son of talented parents, starting life under conditions well calculated to develop inherited ability, a man of unflinching integrity and unfailing kindness, combining great culture with singular simplicity, it is no wonder that his name is held in such respectful remembrance by his townsmen.

In his profession there were none more confidently trusted, and in his private life none more dearly loved. Some years before, and at the time he died, he was the head of the firm of Hall and Fergusson, and during his last illness was assiduously attended by Drs. Fergusson and Purchas. His death was due to syncope from severe internal hæmorrhage.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board on the 29th ult. in the subjects indicated :—

Physiology only.—W. T. Wray and E. G. Firth, students of Yorkshire College, Leeds; W. C. Wright and C. R. Billups, of Owens College, Manchester; G. W. Henry, of Bristol Medical School; H. A. Warke, of University College, Liverpool; W. E. F. Bird, of Edinburgh University; E. Bromhall, A. Emery, and H. P. Motteram, of Queen's College, Birmingham; A. V. Crossing, N. E. Norway, and C. W. Allen, of St. Mary's Hospital; D. Sims and P. G. Laver, of St. Thomas's Hospital; W. H. Cooke, of St. George's Hospital; H. R. V. R. de Groot, of King's College; W. C. Hinde and T. E. Lloyd, of Middlesex Hospital; T. R. Walker, O. W. Owles, and C. F. Whightman, of St. Bartholomew's Hospital; H. H. Mills and J. A. L. Campbell, of Westminster.

The following passed on the 1st inst. :—

Anatomy and Physiology.—T. M. Querney and G. S. Taylor, of Owens College, Manchester; G. L. Barker, of Sheffield; H. B. Bates and R. J. C. Rodgers, of University College, Liverpool; E. W. Bliss, H. C. Brown, W. M. Cox, and D. Stead, of Queen's College, Birmingham; P. A. Storey, of University College; H. T. Du Heaume, of St. Bartholomew's Hospital; W. D. Loveday, E. G. Evans, G. Mackeson, T. D. Lister, and N. Instone, of Guy's Hospital; and R. H. Plummer, of California.

Anatomy only.—W. R. Mathews, of London Hospital; G. H. Norris, of St. Bartholomew's; and G. W. B. Waters, of University College Hospital.

Physiology only.—W. C. Lawton, of Guy's Hospital; T. W. Hall, of Carmichael College, Dublin; W. P. Q. Daly, of St. Bartholomew's Hospital; F. G. Dorey, of Yorkshire College, Leeds; and C. W. R. Banham, of London Hospital.

The following passed on the 2nd inst. :—

Anatomy and Physiology.—J. T. H. Croft, of St. Bartholomew's Hospital; F. D. Woolley, of Owens College, Manchester; C. E. Moffatt of Guy's Hospital; James Campbell, of Belfast, Galway, and Paris; J. P. P. Tildesley, T. S. Vincent, and C. H. Harcourt, of Queen's College, Birmingham.

Anatomy only.—I. B. Garman, of Queen's College, Birmingham; R. Knowles, of Owens College, Manchester; L. J. G. Carré and G. D. Thomson, of St. George's Hospital; W. A. Ward and G. Lombardi, of Middlesex Hospital; C. B. Lourensz, of Ceylon Medical School; E. E. Dufty, of Sheffield; H. M. Cowen, of Toronto; E. M. Williams and W. B. Jones, of St. Bartholomew's Hospital; C. G. F. Morice, of Guy's Hospital; A. C. Leigh, of University College; and M. B. Foster, of Charing-cross Hospital.

Physiology only.—W. Faull, of Yorkshire College, Leeds; E. Wooldridge, of Queen's College, Birmingham; G. A. Peake, of Bristol; Reginald Ingram, H. St. J. Fraser, and T. J. Mills, of Guy's Hospital; A. D. Bensusan, W. J. Harper, F. W. Fullerton, G. F. Darker, and S. James, of St. Thomas's Hospital; R. H. Jackson, S. R. Lister, A. W. Port, F. G. Lloyd, and M. Cutcliffe, of St. Bartholomew's Hospital; T. R. H. C. Hicks, of London Hospital; H. S. Wild, of St. George's Hospital; E. W. Adams, of King's College; W. H. Payne and A. W. Seal, of University College; G. M. F. Nellen and W. H. Morgan, of Middlesex Hospital; and J. H. Hobling, of St. Mary's Hospital.

The following passed on the 3rd inst. :—

Anatomy and Physiology.—C. E. Waddington, of Yorkshire College, Leeds; R. Whitman, of Harvard University; B. D. Basu, of Lahore and Guy's; R. S. Bernard, of King's College; F. S. Bond, of Melbourne, St. Mary's, and Mr. Cooke's School of Anatomy; F. G. Bullmore, of St. Mary's Hospital; D. C. P. Taylor and W. B. Mason, of Charing-cross Hospital; G. Cross, of St. Thomas's Hospital and Mr. Cooke's School of Anatomy; W. J. Bruce, of London Hospital; and L. S. Barns, of St. Bartholomew's Hospital.

Anatomy only.—T. Ager, of London and Mr. Cooke's School of Anatomy; H. Gardner, C. F. Jack, and G. T. Bishop, of Charing-cross Hospital; H. H. Kendrick, R. J. Fyffe, F. Ellis, H. Sisson, C. A. Kitching, and S. W. Read, of London Hospital; S. E. Baxter, of St. Thomas's Hospital; W. L. Pethybridge, R. C. Gully, and A. F. H. Wray, of St. Bartholomew's Hospital; J. V. Pratt, of University College.

Physiology only.—G. W. Buxton, E. B. Cutting, H. Thomas, and W. H. Orr, of St. Bartholomew's Hospital; C. M. Fleury, A. Allport, and P. M. May, of Guy's Hospital; V. G. Drake-Brockman and G. D. E. Jones, of Middlesex Hospital; F. E. Easton, F. Knapton, and L. G. W. Tyndall, of St. Mary's Hospital; R. J. H. Allen, of University College Hospital; C. B. Prall, T. W. Hicks, and C. R. M. Woodward, of St. Thomas's Hospital; S. C. M. Nourse, of St. George's and Mr. Cooke's School of Anatomy and Physiology; and A. A. McKinnon, of King's College.

UNIVERSITY OF DUBLIN.—At a meeting of the Senate held last week the following degrees were conferred :

Bachelor in Obstetrics.—John Hugo Glenn.

Bachelor in Medicine, Surgery, and Obstetrics.—George Bracken, William Arthur Burkitt, Rudolph Arthur Colson Burnes, Charles Henry Burtchell, James Edward Carter, John Hamilton Cooke, Riversdale Sampson French, Adam Henry Fuller, Harry Rathbone Griffith, Joseph O'Loughlin Kilgarriff, William Kirkpatrick, Ludovic George Frederick Macrory, Leonard Greenham Molloy, Geo. Blacker Morgan, John Myles, Edward Parker Norman, Thomas Marshall Tate, Herbert Edward Taylor, Richard Crawford Twigg, Samuel Constantine Westwood, Robert Andrew Yates.

Bachelor in Medicine.—William Ribton Spowart, Geo. John Wilson.

Doctor in Medicine.—Henry Kingsmill Abbott, Arthur Richd. Frederic Exham, William Lacy Hickey, William Freke Hingston, William Kirkpatrick, Leonard Greenham Star Molloy, Alexander Stoney Patton, William Richardson Rice, Richard Mervyn Wilson, and Humphrey Worthington.

ROYAL COLLEGE OF SURGEONS IN IRELAND: MEDICAL SCHOOL.—At the examinations in Surgery the following were successful :—

Senior Class: William Stephens Dodd (Gold Medal). Junior Class: E. Winnifred Dickson (Silver Medal).

The following have been admitted Fellows of the College :—

J. O'Malley Martin, Surgeon-Major Medical Staff.
W. Walter, Manchester. | H. T. Warnock, Donegal.

EPSOM COLLEGE.—The annual distribution of prizes takes place to-day (July 6th, Founder's Day), commencing at 3 P.M. punctually, in the school-room. Refreshments will be served afterwards in the grounds, and there will be a choral evensong at six o'clock in the chapel.

THE WEST KENT INFIRMARY.— The Princess Louise (Marchioness of Lorne) last week opened a new wing in the West Kent Infirmary, Maidstone, the town being *en fête* on the occasion. The wing, which is an imposing red-brick structure, containing twenty-three rooms, was erected by public subscription.

HOSPITAL SATURDAY COLLECTION, HULL. — The Hospital Saturday collection in this town on the 15th inst. amounted to £444, which the committee of the Fund has distributed as follows:—Royal Infirmary, £200; Dispensary, £100; Children's Hospital, £100; Homœopathic Dispensary, £21; Orthopædic Hospital, £15 15*s*,; and Lloyd's Hospital (Bridlington), £5 5*s*.

LIVERPOOL CONVALESCENT HOME, WOOLTON.— On June 29th the annual meeting was held in the Gladstone Hall of the institution. The Mayor of Liverpool presided. During the past year 100 more patients had been received than in any previous year, probably to be attributed to a reduction, at the beginning of the year, in the terms of admission from 10*s*. to 7*s*. 6*d*. per week. Although this reduced charge had enlarged the usefulness of the institution, its finance had been sensibly affected. The year's expenses had been unusually heavy for necessary additional furniture and repairs. As the home is developing its benefits, greater interest is evinced in its prosperity by the general public.

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ROYAL INSTITUTION OF GREAT BRITAIN.—At the general monthly meeting, held on Monday, July 1st, Robert Kaye Gray, Esq., James Mactear, Esq., F.R.S.E., F.C.S., William James Russell, Esq., Ph.D., F.R.S., Pres. C.S., and James Miln Small, Esq., were elected members of the Royal Institution. Sir James Crichton-Browne, M.D., LL.D., F.R.S., was elected treasurer, in the room of Henry Pollock, Esq., deceased.

THE MANCHESTER EYE AND EAR HOSPITAL.—From the annual report, just issued, it appears that since the hospital was opened, on May 1st, 1888, to April 30th last, there had been 2162 admissions and 13,007 visits made by patients. The income amounted to £245 3*s.* 3*d.*, which had been applied in part payment of the hospital expenses. The committee records its satisfaction at the large success attained by the hospital in so short a time.

EAST SUFFOLK AND IPSWICH HOSPITAL.—The fifty-third annual report of this hospital opens with remarks on the decreased annual income and increased expenditure, while there had been an addition to the in-patients and a large increase of out-patients as compared with the previous year. The aggregate excess of expenditure over income in the last three years was £1100. The funded capital amounted to £26,417 10*s.* 9*d.*

ROYSTON COTTAGE HOSPITAL.—The annual report of this institution, which is intended for the benefit of those engaged in various industrial occupations who are unable to obtain the necessary care, attention, and accommodation when overtaken by sickness, states that during 1888 the total number of patients was fifty-two, the average number of days in hospital per patient thirty-five, and the average daily cost per patient 2*s.* 9½*d.*

THE HAMILTON ASSOCIATION.—The annual meeting of this Association, which was founded in 1885 for providing trained male nurses, was held on June 29th at the new offices in Park-street, Grosvenor-square. The committee report that the institution continues to make satisfactory progress. The London hospitals have been largely supplied from this institution with male nurses, who in the majority of cases have given unqualified satisfaction both as to their conduct and efficiency. Funds are needed to enable the original programme of the Association to be carried out in its entirety.

LONDON LOCK HOSPITAL.—The festival dinner of this hospital and asylum was held on Wednesday evening last in the Harrow-road, under the presidency of Lord Kinnaird, who, in proposing "Prosperity to the Institution," said there were 90 patients in the hospital and 50 in the asylum; whilst during the past five years there had been treated in the hospital 3000 patients, 800 of whom had been rescued from their former mode of life and were now doing well. A sum of £4000 was urgently needed to free the institution from debt.

LEAD POISONING IN THE CHESTERFIELD UNION.—At the fortnightly meeting of the Chesterfield Rural Sanitary Authority on June 29th, Dr. Mackintosh, the medical officer of health, reported that he had visited Killamarsh and Holbrook (in the parish of Eckington) twice since the last meeting, to inquire into an alleged outbreak of lead poisoning. He saw Dr. Chadwick of Killamarsh, who said that since the beginning of May he had had twelve patients suffering from lead poisoning. Most of them were better, but several who had the malady in a chronic form were still suffering.

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Mr. Geo. Robertson, of New Broad-street, City, and Dalston, has bequeathed £450 each to the Royal Free Hospital, Gray's-inn-road; the Earlswood Asylum for Idiots; the Hospital for the Paralysed and Epileptic, Queen-square; the Hospital for Incurables, Putney; the Home for Incurables, Clapham; the Samaritan Free Hospital; the Hospital for Children, Great Ormond-street; the Infirmary for Children, Waterloo-road; the Hospital for Diseases of the Heart, Newman-street; the Royal Ophthalmic Hospital; St. Mark's Hospital for Fistula; the Hospital for Women, Soho-square; the Cancer Hospital; and the Hospital for Diseases of the Chest, Victoria-park.—The Borderers' Company, London, has made a donation of 10 guineas to the Margate Sea-bathing Infirmary.—The late Dr. Fairbrother, of Berkeley-square, Bristol, has left £1000 to the Royal Infirmary, Bristol, to endow a bed to his memory, £500 for a child's cot in memory of the late Mrs. Fairbrother, and £50 to the Nurses' Superannuation Fund.—The sum of £50 11*s.* has been handed over to the Royal Orthopædic and Spinal Hospital, Birmingham, as a result of the recent concert given by the Birmingham Equalised District Order of Druids Friendly Society.—The Treasurer of the Worcester Infirmary has received a legacy of £100 under the the will of the late Mr. Bayliss, Crowle.—The sum of £200, in equal portions, has been handed to the treasurers, respectively, of the North-West London Hospital, Kentish-town-road, and the University College Hospital, Gower-street, by the Committee of the St. Pancras United Friendly Societies.

BATHING FATALITY.—When George Britmead, Arthur Smith, and Robert Watson were bathing last Thursday in the Thames, near Albert Bridge, they got out of their depth. Smith and Watson were carried away by the tide and drowned, but Britmead got on a floating boat stage and was rescued by a youth named William Scott.

THE CASE OF LEPROSY IN THE CITY.—At the Guildhall last Thursday, Mr. Alderman Evans announced that he had received a communication from Sir Francis Knollys, on behalf of the Prince of Wales, stating that his Royal Highness, thinking that the family of the leper Yoxall might suffer considerable pecuniary loss by the publicity given to his case, had ordered that the family should receive a donation. As a result, the family are now well provided for.

PROPOSED OPEN SPACE FOR HAMMERSMITH.—At the meeting of the Hammersmith Vestry on Wednesday evening a deputation of inhabitants presented a memorial, requesting the Vestry to petition the London County Council to assist them in purchasing a piece of land belonging to the Ecclesiastical Commissioners in Great Church-lane, a thickly populated neighbourhood, for the purposes of a recreation ground. The matter was referred to the Works Committee.

DOWNING COLLEGE, CAMBRIDGE.—A highly successful gathering of "Old Downing" men took place at the Criterion Restaurant on Tuesday evening. Some sixty guests, of whom a large proportion belonged to the medical profession, sat down to dinner under the presidency of the master, Dr. Alexander Hill. Amongst them were Professor Humphry, Professor Ray Lankester, Professor Brailey, Dr. Isambard Owen, Dr. Biss, Dr. Stevenson, Dr. Robert Boxall, and Mr. Sheild. Professor Latham and Dr. Bradbury were unavoidably detained at Cambridge. In proposing "The College," Professor Humphry alluded to the facilities which Downing under its present *régime* offers to students of science and medicine. The toasts were drunk amid much enthusiasm.

LONDON COUNTY COUNCIL.—At the weekly meeting of the Council last Tuesday, Lord Rosebery presiding, the Contagious Diseases (Animals) Acts Executive Committee reported that they had addressed a letter to the Privy Council on the question of the increase of rabid dogs in London. The chairman said a reply had been received from the Privy Council, in which they said they were not prepared to adopt the suggestion of the Council and make a stringent general muzzling order; but that they would be prepared to meet the exigencies of the case by issuing an order or orders applicable to those parts of the country in which the disease was prevalent.

MEDICAL NOTES IN PARLIAMENT.

Rabies in London.

IN the House of Lords on Thursday, June 27th, the Earl of Milltown asked the Government why the Commissioner of Police had not reissued the rabies and muzzling orders which proved so successful in 1885. The year 1885, said the noble Lord, was bad, but the present year promised to be even worse. The returns given by the Home Secretary of the number of mad dogs seized in the metropolis showed a great increase this year upon last year's figures. THE LANCET, in an article on June 8th, said that there was no doubt that rabies was again increasing, and declared that to check the disease the methods before adopted must be resorted to. Four persons had this year died from hydrophobia, and surely the citizens of London had a right to be protected from this terrible disease, even at the expense of hurting the feelings of those who objected to the muzzling of dogs. The humblest subject of Her Majesty had a right to be protected, as he ought to be, from the terrible disease, and therefore he now asked the question which stood on the paper.—Lord Brownlow, in reply, stated that about a month ago the Commissioner of Police called the attention of the London County Council to the increase of rabies, and that Council had agreed to recommendations of a very extensive nature, which were now under the consideration of the Privy Council.

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Universities (Scotland) Bill.

In the House of Commons on Thursday, June 27th, the consideration of this Bill was resumed in committee of the whole House, when Clauses 5 to 10 were carried with sundry amendments. The consideration of the Bill was continued on Friday, the 28th, when Clause 10, which provides for the appointment of the University Commissioners, was carried, four out of sixteen of the proposed commissioners being omitted; the Government undertaking on the report stage to move the addition of four names, which would be selected in consultation with gentlemen opposite. The names omitted were—Sir J. Crichton Browne, Mr. J. E. Erichsen, Mr. R. V. Campbell, and Mr. A. B. M'Gregor. Clauses 11, 12, and 13 were then agreed to without debate. On Monday, the 1st inst., clause 14 was considered and adopted, with an amendment by Mr. Bryce that the matriculated students should not vote by nations, but in the same way as those of other Universities. Clauses 15 and 16 were then carried. On Tuesday, the 2nd inst., Clause 17, which relates to theological tests, was discussed, and Mr. Bryce moved the omission of the clause.—Mr. Balfour and others insisted upon the necessity of having some test for the theological professors. After considerable discussion, the clause was adopted by 219 votes against 157. The remaining clauses and some new clauses were agreed to, and the Bill passed through committee amid considerable cheering on both sides of the House.

Boarding-out of Pauper Children.

On Thursday, June 27th, in reply to Mr. Tuite, the Solicitor-General for Ireland said that the Irish Local Government Board would consider the advisability of extending to the Poor-law unions in Ireland the system which obtains in England with respect to orphan and deserted children boarded out being visited and inspected by a committee formed for that purpose, instead of by the relieving officer.

Notification of Infectious Diseases.

Mr. Ritchie introduced this Bill, particulars of which will be found in another column.

New Bill.

On Friday, June 28th, Sir Henry Roscoe introduced a Bill to amend the Dogs Act, 1871, and to amend the law as to the rights and liabilities of owners of dogs. The Bill was read a first time.

Cruelty to Children Prevention Bill.

On Wednesday, July 3rd, this Bill passed through committee, with the addition of several clauses, one moved by Sir R. Temple, providing that nothing in the measure should take away the right of a parent or other person or teacher having the lawful control or charge of a child to administer punishment.

Indecent Advertisements Bill.

This Bill was considered as amended, and read a third time. Indecent advertisements of a pseudo-medical character come within the scope of this Bill.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ALFORD, C. E., M.R.C.S., L.S.A., has been reappointed District Medical Officer of Misterton.

BARFORD, A. M., M.R.C.S., L.R.C.P. Lond., late House Physician, has been appointed Senior House Surgeon to the Liverpool Northern Hospital, vice Dr. Permewan, M.D. Lond., resigned.

BETTS, F. B., M.R.C.S., L.R.C.P. Lond., has been appointed Resident Obstetric Assistant to the Westminster Hospital.

BRODRICK, H. EDWARD, M.D., B.S., M.R.C.S., L.S.A., has been appointed Medical Officer for Knayton, in the Thirsk Union District, and Medical Officer and Public Vaccinator for the Borrowby District, in the Northallerton Union.

CRUICKSHANK, J. D., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to the Bright Ward, Guy's Hospital.

HAGUE, J. L., B.A. Oxon. L.R.C.P. Lond., has been appointed Senior House Physician to Westminster Hospital.

HUNT, A. H. W., L.R.C.P. Lond., has been appointed Senior House Surgeon to Westminster Hospital.

JONES, DAVID J., M.B., M.S. Edin., has been appointed Medical Officer of the Penderyn District, Merthyr Tydfil Union.

MACLAGAN, J. M'GRIGOR, M.D., L.R.C.S. Edin., has been reappointed Medical Officer of Health, Hexham and Haltwhistle Rural Districts.

POWELL, W., M.R.C.S., L.R.C.P. Lond., has been appointed Junior House Physician to Westminster Hospital.

RICHARDSON, W. J., M.B., C.M. Edin., has been appointed Medical Officer to the North Keighley District of the Keighley Union.

ROBINSON, JAMES, M.D. Brussels, L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health to the Turton Union District.

RUSSELL, JAMES, M.A. Aberd., M.B., C.M. Edin., has been appointed Medical Officer of Keighley Union, vice J. Wilson, L.R.C.P., L.R.C.S., resigned.

TAYLOR, F. R. P., M.R.C.S., L.R.C.P. Lond., has been appointed Junior House Surgeon to Westminster Hospital.

WEBB, J. S., M.R.C.S., L.S.A., has been reappointed District Medical Officer of Marshwood.

WILSON, A. F., L.F.P.S. Glasg., has been appointed Medical Officer of Health to Stirling, vice Mc Fadyen, resigned.

WOOD, J. FORRESTER, M.R.C.S., L.R.C.P., has been appointed to the post of House Surgeon to the General Infirmary at Gloucester and the Gloucestershire Eye Institution, vice Mr. F. H. Knaggs, resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BURY DISPENSARY HOSPITAL.—Junior House Surgeon. Salary £60 per annum, with board (except beer), furnished apartments, and washing.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. No salary, but board and residence provided.

CLAYTON HOSPITAL AND GENERAL DISPENSARY, Wakefield.—House Surgeon. Salary £120 per annum, with residence at the hospital, attendance, coals, and gas.

CUMBERLAND INFIRMARY, Carlisle.—House Surgeon and Assistant House Surgeon. House Surgeon's salary £70 per annum. Assistant House Surgeon's salary £40 per annum. Board, lodging, and washing provided in each case.

EYE INFIRMARY, Wolverhampton.—Resident Assistant. Rooms, with board and washing.

HULL ROYAL INFIRMARY.—Junior Assistant House Surgeon. Salary £50 per annum, with board and lodging.

NORFOLK AND NORWICH HOSPITAL, Norwich.—Assistant to House Surgeon. No salary, but board, lodging, and washing provided.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill, Stoke-upon-Trent.—Assistant House Surgeon for six months. No salary, but board, apartments, and washing.

NORTHUMBERLAND COUNTY ASYLUM.—Clinical Assistant. No salary, but board and residence provided.

ST. SAVIOUR'S UNION, Surrey.—Dispenser at the New Infirmary, East Dulwich-grove, Champion-hill. Salary at the rate of £120 per annum, and dinner daily.

ROYAL BERKS HOSPITAL, Reading.—Assistant House Surgeon. Salary £40 per annum, with board and lodging.

Births, Marriages, and Deaths.

BIRTHS.

BELL.—On July 1st, at Upgate, Louth, the wife of Charles W. J. Bell, M.R.C.S., of a son, stillborn.

BIDEN.—On June 27th, at Vevey, the wife of W. P. Biden, L.R.C.P., M.R.C.S., of Hyères, of a daughter.

CHEYNE.—On June 26th, at 59, Welbeck-street, W., the wife of W. Watson Cheyne, M.B., F.R.C.S., of a son.

ERSKINE.—On June 24th, at Oakley-street, S.W., the wife of J. W. Erskine, M.B., of a son.

HARPER.—On June 30th, at 7, Drayton-terrace, South Kensington, the wife of James Harper, M.D., of a son.

MILEY.—On July 1st, at Belsize-avenue, Hampstead, the wife of Miles Miley, M.A., M.B., of a son.

OLIVER.—On June 28th, at Gordon-square, London, the wife of James Oliver, M.D., F.R.S. Edin., of a son (prematurely).

TAYLOR.—On June 28th, at St. Thomas-street, London-bridge, the wife of Frederick Taylor, M.D., F.R.C.P., of a son.

MARRIAGES.

ANDERSON—DUTHIE.—On July 2nd, at Ashley Lodge, Aberdeen, J. H. Anderson, M.D., J.P., Bridgefield, Stonehaven, to Margaret Birnie, second daughter of William Duthie, Esq., of Cairnbulg.

BANNERMAN—WATSON.—On June 26th, at Strathearn-place, Edinburgh, William Burney Bannerman, M.B., Surgeon Indian Medical Service, to Helen Brodie Cowan, eldest daughter of the Rev. Robert Boog Watson, Cardross.

DON—FAIRWEATHER.—On June 26th, at Langhaugh, Brechin, N.B., William Gerard Don, M.D., Deputy Surgeon-General, London, to Jean Anne, eldest daughter of David Fairweather, Esq.

FARR—BOLTON.—On June 29th, at St. Mark's, St. Heliers, Jersey, Ernest Augustus Farr, M.R.C.S., L.R.C.P., second son of Dr. S. B. Farr, of Andover, Hants, to Ann Laurance Augusta Mabel, only daughter of General Bolton, R.A., of the Priory, St. Heliers, Jersey.

MOUATT—KAY.—On July 1st, at St. Margaret's, Westminster, by the Venerable F. W. Farrar, D.D., Archdeacon of Westminster, F. J. Mouatt, M.D., to Margaret Kay.

POOLMAN—NESBITT.—On June 29th, at the Parish Church, Abergavenny, by the Rev. Thos. Williams, M.A., Rector of Aston Clinton, Bucks, assisted by the Rev. Canon Capel, M.A., Vicar, Arthur Edward Poolman, B.A., M.R.C.S., L.R.C.P. Lond., son of Frederick Poolman, of Melbourne, Australia, to Elizabeth Eleanor, daughter of the late Joseph Nesbitt, of Garmston House, Lincoln.

TAYLOR—BUXTON.—On June 29th, at St. James's, Birkdale, by the Rev. T. Buxton, assisted by the Rev. R. Stephenson, Vicar of St. James, and the Rev. J. S. Blair, Vicar of Killingworth, John W. Taylor, F.R.C.S., of Birmingham, to Florence Maberly, eldest daughter of the late Joseph Holmes Buxton, Esq., M.R.C.S.

WOOLBERT—BRIDGES.—On June 22nd, at St. James's Church, Notting-hill, Henry Robert Woolbert, M.B., F.R.C.S., to Amelia, daughter of S. J. Bridges, Esq., late of Hertford.

DEATHS.

FISH.—On June 29th, suddenly, at Wimpole-street, W., John Crockett Fish, Esq., M.D., in his 55th year.

MARSACK.—On June 27th, at Tunbridge Wells, after many months' suffering, Blackall Marsack, M.R.C.S., son of the late George Hartwell Marsack, Esq., and grandson of the late Charles Marsack, Esq., of Caversham Park, Oxon, aged 63.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 4th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
June 28	30·06	E.	67	61	105	80	60	..	Hazy
,, 29	30·19	S.W.	66	61	107	82	60	..	Overcast
,, 30	30·33	W.	62	61	107	83	60	..	Bright
July 1	30·38	E.	64	57	120	74	57	..	Bright
,, 2	30·40	E.	62	57	109	68	55	..	Cloudy
,, 3	30·29	N.E.	59	56	83	65	55	..	Overcast
,, 4	30·19	E.	61	57	81	65	57	..	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

FRA PAOLO SARPI.

THIS versatile genius and pioneer of civil and religious freedom is about to be honoured in his native Venice with a monument near the ruined church of the Servi and the monastery in which he wrote his most celebrated works. By many of his compatriots he has been held to have anticipated Fabrizio in the discovery of the valves of the venous system, and Galileo in his discovery of magnetism. He is also one of the numerous "claimants" to priority over Harvey in the demonstration of the circulation of the blood. The more cautious of Italian historians of medicine, however, in Fra Paolo's case, as in that of Cesalpino, give him credit for no more than having been an ingenious contributor to that most gradual of all discoveries, in which Harvey's transcendent merit will never be impaired by such glimmerings of his mighty induction as were vouchsafed to his precursors in physiology. Fra Paolo, who, it will be remembered, was a special favourite, as a liberal thinker and hero, of the late Lord Macaulay, may be content with the fame due to him for his politico-theological works, many of which, it is curious to note, saw the light in London.

X. Y. Z.—A great deal will depend on the terms of the contract. If the ill health existed and was known at the time of the engagement, we think the assistant should provide the night substitute. If the ill health is subsequent to the engagement, the practitioner should make the provision.

W. B.—The guardians have power to alter an area whether in the way of increase or decrease, but they cannot compel an officer to accept a lower salary, even if his district is diminished.

Mr. William Vaughan should apply to the Registrar of the General Medical Council.

M.B., C.M. should submit the matter to the authorities of the College of Surgeons.

COCAINE IN MINOR OPERATIONS.

To the Editors of THE LANCET.

SIRS,—I yesterday removed a lipo-sarcoma, weighing nearly 1 lb., from the inner side of a man's thigh at the upper third. The septa were strong, and the dissection tedious, the whole operation occupying half an hour; but injections of three grains of cocaine in solution rendered it almost painless.

May I ask you to insert the above, as another instance of the value of cocaine in minor operations?

I am, Sirs, yours obediently,

J. OLDERSHAW,

June 25th, 1889. Surgeon to Burton Dispensary.

A ROYAL PHYSICIAN AND PHILANTHROPIST.

WE lately commented on the gratuitous relief afforded to indigent sufferers from eye affections in the Tyrol by H.R.H. Duke Charles of Bavaria—a philanthropist who, having made the medical art his instrument, took care to qualify first as a student, and then as a graduate, in medicine. His Royal Highness, we have now to add, is at the head of a far more extended charity than that of the temporary eye hospital he presides over at Meran every spring. He is the working patron of the Medical Society and Policlinique of Nürnberg, an institution which has completed the tenth year of its existence and has just issued its report. According to this, the number of the sick poor gratuitously attended and provided with medicines, with surgical appliances, and spectacles, and in many cases with orthopædic apparatus, with wine and food, amounted, during the decennium, to more than 30,000. These cases were selected advisedly from those who did not belong to the local "Armenpflege" (poor-relief institute) or to any of the various charities for aiding the sick poor; and yet such is the yearly augmenting demand on his medical society and policlinic that Duke Charles has to announce that his own annual donation and donations of his friends are in urgent need of supplementary contributions from the benevolent public. In the ten years covered by the report the society's surgeons and physicians have performed 679 major operations, 118 operations for uterine diseases, and 170 for affections of the eye and ear, to say nothing of numerous minor cases of professional interference in the three great departments of practice (surgical, gynæcological, and medical). Surgical appliances, including bandages and spectacles, involved an outlay since 1879 of 4884 marks, while medicines cost 15,054 marks. The "Duke-Doctor," as he is popularly styled, appeals for aid on the ground of solid professional work gratuitouly given. Let us hope, for the credit of Bavaria, the response will be speedy and generous.

Lansdowne.—Legally, we think an inquest should be held if death occurs within "a year and a day" from the accident, to which the subsequent illness is attributed. In such a case as that mentioned it might be well to consult the coroner whether an inquest would be necessary. Under the circumstances, however, we should think the answer of the coroner to such a question ought to be in the negative.

Mr. R. Price.—We fear we can only recommend our correspondent to follow the advice he may receive from his solicitors.

THE APPRENTICESHIP CLAUSE OF THE DENTISTS ACT.

To the Editors of THE LANCET.

SIRS,—Regarding the 234 apprentices said to have been registered under Clause 37 of the Dentists Act, in an annotation in THE LANCET of June 29th, I beg to state that the total is made up of a large number of chemists and druggists who applied in 1878 to be put on the Dentists' Register, but subsequently withdrew their applications upon certain representations being made to them; but at a later period it was decided that their applications were admissible, whereupon they renewed their claims, and were afterwards received. Both the Medical and Pharmaceutical Acts are saddled with such clauses, having a like effect in the matter of time, and no limitation is named; so the Dentists Act is not peculiar in this respect. The Medical Council make stringent inquiries in each individual case, and, in truth, is most anxious for the integrity of the Dentists' Register; but a body so powerful must be careful that they are also just, and they are not likely to place themselves in a false position by putting the clause in abeyance, neither are they likely to take the same view of the influence which the lapse of time may exert on the value or utility of Clause 37 of the Dentists Act as would be taken by men who are naturally, and perhaps honestly enough, biassed by self-interest. The Medical Council and the Executive of the British Dental Association are quite in accord, and if the latter can show a *primâ-facie* case of fraud on the Dentists' Register, the Council will give them every assistance in taking proceedings against the offending persons.—I am, Sirs, yours faithfully,

Seymour-street, W., July 2nd, 1889. MORTON SMALE.

MEDICAL ADVICE FREE: MEDICINE 2D. PER BOTTLE!

THE following handbill has been brought to our notice:—

"Clapham Dispensary for Women and Children (worked under a Committee, by women physicians), 2, Stockwell-road, Clapham-road, after June 21st, 1889. Monday, Wednesday, and Friday, 2.30 to 4 P.M. Medical advice free. Medicine 2*d.* per bottle; patients to bring bottles, jars, &c. Maternity Branch, 131, Clapham-road, S.W. Women desiring to be attended in their confinement, at their own homes, may apply daily at any hour. Patients must live within one mile of 131, Clapham-road, or of 74, Jeffrey's-road. Confinement fee 5*s.*, to be paid on the registration of names, when a maternity ticket is given. Bags are lent to necessitous cases (deposit 2*s.* 6*d.*). Patients taken in for their confinements at 74, Jeffrey's-road, Clapham-road."

A Twenty Years' Subscriber.—We have no personal knowledge of the society.

Dr. Andrew Miller's communication shall receive attention next week.

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THE SANITARY CONDITION OF GUERNSEY AND THE CHANNEL ISLANDS.

IN reply to "Inquirer," a medical practitioner resident in Guernsey writes that there was a time, not very long since, when the growth and prosperity of the town of St. Peter Port, Guernsey, were attended with the usual insanitary dangers. But of late years much has been done and is still being actively done to meet the wants of the population. Good main drains have been in existence for some time, and recently a systematic inspection has been instituted as to the suitable connexions of private houses with them. Where such connexion was shown to be faulty, compulsion has been put in force and the evil remedied. The principal hotels took the lead in the matter, and both public opinion and private enterprise have been energetic in promoting sanitary precautions in the lodging and letting-houses. The official inspection has now reached a stage at which a visitor can be at no loss to ascertain from official quarters all details of the sanitary arrangements in the house which he proposes occupying. The present water-supply is from public and private wells. These in an overgrown town are not always free from suspicion. To meet this and other difficulties, the States of the Island some time since appointed a public analyst, and this gentleman has already done much good work. The authorities, guided by his reports, have locked up all suspected wells. Such are some of the means taken by a liberal-minded and zealous party in the States for the welfare of the population, and they deserve all praise for their efforts. Guernsey has many natural advantages in the matter of sanitation. Its principal town is built upon the side of a hill, and drains into a channel where the tides rise high and the tidal currents run rapidly. Its streets are swept by the Channel winds, and zymotic disease seldom gains a lengthy footing, even in the poorer districts of the town. The epidemics are so rare as to be historical, and ought in the future to be almost unknown. Phthisis is almost unknown among the better-fed classes, unless in such forms as have an inflammatory origin, and even these are rare. The main trouble among visitors is atonic dyspepsia and constipation. To avoid these inconveniences, the habit of life of the natives should be followed. The country people make numerous small meals, do not eat much animal food, and are early in their morning and evening hours. From midsummer till the following Easter there are a cool summer, a glorious autumn, and usually a mild winter. From Easter till midsummer, however loth the resident may be to admit it, Guernsey is not equal to the south of England. As a health resort Guernsey is certainly gaining ground; but, for all that, it must not be regarded as a panacea for all ills.

E. F.—There has been no recent case of leprosy at Guy's Hospital. The last case under treatment there was that of a man who died last August. He was a native of Folkestone who had never been out of England. He was under treatment several times, and ultimately died after tracheotomy for disease of the larynx and erysipelas.

ANCIENT HUMAN MONSTER.

To the Editors of THE LANCET.

SIRS,—The following extract from the Chronica de Melsa, vol. iii., p. 72, Rolls series, will, I think, be read with interest by those who have made a study of human monsters. The unfortunate creature is said to have lived shortly before 1349.

"Et paulo quidem ante hæc tempora, erat quoddam monstrum humanum in Anglia ab umbilico et sursum divisum, masculus scilicet et hermina, et in inferiori parte connexum. Porro uno comedente, bibente, dormiente vel loquente, alter dissimiliter fecit quod voluit. Nam unum ante alium mortuum superstes per triduum circumferebat in vita. Solebant namque dulcissime simul cantare. Obierunt tandem in villa de Kyngestona-super-Hullo, in ætate circiter 18 annorum, paulo ante dictam pestilentiam subsecutum."

The description is so careful, and so much in accordance with what anatomy would lead one to expect, that it may be accepted as a reliable historical fact. Descriptions of human monsters occur here and there in the old chronicles, and might form an interesting collection in their way.

I am, Sirs, yours faithfully,

Doncaster, July 1st, 1889. F. R. FAIRBANK, M.D., F.S.A.

MEDICAL AID COMPANIES AND THEIR METHODS.

C. complains that a medical man, an M.R.C.S. of many years' standing, has lately come to his neighbourhood under the wing of the Medical Aid Assurance Companies, Limited. The agent of the company advertises him by bills distributed from house to house. With regard to the other matter, if the facts are as stated, our correspondent should send particulars to the College of Surgeons.

L.R.C.P. — Our correspondent may find the following useful:—Fifteen grains of bicarbonate of soda, half an ounce of glycerine, and half an ounce of distilled water. Instil a few drops in the ear two or three times a day, and then syringe with warm water. A cotton-wool plug should be worn during treatment, and for a few hours after the wax has been removed.

SERIOUS CASE OF ALLEGED COVERING AND DEATH CERTIFICATION.

IT is a very inconvenient thing to have a funeral stopped, but it is not so bad as a disinterment. This seems a risk incurred by those who employ unqualified practitioners, and was the actual case of James Smith, caretaker of Shakespeare House-buildings, John-street, Old Kent-road, whose child, delicate from birth, had died, after being attended by an unqualified person, Mr. John Stuart Bryden, and receiving from him medicine containing syrup of poppies. The child got worse, and he was asked to come to see it, but declined; whereupon Dr. Smith of the Old Kent-road was called in, and found the child in a state of narcotism. He used antidotes, but without effect, and the child died. He declined to give a certificate, and Mr. Bryden then undertook to get one, the father saying that he was the first called in and he "ought to finish the job." When the certificate was got, it was found to be signed by a practitioner residing in the neighbourhood, who, it was admitted, had never seen the case. The latter gentleman did not appear at the inquest, though, according to the report in the *Daily News*, he had due notice of it. Mr. Bryden gave as a reason for refusing to visit the child that it was difficult to get fees in that locality. He described himself as the assistant of the practitioner. He said that the certificate was signed in mistake for another child whom the practitioner had seen. Dr. Smith testified that death was due to narcotic poisoning, and said that in his opinion it was unsafe to give opium at all to children, as each maker's preparation varied in strength. The Coroner said nothing more improper than this system of giving certificates could be conceived. Unfortunately the bottle containing the medicine had accidentally got destroyed. The jury returned a verdict of "Death from narcotic poisoning"; but whether by an overdose in the prescription of Mr. Bryden there was not evidence to show. The jury very properly suggested that the attention of the Registrar-General should be called to the issuing of the certificate. We hope the practitioner may be able fully to satisfy the Registrar-General that he signed the certificate under some misapprehension, otherwise his conduct is most open to blame, the more so as repeated warnings have been given against such practices.

HOW QUACKERY IS SUPPORTED.

WE have had forwarded to us a handbill, which has been extensively circulated in Ashton and Oldham, calling a bye-meeting of what is described as the "Lancashire and Cheshire Working Men's Association of Medical Botanists and Field Naturalists," having the support of the mayor and several aldermen and town councillors of Ashton, to listen to an address on "Sense and Science in the Healing Art," to be delivered by "Dr." J. R. Hughes, the said so-called "Dr." being, we believe, a "medical botanist," and the president of the said association. The bill states that the meeting will be free to the public, and it is evidently intended that the occasion should be utilised for advertising the merits of the "sense and science of the healing art," as practised by medical botanists in general and the lecturer in particular. We cannot say anything for their so-called "science" of healing; but we know that the "practice" of healing as attempted by unqualified men is daily fraught with the most serious consequences to those foolish enough to put their trust in such persons. It is surprising to find men in the position of a mayor, aldermen, and town councillors not knowing better than to countenance such unqualified persons. What must be the force of their example upon the ignorant or less well-informed part of their community? And have they considered the responsibility that devolved upon them by their encouraging unqualified practice? It may be that they have been led into this matter unthinkingly, and through mere amiability; but public functionaries cannot afford to be amiable at the expense of their people's welfare.

Mr. Rolf Creasy.—We cannot advise Mr. Creasy to pursue further his correspondence or his controversy with Dr. Newham, whose letters express in a quiet and dignified way a very proper spirit towards a junior in the profession, and a categorical contradiction of statements emanating from no more accurate source than "the Bell." In his letter of March 30th to Dr. Newham: "I have never asserted nor insinuated that Mr. B—— has communicated with me in any way as to Mr. H——'s illness....I have never quoted him or his opinion, of which, of course, I was quite ignorant," &c. This is surely enough from a practitioner of forty years' standing to refute the gossip of "the Bell," not to mention the course of the case and the very courteous, not to say complimentary, terms of Dr. Newham's letter. We feel sure that this dispute will be, as it should be, ended amicably between two such members of the profession.

J. J.—We do not think such books are suited to, or needed in, a "home library." Surely, in such a case the services of the regular medical attendant are available, and "ordinary" no less than serious complaints are best treated by him.

ERRATUM.—The date of the presentation to Mr. G. M. Phillips announced in our last issue should have been Whit-*Monday*, and not Whit-Sunday.

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COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Edw. Bellamy, London; Dr. Thorowgood, London; Dr. Wm. Robertson, Newcastle-on-Tyne; Dr. Corfield, London; Mr. Alex. Duke, Dublin; Mr. C. E. Davis, London; Mr. Lawford, London; Dr. Norman Kerr; Dr. Moffatt, Oldham; Mr. J. S. Clarke, Liverpool; Capt. Francis Petrie, London; Mr. F. J. Rebman, London; Mr. A. Knight, West Brighton; Dr. T. A. Wise, London; Mr. R. Price, Bala; Mr. Walter H. Hutton, Dartford; Dr. J. C. Bucknill, Bournemouth; Mr. Henry Barns, Brondesbury; Sir Wm. MacCormac, London; Mr. Leveson Scarth, London; Mr. A. B. MacDowall, Eastbourne; Miss Guthrie Wright, Edinburgh; Mr. H. C. W. Jones, London; Dr. Andrew Miller, London; Mr. F. A. Davis, London; Dr. Bruce Low, Tulse Hill; Mr. S. Constable, Chiswick; Messrs. Burroughs, Wellcome, and Co., London; Dr. W. Wilson, Boston, U.S.A.; Dr. T. H. S. Pullin, Sidmouth; Mr. H. W. Tulloch, London; Mr. G. H. Charlesworth, Wandsworth; Mr. Wm. Crookes, London; Mr. Williams, Roath; Mr. C. E. Paget, Kendal; Mr. C. H. Wells, London; Mr. John Attfield, London; Mr. F. B. Betts, London; Dr. Leonard Crosse, London; Mr. Longman, Salisbury; Messrs. Baillière, Tindall, and Cox, London; Dr. Edw. Liveing, London; Dr. H. W. Page, London; Prof. J. Feroglio, Caglari; Mr. G. M. Phillips, Whitwell; Dr. Arthur H. Hassall, Lucerne; Mr. T. H. Griffin, Dublin; Dr. Clement Dukes, Rugby; Mr. Poole, London; Mr. Muirhead, Edinburgh; Mr. Arthur G. Klugh, London; Mr. Morton Smale, London; Mr. Renouf, Montreal; Mr. Pierse, Ireland; Dr. Eddowes, Loughboro'; Mr. A. Fournet, London; Medicus, Glasgow; M.B., C.M., M.R.C.S., Toddington; Linotype Syndicate, London; L.R.C.P., Woodbridge; C. W. R., London; M.D., London; L. H., London; Secretary, North Staffs Infirmary; X. Y. Z.; Manager, G. E. Railway; G., Newton Abbot; Surgeon, London.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Kidd, Enniskillen; Mr. Casella, London; Mr. Beddoe, Wales; Messrs. Lee and Martin, Birmingham; Mr. Simonds, Reading; Messrs. Godfrey and Cooke, London; Mr. Birchall, Liverpool; Messrs. Harthill and Harthill, Willenhall; Mr. Windle, Halifax; Messrs. Coxeter and Co., London; Mr. Heywood, Manchester; Messrs. Reynolds and Branson, Leeds; Mr. Anderson, Bridgefield; Messrs. Mottershead and Co., Manchester; Mr. Thorpe, Sheffield; Dr. Williams, South Wales; Mr. Hay, Hull; Mr. Riekmann, London; Mrs. Rogers, South Hampstead; Mr. Gray, Bristol; Mr. Stevens, Kent; Messrs. Kay and Blackwell, London; Mr. Cochrane, Skye; Messrs. Fenwick and Chinery, London; Mr. Taylor, Birmingham; Messrs. Maw, Son, and Thompson, London; Mr. Galbraith, Newcastle; Messrs. Paternoster and Co., Hitchin; Major Pead, Dulwich; Miss Dickson, Tunbridge Wells; Dr. Wood, Pontypool; Mr. Shove, London; Messrs. Dawson Bros., Montreal; Mr. Ryan, Cork; Mr Bush, Notts; Messrs. Acton and Co., Notts; Dr. White, Canada; Mr. Bass, Ilford; Mr. Campbell, London; Mr. Udale, Chesterfield; Mr. Allsop, Yorks; Mr. Hickie, Reading; Dr. Finch, Salisbury; Mr. Poolman, London; Mr. Darby, Manchester; Mr. Armitage, Grimsby; Messrs. Griffin and Co., London; Dr. Wier, co. Antrim; Mr. Beckton, London; Sanitas, London; Max, London; S. R. F., London; Medicus, Margate; Macclesfield General Infirmary; Monta, London; M.B., Kent; Barnwood House Hospital; Medicus, Wales; Surgeon, Bath; X., London; Glasgow Royal Infirmary; F.R.C.S., London; R. K. F. H., London; House Surgeon, Birkenhead; Duo, Norwood; M.B., M.S., London; County Asylum, Rainhill; Tonic, London; W. B., London; Northumberland County Asylum; Midland, London; Florence, Yorks; Cantab., Newcastle; Clinique, Salop; Trachea, Edinburgh; P. M., London; B. S London; Medicus, Dublin; A. B., London; Beta, London; J. D. B. London; Alpha, Liverpool; Medicus, Glasgow; Matron, Ashford; A., Bradford; Alpha, Newcastle; Munro, London; A. B. C., Rotherham; J., Oldham; L. H., London.

Lincolnshire Chronicle, Weekly Free Press and Aberdeen Herald, Surrey Advertiser, York Herald, Reading Mercury, West Middlesex Advertiser, Evening News (Portsmouth), Hertfordshire Mercury, Mining Journal, North Star, British Journal of Dental Science, Australasian Medical Gazette, L'Union Médicale, Nursing Record, &c., have been received.

Medical Diary for the ensuing Week.

Monday, July 8.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, July 9.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

Wednesday, July 10.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M. Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical visits on Wednesday and Saturday at 9.15 A.M.

Thursday, July 11.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Friday, July 12.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, July 13.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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Clinical Lecture
ON
EXTRA-UTERINE GESTATION.

Delivered at St. Bartholomew's Hospital,

BY J. MATTHEWS DUNCAN, M.D., F.R.S., &c.

GENTLEMEN,—It is only audacious ignorance that could give clear and decided teaching on the theory and practice of extra-uterine gestation; and it is clearness and decision, when they are fairly attainable, that should characterise clinical teaching of youth. Yet I must not pass without notice this great subject. My remarks will touch only on some points, as I trust to your careful systematic study of it in the museum, and in such a treatise as Spiegelberg's "Text-book of Midwifery," recently translated by one who a very few years ago sat where you now are. The theory and chiefly the anatomy of it leave many open questions, some of which have distinct bearings on practice. Recently these have made some progress, due chiefly to improved anatomical methods, especially homalographic frozen sections, and to the many laparotomies which are now performed in this disease. But laparotomies do, in most cases, give imperfect information as to anatomy. Often, indeed, they mislead. It is to post-mortem work that we have chiefly to look for advance of knowledge. In practice also there are many open and urgent questions, and here much has been gained by the extension of laparotomy; but much has yet to be done in regulating its application in the varied conditions of different cases and in establishing its method. On the details of surgical interference in this morbid condition, whether laparotomy or other, I say nothing, referring you to systematic works such as Doran's "Gynæcological Operations."

Many kinds of extra-uterine fœtation are described—interstitial, tubal, tubovarian, ovarian, and abdominal. Of each of these, again, there are kinds varying according to situation; but the chief variations are in the abdominal, the placenta being inserted on the pelvic, or parietal, or intestinal peritoneum. Again, important kinds depend on the stage of advancement of the pregnancy. With these two sets of kinds of extra-uterine must be classed, for practical or clinical purposes, a kind of truly intra-uterine pregnancy, the uterus being malformed, and the fœtus developed in a uterine horn which has no communication with the cervix uteri or vagina. Of this you have here a museum specimen. This pregnancy in an imperfectly developed uterine horn is generally easily made out on dissection post mortem; during life it can only be guessed at. It is truly in a double uterus, but it is not designated pregnancy in a double uterus. So-called double uterus is of various kinds, and pregnancy in one horn or one compartment, or in both, is, comparatively speaking, nearly a natural pregnancy, and ends in labour and delivery almost like a healthy pregnancy. Pregnancy in an undeveloped uterine horn is in practice classed with extra-uterine pregnancy; it behaves like it. Besides the varied situations of extra-uterine pregnancy already mentioned, there are secondary variations. Thus an ovarian pregnancy may become ovario-tubal. An interstitial pregnancy may become tubo-uterine. A tubal pregnancy may become tubo-abdominal, the ovum retaining its tubal attachment and growing into the abdominal cavity through a rupture or through the fimbriated orifice. Again, a tubal pregnancy may become extra-peritoneal, the tube opening up the broad ligament, probably generally by rupture where the folds of the ligament separate to enclose the tube. You know that an ovarian tumour may in a like manner open up the broad ligament and become extensively extra-peritoneal. When a pregnancy becomes tubo-abdominal or ovario-abdominal, and continues, it grows as an abdominal or ventral pregnancy. The membranes persist and form a bag enclosing the fœtus and waters; and the bag, again, is enclosed by an envelope of false membranes; and this envelope or sac may be free or adherent to adjacent wall or bowel; or the fœtal membranes may be growing free in the abdomen; or, what is so wonderful as to be almost incredible, there may be, in advanced pregnancy, no enclosing fœtal membranes, the fœtus being free in the abdominal cavity along with the bowels. The sac of an abdominal pregnancy is said to contain muscular tissue, and to have contractions or pains; but this is not asserted in regard to the sac of a secondary abdominal pregnancy. I have not made the observation in any case.

Though these progressions of the fœtal sac from one site to another may take place in the case of an extra-uterine gestation, it is a good rule to classify the varieties of the disease according to the original site; and the original site is determined by the insertion of the placenta. There is no other site of placental insertion but the original site—no reason to believe that the placenta ever does or can change its site. It cannot be transplanted. Authors of eminence have believed that it can be transplanted, as from the tubal mucous membrane to the peritoneum after laceration of the tube and displacement of the whole ovum from it or part of it from it. A somewhat similar view has been held regarding the placenta when it is detached during pregnancy. It has been held that, when it has been partially separated, the separated part may become attached again, may take root again. Meantime I believe this does not happen. There is no evidence of this taking place either in placenta prævia or in extra-uterine pregnancy. I can imagine cohesion, or renewed adhesion, or a kind of healing, but I cannot believe in a resumption of function by the previously detached part. Every author on this subject recognises the peritoneal insertion of the placenta, and in every such case I believe it is the original insertion. Tubal pregnancy is by far the most frequent kind. Were transplantation of placenta possible, many cases of abdominal pregnancy, or all cases, might be called secondary; and this would increase the predominance of tubal, and give a fine appearance of simplicity. These remarks are to be applied to extra-peritoneal pregnancy also—that is, when the ovum grows between the layers of the broad ligament, separating them and reaching the parametric cellular tissue. The placenta cannot be transplanted into the cellular tissue.

There are no definite symptoms of this condition apart from those of pregnancy. It is to signs and to accidents that you trust for diagnosis, and not rarely you have great uncertainty. Abdominal pregnancy has fewest symptoms; it may go on to full term not suspected to be other than a normal pregnancy. Indeed, like others, I believe I have observed it go on beyond the natural term, the child surviving—protracted pregnancy. The thinness of the coverings of the fœtus as felt through the abdominal wall may be very striking, especially if there is hydramnios. When the placenta is inserted in the bowel, generally on the colon, there is said to be liability to intestinal catarrh, diarrhœa, the stools being sometimes tinted with blood. There may be various aches and pains, varying in different cases; and in a case recently in "Martha" there was retention of urine for a time. You may find a souffle in the tumour synchronous with the mother's pulse; and, as in two cases lately in the same ward, you may find the fœtal heart in an unusual position; in the two cases referred to, heard best with the stethoscope applied over the inguinal canal. Examining in an early stage, you may be unable to detect anything abnormal; or you may find in the region of a tube a rounded mobile tumour of the size of a nut or a hen's egg; or, it may be, behind the uterus. As the tumour grows, it generally gets behind the uterus, pushing it forwards and a little upwards. The whole mass gets fixed in the pelvis, and may have an elastic or a solid feeling; it may be like a retroverted gravid uterus, or like a perimetritic mass, or a hæmatocele. If the fœtus survives, or if the placenta grows, as it sometimes does after the fœtus is dead, the tumour increases, but not generally in shape and position as a uterine pregnancy increases. An advanced abdominal pregnancy may closely resemble a natural pregnancy; but the uterus is generally felt distinct from the fœtal sac, enlarged greatly, and, as already said, generally in front of the fœtal sac. The cervix changes as in pregnancy, but its characters are not so distinct, and therefore not so reliable. This point needs more study.

The great mass of cases is tubal, and in the great majority of them the fœtus dies early and without any apparent cause. The progress of pregnancy is thus arrested, and milk generally appears in the breasts if the fœtus is not in a very early stage of its existence. Symptoms disappear

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and, as in two cases lately in "Martha," where diagnosis was certain, the fœtal heart having been heard, the woman returns to show herself quite comfortable; after years of absence the shrunken fœtal sac being easily discovered. How often the favourable progress occurs and how long it may endure nobody can tell—oftener, I dare say, than seems to be now generally supposed. Of the changes that may occur I shall say almost nothing: suppuration of the sac and discharge of its contents, as happens in perimetric abscess; decomposition of the fœtus and discharge of the whole contents of the sac; mummification of the fœtus, as in missed abortion; or the formation of lithopædion.

A striking accident in extra-uterine gestation is the occurrence of uterine hæmorrhage, generally slight and at irregular intervals, and sometimes accompanied with abortion or labour pains and the discharge of decidua. There may be no hæmorrhage, no labour pains, no discharge of decidua. The hæmorrhage may have a periodic character and resemble menstruation. The discharge of decidua may be in shreds or in a regular entire uterine cast. It is only when it is an entire uterine cast, rich in bloodvessels, and as thick as a penny or as two pennies, that you can make it a sign of extra-uterine gestation. You are familiar with the little shreds of mucous membrane discharged sometimes in healthy menstruation, and with the discharge in dysmenorrhœa membranosa. In the latter the discharge is a thin membrane, and almost always lacerated. For myself, I can say that I have not seen the entire, thick, rich decidua discharged in one piece except in extra-uterine gestation, and in cases where I suspected or satisfied myself of very early abortion.

There is reason to believe that the pain of strong tubal contractions is intense, and women have intense pain at or before rupture, and at such times it often happens that simultaneously the uterus casts off the decidua by proper uterine contractions. The tubal contraction causes rupture; the uterine causes separation and expulsion of decidua. Sometimes the expulsion of decidua is contemporaneous with the death of the fœtus, not always. The decidual cast may be thrown off, and the pregnancy advance. A tubal gestation generally ruptures, but not always. As a consequence you have the great accident—one really awful—anæmic collapse from rupture of the sac and intra-peritoneal hæmorrhage. This may be the first intimation to you of the existence of this morbid pregnancy, and it not rarely occurs when pregnancy is not even suspected. Generally it occurs before the end of the second month. If you look at these specimens from the museum, you will see they are all in very early pregnancy, and one presents an opening not much bigger than a large pin's head in a sac scarcely larger than a good hazel-nut.

In the state of collapse you may not be able to recognise the hæmorrhage by physical examination, or you may find the uterus pressed somewhat forwards and a baggy feeling behind it. As you would expect, the hæmorrhage generally fills the pouch of Douglas first and then adjacent parts. Judging by a case recently under observation by myself and others, I can assert that the hæmorrhage may be great without making the pouch of Douglas replete, the blood lying in the flanks beneath the intestines. In ordinary cases, if the woman survives, you soon—that is, in twenty-four or thirty-six hours—have the characters of hæmatocele, and generally of retro-uterine hæmatocele, a subject discussed in another lecture. In none of the many cases which have come under my observation have I seen a hæmatoma of the broad ligament and beneath it, a condition which might be produced when a tubal pregnancy ruptures into the tissues separating the layers of the broad ligament. I have seen cases where the greatest collapse was, as I have just said, accompanied by no physical evidence of hæmorrhage in the pelvis, and it should not be forgotten that it is widely held that collapse produced by rupture and intra-peritoneal hæmorrhage may be intense, far beyond what the mere amount of blood lost would entail.

This intra-peritoneal hæmorrhage is a terrible accident, and has often been said to be always fatal, either primarily or as a form of hæmatocele. This is not the case. Many die. Many cases are never diagnosed exactly from hæmatocele, and behave as hæmatoceles, complete recovery resulting. Several cases in "Martha" have illustrated this favourable progress. Many years ago a patient sent for me, saying she had the pains of abortion, and showing me what she regarded as the ovum; it was a complete decidual uterine cast. A few hours afterwards she had the most profound collapse—pulseless, cold, and as if dying there and then. This state lasted for nearly two days. At first a boggy feeling was detected in Douglas's pouch, but before the collapse was quite gone there were all the physical signs of retro-uterine hæmatocele. In consequence of slowness of progress of absorption, I opened the sac by bistoury per vaginam, and subsequently regretted I had done so. Chorionic structures were found in the bloody discharges. This woman subsequently bore children. Not long ago, with some eminent colleagues, I saw a case of this kind; none could be worse; the pregnancy was of only a few weeks' standing; there was no discharge of decidua. Examination per vaginam discovered nothing abnormal. Recovery from collapse was quick and complete. The pregnancy went on, and a dead eight-months' fœtus was extracted by laparotomy. Take notice of the important observation in this case—that the rupture of the sac did not arrest the pregnancy, and that there was no discharge of decidua.

It is known that embryonic tissues lodged in the peritoneal cavity behave differently from the same tissues not embryonic; and these facts lend some support to the opinion that the embryo or even the fœtus may be absorbed. The absorption of the fœtus of several months of age has, so far as I know, been only recently asserted, but many believe in the absorption of an early embryo. I cannot prove it, yet I do not doubt it. The earlier the embryo, the easier will its delicate tissues be changed and absorbed. How old a fœtus may be so dealt with in the peritoneal cavity I cannot even guess, but I may say that it would require very strong evidence to make me believe that one so old as six weeks, when ossification has begun, may disappear entirely in this way. Cases have been described as of extra-uterine gestation where, in laparotomy, no ovuline structures were found, only blood; and I have seen one such. But I think such diagnosis erroneous, for I believe that long before the absorption of the ovum the blood would be absorbed. No doubt in some such cases the diagnosis, after the failure to find the ovum in laparotomy, may be correct, for every pouch of the hæmatocele or of the hæmatoma may not have been explored. Where no ovuline structures are found, after due search, the diagnosis should be hæmatocele. The hæmatocele is certain; the extra-uterine gestation is at least questionable. Another accident I have watched, in the days when early laparotomy was not thought of—namely, repeated attacks of acute peritonitis. These arose from growth of the fœtal sac causing ruptures of surrounding adhesions.

Now we come to the very difficult and unsettled subject of treatment, and first it must be noted that many cases require and get no treatment. There are many cases in which the disease is never even suspected; the fœtus dies, and is, so to speak, entombed. It may be found accidentally at a necropsy. The only fine specimen of a lithopædion I ever possessed was so discovered. Several cases have occurred to me when the first intimation of the disease was the discharge of fœtal bones, a subject I have already alluded to. We have had cases in "Martha" where the disease, which caused ill-defined suffering, was absolutely diagnosed by hearing the fœtal heart, and where nothing was done, the fœtus dying while the patient was in the ward; and in some of these cases we know that the patient remains in good health, with the dried-up fœtus entombed in the abdomen. This entombment does not prevent the occurrence of another extra-uterine pregnancy, does not prevent the occurrence of a natural pregnancy and a natural parturition. But, no doubt, it is a standing menace to the woman's health and safety.

Death of the fœtus almost always implies arrest of the progress of the case; not always and altogether so, for sometimes the placenta grows after fœtal death. Hence it has naturally come to be a great object of treatment to secure the death of the fœtus. We may say that, before the laparotomy enthusiasm of recent times, it was the great object of treatment of a progressing case. Now, I have told you that often, very often, and without any apparent cause, the fœtus dies early, and this occurrence makes judgment of the value of fœticide treatment difficult. To secure the death of a fœtus three methods are adopted: drawing off the liquor amnii, injection of morphia into the fœtal sac or fœtus, and electricity or galvanism. Paracentesis of the amniotic sac does not secure anything in normal pregnancy, nor does it in extra-uterine; and the same is true of both the other methods. I have no faith in any of them; and it is to be remembered that none of them is sure

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to be harmless, however carefully performed. Any of them may bring to an end the frail life of the fœtus; none of them, nor a combination of them, secures this termination. Then comes removal by surgical operation, chiefly by laparotomy. You may, as lately in "Martha," find cases tempting to removal per rectum or per vaginam, the fœtal sac offering itself in one or other of these passages, or being already actually open. But, in general, it is laparotomy that you have to consider. When the fœtus is already viable or farther advanced, you will think of early laparotomy and keep in mind the great danger of hæmorrhage from separation of the placenta, which you have no satisfactory means of arresting. The good rule, at present at least, is to meddle with the placenta as little as possible, and to keep the emptied sac as aseptic as you can, after removal of the fœtus. The danger of hæmorrhage is greatly diminished by the fœtus being long dead, say for some weeks; and it may well happen that to secure this diminution of danger when the fœtus is long dead, delay may be advisable. In an early stage, when anæmic collapse comes, immediate or primary laparotomy has been recommended, but it has seldom been done. The patient is so nearly dead that the surgeon declines to interfere, on the ground that he feels sure the patient would die on the table. Besides, the diagnosis is often insecure, and true surgical courage does not flourish under an insecure diagnosis. Of insecurity of diagnosis, felt at the time, we had a fine example lately in "Martha." Into all its details I need not enter, only remarking that in the very imperfect history we had ordinary symptoms and signs of pregnancy and of hæmatocele coming suddenly, with profound collapse; and pain when in the ward, chiefly in the hypogastric region. We decided to wait. She aborted of a six-weeks' fœtus, and died. The viscera in the roof of the pelvis were matted together by recent inflammation. There was a perforating ulcer of the stomach and acute purulent peritonitis near this part. The operation of laparotomy and extirpation has been successfully done in or close to the period of collapse. It has been often done on recovery from the collapse. Indeed, I may say that at present it is the proceeding most relied on. It or waiting are the alternatives.

What will be the ultimate result of the present enthusiasm for abdominal surgery no one can foresee. In extra-uterine gestation much has yet to be done before the utility of laparotomy can be well defined. We need more knowledge of the natural progress of the disease, more knowledge of the anatomy, more experience in laparotomy. Already much is surely to be gained by judicious laparotomy, and more is to be expected in the future.

Clinical Lecture

ON A

CASE OF PROTRACTED AND SEVERE CHOREA TREATED BY PROLONGED SLEEP.

Delivered in University College Hospital,

BY H. CHARLTON BASTIAN, M.A., M.D., F.R.S.,

PHYSICIAN TO THE HOSPITAL, AND TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

GENTLEMEN,—The case we shall consider to-day is principally of interest on account of the treatment that has been adopted. This has been based upon a very definite principle. You will know that almost invariably the movements of chorea are arrested during sleep. The disordered actions of the nervous centres upon which these movements depend are therefore also arrested. By greatly prolonging this period of rest we may accomplish two things: first, we may cut short the mischief which is almost inevitably being done to nerve centres by the maintenance of this incessant and unnatural activity; and, secondly, during such periods of prolonged rest we afford an opportunity for the gradual abatement of the functional perversion in certain parts of the nervous system (wheresoever situated) which has been the primary cause of the malady. Such a restoration of the normal equilibrium of functions, under the influence, as our forefathers would say, of the *vis medicatrix naturæ*, is the main object of this method of treatment. It is a mode of treatment which is applicable only to certain aggravated cases of chorea, but to this part of the subject it will be more convenient for me to refer later on. From the point of view of etiology and of symptoms chorea and hysteria are sometimes closely related, and the case which we are now about to consider presents many points suggestive of the existence of a hysterical factor, especially in its initial stages. The nature of the fits or "fainting" attacks to which the patient has been subject must remain uncertain, in the absence of adequate details concerning them. None of these attacks have been seen, and none have occurred during the three months that she has been under treatment here. She came under our care solely on account of the chorea, which commenced nearly nine months before her admission, coming on about twelve hours after some great fatigue and excitement endured at a time when her general health was much lowered. The very regular and rhythmical nature of the movements which she presented was certainly rather in accordance with what is often met with in so-called hysterical chorea; but there was a total absence of any associated anæsthesia, rigidity, or paralysis; and until the close of her second period of sleep there was an absence also of any general symptoms of a hysterical order.

Louisa S——, aged twenty, nursemaid, was admitted on Feb. 26th, 1889, complaining of severe and general choreic movements, also of headache and of pains in other parts of the body. Up to five years ago she had had fair health except for frequent headaches (two or three times a week as long as she remembers). Five years ago she had a severe fright, owing to a child, partly under her care, falling out of an express train. She did not faint, she says, but became "light-headed," not knowing what she did for several days. During the next twelve months she was under treatment for "bloodlessness," being very pale and languid, but not keeping her bed at all. Three years ago, while walking, she felt suddenly very strange—cold and giddy,—hurried home and "fainted," being unconscious for three hours. She did not bite her tongue or pass urine in this or in any subsequent similar attack. When she was recovering she struggled a little and cried a good deal, and her head ached terribly. She "fainted" every day for a week. Afterwards the faintings came on about once in three weeks, sometimes lasting an hour. Her headaches, too, became bad. She went to a doctor on account of the "faintings," and remained under treatment (on their account) for two years, and she continued subject to these attacks from time to time up to within two weeks of her admission to this hospital. Eight months and a half ago, whilst spending a week at Folkestone on account of her delicate health, the choreic tremblings began for the first time. They came on during the evening of a day on which she had taken two marches with the "Salvation Army"—one in the morning and one in the afternoon, each of about four or five miles. She noticed the tremor first in the right hand, but the next day it was "all over her." It was very severe, but she could walk at that time. After about a week the tremor became less and she returned to London, where she was laid up a month with it. She then went to Scotland, where the shakings became much worse at once, and she was admitted to the Edinburgh Infirmary. There, in addition to medicine, she was treated by general massage and the battery to the right arm. The arms were the most affected by the tremor, the legs much less so, for she could walk a little; but, on the whole, when she entered the infirmary she was not so bad as she was when she came to this hospital. She remained for four months in the infirmary, and during the last nine weeks of that time she was isolated in a separate room, the massage being continued, but not the battery; her back and head were also "sprayed with ether" to relieve the pains in them. At the end of nine weeks' isolation she was much better, the tremors being less severe, but not quite gone. She then returned to London, but the railway journey made her very bad, and on alighting from the train her legs trembled more than ever. She now shook all over, except her head, and had never been so bad before. After remaining a week at home she was admitted to this hospital. There is nothing of significance in her family history, except that her father died of phthisis, and that her two sisters are said to be consumptive. There is no history of nervous complaints.

State on admission.—The patient lies in bed with a peculiar nervous expression of face, the eyelids twitching

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when she looks up, which is seldom, and only for an instant when spoken to; otherwise there is no tremor about the face. Cheeks somewhat flushed, in a patchy manner, owing to pale areas scattered through the redder tint. The lips move naturally in speaking. There is no paralysis of any face muscle or eye muscle. The mucous membranes generally have a healthy colour. The skin is rather moist. The patient is generally well nourished. Usual temperature in the mouth, 99°. The movements, as she lies in bed, affect both hands and arms, as well as both legs. Those in the right hand are the most marked, and those in the right leg the least of all, the latter being at times scarcely noticeable. When she attempts to stand or walk (which is scarcely possible even with assistance) the movements become general and very violent, even the head being moved up and down by the neck muscles. The movements are increased when she is being watched, but never cease at any time when she is awake. During sleep, as a rule, they cease entirely, though once or twice a slight tremor has been noticed. By an effort of the will the movements can be slightly lessened; they are all rapid, regular, and rhythmical. The movements of the hand consist of rapid flexions and extensions of the fingers (the general position being one of slight flexion), with adduction and abduction of the thumb. These are accompanied by rapid and more marked flexions of the wrist, less extensive but equally rapid flexions of the elbow, and when she is excited slight movements also at the shoulder, abducting and adducting the arm. All the movements of the hands and arms increase in violence when the patient sits up or when she puts out her tongue. The movements in the legs are present at the hip, knee, and ankle, and consist of rapid flexions of each. The general position of the hip and knee is one of very slight flexion, and this is much more marked in the left than in the right leg. Headache is almost continuous, dull, but with occasional exacerbations—usually frontal, though sometimes it is occipital. There has never been any vomiting, and only occasional nausea. The pain in the lumbar region is a dull aching, as is also the pain in the left iliac region. There is tenderness on pressure in both these places. Sleep is bad, and has been so for months except after a night draught. Her mind is clear, and her memory seems good. The sight is fairly good, but the visual field is concentrically narrowed in both eyes. Pupils equal, of medium size, reacting to light and accommodation. The ophthalmoscope reveals nothing abnormal. There is no anæsthesia or rigidity anywhere. Both knee-jerks are somewhat exaggerated. A marked *tache cérébrale* is obtainable on the abdomen. The patient has been subject to shortness of breath on exertion, and palpitation when excited. The heart's apex beat can be felt in the fifth space. There are no cardiac murmurs, the sounds being normal. Pulse regular, from 100 to 108 per minute. No cough. Voice natural. Respirations rapid, more especially when they are being counted—48 per minute. Percussion note good all over the lungs. Nothing abnormal in the respiratory sounds anywhere. Tongue pretty clean. Occasionally there is a little feeling of nausea; no vomiting. Appetite shortly after admission good. Bowels very constipated, never open without medicine, and sometimes requiring an enema as well. There is pain in the epigastrium sometimes soon after taking food. Menstruation began at the age of twelve; it was never regular, and the patient has not menstruated for the last seven months. Previously the flow had frequently lasted for two months. Her urine contains neither albumen nor sugar.

Synopsis of notes concerning management and progress of case.—The patient, being admitted on Feb. 25th, was kept at rest in bed. On Feb. 27th she was ordered a mixture containing four minims of liquor arsenicalis, fifteen grains of bromide of potassium, and ten minims of spirits of chloroform in an ounce of water, to be taken three times a day; also, a five-grain pill of aloes and myrrh every morning. At the end of a week from admission there was almost no improvement. On March 4th she was prescribed twenty grains of chloral hydrate and ten grains of bromide of potassium, to be repeated on awaking; the patient to be allowed only half an hour awake at a time for the taking of nourishment; the sleeping draught to be used as seldom as possible. At first the draught was required every four hours; later on, sometimes the patient slept eight hours without awaking, but on an average she was given it every six hours. The light near the patient was lessened, screens were drawn round the bed, and quiet was observed as far as possible. Her food was beef-tea or mutton broth, about a pint and a half, milk about the same amount, and usually two eggs beaten up with the latter, during the twenty-four hours. To relieve the constipation forty-five minims of the liquid extract of cascara were given every night, with (if needed) an enema in the morning. (The bromide was added to the chloral on the second day to relieve the headache she complained of on awaking.) During the sleep thus induced the patient's tremor ceased, except when some noise disturbed her a little, though once or twice slight movements of her knee and hand were seen when the ward was quite quiet. These movements during sleep grew rarer towards the end of the fortnight. In her waking intervals, which sometimes exceeded half an hour, but which were kept as nearly as possible to that time, the movements of all the limbs became gradually less; but she complained greatly of headache, especially if any light fell upon her eyes. She was also very emotional—crying at times. But she took her food well, and the medicine kept her bowels fairly regular. Her temperature varied during this sleep from 99·6° to 95·4° (the latter temperature only being registered once at about 2 A.M.). Her pulse varied from 70 to 102, and her respirations from 20 to 52.

March 18th.—She was allowed to awake. The movements were distinctly less marked and extensive. She complained much of headache, and was ordered some medicine for its relief. Her breathing was rapid and shallow, 60 per minute; her pulse regular, 84, rather compressible. On the 25th, the patient's headache being better, although the pain in the epigastrium and back remained, sleep was again induced as before. Her appetite remained good. The movements during the waking intervals grew less and less, and the headache was not so severe as it had been previously. During this second sleep, which was of three weeks' duration, her temperature varied from 96·7° to 99·6°, her pulse from 70 to 114, and her respirations from 30 to 60. These records as to pulse and respiration (like those previously given) apply to the brief waking intervals; but during this second period observations were also made as to pulse and respiration whilst the patient was actually asleep. Both were found to be distinctly slower and more natural at these times than they were during the waking intervals. Thus the average of sixteen observations of this kind gives for the pulse 70, and for respirations 30. It should be recollected, moreover, that during the first week of her stay in the hospital, before she was put upon the chloral treatment, her pulse was mostly 100 to 108, and her respirations 48.

April 16th.—She was again allowed to awake. The movements in the legs were gone, except very slight tremors now and then. The hands also were much quieter; the left almost quite still, except on excitement. Pain still felt in stomach and back. Headache still rather bad. Appetite not very good. Bowels regular. Her mental condition was confused; she cried and made unfounded statements. She was in consequence ordered a mixture consisting of fifteen minims of nepenthe, twenty minims of orange tincture, and an ounce of compound infusion of gentian three times a day. This disturbed mental condition lasted more or less for thirteen days. She cried and was often much depressed, imagining that she had committed some great fault when she first came to the hospital. She also had fancies at times that others were talking and plotting against her. During this period, however, she menstruated, so that the mental disturbance may have been intensified and prolonged by this cause. On the 29th she was mentally clear and cheerful, but unable to recollect what had happened during the previous week. On May 8th she was quite cheerful; could walk, though not quite steadily; and could knit easily, tremor existing only to a slight extent in the right hand. Bowels regular; appetite good.

She slowly improved during the next fortnight, when she was discharged with slight tremor in the right hand only. During the whole time she was asleep her general nutrition was well maintained; her cheeks and lips continued of good colour; there was no sickness. Her tongue remained quite clean throughout, and she took her food well. The urine and motions were passed into a bed-pan, and there was never any incontinence.

In the last twelve years I have treated some eight or nine cases of chorea in this manner. Some of the cases have been notably improved; other very chronic cases, however, have not derived much permanent benefit. In none of the

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cases has any evil resulted from the treatment; and previously to the present case I have never heard patients complain of headache during its continuance. I have consequently never before had occasion to give bromide of potassium in combination with the chloral. This patient, however, had suffered much from headache, as well as pains in other parts of the body, for a long time before the treatment was commenced, so that the pain could not be ascribed to the chloral, and she is now, indeed, comparatively free from it, suffering only at intervals. In one other respect, also, my treatment of this case has been different from others which have preceded it. During the second period she was kept asleep for three weeks, though I had never previously allowed the time to exceed two weeks. I was tempted to prolong the period in this case, because the movements were distinctly diminishing, and the patient was taking her food well and complaining less of headache. Perhaps, however, it would have been safer had she not been kept this extra week under the influence of the chloral, even though it might have involved another two weeks' sleep after an interval for the cure of the chorea. Certainly, on awaking (although the choreic movements had nearly disappeared) she lapsed for a time into a very unsatisfactory condition mentally. She became extremely emotional and full of fancies, one might almost say delusions; but then it must be recollected that she was a very weak and unstable subject, who had probably dropped into much the same sort of condition after the accident to the child, when for many days she was, as she said, "light-headed," not knowing what she did. During part of this period she menstruated, after an interval of nearly eight months.

In the course of a few days, under the influence of treatment and careful management, she passed out of this state, assumed a cheerful and natural mental condition, and began to improve in all ways. It is worthy of note moreover, that while under our care she never had a single one of the "fainting" attacks, or fits, from which she had been suffering for the previous three years. During the whole period of the treatment the patient's general nutrition was well maintained, and the careful records which were kept of the temperature, pulse, and respiration, showed that the great vital functions were in no way affected unfavourably. On a few occasions for a short time her temperature dropped to rather a low point, but on the whole it was well maintained. During the time of actual sleep, also, the unnatural frequency of the pulse and respiration which had previously existed was kept in check. There is nothing to show, therefore, that any harmful effect was exercised upon the patient by the large quantities of chloral which she took in order to maintain sleep during these two periods of two and three weeks respectively.

But now let me say a word or two as to the kind of cases for which I consider such a mode of treatment advisable. In all ordinary cases of chorea I never think of having recourse to it. With rest and very various kinds of treatment, in the course of six to twelve weeks such cases recover. Then, again, in the most acute and severe cases of chorea, in which the temperature is raised, and the movements are violent and continuous, with or without delirium or maniacal symptoms, I have never yet tried this mode of treatment, and should not recommend its adoption. It is, I think, especially applicable to a class of cases in which there is no fever and no heart disease, but where the movements are usually severe and continuous, and have so continued for months or years without abatement. These are the cases which I consider most suitable for such a method of treatment, and it is not the less applicable should there be, as in the present instance, a possible hysteric element about the case, provided always that the movements cease absolutely during sleep. For you must not forget that the essential object of the treatment is to ensure the prolonged cessation of the unnatural movements by producing sleep. I attach little importance to any supposed curative influence of chloral itself over the chorea, except through the intervention of the sleep which it induces. This drug has been used simply because it was originally recommended for the purpose, I think, by Bouchut, and because no evil effects have followed its use. Paraldehyde, which might otherwise be suitable, has too nauseous a taste to be employed. Sulphonal might prove, however, to be quite as efficacious in procuring continuous sleep as chloral. The difficulty we have here to contend with is its great insolubility and slower action, which would probably involve a distinct lengthening of the interval of wakefulness on each repetition of the drug. Whichever medicine be used, however, the great object should be to give no more than is absolutely needed to maintain the continuous sleep, and therefore all accessory means, such as quietude, slightly darkening the room, the expeditious administration of fluid nourishment five or six times a day whenever the patient awakes, and the use of the bedpan, should be had recourse to. The period in which the patient is awake should, as far as possible, not exceed half an hour at a time.

There is another advantage attaching to this method of treating hospital patients which is worthy of mention. You will recollect that it is mentioned in the history of our patient that she was under treatment for four months in the Edinburgh Infirmary, and that for nine weeks of this time she was kept in an isolation ward. Those of you who saw the patient when she was first admitted to this hospital will recollect how greatly the movements were aggravated whenever we came to stop at her bedside to inquire into her condition. The frequent repetition of this process would certainly have been most adverse to her recovery, and had I not intended to treat her by prolonged sleep, after carefully observing her condition for a few days, I too should certainly have kept her under comparative isolation, so that she might be free from the perturbing effects of frequently seeing a number of students round her bed. By the method I have detailed to you, however, even the worst of such cases may be successfully treated in the general wards of a hospital; and I recommend it to you also as an occasional method which you may find hereafter of great use in private practice, when the aid of skilled nurses can be obtained, in the treatment of protracted and aggravated cases of chorea. Without such aid this method of treatment should never be attempted.

ABSTRACT OF

The Croonian Lectures

ON THE

RELATIONSHIP BETWEEN CHEMICAL STRUCTURE AND PHYSIOLOGICAL ACTION.

Delivered at the Royal College of Physicians of London, June, 1889,

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LECTURE III.

WE now pass from the prevention of disease to its control and cure. The power which many antiseptics possess of reducing temperature and relieving pain renders them of immense value in treatment; and the association supplies a natural link by which to pass directly to the consideration of antipyretics. Many new facts have been ascertained concerning the effects of members of the aromatic series upon the functions of protoplasm. Isolated cells, such as leucocytes, exhibit during life contraction and extension of protoplasm, which result either in locomotion and diapedesis, or are concerned in their nutrition and the manifestation of vital phenomena. Kühne showed that isolated cells have the power of absorbing oxygen, by observing under the micro-spectroscope their action upon a solution of hæmoglobin; and Pflüger by his investigations on the gases of the blood demonstrated the occurrence of oxidation and reduction in the tissues, similar results being obtained in living men by Pettenkofer and Voit; and it was found by Harley that the absorption of oxygen and elimination of carbonic acid by blood could be altered by admixture with various poisons. With these observations is associated the discovery of Binz, that quinine has the power to lessen such processes, and by so doing reduces the body temperature. Substances differ in the degree of affinity which they have for oxygen, it being greater in some and less in others. Thus it happens that we might draw up a scale containing a number of bodies, each of which would have a greater affinity for

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oxygen than the one above and less than the one below it. Each one would therefore abstract oxygen from the one above it, and act as a reducing agent towards it; while it would give up oxygen to the one below it, and thus act as an oxidising agent. This affinity for oxygen is greatly altered by the reaction of the fluid in which it is exercised, so that a body having a powerful reducing action in an alkaline solution may have none at all in one which is acidulated. Processes of oxidation or reduction may also be originated by electric currents, and are particularly effective when either of the poles are composed of an oxidisable or reducible material, the process also being reversed with reversal of the current. By means of alternating currents of this sort, Drechsel has succeeded in converting carbonate of ammonia into urea, and has rendered it probable that alternate oxidation and reduction are constantly occurring within the tissues of the living body, though the exact place and manner in which they take place have still to be made out. By the introduction of various aniline compounds into the circulation Ehrlich has been able both to show that these processes go on, and that they do so with very different intensity in the different organs and tissues, occurring most rapidly in those whose functional activity is great, as in the heart, brain and muscles. The power which living cells exert in this direction is almost incredible; alizarin blue, which can only be reduced by the most powerful agents outside the body, such as by boiling with caustic potash and grape sugar, is completely reduced by the liver and cortical substance of the kidney during life, and by these organs and the muscular substance after death; the alteration being marked by more or less complete loss of colour, a change from blue to white. When first injected, alizarin blue circulates in the blue state, and colours even the serum and fluid of the anterior chamber of the eye. Most of the organs of the animals injected have a blue colour, with the exception of those just mentioned, showing that the reducing power necessary to change it from blue into white is greater than most of the tissues possess. By using indophenol blue, which is more easily reduced, Ehrlich found that reduction occurred in almost all the tissues; so that the reducing power of the cells lies between the limits fixed by these two substances. The occurrence of reduction in the tissues indicates that they are not saturated with oxygen, though they possess a sufficient amount to enable them to carry on their functions. In this respect they resemble a damped furnace, which permits slow combustion, but may at any time be excited to more vigorous action. The supply of oxygen must be very free in the heart and brain, since they do not reduce alizarin blue during life, but do so after death or under electrical stimulation. In the living protoplasm of a cell Ehrlich supposes there are three zones: one in which it is saturated with oxygen; another, functionally active, in which the degree of saturation varies; and a third, which is always unoxidised, and exerts an attraction for the oxygen of the blood or lymph. The affinity of protoplasm for oxygen may well be supposed to vary, as that of indophenol white does, according to the reaction of the surrounding fluid. This affinity is strongest in an alkaline solution, becomes much weaker in a neutral one, and in an acid is completely destroyed, so that reducing agents quickly convert the blue into white, though in an alkaline medium they have no such effect. The association of varying reaction in cells with these changes in colour of the indophenol was demonstrated by Ehrlich, by introducing another aniline colour with a delicate reaction to acidity, the reduction of the indophenol blue always occurring when an indication of acid reaction was given by the other. The process of combustion in a cell is, then, diminished or arrested by the formation of acid, though oxidation begins again as soon as the circulating fluids have restored the alkalinity. A sort of self-acting mechanism is thus exerted by the cell, inasmuch as the products of its activity are acid, so that functional exercise sets a limit to itself. A further regulating principle is afforded by the paraplasm or cell juice which surrounds the protoplasm and shuts off the latter, when contracted, from the surrounding oxygen of the blood; the supply of oxygen being reduced according as the protoplasm is contracted to a small bulk and the surrounding layer of paraplasm is thicker. If we suppose that stimulation of the thermal centres causes contraction of the protoplasm in muscle and gland cells, so that its attracting surface to oxygen would be diminished, and the resistance to the passage of oxygen through the paraplasm increased in the manner alluded to, we can see that oxidation would probably be greatly lessened and the temperature correspondingly reduced.

From the experiments of Binz upon quinine two very striking facts resulted: one, that the drug had the power to lower temperature in febrile conditions not due to malaria; the other, that quinine had an extraordinary power of arresting the movement of leucocytes, causing them to draw in their pseudopodia and contract into a sphere. That this will diminish the surface exposed to oxidation in the blood stream is obvious, though the change can hardly interpose any obstacle between the protoplasm and the oxygen contained in the surrounding serum. The case, however, is different, if we take such a structure as the pigment cell of the frog. Here the protoplasm does not always completely fill the cell; occasionally it stretches out into all the ramifications of the branches, allowing a large surface for oxidation, and being separated by a very thin layer of paraplasm from the nourishing fluid. When the protoplasm contracts, it forms a rounded mass in the centre, presenting a minimum surface for oxidation, and simultaneously a maximum thickness of paraplasm between it and the cell wall. If we suppose quinine produces a similar effect upon the cells composing the tissues of the body, we can at once see how it will lessen oxidation and act as an antipyretic; and this whether it acts directly or through the thermal centres. This hypothesis also enables us to explain the fact that antipyretics have comparatively little action upon the temperature of the healthy body, for in this state the cell protoplasm is believed to be in a state of chronic contraction, and already reduced nearly within its narrowest limits.

The variation in colour produced by contraction of pigment corpuscles in the frog has been alluded to by Edward Jenner in connexion with the occurrence of rheumatism, as well as with the swelling of dry wood under the influence of an atmosphere laden with moisture. In his poem on the signs of rain he says—

> "Hark! how the chairs and tables crack;
> Old Betty's joints are on the rack;
> The frog has lost his yellow vest,
> And in a russet coat is dressed."

The darker colour is due to the extension of protoplasm containing dark-coloured granules throughout the cell, while the yellow colour results from contraction of the protoplasm drawing the granules together into a compact clump, and allowing the yellow colour of the subjacent cells to appear. In some experiments recently made with Dr. Cash, contraction of the pigment cells was a prominent feature in poisoning by some members of the aromatic series.

The power of producing anæsthesia and abolishing reflex action is common to most of the substances of the fatty or alcoholic series, and was first noticed in connexion with ethylic alcohol, for Solomon makes the drunkard say, "They have beaten me, and I felt it not"; and apparently he determines to use it deliberately to prevent pain, for he says, "I will seek it [strong drink] yet again." The power, however, is greatly influenced by two circumstances: (1) the position of the radical in the fatty or aromatic group, and (2) the nature of the element or alkyl with which the radical is combined.

To revert here to the illustration employed in the first lecture, let us imagine a knife fastened to the end of a fishing-rod. The rod represents the radical and the number of joints indicates its position in the series. Every addition of carbon with hydrogen makes the substance heavier and more cumbrous. Petroleum ether, which is a mixture of pentane C_5H_{12} and hexane C_6H_{14}, is a light mobile fluid; higher members of the series form the soft paraffin or vaseline, while those that are higher still form hard paraffin. The instrument consisting of a fishing-rod and a pocket-knife can be altered by changing the knife as well as by altering the number of joints in the rod. So in the case of the alkyls, their action differs according as they are combined with hydrogen in the hydrides, with hydroxyl in the alcohols, or with oxygen and hydroxyl in the acids. Moreover, both the physical condition and physiological action may be changed by replacing hydrogen by other elements. Thus, if we replace the atoms of hydrogen in marsh gas, CH_4, by chlorine, with an atomic weight of 35·5, that of hydrogen being only 1, we convert the light gas with a molecular weight of 16, into the heavy liquid chloroform,

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with a molecular weight of 119·5. If in place of chlorine we introduce three atoms of iodine, with a weight of 127, the molecular weight of the whole compound becomes 394, and in place of a gas or heavy fluid we get a solid, like iodoform. The physical condition of the substance may be influenced also by the number of atoms of hydrogen so replaced, intermediate substances being formed; thus monochlormethane is a gas at ordinary temperature, but can be condensed to a liquid, boiling at 22°. Dichlormethane is a heavy liquid, boiling at 41°, and trichlormethane or chloroform is still heavier, and boils at 61°. The anæsthetic, then, can be rendered denser and its molecular weight increased by replacing more and more atoms of hydrogen with heavier ones of chlorine or iodine.

All substances belonging to the alcoholic series possess the power of abolishing the excitability of the nerve centres within the body, affecting them in the inverse order of their development, destroying first the functional activity of the highest ideational and volitional centres in the cerebrum, those centres which are the latest to be developed, and which not only raise men above the animals, but raise individual men above their fellows; whilst the lowest, most simple, and at the same time most automatic centres are affected last. The perceptive and motor ganglia, the reflex centres of the cord, the vasomotor and respiratory centres, and the heart, all become eventually paralysed. They are not all rendered inactive in the same order by each member of the group. Some members, with a heavy molecule and a slight prolonged action, are useful as hypnotics; others, with a light molecule, acting rapidly and powerfully, and being quickly eliminated, are adapted for anæsthetics. The theories of their action are—(1) that they alter the blood in such a way as to render it incapable of maintaining the functional activity of the nerve cells; (2) that they alter the circulation; and (3) that they affect the nervous tissue itself. Some—such as nitrogen, nitrous oxide, and marsh gas—act by excluding oxygen from the lungs, anæsthesia occurring when the blood is quite venous. That the anæsthetic action is produced by alteration in the circulation is disproved by narcotising a frog, in which saline solution has been substituted for the blood, and in which therefore changes in the local circulation could have no effect. Changes in the circulation are, however, important in hypnotics, and anæsthesia has been induced by suddenly checking the circulation in the brain. That a frog in whose vessels salt solution is circulating can be anæsthetised shows conclusively that the condition is due to the direct effect of the anæsthetic on the nerve centres themselves, the change being supposed to be one of "transient fixation" of the albuminous molecules in the nerve elements—a change comparable to that which occurs in tetanic contraction of muscle. In connexion with this it may be stated that, while the direct application of the lower alcohols coagulates albumen immediately, the higher ones do not do so at all.

The changes produced by anæsthetics and hypnotics appear to be due to an affinity existing between the members of the alcoholic series and the nerve structures, causing the protoplasm of the ganglion cells to contract, and lessening their affinity for oxygen. The accumulation of acid also tends to reduce the activity of the protoplasm, and the presence of the halogens materially increases the anæsthetic action of the alcoholic radicals, as it also emphasises their action upon muscle. The introduction of these bodies therefore increases the risk of cardiac paralysis, whilst it increases the anæsthetic power. The choice of anæsthetics is limited to a great extent by consideration of convenience, safety, inflammability, and bulk, besides the desirability of employing a substance which is not disagreeable to smell and which does not injure the skin. In spite of their deficiency in some of these properties, chloroform and ether are practically the most useful anæsthetics we possess. Hypnotics are substances which merely cause natural sleep, from which the person can be readily awakened by external stimuli. In healthy sleep the person becomes unconscious to the external world, voluntary action ceases, and even the automatic centres for the respiration and circulation act less energetically, so that the breathing becomes slow, the pulse quiet, and the vessels tend to dilate. This dilatation may be so well marked that it causes the feet to swell, and renders a pair of well-fitting boots too tight. At the same time, it makes one more liable to be chilled by exposure to external cold. The two principal theories to explain sleep are: first, that it depends upon anæmia of the brain; and, secondly, that it is due to an exhausted or inactive condition of the brain cells. The latter is most probably true, though the condition of the cells is much influenced by the state of the circulation. Arterial blood neutralises the acid resulting from functional activity, and gives off oxygen to the brain cells. Thus, in some conditions of the brain simple increase in the supply of arterial blood will restore functional activity and produce wakefulness, while diminished supply will produce sleep. The effect of position has been shown by Friedländer in a research on the hypnotic properties of isopropyl alcohol. If the animal experimented upon were held up by the legs, so as to increase the blood-supply to the head, it at once awoke; but when held up by the ears it fell asleep. The same effect of the circulation is seen in debilitated subjects, who tend to fall asleep standing, or especially sitting down, and yet are very wakeful in the horizontal position. The influence of disturbance of the circulation is also seen after taking food, many people tending to fall asleep after a hearty meal, owing to the dilatation of the gastric and intestinal vessels drawing away blood from the brain. External cold also, unless very intense, acts in the contrary direction, and, by contracting the vessels in the skin and even in the intestines, drives the blood to the brain and prevents sleep. In high blood tension, as in Bright's disease, we often find troublesome insomnia, whilst in cases of debility with low tension there is often persistent drowsiness. The condition of the circulation is, therefore, a most important factor in the production of sleep, but it will by itself no more explain completely the insensibility of sleep than it will that of anæsthesia. As Ehrlich has shown, the acid products of functional activity tend to lessen the power of the cells to absorb oxygen; but it is highly probable that other products of tissue change, whether arising in the brain or in other parts of the body, have a similar power upon the brain cells. At all events, Bouchard has found that the toxic substances excreted in the urine during the day have a soporific action, while those excreted during the night have a stimulating action. It would thus appear that there is a sort of self-regulating mechanism in the body by which sleeping and waking are made to alternate. Now Voit found that during the waking hours more carbonic acid is given off, while during sleep the reverse is the case, and more oxygen is absorbed than carbonic acid eliminated. It is therefore evident that during waking the organism as a whole is an oxidising agent, while during sleep it is acting as a reducing agent. The stimulating action of such substances as cocoa, tea, and coffee would lead us to regard them as belonging to the class of products formed during sleep. In the early part of the day we might reasonably expect that the substances formed in the body would have no narcotic action, whereas later on the more completely oxidised products of waste would gradually assume a more and more soporific character. And this being so, we might naturally expect that by oxidation of some of the stimulant substances mentioned we might obtain products having a narcotic action. This is the case, at least, with caffeine, for in hydroxy-caffeine the stimulant action is less powerful. Caffeine-methyl-hydroxide is neither a stimulant nor narcotic, whilst ethoxy-caffeine acts altogether as a soporific. It will be noticed that the last mentioned, ethoxy-caffeine, is a compound of a radical belonging to the alcoholic series with one in which ammonia plays a prominent part. These two constituents are examples of two classes of soporifics: 1. Substances belonging to the alcoholic group. 2. Substances allied to urea or uric acid.

Hypnotics may probably lessen the functional activity of the brain cells—(1) by causing their protoplasm to contract, and so interposing a barrier of paraplasm between it and the oxygen of the blood; and (2) by lessening the affinity of the cells for oxygen by diminishing their alkalinity or by acting in direct combination with them, and so altering their chemical relationships. The products of brain-waste appear to be of an acid nature, and therefore lessen oxidation; but lactic acid, resulting from muscular exertion, may equally find its way into the circulation and have a similar effect. Another and final product of tissue-waste is carbonic acid, and this likewise has a soporific and anæsthetic action. The convulsions which occur in asphyxia are more truly referred to absence of oxygen than to the presence of carbonic acid, the deprivation in cases of suffocation producing in a few minutes intense stimulation of the

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nerve centres, while the lessened oxidation occurring in sleep has a similar but much slighter effect in the course of several hours. It is probable that, in both cases, the stimulation—which gives rise in the one case to waking, and in the other to convulsions—is immediately caused by products of tissue-waste. The drowsiness which results from sitting in close rooms and churches, though partly referable to external warmth, is, in large measure, due to the presence of carbonic acid and volatile poisons from the lungs and skin.

The narcotic power of the alcohols increases as we ascend the series, as does also the number of possible isomeric compounds. There are three divisions of alcohols: (1) Primary, (2) Secondary, and (3) Tertiary, according as the carbon atom to which the hydroxyl is attached is united to one, two, or three radicals. Tertiary amyl alcohol, amylene hydrate, was recommended as a hypnotic by Schmiedeberg, and has been introduced into practice by von Mering. It is said to be intermediate between chloral and paraldehyde, safer than either, and not disturbing to the digestion. The next member of the series, hexyl, may yield thirty-eight alcohols, and thirteen of these are actually known, so that the possible field for the introduction of new hypnotics is very large. The ethers, for the most part, are too volatile and their effects too transient to be of much service as hypnotics. Sulphonal: Diethyl-sulphon-dimethyl-methane appears to be one of the most effective of all the newly introduced hypnotics, and although it does not, like morphine, compel sleep, it induces sleep in a pleasant manner, and has few disagreeable after-effects, and little or no danger. Paraldehyde: Ethylic aldehyde unites with itself, their molecules combined forming paraldehyde. A greater number in combination form metaldehyde. Though simple aldehydes are intensely irritating to the mucous membranes, these polymeric forms are much less so, and paraldehyde forms a useful hypnotic, which does not depress the heart's action or give rise to subsequent discomfort. The chief objection is its unpleasant smell, which remains about the patient for many hours. Ketones: In these the group CO is the connecting link between two radicals. When both radicals are methyl we have acetone, which has been found in the blood of diabetics, and has been supposed to give rise to diabetic coma. By substituting other radicals for methyl, numerous other ketones are produced, which form a long series of hypnotics. The other class of hypnotics, allied to urea, in which nitrogen may be said to form the basis, is obtained by uniting carbamic acid ($CO\,NH_2\,HO$) to an alkyl, so that the stimulating effect of ammonia is associated with the narcotic action of the alkyl. The ethyl compound, called urethane, is a useful hypnotic, though not so powerful as chloral. Unfortunately the higher members of this series are not sufficiently soluble to be active medicines.

Local Anæsthetics.—It is often convenient to annul pain in some particular region, without producing general anæsthesia. For some time the effect of cold has been utilised, either by the use of ice and salt, or, more conveniently, by the evaporation of a volatile spray, such as that of anhydrous ether, or, better still, a gas liquefied by cold and pressure, such as chloride of methyl. Another plan is to employ some drug which possesses the power of producing anæsthesia, such as carbolic acid or the allied substance, paracresol. From one of the decomposition products of cocaine, ecgonine, which has no anæsthetic action, cocaine itself can be built up by combination with benzoyl and methyl. In a similar way a compound of tropine, itself destitute of anæsthetic power, with benzol produces the local anæsthetic homatropine. Filehne, suspecting that the anæsthetic property resided in the benzoyl, has found that the benzoyl derivatives of several substances have a marked anæsthetic action. Unfortunately, however, many of them produce a primary irritant action, which renders them inadmissible as local anæsthetics. The same is true of most of the cardiac poisons, like digitalis, which has a similar local action.

MATER MISERICORDIÆ HOSPITAL, DUBLIN.—The following have been awarded prizes:—Leonard Prizes—First Medical Gold Medal: Matthew B. Savage. Second Medical Silver Medal: John McNamara. First Surgical Gold Medal: Not awarded. Second Surgical Silver Medal: Matthew B. Savage. A special prize (Silver Medal) was awarded to Richard Smyth for the high marks obtained by him in Medicine.

SURGERY AS PRACTISED IN TURIN.[1]

BY PROFESSOR HUMPHRY.

SURGERY in Turin, as represented by Signor Carle at the Ospedale Mauriziano, Signor Caponotto at the Ospedale S. Giovanni, and Signor Raymond at the Ospedale Ottalmico, is of very high order.

The Mauriziano Hospital, on the outside of the town, has been recently built, at a cost of £120,000, with the effort to present all modern improvements. It contains 200 beds, equally divided between medical and surgical patients, who are disposed in four long wards, two for men and two for women; and there are several smaller wards for patients of rather higher class, who pay a certain sum, and are attended by the same medical and surgical officers as the other patients. Each of the surgical wards has at the end, shut off by folding doors from the rest of the ward, a spacious and abundantly lighted room, in which the dressing of the wounds is conducted. The bedsteads, upon castors or placed on tressels, are wheeled in and out of this room, and the wards are thus freed from the impurities attendant upon the dressing of wounds. There is also ample ward space, windows on the two sides, and the beds, each between two windows, are placed at a distance of several feet from the walls. The floors of the wards, however, are of pine, not very good or well laid, and already show much staining. The waterclosets and urinals, in projections from near the middles of the wards, admit of improvement. Professor Carle is the chief surgeon, having all the surgical patients under his charge, and, with a good staff of assistants, performs operations of all kinds. One patient was recovering from supra-pubic lithotomy, and another from rhinoplasty (the nose having been formed from the forehead); one from removal of the vertebral arches at the seat of fracture, which had been attended with some benefit; others from osteotomy, amputation of the mamma, other amputations, &c. The operations on women are, however, those which most interest the Professor. One woman was recovering from supra-pubic removal of the uterus and ovaries, the pedicle, transfixed and girt by elastic ligature, being external; two were recovering from removal of sarcoma of the ovary. He told me that he had removed the uterus by the vagina for cancer eighteen times, with only two deaths. I saw this operation, the details of which give a good idea of the method pursued in conducting the operations here. Professor Carle and his assistants, dressed in long linen coats, occupied themselves at least a quarter of an hour in making their toilette, washing the hands many times with hot water and soap, cutting and cleaning the nails, and soaking them in sublimate fluid (1 in 5000). The chamber was heated to about 80° by hot air. The woman, already washed, was brought in quite naked, under chloroform, and subjected to thorough washing and injection of the vagina and surroundings with the sublimate. She was then taken into an adjoining room, in which operations are performed upon suppurating and septic cases. Here the carcinomatous disease of the os uteri was scraped away with Volkmann's spoons and other instruments; and, after syringing and drying, Paquelin's cautery was freely applied, the object of this being to ensure an antiseptic condition of the part. The woman, still under chloroform, was taken into the third room, a spacious and well-lighted room, where cases primarily antiseptic—for ovariotomy, laparotomy, &c.—are operated on. After renewed sublimate washing of the surgeon's hands and patient's vagina, the os uteri having been drawn down with vulsellum forceps, an incision was carefully made into the peritoneal cavity between the bladder and uterus, a sublimated sponge in locked forceps pushed in, the fundus of the uterus pulled out with the finger and vulsellum, the lateral connecting structures ligatured piecemeal with silk passed by means of curved needles in porte-aiguilles, and divided with scissors; and, finally, the structures between the uterus and rectum being divided also with scissors, the uterus was removed. The parts having been thoroughly washed with the sublimate solution and sponged, the peritoneal surfaces were sutured by means of the curved needles and the porte-aiguilles, which seemed to be the most tedious and

[1] Paper read at a recent meeting of the Cambridge Medical Society.

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difficult part of the proceeding; and when all was well cleared and dried the vagina was plugged with sublimated compresses and iodoform dusted over it. I saw also an ovariotomy, the same precautions being used as in the former case. The tumour was a firm, very fixed mass, as large as a child's head, which Signor Carle thought it probable he would not be able to remove; but he deemed it best to operate, as it was a source of much trouble and pain. A free incision into the abdominal cavity, extending above the umbilicus, disclosed a thick-walled cyst extensively adherent in the pelvis. It was accordingly punctured, and, the fluid having been withdrawn, was freely laid open, and some papillomatous matter in the interior removed. The peritoneal surfaces of the sac and the abdominal walls were united by continuous suture, the edges of the sac and the skin united by sutures passed through the thick wall of the sac and the abdominal wall, the abdominal cavity carefully cleared by sublimated sponges held in long-bladed locked forceps, the sac plugged with iodoform compresses, iodoform sprinkled all over, and the whole covered with cotton-wool and bandages. Two days afterwards the woman was doing well.

In the Ospedale S. Giovanni, which contains 600 beds in the large long cruciform wards, with an altar at the intersecting point, and tiled floor, common on the Continent, I accompanied Signor Caponotto in his morning round, which occupies him commonly from 7 A.M. till 12, 1, or even 2 P.M., and saw cases recovering from ovariotomy (two); removal of tongue (submental); Dupuytren's operation for artificial anus (two); laparotomy for abdominal obstruction; trephining of mastoid process of temporal bone (two); urethrotomy for traumatic stricture; divers amputations, &c. He usually operates at 10 A.M. He did an osteotomy for ill-set fracture of the leg in a man, similar precautions as regards washings of hands and of the patient's limb and use of the sublimate in cleaning the wound and the dressings being adopted as at the Mauriziano. Chloroform is always given in Turin in preference to ether. Signor Caponotto told me that although it was administered several times daily in that hospital, and although no particular precautions were used—indeed it was often administered by students,—a fatal result had occurred only once. In somewhat extensive observation of European hospitals, I do not know that I have ever seen better surgery, more care in antiseptic precautions, more general attention in dressing &c., or better results, than in the hospitals of Turin, or that I have met men more equal to the various requirements of operative surgery than Signori Carle and Caponotto, and who give more time to their work. The latter informed me that he has no remuneration; the former receives 1000 francs per annum. The clinical instruction is given in the S. Giovanni by the professors. Professor Bruno lectured at length on each of two cases, a simple fracture of the leg and a common hydrocele, the greater number of the crowd of students neither seeing nor hearing anything. One could not but feel that some of them would have been better occupied in accompanying Carle or Caponotto, who were attended only by their assistants, and that this sort of division of labour was not quite satisfactory as regards teaching.

In the Ospedale Ottalmico, which is furnished with laboratory, museum, and all appropriate appliances, I saw extraction of cataract without previous iridectomy (a good circular pupil remaining), iridectomy, and other operations performed by Signor Raymond as well as I have seen them at Moorfields or elsewhere. Antiseptic precautions are here also used, the carbolic spray being employed. The hands of the operator and assistants were scrupulously washed, the sublimate water was poured over the eye, the instruments, chiefly purchased in London, were in antiseptic fluid, and iodoform, fine and carefully prepared, was dusted upon the eye after the extraction of the cataract and after some other operations.

I came to the conclusion that some of our students, after obtaining their diplomas (it is, I am sure, best to remain at the British schools till that has been done), might very advantageously spend a short time in the clear, bright, healthy, happy town of Turin, where they will have the opportunity of seeing quietly and well a greater variety of cases well treated by individual surgeons than in the more reputed and more crowded hospitals of Vienna, Berlin, or Paris. By so doing, in this and some of the other large continental towns, they might also obtain and communicate to us in England better information respecting details and general treatment and results than it was possible for me to do in my short visit this spring. Such information would be of more value than that gained at the International Congresses; at any rate, it would be a highly important supplement to them.

Cambridge.

CRANIO-CEREBRAL TOPOGRAPHY.

BY WILLIAM ANDERSON, F.R.C.S.,
AND
G. H. MAKINS, F.R.C.S.

THE earliest of the serious attempts to demonstrate the relation of the brain convolutions to the cranium was that of Broca,[1] and his researches have been followed by those of Bischoff,[2] Turner,[3] Féré,[4] Pozzi,[5] Giacomini,[6] Ecker,[7] Hefftler,[8] Hare,[9] R. W. Reid,[10] Horsley,[11] and Cunningham.[12] The experiments of these observers may be classified into three principal groups. In the first, led by Broca, the cranial sutures were exposed, punctures were drilled at certain points in their course, and pegs or pins of wood or metal were introduced into the brain through the apertures; the more important relations of the convolutions to their bony case were thus laid down in a manner that involved no material source of fallacy beyond the variability of position of the sutures themselves in their relation to the cranium as a whole. In the second group various parts of the brain were exposed by removal of its investments, the organ having in some cases been prepared for the experiment either by injection of its vessels (Hefftler) or by freezing (Féré). Thus Turner, having removed portions of the frontal, parietal, occipital, temporal, and sphenoid bones, left a number of regions (occipital or post-lambdoid, frontal or pre-coronal, antero-parietal or post-coronal, post-parietal or pre-lambdoid, and squamoso-sphenoidal) bounded either by sutures or by arbitrary lines, and each containing certain convolutions or portions of convolutions. Hefftler prepared a series of casts of different segments of the head (anterior, superior, and posterior), then of the corresponding portions of the bony cranium and of the brain. Lastly, Cunningham, having prepared the brain by a special process in such a manner that when exposed *in situ* it would remain absolutely unaltered for at least twenty-four hours, removed portions of the bone on one side, leaving narrow bars of the cranial wall in the lines of the sutures and temporal ridge. Moulds were taken, and from these were prepared the valuable series of models recently exhibited at the Royal Academy of Medicine in Ireland, and at the Anatomical Society of Great Britain. The third group, the most important for the surgeon, includes the various endeavours to localise the principal brain fissures by means of certain lines and admeasurements marked upon the shaven scalp. In these researches it was of course necessary that certain recognisable starting points for the lines or measurements in question should be defined upon the surface of the cranium and all parts of the skull that could be made available for the purpose—the glabella, the external occipital protuberance, the external angular process, the zygoma, the mastoid process, the frontal and parietal eminences, the temporal ridges, the external auditory meatus, the borders of the orbit, and the coronal and lambdoid sutures—have been utilised in one or other of the three chief systems—that of the French school (Championnière and others), of Reid, and of Hare,—to which surgeons already owe a debt of gratitude.[13]

There is no doubt that by any of these carefully elaborated methods the brain points sought for could be exposed in the greater number of cases by a trephine of an inch in diameter, but there will be found in each plan certain disadvantages which render it occasionally untrustworthy.

[1] Bulletins de la Société Anatomique, 1861.
[2] Die Grosshirnwindungen des Menschen. München, 1868.
[3] Journal of Anatomy and Physiology, vol. viii., pp. 142-369.
[4] Bulletins de la Société Anatomique, 1875; and Archives de Physiologie, 1876.
[5] Archives Générales de Médecine, 1877.
[6] Topografia della Scissura di Rolando. Torino, 1878.
[7] Archiv für Anthropologie, vol. x., 1876-78.
[8] Ibid. p. 243.
[9] Journal of Anatomy and Physiology, Jan. 1884, p. 175.
[10] THE LANCET, Sept. 27th, 1884.
[11] American Journal of the Medical Sciences, 1887.
[12] THE LANCET, May 26th, 1888.
[13] Reid's diagram will be found in THE LANCET, vol. ii. 1884, p. 539; that of Hare in vol. i. 1888, p. 409.

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Thus, in the French system, the bregma is adopted as the fixed point by which the upper extremity of the fissure of Rolando (carried as far as the middle line) is to be discovered; but the coronal suture is variable in its relations to the rest of the cranial walls within limits which, though small (⅜ in.), are sufficient to introduce an undesirable source of error, and in a certain number of heads, perhaps one in every five or six, the ridge or depression commonly present at this spot is not perceptible through the scalp. The indications for the inferior extremity of the same sulcus, again, are inelastic, and, although probably accurate for crania of a certain type, would be more or less incorrect in other cases. The same may be said for the points indicating the fissure of Sylvius. In the systems of Reid and Hare the indications for the localisation of the different parts of the fissure of Sylvius present material differences, and in both the parietal eminence is adopted as a landmark for the termination of the sulcus (Reid ¾ in. below, Hare at the most prominent point), although the most central point of the boss is often hard to define, and in any case its position is subject to a variation of an inch in the horizontal and nearly half an inch in the vertical direction.[14] The fissure of Rolando in Reid's method is found by two lines running perpendicularly upwards from a base line (which passes through the lower margin of the orbit and the external meatus) at points corresponding to the pre-auricular depression and the posterior border of the mastoid process; but, apart from the practical difficulty of erecting perpendicular lines upon a curved surface, it may be noticed that the posterior border of the mastoid process is seldom well defined, and that the breadth of the process varies to the extent of ¾ in., and under conditions which bear no reference to cerebral development. In Hare's system, the upper extremity of the fissure is found by a plan almost identical with that previously formulated in the last edition of Quain's Anatomy, and against which no objection can be raised, since it adjusts itself well to the varying size of the brain case. From this point the course of the sulcus is found by a line forming an angle of 67° with the sagittal line, and running downwards and forwards for a distance of 3¾ in.;[15] but it is not very easy to measure angles upon an irregularly curved surface, and the plan is, moreover, open to objection on the score of inelasticity. The external parieto-occipital fissure is placed by most observers beneath or near the apex of the lambdoid suture; but it may be shown that this, as an external landmark, has the same defects as the bregma. Mr. Reid, however, while recognising the relation of the sulcus to the suture, prefers to discover the position of the former by prolonging the Sylvian line to the sagittal line—a procedure which necessarily includes any defects that may belong to his method of tracing the fissure of Sylvius. A few other points for criticism might be raised, but the following tabulated list of indications given by different authorities for the position of the principal fissures will, perhaps, lay the matter before the reader in the shortest and most comprehensive manner.

1. FISSURE OF SYLVIUS.
   (α) *"Commencement":*
   - Champonnière: 3 cm. behind external angular process, and 5 cm. above zygomatic arch.
   - Hare: In the course of a line from external angular process to occipital protuberance, and 1⅛ in. behind the process. Deviation in 17 heads, ⅛ in.
   - Reid: 1¼ in. behind external angular process.

   (β) *Point of bifurcation:*
   - Thane and Godlee (Quain's Anatomy): 1¼ in. behind and ¼ in. above external angular process.
   - Hefftler: 1·3 cm. behind coronal suture and opposite spheno-squamosal suture.
   - Ecker: Corresponds to coronal suture, or not more than a few millimetres behind.
   - Reid: 2 in. behind and slightly above external angular process.
   - Merkel: 5 cm. to 4½ cm. perpendicularly above middle of zygoma.
   - Hare: The ascending limb is described as corresponding to the squamoso-sphenoidal suture, but its point of commencement is not localised.
   - Horsley: 1 to 2 millimetres anterior to spheno-squamous suture, midway between stephanion and zygoma.

   (γ) *Course of posterior limb:*
   - Broca: Opposite level of squamo-parietal suture, and hence about 5 cm. above zygomatic arch.
   - Reid: A line commencing 2 in. behind and a little above external angular process, and extending to a point ¾ in. below centre of parietal eminence.
   - Seguin: Along line from external angular process to tip of lambda (corresponding closely to Reid's line).
   - Hare: A line from commencement of fissure (see above) to centre of parietal eminence.
   - Horsley: Commencing midway between stephanion and zygoma, extends along squamo-parietal suture nearly up to parietal eminence. The squamo-parietal suture lies at junction of middle and superior thirds of line from temporal ridge to zygoma, just anterior to temporo-maxillary articulation.

2. FISSURE OF ROLANDO.
   (α) *Upper extremity:*
   - Broca, Championnière, Féré, and others: 4½ cm. to 5 cm. behind bregma. Distance never exceeds 5·7 cm., but there is great variation in pathological conditions.
   - Thane and Godlee: ½ in. behind middle of a line drawn from the root of the nose to the external occipital protuberance.
   - Hare: 55·7 per cent. of distance between glabella and external occipital protuberance.
   - Reid: Touched by the upper end of a line drawn from the posterior border of the mastoid process perpendicularly to a base line extending from the lower border of the orbit through the middle of the external auditory meatus.
   - Merkel: Touched by the upper end of a line drawn in a direction perpendicular to the zygoma from the posterior border of the mastoid process.
   - Seguin: A line corresponding closely to that of Reid and Merkel, but drawn perpendicular to a base line extending from the cusps of the upper teeth to the tip of the mastoid process. (A modification of Féré's alveolo-condylar plane.)

   (β) *Lower extremity:*
   - Féré: 2½ cm. to 3 cm. behind lower extremity of coronal suture, which lies 15 mm, to 20 mm. behind external angular process at the level of the superciliary ridge.
   - Championnière: A point 7 cm. behind and 3 cm. above external angular process.
   - Thane and Godlee: About 1 in. behind bifurcation of fissure of Sylvius (see above).
   - Reid: Touched by a line carried at right angles to the base line (see above) from the pre-auricular depression.
   - Seguin: Touched by a line drawn perpendicular to the alveolo-condylar plane through the middle of the external auditory meatus. This line reaches the bregma above (auriculo-bregmatic line).
   - Merkel: Touched by a line drawn perpendicular to the zygoma through the temporo-maxillary articulation.

   (γ) *Direction of fissure of Rolando:*
   - Giacomini: A line drawn at right angles to the sagittal line from the greatest transverse diameter of the head (measured with calipers) cuts the fissure of Rolando nearly in the middle, and the decussation lies exactly midway between the sagittal line and the point of the greatest transverse diameter. The fissure forms an angle of 115° to 125° with the vertical line (or 55° to 65° with the sagittal line). Crania examined were all of strongly brachycephalic type.
   - Hare: Course of fissure indicated by a line passing from its upper extremity (see above) downwards and forwards at an angle of from 60° to 73° (average 67°) with the sagittal line.

3. EXTERNAL PARIETO-OCCIPITAL FISSURE.
   - Féré: Summit of lambdoid suture: exactly in 35 cases, 1 to 4 mm. anterior in 17 cases, and 2 to 3 mm. behind in 2 cases. (Subjects examined all women, mostly over sixty, and forming part of the clinique of M. Charcot.)
   - Hefftler: usually opposite to summit of lambdoid suture.

[14] See table in Journal of Anatomy and Physiology, 1889, p. 465.
[15] This angle was first estimated by Giacomini, who found it to range between 55° and 65° (115°–125° in the vertical line).

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Hare: 1½ in. to 2¼ in. (average 1⅞ in.) from upper extremity of fissure of Rolando, ⅝ in. anterior to lambda.

Thane and Godlee: Summit of lamboid suture, 2 in. to 3 in. from external occipital protuberance.

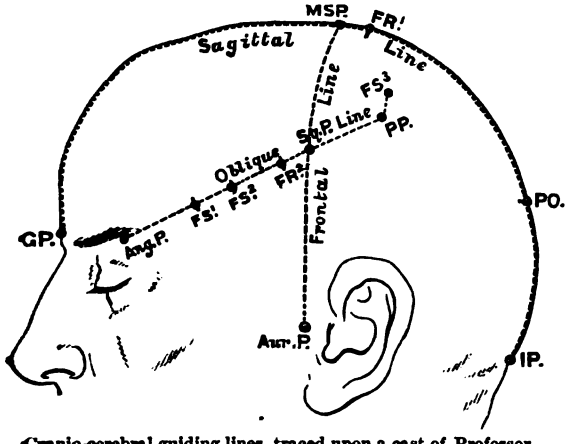
Reid: Posterior extremity of line continued from fissure of Sylvius to sagittal line.

Merkel: Beneath or a few millimetres behind summit of lambdoid suture (about 6 cm. above external occipital protuberance).

Horsley: 2 mm. to 3 mm. anterior to apex of lambdoid suture.

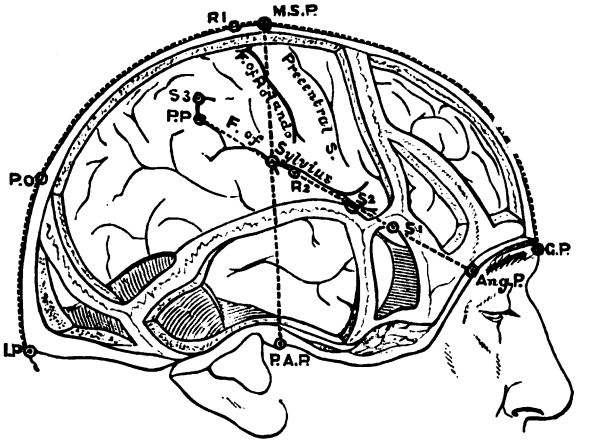
The details of the system we venture to propose will be found in the current issue of the *Journal of Anatomy and Physiology*. It will be sufficient here to state that the principal researches were carried out by means of experimental punctures made at certain points previously marked upon the scalp, and that the subjects were twenty in number—fourteen men, three women, and three children (aged two and a half, eight, and fourteen),—but, as both hemispheres were examined in each case, the total observations for each fissure may be taken as forty. Broca's method was adopted in preference to any other, because in this the relations between brain and cranial wall are in no way disturbed, and if the point of perforation be carefully fixed there is no reasonable probability of errors of observation. A supplementary set of examinations dealt with the relation of certain of the cranial sutures, eminences, &c., to the skull as a whole, with a view to determine the range of variation of the landmarks hitherto employed in cerebral localisation. The main general deductions from the experiments were: firstly, that the normal variability of the fissures is very considerable in different subjects, and even on the two sides of the same brain, and it is only by finding the mean of the variations that the best position for the application of the trephine can be calculated; and secondly, that the positions of the various sutures, eminences, and ridges are not entirely or equally trustworthy as indications of the localities of the cerebral convolutions, as the former may vary under conditions that have no influence upon the latter. This being stated, it is only necessary to refer to the diagrams showing the plan of construction of our cranial chart, and the relations to it of the more important cerebral sulci. (See Figs. 1, 2.)

FIG. 1.



Cranio-cerebral guiding lines, traced upon a cast of Professor Cunningham's (from a photograph). GP, Glabellar point; glabella opposite superior border of orbit. IP, Inial point, at external occipital protuberance. MSP, Mid-sagittal point; midway between GP and IP. Ang.P, Angular point; external angular process opposite upper border of orbit. Sq.P, Squamosal point; intersection of oblique and frontal lines at junction of middle and lower thirds of latter. PP, Parietal point; termination of oblique line, equidistant with FS² from squamosal point. Aur.P, Pre-auricular point; depression in front of tragus, at level of upper border of external auditory meatus. FS¹, "Commencement" of fissure of Sylvius, ⅓ths of distance from Ang.P. to Sq.P. FS², Bifurcation of fissure of Sylvius, ⅓ths of distance from Ang.P to Sq.S. FS³, Termination of fissure of Sylvius, ½ an inch above PP, in a direction parellel to frontal line. FR¹, Upper extremity of fissure of Rolando carried to sagittal line in direction of fissure, ⅗ths of an inch behind mid-sagittal point. FR², Lower extremity of fissure of Rolando carried to oblique line in direction of fissure, ⅗ths of an inch in front of squamosal point. PO, External parieto-occipital fissure, carried to sagittal line in direction of fissure, ⅓ths of distance from MSP to OP.

FIG. 2.



Outline traced from a photograph of a cast of Professor Cunningham's. For references see Fig. 1.

It will be noticed that the standard points are few, and are liable only to a very small degree of variation in different subjects; that the frontal and oblique lines by which the course of the fissures of Rolando and Sylvius are mainly indicated undergo changes of length and direction in association with variations in the size and form of the skull, and are hence applicable for heads of all dimensions and types, and appear to be adaptable for children as well as adults; and that the test points in the course of the different fissures are measured as far as possible in fractions of the length of the lines, and not in inches and centimetres, in order to secure a similar adaptation to crania of all dimensions. This rule is departed from only in the case of the two extremities of the fissure of Rolando, where the necessary adaptive changes are sufficiently secured by the shifting of the frontal line.

The following indications may now be quoted from our paper in the *Journal of Anatomy and Physiology*:

1. *Fissure of Rolando.*—The upper extremity, carried for convenience of admeasurement as far as the longitudinal fissure (in line of the sulcus), was found to lie in all cases between the mid-sagittal point and a point three-quarters of an inch behind it. Its distance behind the mid-sagittal point, however, bore no constant relation to the length of the sagittal line, and hence the central spot for the application of the trephine may be most safely fixed at three-eighths of an inch behind the mid-sagittal point. The superior connecting gyrus between the pre-central and post-central (ascending frontal and parietal) convolutions occasionally appears only on the mesial surface of the hemisphere—in this case the fissure of Rolando actually reaches the longitudinal fissure. The lower end of the sulcus, carried into the fissure of Sylvius, lies in the squamosal line between the junction of this line with the frontal line (squamosal point), and three-fourths of an inch in front of this. The centre of the trephine may hence be applied, in the squamosal line, three-eighths of an inch in front of the squamosal point. In four instances the sulcus really joined the horizontal limb of the Sylvian fissure. The angle formed, with the upper border of the hemisphere, by a line connecting the two extremities of the fissure of Rolando, in eight cases was found to range between 55° and 70°, in twelve out of the sixteen fissures falling between 60° and 65°. The course of the fissure is extremely capricious, and tracings taken from opposite hemispheres often differ considerably from each other. (See illustration in *Journal of Anatomy and Physiology.*) A strong curve with a backward convexity is not unfrequently met with in the upper third, and a second smaller curve in the opposite direction may sometimes be found near the lower extremity of the sulcus.

2. *Fissure of Sylvius.*—The place at which the frontal and temporo-sphenoidal lobes appear to separate when seen from the lateral aspect of the brain—the so-called "commencement of the fissure of Sylvius"—can scarcely, from its very nature, be fixed with complete exactness, but it may be computed with sufficient accuracy for all practical purposes. It was found to lie in the squamosal line between 1⅛ in. and

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1½ in. behind the external angular processes, or about $\frac{7}{12}$ths of the distance between the point and the frontal line. The bifurcation of the fissure lies in the squamosal line at a point from 1½ in. to 2 in. behind the external angular process, or at $\frac{7}{12}$ths between this process and the frontal line.[16] The course of the horizontal limb from the bifurcation to the frontal line corresponds closely to the squamosal line and a continuation of this backwards for an equal distance behind the frontal line (to parietal point in diagram), it then turns upwards for about half an inch in a direction parallel to the frontal line. The mode of termination of the fissure is, however, so uncertain, that a circle of an inch in diameter failed to cover all the variations in the twenty subjects examined by us. The parietal eminence is nearly always closely related to the point in question.

3. The *external parieto-occipital fissure* joins the longitudinal fissure at a point averaging $\frac{7}{12}$ths of the distance measured from the mid-sagittal point to the external occipital protuberance, and lies near to the apex of the lambdoid suture. In operations in the neighbourhood of the longitudinal fissure, it is of course necessary to take into consideration the width of the superior longitudinal sinus and its frequent deviation towards the right side in the posterior half of its course. An endeavour was made to ascertain the average positions of the superior and inferior frontal fissures, but these were found to be so irregular in their course as to baffle all attempts to secure indications of any value.

As a practical point it should be mentioned that the mobility of the integumental structures covering the cranium may lead to a misplacement of the trephine aperture, and to obviate this source of error it is desirable to pierce with a strong needle or pin the soft parts at the centre of the spot marked for investigation, and fix the point of the instrument in the bone before making the incision for the exposure of the required portion of the skull cap. The small depression in the outer table will then serve for the application of the pin of the trephine.

A CASE OF

RAYNAUD'S SYMMETRICAL GANGRENE IN A PATIENT SUFFERING FROM CONSTITUTIONAL SYPHILIS.

WITH SOME REMARKS ON THE HISTORY, NATURE, AND MANIFESTATIONS OF THE DISEASE.

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(*Continued from page 11.*)

IN studying the history of symmetrical gangrene, and in endeavouring to investigate its etiology, I have been struck with the conparative rarity of the affection. In the excellent library of the Manchester Medical Society, containing about 30,000 volumes, a library rich alike in English, American, and foreign medical literature, I have not been able to discover more than ninety-three examples of this disease. Indeed, many experienced hospital physicians have never seen a well-marked case of symmetrical gangrene. How is the rare occurrence of so characteristic a disorder to be explained? Some light may, I believe, be thrown on this difficult subject by a consideration of the sort of abnormal relationship which in certain curiously constituted individuals seems to exist between the cerebro-spinal and sympathetic systems, between the voluntary and involuntary nerves. The most remarkable example of such an abnormality is probably the well-known case of Colonel Townsend, who by the exercise of his will was able to stay the movements of his heart and of his lungs, and to simulate death with such completeness that experienced medical witnesses believed in the reality of his dissolution. His case is reported by Dr. Cheyne in a quaint old work entitled "The English Malady," published in 1733. I find also in the fifth volume of the *American Medical Record* a case recorded by Dr. Meredith Clymer, where the patient by the force of his will could produce at pleasure a blanching of the entire cutaneous surface (cutis anserina), with loss of heat. Again, Dr. Druitt[1] maintains that psychical disturbances are at times sufficient to induce attacks in a sensitive person, where such attacks are usually induced by cold. Dr. Colcott Fox also refers to a woman who frequently experienced paroxysms of local asphyxia. In reference to her case, it is stated that her extremities "go blue" in a second if she is startled by a sudden knock at the door or any unusual occurrence. Raynaud too refers to a case recorded by Lamotte. A billiard marker received a blow from a stick on the outer part of his right arm. There was severe pain; the hand became cold, pale, and insensible. The morning after, Lamotte made many cuts with the lancet without the patient perceiving it; he even cut across the hand without a drop of blood escaping. His hand remained in the same state during ten days. At the end of that time a little heat returned, then the arterial pulsations, which had been suppressed, reappeared, and the functions of the part were gradually re-established. Raynaud further refers to Volvius, who reports a case in which a similar state appeared following a violent fit of passion, and lasting eight or ten days. In two of the instances I have here adduced, the circulation in the extremities was to a considerable extent influenced by the will. This subjection of the vaso-motor nerves to the higher cerebral centres is extraordinarily rare, and very few examples of it are to be found in medical literature. In three of the other cases the spasmodic contraction of the arterioles was found to depend on strong emotional influences—in one case the emotion of passion, and in the other two the emotion of fear, inducing a closure of the vessels. Anomalous cases such as these teach us that there are constitutional peculiarities in certain individuals which render them abnormally susceptible to impressions which in the vast majority of persons would pass wholly unheeded. A very large proportion of those who have suffered from Raynaud's disease are described as emotional and excitable—men and women in whom the neurotic element is in the ascendant. A study of the cases which have been recorded points to this unstable equilibrium of the nervous system as a potent predisposing factor in the pathogenesis of the disease. Still, I am disposed to believe that vascular spasm, even though maintained for a considerable time, is not by itself alone sufficient to induce gangrenous destruction in the extremities. It may, no doubt, and in countless instances does, induce local syncope, and far more rarely local asphyxia, but not gangrene. In the two cases to which I have just referred, the one recorded by Lamotte and the other by Volvius, the circulation in the affected parts was apparently totally suspended for eight or ten days, and yet there was no appearance of gangrene or mortification. This destructive change seems to require for its production another factor—namely, a degraded vitality in the cell structures affected—a retrograde change in the tissues. But how is this change brought about? To my mind, certainly what we see here lends weight to the opinion of those who believe in the existence of trophic nerves—nerves which directly control the nutrition of the part to which they are distributed; when their functions are suspended, thereupon destructive changes are liable to occur. Possibly, however, the experiments of Boas[2] throw some light on these and similar cases. On ligaturing the finger and placing it in ice-cold water, he observed certain changes in the blood-corpuscles in a patient who was subject to hæmoglobinuria (a disease closely allied to symmetrical gangrene). The hæmoglobin was, in fact, found dissolved in the serum, while the changes in the blood discs corresponded with those which have been described by Ponfick; consequently the corpuscles were less resistant to cold than in the normal state. This change in the blood was not observed in a healthy person.

An attentive consideration of the phenomena which accompany an attack of symmetrical gangrene, supply to us much valuable information regarding the circulation of the blood, as it is distributed to the extremities. In numerous instances we observe, perhaps, a more or less generally diffused discolouration of these parts, while within this discoloured area may be seen little black islets consisting of gangrenous patches. These islets do not gradually merge into the surrounding parts, but their outline is clear and distinct. Thus in one of Raynaud's cases he remarks: "In the middle of the most diseased parts

[16] The division of the oblique and sagittal lines into twelfths is readily calculated by employing a measure graduated in lines.

[1] Medical Times and Gazette, vol. i., p. 408.
[2] Deutsch. Archiv f. Klin. Medicin, 1883.

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there are small violet patches as big as pins' heads, cut off by their colour from the remainder, not disappearing with pressure or friction; these are small eschars completely formed." Some curious symptoms, also, from which he himself was a sufferer, are recorded by Petri.[3] Symmetrical patches appeared in various parts of his upper extremities and on his trunk; purple blotches also came out under the clavicles, and in the midst of these blotches black eschars were clearly discerned. Similar vagaries in the circulation were observed in a case recorded by Mr. Thomas Tannahill.[4] The patient was a delicate girl seven years of age; in her case erythematous patches were observed with white islets dotted over their surface. Here, in place of finding gangrenous islets distributed over parts locally asphyxiated, we notice small enclosures of local syncope surrounded by a surface more or less engorged. Cases like these supply to us much useful instruction; they are, in fact, outward and visible signs of the mysterious working of the sympathetic system within us; they tell us that in numerous cases in which we are accustomed to look upon symptoms as merely functional, those symptoms may in reality depend either on anæmia or hyperæmia, or on some other gross material change. To understand these anomalies in the circulation of the extremities, we must remember what physiology has taught us regarding the manner in which each capillary area and territory has its own minute nervous system. This minute system regulates in each locality the course of the blood in relation to the chemical requirements of the several organs. Thus, in the words of Raynaud, "each part is united to the whole by the common conditions of the general circulation, and at the same time, by means of the nervous system, each part can have a circulation of its own, and become physiologically individualised."

Some discussion has arisen regarding the portions of the vascular system which are more especially involved in symmetrical gangrene. Some authorities consider that the arterioles are alone affected, and that it is in them that the spasmodic closure occurs. Others maintain that the capillaries likewise are spasmodically contracted. While M. Weiss asserts that the process may be solely confined to the veins, a loss of tone in these vessels leading primarily to local asphyxia. An attentive study of the phenomena which accompany this disease in its different stages will, I think, lead us to believe that in local syncope, when the ischæmia is extreme, arteries, capillaries, and venules are alike affected by the spasmodic constriction, and are all firmly contracted. After a time, however, when local syncope is succeeded by asphyxia, the veins, to which the muscular elements are more sparingly distributed than to the arteries, are the first to dilate, the latter remaining impervious. We then observe an occurrence of those changes with which Cohnheim has made us familiar, when terminal arteries are occluded by an embolus, venous blood regurgitating from the veins into the capillaries and arterioles. Possibly, however, the engorgement which ensues is rather to be attributed to a slow infiltration from those capillaries which communicate with the arteries of adjacent territories than to a regurgitation from the veins. In this way we may explain the curious manner in which the circulation in an asphyxiated part is restored after the vessels have been forcibly emptied. Thus Raynaud remarks, in reference to this point, "if pressure be made on cyanosed skin, a white spot is produced; it disappears slowly; the return to the primitive tint extends either from the periphery to the centre, or from a central point which appears in the middle of the white patch, and by little and little rejoins the border." In another case recorded by Mr. Joseph Collier (*Manchester Medical Chronicle*, 1889), we find another instance of the blood diffusing itself over the white patch from so many scattered capillary centres. Thus Mr. Collier remarks: "On pressing with the thumb upon the affected portion of skin, a white area could be produced, which surely but very gradually again became blue. It was noticeable, however, that the bluish tint did not creep from the periphery over the white area, but that in the ex-sanguined area several blue spots appeared, which slowly extended and coalesced."

A study of the numerous cases which I have collated unmistakably teaches us how varied, both in their extent and distribution, are the lesions to which the term "symmetrical gangrene" has been applied. As these lesions differ, so it is reasonable to assume that those changes in the nerves on which they are believed to depend differ also in their character and in their gravity. In simple local syncope, more especially where the symptoms are induced by changes of temperature, the integuments of the extremities of the fingers and toes are at times alone affected. Here frequently no pain is experienced, merely a sense of numbness. In such cases the epidermis is the part solely affected, the deeper tissues escaping. There may be a partial anæsthesia in consequence of the peripheral extremities of the sensory nerves being more or less involved, but there is no general disturbance of any extended portion of the nervous system. In such a case, the exciting cause acts directly on those minute ganglia which are distributed over the vessels, and any constricting influence exerted upon the coats of the arteries and veins seems wholly dependent on their influence. No higher centres, situated either in the cord or elsewhere, are called into play. In other cases, however—as, for example, when local syncope is succeeded by asphyxia,—we find the disturbance of the nervous system more widely diffused. In numerous instances tingling, and burning, and darting pains are experienced, radiating centripetally in the direction of the cord. These pains may be prolonged for many weeks. Here a sensation—as, for example, of cold—is transmitted by the sensory nerves to an excito-motor centre in the cord, and from that centre a stimulating influence is reflected along the vascular nerves. Hence sensory and vaso-motor nerves are alike implicated. In other cases, again, the motor nerves are likewise affected, and we observe peripheral neuritis. Several such cases have been recorded. Dr. Barlow, in his valuable appendix to Raynaud's papers (translated by him for the New Sydenham Society), refers to several of these cases. The first was recorded by Mounstein, and others referred to Pitres and Vaillard. In Mounstein's case changes were found in the nerves of both lower extremities, and in the two cases of Pitres and Vaillard the peripheral neuritis was well marked. Several other examples of such changes in the peripheral nerves have been observed. Thus, in my own case, it was noticed that when the arms were extended the hands dropped. So also, in a case reported by Englisch,[5] it is said that the extremities of the fingers were affected, the sensibility of the finger-tips to the faradaic current being much lessened, as also the irritability of the thumb muscles, the interossei, and the extensors of the arm. Dr. J. O. Affleck also has published a case[6] in which peripheral neuritis was observed. The patient was a girl aged sixteen; her symptoms were grave, and it was found necessary to remove the left foot. Dr. Wiglesworth likewise has described[7] a case of a female aged twenty-six, admitted into the Rainhill Asylum, who had lost several fingers from Raynaud's disease. On the death of this patient extensive changes were discovered in the nerves—namely, an overgrowth of the fibrous elements of the nerves, with atrophy and degeneration of the nervous elements. The disease processes were found to be more advanced at the distal than at the central ends of the nerves. Leloir and Dejérine have also reported a somewhat similar case. These are, so far as I can discover, the only examples of Raynaud's disease in which any distinct reference is made to peripheral neuritis. They were for the most part observed in persons whose symptoms were of a more or less prolonged or obstinate character. In several instances the changes were confined to the peripheral branches of the extremities, the nerve trunks remaining intact. It does not appear that the course of the disease was materially influenced by this complication, which I am disposed to believe cannot be looked upon as an essential factor in symmetrical gangrene. Some few cases have been recorded in which portions of the sympathetic system have been found more or less involved by disease. Thus Dr. Fagge, in his "Principles and Practice of Medicine,"[8] refers to such a case. He remarks: "One very curious effect of a mediastinal growth which I had an opportunity of observing many years ago must, I think, be attributed to pressure upon the vaso-motor nerves. The patient was a woman, aged twenty-six, who was admitted in the summer of 1866 for a defective state of the circulation in her fingers, which were cold and shrunken, and also very painful and tender. The case ended fatally, and at the necropsy it was found that the growth infiltrated the fibrous tissue in front of the spine and involved both the first dorsal nerve and the sympathetic trunk." In Mr. Collier's case also, to which I have already referred, a post-mortem examination showed peritonitis especially well marked in the region of the solar plexus. Cases such as these must

[3] *Berliner Klin. Wochenschrift.*
[4] *Glasgow Medical Journal*, Dec. 1888.
[5] Wien. Med. Presse.
[6] Brit. Med. Jour., Dec. 1888.
[7] Trans. Path. Soc., 1887.
[8] Vol. ii., p. 80.

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necessarily be rare, inasmuch as the lessons they teach are only discoverable after death, and the instances are by no means numerous in which symmetrical gangrene terminates fatally. Still, a considerable number of cases have been published in which some of those symptoms which are frequently associated with abnormal changes in the semilunar and solar plexuses have been observed, and I feel persuaded that, if our knowledge of this curious affection is to be advanced, it is in this direction, by the examination of these portions of the sympathetic with its complicated abdominal plexuses, that the investigations of competent observers are likely to be followed by the most useful results. In addition to these cases, well-marked examples of Raynaud's disease have been associated with lesions in the spinal cord. Thus Hochenegg alludes to symptoms of gangrene of the toes in both feet, in a man aged thirty-four, who suffered from tabes dorsalis. Another patient, aged fifty-one, experienced attacks of gangrene in the fingers of his right hand, which supervened shortly before his death. Here inspection showed syringomyelia, extending from the fourth cervical to the fifth dorsal nerve. In another case recorded by Dr. T. A. McBride,[9] symptoms of this affection were noticed in a man of thirty-two, afflicted with anterior spinal paralysis. Cases have also been published where symmetrical gangrene seemed to depend on lesions of the brain. Thus the *Journal of Mental Science* for April, 1889, contains an account of a case of acute mania, with symmetrical gangrene of the toes, by Dr. J. Macpherson. The subject of the affection was a girl aged eighteen; there was a strong hereditary tendency towards insanity; black spots were observed on the extremities of the feet, the spots on the several toes exactly corresponding with those on their fellow toes of the opposite foot. The patient eventually recovered. Dr. Southey has reported another instance of this form of gangrene associated with acute mania; and lately Mr. W. C. Bland has published still another (THE LANCET, April, 1889), where a patient, aged twenty-three, was admitted into the Milton Lunatic Asylum on Dec. 18th, 1888, suffering from a severe attack of acute mania. In a paper by Mr. J. C. Shaw, medical superintendent of the King's County Insane Asylum,[10] several cases are reported in which well-marked symptoms of Raynaud's disease were observed in persons suffering from various kinds of chronic mental affections. One was a woman aged fifty, admitted for melancholia and delirium; another, a female of forty, described as of a very low order of intelligence, with delusions regarding poisoning; and a third, a woman of fifty-one, in whom the mental faculties appear to have been weak.

In the foregoing remarks I have endeavoured to show how varied are the lesions of the nervous system which are associated with symmetrical gangrene. The brain, spinal cord, sympathetic system, peripheral nerves, and peripheral ganglia may be severally or together involved. If, then, the lesions connected with this disease are so multifarious, it is but reasonable to expect that the manifestations thereof should be proportionately varied and uncertain, and that in one case we should find perhaps one terminal phalanx of a finger surrounded by a bluish patch, while in another the whole limb would be rapidly destroyed and cast off as a lifeless mass.

(To be concluded.)

PSEUDO HAY FEVER; SYMPTOMS AND TREATMENT.[1]

BY ADOLF BRONNER, M.D.,
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So much has lately been written and talked about hay fever that I almost feel as though I must apologise for introducing it. It seems to me, however, that in this case, as in so many others, the very fact that so much is written and discussed on the subject proves that most men do not agree as to the exact nature and definition of the disease. Most men simply call hay fever any chronic or recurrent affection of the mucous membrane of the nose, accompanied by attacks of copious watery discharge or violent sneezing. We thus find that hay fever seems to be a very common disease. If we, however, carefully examine these cases, we find that we can, roughly speaking, divide them into two classes: firstly, those cases in which the mucous membrane of the nose usually seems to be quite normal, and only swells at certain periods, when the swelling is accompanied by attacks of violent sneezing and watery discharge — hay fever and vaso-motor rhinitis; and, secondly, those cases in which the mucous membrane is always swollen — chronic hypertrophic rhinitis. The diseases of the first class are of a neurotic nature, and occur mostly in weakly and nervous subjects. The attacks of violent sneezing and watery discharge are brought on, firstly, only by the pollen of certain grasses, and by no other irritant—hay fever; or, secondly, by any sudden change of temperature, or wet feet—vaso-motor or neurotic rhinitis. In the second class—chronic hypertrophic rhinitis—the disease is purely local, and is caused by a chronic enlargement of the mucous membrane of the nose. The attacks can be brought on by any local irritation, and therefore also by the pollen of grasses, but not, as in hay fever, exclusively by these; and also by any sudden change of temperature or wet feet. Hay fever, as just described, is a very typical and well-defined disease, and is, in the north of England at least, of very rare occurrence.

There is another affection closely allied to hay fever, which I should like to call nervous or vaso-motor rhinitis. Like hay fever, it mostly affects neurotic subjects, especially girls of the upper classes. It usually occurs in autumn and spring. The attacks are similar to those of hay fever, and are accompanied by profuse watery discharge and sneezing. During the attacks the mucous membrane is much swollen, but in the intervals it appears to be quite normal. Unlike hay fever, the attacks are not caused by any local irritation, and have nothing whatever to do with the pollen of grasses, but are brought on by sudden changes of temperature or wet feet. They last a definite time—generally twelve or twenty-four hours,—and mostly begin at night, and last till the following morning or evening. The sneezing and watery discharge are generally so violent that the patient cannot sleep, and feels very weak in the morning. Cocaine or menthol often affords relief for some hours. In some cases antifebrin or bromide of potassium cuts short the attacks, thus proving the neurotic origin of the disease. In this class of cases—hay fever and neurotic rhinitis—local treatment is of very little use, unless combined with general treatment, and even then in most cases the only effective cure is change of climate.

The disease which is generally called hay fever, which is very common, but which has nothing whatever to do with hay fever as defined above, is a kind of chronic hypertrophic rhinitis. It is mainly a local affection, and is caused by a chronic enlargement of the mucous membrane of the nose. The mucous membrane of the lower turbinated bones is usually affected the most; often also that of the middle turbinated bones, septum, and floor of the nares. The swelling is of a dull-red colour in the anterior half, and of a yellow-grey colour in the posterior half, where it is often mistaken for a polypus. On pressure with a probe, the parts appear soft, and can readily be compressed. After the use of cocaine or menthol, the mucous membrane partly collapses and attains nearly its normal size. This is of great importance, as we can thus readily recognise what is swollen mucous membrane and what is normal tissue. On microscopic examination, the swelling is found to be caused by hypertrophy of the third or cavernous layer of the mucous membrane, and is therefore in reality a kind of angioma cavernosum.

Hack, Fraenkel, and others have in late years shown how this swelling of the mucous membrane of the nose can give rise to all kinds of reflex symptoms, such as asthma, megrim, epileptic attacks, &c. I cannot now, however, enter into these very interesting researches, but will only touch upon the typical symptoms of chronic hypertrophic rhinitis, some of which closely resemble the symptoms of hay fever, and which have given rise to so much confusion. In all cases there is a history of obstruction of the nares, generally only one side at a time, and worse at night. In many cases the whole of the nose is swollen, and of a peculiar shiny red colour. Often there is swelling and eczema of the upper lip, caused and kept up by the constant discharge from the nares. Certain irritants—dust, smoke, &c.—or sudden change of temperature, or wet feet, bring on attacks of violent sneezing, which last from several minutes to as many hours. These are often accompanied by a copious watery discharge, or we may have the copious discharge

[9] New York Medical Record, April, 1878.
[10] New York Medical Journal, 1886.
[1] Paper read before the March meeting of the Leeds and West Riding Medico-Chirurgical Society, 1889.

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without any sneezing. The following are a few of the many cases of chronic hypertrophic rhinitis which I have in the last two or three years had the opportunity of treating. The cases are, of course, very similar, but these seem to me to show some of the typical symptoms.

CASE 1.—Mrs. F——, aged forty, consulted me in August, 1886, for what she called hay fever. She had never for the last twenty or thirty years been able to breathe through both nostrils; generally one side was closed, sometimes both. For the last seven or eight years she had been subject to sudden attacks of this hay fever. If she had been exposed to dust or wind, or especially after going out of a warm room into the open air, after lectures, theatre, or concerts, the nose began to tickle and swell, and a copious watery discharge set in, which generally lasted for ten or twelve hours. The discharge was usually so bad that she could not sleep, and used ten or twenty pocket-handkerchiefs. For the last three or four years she has had to give up going out in the evening. On examination both lower turbinated bones were found to be much swollen; in short, there were all the typical symptoms of chronic hypertrophic rhinitis. As she had already tried all kinds of remedies, cocaine spray, snuffs, nasal douches, bougies, &c., I advised her to have the mucous membrane treated with the galvano-cautery. I burnt both sides twice. After five or six weeks the attacks became gradually weaker and weaker, she was able to go out again in the evening, could attend lectures, and go to the concert and theatre, without the least subsequent discomfort.

CASE 2.—Mr. M——, aged fifty, had been troubled with frequent attacks of violent sneezing for many years. Any sudden change of temperature brought on the attacks; they nearly always came on if he entered a warm room or left a warm room and went out into the cold air. Many times he had been obliged to leave the theatre or concert because of the violent attacks of sneezing. The attacks lasted from about ten minutes to as many hours. After a bad attack he usually suffered from violent headache for the rest of the day. Both nostrils showed all the symptoms of chronic rhinitis. The use of the nasal douche, snuffs, &c., made matters worse. I used the galvano-cautery on both sides twice in November, 1887. The attacks of sneezing soon ceased, and the patient has never been troubled with them since.

CASE 3.—Mrs. M——, aged forty-five, had suffered from attacks of sneezing and watery discharge from the nostrils for about twelve years. The attacks were worse in June and November. When grass was in bloom or hay was made, she had to go to the seaside for some weeks. Dust or smoke also brought on the attacks. There were the typical symptoms of chronic hypertrophic rhinitis. I used the galvano-cautery on both sides in July and November, 1887. Last year, for the first time for many years, she had been able to stop at home when hay was made, had had no more attacks of sneezing, and had felt, as she said, a different person altogether.

CASE 4.—Miss W——, aged seventeen, consulted me in June, 1887, for copious discharge from the nostrils and considerable enlargement of the whole of the nose, which was of a peculiar, shiny, red colour. She had noticed the symptoms since she had scarlet fever, six years ago. The mother was very unhappy about the size and colour of the nose, which certainly much disfigured the otherwise very handsome girl. The mucous membrane of the nose was much swollen. I cauterised both sides three times. In from two to three months the nose was reduced to its normal size and colour.

CASE 5.—Mr. L——, aged thirty-five, consulted me in April, 1887. For eight years he had been troubled with watery discharge from the nostrils and chronic eczema of the upper lip. The lip was often much swollen and very painful. He also noticed that his nose, which nature made very large and arched, had become very thick and red. He had tried all kinds of remedies. As there was well-marked hypertrophic rhinitis, I told him that ointment would be of no use, and that the only way to cure the eczema was to treat the mucous membrane of the nose, and thus stop its discharge. At first he was very much afraid of the galvano-cautery, but when I told him that I hoped not only to stop the discharge, and thus cure the eczema, but also to reduce the size of the nose, he was willing to submit to anything. I cauterised the right side three times and the left twice. The eczema soon disappeared, the lip has never been swollen since, and the size of the nose has considerably decreased.

As these symptoms are brought on by a chronic enlargement of the mucous membrane of the nose, it naturally follows that the treatment must chiefly be a local one. If we consider that the swelling is caused by hypertrophy of the third or cavernous layer of the mucous membrane, and often attains very formidable dimensions, we can readily conceive how half-hearted measures, such as the nasal douche and various kinds of snuffs, can in most cases be of no permanent benefit. I now invariably in well-marked cases use the galvano-cautery, and find it vastly superior to any other method. Before operating I use the cocaine spray, and then introduce a plug of cotton wool saturated with a 10 per cent. cocaine solution into the nostril, and leave it there for about ten minutes. The operation is thus rendered practically painless. In fact, the only thing even very nervous patients complain of is the disagreeable smell of the burnt tissue. I use a thick platinum-wire point, and slightly bend the point towards the mucous membrane. If possible I use a new point for every patient, to avoid the possibility of any infection. I have had some points made in which the isolating silk only goes to the middle of the shaft; so that the upper half, which is introduced into the nostril, can, if necessary, be properly disinfected. The point is passed, under guidance of the frontal mirror, through the anterior nares to the posterior end, and then drawn with gentle pressure along the whole of the mucous membrane of the lower turbinated bone—once. You thus cut, or rather burn, a deep furrow along the whole of the diseased membrane. A cicatrix forms, which prevents any subsequent swelling of the mucous membrane, especially if, as happens in most cases, the cicatrix becomes adherent to the osseous tissue of the turbinated bone. I generally find it necessary to operate twice on either side. In cases in which the swelling is very great or the septum bent or thick, I introduce a plug of cotton wool and glycerine to prevent any subsequent synechiæ between the turbinated bone and the septum, which are otherwise very apt to occur.

Chronic hypertrophic rhinitis is a very common disease. In bad cases it renders the life of the patient perfectly miserable, often compelling him to give up his occupation and leave his home in search of a better climate. In many cases it goes on into polypoid degeneration of the mucous membrane, accompanied by loss of smell and taste, sets up inflammation of the maxillary or frontal sinuses, and is a very common cause of so-called post-nasal catarrh and relaxed throat. It also very frequently brings on or keeps up inflammation of the middle ear. In all cases of chronic or recurrent diseases of the middle ear, we ought therefore to carefully examine the nose, and remove any obstruction there may be to the free passage of air over the Eustachian orifices or any source of inflammatory changes.

Bradford.

RESULTS OF

MAJOR AMPUTATIONS TREATED ANTISEPTICALLY IN THE ROYAL INFIRMARY, NEWCASTLE-ON-TYNE, DURING 1888, AND FOR A PERIOD OF TEN CONSECUTIVE YEARS AND NINE MONTHS.

BY FREDERICK PAGE,

SURGEON TO THE ROYAL INFIRMARY, NEWCASTLE-ON-TYNE; EXAMINER ON CLINICAL SURGERY, EDINBURGH UNIVERSITY.

TABLE I. gives the results of major amputations treated antiseptically in the Royal Infirmary, Newcastle-on-Tyne, during 1888.

TABLE I.

—	For Injury.			For Disease.			Total.
	No.	Rec.	Died.	No.	Rec.	Died.	
Hip-joint	1	0	1	0	0	0	1
Thigh	1	1	0	10	10	0	11
Knee-joint	0	0	0	0	0	0	0
Leg	4	1	3	2	2	0	6
Ankle-joint	1	1	0	13	13	0	14
Shoulder-joint	2	1	1	1	1	0	3
Arm	2	1	1	0	0	0	2
Forearm	2	2	0	3	3	0	5
Wrist	0	0	0	0	0	0	0
—	13	7	6	29	29	0	42

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The number of amputations is unusually small, and the mortality unusually high. Of the forty-two patients treated, six died (14·2 per cent.). Twenty-nine of the amputations were for disease, and among them there were no deaths. Last year we had forty-three amputations for disease without a death, so that we have now had seventy-two consecutive amputations for disease without a single death. Of the thirteen amputations for injury, six patients died, which is a mortality of 46·1 per cent., contrasting very unfavourably with the mortality following amputation for injury during the previous five years. From Jan. 1st, 1883, to Dec. 31st, 1887, exactly 100 major amputations were performed for injury, and four patients died. The mere statement, however, that so many cases have been operated upon, and that so many proved fatal, is not of much value unless details are given of each death, and it is with the object of making these statistical records valuable that I have now for a term of six years carefully tabulated the circumstances accompanying each death, the actual cause of death, and the age of the patients who have died. We want in an inquiry of this kind to know particularly how many patients have died from blood-poisoning. That is the crucial question. Blood-poisoning is to a considerable extent an avoidable cause of death. The age of the patient is a matter of great importance, determining as it does, more perhaps than any other single circumstance, the result of the case. We have been wonderfully free of late years from deaths from blood-poisoning. During the five years preceding the past year only two cases occurred; but the following history of the six deaths in 1888 is less satisfactory than any preceding record.

Precise Cause of each Death in the year 1888.

1. Man aged forty-nine. Amputation of the leg five months after compound fracture; stump nearly healed. Death from blood-poisoning. The blood-poisoning is supposed to have been due to the patient spending a considerable time smoking in a watercloset.

2. Man aged forty-four. Upper arm crushed off close to the shoulder by the wheel of a locomotive. It was difficult to cover the wound with skin after disarticulation. Sloughing took place. Death from blood-poisoning.

3. Man aged forty-nine. Primary amputation of leg below knee for compound fracture. Part of the foot of the other limb was removed at the same time. Death in fourteen days from blood-poisoning.

4. Woman aged sixty-two. Primary amputation of right upper arm for compound fracture. In addition there was an extensive laceration of the soft parts of the left leg and thigh. The amputation progressed favourably, but the lacerated wounds became septic, and death ensued fourteen days after the accident.

5. Boy aged fifteen, admitted from a distance with gangrene of foot following compound dislocation of ankle received a week before. Death from tetanus six days after amputation below the knee.

6. Boy aged fourteen. Primary amputation at hip Death in a few hours from shock.

It will be seen that of the six deaths four are returned as due to blood-poisoning. Two of these four patients were forty-nine, one sixty-two, and one forty-two years of age. The other two were boys aged respectively fourteen and fifteen. I do not think it wise to look upon these deaths from blood-poisoning as accidental, and I feel that they should stimulate us to most diligently search out and exclude every possible source of infection. I am satisfied that years ago the high amputation mortality in the Newcastle Infirmary was due to a large extent to the circumstance that the surgical cases were dressed by the persons who made the post-mortem examinations. I feel very strongly that the house surgeons and the dressers ought not to be permitted to enter the post-mortem room or to frequent the dissecting room during their tenure of office. There is risk of infection being brought from those places, and it is an avoidable risk to which patients need not and should not be exposed.

Table II. gives the results of amputations treated antiseptically from Jan. 1st, 1883, to Dec. 31st, 1888, a period of six years, during the time that the precise cause of each death has been recorded. In this table we have 324 major amputations, with 20 deaths (6·1 per cent.); 113 amputations for injury, with 10 deaths (8·8 per cent.); and 211 for disease, also with 10 deaths (4·7 per cent.).

TABLE II.

	For Injury.			For Disease.			Total.
	No.	Rec.	Died.	No.	Rec.	Died.	
Double amputation ..	2	1	1	0	0	0	2
Hip-joint	1	0	1	10	7	3	11
Thigh	16	14	2	79	76	3	95
Knee-joint	4	4	0	1	1	0	5
Leg	27	24	3	35	33	2	62
Ankle-joint	15	15	0	53	52	1	68
Shoulder-joint	5	4	1	7	7	0	12
Arm	18	17	1	11	10	1	29
Forearm	18	17	1	15	15	0	33
Wrist	7	7	0	0	0	0	7
	113	103	10	211	191	10	324

If we add Table II. to one already published, giving the results of amputation from April 1st, 1878, to Dec. 31st, 1882, we get, as in Table III., the results for the period of ten years and nine months (April 1st, 1878, to Dec. 31st, 1888)—viz., 484 major amputations, with 37 deaths (7·6 per cent.). Of these 178 were for injury, and 22 patients died (12·3 per cent.); 306 were for disease, and 15 patients died (4·9 per cent.).

TABLE III.

	For Injury.			For Disease.			Total.
	No.	Rec.	Died.	No.	Rec.	Died.	
Double amputation ..	2	1	1	0	0	0	2
Hip-joint	1	0	1	12	7	5	13
Thigh	32	25	7	116	110	6	148
Knee-joint	7	6	1	5	5	0	12
Leg	47	40	7	59	57	2	106
Ankle-joint	19	19	0	69	68	1	88
Shoulder-joint	8	7	1	9	9	0	17
Arm	29	26	3	17	16	1	46
Forearm	26	25	1	19	19	0	45
Wrist	7	7	0	0	0	0	7
	178	156	22	306	291	15	484

Newcastle-on-Tyne.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF MANIA TRANSITORIA.

BY R. R. SLEMAN, B.A.CANTAB., L.S.A.LOND.

I HAVE read with great interest the notes of Dr. E. F. Willoughby's case of threatening mania which appeared in a recent issue of THE LANCET, and which he treated with pilocarpine, but cannot agree with his inference respecting the treatment adopted. It appears to me that the result was *post hoc sed non propter*. His case is very similar to one of which I give the notes below, and which, I think, was one of mania transitoria, of which Dr. Bristowe writes in his "Theory and Practice of Medicine."

I was called a short time since, at about 9.30 P.M., to see a patient residing in the City. He was a short, thick-set man, of sixty years of age, the father of a large and healthy family. He had had no previous illness of any consequence. It appeared that on the evening in question he had been for a walk of about six miles with some friends, had arrived home, and had got inside the outer door, when he became faint, fell down on the mat, and was found there partially unconscious. As he seemed to be too ill to walk upstairs, his sons carried him up. When I arrived at the house the man had rallied somewhat, and with a little assistance stood up and demanded the reason of my being there, and so on, talking excitedly and in evident fear. He could give no account of what had happened previously. I could find no trace of injury or of alcoholism, and on these points the friends confirmed

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my opinion. Presently, with a little persuasion and help, we got him into bed, and he was, as we thought, comfortably settled. However, he soon commenced to be very violent with his fists, and to shout loudly, and at times piteously, as if in dread of some persons or things near him. This continued for about twenty minutes, when he fell back in the bed exhausted and was quiet; but not for long, however, as he suddenly, and without the least warning, leapt out of bed, and, before anything could be done to restrain him, had got to the other side of the room and made for a chest of drawers there, promptly opened one of them, and took out a six-chambered revolver and cartridges. But by this time I had firm hold of his wrists, and succeeded with some force in taking away the weapon. His condition for another half-hour was very violent, after which time he became decidedly better, and quieted down considerably. Dr. Stephen Mackenzie, who saw the case with me at this juncture, suggested bromide of potassium in twenty-grain doses every four hours, and, as we were now able to get the patient to swallow, his suggestion was adopted. At 3 A.M. the patient was quiet and sleeping, so that I was able to leave him. On returning at 10 A.M. I found that he had had a fair amount of sleep, and, with the exception of feeling weak and prostrate, pronounced himself to be all right. He could give no account of anything that had happened to him after getting inside his door. The urine was normal, containing no albumen.

I have made careful inquiries, and have not been able to find anything to account for this strange attack. We are told that the most common causes of this acute transitory mania are hereditary insanity, alcoholism, and epilepsy. None of these was present in this case. The patient is now well, and has had no return of his condition.

St. Benet's-place, E.C.

FOREIGN BODY IN THE EYE FOR TWO YEARS.

By S. A. L. SWAN, M.D.

THE history of the following case may prove of interest, showing how long the eye, sensitive organ as it is, will remain tolerant of foreign bodies, and how easily their presence may be overlooked.

At the beginning of May J. M—— came to me complaining of pain and weakness in his right eye, which he said he had first felt two years ago, but which did not prevent him from following his occupation as a bleacher. He had used a "wash," and had consulted a medical man once, but had not further troubled about it. He complained at the time I saw him of the constant discharge (which was purulent) and inability to bear strong light. On examination there was a considerable amount of conjunctivitis extending from the inner canthus upwards and outwards beneath the upper lid. As he had no recollection of having received any injury, I treated the case for some days as one of chronic conjunctivitis, but without any benefit. On June 4th, while everting the upper lid, I was surprised to find a black object protruding beneath it. This, on removal, I found to be a thorn, which measured three-eighths of an inch in length. As the man occupied himself in his leisure in procuring and dressing walking-sticks for sale, its presence was easily accounted for. The pain and discomfort almost instantly ceased on its removal, and the eye was quite well on June 8th.

It seems strange that a hard substance of such size should remain so long in this situation, causing comparatively little inconvenience, and without ulcerating either into the posterior chamber or through the eyelid.

Gilford, co. Down.

A CASE OF INTESTINAL OBSTRUCTION; RECOVERY.

By CHARLES F. WILLIAMSON, L.R.C.P. LOND., &c.

THE following case illustrates the use of the long rectal tube; and, as it exhibits certain points of similarity, although differing somewhat in details, to Dr. Robert Kirk's case in THE LANCET of June 8th, it may be worthy of record.

On Dec. 21st last, at 2 A.M., William B——, aged twenty-eight, was suddenly seized with severe pain in the abdomen, referred chiefly to the left iliac region, and accompanied with bilious vomiting and hiccough in the course of four hours. He had been ailing for the previous six days, with occasional vomiting and troublesome constipation, a less amount being passed at each action of the bowels; he nevertheless continued at his work. On seeing him, he was lying on his back, with legs drawn up, anxious expression, creamy fur on tongue, abdomen flatulent, muscles over left iliac region tense, great tenderness, and an irregular hard, but not doughy, swelling felt on palpation. Temperature 101°; pulse 90, quick and full. Bowels not open for twenty-four hours, but painful tenesmus. Urine very scanty and high-coloured. No hernia was present. Difficulty was experienced in introducing the finger per rectum, no fæces being felt when this had been accomplished. He was ordered ten grains of calomel and ten of chloral hydrate every two hours; also an enema of soapy water every four hours.—Dec. 22nd: The pain was much less, but the vomiting continued, and he was only able to keep down a little milk and brandy. Bowels not open, and nothing felt per rectum. Enemata to be continued.—23rd: A very hard mass was felt per rectum. This I broke up with the handle of a spoon, and then introduced a long rectal tube and injected two quarts of soapy water, which was followed in half an hour by one copious motion; but the abdomen remained distended.—24th: Can keep down nourishment better, but a hard lump still felt in the same region. A hard mass was felt per rectum; so I again broke it up and used the long tube again. This was followed by three actions of the bowels, and the abdomen became flat. After this he made an uninterrupted recovery, and was soon able to resume his work. I may add that the fæces were hard, and apparently had lime concretion on the surface, and, on being broken up, were brittle and came away in flakes.

Horley, Surrey.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

LONDON HOSPITAL.

CASES OF EXTRA-UTERINE GESTATION; REMARKS.

(Under the care of Dr. HERMAN.)

EXTRA-UTERINE gestation is of rare occurrence, and its existence is seldom suspected until the sac ruptures. These cases are examples of the rupture of the sac into the abdominal cavity and into the layers of the broad ligament. Of these, rupture in the former direction is much the more common, and is an extremely fatal occurrence; Kiwisch[1] places the mortality at 82·5 per cent., Hennig at 88 per cent. The methods of treatment which have been employed for the cure of this condition are—tapping the sac and drawing off the liquor amnii, tapping and injecting morphia or other narcotics, electrolysis, abdominal section, and incision through the vaginal wall. Of these, the first three are employed to destroy the life of the fœtus. The others aim at the evacuation of the contents of the sac and its obliteration. In cases such as those under the care of Dr. Herman, with rupture and hæmorrhage, removal by abdominal section is the only successful treatment. A curious case, in which extra-uterine gestation existed and formed a bar to the delivery of a child, is recorded by Dr. Stewart of Philadelphia.[2] The cause of the obstruction was recognised, and the cyst evacuated through the posterior vaginal wall. The child was then successfully delivered, and the mother made a good recovery. For the notes of the cases we are indebted to Mr. Woodall, clinical clerk.

Tubal gestation; rupture at end of second month; several slight hæmorrhages into peritoneal cavity in first half of third month; laparotomy; cure.—E. R——, aged thirty-nine, admitted on March 9th, 1889. The patient was not

[1] Hart and Barber: Manual of Gynæcology.
[2] American System of Gynæcology, vol i., p. 717.

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very intelligent, and precise information was obtained with difficulty. She said she had never been ill before. Until her last pregnancy she had always menstruated regularly without pain. She was married at twenty-six, and had had three children; labours natural. She had of late been short of food, and therefore felt weak. Her last child was born two years ago. She suckled it five months. After weaning it, she lost blood every two weeks till October, 1888. Then she went six weeks without seeing anything, and after this menstruated as usual, the last period ceasing on Jan. 1st, 1889. Then she saw nothing till a week before admission. On March 1st she had an attack of severe pain, accompanied by vomiting and faintness. She kept in bed and her symptoms improved. On the 5th she got up and went out for a walk; on the 6th the pain and vomiting returned; and on the 9th she came to the hospital and was admitted.

On admission, the patient was thin, pale, and weakly-looking. Temperature 102°; pulse 108. Beyond these there were no physical signs of disease elsewhere than in the pelvis. The abdomen was tender; the muscles were rigid; but no tumour was felt. Per vaginam, the cervix uteri was found displaced forwards by a soft and rather tender swelling behind it.

During the first three days following admission the patient's condition improved, and her temperature gradually fell to normal. The case was at this time considered to be one of hæmatocele, possibly due to extra-uterine gestation; and, as it appeared to be taking a favourable course, no active treatment was advised. During the night of March 12th the patient was restless and faint, and complained of pain in the lower abdomen. In the morning she was paler, the swelling behind the uterus was distinctly larger, and the uterus more pushed forwards. It seemed clear that there had been a further hæmorrhage, and it was inferred that the cause of the hæmorrhage was still persistent. Operation was therefore advised, and performed by Dr. Herman the same evening. On opening the peritoneum fluid blood ran out. Much solid clot, in lumps and layers of different dates, evidenced by partial decolourisation in different degrees, was scooped up with the fingers, chiefly from the left side of the pelvis. In this partly decolorised clot was unmistakable chorionic tissue. Then the left Fallopian tube, which was expanded and ruptured, was pulled up, tied, and removed. No fœtus was found. (The expanded tube, or rather the part of it removed, measured about two inches wide when laid open.) The peritoneum was then washed out with hot water, and bleeding arrested partly by this means, partly by pressure with sponges. A Keith's drainage-tube was inserted.

The tube was removed about twenty hours after the operation. No bad symptoms occurred during convalescence. The temperature, during the fortnight following operation, did not exceed 99°.

April 12th.—Patient discharged to go into the country. She was feeling rather weak, but was otherwise quite well, and the wound had healed.

Sub-peritoneo-pelvic gestation (probably produced by rupture of tubal gestation early in third month); abdominal section at beginning of fifth month; cure.—L. H——, aged thirty, was admitted on March 24th, 1889. The patient stated that she had had no previous illness. She began to menstruate at thirteen; the flow, which lasted a week, was scanty. She was married at twenty. She had had one child ten months after marriage, the labour being easy and convalescence natural; the infant was suckled for eight months. After this the patient was regular until two or three years ago, when she went eight months without seeing anything. After that time she was regular again till November, 1888. For six months previously to admission she had had a thick yellow discharge, but since November she had not menstruated. Two months before coming to the hospital she was seized with sudden pain in the pelvis, of a sharp, cutting character; she felt very faint, and turned very white. She kept her bed for ten days, and then got up. After a week she had another attack, like the first, but worse. She remained in bed two days. After this she thought she had had a miscarriage; she had labour-like pains and slight hæmorrhage, and passed a piece of membrane, which was shown to a doctor, who said it was "a kind of miscarriage." After ten days the pain and the "show" stopped. After each of these attacks she had pain and difficulty in micturition and defecation, but this passed off. She had had continuous pelvic aching since the last attack, bad enough to keep her awake at night. Three weeks before admission she noticed a lump in the lower abdomen. She did not herself think she was pregnant.

On admission, the patient was thin and somewhat anæmic, and probably for this reason there was no distinct bluish tinge of the genital mucous membrane. There were no definite mammary indications of pregnancy. The veins on the surface of the breasts were rather large, but this, the patient said, had been the case since her child was born. There was a swelling of rounded outline rising out of the pelvis, reaching on each side to within two inches of the anterior superior iliac spines. Its highest point was to the left of the middle line, where it rose four inches above the pelvic brim. Per vaginam, the cervix uteri was found pushed forwards and to the right. The sound passed four inches forwards and to the right. Behind and to the left of the uterus was a firm elastic swelling, continuous with the abdominal tumour. The possibility of extra-uterine pregnancy was recognised, in spite of the patient's statement that she did not think she was pregnant. As the other possible conditions all indicated surgical interference, operation was advised.

On March 30th Dr. Herman opened the abdomen. A tumour was found behind and to the left of the uterus, pushing it forwards and to the right. The tumour was quite under the pelvic peritoneum, which at the sides and in front passed from the top of the tumour as a smooth sheet on to adjacent parts. Behind the tumour it dipped down to form Douglas's pouch. The tumour was punctured with a trocar, and some blood escaped. The finger inserted into the opening encountered a fœtus about six inches long, which was extracted. The sac, the wall of which was thick, was stitched to the abdominal wall. There was rather free hæmorrhage from its interior, which hot water failed to stop. The sac was therefore stuffed with iodoform gauze. No attempt was made to remove the placenta.

March 31st.—The gauze plugging was removed. The sac after this was washed out with a weak solution of iodine three or four times daily. There was no further hæmorrhage or other bad symptom. The temperature only once exceeded 100°.

April 11th.—The placenta could be felt by the finger inserted into the wound. As much of it as possible was separated by the finger, then seized with forceps and removed. The hæmorrhage provoked by this was so free that the cavity had to be again stuffed with gauze. The pieces of placenta and adherent clot removed weighed five ounces and a half.

12th.—The gauze plugging and some small loose pieces of placenta were removed. After this the wound was syringed twice daily, and on several occasions pieces of placenta were removed. The last large piece of placenta was removed on April 23rd. After that date only a few small shreds came away.

May 12th.—Patient discharged to go into the country. Quite well. Wound healed.

Remarks by Dr. HERMAN.—These cases, beside contributing to our knowledge as to the prognosis and methods of operation, present some points of interest. The first case illustrates what is certainly a common course, and what I believe to be the usual course, in tubal gestation. The hæmorrhage that takes place from rupture of the sac is at first slight, and slight hæmorrhages are often several times repeated before the grave and frequently fatal hæmorrhage occurs. These slight hæmorrhages are the cause of the severe paroxysmal pains, which are a well-known and characteristic symptom of extra-uterine gestation, and the cause of which has been much debated. The first, or one of the first, slight hæmorrhages may kill the fœtus. Then the case will end in spontaneous cure, its nature perhaps unsuspected. But if the growth of the fœtus has not been interfered with, then other and greater hæmorrhages will occur. Therefore, in a hæmatocele suspected to be due to extra-uterine gestation, augmentation in the size of the hæmatocele should be regarded as confirming the diagnosis, and as an urgent indication for operation. This opinion as to the usual occurrence of several hæmorrhages of different dates, and the cause of the paroxysmal pains, rests upon the facts that in almost every case cured by operation there has been evidence of hæmorrhages of different dates, and that in none of the few cases cured by operation before rupture has the diagnosis of extra-uterine gestation yet been made. Should

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the early hæmorrhages not kill the fœtus, there may come a fatal hæmorrhage at any time. On the other hand, the tube may rupture towards the broad ligament, and gestation go on outside the peritoneum, as in the second case. The second case is an item of evidence as to the time at which removal of the placenta may safely be attempted. Twelve days after extraction of the fœtus, separation of the placenta was followed by dangerous hæmorrhage. The whole process of separation and removal of the placenta occupied twenty-four days.

NORTHAMPTON GENERAL INFIRMARY.

REMOVAL OF TWO LOOSE CARTILAGES FROM THE KNEE-JOINT; REMARKS.

(Under the care of Mr. R. A. MILLIGAN.)

THE treatment of loose cartilage of the joints is a subject of constant interest to the profession, and the operative treatment more especially so. The direct method of operation, which is the one now commonly employed, as in Mr. Milligan's case recorded below, was formerly a very fatal one. Larrey's statistics[1] on the point are very definite. Out of 129 cases operated on by the direct method twenty-eight were fatal; and Barwell's table[2] shows 8·4 per cent. of fatal cases. Now there is a strong feeling as to the safety of this operation, so much so that a recent author says: "This is another instance of an operation rendered safe and simple by the antiseptic treatment of Sir Joseph Lister. Removal by the direct incision will therefore be alone described here."[3] There is a difference of opinion as to the closure of the incision after removal of the loose cartilage. One authority recommends that no suture be used unless the wound be exceptionally large; another recommends a single fine catgut suture; sutures which carefully take up the capsule are advised by a third; and we have seen the capsule carefully sutured, the serous surfaces being apposed and the superficial wound closed with a second row of sutures. There is an increasing tendency to the omission of drainage-tubes and the employment of permanent dressings in the surgery of the joints. The notes of the case were taken by Mr. J. Terry, the resident dresser.

H. D——, aged twenty-three, a shoe-worker, was admitted into the infirmary on Jan. 17th, 1889. Twelve months previously the patient noticed that his right knee was swollen; it became very painful, and it continued in this condition for four months. He then went to the London Hospital, where the knee was strapped. He only attended there once, and, the knee becoming worse, he next went to St. Bartholomew's Hospital. Here he had a Scott's dressing applied, but the joint was not improved thereby. In October, 1888, the patient first noticed something hard on the inner side of the joint. The following month (November) he had a slight attack of rheumatic fever, which lasted about eight weeks. About the beginning of the year he came under the care of Mr. E. F. Jones, who sent him into the infirmary for the purpose of having the loose cartilages removed.

On admission, as the joint was much swollen, a back splint with foot-piece was applied till Jan. 30th, on which date the swelling had all gone down. Now, in addition to the first cartilage felt, a much smaller one had been discovered by the patient himself, but it was very difficult to keep in one position.

On Jan. 30th an incision two inches and a half long was made on the inner side of the joint over the situation of the larger-sized cartilage. Directly after opening the joint the cartilage slipped away, and it was necessary to make a prolonged search for it. After a good deal of difficulty the larger one was removed, but there was still more difficulty with the smaller one, which was found at the back of the joint between the bones. The wound was carefully sutured with silk, care being taken to include the capsule of the joint in just the same way as one includes the peritoneum in an abdominal section. Iodoform was dusted on the wound, and then a large dressing of alembroth gauze applied, the limb being put on a back splint with a foot-piece, and an icebag placed over the dressings.

Feb. 6th.—Dressings changed for the first time. No rise of temperature since the operation. Stitches removed.

20th.—Wound dressed for the second time; completely healed. No rise of temperature since the 6th. Patient allowed to get up with a ham splint on.

27th.—Splint left off. Knee strapped and bandaged.

March 13th.—Discharged. No swelling. Movements free and unimpaired.

Remarks by Mr. MILLIGAN.—Under antiseptic treatment it is perfectly safe to open the knee-joint, and therefore in these days it is, I suppose, the rule to cut down directly on the loose cartilage and remove it. On looking through Mr. Jacobson's valuable work on Surgical Operations, I find he recommends that the cartilage should be harpooned, so that it cannot slip away after opening the joint. This seems a most valuable suggestion, and I shall carry it into practice when I come across another case. By so doing, I should not have had to thoroughly explore the joint with my finger, and consequently prolong the operation considerably. I think it is important to bring the edges of the capsule carefully together, so that no discharge may gravitate into the joint. I might add that the larger cartilage was shaped like the patella, about an inch in length by three-quarters of an inch at the widest part. The other was round, and of about half an inch diameter.

KIDDERMINSTER INFIRMARY.

GLASS BEAD IN THE AIR-PASSAGES; TRACHEOTOMY; RECOVERY.

(Under the care of Mr. ADDENBROOKE.)

THIS case is one of some rarity, and may well be read in connexion with a case under the care of Mr. Pick which we published this year in the "Mirror."[1] In that case the foreign body was an earring impacted in one of the ventricles of the larynx, and it was removed afer extension of the tracheotomy incision through the cricoid. In this patient the foreign body was impacted in the sacculus laryngis, and it is interesting to note the symptoms to which it gave rise, more especially the unusual attack of dyspnœa on the fourth day, which was so severe as to resemble that produced by a displaced or blocked tube, and the severe paroxysmal coughing, which was so distressing that chloroform had to be administered.

Minnie F——, aged six years, was admitted on Dec. 21st, 1888. Her parents stated that while playing the previous evening the child suddenly swallowed a large bead and became suffocated, remaining so for a few seconds, then her breathing gradually became easier, and she was taken to a doctor, who turned her upside down and shook her, but without expelling the bead: she had occasional choking fits during the night.

On admission the child breathed with considerable difficulty, and during the next hour had two sudden attacks of paroxysmal coughing, with much dyspnœa, lasting a few seconds only. The respiratory murmur was much fainter all over the right lung than on the left side, except over the third right costal cartilage, where very loud sibilant rhonchus of a high-pitched tone was heard.

A consultation was held and tracheotomy performed. Directly the trachea was opened a very violent attack of coughing ensued, but the bead could not be discovered. After the operation the breathing improved and the cough ceased.

Dec. 22nd.—No alteration.

23rd.—Under chloroform the tube was removed and the child inverted and succussed, but without result; nor could the bead be felt with a probe. Breathing sounds on right side the same as on admission, with some fine crepitation in addition. Tube reinserted.

24th.—Child losing strength. Sick twice. Temperature 99·4°.

25th.—At 1 A.M. there occurred sudden acute dyspnœa, lasting about two minutes and ceasing suddenly. At 2.30 A.M. the patient awoke in a suffocating fit, and, after struggling violently for a few seconds, fell back apparently dead. Mr. Rust, the house surgeon, took out the tube, inverted the child, and slapped her on the back sharply. In about six seconds a loud crowing inspiration occurred. The tube was reinserted, and artificial respiration maintained for a few minutes, the child gradually regaining consciousness. She was then seized with incessant paroxysms of coughing, and

[1] Gaz. des Hôpitaux, No. 67.
[2] Ashhurst's Encyclopædia, vol. iv., p. 345, 1883.
[3] Jacobson: Operative Surgery, 1889.

[1] THE LANCET vol. i. 1889, p. 219

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expelled some pus and a little blood through the tube. As the paroxysms continued, she was kept partially under chloroform for about an hour, and then fell asleep. The musical sound over the right bronchus had disappeared, and mucous râles were heard over the front of the lung; breathing took place entirely through the tube. At 9 A.M. chloroform was administered, the tube removed, and a probe passed upwards towards the sacculus laryngis, where a hard body could be felt. The wound was slightly enlarged upwards, and the bead (which was three-eighths of an inch in diameter, and perforated) removed with a vectis. Tube reinserted. The breathing rapidly improved.

26th.—Tube removed altogether.

There was a copious mucous discharge for two days, after which the wound rapidly healed, and the child was discharged well on Jan. 12th.

Medical Societies.

OPHTHALMOLOGICAL SOCIETY.

Monocular Suppurative Iritis.—Cavernous Angioma of Orbit.—Sarcoma of Ciliary Body.

THE last ordinary meeting of the Ophthalmological Society for the present session was held on July 5th; the President, Mr. J. W. Hulke, being in the chair.

Dr. ROCKLIFFE (Hull) read notes of a case of Monocular (?) Suppurative Iritis occurring in a girl aged eight years. For a week before admission she had suffered from "acute iritis," without lachrymation or photophobia. The family and personal history were exceptionally good. When examined, the right eye had no perception of light; there was acute iritis, the iris being studded with nodules, varying in size, their apices yellowish, their bases surrounded by bright-red vessels. No hypopyon; cornea clear; eyeball not tender; T + 1. In a week all pain had disappeared, and did not recur during the subsequent history of the case. Three weeks later the nodules had increased considerably in size, and two ciliary staphylomata had appeared. A month after this date the iris was becoming atrophic with T - 1; and two months later the staphylomata had entirely gone, and the iris was much disorganised; T - 2. The eyeball was excised six months after the first visit, when it was somewhat shrunken. On section there was found to be total posterior synechia, with thickening of iris and ciliary body, degeneration of lens, and detachment of retina. Dr. Brailey examined the specimen microscopically, and reported: "Rounded collections of cells, clearly new growth, probably inflammatory, on the inner aspect of the iris and ciliary body, and in and behind the base of the iris; to a less degree in the remainder of the iris. The central cells of these collections exhibited signs of inflammation, but an absence of the characteristics of tubercle. One small collection was present in the choroid. He considered that the case was one of irido-cyclo-choroiditis of a peculiar nature, with many of the features met with in sympathetic inflammation." Dr. Rockliffe referred to cases reported by Hutchinson, Eales, Nettleship, Lang, and Benson, and thought the evidence was more in favour of inflammatory new growth than tubercle or syphilitic gummata.—The PRESIDENT understood the speaker to regard the case as one of inflammatory neoplasm. If that were so, what started the inflammation there? Were any bacilli present?—Dr. ROCKLIFFE regretted that bacilli had not been looked for.—Dr. W. J. COLLINS said that a case he had recorded closely resembled the one discussed; the inflammation occurred in one eye only, was plastic in character, and nodules of pinkish-grey lymph were present. The vision was not greatly affected, and the case did not go on to suppuration. He described it under the name of "granulation iritis," and subsequent researches had not enabled a better name to be found for it. In the eighth volume of the Moorfields Hospital Reports, Mr. Jonathan Hutchinson, in a paper on "Iritis occurring in Children above the age of Infancy," had related five cases; in not one could syphilis be totally excluded, and in more than one it was distinctly proved to be present. He thought that these cases were generally due to some slight traumatism which had been overlooked.—Dr. MULES suggested that if any material were still available a search for bacilli should be made.—Dr. ROCKLIFFE, in reply, said that there was absolutely no history of injury, and he regretted that there was no material at hand which could be examined for micro-organisms.

Dr. EMRYS JONES (Manchester) communicated a case of Cavernous Angioma of the Orbit. The patient was a girl aged eighteen, who first came under observation in June, 1884, with protrusion of the left eyeball, which had been slowly increasing for nine years. The proptosis then measured an inch and a half, and an elastic tumour could be felt enveloping the eyeball. There was no pulsation, fluctuation, or pain. Downward movement of the eye was lost, and other movements diminished; the pupil reacted to light; the optic nerve was pale, and V = 14 J. On July 17th, ether was administered, the globe enucleated, and a cone-shaped tumour contained in a capsule scooped out. The optic nerve was found embedded along the inner aspect of the growth, which measured 8 centimetres × 7 centimetres × 5 centimetres. Microscopically the growth consisted of an open sponge-like framework of fibrous tissue, with numerous round, sinuous, irregular cavities filled with blood. Sections of the growth were shown.—Mr. HULKE referred to a specimen of cavernous angioma of the orbit which had been placed in the Moorfields Hospital museum by the late Mr. Critchett, who obtained it from a young boy. He remembered that there was no obvious pulsation, and that the protruded globe could easily be put back into its normal position, showing that no solid mass lay behind it.

Mr. SIMEON SNELL (Sheffield) related notes of two cases of sarcoma of the ciliary body. The first occurred in a woman aged sixty-two, whose right eye was affected. She was first seen on Dec. 2nd, 1879, and said that a spark from the fire had struck the eye sixteen months before; it was, however, well in a few days. Some months afterwards she first observed a dark brownish speck in the upper and inner ciliary region; it was then about the size of a pin's head. When seen vision was good, and there was no pain. The elevation in the ciliary region was the size of a small pea, and extended close up to the cornea; it was also visible internally, and extended for some distance close to the ciliary margin of the iris. The patient disappeared for a time, but returned with the growth enlarged. Enucleation was performed on Aug. 30th, 1880, and the tumour was a melanotic sarcoma. The second case occurred in a man aged seventy-four, who was first seen in April, 1883, when he complained of increasing dimness of sight of his right eye. There was then some opacity of the lens. In February, 1884, when he again presented himself, there was a blackish discolouration, and some bulging of the sclerotic (ciliary region) above. Vision was lost. The eyeball was excised on March 24th, 1884. The tumour was much larger than the external appearances suggested, about the size of a bean, and had the appearance of a pigmented round-celled sarcoma. The patient was reported alive and well, and showed no evidence of recurrent growth, although more than five years had elapsed since the operation.

The following patients and card specimens were shown:—Mr. L. WERNER: Microscopical Preparations illustrating Subconjunctival Cysticercus.—Dr. BUZZARD: On a Method of Employing Electricity in Ocular Paralysis.—Mr. HARTRIDGE: Ophthalmoscopic Drawing of Peculiar Appearance at the Macula.—Mr. CRITCHETT: Scissors for Division of Anterior Synechiæ.—Dr. S. H. HABERSHON: Case of Uniocular Central Scotoma.—Mr. LLOYD OWENS: Specimens showing exhibitor's method of Mounting Eyeballs.—Mr. BRAILEY: Peculiar Thickening of the Anterior Part of the Conjunctiva and of the Subconjunctival Tissue in a Child, probably tubercular.

The annual general meeting was then held, and the reports of the Council and of the treasurer were read and adopted. A vote of thanks to the retiring President, Mr. Hulke, was moved by Mr. Anderson Critchett and seconded by Mr. Simeon Snell. Mr. HULKE briefly but felicitously replied. The ballot for the election of the officers and Council for the ensuing year resulted as follows:—President: John Hughlings Jackson, M.D., LL.D., F.R.S. Vice-Presidents: Thomas Buzzard, M.D., George Cowell, John Whitaker Hulke, F.R.S., David Little (Manchester), Priestley Smith (Birmingham), and H. R. Swanzy (Dublin). Treasurer: Wm. M. Ord, M.D. Secretaries: James Anderson, M.D., and A. Quarry Silcock. Librarian: W. Adams Frost. Other Members of Council: A. H. Benson, M.B. (Dublin), G. A. Berry, M.B. (Edinburgh), Edgar A. Browne (Liverpool), Robert Marcus Gunn,

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Gustavus Hartridge, Frank H. Hodges (Leicester), W. H. H. Jessop, J. G. Mackinlay, M. M. McHardy, Seymour J. Sharkey, M.B., Treacher Collins, and Samuel West, M.D.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, July 3rd, Dr. A. L. Galabin, President, in the chair.

Laceration of the Vagina in Labour.—This communication was read by Dr. J. MATTHEWS DUNCAN, physician-accoucheur to St. Bartholomew's Hospital. The author had recently observed two cases of a remarkable vaginal abscess in women recently confined; the symptoms were alarming. He attributed them to laceration of submucous cellular tissue and consequent hæmatoma. They were characterised by a rounded opening admitting the tip of the finger, which when pressed entered a cavity as large as a walnut.—Dr. HAYES had recently seen a case which lent support to Dr. Duncan's opinion. A primipara, over thirty years of age, complained of pain in the vagina and vulva a few days after delivery, which had been slow but normal. There was a short perineal tear. Slight febrile disturbance arose and vaginal pain became extreme. Upon further examination, a semi-fluctuating swelling of the size of a Tangerine orange was felt in the vagina near its orifice. A well-known surgeon, who thought that the swelling was an abscess, subsequently laid it open; but its contents proved to be chiefly blood-clot mixed with purulent grumous fluid. Dr. Duncan's cases might, of course, have had a septic embolic origin.—Dr. CLEVELAND noticed that in both cases the short forceps was used, yet Dr. Duncan thought that in neither could the laceration be attributed to that instrument. If the author of the paper had himself operated, there would have been no need to raise the question; but Dr. Cleveland submitted that a strong guarantee was requisite, under the circumstances, for excluding the probability of a wound having been accidentally inflicted.—Dr. HERMAN had seen one curious case of laceration of the vagina of a class to which allusion was made by Dr. Duncan, though not included in the main subject of his paper. The case occurred in a patient with a flat pelvis. The head entered the brim with its long diameter transverse, and was delivered with forceps applied at the sides of the pelvis. After delivering the head and removing the forceps, Dr. Herman was awaiting some indication of uterine action, that he might assist in the delivery of the shoulders, when he saw the hand protrude through the anus, the uninjured perineum being between the hand and the head. Then uterine action came on, and the shoulder was driven down, tearing through the recto-vaginal septum from above downwards.—Dr. CHAMPNEYS had met with two cases, some years ago, in hospital practice, and both proved fatal from septicæmia. In one case the forceps was used to terminate labour for eclampsia; very little force was necessary. In the other, labour was natural and apparently easy. In both, the openings were round and unlike lacerations. In the second case the cavity looked unhealthy, and the veins starting from the placental site and also the internal iliac veins were full of pus.—Dr. BOXALL related the case of a weakly primipara, who died seventeen days after delivery. Vaginal examination on the eleventh day revealed a thickening at the roof of the vagina fixing the cervix, but no laceration. At the necropsy, two holes were found, quite at the upper part of the vagina and immediately in front of the cervix. Each hole was the size of a sixpence. They lay one on each side of the middle line, and a smaller hole, of sufficient size to admit a goosequill, was found below and between them. They intercommunicated and led to a large cavity beneath the mucous membrane. The nature of this condition was doubtful. Dr. Boxall was now disposed to consider the cavity as originating in a hæmatoma which had subsequently suppurated and opened spontaneously into the vagina.—Dr. HORROCKS described a case, which he saw with Dr. Lynn of Woolwich, where a hæmatoma formed between the vagina and rectum, which broke down and opened by a pinhole orifice into the vagina. It was freely incised, and soon healed. In a second case the patient complained of great pain in defecation. On examination, a lump was felt in the submucous tissue of the posterior wall of the rectum. Dr. Horrocks asked if this might not have been caused by pressure during parturition, the intervening structures not being lacerated.—After some observations by Dr. W. S. A. GRIFFITH, two cases were described by Dr. HERBERT SPENCER. They occurred in primiparæ delivered naturally. In one (inflammation in the usual situation being absent) there was induration of the recto-vaginal septum low down in the middle line, attended by high fever and followed by the discharge of pus and blood into the vagina from a ragged cavity by a hole the size of a pea. This had led him to diagnose suppurating thrombus. The other case was similar, but not observed to the end. Systematic examination of patients some time after labour would probably prove that injuries of the vagina were more common than was at present supposed.—After Dr. CARTER had discussed the subject, Dr. MATTHEWS DUNCAN replied. He had dissected, in Paris, several puerperal fever cases, and was astonished at the frequency of submucous vaginal ecchymosis or thrombus. The case of thrombus of the pudendum mentioned in his paper showed that blood might so accumulate to a very great extent when there was a large opening for its exit. These facts were the bases of his theory of the peculiar abscesses already described. Dr. Duncan was familiar with longitudinal lacerations of the vagina, spontaneous and by forceps. He had seen many of them in consultation, when alarming symptoms supervened after delivery, and had observed them in his own private practice. Such lacerations could not be confused with the lesion he now described, for in the latter there was no evidence of laceration.

Chorea in Pregnancy.—The author of this paper, Dr. MONTAGU HANDFIELD-JONES, said that the causes which lead to the production of choreic symptoms were probably numerous. The various theories which have been formulated to explain the causation of the disease might each have its application in different cases. In this communication the author drew attention to the disease solely when it occurred in pregnant women; illustrating by two cases one pathological process by which the symptoms of the disease might be caused, and by which they might reasonably be accounted for. The chorea of pregnancy was considered by itself, since in all cases of this variety of chorea there existed one common groundwork—namely, an unstable condition of the nervous system. This condition was always present in the gravid constitution, of which it formed an integral part.—Dr. JOHN PHILLIPS, in referring to cases of severe chorea in children, spoke of two methods of treatment not mentioned in the above communication—namely, the warm wet pack, which often had a marvellous effect in quieting the movements, and forcible feeding by Paley's bottle, when there was much exhaustion. These methods seemed quite suitable for the chorea of pregnancy.—Dr. HORROCKS believed that chorea was a blood disease in its origin, related to rheumatism. He spoke of the theory of the detachment of fibrinous shreds from the cardiac valves, which shreds, when carried up to the cerebral vessels, were believed by some authorities to account for the phenomena of chorea. In pregnancy, an acknowledged cause of chorea, the blood was certainly altered. Fright was a potent factor in the production of chorea and also of hystero-epilepsy, and even of true epilepsy, as in a case he had observed where there was no hereditary predisposition.—Dr. ARTHUR JAMISON described several cases where chorea was clearly due to fright in pregnant women and others; hence it could hardly be a blood disease. He strongly advocated strong doses of conium. In one severe case where arsenic, iron, &c., had proved useless, marked benefit immediately followed the use of that drug.—Dr. HERMAN believed in the connexion between chorea and pregnancy. The majority of such cases were benefited by the induction of abortion or premature labour, but not all. There were no rules by which the obstetrician could distinguish the cases which would from those which would not be relieved by that treatment. Such rules could only be established by study of careful clinical reports like those in Dr. Handfield-Jones's paper. Dr. Herman did not agree with the author in his opinion that there was no organic change in chorea. Phrases like "exalted nerve sensibility" conveyed no instruction. The symptoms indicated organic changes, though as yet we had not the means of detecting them, nor could chorea very well be a blood disease, since it was usually unilateral. Blood diseases were marked by symmetrical phenomena.—Dr. AMAND ROUTH related a case of chorea, associated with a low form of puerperal insanity, in a nullipara aged twenty. She was single, and pregnancy was ascertained

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on his examining the patient; the condition had previously been overlooked. Copeman's digital dilatation of the cervix was effected, but abortion ensued within a few hours, and in three or four days, in spite of a sapræmic attack, almost all the chorea had disappeared, and the patient became rational. In respect to the blood theory, Dr. Routh noted that almost all cases occurred during the first three months of pregnancy, when the blood state was but little altered.—Dr. MATTHEWS DUNCAN had recently seen a patient in whose two early pregnancies there was severe unilateral chorea, so exhausting as to demand induction of labour in the second pregnancy. In the first, twins were born alive at the fifth month. In both attacks there was no anxiety, except on account of weakness. The temperature did not rise, nor were there signs of cardiac or renal disease. Medicines did no good. After the premature delivery recovery was rapid.—In reply, Dr. M. HANDFIELD-JONES pointed out that in his communication he had not attempted to discuss the possibility of chorea depending, in some instances, on blood conditions or on organic changes in the nervous structures. His cases were quoted solely to show that the chorea of pregnancy was sometimes an outward sign of deranged function of nervous centres, and existed quite apart from any appreciable change in those tissues. He admitted that chorea was sometimes only one item in the rheumatic series, as Dr. Cheadle had recently pointed out in his Harveian lectures. It could hardly be shown, however, that this point had any application in the cases now under consideration. If the chorea had depended on any lesion of tissue, the interchange between insanity of the muscles, delirium of the higher intellectual centres, and paralysis could hardly have taken place so rapidly.

The following specimens were exhibited:—Mr. MEREDITH: Solid Tumours of the Ovaries.—Dr. CULLINGWORTH: Hæmato-salpinx removed by Operation.—Dr. PLAYFAIR: Uterus Extirpated for Malignant Disease.—Dr. HORROCKS: Rupture of Uterus.—Mr. ALBAN DORAN: Fragment of Membrane passed from the Uterus.—Mr. C. STEWART POLLOCK: Dermoid Cyst of the Ovary of a Mare.

Reviews and Notices of Books.

Diseases of the Eye. By GEORGE A. BERRY, M.B., Ophthalmic Surgeon to the Edinburgh Royal Infirmary. With Coloured Illustrations from Original Drawings. Edinburgh and London: Young J. Pentland. 1889.

THIS is a good book, written by a competent man. It is exceedingly well got up, and presents the novelty of coloured illustrations (printed, we presume, from wooden blocks), introduced into the text. Some of these are excellent, some indifferent, some poor. Amongst the good ones are those representing distichiasis, phlyctenular and pustular conjunctivitis, pterygium, normal and abnormal condition of the lacrymal passages, interstitial and punctated keratitis, dislocation of lens, iritis, glaucoma, retinitis pigmentosa, embolism, detachment of the retina, and glioma. Amongst the indifferent ones are those showing hypopyon, keratitis, lamellar cataract, and staphyloma. We think Mr. Berry, or rather Mr. Tatham Thompson, who made the original drawings, might have given better examples of fascicular keratitis, in which the vessels are too coarse; of episcleritis, which is made to look too formidable; of trachoma, in which the cicatricial stage only is shown; and of conical cornea, of which it would have been easy to make a recognisable drawing. In the drawing showing albuminuric retinitis, no hæmorrhages are shown, though these are very common and very characteristic features of the disease. On the whole, the illustrations are good, and those that are good far outnumber those that are inadequate representations of the diseases intended to be shown. In regard to the text, the usual topographical arrangement is followed, beginning with the lids and lacrymal apparatus, the conjunctiva, cornea, iris, choroid, and retina. Special chapters are devoted to the important subjects of glaucoma, foreign bodies in the eye, and sympathetic ophthalmia. The operations are relegated to the end of the volume.

In speaking of Cataract, Mr. Berry leaves it an open question whether iridectomy should be performed or not, and believes the most suitable cases for extraction without iridectomy are those in which the cataract is not only mature, but very soft. No doubt such cases do well, but many cases of hard cataract succeed admirably if the corneal wound is sufficiently large, and the iris is not bruised in the process of extraction. Mr. Berry, if we read his remarks aright, only applies a pad and bandage to the eye operated on. Surely it is more prudent to close both eyes for a few days, even if only with a piece of court-plaster. We have failed to notice any remarks on the treatment of prolapsed iris after operation without iridectomy, though there is much to be said on the point.

The subject of Glaucoma is well treated. In regard to the etiology, a little more stress might have been laid on the theory of Donders, supported as it is by the observations of Hippel and Grünhagen, that glaucoma is really a neurosis of the fifth nerve, leading to hyper-secretion. At any rate, there is good reason for believing that glaucoma may have a centric origin quite independent of any peripheral disturbance, such as closure of the canal of Fontana or enlargement of the lens.

The chapter on Sympathetic Ophthalmia is judiciously written. Mr. Berry, in opposition to many foreign authorities, but, we believe, quite correctly, refuses to admit the existence of sympathetic keratitis, choroiditis, neuritis, retinitis, detachment of the retina, or glaucoma, or at least thinks the evidence hitherto adduced to be exceedingly unsatisfactory. He quotes impartially the opinion of the committee of the Ophthalmological Society on Sympathetic Ophthalmia, and that of Mr. Gunn, though the latter observer is at issue with most ophthalmic surgeons in thinking that wounds in the ciliary region are not exceptionally dangerous. He appears to accept the germ theory of the implication of the second or sympathising eye, without committing himself to naming the particular germ that induces the attack.

In the chapter on the Refraction and Accommodation of the Eye, the subject is treated rather more scientifically than is customary, pointing to the conclusion that the ophthalmic surgeon of the future must not only be a sound surgeon, but will have to possess something more than a mere smattering of mathematical knowledge. We notice, in passing, whilst recommending the slitting up of the canaliculus, that Mr. Berry disapproves of the passing of large probes down the nasal duct. Whilst describing the treatment of cases that have passed through the stage of acute dacryo-cystitis, he does not afford any information as to the proceedings to be adopted when the presence of dead bone is recognised on passing the probe—a circumstance of frequent occurrence.

The subject of Detachment of the Retina is treated in more detail by Mr. Berry than is usual in English works. The causes he assigns for its occurrence are cyclitis, tumours, inflammation of the retina, and injuries. He states that the retina may be detached at any part, but that in a large proportion of cases some part of the upper half is detached. Thus, of 126 cases occurring at Göttingen only 39 were found not to involve some portion of the upper half of the retina. We should have thought the proportion was not so great as this; and it may be observed that Galezowski and Daguenet state that "in the great majority of cases the detachment takes place in the infero-external part of the retina." The prognosis is, as Mr. Berry says, always bad. An explanation of the cause of detachment cannot at present be satisfactorily given. Is it due to shrinking of the vitreous or to elongation of the

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globe? It is certainly most common in myopic patients. Mr. Berry does not place much reliance on therapeutic agents in the cure of this disease, and does not promise much success from operative proceedings—such, for example, as puncture from before or from behind.

We have much pleasure in recommending Mr. Berry's work to students, considering it to be a valuable addition to ophthalmic literature.

Psycho-Therapeutics; or Treatment by Sleep and Suggestion. By C. LLOYD TUCKEY, M.D. Pp. 80. London: Baillière, Tindall, and Cox. 1889.

IT is more than half a century since Harriet Martineau was induced to try the effects of mesmerism, and, in the first enthusiasm of a convert, wrote a series of letters upon the subject. In these she protested vehemently against professional neglect of mesmerism and the "reserve of the squeamish," by means of which the "infinitely delicate mechanism and organisation of brain, nerves, and mind are thrown as a toy into the hands of ignorant persons." More recently mesmerism, hypnotism, and animal magnetism have had no need to complain of lack of attention. As a therapeutic agent hypnotism has been openly practised in many French hospitals; it has formed the subject of innumerable papers and books, and a special journal has been published for the record of its marvels. Dr. Lloyd Tuckey, in the belief that the Liébault method of treatment by suggestion has not even now received in this country the scientific attention it merits, collects together in the book before us many interesting records of Psycho-Therapeutics. The construction is slight: the book only consists of five chapters, and of these the first two are devoted to a demonstration of the power of the mind over the body—a proposition which is supported by a narration of instances of cures at shrines and holy places, of touching for "king's evil," and kindred subjects selected from a tolerably wide area. The third chapter gives a description of the treatment pursued by Dr. Liébault of Nancy. It is apparently based on the theory that the effects of directed consciousness are greatly increased under certain conditions when the mind is so withdrawn from consideration of all extraneous ideas as to be absolutely concentrated upon one object. After about two minutes of "talk about sleep," the patient is hypnotised sufficiently to receive the "suggestion" which predicts an amelioration or the disappearance of the morbid conditions and symptoms. Admitting that some "cures" may result when the "reasonable and deliberative side of the patient's brain is suppressed, while the emotional or instinctive side is developed," it is somewhat surprising to read the author's list of some diseases which are found to benefit from treatment by suggestion. This list includes rheumatism and gout, anæmia, general debility, "derangement of the functions in women," chronic constipation, diarrhœa, muscular cramp, skin diseases, and deafness. The catholicity of psycho-therapeutics may further be gathered from the statement that, "wherever we find chronic disease resisting the usual methods of treatment, suggestion may be thought of as a useful ally." The last chapter contains reports of cases derived from Bernheim's book on "Suggestive Therapeutics"; the degree of abridgment, and the elimination of a diagram, appear to be responsible for the statement that the unintelligible scrawl on page 50 is "fairly legible." The twenty-three cases quoted from Bernheim and others occupy eighteen pages, and serve as an excuse for the omission of a short chapter of the author's own experience of the treatment, the "bounds originally fixed for the little book having been already exceeded." This reads rather like the words "Time up," so often seen at the end of examination papers, and will probably receive the same amount of credit.

The Bacteria of Asiatic Cholera. By E. KLEIN, M.D., F.R.S. London: Macmillan and Co. 1889.

IT is not a little remarkable to note how the interest awakened five years ago by Koch's discovery of the comma bacillus in the dejecta and intestine of subjects of Asiatic cholera, and his inference as to its causal relationship to that disease, should have so completely abated. The discovery was a notable one, and promised much. Naturally it was subjected to much criticism, and it may be that the fresh facts thus brought to light concerning the bacteriology of the human alimentary tract have been responsible for part of the diminution in interest to which we have referred. No single observer has contributed more to the knowledge on this subject than Dr. Klein, and the work before us is a thoroughly scientific exposition of it in all its bearings. As we understand him, Dr. Klein's position with regard to the question is this. He admits the frequency with which the comma bacillus occurs in cholera, but sees no ground for its being the cause of the disease, although its presence may be of some diagnostic value; and he does not find, as a rule, any evidence of the penetration of the intestinal mucosa by the bacillus. He describes the varieties of similar organisms that have been met with in other conditions, as well as other bacterial forms met with in cholera; whilst he points out the difficulties in the way of accepting the view that this special form of bacillus is the cause of a disease, the prevalence of which is so much determined by seasonal and other influences. He defends himself against the criticisms passed by Messrs. Macleod and Milles upon his experiments; whilst a perusal of his book cannot fail to leave the impression that there is still much to be learnt concerning cholera and its relationship to bacterial life.

SMALL TEXT-BOOKS OF CHEMISTRY.

A TORRENT of small manuals of theoretical and practical chemistry is constantly pouring from the press. We cannot tell how many were in existence a year ago, and now our table is covered with new ones. The teacher is bewildered with the advice offered to him, and the rapid multiplication is so completely out of proportion to the real wants of the student that it cannot be looked upon with entire satisfaction. We include in this notice those books which appear to possess most merit, and gladly admit that among them are some which are really valuable, and to some extent novel.

Elementary Inorganic Chemistry, Theoretical and Practical, with a course of Chemical Analysis and a series of examples in Chemical Arithmetic. By A. HUMBOLDT SEXTON, F.R.S.E., F.I.C., F.C.S., Professor of Metallurgy in the Glasgow and West of Scotland Technical College, &c. London: Blackie and Son.—The theoretical portion is much like that found in dozens of other text-books, fairly accurate, but with no trace of novelty that we can discover. Directions for calculations and many questions are appended, and there is a short and not very excellent sketch of qualitative analysis.

Mechanics and Experimental Science as required for the Matriculation Examination of the University of London. By ED. AVELING, D.Sc., Fellow of University College, London. Chapman and Hall.—Another examination book; useful for crammers and those who require cramming, but not to be regarded as a seriously scientific book.

A Class-book of Elementary Chemistry. By W. W. FISHER, M.A., F.C.S., Aldrichian Demonstrator of Chemistry, formerly Fellow of Corpus Christi College, Oxford. Clarendon Press.—A compact little manual of inorganic chemistry written by a well-known and accomplished chemist. Any

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teacher might use it with advantage, and doubtless many will; but we cannot see that it is better than many pre-existent books with which it must come into competition. Among the few defects of the book we must notice an occasional looseness in the formulæ employed for elements. To describe nascent hydrogen as H_2 (p. 147), and carbon as C_4 (p. 165), is inaccurate and unnecessary.

Notes on Analytical Chemistry for Students in Medicine. By ALBERT J. BERNAYS, Ph.D., F.C.S., F.I.C., Professor of Chemistry at St. Thomas's Hospital, &c. Third Edition. London: J. & A. Churchill.—This excellent, accurate, and well-arranged synopsis fully deserves the success it has met with. Practically it is a fifth edition, for the first four were included in the author's "Notes for Students in Chemistry," and it has been revised and expanded with evident care. It is well adapted for the needs of students of medicine, for it affords valuable aid, not only in pure chemistry, but also in toxicology and physiological chemistry.

A Course of Quantitative Analysis for Students. By W. N. HARTLEY, F.R.S., Professor of Chemistry and of Applied Chemistry, Science and Art Department, Royal College of Science, Dublin. London: Macmillan and Co.—For a first course of quantitative analysis, this little work is quite satisfactory; but, except that modern methods are well represented, there is no particular novelty. In the introductory portion there are many useful hints—as, for example, in regard to the toughening of filter papers for use with filter-pumps; and the progressive exercises in gravimetric and volumetric analysis are well chosen and clearly explained. The section on alkalimetry and acidimetry (p. 88) is a good example of the author's style. It is admirable, and any intelligent student could follow out the directions without supervision. It would, however, have been as well to have given a few more words to the modern indicators, particularly phenol-phthalein and methyl-orange, which offer distinct advantages over litmus. The book has neither table of contents nor index, which is a pity.

Dr. Rideal—whose recent appointment to the chair of Chemistry in St. George's Hospital is welcome to chemists—has, in *Practical Organic Chemistry* (H. K. Lewis, 1889), given us a convenient little guide for the detection and examination of some of the more important organic compounds. He has wisely included simple notes as to the structure of the compounds included in the course, which will be a great help to students who want to acquire more than a mere dexterity in identification. We think he has made a mistake in not giving a scheme for systematic analysis, for, although the best students can prepare this for themselves, many fail lamentably in the attempt, and it is a serious tax upon the time of all. The recent alterations in the syllabus of the University of London will compel Dr. Rideal to revise and somewhat enlarge his next edition, and he will then, doubtless, correct a few errors (such, for example, as the formula for citric acid on page 18) which have escaped his notice.

Laboratory Manual of General Chemistry. By R. P. WILLIAMS, A.M., Instructor in Chemistry, English High School, Boston. Boston: Ginn and Co. 1888.—A note-book of the simplest kind, intended to facilitate the practical teaching of chemistry in schools. Sufficient directions are given for the performance of a number of simple experiments. The directions are given in the fewest possible words, and abbreviations are used to a somewhat inconvenient extent. The text only fills about one-half of a page, the remainder and the opposite page being left blank for notes. It seems well adapted for the purpose for which it was devised.

The Analyst's Laboratory Companion. By A. E. JOHNSON, Assoc. R.C.Sc.I., &c., is a useful collection of notes and tables of constants valuable in every laboratory.

HEALTH OF TRINIDAD.

THE Surgeon-General of Trinidad, in his annual report for 1888, states that the health of the colony had not been satisfactory, a severe epidemic of dysentery having prevailed during a considerable period of the year. The number of deaths from dysentery and diarrhœa in Port of Spain was 491, but no statement is given of the population among whom they occurred. In the preceding year the deaths were only 99. There were 631 cases treated in hospital, and of these 200 died. Mr. Crane says that "of the deaths out of hospital, the number actually due to dysentery cannot be stated, as but a small proportion were attended or certified by a medical practitioner." The death-rate from other causes than dysentery is stated not to have exceeded the average. The hospitals were continually overcrowded during the year; they seem, in fact, to have been converted into poorhouses. This probably contributed in no small degree to the large proportion of deaths to cases. The total deaths in the district hospitals throughout the island, exclusive of the Lunatic and Leper Asylums and the House of Refuge, amounted to 10 per cent. of the cases. "Most of the medical officers speak of the hopeless state in which many of the patients are admitted. There seems little prospect of any improvement in this direction until a system of poor relief is established and brought within the reach of the destitute." The Lunatic Asylum had an average of 356 patients, with 64 deaths, or 179·8 per 1000. There was a marked decrease in the number of admissions, especially of the East Indian immigrants.

The report on the Asylum for Lepers is of much interest in connexion with the recent scare in England on the subject. There were 38 cases admitted during the year, and of these 6 died—3 of phthisis, 2 of kidney disease, and 1 of phthisis and kidney disease; 11 were natives of India, 21 of Trinidad, 3 of other islands in the West Indies, and 1 of Demerara, Venezuela, and Madeira respectively. The average number under treatment was 176, and the deaths, including those already mentioned, were 16, or 9·1 per cent. of the cases, the lowest death-rate recorded. "The small mortality may be ascribed to improved hygienic conditions, a wholesome dietary, rich in animal food, the cultivation of industrial pursuits by the inmates, and other measures tending to promote their happiness and comfort. ..... The late Dr. Milroy, on his visit to the asylum in 1872, recommended a rich dietary and ample employment as the best means of arresting the progress of this dreadful malady. The experience since gained has tended to prove the correctness of his views." Dr. Beaven Rake, the medical superintendent of the asylum, made a number of experiments on the cultivation of the bacillus lepræ, the details of which are tabulated in the appendix to the report. Of these, 65 were experiments on nutrient media, 21 experiments on living animal tissue, and 12 experiments on putrescent substances. His conclusions are thus summarised: "1. At a tropical temperature, and in the ordinary nutrient media, I have failed to grow the bacillus lepræ. 2. In all animals yet examined I have failed to find any local growth or general dissemination of the bacillus after inoculation, whether beneath the skin, in the abdominal cavity, or in the anterior chamber. 3. Feeding with leprous tissue has also given negative results. I have found no growth of the bacillus lepræ when placed in putrid fluids or buried in the earth."

The average number of inmates of the House of Refuge was 190, of whom 57 died, being in the ratio of 30 per cent.; but this high rate is not surprising when we find that of 282 who were in the house in the course of the year 198 had been admitted on account of old age, destitution, and incurable bodily infirmity; 91 of these were above seventy, and 1 was stated to be above 100 years old.

The report does not give any statistics of the population or of the general mortality; the number of deaths, except in the hospitals, being given for Port of Spain only, and the number living not being stated. If the records exist from which a general summary of the vital statistics of the island could be prepared, it would add materially to the value of the Surgeon-General's report.

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THE LANCET.

LONDON: SATURDAY, JULY 13, 1889.

SINCE the judgment of Lord COCKBURN in the case of LA MERT *v.* the General Council of Medical Education and Registration in 1863 (see THE LANCET, Nov. 28th, 1863), there has been no such important deliverance as that of the Court of Appeal in the case of ALLBUTT *v.* the General Council of Medical Education (a report of which will be found in another column of our present issue), which must stand as the legal definition of the powers and duties of the Medical Council in regard to charges affecting the conduct of registered medical men. The judges of the Court of Appeal have taken many weeks to consider the questions now settled, and the practical result of this consideration is to confirm to the fullest extent the original judgment of Lord COCKBURN, reaffirmed in the ALLBUTT case by Mr. Baron POLLOCK, and further to decide a new and important point — viz., the right or privilege of the Council to publish its judgments in such cases in its Minutes. For the sake of clearness we may recall the points of Mr. ALLBUTT'S case from the beginning. Mr. HENRY ARTHUR ALLBUTT, M.R.C.P. Edin., L.S.A., in general practice in Leeds, published in 1887 "The Wife's Handbook." This pamphlet was brought under the notice of the Council by the Leeds Vigilance Association. It was referred for examination to a committee of inquiry. It was then considered by the Branch Council for England. Finally Mr. ALLBUTT was summoned to appear before the General Medical Council in November, 1887. He did appear, but preferred to be heard through his counsel, Mr. ROBERT LAMB WALLACE, who, it will be remembered, addressed the Council on behalf of his client for the greater part of two days' sitting. The result was that the Council passed the following resolutions:—"(*a*) That, in the opinion of the Council, Mr. HENRY ALLBUTT has committed the offence charged against him—that is to say, of having published and publicly caused to be sold a work entitled 'The Wife's Handbook,' in London and elsewhere, and at so low a price as to bring the work within the reach of the youth of both sexes, to the detriment of public morals; (*b*) that the offence is, in the opinion of the Council, infamous conduct in a professional respect; (*c*) that the Registrar be hereby directed to erase the name of Mr. HENRY ARTHUR ALLBUTT from the Medical Register." Mr. ALLBUTT resented this judgment of the Medical Council, and was advised, fortunately perhaps for the discipline of the medical profession and the good of the public, to seek to have it reversed in the Law Courts. The true instinct of a medical man in professional matters, or matters of professional conduct, is to court the judgment of his profession or those who represent the profession. The soundness of this instinct is recognised in all professions, apart from the sanction of it in law. But it is abundantly recognised and sanctioned by Act of Parliament—certainly in the legal profession, and not less so in the medical profession under the Medical Acts. This will no longer be questioned after the lucid and decided judgment of the Supreme Court of Judicature which we publish this week. We do not claim infallibility for the judgments of the Medical Council any more than for those of the Law Courts. But they are the nearest way to the sense of professional morals and conduct. The Council consists of members of the profession coming from all quarters of the kingdom, and representing every branch of practice. It acts under a great sense of responsibility, and after due inquiry and a most patient hearing of the accused or his counsel. The very fact that its judgment is final, and cannot be reviewed in the Law Courts, adds to this sense of responsibility. It was a bold step on the part of Mr. ALLBUTT to question the judgment of the Medical Council. But we do not regret that he did so, for the twenty-six years that have elapsed since Lord COCKBURN'S judgment in the LA MERT case have led medical men to forget to some extent the formidable function of the Medical Council of judging in serious questions of professional conduct. Mr. ALLBUTT sought to have the question settled by the Medical Council reviewed in the Law Courts in two senses. First, he sought to have it reversed altogether on the ground that the Medical Council had no jurisdiction to erase Mr. ALLBUTT'S name for publishing a book. Mr. JELF, Q.C., argued on May 31st, before the Lord Chief Justice, Lord Justice LINDLEY, and Lord Justice LOPES, that even if the book was improper, publishing it was not improper in a professional respect. Mr. JELF argued further that there had been no "due inquiry"; and also that the publication of the proceedings before the Council in the Minutes was a libel by the defendants on the plaintiff; that the Council was not an open court, and therefore the publication of its proceedings was not privileged. The Court at once decided not to touch the principle of the decision of Lord COCKBURN—that a medical practitioner accused of "infamous" behaviour is to be judged by the Medical Council, and not by the Courts. The Council clearly had jurisdiction to enter on the inquiry, and, having that jurisdiction, are "constituted by the Legislature the *sole* judges" as to whether the complaint is substantiated. Moreover, the Court could find no evidence of want of care or fairness in the inquiry. It would have been astounding if the Court of Appeal, after recognising this sole jurisdiction of the Council, had failed to find also that the publication of its Minutes and proceedings was privileged. This they took time to consider, and most effectually settled, on the recognised principle in similar cases, that the personal inconvenience of the publication of the proceedings of a body charged, like the Medical Council, with the duty of deciding questions of conduct is not to be set against the public advantage of such publication. The public have a right to know who are registered and who are not; and, in the case of erasure, to know the reasons for erasure.

We shall not make this case and the final decision on it more painful to Mr. ALLBUTT by dwelling on it and the agreement of this decision with common sense, and the good discipline of the profession, in which, more perhaps than in the case of any other profession, the public have such a deep interest. We can only express the confident hope that medical men in their professional conduct will

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more and more have respect to the obvious if unwritten judgment of their own fellows, and that the Medical Council will with dignity and fairness hold higher and higher the standard of professional conduct, of which it is now pronounced to be in grave cases the sole judge.

THE Annual Report of the Agricultural Department of the Privy Council for 1888 has just been issued. It is one of great scientific interest, for it contains in the appendix numerous reports by Professor CROOKSHANK upon the subjects of Anthrax, Tuberculosis, and Actinomycosis, which will be sure to receive the full attention they merit. The Department is to be congratulated upon securing the assistance of so able and indefatigable a worker, and we are unfeignedly glad to find that the scientific investigations which he has been engaged on should have been admitted into these reports. A foretaste of this new departure in the work of the Agricultural Department was presented in the Report upon the Hendon Cow Disease issued last year; whilst the excellent and liberal manner in which these scientific memoirs have been produced reflects great credit upon the Government. Professor BROWN, in making his annual report, after a reference to the Hendon cow disease, which, he points out, stands alone among many similar epidemics in being charged with being the source of scarlet fever, refers in the first place to pleuro-pneumonia, and upholds the Slaughter Order of March, 1888, which was made with a view to check the ravages of this disease. This order could, however, only be carried out imperfectly, owing to the multiplicity of authorities who have to enforce it. The subject of tuberculosis is next dealt with. This is becoming of the greatest importance, and it is remarkable how much attention is being paid to it in all parts of the world. The possibilities of human infection from the consumption of the milk or flesh of tuberculous cattle are great; but apart from this consideration it would appear that bovine tuberculosis is on the increase. A committee specially appointed to consider whether any measures could be taken to check its ravages recommended that the disease should be included under the provisions of the Contagious Diseases (Animals) Act. But Professor BROWN points out how the uncertainties of its diagnosis, the liability to mistake other affections for it, and the question of compensation to owners of valuable beasts render such a course impracticable. Swine fever has received much attention from the Department during the past year, and here, as in many other animal diseases, it is clear that more than one class of affection is often comprised under a general term. Experiments were made with a view to ascertain the *materies morbi*, and to see if any method of protective inoculation could be available; but as yet no special micro-organism has been isolated. A marked decrease in outbreaks of anthrax in this country was observed in 1887; and, owing to the irregular manner in which these outbreaks arise, no steps could be taken to introduce the prophylactic measures of PASTEUR. The question of anthrax in swine formed the subject of a special investigation by Professor CROOKSHANK; it was decisive of the point that swine are liable to the disease. Respecting rabies, Professor BROWN points out that, of the 176 cases reported in the year, no fewer than 161 were observed in two areas of England—viz.: (1) an area comprised by Lancashire, Cheshire, Staffordshire, Derbyshire, and the West Riding of Yorkshire; and (2) the district occupied by the metropolis and its surrounding counties—Middlesex, Essex, Surrey, Sussex, and Kent. Professor BROWN remarks, "That the disease might have been extirpated in the two groups of counties to which it was confined is hardly a matter of doubt; but, without the alarm engendered by an extensive outbreak, no restriction on the movement of dogs can be maintained, and we shall doubtless continue to repeat the system of checking the affection and allowing it to spread again as soon as the excitement is allayed. A repetition of the repressive measure is likely to be required soon, as rabies is steadily spreading in the metropolis and its vicinity in the absence of any regulations."

Unquestionably, the main interest of this Blue-book centres in the exhaustive scientific reports which are to be found in the appendix; and a brief notice of these here will, we trust, lead our readers to their careful study. The first of Professor CROOKSHANK'S reports deals with anthrax in swine. It opens with a historical review of cases of the disease recorded at various times by veterinary surgeons, mostly under the head of "blood-poisoning," and the task he set himself was to determine whether such cases were really due to anthrax or to septic poisoning. He made numerous experiments with swine, producing anthrax in them by feeding them with anthrax offal, by employing injections of the blood of a bullock dying of the disease, by similar injection of the blood of the spleen of a guinea-pig inoculated with anthrax, and of pure cultivations of the anthrax bacillus. He succeeded in obtaining positive results, and also in inoculating guinea-pigs with anthrax bacillus derived from swine, thus proving what has hitherto been doubted, that these animals are susceptible of infection, although their susceptibility is not great. A fairly constant feature in the affection in swine is ulceration of the tonsils. One practical deduction is to enforce caution with regard to the consumption of uncooked pork or sausages. The next detailed report treats of tubercular mammitis in cows, with especial reference to the infectivity of milk. Several cases are described, and the presence of tubercular bacilli demonstrated in the diseased udders and the milk. Rabbits fed or inoculated with the latter became tubercular, whilst a positive result was obtained by the transmission of tuberculosis to a calf which had been inoculated with tuberculous sputum from the human subject. As a corollary to this, and of great importance in regard to the question of transmission to the human subject, Professor CROOKSHANK reviews the subject of the morphology of the tubercle bacillus, and demonstrates that although certain differences in size and aspect are to be observed between the bacilli of human tuberculosis and the disease in cattle, the horse, pig, fowl, and ostrich, yet these are hardly more than might be explained by variations in environment. Of especial value is his observation that the bacillus obtained from the milk of tuberculous cows closely resembles the human tubercle bacillus. We must confess that we have never been able to conceive that there exists any essential difference between human, bovine, and avian tuberculosis; and this report goes to

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show that the transmission of the disease to man from these varied sources is at least possible. The remaining contributions made by Professor CROOKSHANK consist in four reports upon Actinomycosis. They cover the whole ground of this remarkable affection, and constitute the most extensive review of the subject that has appeared in our language. The first of them deals with Actinomycosis bovis in Great Britain, the next with the same disease in foreign countries, whilst the third and fourth treat in like manner of Actinomycosis hominis. Each section is introduced by a careful historical survey, from which we learn that cases recognisable now as examples of this disease have been observed and recorded in this country many years ago. In connexion with the present inquiry, Professor CROOKSHANK had the opportunity of investigating cases occurring from 1887-89 in Lincolnshire, Essex, Hertfordshire, Cambridgeshire, and Middlesex. He gives detailed descriptions of the fungus and the several varieties of the disease, drawing special attention to the infiltration of the tongue met with in some cases, often described as "cancer of the tongue." The illustrations are numerous and admirable, and greatly assist the perusal of the text. As regards Actinomycosis hominis in Great Britain, abstracts are given of the seven published cases; and a discussion upon the significance of the filamentous threads discovered by Dr. T. D. ACLAND, should be closely read, for it proves that these filaments are an essential part of the actinomyces, that they existed in all the English cases, and that the club-shaped processes or rays are rather organs connected with fructification than the result of involution or degeneration. It is proved to demonstration that the discrepant statements of different observers respecting the structure of the fungus have been due to the methods of staining employed; so that a distinct addition to knowledge of this interesting disease is certainly made. That the disease in man is identical with that in bovine animals is also proved; and examples of successful inoculations of the calf and the rabbit from man are given. Of much value, as giving completeness to the inquiry, are the reviews of the records of this disease published abroad.

The appendix also contains the reports of the Inspectors of the Department upon Diseases of Animals in Great Britain and Foreign Countries in 1888, the legislation of the year, and the usual statistical and other information. Enough, however, has been said here to indicate our sense of the importance of the scientific portion, which will now form, let us hope, a leading feature of each year's record of the Agricultural Department. It will, moreover, serve to show how much is to be gained, from the hygienic point of view, by a wider knowledge of comparative pathology.

THE recent contest at the Royal College of Surgeons for the office of Councillors has been waged under new and interesting circumstances, and its result must be accepted, for the present, as the deliberate and sustained opinion of the electorate—the Fellows of the College. Messrs. HEATH, HULKE, and HOWES have been successful, and have a free hand given to them to do or not to do, as they please, for the next eight years. Messrs. HEATH and HULKE have already served eight years on the Council, and all three of the elected candidates are also examiners in the College.

The Fellows of the College, speaking at this moment, have consented that the present state of collegiate disquietude shall continue, and a special emphasis applies to their verdict, because by the use of voting papers they may be assumed to have expressed their views more deliberately than they have ever previously done. There can be no doubt that the full force of the conservative element was brought to bear against the reforming section of the College, so that we are not surprised to find that Mr. HEATH, who heads the poll, secured 217 votes more than Mr. RIVINGTON, who stands at the top of the list of unsuccessful candidates, the respective numbers being 397 and 180. We note with much satisfaction that 600 Fellows voted. Of these, roughly speaking, nearly one-third represented the views of the advancing party—a minority whose opinion is entitled to respect, and ought to be adequately represented. The Royal College of Surgeons has the reputation of being one of the closest of corporations. It is no light task to upset usages which are traditional and instinctive, so the Association of Fellows of the College must accept the figures given above as significant, and as an incentive to further effort and energy. It is difficult to repress a smile when the "privileges" of the Fellows of the College are mentioned. They have the "privilege" of voting by paper at elections; beyond that, the Fellows of the College are really in this respect nobodies, and even their one privilege of voting annually at the College elections carries with it but the semblance of power, owing to the octennial period of office in the Council and the complete absence of power of supervision. Where is the privilege in tamely acquiescing in the uncontrolled and uncontrollable actions of the Council? No other educated body of men in corresponding positions submit, or would submit, to the indignities to which the Fellows are exposed in matters of government and of political procedure. The Council is elected by the Fellows; but has it ever called the Fellows into conference or consultation, or acknowledged the virtue of their votes? Have the Members of Council ever seriously contemplated such a reasonable submission to the expressed voice of the Fellows? Or will the Council ever initiate such a reform unless pressure of high power be brought to bear upon it—not only by outside associations, but also by the force of public opinion? If, then, the case of the Fellows be discouraging so far as any action on the part of the Council be concerned, how utterly hopeless must be the case of the Members, who constitute the great bulk and body of the surgical profession in Great Britain—Members who legitimately aim at having a voice in the management of their own College, and the right of supervising the expenditure of moneys levied from their own pockets. Yet the recognition of these two guiding principles of conduct on the part of the Council of the College towards its Members has been designated by some Fellows, with more force of language than delicacy of feeling, "a bastard reform." It is pitiable that those who delight in such epithets do not see the inconsistency of denying to the Members of the College the exercise of such powers as in the wider walks of life have conferred upon themselves the privileges of citizenship.

While fully recognising the force of the recent election, we do hope that the grievances so long complained of will be remedied by the Council; and that matters will not go

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on at the College in the usual fashion. Otherwise it cannot be doubted that the irritation and friction between the governing class and the governed will increase, until discontent can be no longer kept in check, and then, if a compromise be effected, it will possibly be on less reasonable terms than those now offered by the Associations of Fellows and Members of the College.

Annotations.

"Ne quid nimis."

THE FUTURE POPULATION OF LONDON.

NOT content with the difficulty of estimating, at the distance of more than eight years from the last census, what is the present population of London, a daily contemporary stated a few days ago that "forty years hence the inhabitants will be twice as numerous as they are now—that is, London proper will contain nearly nine millions, and Greater London about eleven millions." It is assumed that because Registration London has nearly doubled its population in the past forty years the same rapid increase will be continued for another forty years. The estimated population of London in the middle of last year was equal to 57·3 persons per acre, and should this population double itself in the next forty years the density of the population would be 114·6 per acre, and rather less than the mean density of the population last year in the borough of Liverpool. There would therefore be nothing physically impossible in the housing of double the present population within the administrative area of the London County Council. Moreover, under stringently effective sanitary control it would probably be possible to maintain such a population in better sanitary condition than now prevails in many of our largest towns. It will, however, be well briefly to consider the probability of such an increase of the future population of Registration London as is assumed by our contemporary, the possibility of which may be admitted on the grounds mentioned above. Some constant relation between the rate of increase of population within any urban district having a fixed boundary, and its proportion of unoccupied building ground must be obvious; and it is therefore clear that as the proportion of this unoccupied building ground decreases, the rate of increase of population within such area must also decrease. Now Registration London has a fixed area of rather more than 120 square miles, a larger proportion of which has been year by year occupied by houses since the boundary was first fixed nearly half a century ago. At the time of the first census, in 1801, the population of this area was rather less than a million; and at the last census, in 1881, it had increased to nearly four millions, having practically twice doubled itself in eighty years. The question is, was the rate of increase an equal and steady rate of increase during the eighty years, and if so, can it be maintained? In the four intercensal periods since 1841 the rate of increase per cent. has been successively 21·2, 18·7, 16·1, and 17·2. Thus the rate of increase steadily declined during the thirty years 1841–71, and showed a slight recovery in the ten years 1871–81. The Registrar-General, in estimating the present population of London, assumes (in the absence of any actual information as to the rate of increase since 1881) that the rate of increase since the last census has been the same as it was in the last intercensal period. Bearing in mind the experience of the forty years 1841–81, we should rather expect to find that the rate of increase since 1881 has been smaller than it was in 1871–81, as the unoccupied land within the metropolitan area in 1881 was obviously considerably less than had been in 1871. Between 1871 and 1881 the population actually declined in ten of the registration districts of London, while in all but six of the remaining registration districts the rate of increase in 1871–81 was smaller than it had been in 1861–71. With such facts before us, we may set aside as distinctly improbable the assertion that the population of Registration London will double itself in the next forty years. If, however, we study the population statistics of what is known as Greater London, we shall find that the rate of increase of what may be called London over the border has recently far exceeded the rate within Registration London. That Greater London has been increasing at the expense of Inner London, as well as by immigration from the rest of England and Wales, is beyond question. Moreover, it may be noted that the rate of increase of Greater London was considerably greater in 1871–81 than in 1861–71, the increase of population in the outer ring being more than 50 per cent. in each of the last two intercensal periods. While, therefore, we regard it as in the highest degree improbable that the population of Inner London will in forty years amount to anything like nine millions, we feel confident that that of the outer ring will then very far exceed the two millions suggested by our contemporary, which figure will probably be reached before the end of this century.

THE HOLDING OF INQUESTS.

A CONTROVERSY has recently been carried on between Mr. R. W. O. Withers of Shrewsbury and Mr. R. E. Clarke, coroner, respecting an inquest held by the latter gentleman at Wynn's Cottages, Belle Vue. It appears that a gentleman named Mr. Humphrey James went to Shrewsbury for the purpose of consulting a physician, and that he placed himself under the care and treatment of Mr. Withers. It was found that he had "advanced tuberculosis of the lungs." Mr. James died suddenly, and on the morning after the death the coroner was informed by his own gardener that "Mr. James had fallen down dead in a passion." Upon the receipt of this information the coroner ordered his officer to call on Mr. Withers and tell him that he thought it was a case for inquiry. The coroner complains that Mr. Withers neither called on him nor wrote a letter to the effect that he had attended the deceased, and that he was perfectly satisfied as to the cause of death. At the inquest Mr. Withers was not called, but Mr. Bratton, another practitioner, was summoned to attend, and did so in obedience to his subpœna, although he demurred to doing so, and justifiably, as we think. According to Mr. Withers' letter to a local paper, he attended the inquest by order of the coroner. After the evidence had been given, he expressed a desire to state his opinion as to the cause of death, which was at variance with that of the coroner, or rather the coroner's interpretation of the evidence of the only witness who had been examined. Mr. Withers further says that the coroner asserted that he was willing to swear him, but that if his testimony varied from that of the previous witness he should adjourn the inquest and order a post-mortem examination to be made. It seems the coroner directed the jury that the evidence before them would warrant them in finding that the deceased succumbed to "heart disease." Mr. Withers contends that the deceased had no symptoms of organic disease of the heart, but that the fatal issue was due to pneumonia supervening on pulmonary tuberculosis. We have always held that, where the cause of death is at all doubtful, not only should an inquest be held, but a post-mortem examination should be made. In the above case, we are of opinion that had a mutual understanding, founded on good feeling, been arrived at, the coroner would have decided not to hold

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an inquiry at all, for, according to the facts, there seems little doubt that the cause of death was syncope consequent on pneumonia in a phthisical patient. Mr. Withers no doubt was quite right in saying there was no *organic* disease of the heart, but this is consistent with the assumption that the proximate cause of death was "cardiac failure." The medical practitioner and the coroner seem to have been at cross purposes, hence the climax. If a coroner decides to hold an inquest, he does so solely on his own responsibility. He, of course, is answerable to authorities higher than himself; but we hold that after the medical man has given his information to the coroner directly, by word of mouth or in writing, or through the coroner's officer, he has discharged his duty. If we read the controversy aright, Mr. Withers felt aggrieved that the coroner should decide upon an official inquiry without first consulting him as to the necessity. A little more give-and-take than was evinced in this case would have eased the friction which led to so regrettable a blaze.

MOVABLE HEART.

OF five cases of movable heart studied by Professor Rumpf, three were the results of dietetic and medicinal attempts to cure obesity, one occurred after violent nervous excitement, and in one no cause could be assigned. The chief complaint of the patients was great debility and incapacity for work; other symptoms were pains in the chest, uneasiness, anxiety of mind, vertigo, asthma, and accelerated pulse. One symptom especially is always present in these cases: all the signs become less in the patient when lying on his back, and worse when he is on his side, and he feels better when he is standing up, though the pain does not disappear; occasionally, however, there is vertigo and malaise. The examination of the heart in the erect or horizontal position, and with the thorax bent forward, shows nothing whatever abnormal; when, however, the patient lies first on the left and then on the right side the abnormal mobility of the heart becomes very distinct. In one case the apex beat shifted 13 centimetres, in another from 4 to 5 centimetres. When the patient lies on his left side the area of the cardiac dulness seems larger, when on his right smaller, while at the same time the position of the aorta and of the pulmonary artery is also changed; in one case they moved 1 centimetre in the direction of the displaced heart. Dr. Rumpf considers the movable heart to be not a mere irregularity, but a pathological symptom, as the average normal movement of the heart is at most 2 centimetres to the left and 1½ centimetres to the right, and as he observed this dislocation in one case of tuberculosis of the lungs and in one case of muscular atrophy.

MILK AND ENTERIC FEVER AT LEEDS.

AN outbreak of enteric fever in Leeds has been provisionally traced to two farms whence milk is supplied to the families of those who have been attacked. The outbreak occurred mainly amongst the patients of one medical practitioner, who was first called in on June 27th, but it was not until July 1st that he had sufficient evidence as to the nature of the disease he had to deal with. He then suspected the milk-supply as a cause, and immediately communicated with the sanitary department for the borough. At that date he had twenty patients under treatment. The milk supply was not stopped until the evening of July 3rd, and by that time it was ascertained that the children at one of the dairy farms in question were suffering from enteric fever, and that there had been business relations in the matter of the supply of milk between this farm and the one which was suspected. So far no clear account is given as to the means by which the milk-supply became infective. On the one hand, sewage is reported to have made its way into a well; on the other, it is asserted that the so-called well is only a man-hole giving access to the apparatus of the pump, which is at some distance from the well. We shall look with interest to Dr. Goldie's report on the circumstances of the outbreak.

FATAL CASE OF POISONING BY ROBURITE.

FOLLOWING very closely the Report on Roburite as an Explosive, a summary of which appeared in our columns on June 1st, p. 1100, a case of poisoning has occurred at the Roburite Works, Gathurst, near Wigan. Last week Mr. Coroner Brighouse held an adjourned inquest on the body of John Waterworth, who had met with his death after cleaning out a flue over the mixing room at the works. The man it appears had to enter a flue thirty-five feet long and two feet wide, and clean it. After this he was found on the premises insensible, and was taken home in a cart. Mr. Molyneux of Upholland, saw the man and prescribed for him, but he never recovered consciousness, and died next day. The post-mortem examination showed marked paleness of the internal organs. The lungs were healthy, but the heart was enlarged. All the veins were full of clotted blood. The contents of the flue were said to be dinitrobenzine, which is a very soft, crystallisable substance. It transpired in evidence that the men had to clean this dangerous flue in turns, and that they were provided with a special suit of clothes and a respirator for the purpose. The men remained in the flue about three minutes at a time, and remained out for twenty minutes, re-entering again till the flue was cleansed, the whole work taking about five hours. The men were paid double wages for doing this dangerous work. We think most people will agree with the coroner, and also with the finding of the jury—namely, "that the work was exceedingly dangerous, and that the work ought to be done mechanically in the future." The coroner, in closing the proceedings, said that he was bound to say the Roburite Company had given every possible assistance to the police in making their inquiries.

OVERHEAD WIRES.

THE motion introduced in the House of Lords last Friday week by the Duke of Marlborough with reference to telephonic and electric lighting communications evoked, as was to be expected, a somewhat interesting discussion. The Duke, it will be remembered, complained of the great irregularity which characterises the distribution of wires, and the menace to public security implied in their passing overhead and their connexion with supports which are not always equal to the strain upon them during changes of weather. His proposal that a committee of both Houses should be appointed to report upon the rights and procedure of the companies interested in these enterprises, with a view to acquiring the control of their operations, met with a general though somewhat qualified approval. Whether such a course of action is now practicable or expedient is open to criticism, and in this regard we may note an instructive reminder by Lord Balfour that the business of electric lighting is carried on by voluntary effort, though subject to regulation by the Board of Trade, under whose directions wires and cables are being to a large extent dispensed with overhead, and made to travel underground. Whatever may be said about the actual duties of a committee, there is no doubt as to the nuisance created by these overhead communications. Public sense has from time to time been startled by the record of fatal injury inflicted by the snapping of wires or by unguarded contact during the passage of the electric

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fluid. The case of the lighting companies above referred to suggests that underground communication is possible to a far greater extent than is generally supposed. Whether it will be universally adopted is still doubtful, though the precedents afforded by the experience of gas companies and of German telegraphy are in this respect most encouraging. If, as the Duke of Marlborough suggests, we need not look for so great a reformation in London for some time to come, if at all, some such amendments as he proposes would be useful in the meantime—namely, that wires should be made to follow the lines of streets, and to cross these only at stated points, and that the length of supports should be reduced, while their due stability should be guaranteed.

SCARLET FEVER IN PLYMOUTH.

THE recent remarkable decline in the rate of scarlet fever mortality, especially in our largest towns, invests with special interest any definite outbreak of this disease, and more particularly one in an urban population. Recent weekly returns of the Registrar-General point to such a definite outbreak recently in Plymouth. We may note, in the first place, that the annual death-rate per million from scarlet fever in the largest English towns, which was 890 in the four years 1870–73, fell to 292 in the last four years 1885–88. Plymouth has not suffered from scarlet fever since 1870 (prior to which the Registrar-General did not publish statistics for the large towns) to the same extent as most of the other large towns, and compares favourably in this respect with Portsmouth, which experienced so remarkable an epidemic in 1876. Till recently, moreover, the decline in the mortality from scarlet fever during the past nineteen years has been as strongly marked in Plymouth as in the other large towns; for the rate declined from 325 per million in the ten years 1870–79 to 97 in the nine years 1880–88. During the whole of last year only 7 deaths from scarlet fever were registered in Plymouth, and only 2 occurred in the first quarter of this year. The present outbreak may be said to have first declared itself in the week ending April 27th, when 6 fatal cases were registered. Since this date the fatality has continued, and during the second quarter of this year no fewer than 43 deaths from this disease were registered within the borough, 6 additional fatal cases being recorded in the first week of July, making 50 deaths from this disease since the beginning of the year. Thus, in the first half of this year more deaths from scarlet fever have been registered in Plymouth than in any year since 1870. There seems to be no legal notification of zymotic disease in Plymouth; and, although the borough possesses an isolation hospital, the Registrar-General's reports do not afford evidence that the hospital is largely used. Indeed, we believe that only one death has occurred therein during the present epidemic. Without notification, and without free use of a thoroughly efficient isolation hospital, the local sanitary authority will be seriously handicapped in their efforts to control the present epidemic of scarlet fever.

AMERICAN MEDICAL ASSOCIATION.

THE fortieth annual meeting of this Association was held at Newport, R.I., from June 25th to 28th, under the presidency of Dr. W. W. Dawson of Cincinnati, who delivered the annual address, which in part dealt with the subject of medical education in the United States. At the last census it was shown that nearly 4000 schools for higher learning existed in the United States, including nearly 400 ranking as colleges and universities. Last summer a university was founded in California, which, said Dr. Dawson, "will surpass, probably, any school upon the continent." He believed that the physicians of the future would be drawn from country schools rather than from those of the towns, and pointed with justifiable pride to the establishment of free schools and colleges in many of the States. He showed that medical education was making rapid strides, did not think the number of medical colleges superabundant, spoke of the laboratory work undertaken in many of them, and gave an outline of the rise of medical education in the country. He then referred to literature, and, after a few scathing remarks on "secret remedies," concluded an interesting address with a reference to legislation for the regulation of the practice of medicine. On the 26th Dr. William Pepper delivered an address upon General Medicine, taking the life and work of Benjamin Rush as his text; and on the 27th Dr. Phineas S. Conner gave the address on General Surgery, in which he dwelt largely upon the subject of cancer. Many interesting subjects were dealt with in the sectional meetings, and the gathering was a highly successful one.

EXAMINATION OF THE GASTRIC SECRETION.

DR. JÜRGENSEN of Copenhagen has published a contribution to the question discussed by Ewald of Berlin and Riegel of Breslau, as to whether it is better in the cases of disordered digestion to examine the contents of the stomach after breakfast or after dinner. His experiments on twenty-one patients after both meals showed that the difference of the results obtained is neither so clear nor so important as to enable one to conclude that either of the two meals is distinctly the better for experimental purposes. He prefers to conduct the examination after breakfast, but merely because it is more convenient both for physician and patient. Dr. Jürgensen's deductions from his own experiments have been criticised in a German medical journal, which holds that they point to more reliable results being given after dinner than after breakfast. He found in sixteen experiments in twelve cases of excessive acidity (three being cases of gastric ulcer) that the total acidity after dinner increased in fourteen cases, and decreased in only two, in both of which there was rather an excess of acidity after breakfast. In three cases there was absence of acidity and nervousness after breakfast, and total absence of acidity after dinner. In eight experiments in six cases of chronic gastritis the acidity was twice absent, three times decreased and twice very slightly increased after dinner, while after breakfast there was less than the normal acidity, and in one case there was absence of acidity after both meals. These experiments seem to prove that in nineteen cases dinner brought into prominence the morbid function of the stomach, while breakfast showed this result only four times.

THE EVIL WROUGHT BY WANT OF THOUGHT.

THERE are certain impediments as to the disposal of which the traveller by rail is liable sometimes to find himself in a dilemma. A special van accommodates his heavy luggage, and lighter parcels find a lodging in the network over his head. For such waste as odds and ends of refreshments there is no convenient corner. He does not care to litter the carriage. What will he do with them? Convenience at once suggests the window as a suitable outlet, and without further question the unneeded remnants find a home on some bank or cutting, and are quickly left behind. The proceeding is quite natural, and usually harmless enough. Sometimes, unfortunately, it is not; and this fact is sufficiently proved by the case of a platelayer, who was struck on the head and dangerously injured a few days ago by a bottle cast out of a passing train. It is not necessary to discuss the lesson obviously taught by this incident. Travellers will not fail to see that here a very simple act by an unknown hand became, through mere carelessness in the doer, a cause of grave illness, and even of possible death, to

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one of his fellow-men. The intended purpose would have been equally served, and the risk avoided, had the thrower thought of carefully dropping—and even this is obviously to be deprecated—not hurling, his bottle at random from the window. Unhappily, he did not think.

LOCAL APPLICATION OF CHLOROFORM IN EPIDIDYMITIS.

DR. THEODOR CLEMENS of Frankfort, in an interesting paper communicated to the *Allgemeine Medicinische Central Zeitung*, describes the great benefit he has obtained in cases of epididymitis, both specific and non-specific, by means of chloroform locally applied. He regards as most unsatisfactory the treatment of the affection by other methods as compared with his own, which he has employed now for a great many years. It consists in laying some cotton wool saturated with chloroform and spirit at the bottom of a large glass vessel, into which the genitals are then put and packed round with dry cotton wool, the buttocks and thighs forming a cover, this application being continued for from fifteen to twenty-five minutes, and repeated two or three times a day. Pathologically, he considers venous congestion of the epididymis and the cord through retention of semen a predisposing cause of the disease. He also considers epididymitis as very likely to occur when gonorrhœa has been contracted in excessive venery. He mentions a case of treatment by chloroform thirty-six years ago, not of epididymitis, but of periodical "heat" occurring in the human subject. The man used to suffer periodically from a form of orchitis, during which the testes felt hot and swollen, and the plexus pampiniformis was full and turgescent like a varicocele. He was ordered the local application of chloroform three times a day, from fifteen to twenty-five minutes each time, but the first time he bore the chloroform for nearly thirty-five minutes, after which the pain of the severe attack completely ceased and the swelling considerably decreased. This treatment lasted three days, during which time he was able to walk about, the cotton wool which had been used for the chloroform being put into the suspensory bandage and the testes covered with it. After that both the swelling and sensibility disappeared. Another case is mentioned, where epididymitis had been caused by the continuous pressure of a rudder handle on the hypogastrium, in which similar treatment proved entirely successful. Again, a class of case that is usually very difficult to treat—viz., that of gonorrhœal orchitis—seems to have proved fairly tractable when managed with the help of chloroform. Here one of the first signs of improvement was frequently the re-establishment of an old discharge, which was soon cured simultaneously with the epididymitis.

MASSACHUSETTS MEDICAL SOCIETY.

THE 108th annual meeting of the Massachusetts Medical Society was held at Boston on June 11th and 12th. The first proceedings consisted in an organised system of visits to the various hospitals—viz., the Children's, the Massachusetts General, and the Boston City Hospital, where the members had the opportunity of seeing several important operations performed by members of the staff. In the Section of Surgery a discussion took place on the practice of antiseptic surgery (*Boston Medical and Surgical Journal*, No. 25). It was introduced in a paper by Drs. Greenleaf, R. Tucker, and H. L. Burrell, in which it was shown that to obtain absolute asepticity in reference to the operating rooms, instruments, hands, &c., was most difficult. They stated that instruments were best rendered aseptic by subjecting them for an hour to a temperature of 150° to 160° C., for they found germs on instruments which had soaked for an hour in a 1 in 40 carbolic solution. As to ligatures, small catgut and silk, as ordinarily prepared, were found to be sterile; large catgut, never. Amongst other points, it was noted that ordinary iodoform or boracic gauze was non-sterile. In the debate, Dr. Torrey of Beverly insisted on cleanliness rather than the use of chemical germicides; and he was followed by Dr. John Collins Warren of Boston, who also spoke of some of the dangers of antiseptics, instancing cases of poisoning from the use of antiseptics, such as carbolic acid, sublimate solutions, and iodoform; with respect to the last-named, he mentioned a case where, after operation for ruptured perineum, the application of a large amount of iodoform was followed by extensive dermatitis in the thigh, and a delirious condition lasting six or seven weeks. Many other surgeons took part in this instructive debate.

THE ABOLITION OF THE FACULTY OF MEDICINE!

IT is difficult nowadays to be astonished at anything which is said or proposed in Parliament. But one of the most remarkable proposals lately made is that of Sir George Campbell for the abolition of the Faculties of Medicine in the Scottish Universities. A greater injury to the Scotch Universities or a greater insult to the profession of medicine could not easily be imagined. It would be difficult to prove that of late years any Faculty has afforded such brilliant justification for its own existence as that of Medicine. If it is still lacking in scientific precision or in philosophical culture, that is a reason for making more of its academic recognition, and not less. Medicine would continue to flourish, even if the Scotch Universities refused to recognise it; but such refusal would be a bad day for the Universities of Scotland, and a deadly blow at their existence.

THE CAUSES OF INFANT MORTALITY.

THE experience which Dr. M'Grigor Maclagan has for many years past had, as medical officer of health to the Hexham Rural Authority in the Tyne district, has compelled him more than once to advert at length to the excessive mortality which still prevails in many portions of this country amongst children under one year of age. He does so again in his annual report for the past year, and he summarises some of the principal causes of this "massacre of the innocents," with especial reference to his district. The causes are, however, of much wider application. First come carelessness, ignorance, and superstition on the part of parents—causes which, though not altogether lacking amongst the upper and middle classes, operate mainly amongst the poorer classes, with whom the greatest infantile mortality obtains. Associated with these causes are insufficient and improper food, want of cleanliness, exposure to climatic changes, inadequate or improper clothing, and impure air. "Fashion," as opposed to "common sense," tells heavily against certain children who must be kept respectable by the exposure of their chests, shoulders, and lower limbs at all seasons of the year; and poverty tells much in the same direction as regards insufficiently clothed infants exposed to wind, cold, and rain. Perambulators come in for especial condemnation, and everyone who has watched their use must have noticed how they may be abused, and how at times the heads of children are exposed to the burning rays of the sun whilst the attendant nurses are gossiping. Then comes the influence of soothing mixtures, which almost always contain laudanum, and are hence most dangerous to infant life. And, lastly, the question of the insurance of infants' lives merits strong condemnation. Dr. Maclagan does not presume this practice to be more common in his district than in many other places, but he denounces it as a totally false one from every

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point of view; and he declares that, quite apart from criminality, infant insurance leads to great carelessness in the rearing of little ones. If a Royal Commission should be appointed to discuss this question of infant mortality, there are few more fitted to give evidence on some of its aspects than Dr. Maclagan, who has made the subject a study during the fifteen years of his health officership in the Hexham district.

THE SHAH'S PHYSICIAN AND THE PRESIDENT OF THE COLLEGE OF PHYSICIANS.

AMONG the successful hospitalities connected with the visit of the Shah we must not omit to notice the brilliant reception accorded to Dr. Tholozan, Physician to the Shah of Persia, by Sir Andrew and Lady Clark, at their residence. To judge only from the easy abandonment to such duties which the President of the College of Physicians shows, one might infer that he is the least occupied man in London, instead of being one of its most hard-worked citizens. It is certainly no slight advantage to his College, and, we may add, to the profession at large, to have a President so generous in sentiment and hospitality. Dr. Tholozan seemed delighted with the reception accorded to him, and with much grace contrived to make all Sir Andrew Clark's guests feel that they had contributed to his pleasure.

THE COMMISSION ON VACCINATION.

ACCORDING to the London correspondent of the *Manchester Guardian*, Lord Herschell has taken "a broad and statesman-like view" of the scope of the reference to the Commission, and it is added that in this view he has been unanimously supported by his colleagues. We do not know to what this refers, but we are satisfied that the Commission will interpret in a reasonable manner the terms of the reference. It is further stated that a representative of the opponents of vaccination has been admitted to take shorthand notes of the proceedings of the Commission in the interests of his clients. If this be the case, it is a wide departure from the custom which has previously prevailed, and it will be interesting to see how far information obtained in this way can be utilised by the clients mentioned. We have observed the efforts made by anti-vaccinationists to discredit the report of the Commission, even before any evidence has been taken; after clamouring for years for an inquiry, as soon as their request is granted, they at once announce that the report of the Commission is not to be trusted. Everyone will, of course, put his own construction upon the course they have adopted.

ULCERATIVE STOMATITIS.

ACCORDING to Dr. Frühwald, ulcerative stomatitis begins on the external alveolar margin of the canines, appearing first as gingivitis catarrhalis. The gum becomes a pulpous mass, and salivation increases to an enormous extent, a very foul odour being produced. Gangrene of the soft parts and necrosis of the jaw-bones sometimes follow; glandular swellings are an ordinary symptom. Frühwald mentions the following predisposing causes of the disease: insufficient cleanliness of the oral cavity, naturally flabby gums, rachitis, scrofulosis, possibly climatic influences, certainly general affections, especially infectious diseases and scurvy, poisoning by lead, copper, mercury, and phosphorus. He recommends as treatment the application of iodoform or occasionally of nitrate of silver. He succeeded in cultivating from the discharge several kinds of micrococci and bacilli in gelatine and bouillon, and on potatoes, one of the species having a fetid odour. They are, according to Frühwald, undoubtedly pathogenic, producing fatal pleurisy and peritonitis in animals inoculated with them.

CONGRESS OF PHYSIOLOGICAL PSYCHOLOGY.

AMONG the numerous congresses that have commenced to assemble in Paris during this Exhibition year is one on "Physiological Psychology," which is to be held from Aug. 5th to the 10th. The president is Professor Charcot, and the general secretary Professor Charles Richet, 15, Rue de la Université, to whom all inquiries should be addressed. Amongst the English members of the committee, which includes representatives from every country on the Continent and from the United States, we observe the names of Professor Bain, Mr. F. Galton, Dr. Hughlings Jackson, and Dr. de Watteville. The subjects for discussion comprise—1. Muscular Sense. 2. Share taken by Movement in the Formation of Images. 3. Is Attention always determined by Affective States? 4. Statistics of Hallucinations. 5. The Appetites in Idiots and Imbeciles. 6. Are there among the Insane Motor Impulsions apart from Images and Ideas? 7. Psychical Poisons. 8. Heredity. 9. Hypnotism.

FREE ADMISSION TO ISOLATION HOSPITALS.

THE Town Council of Bury have taken a very wise step in passing a resolution to the effect that, notwithstanding any previous instruction to the contrary, admission into the sanitary hospital for the purposes of isolation is for the future to be free, and that all suffering from infectious diseases are to be urged to go into the hospital. It is essentially the early isolation of first attacks of infectious diseases that is called for in the interests of public health, and to make such isolation in an institution provided out of and maintained by the public rates, conditional on the payment of a sum of money, however small, is to impose one of the most potent barriers to the usefulness of the means that have been provided for the prevention of disease.

TREATMENT OF THE NASAL MUCOUS MEMBRANE IN WHOOPING-COUGH.

SEVERAL physicians, believing that the paroxysms of whooping-cough are to a greater or less extent due to reflexes from the nasal mucous membrane, have directed their attention to it with regard to treatment of the disease. Dr. Beltz, who has conducted a large number of observations on the treatment of whooping-cough in the Greifswald polyclinic, speaks especially highly of a plan first practised by Michael, which consists of employing nasal insufflations of a mixture of powdered nitrate of silver with magnesia in the proportion of 1 in 10. These insufflations are given at first once a day, and subsequently once in two or three days according to the frequency and severity of the attacks. He finds that the attacks are very decidedly lessened even after the first insufflation, and has come to the conclusion that this affords a more satisfactory method of treating whooping-cough than any other plan with which he is acquainted.

A CHEAP LIFE INSURANCE.

IT transpired at a recent meeting of the directors of the Society for the Relief of the Widows and Orphans of Medical Men, presided over by Sir James Paget, that one of the recipient widows has lately died. The history of her advantage from the Society was to this effect—that her husband was a member for five years, and died in 1849, subscribing ten guineas in all. She then came on the funds of the Society, and has, in the intervening years, received £1623 7*s.* 6*d.* Yet the apathy of the profession to these easily secured advantages is wonderful. At the same meeting it transpired that about 5000 copies of the Report have been distributed among medical men of the London postal district, and that only four answers have been received.

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CHANGES IN THE ALKALINITY OF THE BLOOD.

DR. PEIPER of Greifswald has examined the blood of healthy persons and that of patients suffering from various pathological conditions for the purpose of discovering whether the alkalinity is affected, and, if so, in what manner in disease. First of all, he found that the alkalinity of human blood varies only within somewhat narrow limits. Amongst healthy individuals it is least in children and greatest in men, the amount in the blood of women being intermediate. During the process of digestion the alkalinity increases. It is considerably increased by severe vomiting. Muscular action and strychnine convulsions lessen it. It is also less than normal in leukæmia, diabetes mellitus, chronic articular rheumatism, and severe anæmia, but in chlorosis it is increased. In the cachexia of carcinoma, in grave derangement of the organic metabolism, in destructive liver diseases, and in uræmia, the alkalinity is usually lessened. Again, in pyrexial diseases there is almost always less alkali, the diminution appearing to depend not so much on the duration of the fever as on its intensity. It appears also that during the administration of chloroform some effect in the direction of lessening the alkalinity is produced.

ALLEGED DEATH FROM VACCINATION.

AN inquest was held last week at Leeds on the body of a child, aged six months, who had been vaccinated on March 26th. The account given in a local journal does not enable any opinion to be formed as to the precise nature of the disease from which the child died, but it is stated that the vaccination ran an unusual course, and that "blood poisoning" caused the child's death; the coroner, however, is reported to have said that syphilis was inoculated into the child, and the mother to have expressed the opinion that animal lymph from London was used. The case evidently needs inquiry by the Local Government Board, and no doubt it will be investigated.

PROGNOSIS OF CIRRHOSIS OF THE LIVER.

PROFESSOR SEMMOLA of Naples, in a clinical lecture on Cirrhosis published in "Il Progresso Medico," maintains that the prognosis of the disease depends entirely on the quantity of urea excreted during twenty-four hours, as he has proved to his own entire satisfaction in seven cases. He teaches that increase in the secretion allows a much more favourable prognosis than a decrease. The quantity of urea secreted corresponds, according to him, with the functional activity of the hepatic cells; so that the extent of nitrogenous metabolism is proportionate to the number of normally acting cells. For the treatment of the disease Professor Semmola recommends an exclusive milk diet, which must be systematically and regularly administered.

THE REGENT'S CANAL.

EVERY summer the condition of the Regent's Canal is matter for discussion in the St. Pancras vestry. This year the sanitary committee have received complaints from residents in the neighbourhood, and they have been supported by a medical man who had observed the disturbance of the deposit which came to the surface when the canal was dragged in search of the body of a boy who had been drowned. The sanitary inspector also reported that he had counted the bodies of ten animals floating on the surface, and that there was a large quantity of putrid filth and offensive refuse to be seen on the edges of the canal. Eventually it was resolved to serve the Canal Company with a notice under the Nuisances Removal Act,

CHLOROFORM.

WE have received a telegram from Surgeon-Major Lawrie to the effect that His Highness the Nizam of Hyderabad offers to place the sum of £1000 from his private purse at our disposal, that we may send one or two representatives of THE LANCET to Hyderabad to repeat the experiments made by the Hyderabad Chloroform Commission (*vide* THE LANCET, Feb. 23rd and March 2nd, 1889), and to make any others which we may suggest. We await further details of the offer, which we are informed will be sent by mail.

FOREIGN UNIVERSITY INTELLIGENCE.

Innsbrück.—For the chair of Anatomy which is about to become vacant by the transference of Professor Holl to Gratz, three names have been selected by the Professorial Senate. 1. Dr. Roux, Extraordinary Professor in Breslau. 2. Dr. Dalla Rosa, *privat-docent* in Vienna. 3. Dr. Hochstetter, *privat-docent* in Vienna.

Gratz.—Dr. Julius von Wagner of Vienna is to be invited to take Professor Krafft-Ebing's chair of Nervous and Mental Diseases.

THE report on the composition and quality of the metropolitan water-supply during the month of May by Messrs. Crookes, Odling, and Meymott Tidy, shows that of the 189 samples examined the whole were found to be clear, bright, and well filtered. The character of the metropolitan water-supply during the month of May did not present any noteworthy variation from that recorded now for several months past as being entirely satisfactory; what variation did present itself for notice was in the direction of an increased degree of uniformity of composition among the different samples examined, of an increased degree of freedom from organic matter, and of an increased degree of freedom from colour-tint. Dr. Frankland, in his analysis, states that, taking the average amount of organic impurity contained in a given volume of the Kent Company's water during the nine years ending Dec. 1876 as unity, the proportional amount contained in an equal volume of water supplied by each of the metropolitan water companies and by the Tottenham Local Board of Health was:—Kent 0·8, Tottenham 1·1, Colne Valley 1·5, New River 2·0, Southwark and East London 2·2, Lambeth 2·3, West Middlesex and Grand Junction 2·4, and Chelsea 2·8.

THE Medical Faculty of the University of Munich has just awarded its prize for the best "Untersuchungen über die Wirkungen der verschiedenen Hefe-Arten welche bei der Bereitung weingeistlicher Getränke vorkommen auf den thierischen und menschlichen Organismus" (Investigations on the Effects of the various kinds of Lees occurring in the Preparation of Alcoholic Beverages on the Organism, Animal and Human). The successful candidate was Hans Neumayer, of the Medical School, whose essay more than satisfied all the requirements of the competition. For 1889–90 the subject of the prize will be "Lässt sich eine Keratitis interstitialis experimentell erzengen und wie verhält sich dieselbe?" (Can a Keratitis interstitialis be produced experimentally, and what are the circumstances of the same?)

AT a recent meeting of the Accademia Medica di Roma was formed the "nucleo fondatore" (the foundation nucleus) of a Society of Hygiene and Public Health. The leading members of the Academy have thrown themselves with energy into the project, which it is expected will soon culminate in an institution to be organised as a section of the Academy itself.

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THE Bill brought into the House of Commons to enable the County Council to purchase by agreement the rights of the London water companies has been printed. It authorises the Council to borrow the money required by creating fresh stock, under the Metropolitan Board of Works (Loans) Acts, 1869 to 1875, redeemable within sixty years. After payment of the expenses and dividends on the stock, the profits are to be applied in reducing the charge to the consumers of water, or, on the vote of the Council in any year, in reducing the metropolitan consolidated rate.

H.R.H. DUKE CHARLES, M.D., of Bavaria, continues in the Bavarian Tyrol the philanthropic practice of ophthalmic surgery, to which he devotes the spring months in the Austrian Tyrol. On the 3rd inst., at the Tegern See, he performed with complete success his one-thousandth operation for cataract. For the occasion, which was a festive one, the surgical theatre was decorated with flowers by the sisters of the hospital, of which his Royal Highness is the patron and working president.

BOLOGNA, following the initative of Milan, opened on June 30th an Instituto Anti-rabbico, or institution for the treatment of rabies on the Pasteur method. The King, the Prime Minister and the various civic and scientific bodies, as well as the townsfolk of Bologna, contributed the requisite funds. Every considerable Italian city will soon, it is anticipated, be provided with an institution of the kind.

THE Royal Commission on Vaccination held its third sitting on Wednesday, the 10th inst. There was a full attendance of Commissioners. Dr. Ogle, of the General Register Office, was further examined, and Dr. R. Thorne Thorne, assistant medical officer to the Local Government Board, also gave evidence.

IT is stated that the four new members of the Scotch Universities Commission who will be nominated on report of the Universities Bill will be—Dr. J. G. Blackie, Sir Henry Thompson, Dr. Heron Watson, and Professor Culverwood.

DR. PAVY, whose term of office as Physician at Guy's Hospital has expired, has been invited by the governors and staff to hold the appointment for another year. Dr L. E. Shaw succeeds the late Dr. Wooldridge as assistant physician.

THE FORTY-THIRD ANNUAL REPORT OF THE COMMISSIONERS IN LUNACY.

THE Report of the Lunacy Commission for the year 1888 shows that the growth of the population under the charge of the Commissioners continues to exhibit that unwelcome expansion with which the reports of several years past have made us familiar. The increase last year was fractionally less than in 1887, but still it was substantial, and it is sufficiently disappointing to find that from year to year the number of patients who come for treatment into our various asylums and hospitals for the mentally afflicted shows a steady augmentation. To some extent, however, the figures for 1888 are unduly aggravated in this respect, for they include among the pauper lunatics some sixty patients who have been transferred from the hospital wards of the Woking Prison to the Broadmoor Asylum, and have thus been brought within the jurisdiction of the Commissioners, not by access of their malady, which had attacked them before, but by virtue of their translation to a new locality. In the case of private and pauper patients one would gladly accept the view of the Commissioners who explain that an increased number of persons, not quite sane, have sought and obtained admission into registered hospitals as voluntary boarders. It is not clear, however, that the Commissioners themselves regard this very satisfactory source of increase in the number of inmates as fully commensurate to the falling off which must be attributed to the natural reluctance of medical men to certify in a case where the symptoms of insanity are such as, though perhaps sufficient to justify a strong opinion on the part of a personal observer, are not very capable of demonstration in the witness-box after an interval of time. The very formidable facility with which it has within the past few years been shown that actions can be brought and verdicts recovered against medical men who have certified to insanity has necessarily had a marked effect upon the feelings and practice in relation to this matter of medical men, and it may well be doubted if upon the whole the effect has been salutary. It is undeniably a matter of prime importance that in any transaction in which personal liberty is so nearly involved, the utmost care should be observed by those responsible for the conduct of the proceedings; but it is, upon the other hand, a grievous public disadvantage that a serious obstacle should be thrown in the way of the most efficient treatment of slight and incipient mental disorder. This is a truth which the persistent growth of the lunacy figures is eminently calculated to bring home to the public mind. The actual figures of the increase for 1888 are as follows:—Private patients, 175; pauper patients, 1461; and criminal patients, 61, the last being subject to the explanation given above.

The broad results of treatment as brought out by this report are much the same as heretofore, the proportion being fractionally better than last year, but still fractionally below the average of the decade. With the methods of treatment adopted and the accommodation provided the Commissioners do not, upon the whole, find very much fault. In some instances, however, their criticisms are severe, and apparently not without reason. The following passages, for example, ought assuredly to receive the careful attention of the authorities in charge of the asylum in question:—

"The report of the Commissioners ..... showing that at the date of their visit nothing had been done towards improving the water-supply, so long a subject of unfavourable comment by them, led to a letter being written by our direction on Aug. 1st, 1888, to the Committee of Visitors, urging them strongly to remedy the existing defect either by sinking a new well, as recommended by Mr. Rogers Field in 1886, or in some other equally efficacious manner. The answer received, however, dated Aug. 16th, 1888, only informed us that the visitors still had the question under consideration, and, having heard nothing subsequently, we were forced to the conclusion that the thoroughly unsatisfactory sanitary condition of this asylum in regard to its water-supply, pointed out by us, remains unremedied. Experience shows that delay in these cases is very dangerous, and often attended with fatal results."

Happily, the case is exceptional, and indeed, so far as the present report shows, unique. We should hope that the above observations will lead to the solution of what is at best a very serious question between the Commissioners and the Visiting Committee.

PROPOSED CHAIR OF PHYSIOLOGY FOR DUNDEE UNIVERSITY COLLEGE.—At a meeting of the College Council held last week, it was announced that Mr. John Bett, a merchant of Rohallion, had offered one-third of the amount required to found and establish a chair of Physiology in connexion with the Medical School of the College, provided the remaining two-thirds required be raised. It is estimated that the total sum necessary for the endowment of the chair and the furnishing of suitable buildings will be about £15,000. The foundation of this chair would enable the College to complete the first two years of a medical curriculum. A vote of thanks was accorded to Mr. Bett for his liberal offer.

WEST LONDON MEDICAL AND CHIRURGICAL SOCIETY. The seventh annual dinner of this Society was held on June 14th, in the Grosvenor Gallery, Dr. Travers, the President of the Society, being in the chair. There was a large and distinguished attendance. The entertainment comprised some excellent music—part songs, quartets, and solos being interspersed between the toasts.

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METROPOLITAN HOSPITAL SUNDAY FUND, 1889.

WE continue our returns of the larger sums collected at various Metropolitan places of worship in aid of the Hospital Sunday Fund. The total to date is considerably over £36,000, or more than £1000 in excess of the sum forwarded to the Mansion House at the corresponding date last year. A new and gratifying feature this year is the fact that, thanks to the efforts of Messrs. Alfred L. Cohen and E. Kennedy, a sum of £367 16s. was collected on the Stock Exchange, each member of which had previously received an abstract of THE LANCET Supplement, showing the good work done by the Metropolitan Hospitals during the past year.

		1888.		1889.
		£ s. d.		£ s. d.
Church of England.				
St. Peter's Parish Church, Eaton-square	Rev. J. Storrs	491 1 1	.....	771 17 2
Ditto Chapel	Ditto	14 8 11	.....	7 1 6
St. John the Evangelist, Wilton-road	Ditto	94 1 6	.....	78 11 4
	Total	599 11 6	.....	857 10 0
St. Mary Abbots Parish Church, Kensington	Hon. and Rev. E. Carr Glyn	402 6 6	.....	325 13 11
St. Paul, Vicarage Gardens, ,,	Ditto	Rebuilding	.....	100 7 9
Christ Church, Victoria-road, ,,	Ditto	74 16 0	.....	79 16 11
Vicarage Parish Room, ,,	Ditto	20 16 0	.....	
	Total	497 18 6	.....	505 18 7
St. Paul, Onslow-square, Kensington	Rev. H. W. Webb Peploe	341 15 3	.....	349 2 6
St. Peter, Cranley Gardens, Kensington	Hon. and Rev. F. E. C. Byng	249 14 11	.....	218 17 6
St. Matthew, Bayswater	Rev. J. Filmer Sullivan	189 17 9	.....	216 2 4
Christ Church, Mayfair	Rev. H. Rowsell	125 16 8	.....	133 8 11
St. James, Westmoreland-place, Marylebone	Rev. H. R. Haweis	68 10 3	.....	78 12 5
St. John, Clapham-rise	Rev. C. H. Coryndon Baker, D.D.	77 12 9	.....	75 18 0
St. James, Norlands, Kensington	Rev. A. Williamson	66 0 0	.....	74 3 2
West Hackney Parish Church	Rev. H. B. Ottley	61 16 11	.....	62 14 5
St. Paul, Herne-hill	Rev. S. F. Bridge	44 3 8	.....	54 3 3
St. Saviour, Fitzroy-square	Rev. T. Turner	54 3 6	.....	53 0 0
St. Mary and Mission, Hornsey-rise	Rev. W. S. Lewis	30 0 0	.....	43 4 3
St. Stephen, Clapham Park			.....	41 12 3
Emmanuel Church, Maida-hill	Rev. J. S. Tanner	43 13 9	.....	40 13 6
Epsom Parish Church, Surrey	Rev. John Samuel	31 15 8	.....	36 9 2
St. Stephen, Lewisham	Rev. R. Rhodes Bristow	39 11 10	.....	36 0 6
St. Paul, Finchley	Rev. S. B. Mayall	36 0 6	.....	35 7 9
St. Peter, Eltham-road, Kent	Rev. R. J. Simpson	40 0 1	.....	34 2 7
St. Nicholas Parish Church, Chiswick	Rev. L. W. T. Dale	31 10 10	.....	34 0 1
St. Saviour, South Hampstead	Rev. G. A. Herklots	24 10 6	.....	30 11 5
St. John's Chapel, Downshire-hill, Hampstead	Rev. Gilbert Karney	52 15 0	.....	29 8 9
St. Andrew, Stoke Newington	Rev. H. E. J. Bevan	26 0 0	.....	26 4 5
St. George, Catford			.....	25 18 10
St. John the Baptist, Kingston Vale	Rev. C. P. Sanderson	30 12 11	.....	24 2 3
St. Mary's Parish Church, Newington, Surrey	Rev. G. T. Palmer	31 12 6	.....	21 14 5
Christ Church and St. Barnabas, North Finchley	Rev. H. Stephens	15 1 1	.....	20 4 7
St. Simon, West Kensington	Rev. R. Handcock	13 3 6	.....	20 0 0
Later Returns.				
St. Michael and All Angels, Paddington	Rev. G. F. Prescott	198 11 5	.....	180 6 10
St. Augustine, Queen's Gate, South Kensington	Rev. R. R. Chope	131 6 6	.....	128 5 10
St. Mary and St. John, Balham	Rev. T. Bates	93 16 3	.....	92 6 8
St. James, Clapham Park	Rev. F. A. C. Lillington	77 0 1	.....	66 5 4
St. Margaret Parish Church, Lee, Kent	Rev. F. H. Law	78 7 10	.....	57 1 5
Christ Church, Streatham-hill	Rev. Woodhouse Raven	50 3 3	.....	55 15 3
All Saints, Blenheim-grove, Camberwell	Rev. T. J. Gaster	31 2 8	.....	47 16 4
All Saints, Kensington Park	Rev. Canon W. R. Trench	44 4 3	.....	41 13 5
All Hallows, London Wall, E.C.	Rev. C. Lacy	6 5 0	.....	35 4 6
Baptist.				
Heath-street Chapel, Hampstead	Rev. W. Brock	50 0 0	.....	51 9 6
Congregational or Independent.				
Streatham-hill Church	Rev. J. P. Gledstone	35 8 1	.....	40 0 0
Upper Clapton Church	Rev. J. Hadfield	21 1 9	.....	27 0 0
Jews.				
West London Synagogue of British Jews, Upper Berkeley-street	Rev. Professor Marks	222 3 0	.....	226 13 6
Presbyterian.				
Islington Church, Colebrooke-row	Rev. J. T. Davidson, D.D.	40 0 0	.....	32 0 0
Episcopal.				
Eaton Episcopal Chapel			.....	100 0 0
Catholic Apostolic.				
Harrow-road Church	Mr. J. H. Maynard	20 6 11	.....	23 8 10

Donations.

	£ s. d.		£ s. d.
Collected by Alfred L. Cohen, Esq., and E. Kennedy, Esq., on the Stock Exchange	367 16 0	"W." (a further donation)	50 0 0

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MEDICAL TRIALS.

ALLBUTT *v.* THE GENERAL COUNCIL OF MEDICAL EDUCATION.

SUPREME COURT OF JUDICATURE, SATURDAY, JULY 6TH.

IN the Court of Appeal, before Lord Justice Lopes and Lord Justice Lindley, judgment was given in this case, which raised a question of great importance to the medical profession and the public, and a still larger and more important question as to the privilege of the press in general as to matters in their nature of public interest, even though affecting personal character. The particular question raised was whether, if a medical man has been struck off the Register of medical men by the Council for a certain cause, and they publish the fact and the cause, he is entitled to have their decision reconsidered and reviewed by the Court on an application for a *mandamus* to restore him or to maintain an action for libel against them for the publication. This Court, it will be seen, following a decision of Mr. Baron Pollock, has held that he is not so entitled, and they have so held upon principles which admit of a very wide and general application to proceedings of all public bodies in matters of public interest. Mr. Baron Pollock had held on the trial that the action could not be maintained, either by way of *mandamus* to restore or action for damages for libel. The case was argued before Lord Coleridge and the two Lords Justices, who took time to consider their judgment, which was now delivered (by Lord Justice Lopes) in favour of the Council, thus upholding the decision of Mr. Baron Pollock.

Lord Justice Lopes delivered judgment in these terms:—The plaintiff complains that the defendants (the General Council of Medical Education and Registration of the United Kingdom) have wrongfully and unlawfully erased his name from the Medical Register, and asks for a *mandamus* commanding the defendants to restore his name on the Register. The plaintiff also complains that the defendants have libelled him by printing and publishing of him in a book, entitled "Minutes of the General Medical Council," that his name had been erased from the Medical Registry, page 317, and that in the opinion of the Council the plaintiff had committed the offence charged against him—that is to say, of having published and publicly caused to be sold a work entitled "The Wife's Handbook" in London and elsewhere, and at so low a price as to bring the work within the reach of both sexes, to the detriment of public morals, and that the offence was, in the opinion of the Council, infamous conduct in a professional respect. With regard to the erasure of the plaintiff's name, the plaintiff says the defendants acted without jurisdiction, that there was no evidence of any infamous conduct in a professional respect, and therefore nothing upon which to found their jurisdiction. The defendants say, on the other hand, they lawfully, and in the exercise of a jurisdiction conferred upon them by Act of Parliament, struck the plaintiff's name off the Register, and that, as there was jurisdiction to enter upon this inquiry, they (the Medical Council) are the sole judges of what was done during the inquiry which they had jurisdiction to initiate. The learned Judge thought there was no evidence of any of the complaints, which he ought to leave to the jury, and gave judgment for the defendants. The section upon which the Council have acted in erasing the plaintiff's name is the 29th Section of 21 and 22 Vict., chap. 90, which says:—"If any registered medical practitioner shall be convicted in England or Ireland of any felony or misdemeanour, or in Scotland of any crime or offence, or shall after due inquiry be judged by the General Council to have been guilty of infamous conduct in any professional respect, the General Council may, if they see fit, direct the Registrar to erase the name of such medical practitioner from the Register." Having regard to the nature of the complaint, the Council clearly had jurisdiction to enter upon the inquiry, and, having that jurisdiction, are constituted by the Legislature the sole judges whether that complaint was substantiated. To use the words of Chief Justice Cockburn in "*Ex parte* La Mert" (33 L.J., Q.B. 70), "This Court has no more power to review their decision than they would have of determining whether the facts had justified a conviction for felony or misdemeanour under the first branch of the section." It is said by the plaintiff that there was no "due inquiry," and that that question ought to have been left to the jury. We think that there was no evidence of any absence of a due inquiry which ought to have been left to the jury. All charges of *mala fides* were withdrawn, and it was admitted the Council acted honestly and without any improper feeling or motive towards the plaintiff. We can find nothing irregular in the proceedings of the Council; the plaintiff had every opportunity afforded to him of bringing his case before the Council, who heard his counsel and his evidence and adjudicated thereon. With regard to the alleged libel, questions of greater difficulty arise and questions of grave importance. The defence of the Council is that they published what is complained of *bonâ fide* and without malice and in circumstances which constituted the same privileges. The libel complained of is published in a book containing the minutes of the General Medical Council, and is part of the report of the proceedings of the Council in the plaintiff's case. It is most material to bear in mind that it is admitted that the report is truthful, accurate, and honest, published *bonâ fide*, without malice, not an *ex parte* report, but a report of facts which have been finally ascertained and adjudicated upon. To determine whether such a report is privileged, it is important to consider the position, powers, and duties of the Medical Council. The Council is not a private association. They are a public corporation, invested with large powers and privileges and charged with important duties—duties in which not only the profession but the public at large are interested. They are authorised to hold quasi-judicial inquiries—inquiries involving the status and character of professional persons, members of their own body, involving the rights of those persons towards the public and the rights of the public towards them. There is no appeal from their decision, and the influence of public opinion is no small safeguard against the abuse of the powers intrusted to them. This influence cannot be exercised if they keep secret the grounds on which they act. The public are clearly interested in knowing these grounds. The preamble of the Act states that it is expedient that persons requiring medical aid should be enabled to distinguish qualified from unqualified practitioners. The Council, by Section 10, has power to appoint registrars, who are to keep correct registers, and in every year to cause to be printed, published, and sold, a correct Register, a copy of which is made evidence in all courts. Subsections 28 and 29 give the Council power to erase names from the Register. Subsections 31 and 32 deal with the privileges of registered persons, enabling those registered to sue and disentitling those not registered from suing for their charges. By Section 34 a "legally qualified medical practitioner" is to be construed to mean a person registered under the Act. Section 35 exempts registered persons from serving on juries. By section 36 unregistered persons are disqualified from holding a large number of appointments. Section 37 declares that no certificate required from any medical practitioner shall be valid if the person signing it is not registered. These provisions show how important it is that not only the profession but the public should have accurate information as to the proceedings of the Council, should know who is on the Register, who is entitled to sue for charges, who is exempted from serving on juries, who is entitled to hold those public appointments for which medical men are eligible, and who can sign valid certificates. Again, it is important that if a person's name is erased that accurate information should be given to the public of the cause of its erasure. The medical man whose name is erased is not disqualified from practising, and old patients and other medical men invited to meet him in consultation might reasonably desire to know the nature of the offence in respect to which the erasure was made, in order to determine whether they would still continue to employ or meet him. This they could not learn from the Register itself, but could learn from the proceedings of the Council as appearing in the book containing the report complained of. We are of opinion that the Medical Council would in many cases fail in discharging their social and moral duties to the public if they shrunk from the responsibility of making known to the public the grounds on which they have removed a man's name from the Register, and thereby converted him from a qualified into an unqualified practitioner. Can it be said that a fair, honest, and accurate report of such proceedings is not privileged? If this had been an impartial and accurate report of a proceeding in a public court of law it would have been be-

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yond all doubt privileged. The reason of this privilege is thus stated by Justice Lawrence in "R. *v.* Wright" (8 T.R., 298):—"The general advantage to the country in having these proceedings made public more than counterbalances the inconvenience to private persons whose conduct may be the subject of such proceedings." Chief Justice Cockburn uses language almost identical in "Watson *v.* Walter" (L.R. 4, Q.B. 87), and Mr. Justice Willes, in "Henwood *v.* Harrison" (L.R. 7, C.P. 602–622) says:—"The principle upon which these cases are founded is a universal one, that the public convenience is to be preferred to private interests, and that communications which the interests of society require to be unfettered may freely be made by persons acting honestly without actual malice, notwithstanding that they involve relevant comments condemnatory of individuals." It seems to us, having regard to the nature of the tribunal, the character of the report, the interests of the public in the proceedings of the Council, and the duty of the Council towards the public, that this report stands on principle in the same position as a judicial report. It would be stating the rule too broadly, in my opinion, if it was held that to justify the publication of proceedings such as these the proceedings must be directly judicial or had in a court of justice. I can find the law nowhere so broadly stated, nor do I think in these days it would be so laid down. The courts must adapt the law to the necessary condition of society, and must from time to time apply as best it can what it thinks is the good sense of rules which exist to cases which have not been positively decided to come within them. We have said that we can find no direct authority against holding this publication privileged. We do find, however, authorities which, in our opinion, favour the contention of the defendants, that the rule of privilege extends to proceedings such as these. "Purcell *v.* Sowler and others" (2 C.P.D., 215) was a case decided by the Appeal Court in 1877. It was held that the administration of the Poor-law, both by the Government department and by the Local authorities, including the conduct of the medical officers, is a matter of public interest, but that the publication of a report of proceedings at a meeting of Poor-law guardians, at which *ex parte* charges of misconduct against the medical officer of the union were made, is not privileged by the occasion. The proceedings in this case were before a board of guardians, and were clearly not judicial. They were, however, *ex parte*, and on that ground only were held not privileged. Chief Justice Cockburn, after stating that proceedings in courts of law and proceedings in Parliament are privileged, although statements may have been made prejudicially affecting the character of private individuals, proceeds thus: "Many intermediate cases may be put. Take the meetings of the Corporation of London. The discussion at such meetings might involve strong observations upon the conduct of particular individuals. So also as to the municipal councils of other cities and boroughs; so again as to meetings of magistrates at quarter sessions, not as courts of justice, but for transacting the business of their county. In all these cases I should be sorry to lay down as law that the proceedings of such meetings may not be fully reported, although the character of private individuals may be inadvertently attacked. But it is unnecessary for the decision of the present case to lay down any such rule, and I wish to be understood as by no means saying that the proceedings of different bodies, to whom part of the administration of the public business of the country is committed, could not be matter for general discussion and publication." In the same case Lord Justice Mellish says: "I do not mean to say that the matter was not of such public interest as that comments would not be privileged if the facts had been ascertained." And Lord Justice Bramwell says: "If this had been a discussion on the plaintiff's conduct, the facts not being in controversy, the matter was a subject of such general public interest as would have given a right to comment upon it, and fair and *bonâ-fide* comments would have been justified." This case, to my mind, goes far to show that proceedings such as these, where the facts are ascertained and finally adjudicated upon, are privileged. "Cox *v.* Feeney" (4 F. and F., 13), decided in 1863, was a *nisi prius* decision, and Chief Justice Cockburn spoke with approval of the *dictum* of Chief Justice Tenterden—viz., that "a man has a right to publish, for the purpose of giving the public information, that which it is proper for the public to know"; and told the jury that the publication of a matter of a public nature, and of public interest, and for public information, was privileged, provided it was published with the honest desire to afford the public information, and with no sinister motive. The present case is stronger. The report is a report of proceedings which actually took place, proceedings within the jurisdiction of the Council, a report of proceedings where the facts had been ascertained, a *bonâ-fide* true report without any sinister motive, a report of a matter of a public nature, a report of proceedings in which the public are interested, and in respect to which they are entitled to information. New and important bodies were from time to time constituted by the Legislature, such, for instance, as the London County Council and other county councils throughout the country, bodies to whom the most important duties are intrusted, duties in which the community at large are interested. Is it to be said that a *bonâ-fide* honest and accurate report of the proceedings of these bodies is not privileged, because in the course of the proceedings the character or conduct of individuals is impugned? Such a result would be most mischievous; it would impede the free action of these bodies and deprive the public of information to which, in our opinion, they are entitled. If the report had simply been a report of the fact that the plaintiff's name had been erased, we cannot think it would have been contended that the report was not privileged. It is said, because the nature of the offence is stated, the privilege is lost. In our opinion the Council were fully justified in stating the cause of the erasure. If it had not been stated the plaintiff might have complained that the public were left to infer that he had been convicted of felony or misdemeanour under the earlier part of Section 29. It might have been said it was unfair to publish part of the proceedings only. Again, if they have published too much, this would not destroy the privilege; it might be evidence of express malice, but it is admitted there was no such malice. It is also said that the privilege is lost because there has been a publication to the public at large, to a class beyond those interested in the matter; but this I have disposed of, because, in our opinion, the public at large were interested in these proceedings, and their publication was information to which the public were entitled. There is an American decision—Burrows *v.* Bell (2 Gray's Massachusetts Reports) very similar to the present case, where it was held that the publication by a member of the Massachusetts Medical Society of a true account of the proceedings of that Society in the expulsion of another member for a cause within its jurisdiction was privileged. The decision is instructive, and is entirely in accordance with the views we have expressed. In "Whiteley *v.* Adams" (18 C.B., N.S., 398), Chief Justice Erle said: "Judges who have had from time to time to deal with questions as to whether the occasion justified the speaking or the writing of defamatory matter have all felt great difficulty in defining what kind of social or moral difficulty, or what amount of interest, will afford a justification, but all are clear that it is a question for the Judge to decide." This action is, in truth, an attempt to have the decision of the Council reviewed by another tribunal. We express no opinion on that decision. It cannot be reviewed directly, and this attempt to review it indirectly cannot succeed. We have come to the conclusion that the publication of these proceedings, being true, accurate, and *bonâ fide*, are privileged, and that the learned Judge was right in holding that there was no question which he ought to leave to the jury, and in giving judgment for the defendants. The appeal must be dismissed with costs.—*The Times.*

THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

Pharmaceutical Products, Carpets, and Wall-papers of the English Section.—The International Congress on the Intervention of the State in Labour Contracts.

THE English Section, it must be frankly acknowledged, is barely a credit to the English nation. It is the largest section of the Exhibition, and it contains many remarkable exhibits, but its decorations are exceedingly poor. Its approaches are absolutely unimpressive; there is no effort at collective decoration. It is true that round about near the ceiling there are the names of various English towns written up, but this is done with less effect than even the names of the stations on the Metropolitan Railway. To

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appreciate the English Section a general glance round does not suffice. This would send the visitor away with a very poor impression. A careful and detailed examination alone will save the reputation of England from the cold and bare nature of the walls that surround the British Section. Of course, it may be said that there are at least half-a-dozen British sections, and this is true enough, but I am now alluding to the principal or industrial section, which is situated in the main building, just beyond the Fine Arts Gallery. Entering this section, the visitor will at once come upon a display of English ceramic arts and glass ware. Among the latter are Messrs. Rose and Dobson's new hardened glass (J. T. H. Richardson's patent). On this glass any variety of design may be engraved or etched. The exhibitor invites the visitor to dash a delicate wine-glass on the ground, and it does not break. Then he is shown a list of the principal lines of steam-ship companies which are provided with this glass, and are consequently able to brave the storm and the squall without serious loss of crockery. It would be useful if medicine bottles, test-tubes, and other glass utensils used for medical and chemical purposes could be equally hardened, and thus many a laboratory or dispensing accident prevented.

Having once passed the land of glass and pottery, there is little to arrest the eye in search of decorative arts till the stall of Messrs. Burroughs, Wellcome, and Co. is reached. This is a splendid Indian case, formerly a screen at the Indian and Colonial Exhibition, richly inlaid with ivory and beautifully carved. Some eminent French artists have declared that it is the handsomest case in the English Section—a circumstance which cannot be considered otherwise than fortunate, for the case deserves to attract attention, not only on its own merits, but especially on account of its contents. First among these is the Stanley Congo medicine chest, so shaped and made that it can easily be placed on a mule's back, can be immersed in water and exposed to the hottest climate without damage to the large assortment of medicaments that are compressed within its limited space. By the side of these are handy little leather pocket-cases holding a plentiful supply of sixteen medicaments, and weighing about half a pound. Most of these medicaments take the form of tabloids, which indeed constitute the principal speciality of this firm. In this manner Messrs. Burroughs, Wellcome, and Co. exhibit some of the newest medicaments. Among these are five-grain tabloids of sulphonal—diethylsulphondimethylmethan $(CH_3)\ 2 = C = (C_2\ H_5\ SO_2)\ 2$; and salol (salicylate of phenol) $C_{13}\ H_{10}\ O$. There is also ichthyol (sodium sulpho-ichthyolate), which is derived from an extinct and antediluvian fish found in a petrified condition in the Tyrol mountains and elsewhere. This is distilled, and a product obtained, which, when purified, becomes a sulphur compound called ichthyol, and is recommended on the ground that the sulphur is more easily dissolved and more readily assimilated. They also exhibit all the transformations of sheep's wool till it becomes lanoline. The theory is that fat from the body, or lard, contains glycerine, and by oxidation becomes rancid. Fat derived from hair, wool, or horny tissues contains cholesterine, which cannot become rancid, is also more readily absorbed, and has a greater penetrating power on the tissues of the skin, and it is therefore recommended as a suitable basis for many ointments. Further, lanoline does not saponify, so that the 10 per cent. of lanoline which the soap contains remains in the water, and a part of it may be reabsorbed by the skin, where it replaces the grease removed by the alkali of the soap, thus conferring exceptional suppleness and softness. There are many other novelties in this stand, notably Vereker's patent ammonium chloride inhaler, which will not fail to attract medical visitors.

Close at hand are various chemical exhibits, many of them illustrating the great progress achieved of recent years on the utilisation of waste products. For instance, Messrs. Chance Brothers (Alkali Works, near Birmingham) show some beautiful flower of sulphur recovered from the vilest-looking vat waste of the Le Blanc alkali process; and the Eglinton Chemical Company, of Glasgow, have some silicate bricks made from waste which won them a silver medal at the Edinburgh Exhibition. This firm is notoriously celebrated for its bichromates, and they look almost like jewels glittering in their case. Messrs. Brunner, Mond, and Co., of Cheshire, have some muriate of ammonia which they convert into sesqui-carbonates and then into pure bicarbonates, and this is all obtained from the waste of gas manufacture. So also the Clayton Aniline Company are able to recover from the waste in the manufacture of aniline oils, used for dyes &c., nitric, sulphuric, and carbolic acids, and the result of this process is exhibited in this part of the English Section.

Crossing the avenue or isle, other exhibitions will be found, and among them are included Broad's patent night-lights. This is a somewhat different subject, particularly as the excellence of these night-lights does not depend on any chemical improvement in the process of manufacture. A better light is given, because the wick is plaited instead of twisted; then it is fixed to a little piece of tin, so that it stands upright even when the surrounding wax is all melted. Other night-lights have a plaster basis, which advantageously replaces the saucer, and thus avoids some trouble and some of the risk of fire. Finally these night-lights are exceptionally cheap. As useful adjuncts to the sick room any improvement in respect to night-lights is welcome.

Against the western wall hard by is a display of floor-cloths, &c., which are of importance from a sanitary point of view. The Corticine Floor Covering Company have a very big show of their floorcloth and cork carpet. The multiplicity of patterns they exhibit prove that it is easy to have a floor covering that is impermeable, that can be washed at any time, that does not absorb dust, and yet that is rich in colour and in design. Close by, Messrs. Treloar and Sons have their cocoa-nut matting, which is so useful to keep houses clean, and possesses the further merit of being cheap. The Mitcham Linoleum and Floorcloth Company give away very pretty carpet designs, reduced in size, which are pleasing mementoes. This is another example of what can be used in apartments instead of the dust and germ-absorbing carpet. Here also Messrs. Woollams and Co. show their highly artistic paper-hangings in a very effective way. They have built up the side of a room, with pictures and prints hanging from the wall and a little furniture underneath. Thus the effect of their wall-paper is fully realised. It is not a sample, but a practical and complete illustration, of its application. The wall-papers of the eastern vestibule, near the Porte Rapp, are manufactured by this firm, and this is an illustration of their fabrics given on a gigantic scale. In every case the paper is guaranteed free from arsenic. There are, finally, some beautiful samples of imitation embossed leather that will delight amateurs. Messrs. Jeffrey and Co. have also all classes of artistic wall-paper free from arsenic, and make a vast show, giving an entire wall with wainscoting effects. Some of the designs are by Walter Crane and other eminent artists, and this firm has contributed to the decorations of the central entrance, the vestibule, and the offices of the English Exhibition Committee. Fisher's patent wall-hangings offer a special advantage; though cheap, they can be washed. The paper on canvas is entirely grounded and printed in oils; it can therefore be scrubbed with soap and water. This undoubtedly is a great advantage, and will contribute very largely to the cleanliness and healthiness of the sick-room, the nursery—in fact, every sort of habitation.

The Congress on the Housing of the Poor was followed by another Congress on a somewhat kindred subject—namely, the Intervention of the State in Labour Contracts, by such Legislation as, for instance, Factory Acts. M. Donnat, member of the Paris Municipal Council, where he represents, as M. Yves Guyot does in the National Assembly, the extreme individualist doctrines, was President of this Congress. In the main, the Congress was organised and attended by those who are opposed to State interference in social and economical matters, and the working-class element was only remarkable by its absence. Delegates attended this Congress from Spain, Italy, Denmark, Brazil, Canada, Austria, Russia, San Salvador, and Chili. The proceedings were opened by M. Neubourg, barrister at the Paris Court of Appeal, who gave a summary of the arguments both for and against the intervention of the State in regulating the work of children in factories &c. He pointed out that the movement in favour of State interventions was undeniably gaining strength every day, a fact which he traced to the unequal distribution of wealth. The Roman law had always favoured the parent; the Germanic laws favoured the child. Thus the Belgians, acting more under the influence of Roman civilisation, were the last to admit that the State should protect the child against its parents; while the English, on the contrary, gave an example in this

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direction so far back as the year 1802. The first French law bore the date of 1841, the next 1874, and there is a new project before the National Assembly. Intervention is based on the interests of the entire community. The proportion of men capable of rendering military service is constantly decreasing in industrial districts. The first law passed on this subject in Prussia was based on the report of a military officer. The elder Pitt had said, "Take the men from the factories, make soldiers of them, and put the children there instead." But the result was so destructive of the stamina of the population that soon the cry was raised of "Save the children." M. Roneaud protested against so much legislation, as tending to destroy freedom. M. Notter pointed out that orphan girls became the heads of families, and it would be disastrous to interfere with their work. M. Villier, the well-known and able correspondent of the *Temps*, insisted that the workmen themselves objected to such legislative interference as tended, by reducing the hours of labour, to reduce their slender earnings. The reports of State inspectors went to show that children in, for instance, the sardine-preserving ports strayed, uncared for, in the streets during the busy season, and that it would be much better for them if they were allowed to work. The same might be said in agricultural districts during the jam-making season. M. Levaud argued that conditions varied so much in different districts that the local authority should have the power to settle to what extent children might work. M. Chépié, deputy for the Rhone district, objected that this would mean the mayor, and the mayor was too much under local influences to be able to act impartially in such matters. M. Villier also remarked that local commissions did not work. They were often composed of rival manufacturers, who from motives of delicacy refrained from visiting each other's manufactories. Mr. Adolphe Smith, taking up the debate from a somewhat English point of view, protested against the assertion that children should be made to work early. This was opposed to all medical evidence, and recommended those who had any doubts to read the official evidence collected before the passing of the English Ten Hours Bill. As one of THE LANCET Sanitary Commissioners, he had recently visited the unfortunate women and female children who worked at chain and nail making in the Cradley Heath district, with the result that he had found normal childbirth the exception, and false presentation the rule. He suggested that the members of the Congress should make themselves acquainted with the heartrending revelations made before the House of Lords' Commission on Sweating. These disclosures had given rise to a feeling not merely in favour of interfering with the work of children in factories, but with their work in those domestic workshops where entire families ate, slept, and toiled in one small overcrowded room. The evidence published in THE LANCET, and given before the law courts and elsewhere, distinctly proved that this has been the cause of spreading infectious fevers, and therefore the demand had arisen that every workshop, even if it was a workman's bedroom used as a workshop, should be registered and inspected in the same manner as a factory. Mr. Smith, however, strongly endorsed M. Chépié's opinion that the local authority was not competent to accomplish such a task. In England it too often happened that members of the local authority were the principal transgressors against the laws devised for the purpose of protecting public health. Dealing with the question in a general sense, it would be found that regulations limiting the hours of labour and rendering workshops more healthy gave rise to one great objection: they increased the cost of the output, and, in face of foreign competition, this was a grave obstacle. But competition should be based on the excellence of the work done, and not on overworking women and children, and thus destroying the health of entire populations. Therefore, as this was an International Congress, he concluded by expressing the hope that the Congress would use all its influence to assimilate the laws of the various States of Europe. In this manner the argument of foreign competition would no longer have any force. After a few more observations from M. Villier, the President brought the discussion to an end by declaring that the Congress evidently agreed that the Legislature should interfere with the work of children so as to protect their health. How far this was to be done by the municipalities or by the Central Government was a question on which the Congress was more divided in its opinion.

Paris, July 9th

MALCOLM MORRIS INDEMNITY FUND.

THE following additional subscriptions to the above fund have been received:—

	£	s.	d.
Amount previously acknowledged	123	6	6
Dr. Pavy	5	5	0
Sir Morell Mackenzie..	5	5	0
Dr. Hughlings Jackson	5	5	0
William Adams, Esq...	5	5	0
Dr. Donald Hood.. ..	5	5	0
Dr. Montagu Handfield-Jones	5	5	0
Sympathising Patient	5	5	0
Sir Joseph Lister	5	0	0
Dr. Matthews Duncan	3	3	0
Sir J. Crichton Browne	2	2	0
Dr. Graily Hewitt ..	2	2	0
Dr. Lees	2	2	0
A. T. Norton, Esq. ..	2	2	0
H. T. Butlin	2	2	0
H. W. P.	2	2	0
Dr. Frank (Cannes) ..	2	2	0
W. A. Meredith, Esq...	2	2	0
Dr. Glover	2	2	0
Dr. G. May (Reading)..	2	2	0
G. W. H. Bailey, Esq.	2	2	0
Dr. McCall Anderson (Glasgow)	2	2	0
William Rose, Esq. ..	2	2	0
Dr. Fitzpatrick	2	2	0
Dr. MacLaren	2	2	0
Dr. Scanes Spicer.. ..	2	2	0
F. M. Mackenzie, Esq.	2	2	0
Dr. Walter Pearce ..	2	2	0
Dr. Holman (Reigate)	1	1	0
F. J. Gant, Esq.	1	1	0
Dr. Alderson	1	1	0
N. Davies-Colley, Esq.	1	1	0
Rev. E. and Mrs. Montagu	1	1	0
Edmund Owen, Esq. ..	1	1	0
C. A. Ballance, Esq. ..	1	1	0
Dr. T. Barlow	1	1	0
Dr. Ross (Manchester)	1	1	0
Dr. Sidney Coupland ..	1	1	0
Dr. J. M. Bright (Forest-hill)	1	1	0
J. Scott Battams, Esq.	1	1	0
Dr. Seymour Taylor ..	1	1	0
Dr. Cholmeley	1	1	0
Dr. Keyser	1	1	0
Dr. Cleveland	1	1	0
Rickman J. Godlee, Esq.	1	1	0
Dr. Hadden	1	1	0
Alban Doran, Esq. ..	1	1	0
J. Pugin Thornton, Esq.	1	1	0
Dr. Thin	1	1	0
Dr. Finlay	1	1	0
Shirley Murphy, Esq...	1	1	0
Henry Sewill, Esq. ..	1	1	0
Dr. A. P. Luff	1	1	0
Dr. Sutherland	1	1	0
Dr. Brace..	1	1	0
Dr. G. M. Mead (Newmarket)..	1	1	0
Dr. David Little (Manchester)	1	1	0
Dr. Oliver (Harrogate)	1	1	0
Dr. Roberts Portmadoc)	1	1	0
Dr. Barr Meadows ..	1	1	0
J. J. Gawith, Esq. ..	1	1	0
Dr. Major (Bradford) ..	1	1	0
W. Anderson, Esq. ..	1	1	0
G. Borlase Hicks, Esq.	1	1	0
Dr. Payne	1	1	0
Dr. J. Elliot Square (Plymouth)..	1	1	0
H. Cripps Lawrence, Esq.	1	1	0
Dr. Savage	1	1	0
Dr. George Mackesy (Waterford)	1	0	0
Dr. William Mackesy (Waterford)	1	0	0
A. W. H. Walker, Esq. (Harrogate)	0	10	6
Herbert Sieveking, Esq.	0	10	6

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Middlesex and Herts Combined Districts.—Although the report for 1888 on this combination of sanitary districts is the fifteenth that has been issued, it is the first since Mr. W. Thompson has succeeded to the post of medical officer of health. Taking the districts as a whole, the death-rate for the year was 14·9 per 1000, which is an unusually low rate, and it is in part assigned to the exceptional meteorological conditions which prevailed, and which prevented the rise of diarrhœal affections, whilst, by abundance of rain, surface impurities were washed away. But at the same time Mr. Thompson is able to congratulate the sanitary authorities on progressive sanitary administration. There remain, however, matters as to which further progress is needed, and the questions of securing a greater dryness of the subsoil by artificial means of drainage, the provision of adequate means for the isolation of infectious diseases in several of the constituent districts, and the need for prompt action to prevent the diffusion of infection through the agency of schools are specially adverted to. Stress is also laid on the need for the general adoption of regulations as to the construction and management of cowsheds and dairies. Following on the general report are special ones dealing with the vital statistics, the sanitary state, and the needs of each of the component sanitary areas. Thus the need for water-cisterns not liable to contamination at East Barnet, for closing polluted wells at Bourne End in the Berkhampsted Union, for proper means of sewage disposal at Hemel Hempsted, for proper means of drainage at Woodridings near Pinner, and such like matters, are especially adverted to.

Lowestoft Urban District.—Dr. W. A. S. Wynne only assumed charge of this district in September last, but he has, notwithstanding, prepared a report of considerable value, in which he discusses a number of points bearing upon the sanitary state of the borough, including an account of the geology and meteorology of the district. The vital

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statistics are also studied for a series of years. During 1888 the annual rate of mortality from all causes was 15·7 per 1000, and that from zymotic diseases 1·26. Some enteric fever in Roman Hill was carefully investigated, and precautionary measures, including removal to the sanatorium, were urged. Milk came under suspicion as a cause of the disease, but no proof of this could, under the somewhat complicated circumstances, be established. We are glad to learn that some important improvements relating to the ventilation and repair of the system of drainage are in contemplation.

Friern Barnet Urban District.—General improvement in the sanitary circumstances of this district has marked the year 1888; but a constant service of water is much needed. Indeed, some offensiveness of sewer ventilators is, in all probability, associated with a lack of water, quite apart from other needs; and the limited supply especially tells in faulty flushing of house drains. To confine the water-supply to half an hour or one hour a day is rightly termed by Mr. Hugh Stott a barbarous system in these modern days. The death-rate for 1888 was only 10·2 per 1000, and the district has been fortunately free from enteric fever and diphtheria; the zymotic rate of 1·5 per 1000 being largely due to some prevalence of whooping-cough.

Hexham Rural District.—Dr. Maclagan's report opens with a somewhat lengthened statement of complaint against the corporation of Newcastle-on-Tyne for the manner in which their town refuse is disposed of in this rural district, but it was found that the remedy must, in the main, lie with the owner of the land on which the nuisance arises. Regulations as to cowsheds and dairies have been made. In compiling these, the Local Government Board urged that, instead of 400 cubic feet per cow, the amount should be 800. The Hexham authority, whilst feeling they could not enforce this, agreed to 600 cubic feet, and they have given notice that where this is not available more space must be provided or else the number of cows must be reduced. Registration of cowkeepers is also in progress. Details are given as to the current sanitary administration, as to infectious diseases and the precautions adopted against them, and the vital statistics are discussed in some detail. Allowing for increase of population, the death-rate for last year is set down as 14·7 per 1000 living. Once again Dr. Maclagan refers to the unnecessary and painful excess of mortality under one year of age, and he urges that a Royal Commission should be appointed to discuss the subject.

Bedford Rural District.—Dr. Prior analyses the death returns for a period of years, and is able to record a low death-rate of 14·89 per 1000 for 1888. Diphtheria was very limited in its operations during the year, no cases being heard of in some thirty-six villages, and there are grounds for believing that the disease was absent from these places even in its latent form. The eight deaths and the corresponding cases that did occur are discussed; and it is pointed out how some of these took place in peculiarly healthy localities. An outbreak of enteric fever at Carlton is also referred to, but its causation remains somewhat obscure. Whilst general sanitary work has been in progress, nothing has been done to provide more suitable hospital accommodation; and we note incidentally that, whilst removal to the existing building was earnestly advocated in some cases of diphtheria, it was altogether refused by the parents of the sick. Nothing short of a suitable and reasonably attractive building will secure early, and hence effectual, isolation.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5576 births and 3249 deaths were registered during the week ending July 6th. The annual rate of mortality in these towns, which had been 16·6, 16·7, and 17·3 per 1000 in the preceding three weeks, further rose last week to 17·7. During the thirteen weeks of last quarter the death-rate in these towns averaged 18·2 per 1000, and was 2·1 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 11·2 in Nottingham, 11·6 in Brighton, 12·1 in Oldham, and 13·8 in Derby. The rates in the other towns ranged upwards to 25·3 in Manchester, 26·9 in Leeds, 29·0 in Preston, and 29·2 in Newcastle-upon-Tyne. The deaths referred to the principal zymotic diseases in these towns, which had been 400 and 476 in the previous two weeks, further rose last week to 700; they included 377 from diarrhœa, 97 from measles, 81 from whooping-cough, 58 from diphtheria, 55 from scarlet fever, 32 from "fever" (principally enteric), and not one from small-pox. These zymotic diseases caused the lowest death-rates last week in Blackburn, Wolverhampton, and Halifax, and the highest rates in Leeds, Salford, and Preston. The greatest mortality from diarrhœa occurred in Birkenhead, Salford, Leeds, Preston, and Leicester; from measles in Wolverhampton, Hull, Manchester, Bolton, Halifax, and Preston; from whooping-cough in Cardiff, Oldham, and Newcastle-upon-Tyne; and from scarlet fever in Salford and Plymouth. The death-rate from "fever" showed no noticeable excess in any of these large towns. The 58 deaths from diphtheria showed a marked excess upon the numbers in recent weeks, and included 38 in London, 4 in Manchester, 3 in Salford, 3 in Birmingham, 2 in Bristol, 2 in Bradford, and 2 in Newcastle-upon-Tyne. Small-pox caused no death in any of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and London Fever Hospitals at the end of last week was 576, against 559 and 569 on the preceding two Saturdays; 73 cases were admitted to these hospitals during the week, against 33, 44, and 64 in the three previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 171 and 169 in the preceding two weeks, further declined last week to 143, and were 65 below the corrected average. The causes of 78, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Oldham, Leicester, Sunderland, Portsmouth, and in seven other smaller towns. The largest proportions of uncertified deaths were registered in Hull, Sheffield, and Brighton.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 20·5, 19·4, and 18·4 per 1000 in the preceding three weeks, rose again to 21·3 in the week ending July 6th; this rate exceeded by 3·6 the mean rate during the same week in the twenty-eight large English towns. The rates in these Scotch towns ranged last week from 15·8 and 16·3 in Perth and Leith, to 22·6 in Greenock and 25·7 in Glasgow. The 545 deaths in the eight towns showed an increase of 74 upon the number in the previous week, and included 26 which were referred to measles, 24 to whooping-cough, 22 to diarrhœa, 6 to diphtheria, 2 to scarlet fever, 1 to "fever," and not one to small-pox; in all, 81 deaths resulted from these principal zymotic diseases, against 95, 83, and 79 in the preceding three weeks. These 81 deaths were equal to an annual rate of 3·2 per 1000, which was 0·6 below the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of measles, which had been 26, 21, and 24 in the preceding three weeks, rose again last week to 26, of which 13 occurred in Glasgow, 9 in Aberdeen, and 4 in Leith. The 24 deaths from whooping-cough corresponded with the number in the previous week, and included 18 in Glasgow. The deaths attributed to diarrhœa, which were 18 and 17 in the preceding two weeks, rose last week to 22, and exceeded the number in the corresponding week of last year by 12. Four of the 6 fatal cases of diphtheria were returned in Edinburgh. The deaths from the principal diseases of the respiratory organs, which had declined in the preceding four weeks from 93 to 71, rose again last week to 80, and were 3 below the number in the corresponding week of last year. The causes of 52, or nearly 10 per cent., of the deaths registered during the week in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 18·6 and 23·2 per 1000 in the preceding two weeks, declined again to 22·8 in the week ending July 6th. During the thirteen weeks of last quarter the death-rate in the city averaged 23·6 per 1000, the mean rate during the same period being 16·0 in London and 16·6 in Edinburgh. The 154 deaths in Dublin showed a decline of 3 from the number in the

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previous week; they included 3 which were referred to diarrhœa, 2 to "fever," 2 to measles, 1 to scarlet fever, and not one either to small-pox, diphtheria, or whooping-cough. Thus the deaths from these principal zymotic diseases, which had been 7 and 15 in the previous two weeks, declined again last week to 8; they were equal to an annual rate of 1·2 per 1000, the rates from the same diseases being 3·3 in London and 1·8 in Edinburgh. The deaths from "fever" and from measles showed a decline from the numbers in the previous week. The deaths of infants exceeded by 6, while those of elderly persons were fewer by the same number than those returned in the preceding week. Seven inquest cases and 6 deaths from violence were registered; and 52, or more than a third, of the deaths occurred in public institutions. The causes of 12, or more than 8 per cent., of the deaths in the city were not certified.

THE SERVICES.

ARMY MEDICAL RESERVE OF OFFICERS.—Surgeon Edgar William Willett, M.B., the London Division, Volunteer Medical Staff Corps, to be Surgeon, ranking as Captain (dated July 10th, 1889).

MILITIA (Infantry). — 5th Battalion, the Connaught Rangers: The undermentioned Officer is transferred from the 8th Battalion, the Rifle Brigade (the Prince Consort's Own):—Surgeon-Major R. Bradshaw (dated July 6th, 1889).

ADMIRALTY.—The following appointment has been made: Surgeon Wm. E. Home to the *Britannia* (dated July 3rd, 1889).

VOLUNTEER CORPS.—*Artillery:* 1st Volunteer (Devonshire) Brigade, Western Division, Royal Artillery: Surgeon G. P. Barton to be Surgeon-Major, ranking as Major (dated July 6th, 1889).—1st Ayrshire and Galloway: Acting Surgeon W. Moore, M.B., resigns his appointment (dated July 6th, 1889).—22nd Middlesex (Central London Rangers): Acting Surgeon C. W. Macdowell, M.D., to be Surgeon (dated July 6th, 1889).—1st Dumbartonshire: Acting Surgeon W. Drysdale resigns his appointment (dated July 6th, 1889).—1st Tower Hamlets (the Tower Hamlets Rifle Volunteer Brigade): Surgeon J. W. Jackson resigns his commission (dated July 6th, 1889).

VOLUNTEER AMBULANCE DRILL.

The 2nd Volunteer Battalion of the Yorks Regiment has attached to it a bearer company composed of Volunteers who have made themselves efficient in the ranks, and who are permitted by the colonel commanding to devote themselves in camp to their ambulance drill and duty, though wearing the ordinary scarlet uniform of the fighting men. They have in almost every case obtained after examination the War Office certificate of proficiency in first aid to wounded. This somewhat unique regimental bearer company is commanded by Surgeon-Major (ranking as Lieutenant-Colonel) J. W. Taylor of Scarborough. On Thursday week the bearer company attached to the regiment was inspected on behalf of the Principal Medical Officer of the Northern District by Surgeon Sullivan, M.S. In addition to Surgeon-Major Taylor in command, the other medical officers present were Surgeon Bruce Low and Acting Surgeons Colby and Porter. At the close of the inspection, which occupied several hours, Surgeon Sullivan complimented Dr. Taylor on the men under his command and their efficiency, which reflected great credit on the training the men had received. He would report very favourably to the Principal Medical Officer regarding the company. On the following day the two battalions were officially inspected by Colonel Davidson (commanding the 19th Regimental District), who, at the close of the inspection, requested Dr. Taylor to put his men through the stretcher drill. While addressing the regiment at the close of the day's work, Colonel Davidson paid a high compliment to the ambulance, and referred in kind and congratulatory terms to its commander.

THE LEVEE.—The name of Mr. E. Kenneth Campbell, F.R.C.S. Eng., &c., should have been included in the list we published last week of the members of the medical profession presented at the Levée on June 29th.

Correspondence.

"Audi alteram partem."

VARICOCELE WITH PENDULOUS TESTIS.

To the Editors of THE LANCET.

SIRS,—Much stress has lately been laid upon the propriety of shortening the cord in the operation for varicocele with pendulous testis. For this purpose some of the veins and the surrounding tissue are removed. This operation is no doubt a great improvement upon any of those formerly in use, which had for their object simply the obliteration of the veins. But it is not new. At pp. 100–1 of the first volume of my "Practical Pathology," published in the year 1870, the following description is given:—

"The late Mr. Briggs occasionally removed a considerable portion of the skin of the scrotum in cases of pendulous testis, and the cicatrix left maintained the testicle in something like its natural position. This operation succeeded well enough when the case was not attended with enlargement of the veins; but when it was, the removal of the skin could have little or no effect upon the varicocele. At the time to which I refer, no one thought of cutting deeper than the skin, as no means were then in use which would effectually control hæmorrhage from the spermatic veins in case they were wounded. Mr. Briggs' operation, then, was well adapted for a case of pendulous testicle where the veins were not enlarged, but not for a case accompanied by varicocele. A case presented itself some years ago in which the testis hung so low that when the patient lay upon his back it would hang over on the outer side of the left thigh. There was in this instance a well-marked varicocele. Knowing that I had the means by acupressure of controlling the dilated veins, it appeared practicable to combine Mr. Briggs' operation with that for obliteration of the veins. Accordingly, the needles were introduced as far apart as possible, and, after the veins were secured by the '8' ligature passed over the ends of the needles, the intermediate portion of skin, together with subjacent tissues, containing the enlarged veins, was removed, leaving a very considerable gap. No hæmorrhage occurred. The needles were then drawn towards each other, and by this means the edges of the wound were brought together and maintained in position. This was the first case in which this operation was performed. The wound readily healed, and the testis was subsequently retained very nearly in its natural position."

The following is the modification of this operation which I now recommend. After some of the enlarged veins and surrounding tissues have been removed, the open mouths of the remaining divided veins are seared with the black hot cautery. The needles are then withdrawn, and the wound sewn up by deep carbolised catgut sutures from end to end. A piece of lint, saturated with as much blood as can be collected, is placed over the wound, which generally heals almost entirely by first intention. The carbolised sutures are partially dissolved in the course of three or four days, and may come away with the lint when it is removed.

I am, Sirs, your obedient servant,

Savile-row, July 8th. HENRY LEE.

THE FATAL AFFRAY AT LIVERPOOL.

To the Editors of THE LANCET.

SIRS,—A fortnight's confinement to my room with illness prevented me from immediately replying to Mr. Harrisson's letter. This my telegram would explain to you. I had hoped that he would have consigned to the past and try to forget this unfortunate case; but it is not so, and I am compelled to notice some points in his letter, though I would gladly have been saved the trouble.

Mr. Harrisson is incorrect in saying that a consultation was forbidden by the urgency of the case. At 11.30 A.M. he arranged with the brother of the deceased to operate, and when I interviewed him at 12.40 he told me that he would not operate until "after lunch at 1 P.M.—say, 1.30." Two hours, with the staff on the telephone, give ample time for taking opinion. Mr. Harrisson expresses regret that I was not summoned to the examination in time, but he forgets that it was by his express orders that I was refused, after an engagement had been made that I should

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be present. The house surgeon, while courteously performing a disagreeable duty, excused himself by saying that Mr. Harrisson had instructed him to so act, and it was on my advice that he referred to his principal for further instructions. Mr. Harrisson's written reply was not that of one who felt "delight" at the prospect of my being present—rather the opposite.

With regard to my being a "hostile witness." Had I chosen to be this, I had only to communicate with the defence, but with kindly consideration for Mr. Harrisson, and with a sincere desire of avoiding the unpleasant publicity that would ensue, I kept the matter so closely that it was only on the day before the trial that the friends of the deceased and the prisoner's solicitor first heard of the accident, so that, to say the least, Mr. Harrisson is not as grateful to me as I would expect. If Mr. Harrisson felt so certain of the prisoner's responsibility, why did he hesitate to disclose the fact of the mishap at the inquest, or at the police-court, or to the prosecuting solicitor? Supposing I had not been present at the operation? We all know the law of the question as it affects the accused person; but the surgeons concerned in the case are not justified in constituting themselves judge and jury regarding it. Nor did the judge silence me. But when he found that I did not directly charge Mr. Harrisson with unskilfulness, he told the defence that he would rule in accordance with what we know to be the law, and he did so, but the jury turned a deaf ear to his charge, and gave the only verdict that justice and humanity dictated. It was not my seeking that I had to appear in the case in court, and I would gladly have kept out of it, as I tried, but it was by the express command of the judge, who had all the facts laid privately before him. Mr. Harrisson says that he "stated clearly before the court that the lateral sinus was opened." He said that "a vein was wounded." Dr. Barron, to whose courteous impartiality I gladly bear witness, stated that septic meningitis was the cause of death, but when I asked him was he prepared to say that the condition of things found by him *could not have arisen in the twenty-three hours that intervened between the operation and the death*, he frankly acknowledged that he could not say this, though he thought it improbable. Inasmuch, therefore, as this doubtful point was not made clear, neither Mr. Harrisson nor anyone else is justified in saying that the man must have died; and I may be permittted to have my own ideas regarding the fatality of such an operation as that I witnessed. Mr. Harrisson is ungenerous when he speaks of the "healthy brain." At the post-mortem examination I recognised, as did the others, the existence of meningitis, and I remarked that otherwise the brain, as well as the rest of the organs, was that of a healthy man. Mr. Harrisson does not understand "my peculiar mental attitude," nor should I expect him to do so. He spent an hour in my consulting-room after the operation with the object of getting me to take his view of the accident; but I did not find sufficient to convert me in his argument that the man *must* have died in any case. If it strikes him that I must, indeed, be a peculiar person to insist on giving fair play to the prisoner, what must I think of Mr. Harrisson's "mental attitude" in opposing me in this act of justice?

I am, Sirs, yours truly,

Liverpool, June, 1889. JOHN S. CLARKE.

*** The publication of this letter has been unavoidably delayed.—ED. L.

CONCURRENCE OF MEASLES AND CHICKEN-POX IN THE SAME SUBJECT.

To the Editors of THE LANCET.

SIRS,—Seeing in the last number of THE LANCET an annotation under the above heading, I send you a brief account of a similar case in my own practice of recent date.

On March 23rd I was sent for to a private school for boys; an epidemic of chicken-pox of a mild type had broken out, so mild that some of the cases had escaped notice. On the evening of March 25th I was asked to see J. D——, a lad of eleven years of age, who had one well-marked vesicle on the face and another on the back. His temperature was 104° F.; his face much flushed; his tonsils enlarged and red; tongue furred; velum palati reddened; no other catarrhal symptoms. On my visit the following morning, his face and chest were covered with small rounded erythematous patches, which afterwards spread to the rest of the body, and the usual catarrhal symptoms of an ordinary but heavy attack of measles were present; the temperature was two degrees less than the night before. The measles followed the usual course, and on the fourth day, the rash still being well out, the face and chest became scattered over with vesicles of chicken-pox, a few appearing on the limbs also. The eruption of the measles disappeared on the sixth day, but the chicken-pox vesicles did not desiccate until ten days later. This was the only case of measles in the school at the time, but there was an epidemic of it in the neighbourhood. When the lads recovered from the chicken-pox they went home for the Easter holiday, apparently in good health, but most of them were subsequently attacked with measles.

I am, Sirs, yours faithfully,

Great Malvern, July 9th, 1889. F. W. JOSHUA.

SIRS,—In THE LANCET of July 6th a case of concurrent chicken-pox and measles is brought under notice, and the rarity of the coexistence of these two diseases commented on. A short notice of a case that came under my observation may therefore be of interest, one which occurred during the prevalence of a severe and extensive epidemic of measles in the autumn of 1884.

The patient was a girl aged eight, whom I first saw on Nov. 8th. She was then suffering from catarrh, and on her body were a few well-marked chicken-pox vesicles, along with some papules. Her temperature was normal. I was told that the catarrh had begun on the 3rd, and that the spots had been first noticed on the day before my visit. On the 9th a scanty but thoroughly characteristic eruption of measles had appeared, and the chicken-pox vesicles had increased in number. The temperature was 101°. On the 10th the eruption of measles seemed to be getting faint, and a number of the chicken-pox vesicles were drying. The temperature was normal. By the 12th the measly eruption had disappeared, and the remainder of the vesicles were drying up. The child made a good recovery. One or two other members of the family suffered from measles, but this was the only case of chicken-pox in the house.

I am, Sirs, yours truly,

ANDREW DUNLOP, M.D.,
Consulting Physician to the Jersey General Dispensary and Female Orphans' Home.

July, 1889.

ELECTION OF COUNCIL AT THE ROYAL COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—I most cordially thank all those gentlemen who have recorded their votes in my favour, and all those also—many of them previously unknown to me—who have written me very kind and encouraging letters. I venture to hope that a large number of Fellows who have on this occasion voted for particular candidates will, if I am spared to come forward next year, favour me with their support, and that a much larger proportion will avail themselves of the new power of voting by proxy papers.

I am Sirs, yours truly,

Clifton, July 6th, 1889. CHARLES STEELE.

SHORTHAND FOR MEDICAL STUDENTS.

To the Editors of THE LANCET.

SIRS,—The Shorthand Examination Committee, after careful consideration, have decided that the examination shall be limited to Pitman's phonography. They are convinced that the original intention—to examine candidates also in other systems—would be to sacrifice the real interests of the profession, for which uniformity of system is of the utmost importance, and that its chief result would be to cause a small percentage of the students who acquire shorthand to find themselves out of harmony with the rest. Probably some of these would endeavour to learn the system of the majority in time that should be devoted to their proper studies. The committee is satisfied that Pitman's phonography is the only system by which uniformity can be now secured, and that it is perfectly adequate for all the desired purposes. To prevent misconception, they would state that they consider it most undesirable that students should be encouraged to learn shorthand during the medical session, when their time should be fully occupied with special work. To avoid

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the risk of special practice during the beginning of the session, they propose to hold the examination in the first week of October. The date will be announced in the "Students' number" of each medical journal, and also, it is hoped, on the synopsis of the examination, which will be ready on July 15th, and can then be obtained either at Lewis's library or by post from the Hon. Secretary, 16, Queen Anne-street.

The committee will be glad to receive donations (which may be sent to Dr. Gowers, Hon. Treasurer) towards the expenses of the examination from all who approve it. (The approval of only a few was obtained in the first instance, almost without selection, in order to establish the proposal.) It is desired now to obtain enough to meet the expenses for two or three years, and also to obtain the financial support from as wide an extent as possible. While larger donations will, of course, be gladly received, those of five or ten shillings will also be welcomed. The following have been already received or promised, and the committee would beg to express their appreciation of the effective value of the support accorded to the proposal by those whose names head the list.

Shorthand Examination Fund.

Sir Wm. Jenner, G.C.B.	£5	5	0	Howard Marsh, Esq.	£1	1	0
Sir Joseph Lister	3	3	0	Dr. Hughlings Jackson	1	1	0
Sir Henry Acland	1	1	0	Dr. Gray, Oxford	1	1	0
Sir William Roberts	1	1	0	Dr. Gowers	1	1	0
Sir Dyce Duckworth	1	1	0	Dr. Howard Tooth	1	1	0
Dr. Wilks	1	1	0	Dr. Coupland	1	1	0
Dr. Quain	2	2	0				

Subscriptions have also been received from Dr. Pye-Smith, Dr. Mitchell Bruce, and Dr. Fergusson, Cheltenham.

I am, Sirs, yours faithfully,

July 8th, 1889. SIDNEY COUPLAND, Hon. Sec.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Gateshead and Newcastle.

THE Newcastle City Council agreed the other day to increase the salary of the medical officer of health, Mr. H. E. Armstrong, from £550 to £650 per annum. This increase has been well deserved, but rather tardy in coming. The duties of the office have much increased of late years, and have been performed by Mr. H. E. Armstrong with marked assiduity and faithfulness. The medical officer of health for Gateshead, Dr. W. Robinson, has presented his report on the health of the borough for the past year, and his painstaking and practical statements present many points of sanitary interest. He states that the population of Gateshead, according to the estimate of the Registrar-General, up to June, 1888, was 81,363. The zymotic death-rate was 1·6 per 1000, while the general death-rate has been 17·0 per 1000 per annum. There has been in Gateshead a steady reduction in the general death-rate, in the zymotic death-rate, and also in infant mortality. Dr. Robinson is strongly of opinion that a medical attendant should be paid by each school to visit and certify as to the nature of the illness in the case of absent children not attended by a medical practitioner, and he favours the proposed law as to compulsory notification by the householder as well as by the medical attendant. Dr. Robinson further shows that otherwise the sanitary authority will have no means of knowing of the existence of infectious and dangerous diseases, which it may be the householder's object and interest to conceal.

Hospital Sunday in the North.

The trades friendly societies of Middlesbrough had their annual demonstration last Sunday. After the procession a public meeting was held, and Dr. Ellerton presided. The collection at the meeting, and at the procession *en route*, amounted to £74. The West Hartlepool societies had also a very successful demonstration, which resulted in a collection of £75. But the value of these meetings is not to be estimated by the amount collected on the spot, for the increased interest in hospital work must also be taken into account.

Borough of Tynemouth Infirmary.

It is said that the new infirmary at North Shields is progressing so well that arrangements are being made for its opening on Aug. 3rd. The ceremony will be performed by Earl Percy, whose interest—in common with his family—in all charitable works in the county is well known. As only £500 is required to open the institution free from debt, it is to be hoped that this desirable object may be accomplished.

Hexham.

I regret to learn that Dr. Maclagan, of Riding Mill, met with a serious mishap on Tuesday. As he was walking through Hexham from a meeting of the sanitary authority, he slipped and fell heavily, causing a fracture of the middle of the femur. He was promptly attended, and conveyed to his house under the care of Mr. Kendal of Hexham. Dr. Maclagan was President of the Northern Branch of the British Association last year. He is a brother to the Bishop of Lichfield and also to Professor Sir Douglas Maclagan of Edinburgh. Much sympathy is expressed in the north with Dr. Maclagan in his misfortune, and I am glad to hear that he is doing well.

Newcastle-on-Tyne, July 11th.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

Edinburgh University Union.

DURING the past week the New Union Buildings have twice been thrown open, once on the occasion of the Acting Committee holding a reception, at which the Ladies' Committee for the fancy fair and the Union ball were entertained, when every one of the 300 guests seemed to be pleased with the building, and the greatest satisfaction was expressed by some with the admirable arrangements made for the accommodation of the students. The second occasion was at a meeting of the General Committee of the Union, which was held under the chairmanship of the Chancellor of the University, Lord Justice Inglis. In the report submitted, it was stated that there had been received a sum of £15,367 13*s.* 11*d.*, which was accounted for in the following manner:—Private individuals, £1693; donations from Edinburgh Town Council, £100; Senatus Academicus of the University, £500; proceeds of fancy fair, £9756 10*s.*; proceeds of concerts, theatricals, and lectures, £203; interest on deposit receipts, £638; proceeds of last University ball, £247 3*s.* 11*d.*; and the balance of £2230 in hand on March 31st, 1885. The expenditure was as follows:—Price of site, £2000; handed over to the trustees, £1000; paid to contractor, £10,580 19*s.* 6*d.*; clerk of works, £83 4*s.*; advertising, stationery, &c., £117 17*s.* 10*d.*; bank interest, £29 6*s.* 5*d.*; miscellaneous, 1*s.* 8*d.*—total, £13,811 9*s.* 5*d.*, leaving to the credit of the treasurer a sum of £1556 4*s.* 6*d.* There still remained liabilities, including £652 12*s.* 6*d.* estimated for furnishing, amounting to £1990 5*s.* 6d., which left an actual deficit of £440 1*s.* The committee recommended that the Union be opened in October, as its usefulness might be seriously impaired if it remained unopened after that date. By careful management and moderate prosperity they hoped to wipe off the debt in two or three years. Professor Masson, in proposing that the constitution of the Union as submitted be adopted, said that all those connected with the University of Edinburgh should express their joy that at last the University had been provided with something in which hitherto it had been notoriously deficient. There was no doubt that for the real purpose of student life a great deal of solitude was required. On the other hand, the student devoted to intellectual matters would be grievously lop-sided, unless he had also the opportunity of meeting and conversing with and, if necessary, fighting with his fellow-students.

The Health of Edinburgh.

Dr. Littlejohn reports that during the month of June the death-rate was 14·38 per 1000 of the estimated population, compared with an average death-rate during the month of June for the five years preceding 1889 of 17·16 per 1000. Diseases of the chest were responsible for 27·50 per cent. of the total mortality, 13·43 per cent. were due to debility or old age, and 6·87 per cent. to zymotic diseases. During the past quarter the total number of deaths had been 1011, compared with 1145 in the corresponding quarter of last year, and 1175 in the same period of 1887. During the past half-year the deaths were 2143, a smaller number than for the past six years. During the past half-year 448 patients

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have been admitted into the City Fever Hospital; 423 were discharged, and 21 died. The majority of the cases were scarlatina, whooping-cough, erysipelas, and typhoid fever, and two cases of typhus fever. The fees due to medical practitioners for reporting cases of infectious disease in Edinburgh during the past half-year amounted to £101 15*s.*, compared with £516 for the corresponding half-year of 1888. There were 814 such cases reported. It was also reported that during the month no less than 19,585lb. of diseased meat was seized or given up in Edinburgh, 6539lb. from the country and 13,046lb. from the city. During the past half-year there were 91,972lb. of diseased meat confiscated, 47,647lb. from the country, and 44,325lb. from the city. Last month a sum of £127 was paid by way of compensation, and it is suggested that in certain cases of tuberculosis some compensation may be paid.

Inter-University and United Hospitals Sports.

On Saturday afternoon I found my way down to the Powderhall running grounds to witness the University Athletic Club Sports, in which the United Hospital students were taking part. The London men fairly outpaced their northern rivals, carrying off six first prizes and dividing the honours in two events, though in no instance, curiously enough, did they gain a second place. The Edinburgh men took two first prizes, divided the honours in the two events, and came in for eight second prizes. It was exceedingly interesting to note with what perfect impartiality the spectators cheered any good performance. The London "medicals" were quite as popular as the Edinburgh students, in fact if anything their reception was even warmer than that accorded to their colleagues. Professor Annandale welcomed the London students, and congratulated them on the results of the various competitions, after which Mrs. Annandale gracefully presented the prizes, and was accorded three hearty cheers by the competitors and their friends.

The End of the Summer Session.

The work of the Summer Session is now rapidly approaching completion, and all the Examining Boards are in full swing. The University Final Examinations were brought to a termination last Saturday. The exact percentage of rejections has not yet been made known, but it appears to be fully as high as usual. Last week also the First Professional Examination of the Conjoint Board was held. The Second Professional Examinations of the same Board are now being held. This week, the University Second Professional Examinations are taking place, and it is said that the entries are more numerous than on any former occasion. These are to be followed by the First Professional Examinations.

The Queen Victoria Nurses' Institute (Scottish Branch).

The honorary treasurers (Sir Thomas Clark and Mr. A. H. Hobson) have received from the Royal College of Physicians, Edinburgh, through the treasurer (Dr. P. A. Young), a donation of 250 guineas to the Scottish Branch of the Queen Victoria Nurses' Institute.

Edinburgh, July 9th.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Lunacy in Ireland.

THE annual report of the inspectors of lunatic asylums will not be issued until next month, but I learn that it will show that during 1888 the number of certified lunatics has increased by 1697, of whom sixty-one are criminal lunatics. The inspectors draw attention to a very serious matter—viz., the refusal of medical practitioners for some years past to sign certificates in cases of insanity, in consequence of the fear of litigation. It would be a matter of considerable importance if the proposed Lunacy Bill was to become law this session, although there are few so sanguine as to believe it will be passed this year.

Pharmacy Certificates.

The Council of the Royal College of Surgeons have, it is stated, adopted a resolution in reference to pharmacy certificates for the First Professional Examination of the Conjoint Scheme of the Colleges of Physicians and Surgeons. After October the College will not accept any pharmacy certificate unless taken out at a hospital or medical school. This resolution strikes at the pharmaceutical chemists, who may be said to prepare at least three-fourths of the students taking out the certificate, and, as no complaints have been heard as to the way their pupils were prepared, it appears a hardship to cancel a regulation which worked fairly.

Steevens' Hospital, Dublin.

The governors have appointed Mr. M'Causland a visiting surgeon to the hospital, in the room of his late brother-in-law, Mr. Robert M'Donnell. Mr. M'Causland has been resident surgeon for some time, and when Mr. M'Donnell's untimely decease occurred it was generally understood that Mr. M'Causland would fill the vacancy.

The Malodorous Liffey.

For some time past the stench from this river, particularly in ihe vicinity of Grattan Bridge, has been very bad. The Public Health Committee have given an order to remove the offensive banks of mud which lie exposed at low water; but by keeping this mud constantly covered by a few feet of water, which could easily be accomplished by the erection of floodgates, the noxious effluvia to a great extent would be minimised, while the expense would be inconsiderable.

Out-door Relief in the Cork Union.

The recent investigation by the guardians has shown the existence of such irregularities in relation to the system of out-door relief to parties belonging to the Cork Union that they have requested the Local Government Board to hold a sworn inquiry into the matter. I understand that Colonel Spaight, the inspector of the district, will shortly institute an inquiry on the subject referred to.

The salary of Mr. S. B. Keers, medical officer of the Dirraw Dispensary, Ballymoney Union, has been increased by the sum of £20 per annum.

Dublin, July 9th.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

Sanitary Department.

AN economy commission reduced in 1888 all the various budgets of the Government, and diminished the sanitary service by £6841. This was chiefly done by dismissing apothecaries, and compelling the district doctors to dispense their own medicines. The so-called health officers have been increased in number from seventy-six to ninety-two, a staff strangely inadequate for a population of 6,000,000. There have been four cases of hydrophobia in four different parts of Egypt during the last twelve months, but in no case has the dog been seen by any competent authority. An Austrian, bitten by a reputed rabid dog, went to Europe to undergo the Pasteurian treatment. He died of hydrophobia six weeks after being bitten, while the other people bitten by the same dog are still alive and well, and have undergone no treatment. The scavenging of Cairo is now well done; all the streets are swept, and made roads are watered by carts every day, the lanes in the native quarters being watered by the inhabitants with goat skins. Until 1885, it was only the European quarters of Cairo which were kept clean. The inhabitants are allowed to deposit until 7 A.M. their dry refuse in the gutter, thence it is removed by sanitary carts, thus preventing all dustbin nuisance. This answers very well in a climate where the wind is never very high. The refuse is either burnt in the Turkish baths or deposited outside the town. The cesspools must now be emptied every six months; and every year, by an odourless pneumatic process, 30,000 tons of cesspool contents are taken away to the Desert, where they are converted into "poudrette," and sold to the fellaheen for cultivating their lands. Public opinion is becoming more and more discontented with the continuance of cesspools, and the Government has at last determined to summon a sanitary expert from England, to obtain from him a complete report of how the sewage question can be dealt with.

Infectious Diseases.

There were 8 deaths from small-pox registered in Cairo during the last week, and 1 in Alexandria, while the figures

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for measles were 4 and 3 respectively. Small-pox is also reported from ten districts in Lower Egypt with 9 deaths, and measles from two districts with 5 deaths. Typhus and relapsing fevers remain in six districts, with 3 deaths for the week and 31 patients remaining in the temporary hospitals. The greatest number of typhus cases occurred at the Barrage, near Cairo, where 14,000 people lived in a village which normally held only 2000, the extra residents being fellaheen and their families, who had come to work there as navvies for the Government. The possibility of an epidemic was long ago foreseen by Mr. Reid, the English engineer in charge of the works. He was given jurisdiction over one tract of the district, and succeeded in preventing a single case of typhus from occurring in his people. An equally large tract was left under the control of the native Mudir of the province, with instructions to prevent overcrowding &c. Needless to say, he did nothing, and smouldering typhus for weeks, with over 100 sick, was the result. Six cases of typhus were discovered among the prisoners in Cairo last month, and one of the native doctors in charge of fever patients is now suffering from the disease. This prison, like many others in this country, is shamefully overcrowded, but fortunately typhus in Egypt shows no disposition to spread beyond its primary *locale*.

Cairo, June 14th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

ELECTION OF PRESIDENT.

AT a quarterly meeting of the Council of the College, held on Thursday, the 11th inst., Messrs. Hulke, Heath, and Howse were introduced by the President as the new members of the Council, and, after the usual declaration, took their seats.

The minutes of the last Council were read and confirmed.

Mr. Marshall, as chairman of the Committee on the Lunacy Acts Amendment Bill, reported the proceedings of that committee, and laid before the Council a copy of the letter, dated the 24th ult., addressed to the Home Secretary on the subject of the Bill. This letter was entered on the minutes.

A letter of the 27th ult., from Mr. Arthur Milman, Registrar, was read, forwarding a copy of resolutions adopted by the Senate of the University of London on the 19th ult., relating to the appointment of a committee to consider the report of the University for London Commission. This was referred to a committee, to act jointly with the College of Physicians, and Messrs. Savory, Power, Hulke, and Sir William Mac Cormac, together with the President and Vice-Presidents, were appointed members of it.

A letter of the 9th inst., addressed to the President, from Mr. Frank Harris, Honorary Secretary to the Father Damien Memorial Fund, was read; the resolutions enclosed and adopted by the Executive of the Fund were referred to the President and Vice-Presidents to consider and report to the Council at the next meeting.

The report of the Committee on the Nomination of Professors and Lecturers was received and entered on the minutes. These are as follows:—Professors of Surgery and Pathology: William Henry Battle, John Langton, and Walter Pye. Professors of Comparative Anatomy and Physiology, &c.: William Watson Cheyne, Benjamin Thompson Lowne, and Charles Stewart. Lecturer on Anatomy and Physiology (Arris and Gale): William Hunter. Erasmus Wilson Lecturer: John Bland Sutton.

The Council proceeded to the election of President for the coming year, and Mr. Jonathan Hutchinson was elected; Messrs. Bryant and Croft being elected Vice-Presidents.

The next meeting of the Council will be held on Thursday, Aug. 1st.

THE BRITISH NURSES' ASSOCIATION.—The Lord Mayor has convened a meeting to be held at the Mansion House on the 17th inst., at 4 P.M., at which Princess Christian will be present, for the purpose of receiving information concerning the works and objects of the British Nurses' Association. Tickets of admission to the meeting can be obtained on application to the Secretary, 8, Oxford Circus Avenue, W.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board on the 4th inst. in the subjects indicated:—

Anatomy and Physiology.—A. L. Breen, W. Bubb, J. H. Rivers, and W. Selby, students of St. Bartholomew's Hospital; J. B. Cox, of St. Bartholomew's Hospital and Mr. Cooke's School of Anatomy and Physiology; Frederick W. Edwards and F. O. Grant, of St. Thomas's Hospital; T. A. Goard, E. F. Mortimer, and R. McIver Paton, of Charing-cross Hospital; A. B. Duprey, of St. Mary's Hospital; R. H. Way, of University College; J. P. Lightfoot and G. Ramsay, of King's College.

Anatomy only.—A. Fardell, P. V. Hughes, and H. B. Wilmot, of King's College; S. H. Birt, of London Hospital; T. H. E. Meggs, of Westminster Hospital; H. J. L. Wales and J. W. Eastment, of Guy's Hospital; P. W. Keylel, of St. Thomas's Hospital and Mr. Cooke's School of Anatomy and Physiology; and H. A. Kinsey, of University College and Mr. Cooke's School of Anatomy and Physiology.

Physiology only.—C. H. Chapman and J. H. Crawshaw, of University College; W. T. B. Donnelly, of Guy's Hospital; L. W. Bathurst and C. W. Grant, of St. Bartholomew's Hospital; R. D. Waghorn, of Westminster Hospital.

Passed on the 5th inst.:—

Anatomy and Physiology.—W. A. Haslam and R. L. Wason, of Guy's Hospital; W. R. Smith, H. Macnaughton Jones, and J. R. Russell, of King's College; H. E. Cooper, of St. Bartholomew's Hospital; F. S. Noble, of University College; C. C. Jeffrey, of Charing-cross Hospital.

Anatomy only.—H. E. Worthington, H. E. Sharman, E. P. H. Lulham, and M. Jenkins, of Guy's Hospital; S. H. Perry, of King's College; J. Morrison, W. R. Knightley, J. H. Griffiths, and H. T. Parker, of St. Bartholomew's Hospital; T. E. Smurthwaite and H. R. Power, of St. Mary's Hospital; H. D. Bishop, C. A. Wessels, J. S. Matthews, and W. Watkins, London Hospital; A. T. Wysard, of St. Thomas's Hospital; G. H. Procter, of University College.

Physiology only.—W. S. Langworthy and F. W. Gange, of University College; Isaac E. Owens and S. R. Nicholls, of London Hospital; E. J. T. Jones, of St. Thomas's Hospital and Mr. Cooke's School of Anatomy and Physiology; R. F. Chance, C. H. Rock, R. Fawssett, and H. L. Patch, of St. Thomas's Hospital; E. S. Hemsted, of St. Mary's Hospital; F. Lewarne, R. J. Hillier, J. B. Collins, and H. E. Simpson, of St. Bartholomew's Hospital; G. H. Longton, of King's College; G. J. Rutherford, of Middlesex Hospital; F. B. Rockstro, of Charing-cross Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the necessary examinations for the diploma, and having obtained a medical qualification, were at the quarterly meeting of the Council on the 11th inst. admitted Members of the College:

Boning, Arthur Wilson, L.S.A., Elham, Canterbury.
Le Riche, Philip John, L.S.A., University College Hospital.
Stephens, Daniel Robert Porritt, M.B.Cantab., St. Barthol. Hosp.

UNIVERSITY OF OXFORD.—At a congregation held on the 6th inst. the degrees of M.B. and B.Ch. were conferred on the following gentleman:—

Alfred Evans, M.A., of Exeter College and London Hospital.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following have been admitted Fellows of the College:—

Robert John Montgomery, John Myles, and Graves Stoker.

THE CROYDON CORONERSHIP.—Mr. Thomas Jackson, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., &c., of Thornton Heath, has been elected coroner for the county and borough of Croydon.

THE CARDIFF INFIRMARY.—The first Cinderella dance in aid of this institution was held in the Town Hall, Cardiff, on the 30th of April, and yielded the sum of £60 to the funds of the infirmary.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—The annual distribution of prizes will take place on Thursday next, the 18th, at 4 P.M., when Sir J. Crichton Browne, M.D., F.R.S., Lord Chancellor's Visitor, will preside.

THE FRENCH OPHTHALMOLOGICAL SOCIETY.—The meetings of this Society will be held in Paris at the Hôtel des Sociétés Savantes, Rue des Poitevins, on Aug. 8th and following days. The attendance of those interested in the subject of ophthalmology is cordially invited.

PASTEUR INSTITUTE.—The Lord Mayor will be glad to receive at the Mansion House donations towards making a suitable contribution to the "Institut Pasteur" in Paris, where over 200 of our fellow-countrymen have been gratuitously treated by M. Pasteur and his staff, and towards providing for the expenses of British subjects bitten by rabid animals, who are unable to pay, without help, the cost of a journey to Paris.

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OPEN SPACES FOR THE PUBLIC.—At the weekly meeting of the London County Council, on Tuesday, the 9th inst., a recommendation of the Parks and Open Spaces Committee was adopted, to the effect that the Council contribute half the cost, not exceeding £61,000, towards the sum required for the purchase of Brockwell Park for the use of the public.

DR. CHAVASSE AND THE COTTAGE HOSPITAL, BROMSGROVE.—Dr. Chavasse, at a public meeting, held in this town on the 1st inst., for promoting the erection of a new cottage hospital for the town and neighbourhood, stated that Mrs. Chavasse and himself would, if the committee approved the proposal, build a male ward for six beds and furnish it, when the site was procured, intimating that they would like the architect to be a Bromsgrove man, and the ward to be named the "Arthur Ryland Ward."

VICTORIA HOSPITAL, SWINDON.—Mr. H. Kinneir presided at the first annual meeting of this institution, held at New Swindon on the 6th inst. The hospital was opened for the reception of patients on Sept. 29th last, and twenty-four patients had since been admitted. The subscriptions to the management fund amounted to £430 2*s.* 1*d.*, and the expenditure to £291 8*s.* 6*d.*, leaving a surplus of £135 13*s.* 7*d.* The building fund account shows a total outlay of £1960 8*s.* 7*d.*, and receipts amounting to £1770 0*s.* 10*d.*, the deficit, £190 7*s.* 9*d.*, being due to the treasurer.

THE JOHN HOWARD CENTENARY.—The Russian Government have decided to give a prize of £80 and a large gold medal for the best work on the subject of John Howard in the History of Prison Reform, as a mark of respect for the eminent British philanthropist, who died at Kherson in South Russia in 1790. The essays, written in French or Russian, or accompanied by a French translation, are to be sent to St. Petersburg, when they will be judged by a select committee during the convocation of the International Prison Congress next year.

PRESENTATIONS.—Mr. Thomas Sellar, M.B., C.M., of Aberlour, has been presented by his friends in Aberlour, Knockando, and surrounding districts, on the occasion of his marriage, with a silver salver and a purse of gold.—Mr. John Cockle, M.D. Aberd., F.R.C.P.Lond., of Suffolk-street, Pall Mall, London, was last week presented by the Treasurer, Trustees, and Board of Management of the Warehousemen, Clerks, and Drapers' Schools with a silver salver, as an appreciation of his valuable services as Honorary Physician during a period of thirty-five years.

METROPOLITAN CONVALESCENT INSTITUTION.—The recent half-yearly report of this institution, at Walton-on-Thames, Kingston-hill, and Bexhill-on-Sea, states that 2451 convalescent patients had been received in the three homes during the past six months, on the recommendation of subscribers, entirely free of charge, being the largest number admitted in the corresponding period, the majority of whom were thoroughly restored to health after a residence of three weeks. In the Walton and Kingston-hill homes, in the period under review, the admissions show an increase of 359. In the three homes 600 beds are maintained.

HOSPITAL DONATION BY THE SHAH.—At the commencement of the week the Shah sent his Grand Vizier and other high Persian officials, who were accompanied by several of the British *attachés*, on a visit of inspection to St. George's Hospital. There Amin Sultan left a donation of 200 imperials (Russian money) in the name of the Shah. He also, by instruction, asked after the health of the inmates, and said that his Imperial Majesty deeply regretted he was unable to call and see them personally. Other institutions were also visited, and several donations were sent to various charities.

LEPROSY. — At the Balloon Society's meeting last Friday at St. James's Hall, Surgeon-General Sir William Moore delivered a lecture on Leprosy. He said that he spoke on this painful subject after thirty years' medical experience in India. So far as this country was concerned, there had always been a certain number of lepers in England, and there would probably be more as communication with the East increased. Our generally excellent sanitary arrangements were calculated to oppose the spread of any disease which required communication of the active germs by contact. Referring to the outcry which had been raised, the lecturer said that it was quite wrong to suppose the Government had done nothing with respect to India, instancing the leper asylums in the Bombay Presidency. There were, however, many difficulties with regard to the isolation of lepers in India. The great safeguard was the spread of civilisation and sanitation.

DONATIONS. — Grants have been made by the Rathmines Commissioners to the following:—Meath Hospital, Dublin, £100; Cork-street Fever Hospital, £75; City of Dublin Hospital, £36; Hospice for the Dying, £25; Mercer's Hospital, £20.

SOCIETY FOR THE STUDY OF INEBRIETY.—At the Medical Society's rooms, on the 2nd inst., Dr. Norman Kerr, President, in the chair, the Chevalier Max Proskowetz de Proskow-Marstoff, President of the Austrian Society for the Study of Inebriety, gave an account of a tour through European Russia and Persia. He drew attention to the great increase in the consumption of spirits by their attractive display at the railway station bars. The proceedings concluded with a vote of congratulation to one of the vice-presidents, Sir George Hornidge Porter, on the baronetcy recently conferred upon him.

THE LANCASHIRE AND CHESHIRE BRANCH OF THE BRITISH MEDICAL ASSOCIATION.—The 53rd annual meeting of this branch of the Association was held at the Winter Gardens, Blackpool, on the 3rd inst., Dr. J. W. Watkins (the retiring President) in the chair, who introduced the newly elected President, Dr. Davidson. There was a large attendance. After the delivery of the presidential address Dr. Shuttleworth called attention to some of the provisions of the Lunacy Acts Amendment Bill, particularly those affecting the general practitioner. A discussion ensued, which was followed by papers by Mr. Bishop on Congenital Club-foot and its treatment; Mr. Leach, on the Uses of Nitrous Ether; Dr. A. Hill Griffith on a case of Sympathetic Disease after removal of the Injured Eye; Dr. Wallace, on Vaginal Hysterotomy and Enucleation of Fibrous Growths, and Hysterectomy after Laparotomy by Modified Enucleation (specimens); Mr. Sinclair, on Hypertrophy of the Female Breast; and Dr. Banks, on Intubation of the Œsophagus.

MEDICAL NOTES IN PARLIAMENT.

Indecent Advertisements Bill.

IN the House of Lords on Tuesday, the 9th inst., the Earl of Meath moved that the Commons' amendment to this Bill be considered. The amendment was only of a verbal character, but tended to make the meaning clearer.—The Earl of Wemyss thought the Bill was very stringent legislation. Any person who exhibited what was called a picture of an indecent nature was made liable to summary conviction, and under Clause 5 a policeman without warrant might arrest a person so exhibiting. A prudish policeman might thus bring a person before a magistrate for displaying a representation of the Venus de Medici.—The Commons' amendment was agreed to.

Desertion of Children.

In the House of Commons on Thursday, the 4th inst., Mr. Ritchie, in reply to Mr. Salt, stated that he hoped to be able to introduce during the present Session a Bill giving to Boards of Guardians increased powers with regard to control over children who, in consequence of desertion by their parents, had become chargeable to the rates.

Lighter Summer Clothing for the Police.

On Friday, the 5th inst., Mr. Matthews, in reply to Mr. H. Vincent, quoted the opinion of Sir Charles Warren that in this climate there was more danger from wet and cold than from excessive heat. He would not, therefore, feel justified under the extremely variable conditions of our climate in incurring the great expense of providing the police with summer clothing for regular wear.

Local Government (Scotland) Bill.

On Monday, the 8th, the consideration of this Bill in Committee was resumed. This Bill will confer upon the new County Councils full powers as to sanitary matters &c.—Colonel Malcolm moved an amendment giving the County Council power to make provision for the enlargement, maintenance, management, and otherwise dealing with asylums for lunatics.—The Lord Advocate opposed the amendment on the ground that it really effected a change in the lunacy law, and the amendment was withdrawn.—On Clause 17, Mr. Caldwell moved an amendment to give the County Council greater power of control over officers appointed to carry out the provisions of the Public Health Act.—The Lord Advocate pointed out that when the Public Health Act was passed it was thought advisable that officers appointed to discharge often unpopular duties should not be removable except with the consent of the Board of Supervision. He hoped the Committee would not take a step which would place the administration of the Act under a new danger by introducing an element of popularity, and excluding the control of an impartial authority free from local prejudice.—Sir G. Campbell said the County Council would not be master in its own house if sanitary officers could appeal to the Board of Supervision. A district council might be subordinate to the County Council; but the latter at least should be independent.—The Lord Advocate said the formal amendment did not raise the question that was being discussed, which he was willing to consider with the view of vesting the

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powers of the Board of Supervision in the County Council, if that were possible; but the promotion of the public health must be the paramount consideration, and ought not to be sacrificed to any theory of popular control.—The committee divided. For the amendment, 99; against, 160; majority, 61. The amendment was therefore negatived. Some verbal amendments were adopted, and the clause was agreed to.

Cruelty to Children (Prevention) Bill.

On Wednesday, the 10th, this Bill as amended was considered. Mr. Jennings moved an amendment to remove from the Bill the prohibition of the employment of children under ten years of age in theatres. He denied that children were cruelly treated in theatres; on the contrary, they took the greatest pleasure in their parts, besides which the money they earned often kept the parents off the rates.—Major Rasch, Mr. Labouchere, the Attorney-General, and others supported the amendment, whilst Mr. S. Smith, Mr. Courtney, Mr. Howell, and others offered it their most strenuous opposition. After an exhaustive debate the amendment was rejected by 188 to 139.

Vaccination in Wales.

On Thursday, the 11th inst., Mr. Ritchie, in reply to Mr. Alfred Thomas, said he could only repeat the answer which he gave to a similar question put last year, that there is in Wales no vaccination station at which certificates of qualification in vaccination can be obtained, and the Local Government Board are not aware that any serious inconvenience has been occasioned thereby. The College of Physicians, the College of Surgeons, and the Society of Apothecaries now require such a certificate from every candidate for their diploma or licence, and hence most medical men now obtain their certificates before entering on practice. It is not usual to appoint examiners to grant these certificates in towns in which there is no school of medicine. If a medical school should be established in Wales, he would be prepared to consider the question of appointing a person who could give these certificates in Wales.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BERRY, F. H., M.D.Lond., M.B., M.R.C.S., has been appointed Medical Superintendent to the Isolation Hospital, Watford.

BOWMAKER, EDWARD, M.B., B.S.Durh., has been appointed Medical Officer of Sunderland Rural District.

BRAINE, C. CARTER, M.R.C.S., L.R.C.P., has been appointed Assistant Anæsthetist to the Charing-cross Hospital.

GILBERT, H. P., L.R.C.P.Edin., M.R.C.S., has been appointed Medical Officer of the 11th District, Wisbeach Union.

GORDON, BRYCE, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer of the First District (Division 2), Halstead Union.

HARTLEY, A. C., M.B., C.M., has been appointed Resident Medical Officer of the Chalmers Hospital, Edinburgh.

HAWKINS, CÆSAR FREDERICK, M.R.C.S., L.S.A.Lond., has been appointed District Medical Officer and Public Vaccinator for the North Petherton District of the Bridgwater Union, vice W. J. Todd, M.R.C.S., L.R.C.P. Lond., deceased.

HOLDEN, J. S., M.D.Q.Univ. Irel., L.R.C.S.Edin., has been appointed Medical Officer of Sudbury Union, 3rd District.

INGLE, A. C., B.A., M.B., B.C.Camb., M.R.C.S., L.S.A., has been appointed Medical Officer to the Cambridge Union.

LANKESTER, H. H., M.D., M.B., M.R.C.S., L.S.A., has been appointed a Physician to the Chelsea, Brompton, and Belgrave Dispensary, Sloane-square, vice Cox, resigned.

LARKIN, F. G., L.R.C.P., L.M.Edin., M.R.C.S., has been appointed Medical Officer to the Royal Naval School, Fairey Hall, West Chislehurst Park, Kent.

LLOYD, RICKARD WM., M.R.C.S., has been appointed Anæsthetist to the Dental School of Guy's Hospital.

PARKES, LOUIS C., M.D., D.P.H.Lond., has been appointed Assistant Professor of Hygiene at University College, London.

POSTLETHWAITE, F., M.R.C.S., L.S.A., has been appointed Medical Officer of the High District, Longtown Union.

SHEPPARD, CHARLES EDWARD, M.D. Lond., F.R.C.S. Eng., has been appointed Anæsthetist to the Dental School of Guy's Hospital.

SHEPPARD, E. J., L.R.C.P., L.R.C.S.Edin., has been appointed Medical Officer of the 1st District, Barton Regis Union.

TISLEY, THOMAS, M.D.Durh., M.R.C.P., L.F.P.S.Glasg., has been appointed Medical Officer of Health, Whitby Union District, and No. 1 Division Whitby Rural District.

WELLS, G. LEE, M.C., B.S.Lond., F.R.C.S., has been appointed Honorary Demonstrator of Anatomy to the Yorkshire College, Leeds.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Assistant Physician.

CLAYTON HOSPITAL AND GENERAL DISPENSARY, Wakefield.—House Surgeon. Salary £120 per annum, with residence at the hospital, attendance, coals, and gas.

CUMBERLAND INFIRMARY, Carlisle.—House Surgeon and Assistant House Surgeon. House Surgeon's salary £70 per annum. Assistant House Surgeon's salary £40 per annum. Board, lodging, and washing provided in each case.

DEACONESSES' INSTITUTION AND HOSPITAL, Tottenham. — Resident Junior House Surgeon. Salary £25 per annum.

EYE INFIRMARY, Wolverhampton.—Resident Assistant for not less than six months, and not more than twelve months. Terms: Rooms, with board and washing.

GENERAL HOSPITAL, Birmingham.—Assistant House Surgeon for six months. No salary, but residence, board, and washing provided.

HOCKLEY PROVIDENT DISPENSARY.—Medical Officer. Salary £250 per annum, with residence, coal, and gas.

HOSPITAL FOR WOMEN (THE LONDON SCHOOL OF GYNÆCOLOGY), Soho-square, W.).—Clinical Assistants in both the Out-patient and In-patient Departments.

HULL ROYAL INFIRMARY.—Junior Assistant House Surgeon. Salary £50 per annum, with board and lodging.

NORFOLK AND NORWICH HOSPITAL, Norwich.—Assistant to House Surgeon. No salary, but board, lodging, and washing provided.

NORTHUMBERLAND COUNTY ASYLUM.—Clinical Assistant. No salary, but board and residence provided.

POOLE FRIENDLY SOCIETIES' MEDICAL ASSOCIATION, Market-street, Poole.—Assistant. Salary £80, and part midwifery fees.

ROYAL ALBERT HOSPITAL, Devonport.—A Vacancy on the Honorary Surgical Staff of the Hospital.

ROYAL BERKS HOSPITAL, Reading.—Assistant House Surgeon. Salary £40 per annum, with board and lodging.

ROYAL COLLEGE OF PHYSICIANS, London, Pall Mall East.—Milroy Lecturer.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, London.—House Physician for six months. Salary at the rate of £50 per annum, with board and lodging.

RUBERY HILL ASYLUM, Bromsgrove, Worcestershire.—Clinical Assistant. No salary, but board and residence provided.

ST. MARK'S HOSPITAL FOR FISTULA, &c., City-road, E.C.—House Surgeon. Salary £50, with board and residence in the hospital.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY, Whitehaven.—House Surgeon. Salary £120 per year, and £30 per year for dispensing, with furnished apartments and attendance.

WINDSOR ROYAL INFIRMARY.—Dispenser. Salary commencing at £35, with full board and lodging.

WIRRAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN, 25, Lord-street, Liverpool.—Honorary Acting Medical Officer.

X. Y. Z., care of Messrs. Wells and Co., 40, Market-place, Salisbury.—Medical Officer in a Hydropathic Establishment in the West of England

Births, Marriages, and Deaths.

BIRTHS.

BADDELEY.—On July 1st, at Weston House, Newport, Salop, the wife of C. E. Baddeley, M.B. Lond., of a daughter.

BIDEN.—On July 3rd, at Wyndham-square, Plymouth, the wife of Edward J. Biden, Surgeon R.N., of a daughter.

GURDON.—On May 17th, at Bohemia, Middle Brighton, Melbourne, the wife of Dr. E. J. Gurdon, of a son.

HABERSHON.—On July 8th, at Upper Wimpole-street, W., the wife of S. Herbert Habershon, M.D., of a son.

LIDDERDALE.—On July 6th, at Porchester-square, W., the wife of Robert Lidderdale, M.D., of a daughter.

MACKENZIE.—On June 29th, at Lockwood, Huddersfield, the wife of Frederick L. Mackenzie, M.B., of a son.

MARRIAGES.

BRYCE—WILSON.—On July 4th, at St. Mary's Cathedral, Edinburgh, Thomas H. Bryce, M.A., M.B., London-terrace, Kelvinside, Glasgow, eldest surviving son of Wm. Bryce, M.D., Edinburgh, to Mary Russell Laudale, eldest daughter of Geo. Wilson (of Dalmarnock), Murrayfield House, Midlothian.

COWEN—DAWSON.—On July 3rd, at St. Jude's, Southsea, William Amherst Cowen, Army Medical Staff, to Annie Kemp, youngest daughter of Major Dawson, J.P. (late Suffolk Regiment), of Nohaville, West Meath, and Suffolk Lodge, Southsea.

ORMEROD—EDWARDS.—On July 10th, at the Parish Church, Stanton Lacy, Salop, Edward Booth Ormerod, M.R.C.S., of Munslow, Craven Arms, Salop, fourth son of the late George Ormerod, of South Australia, to Amelia Jane, youngest daughter of the late Richard Edwards, of Stanton Lacy, Salop.

SYMONDS—SHAW.—On July 10th, at St. Mary Abbot's, by the Rev. Main S. A. Walrond, M.A., Rector of St. Lawrence Jewry, Charters James Symonds, of Weymouth-street, Portland-place, to Fanny Marie, youngest daughter of Major-General David Shaw, Madras Staff Corps. No cards. At home Wednesdays, after Sept. 1st.

WHITELOCKE—REID.—On July 3rd, at the Church of St. Nicholas, Brighton, Richard Henry Anglin Whitelocke, M.B., M.R.C.S., of Banbury-road, Oxford, third surviving son of the late Hugh Anthony Whitelocke, Esq., of Moreland and Bulstrode Park, Westmoreland, Jamaica, to Barbara Henry, elder daughter of George Lowe Reid, Esq., of Montpellier-crescent, Brighton.

WIGMORE—WATT.—On July 3rd, at St. Barnabas, Liverpool, Frederic Henry Wigmore, of Macclesfield, M.B.Cantab., to Amy Grant Watt, of Montreal.

DEATHS.

BREWER.—On July 6th, at 92, Clarence-road, Lower Clapton, Alexander Brewer, M.R.C.S.E., fifth son of the late John Brewer, of Caira, in the County of Monmouth, aged 82.

ELAM.—On July 9th, at his residence, Harley-street, W., Charles Elam, M.D., F.R.C.P., aged 65.

LLOYD.—On July 5th, at Bryntirion, Berkhamsted, George Lloyd, M.D., F.G.S., aged 85.

WILKINSON.—On July 6th, at Bognor, G. F. E. Wilkinson, L.R.C.P.Edin., of Wych Elms, Sydenham-park, S.E.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births Marriages, and Deaths.

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BOOKS ETC. RECEIVED.

CASSELL & COMPANY, London.

The Secret of the Lamas: a Tale of Thibet. 1889. pp. 235.
The Admirable Lady Biddy Fane. By Frank Barrett. pp. 352.
Royal Academy Pictures. Illustrating the 121st Exhibition of the Royal Academy. 1889.

CHAPMAN & HALL, London.

Austrian Health Resorts throughout the year. By W. Fraser Rae. Reprinted, by permission, from *The Times*. Second and enlarged edition. 1889. pp. 318.

CLARK, C. J., Lincoln's-inn-fields, London.

The Dictionary of Medical Specialists. Being a Classified List of London Practitioners who chiefly attend to Special Departments of Medicine and Surgery. Edited by W. P. W. Phillimore, M.A., B.C.L. 1889. pp. 176.

DAVIS, F. A., Philadelphia, and 139, Oxford-street, London.

American Resorts. With Notes upon their Climate. By B. W. James, A.M., M.D. 1889. pp. 285.
Annual of the Universal Medical Sciences. Edited by C. E. Sajous, M.D., and Seventy Associate Editors. Illustrated. Vols. I. to V. Issue of 1889.

GURNEY & JACKSON, Paternoster-row, London, E.C.

Chemistry, General, Medical, and Pharmaceutical. Including the Chemistry of the British Pharmacopœia. By John Attfield, F.R.S. 13th Edition. 1889. pp. 801.

IMPERIAL PRESS, Jubbulpore.

The Tropical Diseases of the Horse. By R. W. Burke, M.R.C.V.S. Second Edition. 1888. pp. 158.

LONGMANS, GREEN, & Co., Paternoster-row, London.

The Diseases of Children, Medical and Surgical. By H. Ashby, M.D.Lond., M.R.C.P., and G. A. Wright, B.A., M.B.Oxon., F.R.C.S.Eng. 1889. pp. 681. Price 1 guinea.

MAWER, W., Essex-street, Strand, London.

Life-Lore: a Monthly Magazine of Biology. By W. Mawer, F.G.S. Vol. I. 1889. pp. 296. Price 6d.

NISBET, JAS., & Co., Berners-street, London, W.

A Dream of the North Sea. By James Runciman. 1889. pp. 297. Price 5s.

RENSHAW, HENRY, 356, Strand, London, W.C.

An Introduction to Pathology and Morbid Anatomy. By T. H. Green, M.D. Seventh Edition, revised and enlarged by Stanley Boyd, M.B., B.S.Lond., F.R.C.S. Illustrated by 167 Engravings. 1889. pp. 615.

SMITH, ELDER, & Co., Waterloo-place, London.

Dictionary of National Biography. Edited by Leslie Stephen. Vol XIX. Finch—Forman. 1889. pp. 447.

SUPERINTENDENT OF GOVERNMENT PRINTING, Calcutta, India.

Scientific Memoirs by Medical Officers of the Army of India. Edited by Sir Benjamin Simpson, M.D., K.C.I.E., Surgeon-General with the Government of India. Part 4. 1889. Price 2 rupees. pp. 72.

TRÜBNER & Co., Ludgate-hill, London.

All about Pasadena and its Vicinity, its Climate, Missions, Trials, and Canons, Fruit, Flowers, and Game. By C. F. Holder. 1889. pp. 141. Price 2s. 6d.

TIEMANN & Co., Park-row, New York.

The American Armamentarium Chirurgicum. By G. Tiemann & Co. pp. 846.

Die ersten zehn Jahre der Myringoplastik nebst Angaben verbesserter Methoden zur Heilung von Alten Löchern im Trommelfell; von Prof. Dr. E. Berthold (August Hirschwald, Berlin, 1889).—Index Medicus: Authors and Subjects; vol. XI., No. 5; May, 1889 (Trübner & Co., and Lewis, London).—Wilson's Legal Handy Books: the Law of Master and Servant, Employer and Employed; by Jas. W. Smith, Barrister-at-Law; new and revised edition, price 1s. 6d. (Effingham Wilson & Co., London, 1889).—The Stockbroker's Handbook; by E. E. Kennedy; third edition, revised, price 1s. (Effingham Wilson & Co., London, 1889).—The Merchant's Clerk; the Operations of the Counting-house; by John Pearce; 16th edition, price 2s. (Effingham Wilson & Co., London, 1889).—Electricity: Theoretically and practically considered by the Aid of Thermo-Electricity; by Arthur Rust (E. & F. N. Spon, London).—Concurrent Cow-pox and Small-pox: a *Résumé* of the cases of Cow-pox and Small-pox present together in the same Person, as recorded in the Government Report on the Recent Epidemic of Small-pox in Sheffield; by G. S. Gibbs (W. Dresser, Darlington, 1889).—Edinburgh Medical School Calendar and Guide to Students, 1889-90 (E. & S. Livingstone, Edinburgh. Price 1s. 6d.).—Is Bad Sight on the Increase? The Philosophy of Sight; by A. Fournet (Swan Sonnenschein & Co., London, 1889. Price 1s.).—The American Journal of the Medical Sciences, published monthly, edited by J. Minis Hays, A.M., M.D.; vol. XCVIII., No. 1; July, 1889, No. 207 (Lea Brothers & Co., Philadelphia).—Bulletins de la Société Anatomique de Paris, 64e Année, 1889. 5me Série, tome III. (G. Steinheil, Paris, 1889).—Répertoire de Pharmacie et Archives de Pharmacie Réunis. Troisième Série, tome premier; No. 7, 10 Juillet, 1889 (45, Rue Turenne, Paris). Magazines for July: Good Words, Sunday Magazine, Leisure Hour, Sunday at Home, Boy's Own Paper, Girl's Own Paper, with "Rose Mary" (Summer Number), Scribner's.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 11th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
July 5	30·18	E.	65	60	119	81	57	..	Hazy
,, 6	30·11	N.E.	67	57	113	83	57	..	Bright
,, 7	29·80	S.W.	64	61	100	74	60	..	Cloudy
,, 8	29·78	S.E.	59	57	79	65	57	..	Overcast
,, 9	29·84	S.W.	64	60	115	73	57	·13	Cloudy
,, 10	29·72	S.W.	64	61	98	74	60	·19	Raining
,, 11	29·99	W.	64	58	121	76	55	·06	Bright

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

LEPROSY IN NORTH BRITAIN.

G. W. H.—Leprosy was not uncommon in Scotland in the fourteenth century. King Robert the Bruce is believed to have died of it, June 7th, 1329 (see Tytler's History, vol. i., p. 368). Liberton, the parish in Midlothian lying immediately to the south of Edinburgh, derives its name, according to the antiquary and philologist George Chalmers, from having been an asylum for sufferers from the disease—"the Lepers' town."

Mr. Richard Hingston.—1. Our correspondent will find a reference to the Salisbury treatment in THE LANCET of June 15th, page 1193.—2. Royal Hospital for Incurables, West Hill, Putney Heath, S.W. (Office, 106, Queen Victoria-street, E.C.); British Home for Incurables, 380, Clapham-road, S.W.; Home for Incurable and Infirm Women, 10, Great Ormond-street, W.C.

Hygiene.—Wilson's Handbook of Hygiene, published by Churchills, London; Willoughby's Principles of Hygiene, published by William Collins and Son, London.

Exact should consult the Medical Register. We do not recommend practitioners.

A CASE OF FUNCTIONAL DISEASE.

To the Editors of THE LANCET.

SIRS,—The following case, affording as it does a remarkable example of the influence of the mind on the body, will doubtless interest your readers.

D. S——, an intelligent-looking brunette, of a bilious temperament, aged twelve years in March last, had always enjoyed good health up to about a twelvemonth since, when slight pain and indications of weakness in the back and ankles showed themselves in walking, but not sufficient to disable her until December last, when rheumatic symptoms in the back and legs, accompanied with high temperature, the result of a severe chill, affected her. The symptoms yielded to a great degree under treatment, but she continued to walk slowly and slightly lamely. On March 6th I was requested to visit her in consequence of severe pain in the back, sides, and legs. She was unable to bear the pressure of her clothes or be touched, or use her legs. Again the severity of the symptoms yielded to treatment during the following week, with the exception of the lower extremities, which becoming more and more useless, she was removed to the Devon and Exeter Hospital. After eight weeks' treatment she was discharged slightly benefited, but unable to lift her feet, and walked with a "shuffling" movement. From that time to last Tuesday (June 25th) she has been unable to stand without one or two persons supporting her, and the loss of power increased and extended to the arms; she was also obliged to be fed at times. Dr. Hughlings Jackson kindly responded to my wish, and had

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arranged for her early admission into the National Hospital for Paralysis and Epilepsy. She usually slept well, but on Monday night last was very restless, and the following note received from her mother the day following will best explain what followed the restless night.

"June 25th.

"DEAR SIR,—I know you will be greatly surprised at what I am going to write, it really seems too good to be true. This morning, about 5.30, I was going on with my usual work when I fancied I heard D—— calling, and, on going to the foot of the stairs, I was greatly astonished to see her walking down stairs, and looking so terrified and in such a bath of perspiration that she quite frightened me. She called out 'Quickly, quickly, bolt the door.' I found she was walking in her sleep, and could not believe me when I told her, after leading her up stairs, that she had walked down and up again. A few moments afterwards, being scarcely conscious, she tried to stand, but could not, and she cried bitterly and laid down in bed again; but an hour afterwards she got out of bed and found the power to walk had come back again and she has been able to walk all the day. I have just walked with her, by her wish, to the Vicarage (about the eighth of a mile), where she has spent, by the kindness of the vicar, every afternoon lately, by driving her in an invalid carriage. Both ourselves and D—— are anxious you should see her as soon as convenient."

It appears she dreamt that she was left in a cart in the highway, and that a herd of bullocks attacked her, that she jumped from the cart and entered a house close by, and, reaching the top of the stairs, remembered she had omitted to bolt the door, and was descending the stairs to do so when met by her mother.

My diagnosis of the attack has been throughout "spinal paralysis complicated with rheumatism"; but the special condition it was due to was far from intelligible, but everything pointed to a *functional* rather than organic cause, and the sequel confirms the correctness of the diagnosis in this particular.

An analogous case of "shock" occurred in my own family in this wise. Sixteen years ago my youngest daughter, then eight years of age, of similar appearance, complexion, and temperament to the above-named, and in sound health, retired to bed. Twenty minutes after she rushed into a brother's room crying and exclaiming "Those horrid 'popes,' I wish there were no more of them; I have been dreaming about them, and I can't hear, and I want papa to syringe my ears." She was coaxed back to bed by her brother, but after a few minutes she ran down stairs to her mother, crying bitterly, and saying she had been dreaming about the "popes," and that she was deaf, and should never hear again. She was again put to bed, and in the morning she proved to be deaf, and has remained so from that hour to this. She was seen soon afterwards by Sir James Paget, Mr. Thomas Smith, and subsequently by Mr. Cumberbatch.

For two or three years the rioting and damage practised in this neighbourhood on Guy Fawkes day had struck terror into the minds of children, and it was within a few days of another anniversary when the above took place, and the subject was one of daily comment.

During the past half century much of the ambiguity in connexion with nervous disease has been swept away, and physiology has wonderfully advanced our knowledge of its pathology and etiology, but even now, who of us will be bold enough to attempt to detail with accuracy the physiological action of "shock," or, in other words, the influence produced on the nervous system by fright as exemplified in such cases as the foregoing? I am, Sirs, yours faithfully,

Sidmouth, July 1st, 1889. THOS. H. S. PULLIN, M.D.

P.S.—To-day (a week since the dream) D. S—— has visited me, and walked in my garden for half an hour without the slightest pain, difficulty, or gait, to all appearances in good health.

A MORIBUND UNIVERSITY.

ITALY suffers from academic anæmia, none of her seats of learning, in the medical faculty *par excellence*, being adequately endowed. Ferrara has one of these—the "Studio Pubblico"—which has enjoyed an intermittent fame as a school of medicine and jurisprudence, but is now chiefly known for its fine library of 90,000 volumes and 1000 MSS. Its Communal Council has just petitioned the Government to be relieved of the obligation to subsidise this school, and the prayer, which is sure to be granted, sounds the death-knell of that seat of learning. Other moribund universities throughout the peninsula are expected to follow suit, so as to improve the quality and efficiency of the Bolognese, Roman, and Neapolitan ones, which, in the Italian academic world, exemplify the survival of the fittest.

Gen. Veitch Gilray (Orkney).—The Handbook of the St. John Ambulance Association; Esmarch's Lectures, or those of Wetherly. The examination for the Proficiency Certificate of Acting Surgeons of Volunteer Corps consists of one paper containing from twelve to sixteen questions, four hours being allowed to write and answer questions. The Army Medical regulations relating to "The Soldier" and Parkes' Hygiene are the books to read for the examination. Alfred Lingard, Esq., St. Ermin's Mansions, Westminster, S.W., is hon. secretary of the Volunteer Ambulance Department.

D. J. R.—The dummy teat is certainly injurious, as, even if kept clean (which is rare), it is a constant irritant to the mouth, and to the immature salivary glands. Besides this, it encourages the child to suck in air, and is thus a fertile source of dyspepsia.

Musicus.—We do not recommend practitioners.

THE LITERATURE OF "HYPNOTISM."

THE present year has witnessed the publication of three contributions to the department of physio-psychological research known as "hypnotism." "Gedanken-Uebertragung: Vortrag, gehalten in der Akademischen Gesellschaft zu Freiburg i. B., von Dr. Hugo Münsterberg, Privatdocenten der Philosophie an der Universität zu Freiburg" (Thought-Transference: a lecture delivered before the Academic Society of Freiburg in Bavaria, by Dr. Hugo Münsterberg, Private-Reader in Philosophy to Freiburg University), is the first of these. The second is the treatise of Dr. Albert Moll of Berlin, entitled "Der Hypnotismus." A table of contents and a full list of authors treating of the subject enhance the usefulness of the work. The third publication is that of Dr. H. Beaunis, Professor of Physiology in the Medical School of Nancy. This has been thought worthy of translation into German, a task which has been ably accomplished, in co-operation with the author, by Dr. Ludwig Frey. Indeed, this German edition (Deuticke: Leipsic and Vienna, 1889) presents the book in its most convenient form. Those of our readers who are interested in the subject could not do better than consult this treatise, of which the full title is: "Der Künstlich hervorgerufene Somnambulismus: Physiologische und Psychologische Studien von H. Beaunis, Professor der Physiologie der Medicinischen Facultät in Nancy. Autorisirte deutsche Ausgabe, von Dr. Ludwig Frey. Mit 4 Abbildungen" (Artificially-evoked Somnambulism: Physiological and Psychological Studies by H. Beaunis, Professor of Physiology to the Medical Faculty in Nancy. Authorised German edition, by Dr. Ludwig Frey. With four pictorial illustrations).

Mr. H. W. Salmon.—The pamphlet is published by Messrs. Gilbert and Rivington, St. John's House, Clerkenwell-road, E.C.

MEDICAL ADVICE FREE: MEDICINE 2D. PER BOTTLE!"

To the Editors of THE LANCET.

SIRS,—I see that in your last issue you publish a handbill which has been very largely distributed in this neighbourhood (Clapham) for a considerable time past, this being evidently merely a fresh batch of the same advertisement. There can be, as far as I know, no possible excuse for the distribution of such circulars amongst other medical men's patients, and to advertise such terms for medical services, especially for midwifery, is degrading to the whole profession.

I am, Sirs, yours truly,

July 8th, 1889. TÆNAX.

To the Editors of THE LANCET.

SIRS,—The disgraceful circular published by you last week is being distributed broadcast in the Clapham and Stockwell district. The culprit in this instance is a "lady doctor." Under the guise of charity she has repeatedly distributed these handbills all over the district, to the immediate detriment of her fellow practitioners, who have individually suffered in consequence to a more or less extent. The College of Physicians in Ireland have been written to on the subject, but have taken no action, as far as one can judge, the bills being still distributed. The price advertised is ridiculous—2*d.* per bottle; but this is only a catchpenny, as by this touting it is hoped to obtain other patients. Every doctor in the neighbourhood is up in arms in the matter, and I write to you to know what can be done. At the last meeting of the Medical Council a dentist had his name erased for advertising, and yet a member of the medical profession goes scot-free. I think it is only just that gross cases of advertisement, as this one certainly is, should be shown up in our leading medical journal. I might just add, in conclusion, that I write this letter on behalf of several of my fellow practitioners, and I know as a fact that all of us are feeling in many ways this public disgrace to the profession. I am, Sirs, yours faithfully,

July 3rd, 1889. PRO BONO PUBLICO.

*** The above are two of many letters on the same subject. Our correspondents must make their representations to the King and Queen's College of Physicians in Ireland. To do lady practitioners justice, this is, we think, the first case of the kind on their part. But it ought to be immediately disapproved by them, and by the College from which the lady has her qualification. To call such touting "charity" is the greatest abuse of language.—ED. L.

Dr. J. B. Hunter is thanked for the offer of his communication, which, however, is not quite suited to our columns. It is more fitted for pamphlet form. Besides, we must admit, its proposals appear to us unpractical. The State would not entertain them, and the advantage of its doing so to the medical profession or the public is very doubtful. The medical profession should retain its independence, and not become a mere offshoot of the Civil Service or the Poor-law.

M. M.—1. The question is purely a legal one, to be determined by the exact facts. Our correspondent should consult a solicitor.—2. There is no special treatise on the subject.

ERRATUM.—In the annotation last week on the "Prevalence of Venereal Disease in the Army during 1888" (p. 27, first line of first column), the words "more than one-fourth" should have been "*nearly* one-fourth."

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COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Angel Money, London; Sir Wm. Mac Cormac, London; Dr. Geo. Harley, London; Dr. Geo. H. Savage, London; Dr. Tirard; Dr. Macnaughton Jones, London; Mr. Cavendish Bentinck; Mr. Johnson, Sheffield; Dr. Marsden, London; Mr. Burke, Wolverhampton; Messrs. Bewby and Draper, Dublin; Dr. Mondelet, Brighton; Mr. Wm. Wykeham Myers, Takoro, Formosa, China; Mr. Pratt, Devon; Mr. E. Tenison Collins, Kew; Dr. U. B. Bibile, Kandy, Ceylon; Messrs. Rayner and Cassell, London; Miss Oliver, Bayswater; Messrs. F. C. Calvert and Co., Manchester; Dr. J. A. Lindsay, Belfast; Mr. A. Haviland, Bridge of Allan; Mr. Smith, London; Dr. Brett, Watford; Mr. W. Scott Thompson, London; Dr. Herschell, Finsbury-circus, E.C.; Mr. John Hepburn, Hammersmith; Mr. Wm. Berry, Wigan; Mr. W. Roger Williams, London; Surgeon-Major Laurie, Hyderabad; Mr. Richard Hingston, Liskeard; Mr. T. Laffan, Cashel; Mr. J. Thomas, Cardiff Infirmary; Mr. Page, London; Charlotte Carmichael Stokes, Upper Norwood; Mr. David J. Rice, Kennington-park; Mr. E. Elvis, Perry Barr; Dr. Goodfellow, Dartmouth; Messrs. Burroughs, Wellcome, and Co., London; Mr. E. A. Clarke, Wrexham; Messrs. Woodhouse and Rawson, London; Dr. J. B. Hunter, Paisley; Mr. R. W. Peregrine Birch, London; Mr. W. H. Anderson, Fressingfield; Mr. C. Foucart Scanlan, London; Mr. W. H. Salmon, Nottingham; Messrs. Mertens and Co., London; Mr. G. H. Makins, London; Messrs. Daniell and Co., London; Dr. Benham, London; Mr. Henvey, London; Dr. Tucker Wise, Maloja, Switzerland; Mr. Robt. Walker, London; Mr. George Olliver, Brighton; Mr. W. M. Leng, Dundee; Messrs. Street and Co., London; Mr. Webb, London; Dr. Lyle, Bromsgrove; Mr. Alfred Lingard, London; Mr. F. W. Joshua, Gt. Malvern; Mr. C. E. Browne Séquard, Brighton; Mr. J. Cohen, Rotherham; Mr. E. C. Bousfield, London; Dr. Wallace, Colchester; Mr. S. Osborn, London; Mr. E. Swain, Arlesey; Mr. Kitchin, Whitehaven; Mr. Ford, Devonport; Dr. E. T. Neve, Kashmir; Mr. Arbenz, Birmingham; Mr. Vincent Prendergast, London; Mr. C. F. Newcombe, Victoria, British Columbia; Mr. English, London; Mr. Whittle, Liverpool; Mr. John Clarke, Kirkdale; Mr. Garner, London; Rev. F. Lawrence, Westow, York; Mr. G. P. Field, London; Mr. Squarey, Liverpool; Mr. Edward T. Clifford; Ch. Alexander, Upper Clapton; Grimsby Hospital; X. Y. X., Edinburgh; M.D., London, W.; J. D., Reading; Pro bono Publico, Clapham; General Hospital, Birmingham; Musicus, Stoke Newington; Æsculapius, Carnmoney; F.R.C.S., L.R.C.P., Lond.; Fair Play, Clapham; Exact, Bristol; W. B., Manchester; M. E., Thornton Heath; Omicron, London; Bright, Preston; M., Nottingham; Quid pro quo; Medical Superintendent, Notts; F.R.C.S.E., London; Old Town Councillor, Rochdale; Manager, St. Bede Chemical Co., Newcastle; Norfolk and Norwich Hospital.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Elvis, Birmingham; Mr. Eddowes, Loughboro'; Messrs. Hazell, Watson, and Viney, London; Mr. Mackenzie, Huddersfield; Messrs. Hooper and Co., London; Mr. Freeman, London; Dr. Taylor, Norwich; Mr. Jones, Barmouth; Mr. Williams, Cornwall; Mr. Hewett, London; Mr. Pullin, Sidmouth; Mr. Somerville, Dorset; Mr. Allsop, Saltaire; Mr. Dixon, Manchester; Mr. Hughes, London; Mr. May, Hants; Dr. Wright, Derbyshire; Dr. Squire, London; Mr. Style, Worcester; Mrs. Hitch, St. Leonards; Mr. Hornibrook, London; Mr. Heywood, Manchester; Mr. Sabreton, Manchester; Mr. Jennings, Coleford; Mr. Hemming, Glamorgan; Mr. Mahon, Ireland; Mr. MacEwen, N.B.; Mr. Hopkins, London; Messrs. Fenwick and Chinery, London; Dr. Knapton, Southport; Mr. Symonds, London; Payne, Edinburgh; Bath Royal United Hospital; House Surgeon, London; W. M., London; Galen, London; Hamar, Rochester; K., London; L.S.A., London; North London Institute; Medicus, Leytonstone; Assistant, London; Bridgwater Infirmary; F. E. M., London; Medicus, Birmingham; Matron, Green Lanes; Florence, Yorks; A. B., Liverpool; M.B., Hereford; Clayton Hospital; Omega, Birmingham; Rechabite, London; Yorkshire College; Abstainer, Selby; E. N. R., London; Medicus, Kent; The Hospital, Rotherham; C. S., London; A. B., Reading; L. S., Upper Norwood; Alpha, Leytonstone; Medicus, St. Helens; St. Nicholas Home, Tooting; J. T. O., London; E. C. E., London; Nomen, Liverpool; Pax, London; N. Z., London; Physic, Newcastle; Delta, Lewisham; Pulmo, London; Mater, London; Advertiser, London; Medicus, London.

Liverpool Daily Post, Barnsley Independent, Reading Mercury, Gloucestershire Echo, Lincoln Gazette, Hertfordshire Gazette, Weekly Free Press and Aberdeen Herald, Mining Journal, Surrey Advertiser, Derbyshire Times, Sunderland Herald and Daily Post, &c., have been received.

Medical Diary for the ensuing Week.

Monday, July 15.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, July 16.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; **Friday, 2 P.M.**
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; **Saturday, 2 P.M.**
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

Wednesday, July 17.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M. Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical visits on Wednesday and Saturday at 9.15 A.M.

Thursday, July 18.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Friday, July 19.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, July 20.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

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Clinical Lecture
ON
MITRAL STENOSIS.

Delivered at the Brompton Hospital for Diseases of the Chest,

BY T. D. ACLAND, M.D., F.R.C.P.

INTRODUCTION.

GENTLEMEN,—The history of the discussions which have arisen regarding the symptoms produced by stenosis of the mitral orifice have been so well told by Hilton Fagge,[1] that only a very brief outline of questions raised or solved previously to 1870 will be given in this lecture. Subsequent additions on various disputed points will alone be considered in detail.

It is now forty-six years since M. Fauvel[2] described the characters of a murmur heard in cases of mitral stenosis. He seems to have clearly recognised an important clinical fact, which was then little appreciated, and barely if at all understood. The name had previously been devised by M. Gendrin,[3] but he did not throw any light upon the diagnosis of the disease. Long before this the lesion and its symptoms had been recognised, as is shown by the following description taken from Dr. Forbes' translation of Laennec's "Diseases of the Chest," 1829, p. 648. "The hand applied to the region of the heart feels the pulsation strongly, and accompanied by the purring vibration. The vibratory sensation is not continuous, but returns at regular intervals. The stethoscope gives the following results: contraction of the auricle extremely prolonged, accompanied by a dull but strong sound exactly like that produced by a file on wood. The sound is attended by a vibration sensible to the ear, which is evidently the same as that felt by the hand. *Succeeding* this, a louder sound and a shock synchronous with the pulse point out the contraction of the ventricle. ..... From these signs ossification of the mitral valve is confidently made."

In 1854 Dr. Stokes, in his work on Diseases of the Heart and Aorta,[4] puts the question whether the state of our knowledge of the signs of cardiac disease, and of vital acoustics in general, justify us in making an absolutely positive diagnosis, not only of the seat of the murmur, but also of the nature of the disease and of the calibre of the orifice. This question, he says, must be answered in the negative; and he continues: "We must receive as unproved and calculated to throw discredit on the science of diagnosis all those rules and descriptions of special phenomena supposed to apply not only to almost every pathological change of the valves, but every possible combination of those changes. In ordinary cases of mitral murmur we cannot say whether the murmur is constrictive or regurgitant, or constrictive *and* regurgitant, and we must reject a large proportion of descriptions of phenomena which, although the changes they are supposed to indicate are familiar to anatomists, are themselves of doubtful value. To the inexperienced, the detailed descriptions of such phenomena as the intensification of the sounds of the pulmonary valves, of constrictive murmurs as distinguished from non-constrictive, of association of different murmurs at the opposite sides of the heart, of pre-systolic and post-systolic, pre-diastolic and post-diastolic murmurs, act injuriously: first, by conveying the idea that the separate existence of these phenomena is certain, and that their diagnostic value is certain; and, second, by diverting the attention from the great object, which, it cannot be too often repeated, is to ascertain if the murmur proceeds from an organic cause; and, again, to determine the vital and physical state of the cavities of the heart." To add weight to these arguments a passage of Dr. Graves'[5] is quoted, in which that great clinical teacher says: "As at each motion of the heart valves are opened and valves are closed, a morbid change of sound may be produced by any change of structure which permanently prevents the complete opening or shutting of the valves; and consequently the sound may arise either from changes of structure obstructing the advancing blood, or from changes permitting regurgitation; in other words, it is impossible to judge at the moment a sound occurs which of these is the cause." Since the time at which this was written, there has been a running fight between those who believed in the possibility of diagnosing with certainty the existence of mitral stenosis by the occurrence of the murmur called by Dr. Gairdner[6] auriculo-systolic, but by most observers pre-systolic, and those who, with Dr. Barclay,[7] believed that the murmur characteristic of mitral stenosis was post-systolic, and therefore regurgitant.

The object of my present lecture is to show cases of mitral disease in which there is reason to believe that an accurate diagnosis *can* be made; and it is proposed to lay before you such grounds as may seem to justify the belief that in the great majority of cases it is possible to say with certainty during life what is the condition of the mitral orifice.

Mitral stenosis is more common in women than in men. This fact is well illustrated by the presence here to-day (out of twenty-five cases taken indiscriminately) of at least four times as many women as men suffering from the disease.

Causation.—It may occur as a congenital affection, or may be "acquired" as the result of chronic inflammation in connexion with rheumatism, or with calcareous or atheromatous changes. It is often, however, not possible to trace any history of an acute onset. Two cases are shown to-day in which, though there is no history of articular rheumatism, the patient has suffered from chorea; and two post-mortem specimens in which the same record is given have been lent me by Dr. Kidd. (1) The obstruction may be due to cohesion of the edges of the valves, forming a funnel-like aperture projecting into the ventricle, and having at its apex a narrow slit; (2) a mass of vegetations may help to block the way, as shown in one specimen; (3) there may be general thickening and puckering of the valves and of the valvular orifice, with thickening and coalescence of the chordæ tendineæ. The size of the orifice varies from that which will barely admit the tip of the little finger up to that which admits three fingers—i.e., the normal aperture.

Results.—The results of mitral stenosis may be so slight as not to attract attention, or may be very grave. When present they may be grouped under the following heads:—

I. *Abnormal symptoms.*

(*a*) *General.*—1. Palpitation. 2. Dyspnœa, without signs of pulmonary disease. 3. Pain.

(*b*) *Symptoms referable to condition of systemic circulation and due to disease of the left side of the heart.*—1. Irregularity. 2. Rapidity. 3. Feebleness and lessened volume of the pulse. 4. Syncope.

(*c*) *Symptoms referable to the condition of the pulmonic circulation and disease of the right side of the heart.*—Especially—1. Tricuspid regurgitation and pulsation of veins in the neck. 2. Congestion of pulmonary vessels, leading to—(*α*) red induration and infarcts in the lungs; (*β*) hæmoptysis; (*γ*) enlargement of liver and general venous engorgement of organs and tissues; (*δ*) dropsy.

(*d*) *Symptoms referable to obstruction of systemic vessels by emboli.*—(1) Hemiplegia from obstruction of cerebral vessels; (2) gangrene from obstruction of peripheral vessels.

II. *Abnormal pathological conditions.*—Of these the most noticeable are hypertrophy and dilatation of the left auricle,[8] in connexion with which a thrombus is often found in the auricular appendix. In consequence of the backward pressure the walls of the pulmonary veins are often thickened and the pulmonary capillaries are varicose. While the right side of the heart is dilated and hypertrophied, the left side frequently does not undergo corresponding enlargement. There are, however, many cases in which there is hypertrophy of the left ventricle, though it is seldom great, except in those cases in which aortic or

[1] On the Murmurs attendant on Mitral Contraction. By C. Hilton Fagge, M.D. Guy's Hospital Reports, 1871, p. 247.
[2] Archives Générales de Médecine, 1843, vol. i., p. 1.
[3] Leçons sur les Maladies du Cœur, 1841.
[4] Philadelphia, 1854.
[5] Clinical Medicine, p. 922.
[6] A short account of Cardiac Murmurs. Edinburgh Medical Journal, 1861, vol. vii., part i., p. 438.
[7] THE LANCET, vol. i. 1872, p. 283. Turner, St. Thomas's Hospital Reports, 1876. Dr. W. H. Dickinson, THE LANCET, 1888.
[8] I am indebted to Mr. Taylor for a very remarkable specimen of this condition, taken from a case under the care of Dr. Roberts. It shows the left auricle so greatly distended that it has exerted pressure backwards on the left bronchus, producing flattening and narrowing of that tube and collapse of a considerable area of the left lung. There are two similar specimens in the Guy's Hospital museum.

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mitral regurgitation is associated with mitral stenosis. It should be noted that in mitral stenosis the hypertrophy and dilatation of the left auricle is generally greater, but that of the left ventricle is generally less, than in uncomplicated cases of mitral incompetence. This fact has an important bearing upon the question as to whether the murmur which occurs in stenosis is direct—i.e., obstructive or regurgitant. If the murmur be due to regurgitation of blood from the ventricle into the auricle, it would be reasonable to expect that conditions similar in kind, if not in extent, would be found in regurgitation, both with and without stenosis of the valvular orifice; this is not, however, the case, as has been said above. Again, in cases of mitral obstruction, in which the auricle might be supposed to have extra active work thrown on it, hypertrophy is more marked than in simple regurgitation. In the latter cases great dilatation of the auricle is frequently found. It is a generally recognised fact that a very effective cause in producing dilatation of the cavities of the heart is undue distension during diastole, and that if nutrition is well maintained, obstruction during systole tends rather to cause hypertrophy. In simple mitral regurgitation there is no obstacle to the backward pressure on the left auricle, which is consequently often found considerably dilated. In mitral stenosis, on the other hand, where there is an obstacle both to the forward and the backward flow of blood, there is more tendency to hypertrophy, the active work of the auricle being in such cases increased, whilst owing to the constriction of the passage, back pressure during ventricular systole is necessarily diminished. The secondary complications are even more marked than in mitral regurgitation, and the whole course of this disorder is often attended by more grave symptoms. This may be due to the fact that hypertrophy of the left ventricle is less common in cases of mitral stenosis than in those of mitral regurgitation, and that the compensation for the defective valve is therefore less perfect.

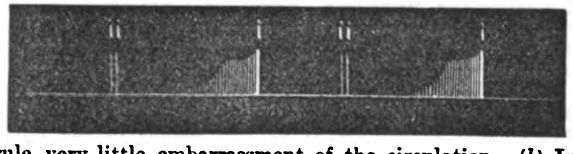
Physical signs.—The physical signs due to constriction of the mitral orifice are often complicated by those due to regurgitation, but in so far as they can be separated, they are: (*a*) Alterations in the area of cardiac dulness. In some cases the apex beat is felt in the sixth or seventh intercostal space, in the nipple line; but it is more usual to find a diffused undulating impulse spread over an increased area in both directions. (*b*) The apex beat is nearly always feeble—often, indeed, imperceptible. (*c*) When the murmur is present, a rough purring thrill is generally felt over and localised to the region of the left ventricle. This is felt distinctly to precede the maximum apex beat.

Auscultation.—On listening over a limited area just inside the apex beat, a long rough murmur in most typical cases is heard, which precedes and runs up to a sound which is synchronous with, and terminates abruptly at, the moment at which the maximum apex beat is felt. Whatever be the mechanism of this murmur, it is admitted on all hands to have certain characteristics. (*a*) The area over which it is heard is often, even generally, limited to a space some inch or so around the apex beat. It is for the most part not conducted in any direction, though there are exceptions in which it is conducted as far as the posterior border of the left scapula. (*b*) The rhythm of the cardiac sounds is suggestive even where the murmur is, as it often is, temporarily absent. The first sound of the heart seems to hesitate, and then jump, and terminates very sharply with a loud snap, which is synchronous with the maximum of the apical impulse, and precedes the carotid pulse by an instant. It is neither reasonable nor desirable to time the murmur by the radial pulse, as is often done. This must infallibly lead to errors in estimating the time of the various phases of the cardiac cycle, since the radial pulse occurs after the apex beat by at least one-sixth of a second. (*c*) The murmur is very loud and rough, and, more than any other cardiac bruit, is liable to rapid alterations in its character and loudness. Notable instances of this are not infrequent. Two have come under my own care, in both of which the murmur varied so much as to be at times inaudible, and at others so loud as to make it seem incredible that but a moment before it could not be heard. In one of these cases, when first seen, the murmur could be heard dying away as the heart's action came to rest after exertion.[9] An attempted explanation of this will be given later. (*d*) Accompanying the murmur, and produced by the same cause, is a strong purring thrill, which is more marked than in any other form of cardiac disease. (*e*) The action of the heart is (owing to defective nutrition rather than dilatation of ventricle) extremely liable to become rapid, feeble, and irregular, such conditions being often marked by a rise of temperature. (*f*) Owing to the engorgement of the pulmonary vessels, to which there is always a tendency in mitral stenosis, there is a rise of blood pressure in them, and consequently sharp premature closure of the pulmonary valves. This causes a reduplication of the second sound, best heard over the third left costal cartilage, which is due to the want of synchronism in the closure of the aortic and pulmonary valves. (*g*) If a systolic murmur is present, there is often a distinct interval between it and the murmur due to mitral stenosis; and if there is a murmur at all, the longer the murmur the greater probably is the stenosis.

A murmur having such characteristics is universally admitted to be diagnostic of mitral stenosis. It has received much attention from the fact that some observers have insisted, with a skill and persistence which have provoked much discussion, that it is merely a systolic regurgitant murmur, with peculiarities depending on the nature of the orifice through which the blood stream flows. On the one hand, there are those who, naming it presystolic or auriculo-systolic, maintain that it is produced by the flow of blood from the auricle into the ventricle through a constricted orifice; and, on the other, those who, mistrusting as it seems their senses, highly trained and acutely observant though they be, have used all their ingenuity in finding out reasons why this murmur should *not* be what it seems to be—a *direct* murmur, due to the obstruction of the orifice,—and who insist that it is a sound produced by regurgitation through the orifice owing to the insufficiency of the valves.

There can be little doubt that much of the discussion which has centred round the presystolic murmur, truly or falsely so called, has arisen from a want of appreciation of the fact that no murmur is liable to greater variations, and that no cardiac lesion gives such protean auscultatory sounds under different conditions. These variations may occur not only in different stages of the same affection, but under different conditions, during the same stage. Dr. Broadbent, in his admirable paper on Mitral Stenosis in the *International Journal of Medical Science* (January, 1886), has described three stages, the physical signs of which are not only diagnostic of the condition of the heart in each period of the disease, but which may also under certain circumstances be taken to give evidence of the physiological conditions under which the heart is acting. These stages are: (*a*) That in which the murmur is loud and ends moderately sharply. Here the thrill is distinct, and precedes the apex beat; the second sound is audible and reduplicated, so that the heart sounds have a galloping rhythm—*root-tata*. (Fig. 1.) During this period there is, as a

FIG. 1.



rule, very little embarrassment of the circulation. (*b*) In the succeeding stage the second sound becomes almost inaudible at the apex. This is due mainly to two facts: (1) that the blood-supply to the aorta is lessened, and hence the rebound which closes the valves is feeble; (2) that the right side of the heart is becoming dilated and hypertrophied, and is therefore coming more to the front, displacing the left ventricle which conducts the aortic sounds. The first sound is very sharp, and resembles a snap more than anything else, and inasmuch as the second sound is feeble the snap is often mistaken for the second sound. (*c*) In the third stage the murmur is absent, the second sound is absent, and often all that is heard is a sharp clicking first sound. The action of the heart is often irregular in the extreme.[10] The murmur frequently returns when the

[9] It is therefore important, in all cases where mitral stenosis is suspected, to examine the patient both standing up and lying down, at rest and after exertion. If this is done, in many cases in which the sounds were at first obscure the murmur characteristic of mitral stenosis will be produced.

[10] Two murmurs during this ventriculo-diastolic period not having the characteristics of the presystolic murmur are described as occurring in mitral stenosis; they are called by Dr. Bristowe *early* and *mid* diastolic murmurs. I have not been able to satisfy myself that they are diagnostic of the affection under consideration. ("On Obstructive Mitral Murmurs," by J. S. Bristowe M.D., F.R.S., Med. Soc. Proc., vol. xi., 1888.)

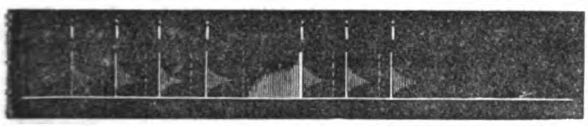
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patient is placed under suitable conditions of rest and treatment (notably digitalis), and this is a favourable sign, as showing increased cardiac power.

In all these conditions (which I hope to be able to show you to-day) it is evident that there are many sources of error, because, though each one of them is marked by certain definite signs, it is clear that no one description can possibly include them all. When it is remembered that any one of these can be, and often is, complicated by mitral regurgitation or disease of the other valves—so that, for instance, an extreme case of mitral stenosis might be marked only by a sharp clicking first sound, no murmur, and no second sound; or, on the other hand, by a "systolic" murmur, without presystolic murmur or second sound,—it is not to be wondered at that assaults have been made on the very existence of the direct murmur—i.e., one caused by the flow of blood from auricle to ventricle, call it what you will, diastolic, presystolic, or auriculo-systolic.

A case remarkably illustrative of this condition is now attending as an out-patient (C. D——, No. 8297), in whom the cardiac rhythm is so irregular and the heart's action so feeble, that, though the heart beat is 152, the radial pulse is only 84. While standing up nothing can be heard over

FIG. 2.



the apex beat except a succession of short blowing whiffs, with no second sound. When lying down, every now and then as the heart gathers strength there is a pause, a hesitation, and then a long rolling presystolic murmur ending with a snap. (Fig. 2.)

(To be continued.)

NOTE ON

THE EFFECTS PRODUCED ON MAN BY SUBCUTANEOUS INJECTIONS OF A LIQUID OBTAINED FROM THE TESTICLES OF ANIMALS.

BY DR. BROWN-SÉQUARD, F.R.S. &c.

ON the 1st of June last I made at the Société de Biologie of Paris a communication on the above subject, which was published in the *Comptes Rendus* of that Society on June 21st (No. 24). I will give here a summary of the facts and views contained in that paper and in two subsequent ones, adding to them some new points.

There is no need of describing at length the great effects produced on the organisation of man by castration, when it is made before the adult age. It is particularly well known that eunuchs are characterised by their general debility and their lack of intellectual and physical activity. There is no medical man who does not know also how much the mind and body of men (especially before the spermatic glands have acquired their full power, or when that power is declining in consequence of advanced age) are affected by sexual abuse or by masturbation. Besides, it is well known that seminal losses, arising from any cause, produce a mental and physical debility which is in proportion to their frequency. These facts and many others have led to the generally admitted view that in the seminal fluid, as secreted by the testicles, a substance or several substances exist which, entering the blood by resorption, have a most essential use in giving strength to the nervous system and to other parts. But if what may be called spermatic anæmia leads to that conclusion, the opposite state, which can be named spermatic plethora, gives as strong a testimony in favour of that conclusion. It is known that well-organised men, especially from twenty to thirty-five years of age, who remain absolutely free from sexual intercourse or any other causes of expenditure of seminal fluid, are in a state of excitement, giving them a great, although abnormal, physical and mental activity. These two series of facts contribute to show what great dynamogenic power is possessed by some substance or substances which our blood owes to the testicles.

For a great many years I have believed that the weakness of old men depended on two causes—a natural series of organic changes and the gradually diminishing action of the spermatic glands. In 1869, in a course of lectures at the Paris Faculty of Medicine, discussing the influence possessed by several glands upon the nervous centres, I put forward the idea that if it were possible without danger to inject semen into the blood of old men, we should probably obtain manifestations of increased activity as regards the mental and the various physical powers. Led by this view, I made various experiments on animals at Nahant, near Boston (United States), in 1875. In some of those experiments, made on a dozen male dogs, I tried vainly, except in one case, to engraft certain parts or the whole body of young guinea-pigs. The success obtained in the exceptional case served to give me great hopes that by a less difficult process I should some day reach my aim. This I have now done. At the end of last year I made on two old male rabbits experiments which were repeated since on several others, with results leaving no doubt as regards both the innocuity[1] of the process used and the good effects produced in all those animals. This having been ascertained, I resolved to make experiments on myself, which I thought would be far more decisive on man than on animals. The event has proved the correctness of that idea.

Leaving aside and for future researches the questions relating to the substance or substances which, being formed by the testicles, give power to the nervous centres and other parts, I have made use, in subcutaneous injections, of a liquid containing a small quantity of water mixed with the three following parts: first, blood of the testicular veins;[2] secondly, semen; and thirdly, juice extracted from a testicle, crushed immediately after it has been taken from a dog or a guinea-pig. Wishing in all the injections made on myself to obtain the maximum of effects, I have employed as little water as I could. To the three kinds of substances I have just named, I added distilled water in a quantity which never exceeded three or four times their volume. The crushing was always done after the addition of water. When filtered through a paper filter, the liquid was of a reddish hue and rather opaque, while it was almost perfectly clear and transparent when Pasteur's filter was employed. For each injection I have used nearly one cubic centimetre of the filtered liquid. The animals employed were a strong and, according to all appearances, perfectly healthy dog (from two to three years old), and a number of very young or adult guinea-pigs. The experiments, so far, do not allow of a positive conclusion as regards the relative power of the liquid obtained from a dog and that drawn from guinea-pigs. All I can assert is that the two kinds of animals have given a liquid endowed with very great power. I have hitherto made ten subcutaneous injections of such a liquid—two in my left arm, all the others in my lower limbs—from May 15th to June 4th last. The first five injections were made on three succeeding days with a liquid obtained from a dog. In all the subsequent injections, made on May 24th, 29th, and 30th, and June 4th, the liquid used came from guinea-pigs. When I employed liquids having passed through Pasteur's filter, the pains and other bad effects were somewhat less than when a paper filter was used.

Coming now to the favourable effects of these injections, I beg to be excused for speaking so much as I shall do of my own person. I hope it will easily be understood that, if my demonstration has any value—I will even say any significance—it is owing to the details concerning the state of my health, strength, and habits previously to my experiments, and to the effects they have produced.

I am seventy-two years old. My general strength, which has been considerable, has notably and gradually diminished during the last ten or twelve years. Before May 15th last, I was so weak that I was always compelled to sit down after half an hour's work in the laboratory. Even when I

[1] This innocuity was also proved on a very old dog by twenty subcutaneous injections of a fluid similar to that I intended to employ on myself. No apparent harm resulted from these trials, which were made by my assistant, Dr. D'Arsonval.

[2] For reasons I have given in many lectures in 1869 and since, I consider the spermatic as also the principal glands (kidneys, liver, &c.) as endowed, besides their secretory power, with an influence over the composition of blood, such as is possessed by the spleen, the thyroid, &c. Led by that view, I have already made some trials with the blood returning from the testicles. But what I have seen is not sufficiently decisive to be mentioned here.

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remained seated all the time, or almost all the time, in the laboratory, I used to come out of it quite exhausted after three or four hours' experimental labour, and sometimes after only two hours. For many years, on returning home in a carriage by six o'clock after several hours passed in the laboratory, I was so extremely tired that I invariably had to go to bed after having hastily taken a very small amount of food. Very frequently the exhaustion was so great that, although extremely sleepy, I could not for hours go to sleep, and I only slept very little, waking up exceedingly tired.[3]

The day after the first subcutaneous injection, and still more after the two succeeding ones, a radical change took place in me, and I had ample reason to say and to write that I had regained at least all the strength I possessed a good many years ago. Considerable laboratory work hardly tired me. To the great astonishment of my two principal assistants, Drs. D'Arsonval and Hénocque, and other persons, I was able to make experiments for several hours while standing up, feeling no need whatever to sit down. Still more: one day (the 23rd of May), after three hours and a quarter of hard experimental labour in the standing attitude, I went home so little tired that after dinner I was able to go to work and to write for an hour and a half a part of a paper on a difficult subject. For more than twenty years I had never been able to do as much.[4] From a natural impetuosity, and also to avoid losing time, I had, till I was sixty years old, the habit of ascending and descending stairs so rapidly that my movements were rather those of running than of walking. This had gradually changed, and I had come to move slowly up and down stairs, having to hold the banister in difficult staircases. After the second injection I found that I had fully regained my old powers, and returned to my previous habits in that respect.

My limbs, tested with a dynamometer, for a week before my trial and during the month following the first injection, showed a decided gain of strength. The average number of kilogrammes moved by the flexors of the right forearm, before the first injection was about 34½ (from 32 to 37), and after that injection 41 (from 39 to 44), the gain being from 6 to 7 kilogrammes. In that respect the forearm flexors re-acquired, in a great measure, the strength they had when I was living in London (more than twenty-six years ago). The average number of kilogrammes moved by those muscles in London in 1863[5] was 43 (40 to 46 kilogrammes).

I have measured comparatively, before and after the first injection, the jet of urine in similar circumstances—i.e., after a meal in which I had taken food and drink of the same kind in similar quantity. The average length of the jet during the ten days that preceded the first injection was inferior by at least one quarter of what it came to be during the twenty following days. It is therefore quite evident that the power of the spinal cord over the bladder was considerably increased.

One of the most troublesome miseries of advanced life consists in the diminution of the power of defecation. To avoid repeating the details I have elsewhere given in that respect, I will simply say that after the first days of my experiments I have had a greater improvement with regard to the expulsion of fecal matters than in any other function. In fact a radical change took place, and even on days of great constipation the power I long ago possessed had returned.

With regard to the facility of intellectual labour, which had diminished within the last few years, a return to my previous ordinary condition became quite manifest during and after the first two or three days of my experiments.

It is evident from these facts and from some others that all the functions depending on the power of action of the nervous centres, and especially of the spinal cord, were notably and rapidly improved by the injections I have used. The last of these injections was made on June 4th, about five weeks and a half ago. I ceased making use of them for the purpose of ascertaining how long their good effects would last. For four weeks no marked change occurred, but gradually, although rapidly, from the 3rd of this month (July) I have witnessed almost a complete return of the state of weakness which existed before the first injection. This loss of strength is an excellent counter-proof as regards the demonstration of the influence exerted on me by the subcutaneous injections of a spermatic fluid.

My first communication to the Paris Biological Society was made with the wish that other medical men advanced in life would make on themselves experiments similar to mine, so as to ascertain, as I then stated, if the effects I had observed depended or not on any special idiosyncrasy or on a kind of auto-suggestion without hypnotisation, due to the conviction which I had before experimenting that I should surely obtain a great part at least of these effects. This last supposition found some ground in many of the facts contained in the valuable and learned work of Dr. Hack Tuke on the "Influence of the Mind over the Body." Ready as I was to make on my own person experiments which, if they were not dangerous, were at least exceedingly painful, I refused absolutely to yield to the wishes of many people anxious to obtain the effects I had observed on myself. But, without asking my advice, Dr. Variot, a physician who believed that the subcutaneous injections of considerably diluted spermatic fluid[6] could do no harm, has made a trial of that method on three old men—one fifty-four, another fifty-six, and the third sixty-eight years old.[7] On each of them the effects have been found to be very nearly the same as those I have obtained on myself. Dr. Variot made use of the testicles of rabbits and guinea-pigs.

These facts clearly show that it was not to a peculiar idiosyncrasy of mine that the effects I have pointed out were due. As regards the explanation of those effects by an auto-suggestion, it is hardly possible to accept it in the case of the patients treated by Dr. Variot. They had no idea of what was being done; they knew nothing of my experiments, and were only told that they were receiving *fortifying* injections. To find out if this qualification had anything to do with the effects produced, Dr. Variot, since the publication of his paper, has employed similar words of encouragement, whilst making subcutaneous injections of pure water on two other patients, who obtained thereby no strengthening effect whatever.[8]

I believe that, after the results of Dr. Variot's trials, it is hardly possible to explain the effects I have observed on myself otherwise than by admitting that the liquid injected possesses the power of increasing the strength of many parts of the human organism. I need hardly say that those effects cannot have been due to structural changes, and that they resulted only from nutritive modifications, perhaps in a very great measure from purely dynamical influences exerted by some of the principles contained in the injected fluid.

I have at present no fact to mention which might serve to solve the question whether it would be possible or not to change structurally muscles, nerves, and the nervous centres by making during a good many months frequent injections of the fluid I have used. As I stated at the Paris Biological Society, I have always feared, and I still fear, that the special nutritive actions which bring on certain changes in man and animals, from the primitive embryonal state till death by old age, are absolutely fatal and irreversible. But in the same way that we see muscles which have from disease undergone considerable structural alterations regain sometimes their normal organisation, we may, I believe, see also some structural changes not essentially allied with old age, although accompanying it, disappear to such a degree as to allow tissues to recover the power they possessed at a much less advanced age.

Whatever may be thought of these speculations, the

[3] I ought to say that, notwithstanding that dark picture, my general health is and has been almost always good, and that I had very little to complain of, excepting merycism and muscular rheumatism.

[4] My friends know that, owing to certain circumstances and certain habits, I have for thirty or forty years gone to bed very early and done my writing work in the morning, beginning it generally between three and four o'clock. For a great many years I had lost all power of doing any serious mental work after dinner. Since my first subcutaneous injections I have very frequently been able to do such work for two, three, and one evening for nearly four hours.

[5] I have a record of the strength of my forearm, begun in March, 1860, when I first established myself in London. From that time to 1862 I occasionally moved as much as 50 kilogrammes. During the last three years the maximum moved was 38 kilogrammes. This year, previously to the first injection, the maximum was 37 kilogrammes. Since the injection it has been 44.

[6] In my third communication at the Biological Society, I said that both the intense pain each injection has caused me and the inflammation it has produced would be notably diminished if the liquid employed were more diluted. The three cases of Dr. Variot have proved the exactitude of my statement. He made use of a much larger amount of water, and his patients had to suffer no very great pain and no inflammation.

[7] The paper of Dr. Variot and my remarks upon it have appeared in the "Comptes Rendus de la Société de Biologie," No. 26, 5 Juillet, 1889, pp. 451 and 454.

[8] Since writing the above I have received a letter from Dr. Variot announcing that, after injecting the liquid drawn from the testicles into these two individuals, he has obtained the same strengthening effects I have myself experienced

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results I have obtained by experiments on myself and those which have been observed by Dr. Variot on three old men show that this important subject should be further investigated experimentally.[9]

Brighton.

A CASE OF

RAYNAUD'S SYMMETRICAL GANGRENE IN A PATIENT SUFFERING FROM CONSTITUTIONAL SYPHILIS.

WITH SOME REMARKS ON THE HISTORY, NATURE, AND MANIFESTATIONS OF THE DISEASE.

BY JOHN ED. MORGAN, M.A., M.D. OXON.,

CONSULTING PHYSICIAN, MANCHESTER ROYAL INFIRMARY; PROFESSOR OF MEDICINE IN THE VICTORIA UNIVERSITY.

(*Continued from page 66.*)

RAYNAUD'S two contributions to this disease—his original thesis, published in 1862, and a supplementary paper written twelve years later, in 1874—contain a record of thirty-one cases. The mean age of the patients he refers to is 27·7 years. Twenty-two of his cases were females and nine males. Five of the sufferers were children between three and nine years of age. As I have already stated, I have myself collated ninety-three cases, which correspond more or less closely with the description given by Raynaud. I have omitted all examples of the disease in which the symptoms seemed due to organic changes in the heart and in the vessels; also numerous other cases which appeared to depend on diabetes or ergot of rye; and likewise others where the malady might be looked upon as one of the sequelæ of some protracted wasting disorder, such as typhoid fever, associated with thrombosis of the veins of the lower extremities. In these ninety-three cases the mean age of the patients was 26·6, a number which very nearly corresponds with the mean age of Raynaud's cases. Still, my statistics do not support his statement that females between eighteen and thirty are most liable to be affected. My tables go to show that the disorder is pretty evenly distributed between the different decades of life up to sixty years of age; indeed, if there be any period of life when it is especially prone to occur, it is in very early childhood. Thus, in no fewer than thirteen of my cases the age of the patient ranged from two and a half to five years, eleven from five to ten years, fifteen from ten to twenty years, sixteen from twenty to thirty years, fifteen from thirty to forty years, thirteen from forty to fifty years, and ten from fifty to sixty years. Doubtful cases of the disorder have been described in two young infants; but in the youngest well-authenticated example of the disorder the age was two years and a half, the oldest fifty-nine. Of the ninety-three cases, fifty-four were females and thirty-nine males; thus the proportion of males to females in my tables was very much greater than appears from Raynaud's statistics. The numerous examples of the disease recorded in early childhood is somewhat remarkable, no fewer than twenty-four of the ninety-three sufferers being under ten years of age. In early life, as is well known, the sympathetic system, as distributed to the abdominal organs, is peculiarly susceptible to disturbing influences, and many of the cases observed among the very young proved singularly grave in their progress and in their consequences; indeed, it is among these little patients that we meet with examples of gangrene which may be described as the acute and malignant form of the disorder. The child perhaps has died in thirty or forty hours, while the progress of the disease has been continuously from bad to worse. Here there is nothing paroxysmal about the attack; the symptoms progress uninterruptedly and terminate fatally. Such a case was brought before the Pathological Society of London[1] by Dr. Southey. He showed the body of a child, aged two years and a half. On Dec. 2nd livid patches were noticed on the back of the calves; they got blacker, and extended over the legs; the backs of the arms were similarly affected. The buttocks next got livid. The lesions were symmetrical; the child was seized with convulsions and died. She was ill for thirty-two hours only. In another case, reported by Mr. A. D. Murray,[2] a boy aged three was taken ill on March 5th; both feet became black and gangrenous; in an hour the hands and arms were dusky; on the 6th a discoloured patch was observed on the back of the left thigh, and in the afternoon one on the left cheek; the patient died at 10 P.M., being ill for two days only. Dr. Tannahill also refers to a case in which a child similarly affected died thirty-six hours after its admission into hospital; while Mr. E. Bellamy has described one in a child aged four, in which death occurred on the fourth day. Other cases have been recorded in which the disorder assumed an equally grave character, though the symptoms were far more protracted; as, for example, in Mr. Solly's case, where all the extremities were lost, and the patient eventually died. Similar examples of the disease have been reported by Mr. Thomas Smith, M. Bocquet, Dr. Grayhill, and others, all occurring in very young children, and tending to show how destructive in its effects symmetrical gangrene may prove when it invades the system of the very young. In Raynaud's original thesis, he dwells with marked emphasis on the numerous instances in which he has found this variety of gangrene associated with irregularity of the menstrual functions in young women; indeed, he distinctly asserts that the most frequent exciting cause is suppression of the menses. This opinion was disputed by Vulpian, whose observations are strikingly confirmed by my own tables, which conclusively show that in very few instances was any irregularity observed in the catamenia. Indeed, in several of the most characteristic cases, it is distinctly stated that the monthly period exercised no special influence over the symptoms of the disease. In alluding to this variety of gangrene, the distinguished discoverer of the disease remarks: "The nose and the external ears are sometimes more or less attacked. I am not aware, however, that in these situations complete mortification has been observed." Both before and since Raynaud's investigations were published several cases have been recorded where these organs were at least partially destroyed by the gangrenous processes. Thus, Mr. J. D. Nott[3] observes, in reference to a patient of his, a boy aged ten, "the tip of the nose and the ears and the lips dried and dropped off, leaving the surface underneath healthy." So, again, Mr. J. R. Bigg wrote to THE LANCET in 1870 regarding a delicate woman suffering from symmetrical gangrene, and stated that forty days after the commencement of the symptoms it was necessary to remove the tip of the nose, and portions of both ears. Mr. Clifford Beale[4] also speaks of a considerable part of the helix in both ears as being wanting, in consequence of the ravages of this disease. In Mr. Grindall's case, also, the nose was entirely destroyed by mortification; and it was further observed that in my patient a considerable portion of the helix of the right ear sloughed away, part of the cartilage of the ear being at the same time destroyed. In considering the outward manifestations of this curious neurosis, it will be instructive to recall the different parts of the body in which symmetrical patches are said to have occurred coincidentally with the disturbed state of the circulation in the extremities. Indeed, had not either toes, fingers, ears, or nose been simultaneously affected, it would not, from our present standpoint, have been permissible to speak of these lesions as an integral portion of Raynaud's disease. In the first place, they are in the vast majority of cases met with in those portions of the trunk and limbs in which each side of the body has its corresponding counterpart on the other side—parts to which the term "homologous" may appropriately be applied. In several instances patches were observed over the heels, over the calves, over the malleoli, and over the tibiæ. In numerous cases the whole of the lower extremities were involved. In others a purple patch was seen on each side of the umbilicus. In several more the nates were involved; in some, various portions of the back; in some, the cheeks and lips. Petri has described how curiously he himself was affected; some of the patches on his own body appearing over the deltoid muscles on the outer surface of the arms, others over the clavicles, and others, again, over the situation of the medial nerve, a few inches above the wrist;

[9] It may be well to add that there are good reasons to think that subcutaneous injections of a fluid obtained by crushing ovaries just extracted from young or adult animals, and mixed with a certain amount of water, would act on old women in a manner analogous to that of the solution extracted from the testicles injected into old men.

[1] Brit Med. Jour., Dec. 9th, 1882.

[2] Ibid., vol. i., p. 70.

[3] Prov. Med. and Surg. Jour., 1846.

[4] Brit. Med. Jour., vol. i. 1887.

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all, however, singularly symmetrical in their distribution. Raynaud has recorded one case in which the coccyx was involved, and another has been published in which the two mammæ were the parts affected. I have already alluded to Mr. Puzey's case where the penis was destroyed; and one, in many respects similar, where the vulva became gangrenous, has also been reported. In the *American Journal of the Medical Sciences* for October, 1878, Mr. Charles K. Mills refers to the case of a female aged twenty-three. He remarks: "Once, after dancing, the tip of her tongue became bluish white, and her tongue felt numb as if it had been burned with hot tea or coffee. She was inclined to pinch it, in order to bring back its proper feeling. At the time of this occurrence she experienced also a little difficulty in talking. At the same time her lips became bluish, and the usual condition of the hands worse." In another case referred to by Mr. E. Hyde, the fingers got black and gangrenous, and the tongue livid, an ulcer forming near the tip. The ears also were blue. In Mr. Tannahill's case, it is stated that when an "attack was coming on the eyelids became bloodless, and the eyeballs and lips assumed a yellowish tint."

Dr. Barlow, in his appendix to his translation of Raynaud's papers, has shown how frequently local asphyxia and symmetrical gangrene are associated with intermittent hæmoglobinuria. He refers to cases observed by Dr. Dickinson, Mr. Hutchinson, Dr. Wilks, Dr. Southey, Dr. Myers, and other trustworthy observers, in which the two diseases seemed more or less closely allied with one another. In addition to the cases he has collected, some few others have been recorded, thus in Dr. Tannahill's case to which I have already alluded, hæmaturia was observed, but here the local asphyxia and paroxysmal hæmaturia never occurred simultaneously, but always alternately. Mr. Bland also remarks that in a case of his the urine was very scanty and of a smoky appearance, containing albumen and a large quantity of blood. The blood, however, was only observed in the urine for three days, and then entirely disappeared. In Dr. Clifford Beale's case a young soldier had fever and ague in India; the ends of his fingers were black and dry, and blood was observed in his urine. Finally, in my own case, hæmaturia was on one occasion recorded in the notes.

But although it has been clearly proved that Raynaud's disease and paroxysmal hæmoglobinuria are closely allied disorders, and in a considerable number of instances are met with in the same persons, still an attentive study of the two affections seems to show that there are important points of distinction between them, and that it is only in one variety of symmetrical gangrene that hæmoglobinuria is liable to occur. Thus the former disease is certainly very much more common in females than in males, whereas, according to Dr. Dickinson, out of twenty-one cases of hæmoglobinuria, fifteen were males and six females. In reference to this subject Sir William Roberts remarks:[5] "The liability to paroxysmal hæmoglobinuria seems to be almost exclusively confined to males, one only of twenty collated cases occurring in a female." Again, this latter disease is certainly accompanied by far more grave constitutional symptoms than are usually observed in the great majority of cases of symmetrical gangrene. Both Raynaud and other authorities repeatedly allude to the healthy appearance presented by many persons whose extremities are gangrenous. On the other hand, the sufferers from hæmoglobinuria are often described as sallow and cachectic. Disturbances associated with the abdominal organ, more or less varied and obscure, are frequently spoken of. Thus allusion is made to pain and tenderness in the epigastrium; to irritability of the stomach; to feelings of nausea; to obstinate attacks of vomiting. In other cases, immoderate yawning and hiccough and stretching of the limbs are referred to; in others, colicky pains in the abdomen, accompanied by feelings of extreme exhaustion. These are all symptoms more or less associated with a disordered condition of the sympathetic system, as distributed to the abdominal organs; and I believe that it is to this portion of the nervous system that we must look for morbid changes when symmetrical gangrene and hæmoglobinuria are met with in one and the same patient. It is a well-acknowledged pathological fact that in cases of Addison's disease important changes have been observed in the semilunar ganglia and the great plexus of nerves associated with them. In some of these cases the nerve cells have been found deeply pigmented. To these and similar nerve lesions many of the more characteristic symptoms of this curious disease (including the discolouration of the skin, which is such a pronounced feature in its symptomatology) are probably due. Inasmuch as a jaundiced colour of the skin has been also noticed in a considerable number of cases of hæmoglobinuria and symmetrical gangrene, it is perhaps allowable to assume that in these disorders also similar portions of the nervous system are more or less invaded by disease. But how a morbid condition of these ganglia and plexuses can give rise to such highly complex symptoms is a subject which pathology has not as yet unfolded to us, and which, for the present at any rate, must remain a mere matter of speculation.

(To be concluded.)

[5] Urinary and Renal Diseases, p. 160.

A CASE OF

SPREADING EMPHYSEMATOUS GANGRENE, WITH REMARKS ON ITS MICRO-PATHOLOGY.

BY CHARLES SLATER, M.B. CANTAB.,
LECTURER ON BACTERIOLOGY, ST. GEORGE'S HOSPITAL.

F. C——, aged fourteen, was admitted into St. George's Hospital, under the care of Mr. Rouse, about 4 P.M. on Feb. 23rd. While passing through a narrow archway he had been crushed against the wall by the wheel of a large van, which had inflicted a large, lacerated, contused wound of the right thigh a few inches above the knee. The wound formed two sides of a triangle, exposed the deep fascia covering the quadriceps, and opened up freely the subcutaneous tissue. A large amount of gravel and earth had been forced into the cut tissues. An anæsthetic was given and the wound thoroughly cleansed with 1 per 1000 corrosive sublimate, after which it was sutured, a drainage-tube inserted, and dressed antiseptically. On the 24th the boy appeared very ill, and complained of pain in his side. He had a temperature of 102°, pulse 128, and rapid respiration. Pneumonia was suspected, but no signs found. The wound, from which a little blood-stained serum had oozed, presented very dry edges, which were slightly yellowish in colour. There was no tension. On the 25th the general condition was worse, though the temperature was lower. The wound was frankly gangrenous, and the tissues of the thigh swollen and markedly emphysematous. The gangrene spread upwards and downwards with great rapidity, the line of demarcation advancing at the rate of half an inch per hour, until by the evening it had reached Poupart's ligament. The foot was warm, however, and the pulse could be felt in the posterior tibial artery. The wound was exposed and irrigated. On the 26th the patient was semi-delirious and very prostrate, with a rapidly running pulse and falling temperature. The inflammation had spread on to the abdomen. The thigh was swollen, emphysematous, and of a bronze colour, with large bullæ on the surface containing a clear reddish serum. Both thighs showed congestive mottling of the surface, with some ecchymosis. There was very little odour from the wound until a few hours before death, which occurred on the evening of this day. The temperature fell and the pulse rose as the boy sank.

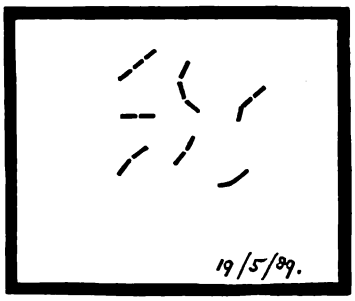
At the post-mortem examination made by Dr. Penrose, to whom I am indebted for the account, the right thigh was swollen and the tissues emphysematous, crackling as they were cut. The emphysema ended abruptly at a line extending across the right half of the abdomen, an inch and a half below the umbilicus. Below this the subcutaneous tissue was filled with gas, and contained in its spaces a large quantity of clear reddish fluid, which was full of bubbles. Some gas and a few small extravasations of blood were found in the right iliac fossa. The internal organs generally were healthy. There was no thrombosis of the femoral vessels. Clots found in the pulmonary artery and blood in the heart contained some gas bubbles.

On the afternoon of the 26th, after careful cleansing of the thigh with corrosive sublimate, fluid from the bullæ was received into sterilised test-tubes, and with this material agar-agar and gelatine peptone tubes were inoculated both

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superficially and in the depth of the media. Cover-glass preparations were also made of this serum (see Fig. 1), and

FIG. 1.



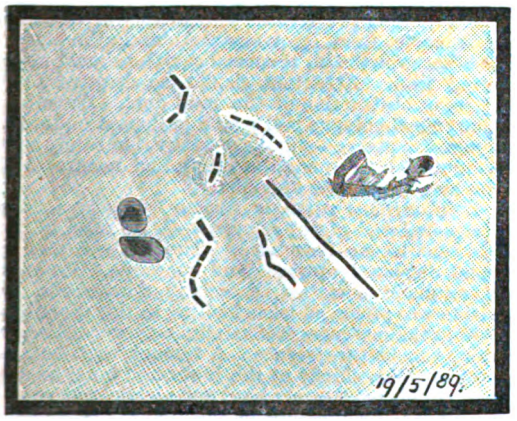
Emphysematous gangrene organisms in serum of bulla on thigh. Obj. $\frac{1}{12}$ hom. im. Oc. i.

also of fluid obtained by puncture of the thigh both above and below the wound, but at some distance from it; the upper puncture was just below Ponpart's ligament. All these preparations, and especially those made from the fluid from the upper puncture (see Figs. 2 and 3), con-

FIG. 2.



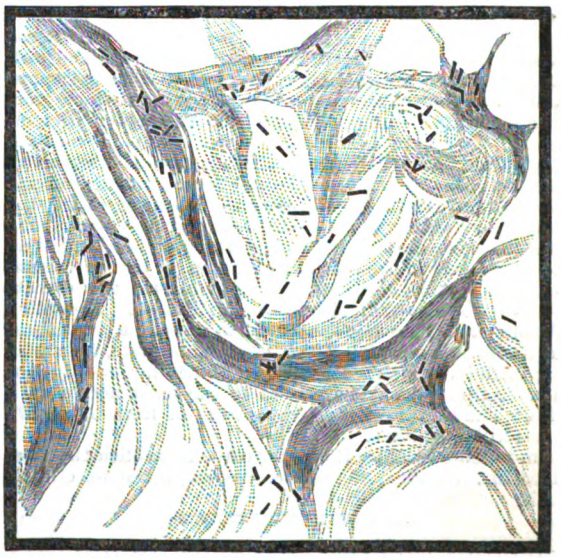
FIG. 3.



Cover-glass preparations of fluid obtained by puncture of thigh just below Poupart's ligament. Stained gentian violet. Obj. $\frac{1}{12}$ hom. im. Oc. i.

tained very numerous large bacilli, which occurred in single elements, chains consisting of two to six segments, and long leptothrix filaments. The bacilli had rounded ends,[1] and were from 3μ to 5μ long and from 1μ to 1·2μ broad, while the leptothrix filaments reached a length of 20μ to 30μ. They were seen in unstained specimens to be motile, and to present endogenous spores usually situated at one extremity of the rod. The specimens prepared from the fluid from this puncture were free from other organisms. The cultures from the above fluids resulted in the growth in the agar tubes of micrococcus pyogenes albus and micrococcus cereus albus, with a few colonies of bacterium termo. The gelatine tubes after some time also grew a micrococcus, which occurred in short chains of from three to four elements, and slowly liquefied the gelatine. The red fluid obtained from the subcutaneous tissue at the post-mortem examination was also rich in bacilli identical with the above. Portions of subcutaneous tissue from the abdomen, just below the line of demarcation, were removed with antiseptic precautions, and embedded in nutrient media. These attempts at culture remained absolutely sterile, except one gelatine tube. In this a bacterium developed, but became contaminated with a superficial mould, and I have been unable as yet to obtain a sufficiently pure culture to identify it absolutely with the bacillus œdematis maligni. The skin near the seat of injury showed enlargement of the subcutaneous spaces, small-celled infiltration, especially of the panniculus adiposus, and a large number of bacilli (see Fig. 4) corresponding in size and appearance with those already described. There were, considering the condition of the skin, comparatively few other micro-organisms. The subcutaneous

FIG. 4.



Emphysematous gangrene. Section through subcutaneous tissue near the wound. Stained by Gram's method. Obj. $\frac{1}{12}$ hom. im. Oc. i.

tissue through the line of demarcation also showed similar bacilli, but they were much fewer. In these sections no contaminating organisms were found. The bacilli were scattered throughout the subcutaneous tissue, and showed no definite arrangement, and no tendency to collect in colonies. They were very scanty, indeed almost absent, in the upper layers of the skin, and existed in very large numbers in the deeper parts, especially the panniculus adiposus. The internal organs showed a general but not very severe congestion. No bacilli were found in the liver, kidneys, spleen, muscles, or heart clot.

A disease produced in the lower animals by the subcutaneous inoculation of earth was described by Pasteur, and independently by Koch and Gaffky; the latter named it "malignant œdema." It is characterised by a rapidly spreading œdema, starting from the point of inoculation, and is quickly fatal. The spaces of the subcutaneous tissue are distended with a clear reddish fluid containing bubbles of gas, which render the tissues emphysematous. The internal organs are in many cases either unaffected or slightly congested. The reddish fluid contains numerous mobile rods and filaments, which have been cultivated, and the cultures reproduce the disease on inoculation. The bacilli are not usually found in the blood, or not until after death. The organism is purely anærobic, and its growth

[1] In the accompanying diagrams the ends of the bacilli are not represented sufficiently *rounded*.

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in culture media is attended by a copious evolution of gas. It multiplies and produces a fatal result only when subcutaneously inoculated. The spores are found plentifully in the superficial earth of fields (Charrin). The morphological characters of the bacillus are identical with those of the bacillus found in the present case. An occasional complication of wounds, both surgical and accidental, seen chiefly by continental observers, and apparently much more common abroad than in England, has been described under the names of "progressive gangrene," "invading traumatic gangrene," "emphysematous gangrene" (Rosenbach), and "septicémie gazeux" (Arloing and Chauveau), and it is characterised by its severity and fatality, by the swelling, tension, and bronzing of the skin of the part affected, and especially by the emphysema, which is perceptible on palpation, and due to the production of gas in the subcutaneous tissue. Arloing and Chauveau referred an outbreak of this affection occurring at Lyons to the agency of a bacillus which they considered identical with that of malignant œdema. Rosenbach also found the same organism in two similar cases, one following a compound fracture and one a wound on the arm. The present case must also be referred to the same category, and is indeed almost like an experimental inoculation. A large wound which opened up freely the subcutaneous tissue and contused seriously the skin in its neighbourhood, conditions most favourable to the growth of this micro organism, was inoculated with a considerable quantity of earth derived from the cart-wheel and presumably containing numerous spores. A short incubation period was followed by a train of symptoms which a comparison between the clinical history and the description of the artificial disease will show to be almost identical in the two cases. The post-mortem appearances were equally typical, and microscopical examination showed the presence of organisms which were morphologically indistinguishable from those of malignant œdema. Complete identification is, however, wanting, owing to the failure as yet to cultivate the bacillus. Unfortunately, the attempt to cultivate the organism occurring in the human disease seems generally to have failed, the conditions attaching to post-mortem examinations not being favourable to success. Rosenbach's attempts ended in failure in one case, and in the second to growth, as in the present instance, of micrococci. The only cure for the disease appears to be the radical one of amputation. According to Arloing and Chauveau the organism is peculiarly resistant to antiseptics, a solution of corrosive sublimate, 1 in 500, being ineffective even when allowed to act for twenty-four hours. Sulphurous acid seems to be the most active antiseptic. The bacilli resist a temperature of from 60° to 70°, but are killed at 100°.

I am indebted to Mr. Rouse for leave to publish the case, and to Mr. Higgins, his house surgeon, for some clinical details.

A RECORD OF SIXTEEN CASES OF ORBITAL TUMOUR; WITH REMARKS.

By CHRISTOPHER S. JEAFFRESON, M.D., F.R.C.S.,
SENIOR SURGEON TO THE NORTHUMBERLAND, DURHAM, AND NEWCASTLE INFIRMARY FOR DISEASES OF THE EYE.

OF all the cases that present themselves to the ophthalmic surgeon, the most interesting, and certainly the most important in a surgical point of view, are the various kinds of tumours which invade the orbit. I do not here refer to those growths which, originating in the globe of the eye, by a gradual process of extension invade the orbital tissues, or reappear in them after the original disease has been extirpated. Their pathological characteristics are confined to comparatively narrow limits, and their diagnosis is usually easily made at an early date of their history. I allude (1) to those growths which originate in the orbit, but unconnected with the globe of the eye; (2) those which originate either in the periosteum or bony walls of the orbit; (3) those which, commencing in structures or cavities in close proximity with the orbit, make themselves eventually manifest by some change in the relation or function of the organs which it contains; and (4) that important group of cases which originate in some vascular disease deep in the cavity of the orbit or closely adjoining parts of the cranium, and whose leading symptom is usually but not invariably pulsating exophthalmos. These four classes contain such a variety of possible pathological conditions as to render the diagnosis of some orbital tumours a matter requiring the greatest surgical acumen and experience. Nor is a great deal of assistance to be derived from the perusal of the standard works on ophthalmic surgery; few of them give anything but a superficial sketch of these cases. We here stand upon the borderland of special and general surgery; hence probably this neglect. He who would get an insight into the fuller details of the history and treatment of these cases must search monographs, old reports, and the records of various societies—records which are difficult of access to busy practitioners, especially if they reside at a distance from the metropolis. The following sixteen cases which have occurred in my practice within the past few years contain illustrations of the chief forms of orbital tumour which I have classified above. I regret that time and space will not allow of my giving more than a brief outline of them. Cases 1, 2, 3, 6, 7, and 9 represent the first class, or tumours growing in the orbital cavity unconnected with the globe of the eye, and having only a secondary, if any, connexion with the walls of the orbit. Cases 4, 5, and 8 are good illustrations of the second class of cases, in which the tumour grows either from the bones or their periosteal coverings. Of the third class of cases, where tumours or distension of neighbouring cavities, encroach upon the orbit, Cases 10, 11, 12, 13, 14, and 15 are good examples. Case 16 forms one of that interesting group of cases of pulsating exophthalmos which from time to time have occupied so much the attention of ophthalmic surgeons. Experience has proved that a large number of these depend upon the existence of a communication between the carotid artery and the cavernous sinus. In this case, for reasons which are set forth in the notes, I believe the case to have been one of aneurysmal dilatation of the origin of the ophthalmic artery. The one prominent feature of all orbital tumours is protrusion of the globe, and it was present in all these eleven cases. It is usually the condition which first calls the patient's attention to his disease, although the tumour may have attained a considerable size before it becomes noticeable to a superficial examination. Occasionally double vision, owing to the movements of the eye being limited in certain directions, is first noticed; on the other hand, this distressing symptom may be absent when very great displacement exists, if the displacement has been gradual or the conducting power of the optic nerve is interfered with. The diagnosis must in each case be carried out, in a great measure, by a system of exclusion. By the help of the exploring trocar cystic and solid tumours are readily differentiated, and the diagnosis thus half made. In all doubtful cases its use should never be omitted. A careful examination of the adjoining parts and cavities should always, so far as possible, be carefully made when a tumour is supposed to have its origin in structures adjoining the orbit. The history of discharges of blood or matter from, or of obstructions in the shape of polypi or other growths in, the nasal cavities should always be inquired into. Attention should be directed to the perviousness or obstruction of the nasal duct. Sometimes, a naso-pharyngeal polypus will send a prolongation into the orbit through the pterygo-maxillary fissure, but rarely before other symptoms have made the origin and nature of the disease no longer a matter of doubt.

CASE 1. *Cavernous vascular tumour of orbit (telangiectasis); removal with globe; recovery.*—A lad aged thirteen years was sent to me for advice. The left eye was projecting and displaced upwards and outwards. Its movements were much curtailed, especially downwards, and double vision was produced when looking in this direction—S = ⅛; the ophthalmoscope revealed slight œdema of disc, and considerable venous turgescence. A tumour was distinctly felt below the globe, chiefly at the lower and inner angle of the orbit. It felt moderately hard and elastic, but receded somewhat under the pressure of the finger, rendering the detection of any penetration uncertain. The patient's mother thought the left globe had always been a little more prominent than the right. The boy himself had been conscious of something wrong in the orbit for several years; during the last two it had become specially noticeable. On coughing or straining the proptosis increased to a slight extent. With the stethoscope nothing abnormal could be heard. An exploring trocar gave vent to nothing but blood. Under chloroform an attempt was made to remove the tumour without interfering with the globe, but the deep parts of

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the growth were found to be more extensive than was anticipated. It was found necessary to divide freely the external commissure to get more ready access to the parts, and it was then found that the growth was in the closest affinity with the optic nerve, to separate it from which, in the presence of the very alarming hæmorrhage, would have been impossible. It was consequently removed together with the whole of the growth. The tumour on removal was found to be about the size of a bantam's egg, but more flattened. Its posterior extremity extended to the bottom of the orbit, and was in close proximity to the optic nerve. It had an ill-defined fibrous capsule, and on section presented a cavernous structure. Dr. Philipson of this city kindly examined it for me, and reported that it was a good specimen of "telangiectasis." In its removal it had been wounded in several places; hence no doubt the hæmorrhage, which was of a most alarming character, and necessitated a speedy termination of the operation.

CASE 2. *Curious blood-cyst of the orbit, occurring after severe straining (whooping-cough); puncture; recovery.*—A little girl aged ten was brought to my consulting rooms. She had considerable general protrusion of the right eye. There was no well-defined tumour to be felt, but an indistinct feeling of fluctuation was communicated to the fingers on pressing the globe back into the orbit. There was no pain or tenderness, sight was normal, and there were no ophthalmoscopical symptoms. The swelling had existed five months, and had made its appearance suddenly at the time the child was suffering from a severe attack of whooping-cough. Chloroform having been administered, an exploring trocar was introduced deeply into the orbit. A jet of dark-coloured blood escaped in a free stream, and the eye almost immediately receded to its normal position. In a few weeks the child presented a perfectly natural appearance.

CASE 3. *Extensive congenital cystic tumour of the orbit; removal of cyst; recovery.*—A lad aged fourteen was brought to me at the Eye Infirmary under the following circumstances:—The right eye is considerably displaced downwards and forwards. There exists diplopia and limited movement upwards. At the upper and outward angle of the orbit a tumour can be felt, which is evidently of considerable size. It has a decided elastic feel, and gives the impression of a tense cyst. The tumour has existed for many years, but has gradually grown. It gives no pain, and is free from tenderness. An exploring trocar, when introduced, evidently penetrates a cyst, and, on squeezing, a small quantity of the cheesy matter characteristic of congenital cysts is forced through the cannula. A few days subsequently the cyst was removed under chloroform. It was found to extend deeply into the orbit, and was closely adherent to the periosteum at the upper and outward angle of the orbit. Its removal intact was impossible, but it was dissected out piecemeal. Suppuration took place in the cavity of the wound, and it did not completely close for three months, leaving a somewhat depressed cicatrix, without, however, any displacement of the lid.

CASE 4. *Small ivory exostosis growing from the inner wall of the orbit; removal; recovery.*—A young man aged twenty-six, a cabinet maker by profession, consulted me concerning the displacement of his left eye. There was but little proptosis, but the eye seemed pushed chiefly outwards. A painless, hard, and rounded tumour occupied the inner side of the orbit; apparently it was about the size of a small Barcelona nut. It blunted the point of an exploring trocar, and its diagnosis presented no difficulty. Its growth had been of slow progress, extending over several years. Its small size and comparatively circumscribed base induced me to recommend its early removal. This was found to be a matter of considerable difficulty. After it had been exposed by a vertical incision along the inner side of the orbit, the bones round its base were cut with a chisel and hammer. The growth was now grasped by a powerful pair of forceps, and by a process of twisting and prising with a narrow chisel used as a lever it was lifted from its bed. The nasal cavities were opened and the fingers could be introduced into them. A drainage-tube was passed through the wound and brought out through the left nostril. The eye gradually resumed its normal position, and with the exception of a depressed cicatrix at the inner side of the angle of the eye, and a troublesome overflow of tears from disturbance of the relations of the lacrymal sac, little inconvenience ensued.

CASE 5. *Exostosis of orbit of considerable size; no operation.*—A chief mate of a steam vessel consulted me concerning a protrusion of the right eye, which had come on gradually without pain or constitutional symptoms. The eye was displaced downwards, inwards, and forwards to a considerable extent. There was at least a quarter of an inch difference in the level between the two pupils; nevertheless, he said he never suffered from diplopia. Growing deeply in the superior external angle of the orbit, a hard, dense, and painless tumour of considerable size could be felt. An exploring trocar, when introduced, came into contact with bone of ivory hardness, and the diagnosis presented no difficulty. His circumstances would not allow of his undergoing an operation, which I was not inclined to press from the size of the growth and its attachments to the upper wall of the orbit, which might, during an operation, have led to the opening of the cranial cavity. The patient returned to sea, and I lost all trace of him.

CASE 6. *Hypertrophy of lacrymal gland; removal.*—A man aged forty came to the Eye Infirmary, sent by Mr. Alexander of Earsdon. There was considerable proptosis of the right eye, which was forced downwards and outwards. The upper lid sometimes slipped completely behind the eyeball, and had to be drawn forwards by the fingers. In the upper and outer part of the orbit a lobulated swelling could be felt, occupying the seat of the lacrymal gland and filling the upper part of the orbit. The outer canthus was freely divided, the orbital cavity opened, and a large encapsulated and lobular tumour found occupying the whole of the inner and upper part of the orbit and extending deeply into the cavity. It was removed with some difficulty, without injury to the globe, which immediately returned to its proper position. The tumour proved to be a hypertrophied lacrymal gland, with proliferation and condensation of the connective-tissue elements. Recovery was complete and uninterrupted.

CASE 7. *Fibro-cartilaginous tumour of orbit; removal; recovery.*—W. B——, aged fourteen, residing at Chester-le-Street, came to me on account of considerable displacement of the right eye, which was driven directly downwards, the pupil being fully half an inch below the level of the left eye. A considerable tumour could be felt occupying the upper part of the orbit. It was round, smooth, and very hard, giving the sensation of bone. A grooved needle could with difficulty be driven into it, and it was evidently cartilaginous in its structure. Its growth had occupied eighteen months, and it was still enlarging gradually. The upper lid, after division of the external canthus, was raised, and the tumour explored. It was found to have a firm and extensive attachment to the upper wall of the orbit. It was, however, to a certain extent pedunculated, the edge of a gouge penetrating to a certain distance between it and the bones. It was partly prised and partly chiseled off, and came out entire, being about the size of a horse-chestnut, though somewhat more flattened. It weighed seven drachms. On examination it proved to consist entirely of fibro-cartilage. After the removal a considerable cavity remained, with some ptosis, but recovery was eventually complete, no ptosis remaining at the end of three months.

CASE 8. *Periosteal thickening in orbit resembling a tumour.*—F. S——, a young man, by occupation a hind, and residing near Belford, was admitted into the Eye Infirmary. His right eye was displaced downwards and inwards, and was considerably more prominent than its fellow. There was diplopia, but good movement in vision, and an entire absence of pain or other subjective symptoms. In the upper and outer orbital region, on deep pressure a feeling of firm resistance and an ill-defined tumour could be felt, which, it was suspected, might be connected with the lacrymal gland. Chloroform having been administered, the external canthus was divided, and the cavity of the orbit explored with the finger. The cause of the exophthalmos was found to be a considerable but limited thickening of the periosteum (and apparently subjacent bone). Occupying the upper and outer part of the orbit, it formed a smooth and rounded swelling. As its removal was impracticable without risk of opening the cranial cavity, the periosteum was freely incised in various directions and the wound closed. Although there was no history of a specific taint, iodide of potassium was administered internally, and in a few days the patient was sent home. The growth gradually subsided, and at the end of six months there was no further trace of it.

CASE 9. *Fatty tumour of orbit; removal.*—A young woman, single, aged twenty-eight, was brought to my consulting rooms on account of prominence and defective vision of the right eye. There was considerable displacement outwards, with moderate protrusion, and movement inwards

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was limited, giving rise, when looking at close objects, to a divergent strabismus. The reaction of the pupil was good, and the ophthalmoscopic signs were *nil*, but the eye was extremely amblyopic—I suspected congenitally. A small elastic swelling was distinctly to be felt occupying the inner part of the orbit by deep pressure in the inner angle. It had almost the feeling of fluctuation, but the insertion of a grooved needle gave negative results. I operated in the following manner. After dividing the conjunctiva over the inner third of the circumference of the globe, the finger was inserted deeply into the orbit. A small tumour the size of a small walnut was felt; it was movable, and but slightly attached to the cellular and fatty structures in the orbit, and with a little dragging and twisting was easily drawn out entire. It proved to be a fatty tumour, with a dense fibrous matrix. Recovery was uninterrupted, and the eye resumed its normal position. The sight, however, remained unaltered.

CASE 10. *Distension of frontal sinus; operation.*—Mrs. C——, aged sixty-eight, residing at Morpeth, consulted me concerning a swelling which had gradually made its appearance at the upper and inner part of the right orbit. The swelling was smooth, hard, and had a bony feel, and was about the size of a pigeon's egg. It had all the appearance of a distended frontal sinus, and was diagnosed as such. An incision was made over the swelling, and the bone exposed and perforated with a gimlet. About one ounce of thick glairy fluid escaped. The opening was enlarged, and the end of the little finger introduced into the cavity; guided by this, a curved trocar without the cannula was forcibly driven into the meatus of the nose, and when this was withdrawn a small drainage-tube was passed, and its end protruded through the right nostril; this end was fastened by a piece of silk to the one protruding from the wound, and the cavity was syringed out two or three times a day with Condy's fluid. At the end of a month the cavity had much contracted, and at the end of six weeks the fistula leading into it was allowed to heal, the patient returning home quite well at the end of two months.

CASE 11. *Distension of frontal sinus; operation.*—This case in every feature resembled Case 8, but was much less amenable to treatment. At the end of three months a small fistula which would admit a fine probe still existed at the seat of the operation wound. Shortly after this I lost sight of the patient, but I have no reason to doubt the fistula would heal as soon as the sinus had completely contracted.

CASE 12. *Abscess in ethmoidal sinus.*—I was asked by Dr. J—— to see a child who had recently suffered from a severe form of scarlet fever. The child had complained of severe headache, and had a high temperature and considerable constitutional disturbance. Coincidently with this the left eye had become painful, and was pushed outwards and forwards, and there was considerable chemosis and other evidence of deep-seated orbital inflammation. Chloroform having been administered, an opening was made on the inner side of the globe, but no pus escaped. On introducing the finger into the orbit, it was found that the inner wall was bulging, and the bones were thinned and crackled on pressure. The scalpel driven through them gave exit to a quantity of very fetid pus, which had evidently been pent up in the ethmoidal cells. Recovery was complete and rapid.

CASE 13. *Exophthalmos of both eyes; retro-ocular abscesses communicating with each other through the base of the skull.* C. S——, aged thirteen, had a severe attack of scarlet fever, with urgent throat symptoms and frequent attacks of epistaxis, which had much reduced her. She was suddenly attacked with rigors, high temperature, and intense headache, with wandering and other cerebral symptoms. A few days afterwards proptosis of both eyes became manifest, and it was thought the sight had gone. I now saw her for the first time. Both globes were considerably protruded; pupils semi-dilated, inactive; optic neuritis well marked in both discs. The child was semi-conscious, and when roused only answered in monosyllables. On making a deep incision on the inner side of the globe and forcing a director to the back of the right orbit, pus immediately escaped, and on making pressure upon the *left* eye I noticed distinctly that it increased the flow from the *right* eye, showing that there was a communication between the two abscess cavities. An incision similar to that made in the right orbit was punctured on the left side; pus escaped freely and in considerable quantities. In the course of twenty-four hours all the urgent symptoms subsided, the child became fully conscious, and vision returned. At the end of ten months restoration to health was quite complete, and no trace of optic neuritis or impaired vision remained.

CASE 14. *Deep-seated abscess of orbit, with extensive necrosis; secondary implication of frontal sinus; retraction of upper lid.*—Mrs. G——, a delicate woman, after exposure to cold was seized with violent pain in the right orbit. The globe was much protruded, chemosed, and vascular, and the sight considerably impaired. The disc was much congested, and the veins tortuous, showing considerable interference with the intra-ocular circulation. I was anxious to make an early opening, but the patient objected; hence a delay of a few days, during which all the symptoms considerably increased. When the matter was let out by an incision in the upper part of the orbit under the lid, it was found there was very extensive necrosis of a considerable part of the orbital cavity, chiefly its posterior and upper part. A drainage-tube was inserted, and the cavity washed out frequently. In this condition she continued for about eight weeks, when rather suddenly she had a return of acute symptoms, and it was noticed that the orbit began to bulge in the region of the frontal sinus. Chloroform having been administered, an opening was made into this cavity, which was found enlarged and full of pus. The usual operation of drainage through the nasal cavity was effected. Great improvement in the general health occurred; but, as the abscess cavity contracted, the upper lid became everted and drawn in to such an extent that the globe was permanently uncovered, the cornea sloughed, and it became necessary to enucleate the eye. This gave me a good opportunity of exploring the deep parts of the orbit. The whole of the bones were denuded and necrosed in the neighbourhood of the optic foramen and sphenoidal fissure, but were firmly attached and nothing could be removed. Since that time, now four years ago, there has been constant discharge from the orbit, and small pieces of bone have come away; but the patient is content with her condition, and will undergo no further operation.

CASE 15. *Malignant disease (encephaloid) commencing in the ethmoidal sinuses; operation; death.*—A man aged thirty consulted me concerning the following train of symptoms. He had had repeated and considerable attacks of epistaxis, which had much exhausted him and rendered him very anæmic. There had been considerable pain in the nose and left orbit, and recently a prominence had shown itself at the lower and inner angle which had displaced the eye upwards and outwards. The swelling had an elastic fluctuating feel, and the bones over it were expanded, thinned, and felt crackling. Malignant disease was suspected, and the introduction of a small trocar gave exit to nothing but blood. The patient, when much enfeebled, was admitted into the Royal Infirmary under my friend Mr. Page, who removed a large quantity of soft encephaloid matter from the cavity of the ethmoid bone and upper part of the walls. The patient died of shock in a few days.

CASE 16. *Pulsating exophthalmos; ligature of common carotid.*—Miss N——, aged forty-five, consulted me concerning a protrusion and ptosis of the left eyeball. The face was flushed and dusky. On raising the lids the conjunctiva was congested and the rectal veins much distended. The eye was motionless, the pupil contracted. The sight was good, but diplopia was present. Examined ophthalmoscopically, there was a well-marked "Staungs pupilla." A loud systolic murmur was heard over the eye and over most of the head, loudest at the left temple. The sound was also audible to the patient, and was very distressing. Pressure on the common left carotid stopped the sound and the pulsation, and reduced the proptosis. The swelling and protrusion commenced suddenly six weeks before I saw her, and the ptosis was coincident with it. Ligature of the common carotid was performed, and for some days the patient promised to do well, but subsequently right-sided hemiplegia with aphasia developed, and she died four days after the operation. No post-mortem examination was allowed.

Newcastle-on-Tyne.

INSANITARY BARRACKS.—The Clarence Barracks at Portsmouth have been ordered to be razed to the ground. They were closed a few weeks ago for inspection, and were found to be in so bad a condition from a health point of view as to be beyond repair. The Gun Wharf Barracks, in which the Royal Marines were quartered forty years ago, and which have since been used as the quarters of the Royal Artillery, have been also closed. Such sections as are not sanitarily unfit are to be retained as stores, but the greater part of the building is to be pulled down.

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Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

GANGRENOUS ABSCESS OF THE LUNG TREATED BY INCISION AND DRAINAGE; RECOVERY.

By SOLOMON C. SMITH, M.D.,
SURGEON TO THE HALIFAX INFIRMARY.

IN THE LANCET of Jan. 17th, 1880, I recorded a case in which I drained a gangrenous abscess of the lung, giving thereby much relief, but not saving the patient from death, which took place in about a fortnight. I now report a case of the same nature, although with less urgent symptoms, in which a similar line of treatment was successful.

E. H——, a woman aged thirty-nine, was seen by me on March 18th, 1889, in consultation with Dr. Bindley of Brighouse. Her illness had commenced a fortnight before, with feverishness, general malaise, and cough. At the end of a week she got up, but was taken worse the next day with pain in her chest; the cough became more troublesome, and within a day or so the expectoration was observed to be offensive. When I saw her she was very feeble, not very short of breath when lying down, but the effort of sitting up in bed produced both faintness and dyspnœa. The pulse was quick, and its rate easily disturbed; the appetite was not bad, and there was no diarrhœa; but there was a good deal of perspiration, and the temperature had kept up between 101° and 103°. Her chief complaint was of extreme weakness and of violent attacks of cough, sometimes lasting hours together, and producing only slight and difficult expectoration, which, however, was exceedingly fetid, sickening both her and her attendants. The paroxysms of cough were often separated by intervals of several hours. Below the point of the right scapula there was dulness, not very marked, and not extending quite to the base; and over and around the dull area the respiratory sounds were abolished, except on coughing, when moist sounds were heard, but not very distinctly. During the next month her condition steadily deteriorated, and on April 21st she was found extremely weak, with quick, feeble pulse, frequent perspirations, failing appetite, and constantly recurring cough, with expectoration of a thin yellowish-brown fluid, of a very offensive odour, which made the whole atmosphere of the room sickening to a degree. In the early days of her illness the expectoration had occurred at considerable intervals, but now it came on so often that it entirely prevented her from satisfying such little appetite as she had, every attempt to swallow immediately setting up cough, and filling the mouth with this offensive expectoration. There was now distinct gurgling to be heard occasionally below the right scapula on coughing, with loud cavernous cough sounds. The largest quantity of fluid ejected at one paroxysm was about a teacupful. Operation was advised, but was not consented to until May 12th, when her condition had become apparently desperate; coarse moist sounds were audible over the opposite lung, and she was evidently sinking rapidly. An aspirator inserted for about three inches into the site of the loudest cough sounds drew away nothing; but on making an incision into the same spot, and boring inwards with a "sinus" forceps, the blades of which were then opened, it was obvious, from the free mobility of the point and from the expectoration becoming immediately blood-stained, that a cavity had been entered. The opening was then extended so as easily to admit of the insertion of two drainage-tubes, of as large a calibre as would lie uncollapsed between the ribs. There was very little discharge—I should say less than an ounce; but the fetor was extreme, so much so that the smell clung to my hands for many hours, notwithstanding all my efforts to remove it.

From the date of the operation her recovery has been steady and continuous; since that afternoon the expectoration has never again been fetid, and in a very few days the discharge through the tube became sweet, and has remained so. It is curious to remark how small in quantity the discharge has been, and how rapidly the expectoration diminished; it seemed as if the free dependent opening at once removed all the difficulty; the appetite returned, the cough and expectoration diminished, the fetor vanished, and when I saw her last, on June 6th, she was up and walking about. The tube, of course, still remains in place.

Halifax.

REJUVENESCENCE OF THE HAIR OF THE HEAD AND BEARD.

By WILLIAM O'NEILL, M.D., M.R.C.P. LOND., &c.

I WISH to mention very briefly an interesting feature or two in the case of a gentleman who has recently been under my care.

Mr. T——, who was sixty-five years of age and very tall and slender, suffered for many years from chronic rheumatism of a most painful character. Once he had a severe attack of bronchitis, but he never presented any symptom of heart, liver, or kidney disease, and his digestion was fairly good for a man who spent most of his time in in-door occupations. Six years ago, when he was well able to attend to his business, he was suddenly seized, without any previous warning, with palsy of the right side, slight deafness of the right ear, and ocular derangement which caused him to see objects double. His speech was not in the least affected, neither had he any appreciable paralysis of the face or tongue. The mind was somewhat confused at the time of the seizure, but it soon regained its usual strength and vigour. The paralysed limbs, however, never acquired much increase of power, the muscles wasted, and some of the flexors became contracted and rigid. The fingers of the right hand became flexed on the palm and the forearm on the arm. Mobility and sensibility in the limbs were very deficient, but the leg retained more nerve power than the arm. Any movements of the diseased limbs caused a good deal of pain; consequently it was almost impossible to persuade the patient to exercise them either in an active or passive way. A short time before Mr. T—— had his seizure a very tall thin man was also attacked with right hemiplegia. In his case, however, the speech was much affected; and, although he is living and in good health, the aphasia and the paralysis have not greatly improved. In both these men the outward and visible signs of paralysis or disease seemed to be precisely similar, and it is only by a knowledge of the locality of the inward lesion that an explanation can be given why it is that in the case of Mr. T—— the stream of language flowed strongly and smoothly, and that in the other case the stream is defective, broken, and interrupted. The cause of the palsy in these patients I attribute to embolism, and the great length and the small calibre of the carotids of the necks had something to do, I think, with the formation of the plugs.

But what I wish more especially to mention in connexion with the case of Mr. T—— is that up to about two years and a half ago he was both bald and grey-haired. About that time, however, dark hair began to grow on the bald patch, and the grey hair of the head and the beard began to fall and to be replaced by hair also of a dark-brown colour. These processes of renewal or restoration went on until the hair on the patient's head and chin had assumed the appearance which it had when he was a young man of twenty-five or thirty years of age. His wife and relatives believe that this new growth of hair was caused by chlorodyne, which the patient had acquired the habit of taking in large quantities. Three years ago he was induced by someone to try chlorodyne as a remedy against pain. At first the doses were small and insignificant, but he soon got to take two or three teaspoonful doses or more several times a day. Whether the chlorodyne had anything to do with the new growth of hair, I do not know. But even supposing it is a hair-restorer or rejuvenator when taken in the way that Mr. T—— took it, still the remedy is worse than the disease, or, according to the old adage, "the game is not worth the candle," for there is no doubt that, when chlorodyne is taken in large doses for a length of time, it will produce the most injurious effect on the constitution.

Lincoln.

THE MECHANISM OF THE BILIARY SECRETION.

By VAUGHAN HARLEY, M.B.

IN an interesting paper entitled a "Unique Case of Biliary Fistula," at p. 1075 of THE LANCET of June 1st, Mr. Copeman remarks that the secretion of bile does not

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appear to be continuous, but that "short periods of rest are followed by a flow in a series of jerks, which appear to be caused by waves of peristaltic contraction, occasioned doubtless by the presence of fluid in the gall-bladder and large bile-ducts." As it appears to me that this is a misstatement of fact, originating in an erroneous inference having been drawn from the phenomena observed, and as at the present moment, when the pathology of liver diseases is receiving so much attention from the profession both at home and abroad, it is highly desirable that we should, as far as is possible, possess a correct idea of the mechanism of the biliary secretion, I venture to call attention to the following facts, more particularly as I think they not only give a ready explanation of why the flow of bile is apparently intermittent, but likewise that Mr. Copeman's statement originated in his having simply paid attention to the manner in which the excreted bile entered the receiving bottle in which it was collected after it had passed along a syphon tube, instead of observing how it flowed from the biliary ducts themselves. For in the case of a dog with an artificial biliary fistula, which Professor Dastre of the Sorbonne has at present under observation in the Physiological laboratory, if one watches carefully the escape of the bile from the short cannula, it is seen that by slow degrees the cannula becomes fuller and fuller, until a sufficiency of bile has collected at its orifice for a drop or succession of drops to fall from it. A pause takes place during the reaccumulation of the bile, and then, after the bile has re-collected at the orifice of the cannula, the drop-flow is repeated as before. If, however, instead of allowing the bile to flow directly from the cannula, a piece of indiarubber tubing be attached to its orifice, and the bile be compelled to flow along it, as in Mr. Copeman's case, only the pause in the bile's excretion is observable, and the true cause of the intermission in its discharge from the duct remains undetected. Moreover, the mechanism of the intermittence of the excretion is easilyexplicable, when one remembers that from the fact of bile being a viscid liquid it takes some little time for it to collect in the cannula in sufficient quantity to admit of its dropping from its orifice. The pause in the excretion of the bile seems to be also in some measure due to the intermitting downward pressure of the diaphragm upon the liver and gall-bladder during the inspiratory effort. It may be as well for me to state that the dog alluded to was operated on, on March 21st, 1889, by the common bile-duct not only being doubly ligatured, but the included part of it being completely cut away, so as to make perfectly sure that none of the bile could by the ordinary channel reach the intestines. And yet, notwithstanding this, the dog—although he had no bile given to him as in the case of Mr. Copeman's patient—has actually increased in weight. For, while before he was operated upon he weighed 16¾ kilog., he now (on June 13th) weighs 16½ kilog. He has a splendid appetite, and is apparently in perfect health.

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A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

TRAUMATIC TETANUS TREATED BY NERVE EXCISION AND CHLORAL HYDRATE; RECOVERY; REMARKS.

(Under the care of Mr. MAKINS.)

WE agree with Mr. Makins in his opinion that the successful treatment of cases of traumatic tetanus should be recorded, for the disease is fatal in so many instances that the accumulation of evidence as to the efficacy of any method or methods of treatment is most desirable. The local treatment may consist in the improvement of the condition of the wound if this be unhealthy, or, in addition, an attempt to destroy the conducting power of implicated nerves, by stretching, dividing, or resecting a portion of them, or by freeing them when involved in a cicatrix. In this case the nerve was inflamed, and excision of a portion of it was followed by marked improvement. Brown-Séquard[1] says: "Those who maintain that tetanus, when it has fairly begun, and attacked not only the head but the trunk and limbs, cannot be cured by these operations (amputation and neurotomy) have not read the details of the cases which have been published. ..... It is most important to give the chance to the patient." Nicaise is also in favour of it, even when generalisation of the disease has taken place. We have published during the last five and a half years several cases in which this treatment appeared to be of value; also a paper by Dr. Macdougall[2] on the subject, in which he mentioned two patients, for one of whom he divided the external popliteal and for the other a portion of the radial nerve, with success. He dwells on the importance of a careful examination of the wound for pain or tenderness in it or in the nerve leading to it, also on "Wood's symptom." During that period we have published accounts, more or less full, of fifteen cases of recovery from tetanus. In one,[3] amputation of the thumb was performed; in a second,[4] excision of cicatrix and surrounding parts; in a third, a deep incision round the cicatrix; in a fourth,[5] division of the median nerve. We had placed many on record before that time. In 1887 Mr. Austin Meldon[6] read a paper on Tetanus, and gave statistics of 937 cases collected by him, which possess considerable interest. He had administered hyoscyamus, belladonna, and conium in seventeen cases, with only four deaths, in his own practice. Of the others, in 370 treated by chloral, 83 recovered and 287 died; 135 treated by curare, 23 recovered and 102 died; 60 by nicotine, 3 recoveries, 57 deaths; 96 by opium, 4 recoveries, 92 deaths; 21 by conium, 3 recoveries, 18 deaths; 76 by cannabis indica, 12 recoveries, 64 deaths; 28 by bromides, 2 recoveries, 26 deaths; 103 by alcohol, 25 recoveries, 78 deaths; 41 by all other remedies, 17 recoveries, 24 deaths. He excluded from this table those in which the first symptoms were noticed later than the fifteenth day. In the fifteen cases to which we have referred, chloral hydrate was employed in four, and bromide of potassium in eight; hydrochlorate of morphia, strophanthus tabloids, and extract of physostigma in others; in seven, morphia was also used for the relief of pain. These are not, however, examples of the more acute form of tetanus, for the period between the infliction of the wound and appearance of symptoms varied from four days to four weeks. In the majority the use of chloral in repeated doses produced the most marked effect, conjoined with rest and the due administration of fluid nourishment. Verneuil in 1885 recommended strong doses of chloral and bromide, with quiet, &c.; the opinion of the Royal Academy of Medicine in Ireland was in favour of a similar line of treatment[7] in the previous year; whilst Dr. De Renzi[8] and other Italians advised perfect rest with appropriate feeding, without the administration of drugs, and brought forward successful cases. There is no specific. In the acute variety of the disease but little has been done, whereas in the subacute and chronic forms there is much encouragement to perseverance in treatment. In one case which we recorded,[9] as much as six ounces three drachms and a half of chloral were given during the attack; its action was carefully watched, and the dose increased or diminished according to the symptoms. We have not space to consider other drugs which have been found useful. This case is one in which chloral was found of great value.

F. T——, railway goods' guard, aged twenty-three, was admitted on Sept. 6th, 1888. He had been a temperate man, and had always enjoyed good health. He gave the following history. On Aug. 12th, while running, he trod on a piece of rusty iron hoop, a nail in which penetrated his boot and wounded the sole of the foot at the outer border of the ball of the great toe. The puncture closed in about a week; it was painful, but accompanied by no swelling or inflammation. On Aug. 23rd he noticed some stiffness of the jaw, and on the 25th, as he was sitting at tea, he was suddenly seized with stiffness in both legs, in consequence of which a

[1] Ashhurst's Encyclopædia of Surgery.
[2] The Etiology of Tetanus and the occasional Value of Neurectomy. THE LANCET, vol. ii. 1884, p. 140.
[3] Ibid., vol. i. 1885, p. 382.
[4] Ibid., vol. i. 1887, p. 27.
[5] Ibid., vol. ii. 1888, p 1013.
[6] Ibid., vol. ii. 1887, p. 317.
[7] Ibid., vol ii. 1884, p. 236.
[8] Ibid., vol. ii. 1885, p. 85.
[9] Ibid., vol. ii. 1884, p. 272.

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friend had to lay him down upon the floor. This stiffness continued until his admission.

When seen in bed, he lay upon his back, sweating profusely. The expression was anxious, the forehead wrinkled, and his mouth drawn into the characteristic grin. The masseters felt firm, and the teeth were firmly closed, but he could open his mouth sufficiently to protrude the tongue, which was freely movable. Pupils and movements of eyeball normal; trapezii and sterno-mastoids slightly rigid; slight stiffness on passive movement of both shoulders and elbows; forearms and hands normal; both legs strongly extended, quite rigid, and incapable of flexion, even when considerable force was used; abdominal wall extremely rigid. Twice or thrice in the minute transient slight spasmodic contractions of the muscles occurred, during which the legs from the heels upwards were raised from the bed; lower gluteal fold raised; testicles retracted. The abdominal walls became harder. A short spasmodic expiration, accompanied by a groan, occurred, and the face was drawn. During the intervals of rest, slight ankle-clonus could be obtained on the left but not on the right side. During the spasms the body rested on the shoulders, upper part of buttocks, and heels. Liquid food was readily swallowed. Urine passed easily, but during the act a spasm regularly occurred; sp. gr., 1030; acid; no albumen or sugar. No turgidity of penis. Respiration 32, irregular; but inspiration fairly deep. Temperature 99°; sweating freely. Pulse 100, intermittent during the spasms. Bowels constipated. Great thirst. A dry eczematous eruption over the abdomen and front of the legs was said to have appeared a few days after the accident. On the sole of the right foot, at the line of the metatarso-phalangeal articulation of the second toe, was a small dark cicatrix. Firm pressure on this spot caused the patient to cry out with pain, and invariably produced a paroxysm resembling those described above. During the first twenty-four hours after admission, the third of a grain of morphia was administered subcutaneously every four hours.

Sept. 7th.—Not much change. Spasms once or twice per minute. Speech hesitating and laborious. Sweating profusely. Temperature 99°. Bowels open. Taking food well. At 2 P.M., the patient having been brought under the influence of chloroform, a crucial incision was made, having its centre over the site of the wound. A blackened track leading down to the second digital nerve was found; this nerve was apparently swollen, being the eighth of an inch in diameter. The track was excised, and also one inch of the nerve. The wound was closed, after thoroughly washing with solution of perchloride of mercury (1 in 1000), and dressed with sal-alembroth ganze. During the operation and manipulation of the nerve one or two spasms of exceptional severity occurred. Chloral hydrate was ordered in fifteen-grain doses every four hours.

Little change was noted on Sept. 8th, but on the 9th the legs were less rigid, and the left one could be moved slightly voluntarily. The rigidity of the abdominal wall was unaltered, but the spasms were less frequent, though they were still capable of induction by pressure over the wound.

Sept. 10th.—Very much better; no spontaneous spasms. The left leg was much less rigid, and he could flex it to 45°. Pulse 100, full, regular; respiration 16; temperature normal. Wound dressed; it looked well, but pressure still induced a spasm.

11th.—The left leg could be flexed to a right angle at the knee, and the whole limb could be raised from the bed. Right leg still rigid, but capable of some passive movement at the knee. Abdomen the same as on admission. Movements of the arms free, but still slight rigidity at the elbows. Neck and jaw muscles less rigid. Pressure over the wound still caused a spasm, with much pain of a shooting character. Pulse 90, full, regular; respiration and temperature normal. Bowels open. Taking nourishment well.

13th.—Much improved. Abdomen still rigid; legs much less so, and no spasm induced by pressure over the wound.

14th.—Chloral changed to fifteen grains thrice daily. Placed on full diet.

17th.—Rigidity of the abdominal wall only exists. No spasms.

20th.—Abdomen softer. Slight rigidity of hamstrings.

Oct. 1st.—Abdomen normal. To get up. All rigidity has disappeared. Chloral discontinued.

On the 7th the patient was discharged cured.

Remarks by Mr. MAKINS.—The case is one of the subacute variety, eleven days elapsing before the first symptoms, and he had already been ill fourteen days before admission into hospital. In such cases recovery is not rare, but in all satisfactory results it is of interest to note the treatment. I believe that the success depended in great part on the administration of chloral, as the patient began to improve as soon as he was brought under the influence of the drug. As to the effect of the nerve excision, and the removal of a probably infecting centre in the wound track, little can be said; it may only be remarked that in several cases in which this treatment has been adopted recovery has followed, and, as in the case of such a small nerve no ill consequences are likely to complicate recovery, it is certainly to be recommended. I may mention that cultivations on hydrocele serum, gelatine, and glycerine agar-agar only resulted in the growth of staphylococci; and no bacilli were discovered in the excised nerve when cut and stained. One other point of interest remains in the symptoms: first of all, the sudden onset, and the preponderance of the rigidity in the legs and abdomen; secondly, the gradual spread of the rigidity from the point of primary infection, and the constantly discharging lesion observed when this point was subjected to pressure. The close resemblance of the symptoms in these particulars to those observed in the horse are remarkable, and probably of great prognostic importance, as pointing to a special class of case. It will be noted, moreover, that during the whole course of treatment the temperature never rose beyond 99°, and only to that height on four or five occasions.

NORTH LONDON CONSUMPTION HOSPITAL.

GANGRENE OF THE LUNG FOLLOWING ACUTE PNEUMONIA; RECOVERY; REMARKS.

(Under the care of Dr. EDWARD SQUIRE.)

GANGRENE OF THE LUNG may be met with in people who are healthy, but it is not often met with in such excepting as the result of injury; it is much more common in feeble and exhausted patients, alcoholic, or suffering from chronic disease. Laennec drew special attention to this condition, excellent illustrations of which are given in Wilson Fox's work.[1] In Dr. Squire's case the disease was the result of intense inflammation, circumscribed, and probably of small extent. When due to pulmonary embolism the prognosis is very serious, as it also is when there is a rapid and extensive slough without the formation of a zone of consolidated lung tissue around it. For the following notes we are indebted to Mr. A. Bindley, M.R.C.S., resident medical officer.

A. W. H——, a strong, well-built man, aged thirty-four, became affected with pneumonia and pleurisy at the base of the right lung at the end of January last. This was diagnosed by Mr. W. Boulting on Jan. 29th. Nothing unusual was noted during the course of the disease, but at the end of the usual period resolution failed to take place. At the beginning of the fourth week the patient was beginning to feel much better, and appeared to be progressing favourably. At the middle of the fourth week the breath assumed the intensely fetid odour of gangrene, and the patient was admitted into the North London Hospital for Consumption.

On arriving at the hospital the patient was immediately put to bed in a large airy room, and, although it was frosty weather, one of the fanlight windows leading into the open air was constantly open. He was ordered six ounces of brandy, liquid diet, and a tonic mixture containing two grains of sulphate of quinine to the ounce. He was also ordered to wear constantly an inhaler charged with twenty minims of the following: carbolic acid, twenty grains; ol. pini. sylvestris, one ounce. The patient was too ill to be examined thoroughly, but from the examination that was made there was tubular breathing all over the back of the right lung, and coarse râles were heard at the base. Coarse râles were heard also at the left base in both axillæ and at the front of the left lung. At the back of the left lung vesicular breathing was heard.

Feb. 25th.—Some tubular breathing and slightly crackling râles heard at left base; large bubbling sounds inside the lower angle of right scapula. Appetite good. Expectoration of an odour worse than fæcal.

March 6th.—Expectoration almost purulent.

[1] Pathological Atlas of Lung Diseases.

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9th.—No tubular breathing heard. At the right base deficient vesicular murmur and a few small râles.

12th.—Severe fit of coughing after seeing some visitors, and about two ounces of emerald green and intensely fetid pus coughed up. Much exhaustion after the coughing.

16th.—Expectoration light greenish yellow. About this time the patient had another severe fit of coughing, and brought up over a pint of expectoration. The odour was very disagreeable, but it had lost its fæcal character. The expectoration was poured into a large quantity of water, but no pieces of lung were found.

22nd.—Clear vesicular breathing at back of left lung. At the back of the right lung the breath sounds are scarcely heard. Râles still heard at base. Resonance impaired at right base; very little impaired higher up. He now coughs up not more than an ounce of expectoration a day, and this consists of very little more than mucus.

25th.—The patient sat up yesterday afternoon for the first time.

29th.—Expectoration almost ceased. He is beginning to regain his strength.

April 2nd.—Over the whole of the back of the right lung there is deficient vesicular murmur, also some impairment of resonance. A few subcrepitant râles are heard on deep inspiration, internal to the lower angle of the right scapula. Deficient vesicular murmur and slight impairment of resonance in left axilla. Patient went out of doors to-day for the first time.

5th.—The patient is going on well. No cough, and no expectoration.

9th.—The patient left the hospital, and was able to return to his work.

12th.—Deficient respiratory sounds and deficient vocal resonance in right inter-scapular region from the fifth to the eighth ribs. Occasional creaking râles on deep inspiration at the same spot. He looks very well, and is in good spirits.

The patient was seen about three weeks ago, and was still well and able to work.

Remarks by Dr. SQUIRE.—Gangrene of the lung is not a common accident, and recovery from this condition is rather the exception than the rule. In this case, besides the characteristic odour of the expectoration—on one occasion so intense after a violent fit of coughing as to drive everyone off the corridor on which his room was situated,—there were the signs of consolidation, followed by the formation of a cavity in the seventh and eighth intercostal spaces on the right side, just internal to the lower angle of the scapula. The temperature for the first three weeks after admission was irregular, with a diurnal range of three and four degrees, the highest point reached being 102·4°, the lowest 96·4° F. With this the pulse was 120 to 130 a minute, the respirations up to 26 per minute. Recovery, when once improvement commenced, was rapid and satisfactory. The two points in the treatment to which I should like to draw special attention are the use of a respirator with carbolic acid and the very free ventilation of the room. An oro-nasal respirator was constantly worn, and cups of carbolic were placed about the room. I invariably use carbolic respirators whenever the expectoration is foul, and the relief to the patient is as marked as is that to the patient's companions. If the fetor of the expectoration can be lessened, there is more chance of food being taken. This patient was in the hospital during the cold weather of February and March, yet I kept his room window well opened day and night, his bed being so placed that it was out of all draught. The air of the ward always felt distinctly cold to anyone coming into it from the corridor, but the patient, after the first day or two, got to like the freshness of the air, and never complained of the cold. Stimulants were of course required, and used, in diminishing quantities, up to the time of his leaving the hospital.

The patient reported himself at the hospital on May 29th, and was looking and feeling quite well. He now weighs 10 st. 1 lb., as against 8 st. 12 lb. on April 5th.

NEW COTTAGE HOSPITAL AT EPSOM.—At Epsom, on the 11th inst., the Duchess of Teck, who had driven over from Richmond, accompanied by Princess Victoria of Teck and escorted by a troop of Middlesex Yeomanry, opened the new Jubilee Cottage Hospital for Epsom and Ewell. The building, which is "free Gothic" in architecture, has been erected at a cost of £1700.

Medical Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Spondylolisthesis.—Treatment of Prolapsus Uteri by Massage and Pelvic Gymnastics.—Ovarian Tumour.

A MEETING of the Obstetrical Section was held on April 12th.

Dr. E. H. BENNETT exhibited two specimens of Spondylolisthesis from the same subject—a spirit mounting of one half of the specimen, and the second half mounted as a dry preparation. The other, a pelvis with the fourth and fifth lumbar vertebræ, showing displacement of the fourth vertebra on the fifth. A great many years ago the second of these preparations came into his possession, and he put it amongst the collection of fractures of the spine in Trinity College Museum. His reason for bringing forward these specimens in that section lay in their special obstetric interest. The specimen showing displacement between the fourth and fifth vertebræ was wanting in the ordinary characteristics of fracture of the spine, the posterior portion of the neural arch being left in its normal position detached, with the inferior articular processes, from the remainder of the bone, which, without further fracture, was displaced directly forwards. The question which arose was whether this displacement was the result of violence or of disease; the question of congenital lesion could not arise with regard to this specimen. Two years ago Professor Cunningham was studying the normal curves of the human spine, and amongst the spines submitted to examination that which furnished the dry mounting and the spirit preparation turned up. It presented a deformity between the fifth lumbar vertebra and the promontory of the sacrum. Spondylolisthesis had taken place to the extent of about one-third of the width of the body of the vertebra. There was no history of the case, but the spine was that of a female, and there was also a record that the muscles of both thighs, particularly the adductor muscles, were in a condition of fatty degeneration, which showed that the lesion of the spine had produced pressure upon some of the nerves of the cauda equina. His attention had been directed to this subject by a monograph by Neugebauer contained in the recent issue of the Sydenham Society, and it was upon reading that monograph that it occurred to him for the first time that these specimens had such special obstetric interest. Altogether there were nineteen cases of this lesion recorded up to the present. The first occurred in 1853, and the other cases had accumulated since. The question discussed by Neugebauer was whether the lesion had a congenital origin, or was the product of inflammatory disease, or the result of fracture. Judging from these two specimens, he (Dr. Bennett) had no hesitation whatever in endorsing the view adopted by Neugebauer, that in the majority of instances the lesion was traumatic. In the specimens before the section there was absolute proof that the lesion was neither congenital nor the result of Pott's disease.

Dr. ALFRED SMITH read notes on the treatment, at the Rotunda Hospital, of six cases of Prolapsus Uteri by Herr Brandt's method of massage and pelvic gymnastics. The technique of this special treatment consists, firstly, in the lifting of the uterus; secondly, in massage of the uterus and its ligaments; thirdly, in forced separation and forced closure of the knees; and, fourthly, in tapotement of the lumbar and sacral vertebræ. The duration of these four exercises, which are performed at one sitting, is from fifteen to twenty minutes, and they should be repeated daily for a period of from two to eight weeks. The sitting having concluded, the patient turns on her face, and remains in that position for about ten minutes. The importance of regular attendance during the period above specified must be impressed on the patient, who, perhaps feeling her condition improved, is apt to become irregular.—Dr. W. BAGOT said, having seen Dr. Smith's cases, and having for some time practised this method himself with varied success, he felt bound to say that his results had been such as would lead him to believe that his failures were in great part due to lack of patience and skill in carrying out the treatment. In conclusion, he felt convinced that this method would prove a most valuable aid not only in the treatment of prolapse, but also of retroflexion of the uterus. As a supplement to Dr. Smith's paper, he read reports of two cases which had lately come

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under his care, and which he had treated successfully single-handed, to do away with, if possible, the necessity of having an assistant. Tapotement was omitted in the treatment. This woman was present in order that any of the members of the Society might ask her any questions they thought fit. Dr. Bagot's failures were in cases where there had been extensive laceration of the perineum, or in cases of prolapse of the vagina with senile atrophy of uterus.—Dr. MACAN said any system of treatment which would enable women who had to earn their bread by labour to carry on their work without discomfort or the use of a pessary ought to receive a trial. It was, however, undoubtedly an objection to the system that it required, in the application of it, the services of an assistant. How far the portion of the treatment which was called "uterine gymnastics" contributed to its efficacy it was difficult to say, or to what extent the tightening of the ligaments above promoted the cure. The resistance offered by the ligaments to the descent of the uterus was very slight.—Dr. DILL said he was quite prepared to adopt any new mode of treatment that would be better and easier than the wearing of a pessary; but he had yet to learn that a well-adjusted pessary was capable of causing the slightest inconvenience to a working woman. Pessaries were not only sufficient to keep the uterus in a proper position, but in time they strengthened the ligaments, without the performance of such gymnastics as formed part of the method in question, and he did not believe that patients, particularly those belonging to the upper classes of society, would submit to the immense amount of manipulation that this new method involved. The time it took and the indelicacy of part of it were great drawbacks.—The CHAIRMAN said according to his (Dr. Atthill's) experience, which extended over forty years, the patients who used pessaries might be divided, as regarded the results, into three classes. One, which included a considerable number of patients, consisted of persons who derived great benefit from the use of the pessary, and experienced either no inconvenience at all from it, or so very little that they allowed the pessary to remain in the vagina for a very long time. In another class of cases, if the pessary was removed after short intervals, washed, and replaced, the patients bore it for years and passed through life with comfort. But a third class of cases was met with in which the patients could not bear the pessary; or if they did try it, it injured them. Therefore he (Dr. Atthill) hailed any remedy that would be of assistance in the treatment of such cases.—Dr. C. F. MOORE said the *rationale* of the cure by this process seemed to him to be that there was a determination of blood from the prolapsed uterus to the adjacent muscles, by which a tone was given to the muscles, their bulk increased, and a support furnished to the uterus.—Dr. DOYLE said the process was only on trial as yet. He wished to ask if it was necessary to keep the patient in bed all the time.—Dr. SMITH, in reply, said that in six cases he carried out the method exactly as he found it described in the books. At present, however, he was not exactly following the prescribed method, and was carrying out the process by himself. The most satisfactory results he had yet attained had been in two cases, which he hoped to bring before the section at a future meeting. During his short experience he had not found pessaries to be universally successful—patients had come to him saying that the pessary was no use to them; massage and gymnastics had been of the greatest use in those cases. As to adhesions in prolapsus uteri, he had met with none. As to Dr. Doyle's question, they had not a single patient in the Rotunda who was undergoing the treatment in bed at all. They came into a room, underwent the treatment, which occupied from five to ten minutes, and then were sent home, the only restriction placed on them being that they were not to go up flights of stairs or lift heavy pails of water.

Dr. MACAN exhibited a solid Ovarian Tumour with microscopic specimens. It was a tolerably rare specimen. The patient was a woman aged sixty-eight. She was sixteen years past the change of life, but had been very badly attacked with menorrhagia. He found that she had a retroverted or retroflexed uterus, with a pelvic tumour the size of his closed fist. On a bimanual examination the tumour slipped into the hollow of the sacrum, and it could afterwards be moved up into the pelvis, so that it was evident that the pedicle was long. The uterus was scraped out at the hospital, which had the effect of curing the menorrhagia. Afterwards she came to him from time to time, but on each occasion she seemed to be losing flesh. Then the tumour became abdominal, and she began to grow uncomfortable. It was still very hard, but was quite movable. That day week he removed the tumour, which was then the size of a child's head. There was no difficulty in tying the pedicle. There was one point of moment about the matter. He had been looking at this tumour for two years without interfering with it; and if it should turn out to be a carcinoma, the case would certainly be sufficient to make them careful how they left such tumours alone so long without operating at a time when there would be a chance of preventing the disease from spreading.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

THE annual meeting was held on July 5th, Dr. Travers, President, in the chair.

In his valedictory address Dr. Travers congratulated the Society upon the very satisfactory progress it had made during the session just now ended, both as regarded the real interest taken in its proceedings and the increase in its numbers. He noted with much regret the loss of four members by death, especially mentioning Mr. Hemmings as having been a foundation member and an early President. He claimed the attention of the members to a few remarks upon the very unsatisfactory condition of the medical charities in respect to the fewness of the number of their subscribers, taking as an example the fact that whilst there were 4000 practitioners of medicine in the London postal district, the Society for the Relief of Widows and Orphans of Medical Men residing within twenty miles of London, formed over a century ago, had only 325 names in its list of subscribers, and of this small number 183 only are now paying annual subscriptions. The other societies were in a somewhat similar state. In conclusion, he again very heartily thanked the Society for having placed him in the presidential chair, and tendered his warmest acknowledgment to the Council, and especially the Secretaries, for the courteous and valuable assistance he had always received at their hands.

Reviews and Notices of Books.

Transactions of the American Gynæcological Society. Vol. XIII., for the year 1888.

THIS volume consists of papers read at the thirteenth annual meeting of the Society, Sept. 18th, 19th, and 20th, 1888. The papers, as a whole, are rather slender, perhaps being intended principally as a basis for discussions, of which the volume chiefly consists. Dr. Lusk contributes a paper on the New Cæsarean Section, together with two successful cases, in one of which the decidua was in a necrosed condition, forming a greyish pulp. We confess that in this case we should have preferred the Porro operation. On page 123 we read the following remarkable note:—"Wyder: Perforation, Kunstliche Frühgeburten und Secto Cæsarean in ihrer stillung zur Therapie Brim, Eugen Becker." Dr. Thaddeus Reamy contributes a paper on Amputation of the Cervix Uteri for Cancer (with fifty-five cases and two deaths) by various methods. Dr. Dudley advocates pressure-forceps instead of ligature in such cases. Dr. C. M. Green relates a case of Rupture of the Uterus, the child being born alive (by version, not having escaped into the peritoneal cavity), and the mother subsequently bearing a child naturally. The pelvis was generally contracted, with a conjugate of 3·5 inches. The child presented by the brow, and was delivered by turning, after which the placenta was found to have escaped into the abdominal cavity. The patient had some fever and local peritonitis during the first week, after which she recovered, and was about and at her work on the fifteenth day. There was practically no treatment. Dr. Graily Hewitt's paper on the Severe Vomiting of Pregnancy follows the same lines as his paper

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on the same subject in a recent volume of the Obstetrical Transactions (London). Dr. Ely van de Warker writes on the Dangers of Galvano-puncture in Pelvic Tumours, about which he does not believe that facts are reported by those who advocate the practice. Dr. Polk discusses the treatment of Chronic Endometritis by packing the Uterus with Medicated Gauze. Dr. Hanks writes of the treatment of Ectopic Pregnancy by Electricity, and relates two cases in which this treatment is alleged to have killed the embryo. Dr. Busey contributes a supplemental paper on Colpocystocele complicating Pregnancy and Labour, giving a table of forty-eight cases. Dr. Baer reports a case of Pregnancy in a Uterus Bicornis treated successfully by a modified Cæsarean Section twelve months after the death of the child at full term of pregnancy; so-called "missed labour." The volume closes with an interesting series of experimental researches on the Vitality of the Fœtus by MM. Charpentier and Butte:—1. The influence of slow asphyxia of the mother on the vitality of the fœtuses. The fœtus dies soon after the supply of oxygen is diminished. If the mother is killed by rapid asphyxia the fœtus survives her. 2. The action on the vitality of the fœtus of pyrogallic acid administered to the mother. The fœtuses may be killed by a dose too weak to kill the mother. 3. Action of carbonic acid intoxica (viz., $CO_2 = 42$ volumes, $O = 23$ volumes, $N = 35$ volumes) of the mother on the vitality of the fœtus. The rabbit inhaled the mixture for one hour; two little ones were born alive on the third day after. This is really the most serious attempt at work in the volume, and its results are interesting and valuable. In some cases illustrations would have greatly enhanced the value of the papers, notably in the case of one by Dr. Mann on a specimen of ovarian pregnancy, which as it stands throws absolutely no light on this obscure and much-debated subject.

Lectures on Nervous Disease. By A. L. RANNEY, M.D. Philadelphia: F. A. Davis. 1889.

THIS is a book convenient to have at hand, in order to consult its author on a debated point, but it is not a work which could be unhesitatingly recommended to the student or the inquiring practitioner. The style in places is somewhat slipshod, though there are passages of undoubted force and merit. The book, indeed, seems to have been written by one whose temperament is largely cold and critical, but occasionally genial and generous; in this latter vein the author seems to us to be at his best.

The arrangement of the book is excellent, and the illustrations are numerous and useful. The first section deals with Anatomical, Physiological, and Pathological Deductions respecting the Nerve Centres of man; the second is entitled "The Clinical Examination of Patients afflicted with Nervous Diseases, and the Steps employed as Aids in Diagnosis"; the third treats of the Diseases of the Brain and its Envelopes; the fourth of the Diseases of the Spinal Cord and its Envelopes; the fifth of Functional Nervous Diseases; the sixth of Toxic and unclassified Nervous Diseases; and the seventh of Electricity in Medicine. A glossary of neurological terms, a bibliography, and an index conclude the work. As a specimen we quote at random from page 478: "The milder forms of epilepsy may assume a variety of types. Personally, I do not regard any attack as one of true epilepsy unless consciousness is more or less completely lost; hence I do not usually include among this particular class (*petit mal*) those subjects who suddenly have some of the premonitory symptoms of *grand mal*, and still retain a perfect knowledge of their surroundings." It would be easy to criticise this passage, but it must be owned that the subject is one of great obscurity. "Subjects afflicted with *petit mal* often assume a fixed attitude without any premonition of an attack, and stare unconsciously for a few seconds. I had once a patient who would frequently do this at a card table without dropping a card or losing the run of the game. He played for very heavy stakes, and was usually a winner." Dr. Ranney is a firm believer in the potency of irritation in the special organs of sense (eye, ear, nose) bringing about functional nerve diseases, and dedicates his volume to Dr. George T. Stevens, chiefly as a tribute to "his original investigations respecting the causation and cure of functional nerve diseases."

Modern Cremation: its History and Practice. By Sir HENRY THOMPSON, F.R.C.S., M.B. Lond. London: Kegan Paul, Trench, and Co. 1889.

LITTLE more could be said in favour of cremation than has been said in Sir Henry Thompson's last work on the subject. This book, though by no means a bulky volume, contains a clear, concise, and fairly full account of the history and aims of the movement. The advantages and the disadvantages believed to be connected with the burning of the dead are discussed with candour and moderation; while other lessons which are thrown out in the process do not fail to receive a due share of attention. The author, as might have been expected, sees in earth burial, under whatever conditions, only one consequence to the living, and that an injurious one. He dwells at length upon the dangerous possibilities confined in a soil wherein the dead from infectious fevers have been laid. Passing on to the medico-legal objection to cremation, he readily admits the existence here of a genuine difficulty, which, however, he argues, has to do with an occasion of extremely rare occurrence, and one which would be effectually provided for by a more careful system of death certification. Considering that reform in this matter is in every way advisable, he suggests as a first step the appointment of officials like those known in France as *médecins-vérificateurs*, whose especial function would be to inquire into the causes of death. In the case of a proposed cremation, a second certificate from another practitioner in addition to that of the medical attendant of the deceased, or from the official certifier, if appointed, would always be required, and in any case where obscurity still existed a necropsy or an inquest would be insisted on. These and other provisions, which practically place the arrangements of cremators under the control of the Home Office, are included in a Bill which is intended for presentation in Parliament. They are virtually embodied in the regulations now observed at the Woking Crematorium. Believing that they satisfy every purpose of investigation, Sir Henry Thompson claims that no reason can now be shown why cremation should not be legalised as an optional alternative to burial. It is at present, as he tells us, not held to be illegal, but only irregular. He asks, therefore, that it should be regulated. The argument is a fair one, and there can hardly be any real objection to recognise in law what is now legally permissible. Adequate provision being made for the performance of necropsies or for burial in all doubtful cases, the possibility of the non-detection of criminal poisoning is minimised and virtually removed. In cases of death from infectious disease cremation has doubtless the property of ensuring rapid and complete annihilation of all morbid matter. We are not prepared to admit, however, that the same result cannot safely be attained by burial if carried out on sanitary principles. Whichever method be preferred by the reader, this latest addition to the literature of the subject is worthy of his careful perusal.

THE SANITARY CONDITION OF CAIRO.—It is stated that the Foreign Office has selected, and the Khedive has approved the appointment of, Mr. Baldwin Latham, member of the Institute of Civil Engineers, to go to Egypt to report upon the sanitary condition of Cairo.

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DINNER OF THE EPIDEMIOLOGICAL SOCIETY TO DR. THOLOZAN.

FOR a second time the Fellows of the Epidemiological Society gave a hearty greeting to Dr. Tholozan, the distinguished physician to the Shah of Persia, at a dinner on Thursday, July 11th. The previous dinner in his honour was held at the Trafalgar, Greenwich, sixteen years ago. This time the meeting place was the Holborn Restaurant, and, as on the former occasion, the Society was represented by its leading Fellows. Dr. Thorne Thorne, the President of the Society, occupied the chair, and after proposing, in a neat and very happy speech, the toast of "The Queen and the Shah," he submitted the toast of the evening, "Our distinguished guest, Dr. Tholozan." The manner in which the President performed his task, the lucid style in which he recounted the important services their guest had rendered to Epidemiology, especially in regard to researches on the plague, and his eloquent and graceful peroration, made a remarkable impression on all present, and called forth the warmest acclamation. In response Dr. Tholozan delivered the following speech:—

"Mr. President and Gentlemen,—Among the testimonies of esteem and sympathy that I have received during this long journey from Teheran to London, the honour that you bestow upon me in England touches me the most deeply. Having been almost continually absent from Europe for more than thirty years, I am quite astonished that my name has not been totally forgotten. I believe that the remembrance of it is due, not to the number or the value of the observations that I have had the opportunity of publishing, but to my constant efforts for the precision and truth of my testimonies. Erasmus Darwin, the grandfather of your great Darwin, tells us in his Zoonomia the seemingly paradoxical assertion that in our science there are more false facts than false theories—a statement which may be applied, above all, to the history of epidemics in ancient times and in distant parts of the world. I have written quite freely the truth on these questions, without any theoretical or political presumptions. I have told, many times, to the enlightened ruler of Persia, that sanitary reforms are to be, in time, at the head and front of the progress, power, and happiness of nations; and that sanitary measures require for their development, advancement, and executive action a sanitary budget expressly their own. Knowing the constant defects and the vices of Oriental administrations, I have been opposed to quarantines, particularly in Oriental countries. It has so happened that these views have had the good fortune of being approved in England, more than in any other country of Europe, and especially by the learned and celebrated colleagues whom I have the pleasure to meet in this assembly. I drink to your healths, Mr. President and gentlemen, and believe me I will keep a long while in my heart the remembrance of the brotherly and cordial reception you have this night accorded to me under the banner of the Epidemiological Society. I drink, also, 'Prosperity to the Society for the advancement of Epidemiological Science!'"

There was only one other toast—namely, "The Health of the President,"—which was proposed by the senior Fellow of the Society, Dr. B. W. Richardson. In this duty the speaker gave a short account of the origin of the Society, and paid a warm tribute of respect to the first learned and genial occupant of the presidential chair, Dr. Benjamin Guy Babington. He also referred to some of the later presidents, and concluded, in terms which called forth the most hearty approval, by congratulating the Fellows in their possession of so brilliant a leader as Dr. Thorne Thorne, who now filled the chair.

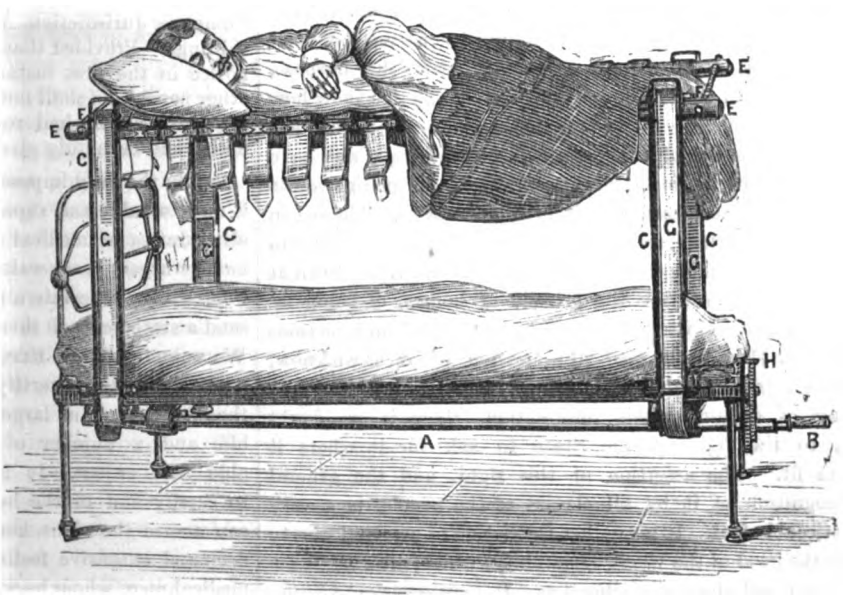
The President having returned thanks in one or two brief but telling sentences, the proceedings of a delightful evening, memorable in the history of the Society, were brought to a close.

During the course of the evening the diploma of Honorary Fellowship of the Epidemiological Society was presented to Dr. Tholozan by the President, as a small tribute of recognition for his services as a Corresponding Fellow over a period of thirty-five years.

New Inventions.

A NEW FORM OF BED-LIFT.

I SHOULD like to be allowed to call the attention of your readers to a new and valuable form of bed-lift which has recently been on trial at the Westminster Hospital. We have tried various forms during past years, but each was found to have some practical inconvenience which diminished its usefulness. These inconveniences seem to me to have been obviated in what is called the "Excelsior Bed-lift." It is the invention of a lady who received her inspiration whilst nursing an aged mother during a long illness, and it deserves to be widely known. It can be adjusted to an ordinary iron bedstead. Without enumerating all its advantages, which are fully summarised in the prospectus of the invention, I may say that it is portable, and can be worked by one person, raising and lowering the patient in the horizontal position with the utmost steadiness. It can be noiselessly adjusted to the bedstead without moving the patient, and, when once in position, can be left in constant readiness for use. By its means beds can be made and aired, clothing changed, and, by the removal of webs, wounds on any part of the back can be dressed, and the nurse's work can be discharged without risk to, or disturbance or exposure of, the patient. An india-rubber bath has been invented for use with this lift, and the patient can be lowered into and removed from it without incurring effort or fatigue. The lift may be seen at the Westminster Hospital.



GEORGE COWELL.

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THE LANCET.

LONDON: SATURDAY, JULY 20, 1889.

THE introduction by the Government of the Notification of Diseases Bill is only what everyone who has observed the signs of the times must have expected. Whatever liberty may mean in political and democratic parlance, it is becoming increasingly evident that it does not mean personal freedom in matters of disease. A man may say, "I have a right to have small-pox in my house if I please, and to keep the fact a secret to myself. My house is my castle, and if I like to harbour scarlet fever in it, whose business is that but my own?" But any man who reasons so will soon find himself contradicted by the law of a democratic Parliament. Nor is Parliament acting hastily in this matter. On the contrary, it is acting slowly, timidly, and somewhat feebly—as, alas! is its wont. It does not propose by its own direct action to restrict the liberty of communities, but it gives leave to such communities to restrict their own liberty. It formulates a general Act for this purpose, and says, "Use it, adopt it, if you like." To show how slow Parliament is, it is only necessary to say that it has already been anticipated by about fifty towns, which have of their own motion, and in local Acts, obtained power to require the notification of infectious diseases. There can be no doubt, therefore, that the State is quickly coming to believe that amongst its many rights is the right, even at the cost of invading the privacy of homes, of being informed of the existence of every case of important infectious disease. Even in the medical profession, where, as we know, there is considerable difference of opinion as to the best way of acquiring this information, there is no doubt as to the right of the State to ask for it where it sees fit. The assertion of this right, and the general recognition of it by all classes of the people, is a very noticeable fact. It is another restriction of personal liberty for the good of the whole community, which, after all, is the essence and glory of civilisation. It may occasion friction at first, but it will gradually be accepted by all as working for the good of all. We cannot imagine a long delay in the general acceptance of the principle that a community has a right to protect itself from an infected person, and to impose duties and restrictions on that person, and on those within his influence, or the area of his infection—whether it be by notification, or isolation, or vaccination, or any other measure that the community in its judgment thinks essential to its own protection. But we now come to a point on which the medical profession feels acutely—namely, as to the person from whom notification should be required Mr. RITCHIE, in his Bill, requires double notification: first, from the householder, or other responsible person in whose house the infectious case occurs; and, secondly, from the medical man. The following are the important clauses of Mr. RITCHIE'S Bill:—

"1. Where an inmate of any building used for human habitation within a district to which this Act extends is suffering from an infectious disease to which this Act applies, then, unless such building is a hospital in which persons suffering from an infectious disease are received, the following provisions shall have effect; that is to say: (*a*) The head of the family to which such inmate (in this Act referred to as the patient) belongs, and in his default the nearest relatives of the patient present in the building or being in attendance on the patient, and in default of such relatives every person in charge of or in attendance on the patient, and in default of any such person the occupier of the building, shall, as soon as he becomes aware that the patient is suffering from an infectious disease to which this Act applies, send notice thereof to the medical officer of health of the district. (*b*) Every medical practitioner attending on or called in to visit the patient shall forthwith, on becoming aware that the patient is suffering from an infectious disease to which this Act applies, send to the medical officer of health for the district a certificate stating the name of the patient, the situation of the building, the name of the head of the family or other person who appears to him to be primarily liable to give the notice under this Act to the medical officer, and the infectious disease from which, in the opinion of such medical practitioner, the patient is suffering.

"2. Every person required by this section to give a notice or certificate who fails to give the same shall be liable on summary conviction in manner provided by the Summary Jurisdiction Acts to a fine not exceeding forty shillings. Provided that if a person is not required to give notice in the first instance, but only in default of some other person, he shall not be liable to any fine if he satisfies the court that he had reasonable cause to suppose that the notice had been duly given."

Surely the duty imposed on medical men in Sub-clause *b* is unreasonable and superfluous. It ignores the pressure of other duties of medical men. The practitioner may have twenty urgent cases waiting for his attention, but he must "forthwith" ascertain a number of doubtful social facts and send a statement of them to the medical officer of health. We submit to Mr. RITCHIE that the obvious duty of the medical man is to certify to the nature of the disease, and that to expect a large amount of clerical work from him and a number of minute particulars is unreasonable and unjust. It is the duty of the medical man to certify and of the head of the family to notify. We can assure the right hon. gentleman that there is a very deep and extensive feeling to this effect in the minds of medical men, whom he will conciliate and bring into hearty co-operation by recognising it and meeting it. We are glad to be able to inform our readers that this point will be distinctly raised by Sir WALTER FOSTER and Sir GUYER HUNTER, and that they are not likely to be unsupported by other medical members of the House. The attempt to draw any comparison between requiring a certificate of death and requiring notification of the social particulars and environment of a case is absurd. Only a doctor can certify the cause of death, and only a doctor can certify the nature of a case, but with that certification his duty should end. We cannot think that Mr. RITCHIE will do well to impose such an irksome and unreasonable duty as notification on medical men, even at the liberal fee of 2*s.* 6*d.* (!) a case, and we urge him, with general good will to his measure, to accept the amendment which we have reason to believe Sir WALTER FOSTER will propose.

SOME copies of the *Davoser Blätter* and the *Davos Courier* which lie before us give interesting glimpses of the mode

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of life, occupations, and amusements which prevail among the winter colony of invalids in the valley of Davos. At first sight it would seem one of the most difficult of problems to devise successful means for relieving the inevitable tedium of an invalid life at a resort where the day during winter does not exceed six hours, and where the frost-bound earth and the iron ramparts of the encircling hills would appear to offer insuperable obstacles to that freedom of movement and variety of amusement which no class of invalids needs more urgently than the sufferers from consumption. But human ingenuity is not easily baffled, and difficult as would appear the problem of expelling *ennui* under the conditions which prevail at Davos, its solution seems to have been effected with no small amount of success. We find that each hotel has its amusement committee, that several joint societies have been founded among the general body of visitors for the promotion of various objects combining pleasure with physical or intellectual advantage, and that the municipality itself does not forget that a health resort must add other attractions to those of climate and hygiene.

The most important distractions are those of out-door amusement, in which department tobogganing seems to be *facile princeps*. That a sport so vigorous, not to say dangerous, should be permitted at all to consumptives shows how far we have travelled from the conceptions of former days, but it cannot be denied that the newer fashion has its serious risks. In cases of chronic stationary phthisis, where the chief desideratum is the strengthening of the constitutional condition, poitrinaires may indulge in tobogganing with impunity and often with decided advantage; but another rule must apply to patients who are feverish and debilitated. Rough exercise undoubtedly has the tendency to relight the latent or expiring fires of phthisical pyrexia, and must be forbidden when the thermometer gives warning of its injurious effects. Skating comes next in order, and would seem to possess many advantages over the toboggan. To those who have fairly mastered the pastime it affords one of the most perfect forms of out-door exercise. The motion is easy and not unduly fatiguing, there is the pleasurable exhilaration of rapid progression and of emulation in skill, and the bright sunshine and bracing air offer the most favourable conditions for healthful activity. Mountain-climbing affords another variety of exercise that would seem to be extensively patronised at Davos, where a branch of the Swiss Alpine Club has been established, with fortnightly meetings and courses of instruction.

In the regulation of the above amusements it would seem to us entirely indispensable that those who organise and control them should make up their minds whether they act in the interests of the ailing or of the healthy. We doubt whether any rules and regulations could be devised to suit both. Most of the winter visitors to Davos are there for the sake of health; but the invalid has often one or more companions, not invalids, whose interests are by no means unworthy of attention, yet must still be held subordinate to those of their afflicted friends and relatives. If the rules of the Alpine club, the toboggan slide, or the skating rink are framed with a view to the necessities and capabilities of those who are robust, it will be evident that the consumptive cannot be expected to acquiesce in them upon equal terms. It is one of the signal advantages of Davos that the invalid is often insensibly lured away from the practices and sentiments of invalidism, but this gain will be seriously endangered if the sick be tempted to emulate their more fortunate companions, and to forget the limitations which their condition necessarily entails as regards both work and play.

The long evening and night at Davos suggest the necessity for ample in-door amusement, and no effort seems to be spared to provide such. There is an English and a German library, a gymnasium, an English Literary Society with regular meetings, organ recitals in the parish church, and frequent balls and theatrical entertainments. A Photographic Society has also been organised, and, we presume, affords both in-door and out-door occupation and amusement to its members. Music is provided by various bands, which do not, however, appear, from the comments of the press, to afford unmixed satisfaction.

It need hardly be pointed out that this second group of amusements, like the former, has its dangers as well as its advantages, and calls as loudly for adequate medical control and supervision. Dancing is probably far more dangerous to the consumptive than such a sport as skating. The former is practised in an atmosphere that is frequently heated and foul, subsequent chill is not improbable, and late hours and undue excitement are apt to be promoted. In such a matter prudent medical advice may avert fatal mischances.

The number of visitors to Davos during the late winter was about fourteen hundred. The Germans take the lead, but are hard pressed by the English; the Swiss come third; and then follow in order the Dutch, French, Americans, and Russians. The time has passed for claiming for the climate of Davos any occult or specific influence over phthisis. Such a claim is a chimera; but much good may accrue from an intelligent conception of the conditions (meteorological and social) which prevail in the High Alps, and which have given these localities their repute in the cure or palliation of so intractable a malady as pulmonary tuberculosis.

THE Intercolonial Medical Congress held in Melbourne in January last year was fortunate in having the services of Dr. MANNING, Inspector-General of the Insane in New South Wales, as President of the section of Psychological Medicine, for his address, published in the current number of the *Journal of Mental Science*, is one that well repays perusal and study.

It is just a hundred years since the first British settlement was formed at Port Jackson, and it was an excellent thought for Dr. MANNING to review in his address the progress and the present position of things in regard to lunacy matters in Australia. At the end of 1887 the population of the Australian colonies was 2,951,590, and the number of insane was 8435. There was, therefore, 1 insane person in every 349, or 2·86 per 1000. The corresponding proportions at the same date in Great Britain and Ireland were 1 in 342, or 2·92 per 1000. Dr. MANNING states that insanity in Australia is increasing in proportion to the general population—the proportion in 1877, ten years previously, having been as 1 to 356. This increase is

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regarded as being due rather to the accumulation of chronic cases than to any proportional increase in the rate of "occurring insanity," or fresh cases.

As many as 76 per cent. of the insane in Australia were born out of that country, leading to the conclusion that Australians are less subject to insanity than people of other races living in Australia. This opens up a question of sociological interest which Dr. MANNING does not touch upon—namely, how far is the large proportion of insanity among residents in Australia who are of other than Australian birth referable to the fact (if it is a fact) that the less capable and stable minds, and the more restless, perhaps ambitious, minds of other countries have sought to carve out for themselves in Australia a success which they failed, or were not likely, to attain at home? Is it that the migration to that country of the unfittest has resulted thus largely in failure, disappointment, distress, and insanity? The proportion of lunatics of Australian nationality in Australia is much greater in the older than in the younger colonies, and ranges from 12 per cent. in Queensland to 3 per cent. in Tasmania.

The recovery and the death-rates in Australian asylums compare not unfavourably with those in asylums in the mother country. Calculated on the ten years ending with 1887, the recovery-rate in Australian asylums was 42·09 per cent. as against 40·04 in English asylums, the rate for Scotch and Irish asylums averaging a little below 40 per cent. for the same decennial period. The death-rate in Australian asylums for this period was 7·09 per cent., whilst in England it was 9·58, and in Scotland 8·50. Dr. MANNING says, and we believe with much truth, that the warmth and equability of the Australian climate, which render the insane population much less liable to pneumonia and other chest affections than the insane in Great Britain, have more to do with the low death-rate than any other causes. He adds that it is interesting to observe that, with one exception, the warmer and more equable the climate, the lower the asylum mortality. General paralysis and epilepsy appear to be much less common in Australian than in English asylums. We should have been glad to hear Dr. MANNING'S views as to the relative proportion of various forms of insanity in Australia as compared with England, and we hope that information on this subject is only postponed.

With regard to the Lunacy Laws of the Australian colonies, Dr. MANNING states that each colony has its own Lunacy Acts, the foundation of all of them being English law and precedent, with a superstructure varying with colonial needs and expediency. He says that on the whole the Australian Lunacy Laws appear to be satisfactory, sufficient, and well abreast of the time; and that in the provision of reception houses in New South Wales and Queensland, and of lunacy wards in public hospitals in Victoria, for the treatment of insanity in its early stages, the statutes are decidedly in advance of those of Great Britain. The Australian colonies appear, however, to be behindhand in the matter of idiots and imbeciles, for as yet there is no special legislative provision for them, nor has private benevolence yet stepped in to assist in the maintenance and care of the insane. With regard to the question of dealing with the acute and the chronic insane, the disposition in Australia is to carry out as far as possible arrangements for their treatment in separate buildings with a view to economy and more systematic classification. Dr. MANNING laments the unavoidable overcrowding that results from the system under which all patients who are brought to Australian asylums are admitted, whether there is room or not; a system which on the face of it is utterly objectionable, unless the necessary accommodation is also provided for those who need asylum treatment.

Australia has no established system of payment to relatives, or "boarding out," but she hopes to see her way to developing her lunacy system in this direction. The work which she has done, and which she continues to do in lunacy matters generally, is most excellent. We should be glad to hear more of her work from those engaged in carrying it on. We congratulate Dr. MANNING on his able and interesting *résumé* of it; and we regret that we are not able to do more than merely refer to other topics which he discusses—such as the medical staff in asylums, the best form of asylum, the necessity for practical study and teaching of insanity, and the disposal of the criminal insane. The statistical tables appended to the address will prove invaluable for future reference.

THE Government are pushing forward with great energy the Local Government Bill for Scotland, and it may be expected to become law before the present session is terminated. The Bill is not altogether identical with the English measure, but provides for the division of the county into districts by the County Council, and for the appointment of a committee for each district, this committee to consist of the county councillors for the electoral divisions comprised in the district, together with two representatives from the parochial board of each parish which the district contains. The County Council are to take over the powers and duties of parochial boards as local authorities under the Public Health Acts, and these powers will be exercised in each district by the district committee. In this manner local administration will be brought into intimate relation with central county administration.

As in England, the County Council may appoint one or more medical officers, whose services may be made available by arrangement in the district of a committee, this body paying a contribution towards the salary. For some reason which we do not understand, the sanitary inspector, whose work in England is deemed matter of more local concern, may also be appointed under similar conditions by the County Council. After January 1st, 1893, no medical officer can be appointed to a county or district having a population of 50,000 or more unless he has a diploma in sanitary science, or has been during the three consecutive years preceding that date medical officer to a district having at the last census not less than 20,000 inhabitants; and, again, no person shall, except with the express consent of the Board of Supervision, be appointed as the sanitary inspector for a county unless he has been for the three consecutive years preceding his appointment the sanitary inspector in a district having at the last census not less than 20,000 inhabitants. It is evidently not expected that the County Council will ever come to appoint all the sanitary inspectors needed in a county, or they would by this process abolish the

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more locally appointed inspectors from whose ranks they are obliged to recruit their own. But, apart from this, there is serious objection to placing the sanitary inspector in this position; the provision, if it means anything, implies that he is to act over a large area, and if this be attempted it is obvious that his main duty of taking steps for the abatement of nuisance will not be adequately performed. We hope that this will be seen in one or other of the Houses before the Bill becomes law.

The Lord Advocate has been memorialised with a view to making it compulsory upon county authorities to appoint a medical officer. We would gladly see this alteration made in the Bill, although we are not very sanguine that its permissive quality will be departed from. Another point to which his attention was directed was the need for the powers of the Central Board of Supervision to be modified with the object of this Board exercising a general control over the several counties. This to some extent exists in England, and it is certainly right that in regard to a matter of so much importance as the public health the Central Government should be able to assert itself. It is probable that, if the Bill passes in its present form, combinations of districts will be even more readily dissolved than heretofore in England, and everyone who is conversant with public health administration is well aware how fatal this has been to the interests of the country.

We are glad that the House of Commons has determined to maintain the power of the Board of Supervision over the appointment and removal of health officers, the Lord Advocate wisely pointing out in the discussion on this point that the promotion of the public health must be the paramount consideration, and ought not to be sacrificed to any theory of popular control.

Annotations.

"Ne quid nimis."

THE PRESIDENCY OF THE ROYAL COLLEGE OF SURGEONS.

THE most important duty of the Council of the College of Surgeons last week was to elect a President. It was well known that Mr. Savory would not accept the office for another term, although had he been willing to do so we believe his re-election would have been certain. Mr. Savory's presidency will long be memorable. It will be remembered for many reasons: by many, because the old vicious custom of electing members of the Council in regular rotation to this office was broken through, never again, we trust, to be re-established; by all, because of his singular devotion to the interests and work of the College. Mr. Savory has been no mere figurehead or ornamental President, but has impressed his strong personality on all the acts of the Council, and his force of character has been experienced alike by those who agreed with him and those who differed from him. We congratulate him upon the way in which he has filled the presidential chair; for, while we have not been able to approve of all the steps he has taken and been a party to, we recognise in him an honourable opponent who has been actuated by high motives, and one who reflects lustre upon the office he has just vacated. We hope he will long enjoy the greater freedom from official duties he has thus secured. Mr. Savory's successor holds such a position in the profession that it is quite needless for us to emphasise it. He has established high claims to gratitude in almost every department of surgery and pathology, and as a philosophic surgeon Mr. Jonathan Hutchinson must occupy a very prominent place. We hope that he will show in his new office an insight into the business of the College and a power of guiding the deliberations and decisions of the Council of the College as conspicuous as are his surgical attainments, and an independence of action as pronounced at Lincoln's-inn-fields as at the London Hospital. He has a great opportunity, and we wish him the fullest measure of success. We are sure that his election last week will be regarded as a wise choice, as it is undoubtedly a well-merited honour.

A COMPARISON OF RECENT MORTALITY IN LONDON AND IN THE LARGE PROVINCIAL ENGLISH TOWNS.

WE have recently called attention to the exceptionally low death-rate that has now for some time prevailed among the population of the metropolis, pointing out that the recorded mortality is probably only very slightly, if at all, under-stated by over-estimate of the population. It may be well to call attention to a comparison between the recent death-rate in London and that recorded in the aggregate of the twenty-seven provincial English towns, with a population exceeding that of London by about half a million. With reference to such comparison, it should be borne in mind that in all probability the present population of these provincial towns is over-estimated to a somewhat larger extent than is that of London, although it may be assumed that such over-estimate is not large enough to materially affect the value of the death-rate of the twenty-seven towns in the aggregate. In the first half of this year the annual death-rate in the twenty-eight large English towns dealt with in the Registrar-General's weekly return did not exceed 19·6 per 1000, and was lower than in any previous corresponding period on record. In London, the rate during the six months ending June last was only 17·8, whereas in the aggregate of the twenty-seven provincial towns it was 21·1. This marked difference may be stated in another way. In equal numbers living, the deaths in the provincial towns were as 119 to 100 in London, showing an excess of mortality equal to 19 per cent. Inasmuch as the death-rate in some of the provincial towns was considerably lower than the London rate, the excess in the rest of the towns was still more strongly marked. Indeed, we may point out that, measured in this way, the mortality in Manchester in the six months was as 159 and in Preston as 170 to 100 in London, showing that the mortality in Manchester was 59 per cent. and in Preston 70 per cent above the London mortality. But, to return to our comparison between the mortality in London and that in the aggregate of the provincial towns, we may refer to one or two points of difference which help to throw light upon the striking difference in their rates of mortality. The rate of mortality from the principal zymotic diseases was 2·1 in London and 2·8 in the provincial towns; and the death-rate from each of these zymotic diseases showed a similar excess in the provincial towns alone excepting diphtheria, which was nearly twice as fatal in London as in the provincial towns. The deaths of infants under one year of age in the six months were in the proportion of 132 per 1000 registered births in London, while in the provincial towns the proportion was 151 per 1000. A comparison of the death-rates at other age-periods gives similar results. The mortality from almost every cause of death, and at each age-period, in the provincial towns shows a considerable excess upon similar mortality in London. There can be no reason why the low death-rate in London, which is said to contain more poverty

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than any other English city, should be unattainable in the other large English towns, and the problem awaiting solution from the provincial sanitary authorities is to provide the means for attaining it.

OPHTHALMIA NEONATORUM.

THE report of the Royal Commission on the Blind, the Deaf and Dumb, &c., has at length appeared, and consists of 174 pages of evidence in addition to a variety of important miscellaneous reports and two exhaustive alphabetical digests. According to the report, one of the most fruitful causes of blindness is the inflammation of the eyes of newly-born infants, and the Ophthalmological Society estimated that 30 per cent. of the inmates of institutions and 7000 persons in the United Kingdom had lost their sight from that cause. Various remedies are mentioned by the Commissioners, but they all appear to depend chiefly for their success on prompt application. The subject is really one of the highest importance, and has been most carefully worked out for Europe, and for Germany in particular, by Professor Magnus of Breslau. This observer finds that no less than 71·99 per cent. of all who become blind during the first year of life are rendered blind by purulent ophthalmia; and even of those who become blind before the twentieth year of life it constitutes as much as 23·50 per cent. Looking at the subject in another way, he shows that of every 10,000 children under five years of age 4·28 are blinded by purulent ophthalmia. Owing to the ignorance of the serious nature of the disease, or of the possibility of arresting its progress by judicious treatment, in this country the proportion of the blind from blennorrhœa in the Normal College of Music is no less than 32·14 per cent.; whilst in the blind asylums in Switzerland the proportion is 26 per cent.; in the blind asylums of Austria, Hungary, and Italy about 20 per cent.; whilst in Spain and Belgium it falls to about 11 or 12 per cent. It has been suggested, in view of these statistics, that at the time of the registration of the birth of a child a paper should be given to the parents or relatives on which a short account of the disease should be printed, pointing out its gravity, the best method of treatment by simple means, and the danger of delay. There can be no doubt that such information would materially lessen the percentage of blindness, and that such a system should be adopted, especially as the expense would be extremely small.

THE ALLEGED POISONINGS AT DEPTFORD.

LAST week the adjourned inquest on the bodies of Sydney Bolton, aged eleven, William Sutton, aged seventy-four, and Elizabeth Frost, aged forty-seven, was resumed and concluded. All the three bodies had been exhumed after varying periods of burial, had been examined by Mr. Thomas Bond, and the viscera submitted to chemical inspection by Dr. Stevenson of Guy's Hospital, who had found arsenic in all three. The three deceased persons had all been attended during their fatal illnesses by a Mrs. Winters, who, it was proved, had insured the life of each. She was aided in her attendance upon the deceased by her married daughter, Mrs. Elizabeth Frost, and the symptoms described by a daughter of the deceased woman and other witnesses pointed to some irritant poisoning in all of them. From the evidence of James Samuel Bolton, father of the deceased boy, it appeared that he carried on the business of a bird-stuffer, used arsenic, and had 6 lb. of it in a cellar at his workshop; to which both Mrs. Winters and Mrs. Frost had access, going there for the purpose of cleaning it. This is an additional proof of the necessity for placing greater safeguards around the sale and use of arsenic. The medical attendant had certified the cause of Elizabeth Frost's death to be due primarily to stomatitis, secondarily bronchitis; that of William Sutton to senile decay. The jury returned a verdict of wilful murder in each case against Amelia Winters and Elizabeth Frost, the latter of whom was arrested in court and committed for trial; Mrs. Winters, who was too ill to be present, has since died. The jury added to their verdict that the facilities given by the loose system of some insurance societies is an incentive to wilful murder. This was clearly pointed out in 1874 at the trial of Mary Ann Cotton at Durham, at the trial of the women Flannigan and Higgins in 1884, and in more recent cases. It is clear that some legislation is necessary.

THE USE OF ROBURITE IN MINES.

FROM a report lately presented by a committee of the Miners' Federation, it appears the mining community has not heard the last of the use of roburite as an explosive. It will be in the recollection of many of our readers that attention to this substance was prominently called by a strike of miners employed at one or two of the pits of the Garswood Coal Company, near Wigan. The men alleged that the explosive was injurious to health, and wished for the continuance of powder and the disuse of this new explosive. The manager, Mr. C. F. Clark, refused to withdraw it from the mines; hence the men stopped work, and the strike lasted for three weeks, and ceased only on condition that a committee of inquiry should be appointed. This committee—consisting of Professor Dixon, F.R.S., of Manchester, Mr. Hannah of Ashton-in-Makerfield, and Dr. Mouncey of Earlestown,—after numerous experiments, presented an elaborate report, a summary of which we published when it appeared. This report does not seem to have given satisfaction to the committee appointed by the Miners' Federation to consider it; and at the commencement of a report presented last week they state that "it would appear that the gentlemen engaged have to a considerable extent misunderstood their original instructions," which were to the effect that the medical gentlemen should report on the effects of the fumes on the health of the workmen after getting the analysis. After going over in detail the many points and precautions laid down for the safe use of roburite, the Miners' Federation committee go on to show that it is practically impossible to use roburite as an explosive in mines surrounded by such conditions and restrictions. In concluding their report, they say: "We are told that it is the object of the Roburite Company to prepare an explosive which shall, while bringing down the coals in suitable lumps, give out no flame which will ignite coal dust or inflammable gas in the mine. We shall hail with joy the invention of an explosive that will do this, providing it has no other equally injurious effect. As miners we have most to fear from explosions—our lives and limbs are at stake,—but we do not want to have placed in our hands a substitute for gunpowder which will slowly destroy our health, poison our whole system, and eventually send us to a premature grave." That roburite is a very poisonous compound is proved beyond doubt by the death which occurred at the roburite works recorded by us last week. If it be true, therefore, that it is impossible to work with it under the stringent regulations laid down in Messrs. Dixon, Hannah, and Mouncey's report, then a safe explosive in place of powder is required. The committee of the Miners' Federation conclude their report with the following pertinent remarks: "Surely, in the face of these considerations, and with the great stress laid by the examiners on stringency in the use of roburite, and its injurious effects on human health, both from its fumes and in handling it, we may conclude that it is not safe, and that it is not adapted for general use in coal mines, and on this account it ought to

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be condemned, and we await the invention of some other explosive which shall combine in itself not only safety, but also freedom from poison, and less danger to health in its general application."

THE REPEAL OF THE CONTAGIOUS DISEASES ACTS AND THE INCREASE OF SECONDARY SYPHILIS IN THE ARMY.

IN THE LANCET for July 6th there was a notice of the return of admissions into hospital for primary sores and gonorrhœa among the troops in the United Kingdom during 1888, and of those constantly sick from these diseases. This return also specified the numbers in the districts formerly under the protection of the Contagious Diseases Acts. Mr. Cavendish Bentinck, M.P., who obtained this return, has recently obtained another which is of even greater importance. It will be remembered that, among other objections to the Acts, their opponents maintained that any decrease which might have taken place was only in simple sores (or, as they are now generally termed, "chancroids"), but that secondary syphilis, so far from being reduced, had actually increased. The return from the War Office bearing date June 25th, 1889, tells a very different story. It gives the ratio of admissions into hospital for secondary syphilis per 1000 of strength of the troops at certain large stations in the United Kingdom (formerly under the provisions of the Contagious Diseases Acts) during each of the years 1881 to 1888. It will be remembered that the periodical examinations of the women were suspended about May, 1885. The total ratio of all the fourteen stations was 27 for the year 1881; in 1888 it was 42. The numbers fluctuated from 1881 to 1884, being respectively 27, 22, 25, 25. In 1885 the ratio was 26, while the numbers for 1886, 1887, and 1888 were 32, 45, and 42 respectively. Turning to the several districts, the increase is even more marked. At Devonport and Plymouth the ratio rose from 21 in 1884 to 39 in 1885, and 51 in 1886, while in the years 1887 and 1888 it was 49 and 41. At Portsmouth the ratio in 1884 was 20, and in 1885 it was 15. In 1886 it had risen to 42, while in 1887 it was 72; last year it was 59. In the Chatham, Sheerness, and Gravesend combined district it rose from 22 in 1884 to 41 in 1888. At Woolwich the ratio was also 22 in 1884, but it rose in the following years to 28, 39, and 49; last year it was 31. At Aldershot it has fluctuated, the respective ratios from 1884 to 1888 inclusive being 34, 23, 30, 47, and 52. At Windsor it has increased progressively from 28 in 1884 to 61 in 1888. At Shorncliffe the ratio rose from 18 in 1884 to 70 in 1885, since which it has been 38, 37, and 30. At Colchester it fluctuated from 29 in 1884 to 48 in 1888. At Canterbury the fluctuations have been from 20 in 1884 to 68 in 1887 and 66 in 1888. At Maidstone the ratio was 39 in 1884; in 1887 it had risen to 69. With the exception of Winchester, there was an increase at all the stations, though it was less marked in the Cork and Currah than in the English districts. The increase is only what might have been expected. Syphilis is a disease which is just as amenable to cleanliness and proper treatment as it is aggravated by dirt and neglect. While the Acts were in force prostitutes could not propagate syphilis beyond a first or second periodical examination, and the disease, attacked at the onset, seldom assumed among them a severe form. All this is now unhappily changed. Instead of the compulsory examination and detention in hospital, these wretched women swarm through the streets, spreading disease among soldiers to an extent of which we have in these returns an illustration as painful as it is striking. Probably we shall soon have similar returns respecting seamen and marines. But what would be the total, could we have also the ratios among civilians and the women themselves?

THE DINNER TO DR. THOLOZAN.

THE dinner given by the Fellows of the Epidemiological Society to the Physician of the Shah, although perhaps less heard of than many of the other events connected with the visit of the Persian monarch, ought not to be passed over without public notice. For thirty-five years the honoured guest has been a working member of one of the most useful of all the learned societies connected with medicine in these islands. More than once, too, when danger has been great, and the Eastern peoples have been suffering from the terrors as well as the horrors of the plague, Dr. Tholozan has gone forth to face the most supreme dangers, to calm the fears, to direct the treatment, and to suggest the prevention of the prevailing scourge. In the historical events of the Crimean campaign he also bore a distinguished and most useful part, adding by his medical and surgical skill to the practice of our art, and by his able pen to its literature. His essay, "Des Hæmorrhagies Pulmonaires, au point de vue de la Physiologie Pathologique, de l'Étiologie, et de la Séméiologie," his "Recherches sur les Maladies de l'Armée d'Orient pendant l'Hiver de 1854 à 1855," and his work on "Acrodynia," are standing proofs, from his early years, of his zeal, faithfulness of observation, and eloquence of expression. Dr. Thorne Thorne spoke with enthusiasm of the great and courageous character of our visitor in the course of his labours as an epidemiologist and as a sanitarian of the highest rank; nor was one syllable of the praise bestowed over-drawn or over-stated. But we may, with equal conscientiousness, go farther in commendation of the services he has rendered in his long-adopted country, as the adviser of his sovereign, and as the ever-ready physician, wise, firm, honest, truthful, and incorruptible. It is rumoured that the time of office of this distinguished Archiater is now nearly past, and that in a few months he will retire to end his days in the country of his birth, with, as we shall hope, an occasional return to look up many friends here. If that be so, we can assure him that the successful dinner in his honour given by the Epidemiological Society will not be the last British recognition of one whom all the world of medicine so highly and justly holds in admiration.

EPIDEMIC MEASLES AND SCHOOL HOLIDAYS.

THE approach of vacation time at our public and private schools renders it desirable to direct the attention of schoolmasters to the prevalence of epidemic measles in several districts of the country, and the possible occurrence of this malady among their pupils, in order that precautions may be taken to lessen the risk of infection. Nor is this the only precaution needful, for in those instances where measles already exists among the school-children, at either private or public schools, it is imperative that those in authority should take due precautions when their pupils are dispersed for their vacation to guard against the introduction of the malady into districts not infected. There are but few advantages unassociated with some disadvantages, and this is the case with the progress of education. This progress has necessitated the congregation of large numbers of children in one building, each child being capable of becoming an active infective centre of acute specific disease, and especially exanthematous fevers. Measles being the most actively infective among these, by its very nature is readily introduced among school-children, and as readily diffused among the youth of the whole neighbourhood. Hence the necessity for active precautions both in the interest of schools and the public at large, and these precautions should be directed by the skill and guidance of the public medical officer of health. It should not be forgotten that, though measles may be very simple

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in form and free from danger to life, it does not infrequently assume a malignant phase, and then it becomes one of the most fatal maladies to which the young are liable. Under any circumstances it may be followed by sequelæ, which may harass a person through the whole of life. Many a case of permanent deafness may be traced to an early attack of measles. Disease of the bones of the internal ear may result, giving rise to grave and fatal mischief within the skull. Permanent lung disease and some forms of asthma have been distinctly traced to an attack of measles. These are a few among many of the possible after-consequences of a malady which is very apt to be regarded as too simple to need care.

MUZZLING OF DOGS.

WE publish in another column the text of the order issued by the Privy Council bearing on the above-named subject. In reply to Sir H. Roscoe, the First Lord of the Treasury stated in the House of Commons on Monday that it had been deemed inexpedient to pass a general order at present—that is, an order which should have effect in the country as a whole. We think this decision is to be regretted, as the purpose for which the step has been taken in respect of the metropolis is equally applicable to all other parts of the kingdom. The checking and possible extirpation of rabies cannot be hoped for unless the measures directed to that end are made coextensive with the evil to be removed. The matter should not be left in the provinces to the caprice of sanitary authorities or town councils, to be dealt with partially and precariously by means of local Acts. In connexion with the subject of rabies, we notice that at the weekly meeting of the London County Council on Tuesday, the 16th inst., the chairman, Lord Rosebery, submitted for the approval of the Council two letters which had been drafted, one addressed to the Privy Council and the other to the Chief Commissioner of Police, with regard to the recent Order in Council concerning the muzzling of dogs in the metropolitan area. The letters state that the County Council are the local authority to carry out the order; but as they have no power over the police they decline any responsibility in the matter. The letters were approved. His lordship, in the course of his remarks, stated that they had petitioned the Privy Council to extend the Order over the whole country, and he thought it would have not been at all strained if the Order had been made applicable to the whole of Great Britain.

UNSUSPECTED LEAD POISONING.

DR. LERMUSEAU has brought before the Liège Medical Society some instances showing that a good many cases of colic, the origin of which is unsuspected, are in reality nothing but cases of lead poisoning. A large number of them are due to the practice of pumping up beer in public-houses through leaden pipes, or at least through pipes which contain a considerable proportion of lead. Publicans and others frequently drink this beer early in the morning on an empty stomach, and this habit is a most fruitful source of lead colic. Of course in many cases there is a blue line to be found on the gums, but sometimes this is absent, and then the diagnosis is very difficult. Occasionally the so-called method of Cicconardi may be useful in clearing up the diagnosis. It has been employed in Professor Rommelaere's wards, and consists in painting the surface of the skin covering the thorax with a 6 per cent. solution of sulphite of soda. If lead is present in the tissues a dark discolouration caused by the formation of the sulphide soon makes its appearance. Dr. Lermuseau complains of the apathy and incredulity of publicans even after their attention has been called to the danger of using leaden pipes for their beer—a danger from which the publican is usually the very first to suffer. It is urged that a stringent law ought to be passed entirely forbidding the use of leaden pipes for beer pumps. Dr. Lermuseau suggests the substitution of glass or hard rubber pipes, but these substances are less convenient, because they cannot be bent in all directions in the way that lead can. It would appear that, according to a law made in 1790, the Communal administrations have all along had ample power to deal with cases of this kind if they would only exercise it. Something more stringent is evidently necessary, and Dr. Lermuseau urges upon his *confrères* to bring all the pressure possible to bear upon members of the two Houses of Parliament in order to get some more satisfactory legislation on the subject.

THE SANITARY STATE OF LEEDS.

CORRESPONDENTS writing to the *Leeds Mercury* refer, in connexion with the sanitary state of the borough, to the fact that most unwholesome material is being used for the purposes of cottage building. One alleges that the material dredged from the river Aire, which is admittedly little better than an open drain, is used to mix with the mortar in building operations; and another states that rubbish from the tanyards "or any other rubbish" goes to a grinding mill to be worked up with other material into an apology for lime and sand; whilst filthy old bricks and timber removed out of fever haunts are being used for the erection of cottage property. The matter certainly deserves the attention of the corporation and of their building surveyor. Fortunately some large schemes involving the demolition of old property are in contemplation. As to the fever epidemic to which we made reference last week, we learn that nineteen cases of enteric fever are in the Fever Hospital at Burmantofts, but that this by no means represents the total number attacked.

PROFESSOR STRUTHERS.

THE element of permanence and persistence is a great one in human nature and human institutions, and one of the best illustrations of this in Scotland is to be found in the redoubtable Professor of Anatomy of Aberdeen, who for forty-four years has devoted himself, with rare assiduity, to the study and to the teaching of anatomy—not in any one of its departments, but in all. Few men who have studied medicine in Scotland, and none who have studied Anatomy in any school of Europe or America, are unfamiliar with the name and work of John Struthers. Like other men, especially in Scotland, with strong opinions and a high sense of his calling and his subject, he has been brought into occasional collision with colleagues. But through all changes and controversies men have seen and respected an indefatigable student of nature and a born teacher in the Aberdeen Professor of Anatomy. It is something so new in Dr. Struthers to have to take breath and rest that the intimations concerning his health have been over-anxious and over-stated. We are glad to be able to state that, though Professor Struthers is retiring from the duties of the Anatomical Chair, it is not on account of the existence of any serious disease, but from just deference to the advice of medical friends who recognise very natural indications for a halt in the excessive and long-sustained labour by which Dr. Struthers has enriched anatomy, and largely developed the prosperity of his University. This is not the time—and long may the time be deferred—to estimate either the amount or the quality of the work of Professor Struthers. We only note here his retirement from the chair. We can but express the hope and the conviction that his University, for which he has done so very much, will mark its gratitude in the terms of his retirement, and will somehow retain his energy and his interest in her continued prosperity. We are glad to know that Professor Struthers has no intention at present

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of abandoning his seat in the Medical Council and other posts of influence in which he may continue to promote the interests of higher medical education. We congratulate him on his remaining health and the prospect of a real holiday, which must be a new experience to him. He cannot go where he will not find friends and pupils. And the new leisure which he is to have will give him time—often longed for—for the enjoyment of research and the more scientific aspects of anatomy. It is his happy lot to have "lived well" through two generations of anatomists, and to be able to link the times of the Monros with the more luminous times of Goodsir and Owen and Huxley, and by his own labours to have contributed to the light. The scientific mind is always young. It is so with Professor Struthers, and we regard his retirement as likely only to perpetuate and refine his work.

EFFECTS OF PROLONGED CHLOROFORM ANÆSTHESIA.

SOME observations made about two years ago by Dr. Ungar pointed to fatty degeneration of the heart and liver as the cause of death after repeated prolonged administration of chloroform. Further experiments on dogs have recently been made by Dr. Strassman, which appear to confirm this view. Dr. Strassman found that the first organ to be affected was the liver, then the heart, and after that other viscera. The nature of the morbid change was not a fatty degeneration, but fatty infiltration. The actual cause of death in fatal cases appeared to be the cardiac affection, as in all such a very marked degree of change was found in the heart. In non-fatal cases the morbid change was found to have disappeared in a few weeks' time. When morphia was given previously to the chloroform, less of the latter was required, and consequently the changes produced were not so considerable as when the ordinary amount was given. Animals suffering from hunger, loss of blood, &c., were especially predisposed to the morbid changes due to chloroform.

THE SCOTTISH NATIONAL PORTRAIT GALLERY.

MORE than a passing notice is due to the opening of this institution on July 15th at Edinburgh. The profession was numerously represented on the occasion—as, indeed, was to be expected, considering the number and distinction of the Scottish physicians and surgeons whose busts, or portraits, or medallions form so conspicuous a part of the collection. The creator of the gallery is Mr. J. R. Findlay of Aberlour, whose life-long project it has been, and whose donation of £50,000 contributed so materially to its early and satisfactory realisation. In none of the liberal professions, not in that of theology, not even in that of law, has Scotland sent to the front so many sons as in medicine. Last century alone witnessed the birth or the meridian lustre of an exceptionally strong and diversified phalanx of these: including Dr. John Arbuthnot, "who knew his art but not his trade"; John Hunter, whose impress lies so deep on the Royal College of Surgeons, especially on its museum; William Cullen, to whom medical classification owes so much of its most graphic phraseology; John Brown, his ingenious, if erratic, rival, whose "system" dominated continental practice for nearly half a century; Alexander Monro "Secundus," the "very ideal," according to Dr. James Gregory, "of a practical physician and consultant"; Dr. Andrew Duncan, sen., the most learned pharmacologist of his time, and first physician to the King in Scotland; Sir Alexander Dick, the favourite pupil of Boerhaave at Leyden; Joseph Black, the discoverer of "fixed air" and "latent heat"; Benjamin Bell, whose fame as a surgeon was equally high both in Paris and London; and James Gregory, already mentioned, whose attainments and sagacity are conspicuous to this day in his "Conspectus Medicinæ," the sound Latinity of which drew from the late Sir William Hamilton the epithet so appropriate to the author—"Ultimus Romanorum." These are but a selected few of the Dii Majorum Gentium north of the Tweed whose likenesses, whether on the canvas or in marble, appeal to the rising generation of physicians and surgeons with so stimulating an effect; but hardly less interesting are the portraits of the leaders in other walks of mental energy, whose culture was primarily medical. Of these it will suffice to indicate Sir James Mackintosh, the political philosopher and historian; James Hutton, author of the "Theory of the Earth"; Robert Watson, the "swordsman in the cause of the liberation of humanity"; Robert Stevenson, the engineer; Edward Forbes, the naturalist; John McNeill, the diplomat and army reformer. The Gallery opened to the public on Monday last does not pretend to be complete; but contributions are promised or expected from numerous quarters, so that ere the century closes it will have amply earned the right to call itself the Scottish Valhalla.

DEATH FROM GLANDERS: COLLISION BETWEEN THE MEDICAL MAN AND THE CORONER.

AT an inquest held by Mr. Langham on the body of William Cox, a horse-keeper at the Cavendish Stables and living at 1, Bridport House, Sulven-street, Wandsworth-road, the jury, after hearing the evidence of a medical witness, found that the deceased had died of glanders. The evidence seemed to show that many of the horses in the stable had suffered from glanders, and several had been killed by order of the Government inspector. The report of the inquest includes a passage of arms between the medical witness and the coroner, who questioned the fitness of the medical witness to give evidence. The latter gentleman resented this by an expression which would have been better avoided, and explained that he had just had three confinements in quick succession, and no sleep for forty-eight hours. This is an excuse, perhaps, for irritation or unparliamentary expressions—but still, of course, it is only a bad one. Ours is generally such a well-regulated profession that laymen do not realise the temptations to irregularity. Let any other professional man try forty-eight hours' work without sleep in a close room, and with few and irregular meals, and see the result. Medical men should carry some portable preparation of meat or food with them, and so be independent of the extemporised refreshments, which are often the only ones available in midwifery practice.

MIDWIVES' MIDWIFERY IN WEST HARTLEPOOL.

WE do not know what the frequency of puerperal deaths in women attended by midwives is in West Hartlepool; but the report of an inquest in such a case and the remarks of the coroner do not seem to us to realise their seriousness. A poor woman was attended by a midwife, and, though taken ill, was only seen by the qualified assistant of Dr. Gourley (Dr. McKee) shortly before her death. Dr. McKee very properly refused to give a certificate. The coroner said the poor woman was probably as well attended by the midwife as she would have been by a doctor. This is a strange remark for a coroner to make, unless—as we have no reason to believe—the midwife was an educated midwife. Puerperal disease is no doubt fatal occasionally in the hands of doctors; but it is a most grave disease, and to expect a doctor to certify in the case of a woman whom he only sees dying is unreasonable. Such cases should be investigated fully, not to cast blame on the unfortunate midwife, but to throw light on the causes of such calami-

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ties, and to enforce the demand for a better education of midwives. The foreman of the jury reflected on the doctor for not giving a certificate and saving the family the pain and exposure of a public inquiry. Such reflections are inadequate and unjustified. The jury would have been much better advised if they had advocated the education of midwives, and, meantime, the earlier consultation of medical men in cases going wrong under their care. Very few diseases require higher skill for their successful treatment than puerperal diseases. One object of inquests is to extract lessons for the future, and this is a wasted inquest.

ALLEGED DEATH FROM VACCINATION IN LEEDS.

WE commented last week upon the death of a child which, it was alleged, had resulted from syphilis after vaccination with animal lymph. The inquest has since been held, and we learn from the report of a local journal that the operation was performed by the unqualified assistant of a medical man. The evidence was to the effect that lymph from another child was used, and different opinions were expressed as to whether or not the deceased suffered from syphilis as the result of the operation. According to the report, the syphilis manifested itself within eight days of the vaccination, but it is not clear whether this statement refers to the local or constitutional symptoms; if to the latter, it is obvious that the disease was not acquired at the time of the operation. We shall be glad to hear that full inquiry is being made by the Local Government Board into the circumstances of the child's death.

BRITISH NURSES' ASSOCIATION.

AT the invitation of the Lord Mayor (who presided) and the Lady Mayoress, a largely attended meeting, at which Princess Christian was present, was held last Wednesday at the Mansion House for the purpose of receiving information concerning the work and objects of the British Nurses' Association. Letters of regret at inability to attend were read from a number of prominent sympathisers with the objects of the Association, and speeches were delivered by the Lord Mayor, Mr. Wm. Scovell Savory, Sir J. Crichton Browne, Mr. Brudenell Carter, Sir Henry Acland, Bart., Dr. Matthews Duncan, Professor Marshall, and others, extolling the aims of the movement which they had met to promote, and laying stress upon the desirability of a register being established for qualified nurses and midwives. A vote of thanks to Princess Christian for attending, and also to the Lord Mayor and Lady Mayoress for the manner in which they had interested themselves in the British Nurses' Association, closed the proceedings, which on account of their importance we shall refer to at greater length in our next issue.

PROPOSED MEMORIAL TO LINACRE.

THOMAS LINACRE, founder of the Royal College of Physicians, who died in 1524, was at one time rector of Mersham, near Ashford, in Kent. The fine old parish church of Mersham is now undergoing repairs, and the present rector, the Rev. E. C. Lucey, is anxious to place in the ancient west window, already remarkable for its architectural singularity and beauty, a permanent memorial to the patriarch who was physician to four English sovereigns successively, and who, by his interest with Henry VIII., procured letters patent for the foundation of the great English College. We trust that the medical profession will support Mr. Lucey in his undertaking, and venture to suggest that the Royal College might afford some help in a matter so nearly concerning its own ancestral dignity.

THE PROSPECTS OF THE NOTIFICATION BILL.

IT is said that the Notification Bill will be opposed by those who usually figure as the representatives of working men. This seems scarcely probable, as many of the most democratic towns have already adopted the principle of the Bill. They are not likely to be injured by the operation of the measure. The managers of the Metropolitan Asylums Board have resolved, on the motion of Mr. Scovell, to petition in its favour. We observe one notice of amendment of which we highly approve: that the head of a family in which infectious disease has broken out shall, in addition to giving notice to the medical officer, give notice to the schoolmaster of any elementary or other school at which such patient is a pupil, or at which any other member of the same household is a pupil. We wish well to Mr. Kelly's amendment. We hope it will be carried, and enforced by a very substantial fine on those who violate it.

OUTBREAK OF PLAGUE IN ARABIA.

IT is reported this week that the plague has appeared in the Turkish dependencies on the south-western coast of Arabia, bordering on the Red Sea, and that vigorous sanitary measures are being taken to check the spread of the epidemic. In modern times this dread disease has more than once broken out in Arabia—e.g., in 1853, 1874, and 1879; whilst from 1878 to 1879 it invaded Astrachan, being, however, comparatively limited in its extent in the latter district. At the instance of the Royal College of Physicians, Drs. Colville and Payne were sent from this country to investigate that outbreak. Practically, it has not occurred in Europe (except in the Balkan Peninsula) since the first half of the eighteenth century.

CHARITY SCANDALS.

THE *Evening News and Post* of July 10th descants on the evils of the charity voting system, and points out how great is the annual waste in carrying out the system, which is so costly and often ruinous to poor candidates. This system is undoubtedly a great blot on several institutions and societies. The proper course for these societies to pursue is boldly to alter their rules, and give to an impartially selected committee the duty of selecting the worst cases, and relieving all in the order of their urgency and fitness. This battle must be fought out, and resisting institutions will not prosper.

WE regret to announce the death, at Cheltenham, on the 10th inst., of Deputy Surgeon-General Francis Day, F.R.S., LL.D., C.I.E. The deceased was one of the best-known Indian naturalists of his generation, and in his death the Indian Medical Service sustains a severe loss. He took part in the Burmah campaign of 1852, for which he received the medal. At the conclusion of the military operations there he devoted himself entirely to pisciology, and as Inspector-General of Fisheries in India he examined the rivers and seas of that country from the coasts of Mekran on the west to the Straits of Malacca on the east. Among his more prominent works may be mentioned "The Fishes of India," 1868, and second edition, 1875–79; "The Freshwater Fish and Fisheries of India and Burmah," 1873; and "The Fishes of Great Britain and Ireland," 1880–83.

THE sixty-second Congress of German Physicians and Naturalists meets at Heidelberg from the 17th to the 23rd of September. The programme is an exceptionally attractive one, and ought to ensure the attendance of *savants* of other nationalities besides that of the Fatherland. The severer work of the section will be relieved by

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social gatherings in the evening, by a full-dress banquet in the great Hall of the Museum, and by at least one excursion into the environs. The organising committee announce that a bureau for the reception and guidance of guests will be opened on Sept. 16th at the Bayerische Hof, Rohrbacherstrasse, No. 2; while the town clerk, Herr Webal, will give full instructions as to their accommodation, if addressed at the Rathhaus, Heidelberg.

THE LONDON HOSPITAL AND MEDICAL COLLEGE.

PRESENTATION TO SIR ANDREW CLARK.

THERE was an interesting gathering last Monday afternoon in the library of the Medical College of the London Hospital, the occasion being the presentation to Sir Andrew Clark, Bart. (President of the Royal College of Physicians) of his portrait, and the presentation of prizes to the students and the nursing probationers by the Duke of Cambridge (the President of the Hospital). The portrait was subscribed for by the members of the medical and surgical staff, and other friends of the hospital. It was painted by the late Mr. Frank Holl, R.A., and was exhibited at the Royal Academy of 1888.

The Duke of CAMBRIDGE, in making the presentation, spoke to the appreciation felt by all of the eminent talents and services of Sir Andrew Clark, who had been associated with that great hospital since 1854, and during that long period no instance had ever been known in which he had not shown his capacity and value to the institution. He had in a great measure helped to create the great school which was now attached to the hospital. In conclusion, he felt sure that Sir Andrew Clark would give the hospital in the future all the assistance and advice he had so eminently given in the past. (Cheers.)

Sir ANDREW CLARK replied as follows:—I return you grateful thanks for the gift which you have just presented to me. You will readily understand on an occasion of this kind, at once interesting and painful, that my thoughts are too great for words. I must therefore trespass upon your sympathies, and ask you to translate from my heart into your own hearts the grateful ideas to which I am unable to give formal expression. There are occasions in life when the head must give way to the heart. This is one of them, and I must be content rather to stammer out what I feel than to say what my understanding would prompt. Coming from your hands, Sir, so long the President and friend of this great hospital; coming from the hands of some of the old and valued friends whom I see around me; coming, above all things, from my dear and honoured colleagues with whom I have been associated for so many years,—this presentation has an inexpressible value, and I am deeply moved by the thought that, in this form at least, I shall have the privilege of continuing to dwell amongst you with whom my life and work have been cast. On such an occasion I might naturally be excused having some feelings of exceptional pride and satisfaction, and though such feelings are not absent from my mind, I can say with literal sincerity that they do not dominate my thoughts. For coming face to face with the stern record of five-and-thirty years' work—seeing, as I cannot fail to do, the defects, the mistakes, the errors, the failures of that long period,—I cannot flatter myself with much self-gratulation; I cannot but feel that the signal honour which you have conferred upon me to-day is much more due to your generous sympathies than to my own deserts. Happily, the chief interest of to-day does not lie in this presentation; does not lie in the interesting ceremony of the distribution of prizes to the students; does not lie in the successful record of our great nursing establishment so ably governed by Miss Lückes: it lies in the life and work of this great school of medicine, to which these things and all other things connected with it are subordinate. The story of a school like this is not less interesting and instructive than the story of an individual human life, and, as what I am compelled to say of myself must have its main interest in the relations which I have held to this school, I must trespass for a little while upon your patience to set the great facts of its history before you. In 1742 the hospital appeared to realise the great moral truth that it could not live to itself alone, that the experience which it collected in the doing of its work must be shared with others for the common good. So it began to teach pupils the art of medicine, and so was founded the nucleus of the great school in which we are assembled to-day. In 1749 systematic courses of lectures were delivered in the board-room of the hospital. In 1783 Dr. Maddox and Sir William Blizzard came to the conclusion that a separate building was necessary to carry on the educational work which they had thus begun. The governors consented to the erection of a separate building at the east end of the hospital, and there, in 1785, was erected a complete medical school for the teaching of medicine and surgery. In 1792 teaching by systematic lectures was supplemented by clinical teaching at the bedside of the patient, and the first step was made towards the thorough practical training which characterises the medical teaching of the present day. In this little building at the east end of the hospital the growth and development of our medical school made steady progress, and at last it outgrew the limits within which it was confined. It was at this time that the governors of the hospital awoke to the necessity of taking an active and personal part in the medical education going on in the institution, and fully recognised that those responsibilities extended not only to the sick and injured, but also to the acquisition and communication of the knowledge thus acquired. Immediately afterwards they threw themselves into this work, and entered upon that enlightened and liberal policy in which they have never since faltered and never since failed. The little school at the east end of the hospital was superseded by a new and separate building, the original of the one in which we are now assembled. In 1854 the college was completed at a cost of over £10,000, and handed over in trust to the medical and surgical staff of the hospital, and thus was begun what one may call the third stage in the life of our medical school. In its earlier stages the school belonged exclusively to the staff, but now, as was at once just and wise and necessary, it became the property of the governors and the staff together. Here I may pause for a moment to observe that the school had already acquired an individuality of character which happily still remains attached to it, and the acquisition of this individuality of character is not the least of the lessons which the history of our school can teach us. Its characteristic was its practicality, its endeavour to combine the art with the science of medicine—to apply the knowledge which it possessed immediately and directly to the practical business of life. Here, too, I may pause for a moment to note some of the leading things which this school has done, or at least has helped to do. Here, I believe, first in England medicine and surgery were taught in the manner of a handicraft; here first were clinical lectures delivered; here first a complete school was established; here first was taught by demonstration the use of the microscope in medicine; and here, among the first, a laboratory was established for practical physiological and pathological teaching. About twelve years ago the management of the school, then in the hands of the staff, was transferred to a college board, composed in part of representatives chosen by the governors and in part of representatives chosen by the medical staff. The college board thus constituted, mainly by the efforts of Dr. Sutton, readjusted the work of the college to the changing necessities of the time, and carried on its high uses and prosperity. In 1885 that prosperity had again outgrown the capacities of the college of 1854, and the college board concluded that it was necessary to rebuild and remodel the whole structure on lines adjusted to the advanced knowledge and improved teaching of the time. Accordingly, in 1887 the building in which we are now assembled was erected at a cost of over £15,000, and was graciously inaugurated by His Royal Highness the Prince of Wales. And now again in this fourth epoch of the life of our college its prospects of work, of usefulness, and prosperity are such as to sustain our highest efforts and promise the fulfilment of our justest hopes. Such is a meagre outline of the history of the outward life of our college. The story of its inner life would doubtless be much more interesting and instructive, but we must wait till another day for that to be told. Recurring for a moment to the reputation of the school as a practical school, I may be permitted to say that it has not purchased its reputation at the cost of its attention to scientific knowledge, for, to say the least of it, some of the teachers of this school have made admir-

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ties, and to enforce the demand for a better education of midwives. The foreman of the jury reflected on the doctor for not giving a certificate and saving the family the pain and exposure of a public inquiry. Such reflections are inadequate and unjustified. The jury would have been much better advised if they had advocated the education of midwives, and, meantime, the earlier consultation of medical men in cases going wrong under their care. Very few diseases require higher skill for their successful treatment than puerperal diseases. One object of inquests is to extract lessons for the future, and this is a wasted inquest.

ALLEGED DEATH FROM VACCINATION IN LEEDS.

WE commented last week upon the death of a child which, it was alleged, had resulted from syphilis after vaccination with animal lymph. The inquest has since been held, and we learn from the report of a local journal that the operation was performed by the unqualified assistant of a medical man. The evidence was to the effect that lymph from another child was used, and different opinions were expressed as to whether or not the deceased suffered from syphilis as the result of the operation. According to the report, the syphilis manifested itself within eight days of the vaccination, but it is not clear whether this statement refers to the local or constitutional symptoms; if to the latter, it is obvious that the disease was not acquired at the time of the operation. We shall be glad to hear that full inquiry is being made by the Local Government Board into the circumstances of the child's death.

BRITISH NURSES' ASSOCIATION.

AT the invitation of the Lord Mayor (who presided) and the Lady Mayoress, a largely attended meeting, at which Princess Christian was present, was held last Wednesday at the Mansion House for the purpose of receiving information concerning the work and objects of the British Nurses' Association. Letters of regret at inability to attend were read from a number of prominent sympathisers with the objects of the Association, and speeches were delivered by the Lord Mayor, Mr. Wm. Scovell Savory, Sir J. Crichton Browne, Mr. Brudenell Carter, Sir Henry Acland, Bart., Dr. Matthews Duncan, Professor Marshall, and others, extolling the aims of the movement which they had met to promote, and laying stress upon the desirability of a register being established for qualified nurses and midwives. A vote of thanks to Princess Christian for attending, and also to the Lord Mayor and Lady Mayoress for the manner in which they had interested themselves in the British Nurses' Association, closed the proceedings, which on account of their importance we shall refer to at greater length in our next issue.

PROPOSED MEMORIAL TO LINACRE.

THOMAS LINACRE, founder of the Royal College of Physicians, who died in 1524, was at one time rector of Mersham, near Ashford, in Kent. The fine old parish church of Mersham is now undergoing repairs, and the present rector, the Rev. E. C. Lucey, is anxious to place in the ancient west window, already remarkable for its architectural singularity and beauty, a permanent memorial to the patriarch who was physician to four English sovereigns successively, and who, by his interest with Henry VIII., procured letters patent for the foundation of the great English College. We trust that the medical profession will support Mr. Lucey in his undertaking, and venture to suggest that the Royal College might afford some help in a matter so nearly concerning its own ancestral dignity.

THE PROSPECTS OF THE NOTIFICATION BILL.

IT is said that the Notification Bill will be opposed by those who usually figure as the representatives of working men. This seems scarcely probable, as many of the most democratic towns have already adopted the principle of the Bill. They are not likely to be injured by the operation of the measure. The managers of the Metropolitan Asylums Board have resolved, on the motion of Mr. Scovell, to petition in its favour. We observe one notice of amendment of which we highly approve: that the head of a family in which infectious disease has broken out shall, in addition to giving notice to the medical officer, give notice to the schoolmaster of any elementary or other school at which such patient is a pupil, or at which any other member of the same household is a pupil. We wish well to Mr. Kelly's amendment. We hope it will be carried, and enforced by a very substantial fine on those who violate it.

OUTBREAK OF PLAGUE IN ARABIA.

IT is reported this week that the plague has appeared in the Turkish dependencies on the south-western coast of Arabia, bordering on the Red Sea, and that vigorous sanitary measures are being taken to check the spread of the epidemic. In modern times this dread disease has more than once broken out in Arabia—e.g., in 1853, 1874, and 1879; whilst from 1878 to 1879 it invaded Astrachan, being, however, comparatively limited in its extent in the latter district. At the instance of the Royal College of Physicians, Drs. Colville and Payne were sent from this country to investigate that outbreak. Practically, it has not occurred in Europe (except in the Balkan Peninsula) since the first half of the eighteenth century.

CHARITY SCANDALS.

THE *Evening News and Post* of July 10th descants on the evils of the charity voting system, and points out how great is the annual waste in carrying out the system, which is so costly and often ruinous to poor candidates. This system is undoubtedly a great blot on several institutions and societies. The proper course for these societies to pursue is boldly to alter their rules, and give to an impartially selected committee the duty of selecting the worst cases, and relieving all in the order of their urgency and fitness. This battle must be fought out, and resisting institutions will not prosper.

WE regret to announce the death, at Cheltenham, on the 10th inst., of Deputy Surgeon-General Francis Day, F.R.S., LL.D., C.I.E. The deceased was one of the best-known Indian naturalists of his generation, and in his death the Indian Medical Service sustains a severe loss. He took part in the Burmah campaign of 1852, for which he received the medal. At the conclusion of the military operations there he devoted himself entirely to pisciology, and as Inspector-General of Fisheries in India he examined the rivers and seas of that country from the coasts of Mekran on the west to the Straits of Malacca on the east. Among his more prominent works may be mentioned "The Fishes of India," 1868, and second edition, 1875–79; "The Freshwater Fish and Fisheries of India and Burmah," 1873; and "The Fishes of Great Britain and Ireland," 1880–83.

THE sixty-second Congress of German Physicians and Naturalists meets at Heidelberg from the 17th to the 23rd of September. The programme is an exceptionally attractive one, and ought to ensure the attendance of *savants* of other nationalities besides that of the Fatherland. The severer work of the section will be relieved by

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social gatherings in the evening, by a full-dress banquet in the great Hall of the Museum, and by at least one excursion into the environs. The organising committee announce that a bureau for the reception and guidance of guests will be opened on Sept. 16th at the Bayerische Hof, Rohrbacher-strasse, No. 2; while the town clerk, Herr Webal, will give full instructions as to their accommodation, if addressed at the Rathhaus, Heidelberg.

THE LONDON HOSPITAL AND MEDICAL COLLEGE.

PRESENTATION TO SIR ANDREW CLARK.

THERE was an interesting gathering last Monday afternoon in the library of the Medical College of the London Hospital, the occasion being the presentation to Sir Andrew Clark, Bart. (President of the Royal College of Physicians) of his portrait, and the presentation of prizes to the students and the nursing probationers by the Duke of Cambridge (the President of the Hospital). The portrait was subscribed for by the members of the medical and surgical staff, and other friends of the hospital. It was painted by the late Mr. Frank Holl, R.A., and was exhibited at the Royal Academy of 1888.

The Duke of CAMBRIDGE, in making the presentation, spoke to the appreciation felt by all of the eminent talents and services of Sir Andrew Clark, who had been associated with that great hospital since 1854, and during that long period no instance had ever been known in which he had not shown his capacity and value to the institution. He had in a great measure helped to create the great school which was now attached to the hospital. In conclusion, he felt sure that Sir Andrew Clark would give the hospital in the future all the assistance and advice he had so eminently given in the past. (Cheers.)

Sir ANDREW CLARK replied as follows:—I return you grateful thanks for the gift which you have just presented to me. You will readily understand on an occasion of this kind, at once interesting and painful, that my thoughts are too great for words. I must therefore trespass upon your sympathies, and ask you to translate from my heart into your own hearts the grateful ideas to which I am unable to give formal expression. There are occasions in life when the head must give way to the heart. This is one of them, and I must be content rather to stammer out what I feel than to say what my understanding would prompt. Coming from your hands, Sir, so long the President and friend of this great hospital; coming from the hands of some of the old and valued friends whom I see around me; coming, above all things, from my dear and honoured colleagues with whom I have been associated for so many years,—this presentation has an inexpressible value, and I am deeply moved by the thought that, in this form at least, I shall have the privilege of continuing to dwell amongst you with whom my life and work have been cast. On such an occasion I might naturally be excused having some feelings of exceptional pride and satisfaction, and though such feelings are not absent from my mind, I can say with literal sincerity that they do not dominate my thoughts. For coming face to face with the stern record of five-and-thirty years' work—seeing, as I cannot fail to do, the defects, the mistakes, the errors, the failures of that long period,—I cannot flatter myself with much self-gratulation; I cannot but feel that the signal honour which you have conferred upon me to-day is much more due to your generous sympathies than to my own deserts. Happily, the chief interest of to-day does not lie in this presentation; does not lie in the interesting ceremony of the distribution of prizes to the students; does not lie in the successful record of our great nursing establishment so ably governed by Miss Lückes: it lies in the life and work of this great school of medicine, to which these things and all other things connected with it are subordinate. The story of a school like this is not less interesting and instructive than the story of an individual human life, and, as what I am compelled to say of myself must have its main interest in the relations which I have held to this school, I must trespass for a little while upon your patience to set the great facts of its history before you. In 1742 the hospital appeared to realise the great moral truth that it could not live to itself alone, that the experience which it collected in the doing of its work must be shared with others for the common good. So it began to teach pupils the art of medicine, and so was founded the nucleus of the great school in which we are assembled to-day. In 1749 systematic courses of lectures were delivered in the board-room of the hospital. In 1783 Dr. Maddox and Sir William Blizzard came to the conclusion that a separate building was necessary to carry on the educational work which they had thus begun. The governors consented to the erection of a separate building at the east end of the hospital, and there, in 1785, was erected a complete medical school for the teaching of medicine and surgery. In 1792 teaching by systematic lectures was supplemented by clinical teaching at the bedside of the patient, and the first step was made towards the thorough practical training which characterises the medical teaching of the present day. In this little building at the east end of the hospital the growth and development of our medical school made steady progress, and at last it outgrew the limits within which it was confined. It was at this time that the governors of the hospital awoke to the necessity of taking an active and personal part in the medical education going on in the institution, and fully recognised that those responsibilities extended not only to the sick and injured, but also to the acquisition and communication of the knowledge thus acquired. Immediately afterwards they threw themselves into this work, and entered upon that enlightened and liberal policy in which they have never since faltered and never since failed. The little school at the east end of the hospital was superseded by a new and separate building, the original of the one in which we are now assembled. In 1854 the college was completed at a cost of over £10,000, and handed over in trust to the medical and surgical staff of the hospital, and thus was begun what one may call the third stage in the life of our medical school. In its earlier stages the school belonged exclusively to the staff, but now, as was at once just and wise and necessary, it became the property of the governors and the staff together. Here I may pause for a moment to observe that the school had already acquired an individuality of character which happily still remains attached to it, and the acquisition of this individuality of character is not the least of the lessons which the history of our school can teach us. Its characteristic was its practicality, its endeavour to combine the art with the science of medicine—to apply the knowledge which it possessed immediately and directly to the practical business of life. Here, too, I may pause for a moment to note some of the leading things which this school has done, or at least has helped to do. Here, I believe, first in England medicine and surgery were taught in the manner of a handicraft; here first were clinical lectures delivered; here first a complete school was established; here first was taught by demonstration the use of the microscope in medicine; and here, among the first, a laboratory was established for practical physiological and pathological teaching. About twelve years ago the management of the school, then in the hands of the staff, was transferred to a college board, composed in part of representatives chosen by the governors and in part of representatives chosen by the medical staff. The college board thus constituted, mainly by the efforts of Dr. Sutton, readjusted the work of the college to the changing necessities of the time, and carried on its high uses and prosperity. In 1885 that prosperity had again outgrown the capacities of the college of 1854, and the college board concluded that it was necessary to rebuild and remodel the whole structure on lines adjusted to the advanced knowledge and improved teaching of the time. Accordingly, in 1887 the building in which we are now assembled was erected at a cost of over £15,000, and was graciously inaugurated by His Royal Highness the Prince of Wales. And now again in this fourth epoch of the life of our college its prospects of work, of usefulness, and prosperity are such as to sustain our highest efforts and promise the fulfilment of our justest hopes. Such is a meagre outline of the history of the outward life of our college. The story of its inner life would doubtless be much more interesting and instructive, but we must wait till another day for that to be told. Recurring for a moment to the reputation of the school as a practical school, I may be permitted to say that it has not purchased its reputation at the cost of its attention to scientific knowledge, for, to say the least of it, some of the teachers of this school have made admir-

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able and lasting contributions not only to the great body of scientific truth, but, what is of more importance, to the great body of scientific ideas. Furthermore, it may be interesting and satisfactory to the governors to know that the Presidents of the Royal College of Physicians and of the Royal College of Surgeons are members of this present staff. And now, in conclusion, let me return to that unpleasant subject of myself, and, for the help of my younger brethren, relate such facts in my personal history as are bound up with the life and work of the school. I entered London at the close of 1853 for the sole purpose of studying pathological histology, and with no intention of engaging in the practice of medicine. I had never seen my parents, who died in my infancy. I had never lived under a relative's roof in my life. I had only one acquaintance; I had no introductions; I was in ill health, and, according to Dr. Hughes Bennett, my expectation of life was bounded by a year. But I had some other things which seem to have counterbalanced those disadvantages: I had a small patrimony and a large love of work for work's sake. I was very young; I had perfect self-dependence, and never permitted myself to ask favours of any man. I had the habit of dealing with every day of my life as if it were my whole life. I was contented and happy over what the day brought to me. I had no ambition of any kind, and I hated schemes and intrigues. I was at first in charge of the museum, but when an opening occurred on the staff my colleagues and the students together succeeded in obtaining my appointment to that position. It was the greatest fight that had ever been fought at a London hospital, and I well remember when the fight was over how one of the opposing party said, "Poor Scotch beggar, let him have it; he cannot by any possibility have six months to live!" But "the race is not to the swift nor the battle to the strong"; I am still living and working, I am still amongst you to-day, the sole representative of the staff of thirty-five years ago. Now, it would be unpardonable affectation, on an occasion such as this, to ignore the fact that in this life which I have lived I have met with a certain measure of material success,—a success, pardon me for saying, which I never expected and never sought. Such material success as has fallen to me is certainly not the highest success, and not always to be desired; but, on the other hand, it is not to be despised, and for my younger brethren it is at least one of the factors of their life and work. And as I do not doubt that some of them would like to know from me something of what I think of the necessary conditions of success, I will conclude by telling them what I think they are. Firstly, I believe that every man's success is within himself and must come out of himself. No true, abiding, and just success can come to any man in any other way. Secondly, a man must be seriously in earnest. He must act with singleness of heart and purpose; he must do with all his might and with all his concentration of thought the one thing at the one time which he is called upon to do. And if some of my young friends should say here, "I cannot do that—I cannot love work," then I answer that there is a certain remedy, and it is work. Work in spite of yourself, and make the habit of work, and when the habit of work is formed it will be transfigured into the love of work; and at last you will not only abhor idleness, but you will have no happiness out of the work which then you are constrained from love to do. Thirdly, the man must be charitable, not censorious—self-effacing, not self-seeking; and he must try at once to think and to do the best for his rivals and antagonists that can be done. Fourthly, the man must believe that labour is life, that successful labour is life and gladness, and that successful labour, with high aims and just objects, will bring to him the fullest, truest, and happiest life that can be lived upon the earth.

The Duke of CAMBRIDGE then distributed numerous prizes to the medical students and probationers, having previously presented to the chairman of the college board an excellent replica of the portrait, painted by Mr. Sydney Hodges, for the purpose of being hung on the college walls. Addressing the students he referred to the hospital as one of the leading institutions of its kind in Europe, and he trusted they would maintain their position by every means in their power. He concluded by speaking in high terms of praise of the work done by the nursing sisterhood attached to the institution.

A vote of thanks to the Duke of Cambridge having been passed and acknowledged, his Royal Highness proceeded to inspect the wards of the hospital, which, with the medical college, were open to visitors.

THE CASE OF REGINA *v.* KERR.

AMONG other cases tried at the Carlisle Assizes, that of William Kerr, convicted and sentenced to death on July 6th by Mr. Justice Stephen for the wilful murder of Sebra Troughear, presents several features of great medico-legal interest. The prisoner was a blacksmith, his age being twenty-five, and he was described as being of slim but firm build, rather under the medium height. The deceased was fifty-four years of age, and was housekeeper to a farmer; she was a single woman, sober, healthy, and described as having been very respectable. She had, however, borne two children, a fact which has an important bearing upon the case. On the night of Sunday, June 2nd, she had tea and supper with a friend, partaking of bread-and-butter, cheese, and cake made of dried currants. She left to return home about half-past nine, being then, according to her friend, quite well and healthy. She was seen by another witness at five minutes past ten passing a public-house distant one mile and 562 yards from the spot where her body was subsequently found. The prisoner was seen that same night by several persons in a condition gradually proceeding from that of sobriety to semi-intoxication. At a spot 162 yards from where the deceased's body was found he was seen to fall, get up again, and throw a stone against the door of an inn which was closed. He then ran away. About eleven o'clock he was met by two men just 395 yards from the fatal spot, to both of whom he was known; he was staggering, and one of them took hold of him and told him not to fall, but to go home. After walking the distance just indicated they saw a pocket-handkerchief on the road. One of them struck a light, and they then saw the body of the deceased lying on her back, with the legs hanging over the edge of the gutter. Her clothes were thrown back over her body, and her legs were exposed. A skirt was lying on the road near her feet. They met no other person but the prisoner. When the policeman saw the body on the same spot about an hour later, he found her hands by her side, her eyes and mouth partly open, a brownish-coloured liquid running from her mouth, her face cold, and her chest warm. Her clothes were turned up as far as they would go, and her knees were very dirty, mud being upon both. There was a smear of blood upon the left cheek, but no wound. The body was removed to an inn 162 yards distant. The prisoner was seen about midnight on a bridge 937 yards from the same spot by two men, who noticed that his clothes were wet and dirty and that he was drunk. He was seen to go into his own house. About four o'clock the next morning Mr. Graham, police superintendent, with the officer who had seen the body of the deceased, went to the prisoner's house and found him in bed. His coat and vest were hanging over a chair in front of the fire, the right breast and sleeves of the coat were wet, and in his bedroom were his trousers, all of which he admitted having worn the night before. Mr. Graham pointed at stains on the back of his coat resembling that coming from the mouth of the deceased, to which the prisoner said, "I must have been rolling." When told of the discovery of the body, and after being cautioned, he denied seeing any woman or meeting anybody. Mr. Graham noticed some dried blood on his left cheek. He rubbed it off, and said it was nothing. Drs. Henry Barnes and Maclaren of Carlisle examined the body of the deceased on June 3rd, and found a bruise above the left ear; blood was effused into the substance of the muscle as well as under the scalp. There was a patch of blood on the face and an abrasion of the abdomen. There was blood on the vulva; there were also two lacerations in the vagina: one slight, near the orifice; another, three-quarters of an inch long, deeper. There was no appearance of seminal fluid. A considerable amount of food was found in the gullet, and there were pieces of food in the windpipe, near the vocal cords. The lungs were congested—and this was no doubt the immediate cause of death. There were appearances of old-standing disease of the kidneys, and old pleuritic adhesions, but the other organs were healthy. The prisoner had a scratch on his left cheek and on one of his legs. The mud found on his trousers corresponded to the mud in the road where the body was found, which consisted largely of decayed beech leaves and scales. The mud on that part of the road where the deceased was seen

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to fall was of a totally different character. Numerous small spots of dried blood were found on the front of the prisoner's trousers and waistcoat; there were also spots of dried blood and mud mixed. On the knees of the trousers and in the mud which had been scraped away from them there were several red wool hairs similar to those on the deceased's flannel petticoat. There were blood stains on the deceased's handkerchief and chemise; no stains on the prisoner's shirt. There was evidence that the prisoner had been spitting blood. The prisoner was ably defended by Mr. Shee. His defence appeared to be that the prisoner was too drunk to have committed a rape on the deceased, death resulting from this, as was the theory of the prosecution. He contended that the stains on the prisoner's coat might have been from his own vomit, and that the prisoner's and deceased's clothing might have got mixed up while in charge of the police. The judge's charge was adverse to the prisoner, and the jury were evidently unanimous at its conclusion, as they were only twelve minutes in deliberation. Their verdict was "Guilty," and in sentencing the prisoner to death Justice Stephen held out no hope of mercy, characterising the prisoner's act as a murder of a most brutal nature, he having ravished this poor woman without the smallest excuse or temptation, without a single mitigating circumstance. The nature of the case was one calculated to excite a strong feeling against the prisoner, and it must be admitted that the evidence against him was very strong. As, however, it was legal or constructive rather than deliberately intentional murder, efforts are being made to secure a reprieve. It is only just to add that the reports of Drs. Henry Barnes and Maclaren were admirable, showing that all their various examinations of the body of the deceased, of her clothing and the prisoner's, and of the various localities, had been of a most exhaustive character, leaving nothing to be desired.

THE PASTEUR INSTITUTE.

M. PASTEUR, in a letter to the Lord Mayor acknowledging the receipt of the resolutions passed at the recent Mansion House meeting, writes:—

"If the aphorism that science has no country has never received authoritative sanction, it did so at this meeting, in which the leading *savants* in biological and medical science of the United Kingdom took part. I wish I could thank them individually for having attended this gathering. I was filled with gratitude on learning that the Prince of Wales himself had accorded his high approbation of your initiative. Modesty compels me to pass over in silence the kind words of which my labours and those of the Institute Pasteur have been the subject, but I have a right to rejoice with all friends of the progress of humanity at the great moral effect of the meeting. The manifestation of July 1st had not only for its object the question of the treatment and possible extinction of hydrophobia in England, but in the nature of things it was also a protest against that false sentimentality which led certain persons, not—which was already a strong point with them—merely to put on the same footing the life of men and that of animals, but even to prefer the existence of animals to the salvation of human life. When this view is taken, what is the limit? We must become firm vegetarians. We must even extend our scruples so that no living being is sacrificed. We must endure the importunities of a mosquito, the daring of a mouse, the stings of a flea—false ideas or excuses for a tirade which one finds is most often at the bottom of all the attacks on experimental physiology. Certain credulous souls—by I know not what tales—imagine that our laboratories are chambers of torture. They ignore the fact that the rabbit or the guinea-pig is rendered insensible by chloroform before it is subjected to the most insignificant operation. As for me personally, the suffering of an animal affects me so much that I would never shoot a bird, and the cry of a wounded skylark pierces me to the heart; but if the investigation of the mysteries of Nature and the acquisition of new truths be at stake, the sovereignty of the object justifies all. Who, then, having the least regard for the pursuit of the knowledge of the mysteries of Nature, would put in the balance the sacrifice of a few fowls and rabbits with the discovery of the attenuation of virus and prophylactics, which have resulted from such sacrifice. No one, my Lord Mayor, will have contributed more than you have done to rectify the errors which under a show of compassion can only hinder the progress of science and compromise even the most legitimate interests of humanity."

The Royal Society has voted the sum of £100 to the Lord Mayor's fund in connexion with the Pasteur Institute in Paris, and the Earl of Rosebery has sent £100. Among other donors are Mr. George Matthey, who has given £21; Mr. W. S. Savory, F.R.S., £5 5*s.*; Mr. Joseph Watson, £10; Dr. George Harley, F.R.S., £5 5*s.*; Mr. A. C. Barclay, £10 10*s.*; Sir Joseph Lister, F.R.S., £20; Sir W. Bowman, F.R.S., £21; Sir W. W. Gull, F.R.S., £10; Messrs. Macmillan and Co., £10 10*s.*; Sir T. Spencer Wells, F.R.S., £5 5*s.*; General Strachey, F.R.S., £5; Mr. John Snelgrove, £5 5*s.*; and Dr. Philip Frank, £5.

THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

Clothing Exhibits.—The International Congress on Factory Legislation, &c.

THE strain on the railway companies and on the hotel-keepers of Paris has now reached the maximum. Apart from innumerable individual excursionists and visitors, there are large delegations from all parts of the world crowding to Paris. Many of these visitors are poor, and therefore obliged to crowd in very small hotels in back streets, where they sleep several in a room. If Paris resists such a strain, and no epidemic breaks out, we shall have to conclude that sanitary matters in the French capital are not so bad as they seem. In one respect, all this crowding and rejoicing is well managed. Great care is taken to establish ambulances wherever cases of illness or accidents are likely to occur; though, so far, such ambulances have had little or nothing to do. At the immense balls given at the Palace of Industry, where there were some 30,000 guests, the only serious accident hitherto reported was a cut received by a waiter when a bottle broke as he sought to draw the cork. Towards three and four in the morning a few hysterical cases occur among ladies, but that is all. There seems to be so much that is stimulating in the excitement, that the population, whether French or foreign, support the fatigue with remarkable immunity from unpleasant consequences. The greatest difficulty is to keep cool, and to resist the constant cravings of thirst engendered by the heat. Under such circumstances, it is of practical interest to visit Class 36 of the Exhibition, which comprises clothing for both sexes. The matter of clothing has been considered too much a question of fashion instead of as an important health problem. However, there are some exhibitors who do approach the subject from the sanitary point of view. In any case, the helmet may be looked upon as an article of sanitary clothing, when made so as to shelter the head from the tropical sun. In this department Messrs. Christie and Co. have a large assortment of helmets. They have also numerous light felt hats, and they show the various sorts of rabbit's hair with which these hats are made. This is important, as there are common felts that are far from being wholesome to wear on account of the chemicals used in the process of manufacture. Messrs. Cooksey and Co. have some specially perforated white raised leather lining for hats of all description, which helps to keep the forehead cool; also helmets for hot climates. Messrs. Lincoln, Bennett, and Co. show a doubly-ventilated helmet. Not only is the lining which surrounds the head separated by corks from the body of the helmet, but the outer rim of the helmet is so arranged as to permit of the entrance of air between the outer and inner covering. As, however, we cannot very well wear helmets in the streets of Paris, the exhibits of the Cellular Clothing Company are perhaps more to the point. These exhibitors seem to have grasped the fact, that clothes must not impede the action of the skin, that the exhalations of the human body must readily escape into the open air, and that the air must with equal facility reach the whole surface of the body. This is often in part prevented by the nature of the clothes worn. The Cellular Clothing Company make all their clothing material, whether of wool, cotton, or silk, in a sort of stitch that

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resembles netting, so that there is no resistance to the free current of the air. Nature clothes animals with hair, and nothing can be warmer than fur; but hair not only allows air to pass through, but, by the action of the heat from the body and by capillary attraction, regulates the current, and, while preventing its suddenness, assures its regularity. This is the true and natural principle of clothing.

In dealing with the question of limiting the work of women, the International Congress on the Intervention of the State in Labour Questions did not dwell so much on the public health aspect of the problem. This had been done principally when discussing laws affecting child labour, as reported last week. On the other hand, a great deal was said concerning wages; and undoubtedly, if women's work has a tendency to reduce wages to starvation point, it will most effectually influence public health. M. Chépié, deputy of the Rhone, was the reporter on this question. Formerly, when a woman worked, it was at home, or in a little workshop where she was free to sit and to go to and fro; but now she had to observe the rigid discipline of a factory, stand in the same position all day long, and work, in fact, with the rigidity of the machine she watched. This of course had an injurious influence on her health. Then, instead of dealing with an individual employer who might understand her needs and show some commiseration, it was with a joint-stock company, destitute in its corporate capacity of any human feelings. All this had caused a physical deterioration of the race, and the State had been compelled to interfere in almost every country of Europe. A new project was now before the French Parliament, which would stop night work for women. It was recognised that it was the duty of the State to protect the weak against the strong. Others believed that the law of supply and demand was the best regulator; that the Legislature by imposing rules suppressed the self-reliance which made the dignity of the human race; and that intervention was dangerous because it could not be limited.

M. Neubourg, a barrister, thought the State should not interfere with women, as such protection placed her in an inferior position to man, and he could not approve anything that would cripple her means of action. M. Founier de Flux, on the contrary, was in favour of limiting the labour of children, women, and even of men. The French Social Science Congress had gone so far as to propose the abolition of women's work altogether. M. Villiar doubted whether legislation would bring this about. Mr. Adolphe Smith contended that where woman's work was most mischievous was where she competed with her husband, brother, or father. This meant lower wages all round, less leisure, and complete neglect of domestic duties. If the manufacturing districts of England were visited, it would be found that where the wife and the elder children worked in the mill, there the child and infant mortality was exceptionally high. The same work should be paid the same price, whether done by a man or a woman; and if this were the rule, the number of women workers would be singularly reduced, a higher rate of wages in many trades would be more easily maintained, and there would be someone at home to care for the children, to clean the house, and to prepare with more economy and skill the breadwinner's meal. This would mean an immense improvement in the moral tone and physical condition of a large section of the population.

M. Dounat, municipal councillor for Paris, now vacated the chair and delivered a speech in which he tried to prove that all the desired improvements were taking place of themselves, without the need of any State intervention. In the northern cities and in Paris salaries were rising; and employers were acquiring a higher moral conception of their duties towards their workpeople. The pressure of public opinion, and perhaps an occasional strike, sufficed to rectify abuses. There were so many unmarried women or widows that it was preposterous to talk of suppressing women's work; this would condemn them to starvation or the streets. Nor was he in favour of limiting the hours of work—as, for instance, Parisian milliners worked eighteen hours a day during the season, and for 200 days in the year hardly worked at all.

The delegate from Canada stated that the law assimilates the work of women with that of children. Though women earned in Canada much higher wages than in France, their families always suffered by their work. In trades where the hours are longest the wages are low; where the hours are short the wages are high. The workmen, by their agitation, had obtained legislation on the subject, and this was based on the principle that it was the husband's duty to support his family. Amongst compositors the same salary was given to women as to men, with the result that the women had left the trade, and Mr. Smith was right when he insisted that both should receive the same salary for the same work. Where this was not the case, and where women were admitted at lower wages, they soon drove all the men away. Let those who had a care for human dignity and human health read the fearful revelations concerning the New York tenement houses. Ten years ago the cigar makers lived in comfortable cottages; now they inhabit in revolting promiscuity and over-crowding these tenement houses, because they can no longer get work. It is their wives and children who make the cigars. Starving, filth, immorality, and a high death-rate are the results. The theory of the law in Canada was to discourage or suppress women's work, and when this is done the men will earn enough to pay for all and maintain healthy homes.

This energetic speech struck a chill upon the Congress, being so thoroughly opposed to the principles of the promoters. M. Dounat spoke again. He said that if in Switzerland a law had been passed limiting the day's work to twelve hours, it was because no one worked more, that in England constant exceptions were made in the application of the Factory Act, and briefly that laws could not be applied unless they merely confirmed existing customs. Much of the outcry against women's work was due to the pretentions of the men who sought to obtain higher wages.

The Congress thereupon adjourned, having come to the strange decision not to submit or pass any resolutions. The members were to be content with the general sense of the discussion and whatever instruction it might impart.

The discussions held on the following days when the Congress met were not so intimately connected with questions of health. The reaction of arbitration courts, of labour exchanges, and the intervention of municipalities and other public bodies in strikes were debated; and, though the subjects raised are of vast interest and importance, the columns of THE LANCET are not directly concerned with them, and therefore at this point I part company with the Congress.

Paris, July 14th.

A NEW BRANCH OF THE SEAMEN'S HOSPITAL.

ON Tuesday last Prince George of Wales, in the presence of a large assembly, laid the foundation-stone of a new branch or auxiliary hospital at the Royal Albert and Victoria Docks. Dr. Robert Barnes, who was formerly physician to the *Dreadnought*, Dr. Curnow, the senior visiting physician, and Mr. Johnson Smith, the resident surgeon, represented the medical staff of the Seamen's Hospital at the ceremony. The committee of the Seamen's Hospital Society had been induced to build this additional hospital from the fact that the shipping of the port of London now extends over such a large area, especially on the north side of the Thames, that the present hospital cannot—indeed, no single hospital, wherever situated, can—afford sufficient facilities for giving medical assistance to the vast numbers of sailors who frequent the port of London. Eighty thousand seamen pass in and out of the docks every year, and there is a large seafaring population around Canning Town and in the immediate vicinity of the docks, whilst the nearest hospital is three miles distant. The new building will cost about £5000, and will contain twelve beds for cases of emergency, with two small wards for isolation if necessary, an out-patient department, and the necessary offices and rooms for the medical officer and the nursing staff. Cases which are not serious in character, and urgent cases as soon as they can safely be moved, will be conveyed by ambulance to Greenwich. The growth of the work of the Seamen's Hospital Society is very interesting. From 1821 to 1870 the hospital was successively established on board H.M.'s ships *Grampus* and *Dreadnought* on the Thames; in 1870 it was transferred to the Royal Hospital at Greenwich, where there are now 225 beds in constant use; and out-patient dispensaries have since been founded at the London Docks and at Gravesend; and now it is felt necessary to take a new departure by building a small hospital for urgent cases at the Albert and Victoria Docks.

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METROPOLITAN HOSPITAL SUNDAY FUND, 1889.

THE amount received to date is some £40,000, or about £1000 in advance of the sum received at the corresponding period last year. We are asked to state that the amount collected at Christ Church, Stepney, was £10 6*s.* 3*d.*, and not, as published in our issue of the 6th inst., £25 17*s.* 10*d.*, which was the sum collected at Christ Church, Chelsea. The offertory to the Hospital Sunday Fund at St. Andrew's, Stoke Newington, was, as already published, £26 4*s.* 5*d.* In addition to this amount, however, there was collected at the morning and afternoon services a sum of £55 10*s.* for Guy's Hospital exclusively.

Church of England.		1888.		1889.
		£ *s.* *d.*		£ *s.* *d.*
Brompton Parish Church	Rev. W. Covington	460 3 10	.....	446 7 6
St. Stephen, South Kensington	Rev. J. P. Waldo	222 11 6	.....	197 4 1
St. Andrew, Wells-street, W.	Rev. W. T. Houldsworth	140 7 9	.....	127 8 0
St. Stephen, Westbourne Park	Rev. I. V. Harvey Brooks	101 2 8	.....	100 0 0
St. Martin-in-the-Fields	Rev. J. F. Kitto	106 17 4	.....	85 19 6
All Saints, Blackheath	Rev. E. F. Randolph	91 0 0	.....	70 0 0
St. Giles, Cripplegate	Rev. A. Barff	84 2 7	.....	65 9 10
Guards' Chapel, Wellington Barracks	Rev. W. J. R. Buckle	74 1 8	.....	53 11 0
Christ Church, Albany-street	Rev. Prebendary J. W. Festing	51 1 4	.....	43 7 4
St. Mildred, Lee, Kent	Rev. F. W. Helder	35 17 1	.....	43 1 3
St. Dunstan's Parish Church, Stepney	Rev. E. Hoskyns	39 8 3	.....	40 17 5
Emmanuel Parish Church, Forest Gate	Rev. Robert Ross	36 16 7	.....	40 13 11
All Saints, South Acton	Rev. A. Hunter Dunn	34 9 0	.....	35 1 2
St. Paul and Mission, Walworth	Rev. C. H. Simpkinson	25 18 9	.....	31 15 6
St. Barnabas, Pimlico	Rev. A. Gurney	40 9 10	.....	31 8 7
All Saints' Parish Church, Isleworth	Rev. Prebendary Richards	23 2 6	.....	30 17 0
St. John Evangelist Parish Church, Great Stanmore	Rev. F. C. Jackson	18 14 0	.....	30 12 6
St. Peter, Paddington, and Schools	Rev. W. H. O'Bryen Hodge	38 6 9	.....	26 15 4
Emmanuel Church, West Dulwich	Rev. E. Rae	28 8 7	.....	26 7 6
Church of the Good Shepherd, Lee, Kent	Rev. F. H. Low	26 12 3	.....	20 11 1
Other Denominations.				
Regent-square Church	Rev. J. O. Dykes, D.D.	64 7 1	.....	106 19 4
Westbourne Park Chapel, Paddington	Rev. John Clifford, D.D.	29 3 0	.....	30 17 6
Finchley (North-end) Church	Rev. Thomas Hill	40 0 0	.....	28 7 7
Haverstock-hill Church	Rev. J. Nunn	26 12 0	.....	22 1 4
St. Marylebone Church	Rev. Donald Fraser, D.D.	60 11 0	.....	63 15 6
Highbury Park Church	Rev. John Edmond, D.D.	36 10 0	.....	28 0 0

Donations.

	£ *s.* *d.*		£ *s.* *d.*
George Palmer, Esq.	105 0 0	R. H. Noble, Esq.	30 0 0

A BILL TO AMEND THE MEDICAL ACT, 1886.

THE following Bill has been prepared and brought in by Sir Walter Foster, Mr. Whitmore, Sir Trevor Lawrence, Sir Guyer Hunter, Dr. Farquharson, and Sir Lyon Playfair:—

Be it enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

1. *Short Title and Construction.*—This Act may be cited as the Medical Act, 1889, and shall be construed as one with the Medical Acts.

2. *Medical Corporations within the meaning of the Medical Act, 1886, entitled to grant Registrable Diplomas in Sanitary Science.*—Every body being a medical corporation within the meaning of the Medical Act, 1886, or any two or more of such bodies acting in combination, shall be competent to hold special examinations and to grant diplomas in sanitary science, public health, or State medicine; and every holder of any such diploma shall, subject to the provisions of Section 21 of the said Act, be entitled to have such diploma entered in the Medical Register, in addition to any other diploma or diplomas in respect of which he is registered under the Medical Acts; and every such diploma shall be deemed to be a diploma in sanitary science, public health, or State medicine under the said section within the meaning of Section 18, Subsection 2, of the Local Government Act, 1888, and for all other purposes.

MUZZLING OF DOGS IN LONDON.

THE following Order in Council on the above subject was published in the *London Gazette* of July 5th.

1. This Order may be cited as the Rabies (City and Metropolitan Police Districts) Order of 1889.

2. This Order applies to and shall be in force in the City of London and such districts or parts of districts of local authorities as are included within the Metropolitan Police district, and shall be enforced by each of such local authorities within their district or part of their district to which this Order applies.

3. This Order shall commence and take effect from and immediately after the 31st day of July, 1889; and shall, unless previously revoked by Order of Council, cease to have effect from and immediately after the 31st day of December, 1889, without prejudice to the institution or prosecution of any proceeding in respect of an offence committed on or before that day.

4. In this Order—Public place includes any street, highway, thoroughfare, public bridge, Royal park, public park, garden, or pleasure ground, common, unenclosed land, or other place to which the public have for the time being access. The Act of 1878 means the Contagious Diseases (Animals) Act, 1878. Other terms have the same meaning as in the Rabies Order of 1887.

5. The local authority of each of the districts to which this Order applies shall cause all dogs affected with or suspected of rabies or having been bitten by a dog affected with or suspected of rabies within their district to be forthwith slaughtered.

6. (*a*) No dog shall be allowed to be in or on any public place unless such dog is muzzled with a muzzle so constructed as to render it impossible for such dog while wearing the same to bite any person or animal, but not so as to prevent such dog from breathing freely or lapping water. (*b*) If any dog is found in or on any public place without being muzzled in manner prescribed by this article, the person for the time being in charge of the dog, and the owner thereof, and the person allowing the same to be in or on such public place in contravention of this article, shall each, according to and in respect of his own acts and defaults, be deemed guilty of an offence against the Act of 1878. (*c*) Provided that the provisions of this article shall not apply to packs of hounds, harriers, or beagles, or greyhounds, or other sporting dogs, while being used for sporting purposes, or to any dogs while being used for the capture or destruction of vermin, and in charge of competent persons.

7. The local authority of each of the districts to which this Order refers shall cause all stray dogs, and all dogs not muzzled in accordance with the provisions of this Order, to be seized, and such dogs so seized shall be dealt with as follows:—(i.) If the dog is affected with or suspected of rabies it shall be forthwith slaughtered. (ii.) If the dog is not affected with or suspected of rabies it shall be detained in some proper place, and be there kept for such period as the local authority think expedient. Provided that where the person having charge of or the owner of a dog so detained is known, the local authority shall cause notice to be forthwith given to such person or owner of the fact of the dog having been so seized and detained, and the dog shall, without prejudice to the recovery of any penalty for the infringement of this Order, be given up to such person or owner on payment of the reasonable expenses incurred by the local authority in respect of such detention.

8. A local authority, or an inspector, officer, or constable, detaining a dog under this Order shall cause it to be supplied with requisite food and water during its detention; and the expenses incurred by the local authority, or by the inspector, officer, or constable, in respect thereof may be recovered summarily by the local authority from the person having charge of the dog or from its owner.

9. (*a*) All expenses incurred in respect of the seizure or detention of any dog under the authority of this Order shall be defrayed by the local authority within whose district the dog was seized, and such expenses and all other expenses incurred in carrying out the provisions of this Order shall be expenses of the local authority for the purposes of the Act of 1878. (*b*) A local authority, in any case where a dog is detained under the provisions of this Order, may recover summarily from the person having charge of the dog or from its owner the expenses incurred in respect of the detention of such dog.

10. The operation of any regulation made by a local authority under Article 12 of the Rabies Order of 1887 (Special Regulations of Local Authority as to Dogs), or under Article 10 of the Rabies Order of 1886

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and continued by the said Order of 1887, is hereby suspended during the continuance of this Order so far as any such regulation may be applicable to any district or part of a district to which this Order applies.

11. Subject to the last foregoing article of this Order, all the provisions of the Rabies Order of 1887 shall, so far as the same are applicable, continue to apply, during the continuance of this Order, to the districts or parts of districts to which this Order applies.

C. L. PEEL.

ROYAL COLLEGE OF SURGEONS.

AT a quarterly meeting of the Council of the College, held on the 11th inst., in addition to the proceedings which we reported last week, the following business was transacted.

The Council, having confirmed their resolution of June 13th, removing Mr. William Montague Hall Welby from being a Member of the College, the secretary was directed to inform him of his removal from being a Member in consequence of his having been proved to be responsible for the issue of advertisements, in the form of handbills, in relation to his practice as surgeon, which, in the opinion of the Council, are, in the terms of Clause 2, Section XVI., of the Bye-laws, "prejudicial to the interest," and "derogatory to the honour of the College" and "disgraceful to the profession of surgery"; and do call upon him to return his diploma, as required by Clause 5 of the said Section XVI. of the Bye-laws. And the secretary, in pursuance of the 28th section of the Medical Act, 1858, was also directed to inform Mr. Miller, registrar of the General Council of Medical Education and Registration of the United Kingdom, of the fact, and the reasons for it.

Mr. Marshall, as chairman of the Committee on the Lunacy Acts Amendment Bill, reported the proceedings of that committee, and laid before the Council a copy of the letter, dated the 24th ult., addressed to the Home Secretary on the subject of the Bill. This letter was as follows:—

"We are directed by the Council of the College to address you on the subject of the Lunacy Acts Amendment Bill, about to be considered in committee by the House of Commons. In submitting to you the following observations, the Council are not unmindful of the fact that the measure in its present form is the result of the prolonged consideration of the highest legal authorities in the kingdom. The Council desire to express their satisfaction with the provisions introduced in the Bill to protect those who sign orders or medical certificates when it is proved that there has been on their part no want of good faith and of reasonable care. The Council trust that every possible legal protection will be given to medical practitioners who are called upon to act under the law, for the benefit of the community as well as for that of the insane. As regards the desirability of maintaining private licensed houses, there is no doubt but that in the best of these establishments the general care of the patient is satisfactory, restraint is employed as seldom and in as mild forms as possible, and the life of the lunatic is rendered as happy as circumstances will admit. To those who are able to afford to place their relatives in private establishments the existence of these institutions is a boon, and it cannot be doubted that public asylums, under their present conditions, could not render such patients equally comfortable. Unless these conditions could be so improved as to be made fully adequate to the higher social requirements of such patients as are now the inmates of private houses, the Council could not but view the extinction of these latter with serious misgiving. With these reservations, and with the hope that the more elaborate proceedings proposed to be adopted previously to the placing of an alleged lunatic under proper care will not place difficulties in the way of early seclusion, which is so important in obtaining curative results, the Council approve the aims and objects of the measure now under the consideration of Parliament. In conclusion, the Council avail themselves of the opportunity of expressing an opinion that an improved system which shall ensure more frequent visitations of both private and public asylums in England is most desirable."

THE SANITARY INSTITUTE.—At a meeting of the Council held on the 10th inst., Professor W. H. Corfield, M.A., M.D., in the chair, further arrangements were made for the Congress and Exhibition to be held at Worcester in September next. Fourteen members and associates were duly elected.

THE LUNACY ACTS AMENDMENT BILL.

ON Monday, the 15th inst., the House of Commons Standing Committee on Law concluded the consideration of the Lunacy Acts Amendment Bill, which was ordered to be reported to the House. Clause 79 was amended by the insertion of words providing that the penalty for a criminal assault upon a female lunatic shall be the same as that ordered by the Criminal Law Amendment Act—namely, two years' imprisonment, or penal servitude for any period not exceeding five years, instead of the twelve months' imprisonment originally proposed by the Bill under consideration. An addition was also made to Clause 79, forbidding the employment of any male person, other than the superintendent, proprietor, or medical officer of the asylum, to take the personal custody of any female patient.

At the previous sitting on Thursday, the 12th inst., Sir J. Dorington moved the omission of Clause 45, which provides for the posting in every place where lunatics are kept of notices informing them of their rights. Dr. Farquharson said the whole medical profession was opposed to this clause. The committee, by 15 votes to 9, decided to reject the clause.

MEDICAL TRIALS.

SUCCESSFUL ACTION FOR RECOVERY OF MEDICAL CHARGES.

MILLER *v.* GODDARD.

A CASE of considerable interest to the medical profession was tried before Mr. Justice Stephen, without a jury, on the 27th and 28th of June. We can give but an outline of the facts. Dr. Andrew Miller brought an action for recovery of charges for attendance on Mrs. Goddard: firstly, in her confinement and afterwards; and, secondly, for an attack of pleurisy which followed about a month later. Dr. Miller attended at the confinement on Sept. 27th as soon as he possibly could after receiving the message; but he found the child born, and no nurse present. He attended to the patient, removed the afterbirth, looked to the contraction of the uterus, and remained till the arrival of the nurse. Mrs. Goddard continued well and free from all rise of temperature, though the nurse mentioned on the third day that some small fragments of membrane had come away. A month after her confinement, suspecting some erosion of the os uteri, from which she said she had previously suffered, he arranged to examine her at his own house. He found this symptom, and applied iodine and a glycerine tampon. The same night she had a rigor, and developed pleurisy. The next day, what appeared to be a menstruation occurred, and continued rather free for ten or eleven days, after the use of ergot and other remedies. About this time Dr. Miller met, as he had been asked to do, the patient's brother, Dr. Kennedy, who suggested no new treatment. At a later visit, about Nov. 17th, Dr. Miller found Dr. Kennedy present unexpectedly; but he explained that he was in town for other reasons. He suggested no alteration in treatment, and it was agreed that his sister's condition had improved much, and that there would be no need for his further visits. On the morning of Nov. 21st Dr. Miller received a letter requesting him to discontinue his attendance, and saying another medical man had been called in.—Dr. Cooper Rose of Hampstead and others testified to the perfectly reasonable nature of Dr. Miller's charges, and agreed in thinking that it was impossible, as alleged by the defence, that any large piece of the membranes could have been left behind without occasioning septicism.—Dr. Edward Blake gave evidence for the defence. On this side a counter claim was made for £41 11*s*. It was alleged that Dr. Miller was not present at the delivery, that he failed to entirely remove the after-birth, and that he requested the patient to attend at his house for uterine examination within four weeks after confinement, and failed to detect pleurisy as early as he should have done.

After Dr. Blake's cross-examination by Mr. Finlay, Q.C., Mr. Winch, on behalf of the defendant, declined to contest the case further, and submitted to a verdict for the amount claimed.

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The learned Judge commended Mr. Winch for this course, and said that the plaintiff had no other course to take than the one he had adopted in vindicating his character and treatment. He said he should no doubt have found a verdict for the plaintiff. His lordship further emphasised his remarks by giving costs on the High Court scale, although the amount claimed might have been sued for in the County Court.

We offer Dr. Miller our hearty sympathy and congratulations. He has acted with credit to himself and done a real service to his profession, for although he has recovered his debt with costs, he has done so at considerable loss to himself, both as regards time and money.

MALCOLM MORRIS INDEMNITY FUND.

THE following additional subscriptions to the above fund have been received:—

	£	s.	d.
Amount previously acknowledged	251	1	6
J. Knowsley Thornton, Esq.	5	5	0
Woodhouse Braine, Esq.	5	5	0
John Eric Erichsen, Esq.	5	5	0
J. W. Morrison, Esq. (Pembroke)	5	5	0
Dr. Russell Reynolds	2	2	0
Dr. Cumberbatch	2	2	0
S. W. Sibley, Esq.	2	2	0
A. E. Cumberbatch, Esq.	2	2	0
W. Morrant Baker, Esq.	2	2	0
Henry Power, Esq.	2	2	0
Dr. Brooke (Manchester)	2	2	0
Dr. Miller (Norwood)	2	2	0
G. Buckston Browne, Esq.	2	2	0
H. Howard Hayward, Esq.	2	2	0
Dr. Burney Yeo	1	1	0
Dr. Langdon Down	1	1	0
Dr. Easton	1	1	0
Dr. Sharkey	1	1	0
A. Napper, Esq. (Guildford)	1	1	0
Dr. W. H. Platt	1	1	0
T. Sympson, Esq. (Lincoln)	1	1	0
J. Gregory Forbes, Esq. (Bromley)	1	1	0
Dr. Cullingworth	1	1	0
J. J. Tweed, Esq.	1	1	0
A. Pearce Gould, Esq.	1	1	0
Dr. Walter Smith (Dublin)	1	1	0
John S. Bartrum, Esq. (Bath)	1	1	0
F. C. Bryan, Esq. (Littlehampton)	1	1	0
Dr. Stowers	1	1	0
Dr. Sansom	1	1	0
Minnie and Charlie	1	1	0
Dr. J. J. Pringle	1	1	0
Dr. Allan Jamieson (Edinburgh)	1	1	0
Dr. Wallace Beatty (Dublin)	1	1	0
Victor Horsley, Esq.	1	1	0
Dr. Kent Spender (Bath)	1	1	0
Dr. William Duncan	1	1	0
Lewis Morris, Esq.	1	1	0
Charles Vasey, Esq.	1	1	0
Dr. Royston	1	1	0
S. H. Byam, Esq.	1	1	0
Keith S. Young, Esq.	1	1	0
Dr. G. C. Jonson	1	1	0
Dr. M. Baines	1	1	0
Dr. Tyson (Folkestone)	1	1	0
Dr. W. Caley	1	1	0
Dr. Byrom Bramwell (Edinburgh)	1	1	0
Dr. John Phillips	1	1	0
Dr. J. P. Wills (Bexhill)	0	10	6

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5323 births and 3937 deaths were registered during the week ending July 13th. The annual rate of mortality in these towns, which had been 16·7, 17·3, and 17·7 per 1000 in the preceding three weeks, further rose last week to 21·5. During the thirteen weeks of last quarter the death-rate in these towns averaged 18·2 per 1000, and was 2·1 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 12·9 in Huddersfield, 14·5 in Wolverhampton, 15·9 in Brighton, 16·0 in Norwich, and 16·4 in Bristol. The rates in the other towns ranged upwards to 28·1 in Leicester, 30·3 in Sunderland, 30·5 in Preston, and 31·8 in Newcastle-upon-Tyne. The deaths referred to the principal zymotic diseases in these towns, which had been 400, 473, and 700 in the previous three weeks, further rose last week to 944; they included 640 from diarrhœa, 104 from measles, 80 from whooping-cough, 43 from scarlet fever, 38 from diphtheria, 39 from "fever" (principally enteric), and not one from small-pox. These zymotic diseases caused the lowest death-rates last week in Bristol and Norwich, and the highest rates in Sunderland, Salford, and Preston. The greatest mortality from diarrhœa occurred in Preston, Bradford, Leeds, Leicester, Salford, and Sunderland; from measles in Halifax, Hull, and Preston; from whooping-cough in Bradford, Plymouth, and Newcastle-upon-Tyne; from scarlet fever in Salford, Huddersfield, and Plymouth; and from "fever" in Birkenhead. The 38 deaths from diphtheria included 25 in London and 3 in Manchester. Small-pox caused no death in any of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and London Fever Hospitals at the end of last week was 602, against 559, 569, and 576 on the preceding three Saturdays; 91 cases were admitted to these hospitals during the week, against numbers increasing from 33 to 73 in the previous four weeks. The deaths referred to diseases of the respiratory organs in London, which had been 109 and 143 in the preceding two weeks, rose again last week to 158, but were 46 below the corrected average. The causes of 91, or 2·3 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Hull, Leicester, Newcastle-upon-Tyne, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Bristol, Sheffield, and Bradford.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18·4 and 21·3 per 1000 in the preceding two weeks, declined again to 18·6 in the week ending July 13th; this rate was 2·9 below the mean rate during the same week in the twenty-eight large English towns. The rates in these Scotch towns ranged last week from 9·5 and 13·1 in Perth and Dundee to 22·3 in Glasgow and 23·3 in Paisley. The 476 deaths in the eight towns showed a decline of 69 from the number in the previous week, and included 37 which were referred to diarrhœa, 24 to whooping-cough, 19 to measles, 7 to "fever" (principally enteric), 3 to scarlet fever, 1 to diphtheria, and not one to small-pox; in all, 91 deaths resulted from these principal zymotic diseases, against 79 and 81 in the preceding two weeks. These 91 deaths were equal to an annual rate of 3·6 per 1000, which was 1·6 below the mean rate from the same diseases in the twenty-eight English towns. The deaths attributed to diarrhœa, which had been 17 and 22 in the preceding two weeks, further rose last week to 37, and exceeded by 29 the number in the corresponding week of last year. The 24 fatal cases of whooping-cough corresponded with the number returned in each of the two preceding weeks, and included 16 in Glasgow and 5 in Dundee. The deaths from measles, which had been 21, 24, and 26 in the previous three weeks, declined last week to 19, of which 8 occurred in Glasgow, 8 in Aberdeen, and 2 in Leith. The 7 deaths referred to "fever" showed a considerable increase upon recent weekly numbers, and included 4 in Glasgow and 2 in Edinburgh. The deaths from the principal diseases of the respiratory organs, which had been 71 and 80 in the preceding two weeks, declined last week to 56, and were 16 below the number in the corresponding week of last year. The causes of 48, or more than 10 per cent., of the deaths registered during the week in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 23·2 and 22·8 per 1000 in the preceding two weeks, further declined to 16·3 in the week ending July 13th. During the thirteen weeks of last quarter the death-rate in the city averaged 23·6 per 1000, the mean rate during the same period being 16·0 in London and 16·6 in Edinburgh. The 110 deaths in Dublin showed a further decline of 44 from the numbers returned in the previous two weeks; they included 5 which were referred to diarrhœa, 4 to "fever" (typhus, enteric, or ill-defined), 2 to whooping-cough, and not one either to small-pox, measles, scarlet fever, or diphtheria. Thus the deaths from these principal zymotic diseases, which had been 15 and 8 in the previous two weeks, rose again last week to 11; they were equal to an annual rate of 1·6 per 1000, the rates from the same diseases being 4·3 in London and 2·2 in Edinburgh. The fatal cases of diarrhœa, "fever," and whooping-cough showed an increase upon the numbers in the previous week. The deaths of infants and of elderly persons were fewer than those in the previous week. Two deaths from violence and 2 inquest cases were registered; and 36, or nearly a third, of the deaths occurred in public institutions. The causes of 8, or nearly 8 per cent., of the deaths in the city were not certified.

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THE SERVICES.

ADMIRALTY.—The following appointments have been made to ships to be commissioned for the naval manœuvres, dated July 18th, 1889:—Sheerness Command: *Arethusa:* Staff Surgeon J. A. M'Adam. *Australia:* Fleet Surgeon Robert Hay, M.D. (lent), Surgeon Laurence Bidwell (lent). *Cyclops:* Surgeon Joseph H. Whelan, M.D. (in lieu of a staff surgeon, lent). *Grasshopper:* Surgeon Cyril J. S. Mansfield, M.B. (lent). *Hydra:* Staff Surgeon Edward R. Mulock. *Immortalité:* Staff Surgeon Albert C. Queely, Surgeon Wm. Hackett, M.D. (lent). *Medusa:* Surgeon Percy W. Bassett-Smith (in lieu of a staff surgeon). *Mersey:* Staff Surgeon Henry A. W. Richardson. *Mohawk:* Surgeon Frederick J. Lilly (in lieu of a staff surgeon). *Narcissus:* Staff Surgeon Henry J. Madders, M.D., Surgeon Walter J. Bearblock (lent). *Northampton:* Fleet Surgeon Henry A. Close (lent), Surgeon William A. Whitelegge, B.A., M.D. *Slaney:* Surgeon John Jenkins (lent). *Tartar:* Surgeon Herbert Canton (in lieu of a staff surgeon). *Trent:* Surgeon Reginald T. A. Levinge (lent).—Portsmouth Command: *Camperdown:* Fleet Surgeon George Kell, Surgeon Charles J. S. Kelsall (lent). *Collingwood:* Fleet Surgeon James Flanagan (lent), Surgeon John Grant, M.B. (lent). *Galatea:* Fleet Surgeon Thomas H. Atkinson (lent), Surgeon George A. Holroyd (lent). *Glatton:* Surgeon Horatio S. R. Sparrow (in lieu of a staff surgeon, lent). *Hero:* Staff Surgeon Herbert E. Marsh. *Howe:* Fleet Surgeon William D. Wodsworth (lent), Surgeon Octavius W. Andrews, M.B. (lent). *Inflexible:* Fleet Surgeon John K. Conway, M.D., Surgeon Thomas Austen (lent). *Iris:* Fleet Surgeon Jas. Bradley (lent). *Magicienne:* Surgeon Jeremiah Sugrue, M.D. (in lieu of a staff surgeon, lent). *Marathon:* Surgeon James Porter, M.A., M.B. (in lieu of a staff surgeon, lent). *Medina:* Surgeon Francis J. Lea (lent). *Medway:* Surgeon Johnston H. Acheson, M.B. (lent). *Melpomene:* Staff Surgeon Richard J. Barry. *Mercury:* Staff Surgeon Richard G. Brown, M.B. (lent). *Spey:* Surgeon William G. Stott, M.A., M.B. (lent). *Tees:* Surgeon Robert F. Bowie (lent).—Devonport Command: *Aurora:* Staff Surgeon Isaac H. Anderson, M.D. (lent), Surgeon Joseph Chambers, B.A., M.B. (lent). *Black Prince:* Fleet Surgeon Thomas L. Horner (lent), Surgeons Francis M. Puddicombe and Edward T. Cook (lent). *Conqueror:* Staff Surgeon Horace E. F. Cross (lent). *Forth:* Staff Surgeon William M. Rae. *Gorgon:* Surgeon John Acheson, M.D. (in lieu of a staff surgeon). *Hecate:* Surgeon Justin F. Donovan, M.D. (in lieu of a staff surgeon). *Inconstant:* Fleet Surgeon Geo. Curtis (lent), Surgeon Chas. G. Matthew, M.B. (lent). *Prince Albert:* Surgeon Henry G. Jacob (in lieu of a staff surgeon, lent). *Racoon:* Surgeon William M. Lory (in lieu of a staff surgeon, lent). *Sandfly:* Surgeon Alexander G. Wildey (lent). *Serpent:* Surgeon Geo. Bate (in lieu of a staff surgeon, lent). *Sharpshooter:* Surgeon Edgar R. Dimsey (lent). *Spider:* Surgeon Hugh St. D. Griffiths (lent). *Thames:* Staff Surgeon Michael J. M'Carthy, M.D. *Undaunted:* Staff Surgeon Francis R. M. Loftie, Surgeon Edward H. M'Sherry, M.D. (lent).

VOLUNTEER CORPS.—*Artillery:* 5th Lancashire: Henry Christopher Lamport, M.B., to be Acting Surgeon (dated July 13th, 1889).—9th Lancashire: Alexander Cosgrave, Gent., to be Acting Surgeon (dated July 13th, 1889).—*Rifle:* 1st Volunteer Battalion, the Royal Fusiliers (City of London Regiment): Surgeon S. P. Smith to be Surgeon-Major, ranking as Major (dated July 13th, 1889).—Galloway: Surgeon W. Johnstone to be Surgeon-Major, ranking as Major (dated July 13th, 1889); Surgeon W. Lorraine, M.D., to be Surgeon-Major, ranking as Lieutenant-Colonel (dated July 13th, 1889).—1st Roxburgh and Selkirk (the Border): Acting Surgeon J. Hume resigns his appointment; also is permitted to retain his rank and to continue to wear the uniform of the Corps on his retirement (dated July 13th, 1889); Walter Hume, M.B., to be Acting Surgeon (dated July 13th, 1889).—2nd (Berwickshire) Volunteer Battalion, the King's Own Scottish Borderers: Thomas Leslie Crooke, Gent., to be Acting Surgeon (dated July 13th, 1889).—1st Volunteer Battalion, Princess Charlotte of Wales's (Royal Berkshire Regiment): Acting Surgeon J. H. Walters to be Surgeon (dated July 13th, 1889).—1st Wiltshire: Surgeon-Major, ranking as Lieutenant-Colonel, T. J. Bennett, M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Corps on his retirement (dated July 13th, 1889).—1st Volunteer Battalion, the Prince of Wales's (North Staffordshire Regiment): Acting Surgeon C. H. Phillips to be Surgeon (dated July 13th, 1889).

Correspondence.

"Audi alteram partem."

THE RECENT ELECTION AT THE COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—In the regrettable absence of the usual analysis of the combination of votes given at the recent election at the College of Surgeons, it is a little difficult to estimate the real strength of the reforming Fellows. At the first glance, an election which resulted in the return of three members of the Court of Examiners (whose addresses contained not one single note of progress) by substantial majorities over unofficial candidates would appear to indicate almost a reactionary tendency among the Fellows. A little consideration, however, will dispel this impression.

1. The contest was fought under every conceivable disadvantage, for it was almost entirely governed by the one question of the admission of Members to electoral privileges and to the Council, and this question was judged in the light of the Draft Bills of the Association of Members.

2. The flame of antagonism to the claims of the Members was fanned by one or two of the official candidates, and the electors were roused by allusions to attacks made by Members of the College on the privileges of the Fellows, and by being told that the cause of order was at stake, and that what was aimed at was "the spoliation of the Fellows" until their privileges, which are even now so small as to be almost imperceptible, had reached the vanishing point.

3. Apart from that official and personal support which the two distinguished surgeons and teachers who were then Vice-Presidents of the College would be sure to secure, a good deal of sympathy was aroused in their favour because their seats were directly attacked, and if rejected they would have been deprived of their prospects of becoming presidents of the College.

4. The electorate are apparently not very accurately informed in regard to the exact concessions which the advancing Fellows wish to make to Members of the College. A local provincial candidate represented the question as being whether the Members of the College should sit in the Council or not, whereas the main question is, ought the Members of the College to be represented in the Council or not? This is a very different matter, for the Members could be represented as well by Fellows, many of whom are general practitioners, as by Members; and if a limited representation of the Members by Fellows (as at the Faculty of Physicians and Surgeons of Glasgow) were offered to the Members, I for one would counsel its acceptance, rather than see the College divided against itself.

5. So far as regards my own position on the poll, I have been informed that I should certainly have secured the vacant seat if I had not come forward under the auspices of the Association of Fellows of the College, which some seem to regard as too radical, and whose recommendations were resented as dictation to the electors. My reason for submitting to the decision of the Association of Fellows was not to split the votes of the party of progress, and I think I acted rightly in this matter; but the meeting of the Association was held too late—indeed, after the names of the candidates had been advertised, and when it was impossible for anyone to retire, if he thought it expedient for the good of the cause to do so.

To what extent my actions have been opposed to the cause of order and my views bear any approach to spoliation of the Fellows may be judged by the following facts. There is no stronger upholder of the cause of law and order in the profession than myself. As soon as I knew that the Association of Members of the College had called a meeting at the College without the sanction and, indeed, in the teeth of the opposition of the Council, I wrote to one of the secretaries and urged him to obtain its abandonment, on the ground that the authority of the Council must be respected and the bye-laws obeyed. Of the Draft Bills I disapproved, for the extent of the concession to the

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Members which I have advocated has been the addition to the twenty-four councillors elected by the Fellows of four or six representatives of the Members, leaving the question of whether these representatives should be only Fellows, or Fellows or Members indifferently, to be settled in committee. At the same time I wish to see the Fellows enjoying much greater power and influence than they at present possess. I have often regretted that the question of the representation of Members came prominently to the front before the Fellows had secured a position equal to that possessed by the Fellows at the College of Physicians and the other Colleges in the United Kingdom. As it did, I recognised its justice, and have endeavoured to counsel its speedy settlement by the Council and the Fellows on the terms most advantageous to the Fellows. If the Members' claims find favour in Parliament, they will not obtain less than the concession which I have consistently advised. At all events, a majority of 200 Fellows in a poll of less than two-thirds of the Fellows will scarcely suffice to bar the claims of 12,000 Members of the College to representation, and it is quite possible that the Fellows may have even their present shadowy privileges seriously curtailed.

In conclusion, I should like to thank the 180 electors who honoured me with their support, and, if I do not imitate Mr. Steele, and announce my intention to stand again next year, it is because much may happen before the next election arrives, and because I should willingly subordinate my individual action in this matter to the good of the cause which I have at heart.

I am, Sirs, yours faithfully,

July 13th. WALTER RIVINGTON.

To the Editors of THE LANCET.

SIRS,—I have had a large number of letters from voters complaining of the complexity of the method of proxy adopted at the recent election, and I am certain much of the apparent apathy amongst the electorate is capable of this explanation. If it is not so, then the Fellows have provided the strongest argument yet adduced in favour of the extension of the franchise to the Members; for, in spite of an exciting contest and most active canvassing, barely one-half of the constituency was brought to the poll. Still more remarkable is it that, whilst nearly every metropolitan vote was recorded, not quite one-third of the provincial Fellows reached the ballot-box. If this is mere apathy, then the Fellows cannot very highly value their one privilege—that of electing a Council out of harmony with their constantly expressed wishes. If it is, and I believe it is very largely, due to the complexity of the method adopted for the proxy voting, let that be reduced to the ordinary and simple method of issuing the proxy paper to every Fellow at the same time that the list of candidates is sent round. Why each Fellow should be obliged specially to ask for a proxy paper when it is his right I cannot imagine, unless it is to be regarded as an ingenious piece of obstruction for the purpose of diminishing the number of provincial voters. This effect at the election just over it most certainly has had.—I am, Sirs, your obedient servant,

Birmingham, July 15th, 1889. LAWSON TAIT.

"A NEW TREATMENT, AND POSSIBLE CURE, FOR CANCER."

To the Editors of THE LANCET.

SIRS,—Will you allow me to supplement my brief statement, which appeared in THE LANCET of June 20th, by two or three remarks which have been suggested in the course of inquiries addressed to me by medical practitioners desirous of making trial of the treatment I have described, in cases of cancer under their observation?

1. It is obvious that if the solvent or digestive power of the papain is to be brought to bear on the morbid growth it must not be exhausted by being first mixed with food. This is why I recommend *very frequent* administration of the papain and thallin, and their combination in the form of pills. The aim is to get absorption of the drug, not local action in the stomach,, except in cases of cancer of that organ, in which variety of the disease I give, besides the pills, papain suspended in water with thallin and an alkali, the mixture being protected from light in a dark bottle, for thallin undoubtedly undergoes change on exposure. With a view to further prevent exhaustion of the papain, I direct that the patient shall be fed as exclusively as possible on a vegetable diet, and that the pills shall be taken before, or in the intervals between, meals rather than close after them.

2. I have not found the thallin, exhibited as I have described, exert any injuriously depressing effect on the organism as a whole. The principle is to depress the vitality of the morbid growth, and this *seems* to be accomplished in its saturation with the thallin and papain *locally*, by applying a strong paste of the two drugs in combination, or, when practicable, by their inunction. It has been suggested that the lanolin should be rendered thin enough for use in this way by the addition of glycerine, but the strength of the application must not be too greatly reduced by dilution. The results obtained so far are encouraging, and make it clear that the method will deserve a full and fair trial by the profession.

As the thin disguise of my initials has been pretty generally penetrated, and practitioners seem to desire special hints for the management of individual cases, I will sign this, Sirs, yours faithfully,

Hanover-square, July 17th, 1889. J. MORTIMER GRANVILLE.

MEDICAL LEGISLATION IN CANADA.

To the Editors of THE LANCET.

SIRS,—The Registrar of the Medical Council has just informed me that in consequence of an oversight on the part of those who drafted the various recent Acts supposed to regulate the practice of medicine and surgery in this province, "persons duly registered in the United Kingdom" are still entitled to register here on payment of ten dollars, and on proving they are the persons certified as registered in the United Kingdom.

The case now stands as follows:—British practitioners registered as above stated and homœopathists from any country in the world may register here and practise upon payment of ten dollars. Medical men duly qualified in all other parts of Canada, the United States, and all countries other than the United Kingdom, must pay 110 dollars and pass an examination before the local Medical Council in order to become entitled to register.

More tinkering at the Medical Acts will be attempted at the next session of the Legislature, but will be in the direction of restriction rather than of freedom.

The question of reciprocity between Great Britain and Canada in matters medical will, I am informed, be discussed at a general meeting of Canadian Provincial Councils this autumn. Your opinion and that of your British readers would therefore be of interest.

I am, Sirs, your obedient servant,

Victoria, British Columbia, June 20th, 1889. C. F. NEWCOMBE.

*** There can be no doubt of the justice of reciprocity between Great Britain and her colonies in regard to the recognition of medical qualifications—so far as the medical authorities on both sides can be satisfied that the curriculum and examinations are satisfactory.—ED. L.

MEDICINE AND THE STAGE.

To the Editors of THE LANCET.

SIRS,—In Mr. Henry Irving's speech at the festival dinner of the Golden-square Hospital for Diseases of the Throat, he is reported as saying that "there had always been a deep sympathy between actors and doctors, but he did not know why, unless the doctors regarded the players as a little mad. Actors were on the free list of the doctor's skill." Now I wish to ask through the medium of your columns if there is any genuine philanthropy in the practice of treating wealthy actors and actresses gratuitously. To those of the poorer sort, and men or women who struggle hard for their daily bread, is generously held out the hand of sympathy by medical men all the world over. The poor parson and clerk, or the needy governess, have the same privilege extended to them. No profession more willingly sacrifices time and frequently money in the unostentatious relief of suffering, especially among that most deserving class—those who are too proud or too honest to seek the aid of charity, yet who are not well off enough to afford the necessarily high price of skilled and experienced work. But is there anything for our profession to boast of in filling consulting rooms with well-dressed but "gratis" patients,

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many of whom can far better afford a fee than the unfortunate parson or clerk, who, may be, doles out his last pound to gain the coveted opinion. Why should we take the widow's mite and let Mr. and Mrs. So-and-so, the eminent actor or actress, off, who perchance earns in one week more than many of our poorer brethren do in a year? Let all those who make the stage a profession in the years of their hard struggle for success, or the unavoidable failures in that calling, be freely and generously given medical aid. But I protest against such gratuitous help, whether that be given from an unselfish or selfish motive, being extended to the numerous well-off and often wealthy members of the theatrical calling. We have quite enough of sham and cant in the medical profession already without adding to it the "hollow ghost" of a self-denial that hands back a fee to a leader on the stage, while the same self-sacrificing Æsculapian smilingly pockets the threadbare curate's guinea. I desire to say that in this communication I attack only the principle; I allude to no individuals. Those whom the cap fits can wear it. Well may Mr. Irving be at a loss to account for this *theatrical* generosity of the doctors. But I can assure him that, however strange may appear the practice on the part of the doctors, it is not all so inexplicable as it seems on the surface. If actors are at times "mad" without method, there is much of this last feature in the madness of the physician who seemingly is so disregardful of his time and skill.

I am, Sirs, yours faithfully,

July 10th, 1889. PLAIN SPEAKING.

THE TREATMENT OF CHOREA BY PROLONGED SLEEP.

To the Editors of THE LANCET.

SIRS,—Dr. Charlton Bastian would be too generous to refuse priority to a fellow-worker in therapeutics, and I am sure therefore that he has accidentally overlooked the paper by Dr. Bridges in the *Practitioner* for March, 1877. In preparing a contribution to the *Bristol Medico-Chirurgical Journal* on the therapeutic position of chloral, I was much struck by Dr. Bridges' experience in this matter. His principle was that a patient must have ten hours' sleep in the twenty-four. He begins with a comparatively large dose of the medicine, and adds in divided quantities so much as may be necessary to obtain the desired amount of sleep. Two bad cases are reported to have been cured—one within twenty-four hours, the other within three days.

I am, Sirs, faithfully yours,

Bath, July 15th, 1889. JOHN KENT SPENDER.

THE FATAL AFFRAY AT LIVERPOOL.

To the Editors of THE LANCET.

SIRS,—In reply to Mr. Clarke's last letter, I beg to say that to the large majority of his statements I oppose a flat denial; the remainder of his statements concerning my action are incorrect representations of facts. There can, therefore, be no practical result in discussing the matter further, and I now decline to do so, and can only trust that those who have read Mr. Clarke's letters will now once more read the able and temperate review of the case in your number of June 1st, also my letter of June 15th.

I am, Sirs, yours faithfully,

DAMER HARRISSON, F.R.C.S. Eng.

Liverpool, July 17th, 1889.

*** This correspondence must now cease.—ED. L.

THE HOLDING OF INQUESTS.

To the Editors of THE LANCET.

SIRS,—I think it only just to myself and to my partner, Mr. R. W. O. Withers, to correct a statement made in this week's LANCET in an annotation on his and Mr. R. E. Clark's case. It is stated that I received a subpœna to attend the inquest, which I accepted under protest. This is utterly incorrect, as no subpœna was ever served on me, so that I had no opportunity of demurring. The only connexion I had with the case was that I saw Mr. James, the deceased, for Mr. Withers (who was out) just before his death. The writer of the annotation seems to have been equally unfortunate in several of his other "facts," and I may add that his conclusions are quite at variance with local public opinion, both lay and professional. Trusting that you will find room for this correction in your next issue,—I am, Sirs, yours faithfully,

Shrewsbury, July 14th, 1889. J. ALLEN BRATTON.

*** We have also received a letter from Mr. Withers on the subject. We need not say that we regret if our annotation contained statements contrary to facts and inferences not founded on facts, but we did our best with the material before us, and, in justice to ourselves, we aver that our desire and intention was to give an impartial account and unbiased opinion. We, of course, unreservedly accept Mr. Bratton's disclaimer as to his having had a subpœna. We were led into the error by the newspaper report of the coroner's speech.—ED. L.

ALLBUTT *v.* THE GENERAL MEDICAL COUNCIL.

To the Editors of THE LANCET.

SIRS,—Considering that much public interest has been aroused by the above case, it is most probable that a further appeal will be made by me to the House of Lords. I trust you will favour me by the insertion of this letter in your next issue. I am, Sirs, yours &c.,

Leeds, July 15th, 1889. H. A. ALLBUTT, M.R.C.P.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Birmingham and Midland Eye Hospital.

THE annual meeting of this institution was held on the 16th inst. The principal feature in the report was the mention of a donation of £5000 from the late Miss Ryland. As a condition of this munificent gift, it was stipulated by the donor that there should be no increase in the number of the beds (fifty-five) then and now occupied, unless for two consecutive years a surplus of income over expenditure should be shown, irrespective of her own donation, of the moneys to be received from a projected sale of land and any legacies over £100, in the expressed hope that her gift should be an inducement to the public to render corresponding help. The hospital is calculated to accommodate seventy in-patients, and the committee have the greatest difficulty in limiting the admissions to fifty-five, so many and so urgent are the demands upon the charity. The annual subscriptions amounted to £2409 17*s.*, being an increase of £233 over the previous year, and legacies to the amount of £250 have been received. The total expenditure was £4690 3*s.* 1*d.*, as against £4186 in the previous year.

Proposed Eye Hospital at West Bromwich.

At a meeting lately held for the purpose of considering this subject, it was announced that strong support would be given to the establishment of a hospital for diseases and injuries of the eye, and the need of such was warmly advocated. If carried into effect, there will be a probability of the Birmingham Hospital being able to restrict its operations to the condition of Miss Ryland's donation, and of obtaining some relief from the vast amount of work so ably and successfully conducted without competition for so long a period of years.

The Dangers of Poisonous Remedies.

Death from misadventure was the verdict in the case of a lady aged fifty-three, who had taken a dose of aconite liniment instead of a draught. The aconite was prescribed for neuralgia for external application. It is singular to note the rapidity of death from the small quantity taken, it being stated that a quarter of an hour only elapsed from the time of swallowing until the death of the patient. In a similar case in the General Hospital some time ago, the patient died suddenly when appearing to be recovering from the immediate effects of the aconite poisoning.

Singular Credulity.

A man died recently, as shown post-mortem, from apoplexy, who had been accustomed to take quantities of laudanum daily, sometimes as much as eighteen-pennyworth

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in one day. It was stated that he had swallowed a button when twelve years of age, and that the shank had stuck in his liver ever since, this being the alleged reason for his taking the laudanum. It is needless to say that the post-mortem examination found no traces of the button or its shank in any part of the body.

The Ingleby Lectures.

These lectures are given this year by Professor B. C. A. Windle, at Queen's College, on the Principles of Teratology. Unfortunately, the lecture of last week was stopped owing to the visit of the Shah, whose advent in the town created an excitement subversive of more grave and learned subjects being discussed at the same time.

Birmingham, July 17th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Prevalence of Diarrhœa.

AT Sunderland there is an extensive prevalence of diarrhœa, no fewer than seven deaths from the disease having been noted last week. At Darlington, too, it has been prevalent. The Visiting Committee reported to the guardians yesterday an outbreak of diarrhœa in the workhouse of a serious nature, two boys having died of it.

Maryport.

The medical officer of health (Mr. Spurgin) reports to the authority that there have been 76 deaths in Maryport during the last quarter, equal to a death-rate of 37·6 per 1000. The zymotic death-rate, entirely attributable to measles, had been heavy, nearly one-half of the deaths resulting from an epidemic of that disease. The medical officer complains that his recommendation of closing the schools was not acted upon more promptly, and that thus three deaths took place before the schools were closed.

Fire at the York County Hospital.

There has been a fire, which at the time caused some alarm, at the York County Hospital. By some means the roof at the back of the kitchen department took fire, and, the materials being very inflammable, it soon took a serious hold. Fortunately the fire was seen by one of the nurses, who gave the alarm, and the resident medical officers and others of the staff soon got the fire apparatus kept on the premises to work with much spirit and perseverance, so that by the time the Fire Brigade arrived the outbreak was practically under control. The local papers speak highly of the exertions of the medical staff and others in the building, whereby its safety and that of its inmates was ensured.

The Vaccination Acts.

A man was summoned last week before the Seaham Harbour magistrates for neglecting to have his children, five in number, vaccinated according to law. To this he pleaded guilty, having, he said, conscientious objections, and, having been fined seven times before, he further thought they might have waited for the report of the Royal Commission now inquiring into the vaccination laws before prosecuting him again. The magistrates' clerk said that, this being so, the proper course was to serve an order on the man to bring his children before the magistrates, so that they might satisfy themselves they had not had small-pox or been vaccinated. Then an order would be made for vaccination to be carried out, which, if disobeyed, would be followed by a summons for contempt of court. So that, notwithstanding the law, the man got off, and no doubt will be able to plead the "Royal Commission" again. In the meantime he is certain to be looked on as a martyr and a hero, and is likely to have many imitators.

Whitby.

The season has commenced at this popular Yorkshire watering-place, and visitors are arriving in large numbers daily. The town is in a very healthy condition. The number of deaths for the last quarter was 76, in a resident population of 17,000. The Whitby season is rather late in its commencement compared with more southern watering-places, but then it is usual to find the place filled up to a very late period in the autumn, as at this time there is a peculiar freshness in its air.

Tees Port Sanitary Authority.

At the last meeting of this authority it was stated that during June 167 vessels had been inspected, and they were all found clean and wholesome, with one exception. The *City of Boston* arrived in the river in a very dirty condition, and was ordered to be cleansed properly, but she left before the inspector's orders were carried out, who, however, telegraphed to Dundee, and on her arrival there her master was at once ordered to cleanse his ship, which was done, to the comfort and safety of all on board.

Newcastle-on-Tyne, July 17th.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

Royal Society of Edinburgh.

AT the last meeting of the session no fewer than fifteen papers were communicated to the Royal Society, amongst which were several containing much of interest to medical men. Dr. R. W. Felkin gave a communication on the "Geographical Distribution of some Tropical Diseases." He called attention to the important fact that, as illustrated in his maps, the greatest area of endemic distribution corresponds with certain well-known physical phenomena—such as the prevalence of rainy seasons, of electrical disturbances, or excessive heat. Speaking of leprosy, he remarked that the present distribution of the disease was very different from what it was 300 years ago, and he emphasised the fact that, although one might appreciate the endeavours made to investigate its spread in India, there was no longer reason to fear its spread in this country. Dr. Haycraft and Mr. Duggan reported the results of some experiments on the coagulation of albumen, from which they had come to the conclusion that it is impossible to assign a definite coagulation point for any albuminous substance. Dr. Alex. James gave a note on the "Latent Period of Muscle Contraction." He finds that the time between the stimulation of a muscle and the resulting contraction varies according to the distance of the muscle from the spinal cord. Dr. Alexander Bruce communicated two papers, one on the "Segmentation of the Oculo-motor Nerve," in which some important observations, both original and confirmatory, were reported; and a second on the "Upward Continuation of the Spinal Cord." Mr. P. J. White gave a description of the skull and visceral arches of Lemargus microcephalus, and pointed out the importance of the study of this species in connexion with Professor Ewart's work on the distribution of the cranial nerves in some of the electrical fishes. The Chairman (Professor Chrystal), in reviewing the work of the session, stated that eighty-seven papers had been read before the Society, of which seven were in the department of chemistry, six in zoology, six in botany, and twenty-three in physiology. Of the physiological papers, he said some had come from the newly-instituted laboratory of the College of Physicians, and he thought he would be doing right in congratulating that body on the success which had attended that institution.

The Edinburgh University Court.

At the meeting of the University Court, held on Monday, it was agreed that the Court should communicate to the Lord President of the Council that they viewed with satisfaction the provision of the rearrangement of the divisions of the examinations for graduation in medicine in the University of Aberdeen, by which the ordinances regulating the examinations in medicine and surgery in the University of Aberdeen would be brought into closer harmony with the ordinances relating to such graduation in the University of Edinburgh, and with changes thereon that have been recommended by the Senatus. It was agreed to send a copy of the minute of the Court of March 11th last to the Lord President of the Council: "That the time which has elapsed since the approval by Her Majesty in Council of the alteration of Feb. 8th, 1888, in the arrangements for the examinations in the subjects of the first examination for graduation in medicine is, as yet, too short to admit of a definite conclusion being formed as to the effect it may have on the further course of medical study, and that the near prospect of the whole subject of University examination and graduation in Scotland being under the consideration of an

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executive commission renders it undesirable to make any alteration in the existing arrangements for the examinations for graduation in medicine." Dr. A. A. Matheson was recognised as a teacher of medicine in Edinburgh whose course of lectures on Midwifery should qualify for graduation in medicine in the University, in terms of Ordinance No. 8, Edinburgh No. 3, Section VI. (4).

Edinburgh, July 16th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

DUBLIN.

Richmond Lunatic Asylum.

A PATIENT named Chapman last week attacked another inmate of the Asylum with a jug, and inflicted injuries which caused her death. When the attendant entered the ward at 4 A.M, she found Deegan lying in her bed bleeding from several wounds, and Chapman sitting on her. Medical relief was obtained, but life was extinct. At the inquest held, the evidence given showed unmistakably that the staff of night nurses in attendance, considering the number of patients, was altogether inadequate; and the coroner's jury, while acquitting the night nurse who had charge of the ward where Deegan slept, were of opinion that the number of nurses should be increased, particularly at night, and that the system of checking should be improved. An inmate of the asylum, a few days since, escaped from the institution and ran through some of the adjoining streets in a semi-nude condition. He entered a house and went to bed, greatly to the surprise of the lady occupant, who had him arrested and conveyed back to the asylum.

Green-street Courthouse..

The Secretary of the Incorporated Law Society recently forwarded a memorial from the President and Council to the Dublin corporation on the subject of this courthouse. The memorial pointed out the necessity of having a larger and more convenient building substituted for the present one, which is badly constructed, and requested the corporation if necessary to enter into communication with the Government with a view of inducing them to remedy the grievances complained of. For some years the insanitary defects of this building have been obvious to all who were compelled to transact business within its walls, and the only question at issue has been the cost of erecting a new building, and whether the entire expense should be chargeable to the city or county of Dublin. There is no doubt that the courthouse is a disgrace to the city, and as the Treasury, it is understood, have promised a handsome contribution (£13,000), and the county of Dublin another large sum, there appears no valid reason for further delay. The matter has been referred by the corporation to the town clerk to report upon, he being conversant with the various phases of the case.

Carlow Water-supply and Sewerage.

Mr. Burke, Local Government Board inspector, has recently reported on the inferior quality of the water-supply of this town, and also the defective state of the sewerage. The guardians had these matters under consideration at a late meeting, but declined, probably from financial reasons, to take any steps to obtain a better supply of water for the residents.

In consequence of the resignation of Mr. Jennings, the Board of Guardians will elect a visiting physician to the workhouse of the South Dublin Union on the 25th inst. The emoluments of the appointment are £150 per annum, and a large number of candidates may be expected.

A man named Dermot McDonnell died in Dingle Workhouse last week at the advanced age of 102 years.

Mr. Humphrey Broomfield has been re-elected assistant physician to the City of Dublin Hospital for the ensuing year.

Mr. M. Callan, of Ardee, has been placed on the Commission of the Peace for the borough of the county Louth.

Dublin, July 13th.

BELFAST.

British Medical Temperance Association.

At the third annual meeting of this Association, held in Belfast on July 3rd, Mr. McFarland, Brigade-Surgeon, was re-elected president, Mr. Mackenzie secretary, and Dr. W. R. Scott treasurer. Resolutions were passed expressing the interest of the members in and their adherence to the cause of total abstinence, and their belief that alcohol as a beverage is unnecessary, often injurious, and frequently ruinous.

Belfast Hospital for Skin Diseases.

The report presented at the last annual meeting, held on July 9th, states that during the past year 1194 persons were treated. The amount of annual subscriptions is small, and the large number of cases of eczema—a disease on the increase in Belfast—often requires months of treatment. The total receipts were £348 1*s.* 2*d.*, and the expenditure £325 5*s.*, leaving a balance of £49 8*s.* 2*d.* Dr. Purdon was reappointed honorary physician. Dr. Hodges, who presided at the meeting, made the very interesting statement that in the year 1492 there was a leper hospital at Downpatrick.

The Armagh County Infirmary.

At the meeting of the grand jury at Armagh, the committee appointed to inspect the County Infirmary reported that they wished to bring to the attention of the grand jury the very creditable manner in which Mr. Palmer and his assistants met the great demand upon their resources in consequence of the late terrible railway accident. I understand that a subscription list has been opened in Armagh for the permanent commemoration of the late disaster. The monument, it is said, will take the form of some improvement in the fitting up of at least one of the existing wards of the infirmary, so as to render it a model as regards hygienic appliances, and also its endowment, along with a slab bearing the names of those killed, in whose memory the work is undertaken.

Belfast, July 16th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Inheritance of Syphilis.

I WAS present at a remarkable lecture on this subject, which was delivered at St. Louis recently by the eminent syphilographer, Professor Fournier. He began by saying that it seemed to him useless to take up the time of his audience in pleading the importance of this great complex and difficult question. He would at once begin and summarise by saying that a threefold interest attached itself to its consideration. 1. The *Scientific Interest:* In this connexion several important points at once appeared worthy the serious attention of medical men. In the first place, is syphilis hereditary? If so, does it pass down through the medium of the father or mother, or both? At what stage and up to what length of time is syphilis capable of exercising its hereditary influence, and then what power have treatment and time over its career? 2. The *Practical Interest:* Can one weaken or eradicate this hereditary influence? When and under what conditions can a man who has contracted syphilis be permitted to marry? What about treating a syphilitic who is pregnant, or a woman who has conceived through the medium of a man who is known to be a syphilitic? Is one justified in allowing a healthy nurse to run the risk involved in suckling the offspring of syphilitic parents? 3. The *Social Interest:* In the face of the enormous mortality following in the train of syphilis, this is by no means the least of the interests attaching to this "factor in depopulation." Its effects amount, indeed, to a veritable social calamity, and, this being so, does not the matter call aloud for some effectual social prophylaxis? Thus, then, without insisting further, it would be conceded that the question of syphilitic heredity was one well worthy the study of the *savant*, the physician, and the hygienist, by reason of its multiple and varied consequences—consequences highly interesting and in not a few aspects capital. Professor Fournier next defined in detail what he meant should be understood by heredity in a strictly medical sense, and which differed from the ordinary acceptation of the term where the word was made to include such diseases as the gouty diathesis and small-pox, which latter may have been contracted during pregnancy by the mother and transmitted to the fœtus. In the same way syphilis contracted during pregnancy by the mother and transmitted to the fœtus was classed as hereditary. But this was not what he meant by hereditary syphilis. The differences, clinical and otherwise, between

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true hereditary syphilis and syphilis by intra-uterine contamination were well defined. True hereditary syphilis was that which was transmitted at the moment of conception to the embryonic elements by one or other of the parents in whom it was pre-existent. It was, he urged, clear that a disease which was born with the germ, which made part of it, and which affected it from its very origin, ought to be distinguished from a malady which was contracted by the fœtus already more or less formed and advanced in development. And, as a matter of important fact, observation and experience unite in showing that veritable hereditary syphilis is infinitely more grave and more deadly to the fœtus than the syphilis which is transmitted to it in any of the subsequent stages of its intra-uterine life. For the present he was concerned with the true variety only. To begin with, he would not try the patience of his hearers by bringing forward proofs of the existence of true hereditary syphilis. This, he opined, was generally conceded. How then, it may be asked, do the influences of hereditary syphilis manifest themselves? By manifestations essentially multiple and varied—infinitely more varied and more multiple than are commonly believed or are traced, especially in the schools of pathology and morbid anatomy; but, although numerous, it is still possible, for practical purposes of exposition, to arrange them under five heads, and, according to the learned lecturer, they may be grouped as follows:—(1) Accidents of syphilis, properly so called; (2) fœtal cachexia, ending one way or another in physical degeneration; (3) dystrophic troubles, general or partial; (4) congenital malformations; (5) morbid predispositions. As regards the first, they appear in order, although the sequence may vary; the infection may manifest itself *in utero*. More commonly, it makes its appearance some weeks or months after birth; the former he terms fœtal syphilis, the latter infantile syphilis. More rarely, it may be not only latent at birth, but latent during the first years of life—not entering the stage of apparent evolution until the fifth, tenth, fifteenth, or twentieth year. But, contrary to the opinion commonly held, true hereditary syphilis does not make its appearance by manifestations of the syphilitic order exclusively. It shows itself not unfrequently in a variety of ways—lesions and symptoms which, although they may not have the ordinary aspect or syphilitic stamp, are not less the undeniable consequences of syphilis. Professor Fournier went on to say that one of the convictions most firmly fixed in his mind, after long study and observation, was that syphilis is not a disease with symptoms and lesions such as are usually accepted as syphilitic only, but that it is a disease, as he puts it, of the whole being, which, by the general reaction it exercises on the organism, is capable of exciting, side by side with the symptoms or manifestations proper, others of another order, which are no longer syphilitic in the ordinary sense, although indirectly derived from syphilis, and which he proposes to term "parasyphilitic." It is thus that one so frequently sees the following manifestations of hereditary syphilis from time to time which may be put under the foregoing head:—2. *Fœtal cachexia*, or veritable vital degeneration of the fœtus, manifesting itself either by the premature death of the fœtus or the birth of infants wretchedly puny and miserable—veritable abortions, awaiting early death; or, again, by the birth of others apparently more robust, but in reality of a vital resistance so feeble that a goodly number of them die of the least incidental trouble, and others of no assignable cause. 3. *Dystrophic troubles:* In this category he puts some curious examples of retarded and arrested development—such as slowness of general growth; the appearance of the teeth and locomotive function; retarded puberty and virility, so that very frequently examples were met with of persons of eighteen and twenty years of age who were yet children. What is termed "infantilism," then, is one of the traits which compose the physiognomy of hereditary syphilis. 4. *Congenital Malformations:* His own opinion was quite in accord with that of Professor Lannelongue and others, which attributed to syphilis of the true hereditary type the origin of the divers congenital malformations—such as malformed limbs, club-foot, spina bifida, hare-lip, cleft palate, hydrocephalus, &c. This, he added, cannot yet be dogmatically set down as demonstrated, although he believed it was on its way to be. 5. *Morbid Predispositions:* It cannot be doubted, Professor Fournier continued, that hereditary syphilis, by reason, without doubt, of the state of relative impoverishment in which it places the organism, constitutes a decided predisposition to various maladies. It is incontestable, for example, that these infants are especially subject to affections of the nervous system. A great number die of convulsions and meningitis. Even if syphilis be not a direct cause of rickets, it is certain that it predisposes to it in a powerful manner, and that it represents one of its factors. Furthermore, the frequency of scrofulo-tuberculous affections in infants the offspring of syphilitic parentage has long been noted, and the possible transformation of syphilis into scrofula has even been discussed. This theory, however, after the discovery of the bacillus of Koch cannot be longer sustained; but it is not less certain, for all that, that the syphilitic soil is eminently fitted and lends itself willingly to the culture of the bacillus. It is, in short, undeniable that hereditary syphilis pays a large tribute to the diverse manifestations of scrofulo-tuberculosis, and notably to affections of bones—such, for example, as Pott's disease and hip-joint disease. Consider then, added the eloquent speaker, what interest attaches to the questions, Whence proceeds this hereditary influence? When and in what conditions does it make itself felt? Is it possible, and how, to divert its effects? The answers of Professor Fournier to these important questions I reserve for a subsequent communication.

The Academy of Science.

At a recent meeting of the Academy of Science, Dr. Armand Gautier, Professor of Chemistry at the Faculty of Medicine of Paris, was elected Member in the section of Chemistry, in the room of M. Chevreul, deceased.

Honours for an English Physician.

We have to congratulate our *confrère*, the Honourable Alan Herbert, M.D., Physician to the Hertford British Hospital in Paris, on his nomination by the French Government to the dignity of Chevalier of the Legion of Honour, in recognition of his professional services, particularly during the late Franco-Prussian War.

Dr. Guémot has been appointed Surgeon to the Maternity Hospital, in the room of Professor Tarnier, transferred to the chair of Clinical Obstetrics of the Faculty of Paris.

Paris, July 9th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Congress of German Physicians.

ON June 24th the seventeenth Congress of German Physicians met at Brunswick and passed the following resolutions:—"(*a*) 1. Every kind of public laudation, whether it proceeds from the physician in question himself or from others, and continued advertising in public papers, are to be reprobated. 2. The designation 'specialist,' for puffing purposes, is to be reprobated. 3. The public offering of medical assistance gratis, underbidding, in concluding contracts with sick societies and the like, offering advantages of any kind to a third person, in order to procure practice, are inadmissible. The designations 'Klinik' and 'Poliklinik' (hospital) belong exclusively to institutions which serve the purposes of instruction in connexion with universities. 4. The ordering and recommending of secret remedies are inadmissible. 5. Any attempt of any kind on the part of a physician to intrude upon the practice of another is dishonourable, especially in the case of one who has acted as substitute or in consultation. A practitioner must by no means undertake the treatment of the case without the express assent of the previous physician. A specialist called in for a definite part of the treatment must strictly confine himself to that. 6. No physician is at liberty to make disparaging remarks to others about another physician. (*b*) For the enforcement of these rules, courts of honour (or the like) are to be established everywhere, with whom the power of breaking off the professional connexion rests as an effective measure against those physicians for whom warnings do not suffice." As regards the position of the physician as an expert witness in courts of law, which has been the subject of many conflicts between judges and physicians, the Congress passed the following resolutions:—"1. If a physician be summoned to act as an expert witness in a court of law, and if questions be put to him which he can answer only as an expert, he has to ask the Court whether it be not advisable

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to swear him as an expert. 2. If the Court refuse to do so, and if the physician be nevertheless compelled to give his opinion as an expert, he shall complain to the competent authority. 3. If a physician be called upon to give his opinion as an expert on the basis of statements which the physician who treated the case in question has made as an expert witness, he must conscientiously ask himself whether he is able to give a pertinent opinion on the basis of these statements; and if his conscience tell him that he cannot, he must make the giving of his opinion dependent on co-operation with the physician who treated the case, and who must be called as an expert witness. 4. The supreme legal authorities shall be requested urgently to recommend the courts always, even when one of the parties objects, to appoint the physician who has treated the case, as, if not the sole expert, yet one of the experts in conjunction with other physicians in cases in which the said physician has been examined as an expert witness, and an expert medical opinion is to be heard on the basis of his statements." The Congress further resolved to express its opinion that drunkenness should be recognised as a reason for placing a person under trustees; also that the obligatory period of medical study, including the term of military service, should be fixed at not less than five years.

The Typhus Epidemic in Berlin in 1889.

At the last sitting of the Medical Society, Professor Fürbringer, of the City Hospital in Friedrichshain, reported on the typhus epidemic which raged in Berlin at the beginning of this year. The epidemic, he said, was the first we had had in Berlin for fourteen years. It began in the third week of January, and lasted seventy-five days; 15 typhus patients were taken to Friedrichshain in the second half of January, 90 in February, and 50 in March. During these seventy-five days four-fifths as many typhus patients were taken to the hospital as are usually received during a whole year. Of the 155 patients, 67 were men, 75 women, and 13 children under twelve. Sixteen died—i.e., 10·3 per cent., a much smaller percentage than that of the former epidemics, which was over 17. Of the men 12, of the women 8, and of the children 15·5 per cent. died. The greater mortality among the men than among the women was attributed to the greater prevalence of excessive drinking in the former class. In accordance with former experience, the typhus patients were not strictly isolated, a course which the lecturer declared to be without danger, provided that the removal of the excrements was strictly enforced. None of the other patients were infected, but four sisters of mercy and one attendant were, all of whom recovered. Forty-two of the convalescents were sent to the convalescent hospitals at Heimersdorf and Blankenburg, with excellent effect in all cases.

A New Hospital in Berlin.

The trustees of the Paul Gerhardt Fund opened a new hospital in the North of Berlin on July 1st. One of its purposes is the training of sisters of mercy to assist the labouring population in tending their sick. More than 100 sisters are now supported by the fund. The medical superintendent of the new hospital is Dr. Schlange, who has been assistant to Professor von Bergmann for several years.

Statistics of Cremation.

A paper bearing the significant name of "Flamme" (Flame) gives the following statistics. At the end of last month there existed 39 crematoria: 23 in Italy, 10 in America, 1 in Germany, 1 in England, 1 in France, 1 in Switzerland, 1 in Denmark, and 1 in Sweden. Two corpses were burned in Italy in 1876, 15 in 1877, 16 in 1878, and 226 in 1888. Since 1876, 1177 corpses have been burned in Italy, and 1269 in the other countries. The number burned last month was 55.

The Consumption Hospital at Falkenstein.

The Empress Frederick visited the Hospital for Diseases of the Lungs at Falkenstein, in the Taunus Mountains, on the 5th inst. Dr. Dettweiler accompanied Her Majesty through all the important rooms and through the grounds, where the patients reclined in their easy chairs. The Empress addressed kind words to several of the patients.

Honours to German Scientists.

The Medical and Surgical Academy of Perugia has appointed Du Bois-Reymond, P. Guttmann, R. Koch, Leyden, Senator, and Virchow honorary members, and von Bergmann, Ewald, Gerhardt, Martin, Mendel, and Salkowski corresponding members.

Dr. Bernhard Fischer.

Dr. Bernhard Fischer, who was lately appointed director of the Office for the Examination of Articles of Nourishment in Breslau, was for five years assistant to Professor Liebreich in the Pharmacological Institute of Berlin University. His special task there was the instruction of apothecaries in chemistry. He has made a special study of organic pigments, and has published a handbook of chemistry for apothecaries, and a list of the more recently introduced medicines, which is much used by physicians and apothecaries.

Dr. Weber-Liel.

Dr. Weber-Liel, formerly Professor of Auricular Therapeutics at Jena, who was compelled by illness to give up his professorship and his practice four years ago, is now recovered, and has resumed practice at Bonn. Before being called to Jena, he practised for many years as an aurist in Berlin. He is the originator of the operation of cutting the sinew of the tensor tympani.

Advanced Medical Instruction in Jena.

For years past the professors and private lecturers of the medical faculty in the University of Jena have delivered courses of lectures every summer to practitioners on medical subjects, especially the more recent discoveries and methods. These courses will begin this year on July 22nd and last till Aug. 3rd. They will probably be largely attended.

Professor von Nägeli has resigned his Professorship of the University of Munich. He has held it for thirty-two years, and the great majority of the younger German botanists were pupils of his.

Under-Secretary Lydow, President of the Scientific Deputation for Medical Affairs in Prussia, will resign on Oct. 1st.

Sandstone statues of the geologist Leopold von Buch and the physiologist Johannes Müller have been erected above the portal of the new Museum for Natural Science in the Invaliden Strasse in Berlin.

In and near the village of Cotta, near Dresden, it is stated that about 120 persons fell seriously ill some weeks ago after eating beef taken from a diseased cow. Several of them died after great suffering.

Berlin, July 8th.

Obituary.

CHARLES ELAM, M.D., F.R.C.P.

IN May, 1824, Charles Elam was born at Birstall, near Leeds. His father was a Wesleyan minister, who coupled with his clerical duties those of a schoolmaster. Amongst his pupils was his son Charles, who soon showed evidence that his abilities were of a high order. Young Elam's medical education was conducted at the Leeds School of Medicine, where he and the late Dr. Radcliffe, whose death we noticed in a recent number of THE LANCET, shared rooms together and became close friends. This friendship remained close and true until it was ended by the death of Dr. Radcliffe. Young Elam was a distinguished student, and he crowned that period of his career with the remarkable results of the brilliant examination for honours which he passed when he took the M.B. degree of the University of London in 1846. He entered for honours in Physiology and Comparative Anatomy, in Surgery, in Medicine, and in Midwifery. In the last-named subject his is the only name mentioned in the honours list. In all the other subjects Elam came out first, securing the scholarship and gold medal in Physiology and Comparative Anatomy, and in Surgery, and the gold medal in Medicine. The only subject in which Elam did not enter for honours at his University was Structural and Physiological Botany. He used to say that he "could not learn botany." So great was the difficulty he experienced in "getting up" botany that he used to write out what he thought sufficient of the subject for examination purposes, and commit what he had written to memory. It is obvious that Dr. Elam was a man who, as a student, was possessed of exceptional powers of a high order for mastering the study of any subject in the medical curriculum of his day. That is a fact which makes very curious the statement concerning his inability to study botany in the same way in which he worked at other sub-

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jects. About the accuracy of that statement there can, however, be no doubt, for we have it upon authority which is perfectly reliable.

After his brilliant success at the University of London, Dr. Elam returned to Leeds, and received the appointment of house surgeon to the infirmary there. In 1848 he went to Sheffield, where, for twenty years, he practised his profession. That his abilities were clearly recognised in Sheffield is shown by the fact that he was appointed lecturer on Medicine and Physiology at the School of Medicine there, and also, in 1856, physician to the Sheffield Infirmary. He had previously—1854—been appointed one of the physicians to the Sheffield Dispensary, but he resigned that office when he became physician to the infirmary. In 1868 Dr. Elam left Sheffield and came to London. For many years it had been his desire to practise as a consultant in the metropolis, in order that he might have the leisure without which he felt he could not, with justice to himself, prosecute successfully his studies, and certain literary work on the accomplishment of which his heart was set. When he left Sheffield he was in large practice. To Dr. Elam's great annoyance, it was said that he had come to London because he wished to retire from professional work, so far as seeing patients goes. That was never his wish. He felt that he could not both see large numbers of patients, as he had to do in Sheffield, and carry on the studies and the work to which allusion has already been made. With those views and desires he came to London, and he always felt that the rumour that he wished to retire from practice materially injured his chance of success in consulting work in the metropolis. While in practice in Sheffield Dr. Elam had enjoyed high repute as a physician greatly skilled in the management of diseases of the nervous system and of the kidneys. This reputation, together with his brilliant record as a student, gained him the post of physician to out-patients at the National Hospital for the Paralysed and Epileptic in Queen's-square. That appointment he held for only two or three years, when he retired altogether from hospital practice, retaining only his honorary physiciancy to the Sheffield Infirmary.

Dr. Elam's pen was a busy one. He published eleven of his writings in book form, besides contributing largely to several daily, weekly, and monthly periodicals. His most noteworthy books are—"A Physician's Problems"; "On Cerebria and other Diseases of the Brain"; "Winds of Doctrine, or Automatism and Evolution"; and "The Gospel of Evolution." To the *Journal of Psychological Medicine* he contributed essays on Epilepsy, Monomania, and Puerperal Insanity. Dr. Elam took up a position of antagonism to the theories which touch the question of evolution as they were put forth by Darwin and the men who thought with him. The keynote of Dr. Elam's view, in that connexion may be fairly well indicated by one of his own statements. It is this: "There can be no position which is *true* in exact science and *false* in ethics. If man be merely an automaton, and part of an inevitable series of cosmical causes and effects, then religion, virtue, and responsibility are only unmeaning and foolish forms of words; legislation and education only absurd and mischievous forms of muscular activity. Until *true* science has said its last word on the subject, we refuse to accept so grotesque a conclusion." Professor Huxley, the late Professor Clifford, and Mr. Herbert Spencer, amongst others, attacked Dr. Elam's views. It need hardly be recorded here that the controversy ended, as most controversies do end, by everyone concerned in it being, if possible, more convinced than ever of the truth of his own views, and of the blindness to obvious truths of his opponents.

Dr. Elam obviously wrote, as a rule, for general readers, rather than for professional or scientific circles only; and it is plainly evident that many of his opinions were acceptable to a large number of general readers, and that his criticisms of the questions of the day which he examined were in consonance with popular rather than with scientific opinion. His cast of mind may be to some extent appreciated on reading the following anecdote of him, which we know to be true. One night, while walking with a friend, a well-known physician, he suddenly stopped in the light of a lamp-post, and made a pencil note upon a piece of paper which he took from his pocket. Rejoining his friend, he remarked, "No doubt you wonder why I should have stopped in our walk and talk to write a few words on a bit of paper. Well, an idea struck me suddenly for the first time, and I noted it down lest I should forget it. I look upon an idea coming like that just as you look upon the result of an experiment worked out in the laboratory." It is very difficult for men who do not accept Dr. Elam's estimate of the worth of a laboratory experiment, as it is here expressed, to look at ideas and things as he looked at them, and to judge fairly and dispassionately of men like him, and of their methods of searching after truth.

In his "Cerebria and other Diseases of the Brain," Dr. Elam advocates the recognition of "a spontaneous, acute, general inflammation of the substance of the brain, uncomplicated with meningitis." This condition he calls "cerebria." Those who wish to study the reasons which he brings forward in support of the acceptance of his views, in connexion with this subject, should read the book itself. It is sufficient for our present purpose to state that more recent research in the field of diseases of the brain do not, so far as we know, support Dr. Elam's views. He, however, quotes several cases which occurred in his own experience, and which he submitted to post-mortem examination, with the result of establishing, to his own satisfaction, the not infrequent occurrence of "cerebria" as he defines it in the words we have quoted above.

It is not the purpose of a notice of this kind to give anything like a full review of the literary work of the man whose life it sketches in very incomplete outline. Enough has, we think, already been given to enable the reader to form some notion of what manner of man Dr. Elam was, in so far as his life is of interest to his professional brethren in general. In its social aspect, his nature was markedly genial, when he found himself in the society of those he knew well. He was fond of conversation, of music, of chess, and of whist; and he was, we believe, a true and constant friend. When he removed to London, he left in the north many warm friends who have given testimony to the kindly interest which they always felt in him and in his fortunes. In Sheffield his attainments were fully appreciated, and he was for some time the President of the Literary and Philosophical Society there. It should have been mentioned that Dr. Elam took the Membership of the College of Physicians of London in 1860, and that in 1870 he was elected to the Fellowship of that College.

Last November Dr. Elam had an attack of gout. In February phlebitis, of the so-called gouty character, began to show itself in the veins of the legs and thighs, and afterwards in the arms and neck. This was accompanied with much local swelling and pain. Seven weeks ago right hemiplegia came on, and from that time pain ceased to be a troublesome feature of the case. The plugging of veins was distinctly periodic in character, coming on regularly once a fortnight. So marked and regular was the recurrence of symptoms due to vein-plugging that it was expected to happen at those regular intervals both by Dr. Elam and by his medical attendants. He died at his residence in Harley-street on July 9th.

Medical News.

ROYAL UNIVERSITY OF IRELAND.—The following candidates have passed the First Examination in Medicine of this University:—

Upper Pass Division.—Thos. J. Connolly, Mina Dobtie, Willes Donnan, Hugh Fisher, Alexander Jameson, John Johnson, Alex. McMustry, Robert Parkhill, William Roundtree, John Cowan, Wm. J. Woods.

Passed.—J. Ahern, M. Aicken, M. Atkins, E. Bell, C. Blue, J. Clements, J. Colville, J. Dick, V. Fielden, T. Fitzpatrick, J. Flynn, A. Fulton, T. McKendry, J. McMullen, J. Mathewson, W. Norcott, A. Peel, H. Reid, J. Reid, L. Rowan, W. Scott, J. Shine, A. Stewart.

PHARMACEUTICAL SOCIETY OF IRELAND.—The following gentlemen have obtained the licence of the Society:

Messrs. Whelan, Herriott, Clark, Shanks, Anderson, Forrest, and Bourke. (Nine were rejected.)

THE GRANTHAM INFECTIOUS DISEASES HOSPITAL was destroyed by fire on the afternoon of the 12th inst. The building was a wooden structure and the property of the Grantham corporation.

MEDICAL MAGISTRATE.—The Lord Chancellor has placed the name of J. E. Brooks, M.R.C.S., L.R.C.P., on the Commission of the Peace for Ludlow, Shropshire. Mr. Brooks was mayor of the borough for the two years 1885 and 1886.

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HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.—This charity was visited on Tuesday by Princess Christian, accompanied by other distinguished ladies and gentlemen, several of whom, including Her Royal Highness, afforded the inmates of the hospital much gratification by various musical performances. This seems to have been the fourth occasion on which the Princess has assisted in entertainments held at the institution.

PROPOSED NEW VICTORIA CHILDREN'S HOSPITAL, HULL.—The Mayor (Mr. J. Sherburn, M.R.C.S) presided at a public meeting held at the Town Hall, on the 8th inst., in connexion with this proposed hospital for poor sick children in Hull. It is to be the Jubilee memorial. The object of the meeting was to devise means to obtain a sum of £2000, in addition to the £5400 already subscribed. The estimated cost of the building and site is £7235.

HOSPITAL SATURDAY STREET COLLECTION.—The contents of the collecting-boxes in several districts of the metropolis, so far as they have been returned, have realised the sum of £1962, as against £1895 last year. The returns from seventeen districts have yet to come to hand. The highest individual collection was at Capel-court—viz., £73; the box at Charing-cross Railway Terminus coming next with £50. It is expected that the street collection will yield altogether £5000 as against £4800 last year.

SANITATION IN EDINBURGH.—The Duke of Westminster's Select Committee of the House of Lords, after an eight days' inquiry, have sanctioned the Water of Leith Purification and Sewerage Bill, which has already passed through committee in the Lower House. The measure represents a large scheme promoted by the corporations of Edinburgh and Leith to prevent in future the pollution of the water of Leith by neighbouring tanneries and paper mills. The present state of the water was proved to the committee to be dangerously foul.

THE VACCINATION COMMISSION.—The Royal Commission on Vaccination held their fourth sitting on Wednesday. There were present—Lord Herschell (chairman), Sir James Paget, Sir Charles Dalrymple, M.P., Sir Guyer Hunter, K.C.M.G., M.P., Sir Edwin Galsworthy, Mr. Savory, F.R.S., Mr. Bradlaugh, M.P., Dr. Bristowe, Dr. W. J. Collins, Mr. J. Stratford Dugdale, Q.C., M.P., Professor Michael Foster, M.D., Mr. Jonathan Hutchinson, Mr. F. Meadows White, Q.C., and Mr. Bret Ince, secretary. Dr. R. Thorne Thorne, assistant medical officer to the Local Government Board, was further examined.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—At the quarterly court of the Society, held on Wednesday, July 10th, at 53, Berners-street, W., Sir James Paget, President, in the chair, two members were elected and the deaths of two reported. Sixty-one widows and seventeen orphans were recommended for relief, and a sum of £1358 10*s.* was voted for distribution among them. The death of a widow was announced who had received grants for the last forty years. A fresh application for assistance was received from a widow, for herself and two children, and a grant was made. A legacy of £50, duty free, had been received from the executors of Miss Sophia M. Wilson. The expenses of the quarter were £39 5*s.*

AFTER-CARE ASSOCIATION FOR POOR AND FRIENDLESS FEMALE CONVALESCENTS ON LEAVING ASYLUMS FOR THE INSANE.—The annual meeting of this Association took place at 83, Lancaster-gate, W., on Thursday, the 4th inst. Its objects are to facilitate the readmission of poor and friendless female convalescents from lunatic asylums into social life. The Earl of Meath presided. The speakers included, amongst others, Dr. Norman Kerr, Dr. Hack Tuke, Dr. G. H. Savage, Dr. T. C. Shaw, and Dr. Fletcher Beach. There was a good attendance, and much interest was shown in the proceedings. All information can be obtained of the Secretary, H. Thornhill Roxby, Arden Lea, The Drive, Walthamstow.

EPSOM COLLEGE. — The annual distribution of prizes to the scholars of Epsom College took place on Saturday, July 6th—Founder's Day. The head master, the Rev. T. N. Hart-Smith, who presided, in opening the proceedings, said they were met for two purposes: first, in commemoration of the founder, Mr. John Propert, whose name would always be remembered in connexion with Epsom College; and, secondly, for the purpose of distributing the prizes won by the boys during the year. The prizes having been distributed, the Rev. T. N. Hart-Smith proceeded to point out the advantages offered in that school to those who came there to study, and especially to those who contemplated entering the medical profession. Dr. Holman also addressed those present, and made a feeling reference to the death of the late head master, the Rev. Cecil Wood. The proceedings, which were most enthusiastic throughout, then closed with cheers for the masters and visitors.

LITERARY INTELLIGENCE.—We are informed that a German translation of Dr. Saundby's Lectures on Bright's Disease (reviewed in our issue of July 6th) is being prepared, and will shortly be issued.

FOOTBALL CASUALTY.—A man named James Reid was admitted to the Richmond Hospital, Dublin, on Saturday, suffering from a fracture of the arm received during a football match.

A PERSIAN MINISTER'S WILL.—His Excellency Nasser oul Moulk Mahmoud Khan, late of Teheran, Persia, Minister for Foreign Affairs and Governor-General of Khorassan, died on Dec. 24th, 1887, and probate in England of the will has been granted to the executor, his Excellency Aboul Kassem Khan Mosheer-i-Hozour of Teheran. The value of the personal estate in England is £18,395 16*s.* 6*d.* The testator directs the executor (after providing for various expenses) to erect a hospital in "the most noble and sacred places of Kazemure," or elsewhere, for sick Moslems of the tribe of Esna Arajy; and to ensure that the hospital may fulfil the purposes for which it is founded makes due provision for the superintendence of its management and direction.

DURHAM UNIVERSITY MEDICAL GRADUATES' ASSOCIATION.—The annual meeting of this Association, which consists of a large proportion of the 500 graduates in medicine of Durham, was held at the Holborn Restaurant on June 27th. The following officers were elected for the ensuing year:—President: Dr. C. Cullingworth. Vice-Presidents: Drs. D. Drummond and Morton. Council: Professor Philipson, Drs. Arnison, Adams, Beatley, Day, Goldsmith, Milburn, Powell, Robinson, Thompson, Travers, and W. T. Wilson. Hon. Sec. for North and Treasurer: A. Mantle, M.D. Hon. Sec. for South: R. H. Milson, M.D. A most successful *réunion* of Durham men took place at the annual dinner, held at the same place after the meeting, and presided over by the President, Dr. C. Cullingworth, of St. Thomas's Hospital. Amongst other visitors were Sir William Roberts, Mr. Christopher Heath, and Mr. Croft, who responded to the toast of "The Visitors."

BEQUESTS AND DONATIONS TO HOSPITALS.—The Marquis of Ely, late of Kearsney Abbey, near Dover, has bequeathed £200 each to the Seamen's Hospital and the Brompton Hospital for Consumption, and £100 to St. George's Hospital.—The late Mr. Thomas Tennant, of Blenheim-terrace, Leeds, has left £2000 to the Leeds Infirmary, £1000 to the Leeds Public Dispensary, £500 to the Cookridge Convalescent Hospital, £500 to the Leeds Blind Charity, £500 to the Leeds Fever Hospital, and £500 to the Hospital for Women and Children.—The Secretary of the Glamorgan and Monmouth Infirmary has received £60, being the net profit realised from the recent Cinderella dance.—The Broderers' Livery Company have made a grant of 10 guineas to the Ventnor Hospital, 10 guineas to the Charing-cross Hospital, 10 guineas to the Home for Incurables, Putney, and 10 guineas to the Home for Incurable Children, Edgware.—£20 has been handed to the Warden of King's College Hospital, being the proceeds of an entertainment given by the old boys of the Garrick and Ingoldsby Clubs at St. George's Hall on the 15th inst.—Mr. J. Travis Clay, of Rastrick, has handed to the President of the Huddersfield Infirmary £500 as a donation to the Building Extension Fund.—Messrs. Meade and Son have given £100, and Alderman Joseph Meade £287, to the Mater Misericordiæ Hospital. Mr. Michael Meade has bequeathed £150 to the same hospital.—The Treasurer of the Cardiff Infirmary has received a donation of £40 from the owners of the Spanish steamer Hermosa, as an acknowledgment of the care and attention bestowed on several of the crew—Spaniards—who were injured by an explosion on board the steamer at Cardiff.

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EYE AND EAR HOSPITAL, CARDIFF.—The second annual report states that the patients had increased from 1521 to 1604 during the past year, and the attendances had been 6741, against 6120 in 1887. This is the first attempt in South Wales (next to the Eye Hospital at Swansea) to supply the demand for such an institution. The financial statement shows a small balance in hand.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—The North-Western Branch of this Society held their monthly meeting on the 11th inst., at John Dalton-street, Manchester. Dr. Welch (Blackpool) presided. Mr. Kenyon read a paper entitled "Notes on the Ventilation of Sewers and Drains." He briefly described the various methods used in the systems of drainage and ventilation at present adopted, and suggested improved means of dealing with sewer air &c. In the discussion which followed, the chairman, Mr. Vacher, and others took part, and the meeting terminated.

MEDICAL NOTES IN PARLIAMENT.

Cruelty to Children (Prevention) Bill.

IN the House of Lords, on Monday, July 15th, this Bill was brought up and read a first time, after having been read, on the 12th inst., a third time in the Lower House.

Vivisection

In the House of Commons, on Thursday, July 11th, the Home Secretary, in reply to Mr. John Ellis, stated that under the Cruelty to Animals Act, 1876, every licensee must keep a written record of every experiment, which is always open to examination by the inspector. Licensees are further required to make a report every January on a prescribed form to the inspector, setting out the number of experiments, the general purposes of the experiments, and the experiments attended by pain. These particulars appear in table 3 of the Inspector's Report for 1888.

The Universities (Scotland) Bill.

On Friday, the 12th, Mr. Wallace asked the Chancellor of the Exchequer whether he would state the maximum of the increase he was prepared to recommend the Government to make to the annual sum of £42,000 proposed to be voted to the Scottish universities, so as to enable the proposed Commissioners to deal with the question of compensation to professors and others.—Mr. Goschen, in reply, stated that it was not advisable to name the maximum sum until the Commissioners had had an opportunity of examining the whole case. The Government had a *bond-fide* intention of giving the Commissioners substantial assistance in dealing with the matter.—Mr. Wallace expressed dissatisfaction with the answer, and gave notice that he should move the rejection of the Universities Bill, on the ground of the inadequacy of the pecuniary arrangements

On Wednesday, the 17th, the consideration of this Bill as amended was resumed. On Clause 6 Mr. J. Campbell moved, in page 7, after line 28, to insert "to elect the representative of the University on the General Medical Council under the Medical Act of 1886," the object of the amendment being to leave the choice of the medical representative to the University Court.—Sir W. Foster opposed the amendment, and urged that the representative ought to be sent to the Council by the whole of the medical graduates, and not by a few professors.—The Solicitor-General for Scotland pointed out the obvious inconveniences of an election by a mixed constituency of, in some cases, 6000 persons. He therefore preferred that the representative should be elected by the governing body.—Mr. Bryce thought it undesirable to add to the number of elections in the universities carried on by voting papers.—Mr. Craig Sellar called attention to the enormous expense that would be involved in appealing to the whole body for fifteen days.—Dr. M'Donald thought it would give the representative on the General Medical Council much greater weight if he were elected, as in the past, by the whole body.—Dr. Farquharson thought, on the whole, it would be wise to give the whole body of graduates a voice in the election.—On a division, the amendment was carried by 126 against 76.

Hours of Labour in Government Factories.

On Monday, the 15th, Mr. E. Stanhope, in reply to Mr. Graham, denied that large numbers of arsenal gas stokers were leaving their employment and going to other factories where the hours of labour were only eight per day. The arsenal stokers had been informed that the question of altering the length of their working day was being considered, but no action would be taken until he was fully acquainted with the course adopted in similar works not under Government.

Muzzling of Dogs.

In reply to Sir H. Roscoe, Mr. W. H. Smith stated that it had not been deemed expedient at present to pass a general order for the muzzling of dogs, but the Privy Council had ordered the muzzling of all dogs within the Metropolitan Police District (a radius of fifteen miles from Charing-cross) from Aug. 1st to Dec. 31st. There had been a steady increase of rabies in the metropolis during the first half of the present year.

Local Government (Scotland) Supplementary Provisions Bill.

The House, in Committee, considered this Bill. On Clause 19, which empowers the County Council of any county to appoint a medical officer or sanitary inspector, who shall not engage in private practice without the express written consent of the Council, Dr. Farquharson moved to amend the clause so as to make the appointment of a medical officer compulsory in every county.—Mr. Campbell-Bannerman, Mr. Firth, and others, having supported the amendment, the Lord Advocate said that the Government would not stand in the way of so peremptory an indication of opinion as had been given from the other side. Arrangements might be made, subject to the approval of the Secretary for Scotland, for the medical officers of the smaller counties or areas to engage in private practice notwithstanding their appointment.—The amendment was then agreed to, and the clause added to the Bill, which passed through Committee on the following day (Tuesday, the 16th).

Inspection of Cemeteries.

On Tuesday, the 16th, the Home Secretary, in reply to Mr. C. Graham, stated that within the past two months Dr. Hoffman, the Inspector of Cemeteries, had paid two visits to Bow Cemetery, and had found it all right, the Orders in Council being fully carried out.

Sanitary Condition of Sutton.

Mr. Ritchie, replying to Mr. J. Kelly, stated that he had communicated with the Sutton Local Board, who informed him that there were wells, some on the sand and others on the chalk, which had been converted into cesspools. The Local Government Board had vainly urged the local board to provide sewers, and application was made to the High Court last May for a *mandamus*, but the Sutton local board pleaded for, and obtained, an extension of time. If necessary, the Local Government Board would apply for a peremptory order. He had no evidence that the Sutton Water Company were indifferent to the health of the district, and he did not contemplate proposing legislation on the subject.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BOWDEN, REGINALD T., M.D., has been appointed Honorary Surgeon to the Ramsgate and St. Lawrence Royal Dispensary.

CARTER, G. A., M.D. Aber., L.R.C.S., L.M. Edin., has been appointed Medical Officer of the St. Chad District, Lichfield Union.

CHADWICK, C. M., M.R.C.P. Lond., M.R.C.S., has been appointed Honorary Physician of the Cookridge Convalescent Hospital, vice Allbutt, resigned.

ELLIOT, J. P., L.R.C.P., L.R.C.S., L.M.Edin., has been appointed Medical Officer of the Second District, Bellingham Union.

EMSON, A., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of the Broadmayne District, Dorchester Union.

GALBRAITH, THOMAS, M.B. & C.M. Edin., has been appointed Medical Officer and Public Vaccinator of the Nunney District, Frome Union.

GODFREY, G. P., L.R.C.P., L.R.C.S. Edin., has been appointed a Surgeon of the Mansfield and Mansfield Woodhouse District Hospital.

GOODALL, EDWIN, M.B. Lond., B.S., L.R.C.P., M.R.C.S., has been appointed Fourth Assistant Medical Officer, West Riding Lunatic Asylum.

GOODALL, E. W., M.D. Lond., has been appointed Medical Registrar to, and Teacher of Practical Medicine at, Guy's Hospital.

GRIFFITHS, M. C. A., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant House Surgeon to the Bristol General Hospital, vice B. R. T. Trevelyan, resigned.

HENRY, G. N., M.B. Aber. & C.M., has been appointed Third Assistant Medical Officer, West Riding Lunatic Asylum, Wakefield, vice Whitwell, resigned.

IRWIN, STUART, M.B., B.Ch. Roy. Univ. Irel., B.A.O., has been appointed an Assistant Surgeon at the Liverpool East Dispensary, vice Frank Liddell, resigned.

MAY, GEORGE, M.B. Lond., F.R.C.S., L.S.A., has been appointed Consulting Surgeon to the Royal Berkshire Hospital.

MILLER, J. G., M.B., C.M. Edin., has been appointed Medical Officer of the Fourth District, Bellingham Union.

MORGAN, GEORGE BLACKER, Jun., M.B., B.Ch., B.A.O., of Dublin University, has been appointed House Surgeon to the Sunderland Infirmary, vice C. F. Seville, resigned.

PERMEWAN, WM., M.B., M.D. Lond., M.R.C.S., L.S.A. Lond., has been appointed Head Surgeon to the Liverpool North Dispensary, vice A. Stookes, resigned.

ROWE, G. H., M.R.C.S., has been appointed Medical Officer of the Cookridge Convalescent Hospital, vice Pender, deceased.

SANKEY, JULIUS O., L.R.C.P., L.M. Edin., M.R.C.S., L.S.A., has been appointed Consulting Surgeon of the Wantage Cottage Hospital.

SEQUEIRA, H. J., M.R.C.S., L.S.A., has been appointed Medical Officer of No. 3 District, City of London Union.

WESTWOOD, J., L.K.Q.C.P. Irel., has been appointed Medical Officer of the Fillongley District, Meriden Union, vice Beadnell.

WHITELEGGE, B. A., B.Sc. Lond., M.D., M.B., M.R.C.S., has been appointed Medical Officer of Health for the West Riding of Yorkshire.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BOROUGH OF NOTTINGHAM.—Medical Officer of Health.

BRADFORD MEDICAL AID ASSOCIATION, 38, Horton-lane, Bradford.—Out-door Assistant. Salary £120 per annum. Dispenser kept.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Assistant Physician.

DEACONESSES' INSTITUTION AND HOSPITAL, Tottenham. — Resident Junior House Surgeon. Salary £25 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House Surgeon for six months. No salary.

FOREST-GATE SCHOOL DISTRICT (Offices, Baker's-row, Whitechapel, E.)—Medical Officer for the District School, Forest-lane, West Ham. Salary £180 per annum.

GENERAL HOSPITAL, Birmingham.—Assistant House Surgeon for six months. No salary, but residence, board, and washing provided.

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HALSTEAD UNION, Halstead.—Medical Officer of the Second Division of the First District. Salary £60 per annum, exclusive of midwifery and such extra fees as are allowed by the Orders of the Local Government Board.

HOSPITAL FOR WOMEN, Soho-square, London.—House Physician. Salary £75 per annum, with board, &c.

LEEDS FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Surgeon (married), for Malton House Surgery of this Association. Salary £200 per annum, all midwifery fees, and allowances for travelling and cleaning, £60. Good house, coals and gas provided.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT.—Resident Medical Officer for the above institution at Bowden, Cheshire. Salary £60 per annum, with board, apartments, and washing.

NOTTINGHAM BOROUGH ASYLUM.—Locum Tenens wanted for the month of August. Terms 2 guineas weekly, with board and residence.

ROYAL COLLEGE OF PHYSICIANS, Pall Mall East, London.—Milroy Lecturer.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Junior House Surgeon. Salary £50 per annum, with board and residence.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck-street, W.—Honorary Physician.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY, Whitehaven.—House Surgeon. Salary £120 per annum, and £30 per annum for dispensing, with furnished apartments and attendance.

Births, Marriages, and Deaths.

BIRTHS.

ATHERSTONE.—On June 16th, at Port Alfred East, Cape Colony, Fanny, the wife of W. Herschell Atherstone, M.B., of a son.

BOGLE.—On June 15th, at Victoria West, Cape Colony, the wife of J. Linton Bogle, M.B., of a son.

CRABB.—On July 13th, at Holloway-road, N., the wife of James Crabb, M.D., of a daughter.

FLETCHER.—On July 15th, at North Gate, Uttoxeter, the wife of W. J. H. Fletcher, L.R.C.P.S., L.S.A., of a son.

GRAHAM.—On July 11th, at Storrington, Sussex, the wife of Geo. H. Graham, L.R.C.P.Lond., M.R.C.S.E., of a son.

MALDEN.—On July 14th, at Pembury, Tunbridge Wells, the wife of Walter Malden, M.A., M.B., of a daughter.

MORGAN.—On July 5th, at Hurdles House, Seaford, Sussex, the wife of William Pringle Morgan, B.A., M.B., of a son.

SYMPSON.—On July 13th, at 3, James-street, Lincoln, the wife of E. Mansel Sympson, M.A., M.B. Cantab., of a son.

WOLFENDEN.—On July 17th, at Upper Wimpole-street, W., the wife of R. Norris Wolfenden, M.D. Cantab., of a son.

MARRIAGES.

BARR—WILSON.—On July 2nd, at the Parish Church, Horning, Norfolk, George Arthur Barr, M.R.C.S., L.R.C.P. Lond., youngest son of the late Major-General W. Barr, (late) Bengal Royal Artillery, to Catherine, third daughter of the late Capt. John Hume Wilson, of Bombay.

EASMON—SMITH.—On July 11th, at St. Helier's, Jersey, John Farrell Easmon, M.D. Brux., M.R.C.S., L.M. & L.K.Q.C.P.I.; Senior Assistant Colonial Surgeon, Gold Coast Colony, to Annette Kathleen, youngest daughter of William Smith, Esq., of St. Helier's, Jersey, sister of the late Dr. Robert Smith, of Freetown, and of Dr. Spilsbury Smith of the Gold Coast Colony, and niece of Dr. T. H. Spilsbury, Colonial Surgeon of the Gambia.

FLUX—MANN.—On July 16th, at St. James's Church, West Hampstead, George Belben Flux, L.R.C.P., M.R.C.S., L.S.A., M.D. (Brux.), of Highworth, Wilts, eldest son of William Flux, Esq., of Fairford Lodge, Gloucestershire, and East India-avenue, E.C., to Florence, daughter of the late George Mann, of Hamilton-terrace, N.W.

KELSO—DUDINGSTON.—On July 10th, at Milton Church, Southsea, John Edward Harry Kelso, M.B., C.M., son of the late Col. Kelso, Madras Cavalry, to Cecilia Emily, fifth daughter of the late John Charles Rainsford Dudingston, Esq.

MATHESON—WHELAN-BOYLE.—On July 17th, at St. Luke's Church, West Holloway, London, John Matheson, M.A., M.D., C.M., of Gibson-square and Lonsdale-square, N., to Kathleen (Katie), third daughter of Robert Whelan-Boyle, Esq., F.R.S.L., of Delmar Villa, Caledonian-road, Holloway, N., Editor of the London *Daily Chronicle*.

TAIT—WILLETT.—On July 13th, at St. Mary's, Finchley, Edward Sabine Tait, M.D., of Highbury Park, eldest son of Edward Wilmshurst Tait, to Frances Emily, daughter of the late Thomas Wm. Willett.

DEATHS.

DAY.—On July 10th, at his residence, Kenilworth House, Cheltenham, Francis Day, LL.D., C.I.E., F.L.S., F.Z.S., Deputy Surgeon-General Madras Army, and formerly Inspector-General of Fisheries in India, in his 61st year.

HUNT.—On July 10th, at Glossop, William H. Hunt, L.R.C.P., L.R.C.S. Edin.

LAING.—On July 5th, at Calcutta, James McGregor Laing, M.A., F.R.C.S., of Clapton-square, N.E.

LANE.—On July 11th, at Château de la Falaise, Boulogne-sur-Mer, Edward Wickstead Lane, M.A., M.D., of Harley-street, Cavendish-square, in his 67th year.

METZGAR.—On July 10th, at "Fairlight," St. Saviour's-road, Brixton, Charles Metzgar, F.R.C.S. Eng., aged 25.

NEWMAN.—On July 12th, at Birchington-on-Sea, John Jepson Newman, M.R.C.S. Eng., L.R.C.P. Lond., aged 38.

NORTON.—On July 10th, at the house of his brother, Stonehurst, Croydon, John Norton, M.R.C.S., of John-street, Bedford-row.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 18th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
July 12	29·98	S.	66	62	112	78	62	·02	Overcast
,, 13	29·92	E.	64	62	117	73	61	·23	Overcast
,, 14	29·85	W.	61	60	111	72	60	·20	Cloudy
,, 15	29·90	W.	62	57	109	70	57	·03	Cloudy
,, 16	29·85	W.	60	55	113	71	52	·02	Cloudy
,, 17	29·78	N.	60	55	115	71	55	·05	Cloudy
,, 18	29·94	N.W.	61	56	109	70	56	·09	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

SHORTHAND.

DR. GOWERS asks us to state that he desires to know the number of students who now use phonography, and that he will be glad if each who does so will kindly notify the fact (in shorthand) on a postcard to him at 50, Queen Anne-street, W.

Dr. Tucker Wise.—Our correspondent will have noted the decision of the committee, and will doubtless feel disposed, with most members of the profession, to leave the matter in the hands of those with whom the responsibility rests. The system adopted is said to fulfil all the conditions mentioned by our correspondent.

Mr. Damer Harrisson.—We cannot promise immediate publication of the paper; but if the MS. be forwarded, it shall have our prompt attention.

Mr. Roger Williams.—The paper is marked for insertion, and will appear shortly.

Mr. W. L. Powell should consult a registered dentist.

AN APPEAL.

To the Editors of THE LANCET.

SIRS,—Permit me to make through your journal an appeal to meet the legal expenses lately incurred by Mr. Jones of Edmonton, medical officer of the Strand Union and surgeon to the N Division of the Metropolitan Police. Your readers may remember that he was accused of indecently assaulting a servant girl who came to consult him, but that when the case came on for trial at the Middlesex Sessions "the grand jury, under the direction of the judge, unanimously ignored the bill of indictment. The chairman said it appeared to him that there was not the slightest foundation for the charge." Moreover, both the Society for the Protection of Women and that for the Protection of Juveniles, after investigation, declined to have anything to do with the case. Under these circumstances many consider that those who may at any time be placed in a similar position through no fault of their own should come forward and help a medical brother in misfortune. Mr. Jones's legal expenses have amounted to about £60.

This appeal is supported by Sir W. Mac Cormac, J. S. Bristowe, M.D., C. J. Hare, M.D., W. M. Ord, M.D., T. Bridgwater, M.D., W. Dickson, M.D., Brodie Sewell, M.D., A. Durham, Esq., C. Macnamara, Esq., and S. Sibley, Esq. Subscriptions may be sent to me, and with your kind permission will be acknowledged in your columns.

I am, Sirs, yours faithfully,

101, Queen's-road, Dalston, N.E. J. W. HUNT.

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HOLIDAY FOR DISPENSARY DOCTORS OF DUBLIN.

THE *Freeman* notices with approval the request of the dispensary doctors of the north side of Dublin to be allowed a holiday annually. Our contemporary says the request has been approved by the Dispensary Committee, and only awaits the approval of the guardians. The total cost will be £84, of which the Imperial treasury pays half, the other half being paid by the ratepayers. We entirely concur with the *Freeman* in thinking that such a request from the medical officers is worthy of the favourable response of the guardians. Their work is laborious, insanitary, and not overpaid, and the holiday would be very valuable to them.

Dr. F. Lucas Benham.—We certainly have no desire to discourage physicians in any endeavour to discover a remedy for the terrible disease, hydrophobia. But it is well known that several diseased conditions are marked by symptoms closely resembling those of the dread malady in question. Moreover, we have never been satisfied that the *treatment* hitherto adopted in cases of recovery has contributed to this termination.

Dr. E. P. Thurstan.—We shall be prepared to receive and to consider a short article on the subject.

"MEDICAL ADVICE FREE: MEDICINE 2D. PER BOTTLE!"

To the Editors of THE LANCET.

SIRS,—My attention has been called to some letters in this week's issue of THE LANCET—to which, however, the writers do not append their names,—which broadly insinuate that the small medical institution of which I am the honorary secretary is carried on for the purpose of procuring private practice for an individual medical woman. I beg most emphatically to deny this charge. The institution in question exists for the double purpose of affording a means of training in midwifery for women medical students, under the careful supervision of qualified medical *women*, and, at the same time, of benefiting without pauperising poor women in a practical way. The circumstances of the patients are inquired into, and those who are deemed unsuitable to receive the benefit of the charity are dismissed, but for the most part they come from a very poor class. I will only add that every detail connected with the objects, constitution, and methods of the Clapham Maternity and Dispensary have been laid before the President and Fellows of the King and Queen's College of Physicians of Ireland, and that they consider the connexion of one of the licentiates of their College with the institution as "perfectly satisfactory." May I beg that, in simple justice, you will give this letter equal publicity with those you have already published on this subject by inserting it in your next issue? I remain, Sirs, yours truly,

M. RITCHIE,
Hon. Sec. of the Clapham Maternity Hospital.

Jeffrey's-road, Clapham-road, S.W., July 16th, 1889.

QUEEN'S JUBILEE HOSPITAL.

To the Editors of THE LANCET.

SIRS,—I am credibly informed that on Saturday before Hospital Sunday the passengers in Kensington, on the tops of omnibuses and in the streets, were solicited for alms by boys holding large boxes with "Hospital Sunday" labelled on them, and wearing badges with a similar inscription. This collection was mistaken for the "Hospital Sunday Fund" collection, though it had no connexion at all with it, but was made on behalf of the Queen's Jubilee Hospital, Richmond-road, South Kensington. Much attention has recently been drawn to the increase and status of special hospitals, and to the contrivances adopted by some of these hospitals for raising funds. Does a collection such as I have described accord with the commonly accepted standard of professional etiquette?—I am, Sirs, your obedient servant,

C. S. LOCH,
Secretary, Society for Organising Charitable Relief
July 13th, 1889. and Repressing Mendicity.

THE TREATMENT OF HYDROCELE BY SOLUTION OF CORROSIVE SUBLIMATE.

To the Editors of THE LANCET.

SIRS,—In support of Mr. Hind's treatment of hydrocele by injection of a solution of corrosive sublimate, I beg to inform the readers of THE LANCET that I have used the same treatment in three consecutive cases of hydrocele, one of which was rather of long standing, double, and with thickened walls, and have found that a 1500 per cent. solution was strong enough to obtain efficient results. By this line of treatment all the untoward effects of iodine, such as pain, shock, consequent irritation and inflammations, were eliminated.

I am, Sirs, yours truly,
Alderney, July 10th, 1889. B. BARNARD, M.B., &c.

Juvenis.—Full information of the curriculum in the University will be given in our Students' Number to be published in September next.

Mr. A. Copland may obtain assistance by consulting our advertising columns.

M.D.—The ordinary State examination must be passed.

CRIMINAL ANTHROPOLOGY.

J. R. F.—The pathological aspects of crime have had much attraction for the profession in Italy, where the works of Lombroso and the criticism they have called forth constitute quite a library on the subject. A very convenient repertory of the facts accumulated by Italian and continental investigators of this branch of pathology is to be had in the recently published "Glossario Alfabetico per l'Antropologia Criminale e la Medicina Legale" ("Alphabetical Glossary for Criminal Pathology and Legal Medicine"). Its author is Professor Virgilio Rossi, assistant prælector to the chair of Medical Jurisprudence in the University of Turin, and its publishers are the Brothers Bocca, of that city.

G. B. H. is referred to the monograph of Professor Erwin Voit on "The Minimum Quantity of Albumen required for Nutrition" ("Ueber den geringsten Eiweissbedarf in der Nährung"). Prof. Voit's researches were prosecuted in the Munich Physiological Institute, and the memoir will be found in the Transactions of the Bavarian Academy of Sciences, to be published immediately.

Mr. F. H. Wigmore.—Not at present, but we will bear the question in mind.

Dr. Barnes is thanked. We had already a notice of the event.

J. T. M.—Yes.

ST. JOHN AMBULANCE ASSOCIATION.—A CEYLON CENTRE.

To the Editors of THE LANCET.

SIRS,—I forward you a few lines, as I think it possible that many of the profession in this country and the colonies will be pleased to learn that a new colonial centre is fairly started, with every prospect of becoming a great success. From a file of papers just received from Colombo, I find that classes have been there established for ladies, gentlemen, medical college students, and are about to be extended to the police. A public meeting was held at Queen's House, his Excellency the Governor presiding, and resolutions were passed highly approving the cause, and also commending the generous exertions of Surgeon Lees Hall, A.M.D. (late adjutant of the London Volunteer Medical Staff Corps) for instituting the classes, and giving lectures &c. One editor writes: "It is hoped a class of Singalese and Tamel ladies will be formed, to whom Dr. Hall's instructions in home nursing and hygiene could not fail to convey blessings to themselves and families."

I am, Sirs, yours obediently,
Brighton, July 17th, 1889. F.R.C.S.

LOW ESTIMATE OF MEDICAL SERVICE.

To the Editors of THE LANCET.

SIRS,—On looking through the advertisement columns of THE LANCET of July 13th I notice an advertisement offering about 10*s.* per week to a gentleman of the medical profession with some experience in hospital work. Now do you not consider that it amounts to degradation that a man with some scientific attainments should be offered a sum which would hardly satisfy the aspirations of an under-gardener or a cook in a domestic establishment?—I am, Sirs, sincerely yours,

FREDERICK W. COLLINGWOOD,
Plymouth, July 14th, 1889. Surgeon, R.N.

ARGUMENTUM AD HOMINEM.

"OH, Joseph! Teddy's just been bitten by a strange dog! Doctor says we'd better take him over to Pasteur *at once!*"—"But, my love, I've just written and published a violent attack upon M. Pasteur, on the score of his cruelty to rabbits! And at *your instigation*, too!"—"Oh, Heavens! Never mind the rabbits *now!* What are all the rabbits in the World compared to *our only Child!*"—*Punch.*

A Citizen of the World.—Yes. The Infectious Diseases Supervision Act (1881) of New South Wales makes it compulsory on the part of the householder or occupier of premises in which small-pox appears to report the existence of such case to the proper authorities, and the same duty is made incumbent on the medical practitioner attending the case.

Mr. M. Palmer.—The matter had better be submitted to an authority on legal questions.

Mr. Heather Bigg.—The letter is too lengthy for insertion.

A CORRECTION.

To the Editors of THE LANCET.

SIRS,—In your account of the meeting of the General Council of Medical Education and Registration Mr. Macnamara, speaking of the proposed publication of Dr. Maybury's book by me, is reported to have said it was intended to be issued at a lower price than the British Pharmacopœia. This is an error, the price advertised being 6*s.* 6*d.*—that is, 6*d.* more than the B.P. It is also not the fact that the books are printed in the same type as stated by the same gentleman.

Trusting you will publish this letter,

I am, Sirs, your obedient servant,
Hanway-street, W., July 16th, 1889. HENRY KIMPTON.

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COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. W. T. Gairdner, Glasgow; Dr. Brown-Séquard, Brighton; Mr. Scudamore, London; Dr. Saundby, Birmingham; Dr. Auld; Mr. Damer Harrisson, Liverpool; Dr. Hassall, Lucerne; Dr. Mouat, London; Dr. R. J. Carter; Mr. Palmer, Newbury; Mr. E. Atkinson, Leeds; Messrs. Bewley and Draper, Dublin; Dr. P. T. R. Paul, Radapuram; Messrs. Wood and Co., New York; Surgeon Collingwood, Plymouth; Mr. Vincent Jackson, Wolverhampton; Mr. C. S. Loch, London; Mr. B. Duke; Mr. Lawson Tait, Birmingham; Dr. C. Slater, London; Messrs. Burroughs and Wellcome, London; Dr. Crozier, London; Dr. Thurstan, Tunbridge Wells; Mr. Foulerton, Chatham; Mr. Rivington, London; Mr. C. E. Jennings, London; Mr. McOscar, Plymouth; Mr. Bratton, Shrewsbury; Mr. Withers, Shrewsbury; Mr. J. W. Hunt, Dalston; Dr. W. J. Collins, London; Mr. C. K. Bond, London; Mr. Wigmore, Macclesfield; Dr. Robinson, Gateshead; Dr. Murray, Forfar; Dr. Spender, Bath; Mr. H. A. Allbutt, Leeds; Mr. Parley, London; Dr. W. A. S. Wynne, Herringfleet; Dr. Allwright, Brighton; Mr. Blackett, London; Mr. R. Coombe, Exeter; Dr. R. Barnes, London; Dr. G. J. Pierse, Tralee; Dr. Illingworth; Dr. Cameron, Caistor; Mr. H. N. Laurence, London; Mr. H. Kimpton, London; Dr. Urquhart, Perth; Dr. J. M. Granville, London; Miss M. Ritchie, London; Mr. Dickinson, Wandsworth; Mr. Powell, Notts; Mr. Hughes, Halstead; Mr. Johnson, Notts; Mr. Frowde, London; Mr. Crassweller, London; Mr. Hunt, Manchester; Mr. Colemary, Cardiff; Mr. Wilson, Leeds; Mr. Lowe, Breconshire; Mr. Humphreys, Bradford; A. B., Manchester; Student; M.R.C.S.Eng., L.K.Q.C.P.I.; Larnaca; W. T. P.; J. G. K.; Amateur Surgeon; Scandinavian; Leath, Weston-super-Mare; Medicus, Middlesex; A., Sheffield; B.A., London; M.D., London; Medicus, Hollandpark; F.R.C.S.; M.D.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Skinner, Rye; Mr. Bigg, London; Mr. Barber, Sheffield; Mr. Burroughs, New York; Mr. Huvey, London; Mr. Easmon, Jersey; Messrs. Tannin and Co., Dublin; Mr. McGregor, Lanarkshire; Messrs. Cassell and Co., London; Mr. Hutchinson, Newmarket; Dr. Henry, New South Wales; Mr. Taylor, York; Dr. Whitla, Belfast; Messrs. Bryant and Co., Toronto; Dr. Richardson, Bradford; Mr. Kitchin, Cumberland; Mr. Jellett, Bembrook; Mr. Bowyer, Petworth; Mr. Munro, South Shields; Dr. Davies, Bridgend; Mr. Bogle, Keswick; Mr. Cole, North Devon; Mr. Walton, Oxon; Mr. Graham, Wigan; Messrs. Macmillan and Bowes, Cambs; Mr. Heywood, Manchester; Dr. Gourley, West Hartlepool; Mr. Sympson, Lincoln; Mr. Graham, Halifax: Mr. Smith, Edinburgh; Miss Maudsley, Liverpool; Mr. Branthwaite, Twickenham; Mr. Challenor, Askam; Mr. Winckworth, Beds; Mr. Bartlett, Liverpool; Mr. Coulson, Birmingham; Mr. Hinckley, Nuneaton; Dr. Windle, Halifax; Tenens, London; Florence; Hackney Furnishing Co., London; N. Y. Z., London; W. H., London; Great Yarmouth Hospital; Circumspice, Clapton; Scapula, Edinburgh; Children's Hospital, Birmingham; R. L. S., Manchester; Royal Albert Edward Infirmary; Medical Officer, Bradford; Practice, London; Queen's Hospital, Birmingham; A., London; J. E. D., London; G., Newton Abbott; M.B., Huddersfield; J. E., London; Alienist, London; Eye Infirmary, Wolverhampton; Equivalent, Bath; Medicus, London; Markwell, London; Alpha, London; Orton, Southampton; Medicus, Ipswich; Physician, London; H. E., London; Kent; Medicus, Margate; Col. B., Surrey; H. G. D., Southampton; L., London; Sister, Stratford; A. B., Liverpool; Ajax, London; W. B., London; Surgeon, Suffolk; Academicus, London; Amicus, Thrapston; W. H. B., Derby; Phalanx, London; Cilia, London; L. T., London.

British Mercury, York Herald, Yorkshire Gazette, Hertfordshire Mercury, Evening Telegraph (Dundee), Weekly Free Press and Aberdeen Herald, Reading Mercury, Surrey Advertiser, Liverpool Mercury, The People's Journal (Forfarshire), Leeds Mercury, Daily Chronicle, Oldham Standard, Western Mail, Bury and Norwich Post, &c., have been received.

Medical Diary for the ensuing Week.

Monday, July 22.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, July 23.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON. Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

Wednesday, July 24.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, July 25.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Friday, July 26.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, July 27.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

SUBSCRIPTION.

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Post Office Orders and Cheques should be addressed to The Publisher, THE LANCET Office, 423, Strand, London, and crossed "London and Westminster Bank, St. James's-square."

ADVERTISING.

Books and Publications (seven lines and under)	£0 5 0
Official and General Announcements	0 5 0
Trade and Miscellaneous Advertisements	0 4 6
Every additional Line	0 0 6
Front Page per Line	0 1 0
Quarter Page	1 10 0
Half a Page	2 15 0
An Entire Page	5 5 0

The Publisher cannot hold himself responsible for the return of testimonials, &c., sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post Offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

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Clinical Lecture
ON
MITRAL STENOSIS.

Delivered at the Brompton Hospital for Diseases of the Chest,

BY T. D. ACLAND, M.D., F.R.C.P.

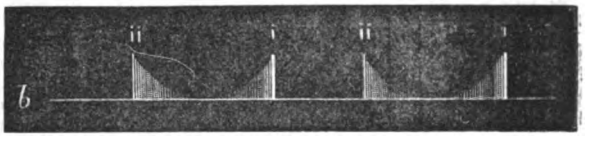
(*Concluded from p. 105.*)

SINCE the time when the diagnosis of mitral constriction became possible, various observers have been active in denying the existence of a direct murmur as distinguished from a regurgitant. Of these the foremost was Dr. Barclay, and he has lately been followed by MacVail, Dickinson, Turner, and others, who have all endeavoured to prove that this so-called direct murmur is, in fact, regurgitant. The main arguments on which this view rests are:—

I. That inasmuch as the pulmonary veins have no valves and no means of closing the outlet backwards, the left auricle could exert but little power in driving the blood forwards from left auricle to ventricle, and that therefore it is scarcely possible that one of the loudest and roughest murmurs heard in cardiac disease could be produced by the contraction of the auricle.[1] To this it may be replied (*a*) that the loudness of a murmur does not by any means bear a constant ratio to the force producing it, but depends on the method of its production and the adaptibility of the instrument to produce particular forms of vibration. This requires little illustration: a familiar example will suffice. Turn an ordinary spring water-tap full on, nothing is heard but the rush of water through an orifice; turn it on so that a minute stream only is allowed to pass, vibrations are often produced sufficient to shake the house. Here the same force precisely is at play; the conditions for producing sonorous vibrations only are altered. A further illustration of this point may be drawn from a very remarkable case of aortic regurgitation, due, as I am inclined to think, originally to the rupture of a valve, which has lately been under my care. Aortic regurgitant murmurs are often softer than a whispered "who"; but in this case B♭ was sounded so loudly and clearly that the patient himself could hear it. Dr. Fowler has recently shown me a similar case in which the murmur could be heard more than three feet from the patient. In both cases there is a well-marked thrill perceptible over the base of the heart. The objection, therefore, raised on this point cannot be admitted; and it may be granted that the mere loudness of the murmur is no argument against its being caused by a feeble force. (*b*) The auricle is spoken of as though, even when backed by competent pulmonary valves and the tension of the whole pulmonary circulation, it were a feeble thing. It must, however, be remembered that even if the murmur were *regurgitant*, the pressure backwards which has to be met before the aortic valves will open must be equal to the pressure in the systemic circulation. But an attempt will be made to prove that the force producing the presystolic murmur is not a feeble one, and that all the conditions are present which would tend to produce a loud, rough, "churning" murmur, such as that which is so often associated with mitral stenosis. The force available for producing a direct murmur is not, as stated by Barclay, only that of a contracting auricle; since a powerful factor in the mechanism of circulation is no doubt the expansile force of the ventricles. It is my belief that the whole secret of the characteristics of the murmur in mitral stenosis depends upon this force, which is, indeed, very considerable. It has been estimated by Goltz and Gaule[2] in the dog at 52 mm. of mercury when the thorax is closed, and 23 mm. when opened. The significance of this is enormously increased when it is considered that the positive pressure of the right ventricle is only 60 mm, so that, in fact, the suction power of the left ventricle, supposing the entrance to it is obstructed, is almost equal to the contractile power of the right ventricle.[3]

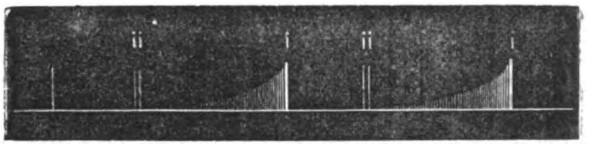
"When the entrance is obstructed" is said advisedly, for the above measurements are taken from the healthy heart, and under conditions where the potential vacuum is immediately occupied by the in-pouring blood; and therefore, except in theory, it does not exist. A similar view of the mechanism of the early and mid-diastolic murmurs is given by H. Rolleston,[4] who summarises his conclusions by saying that while the presystolic is due to a *vis a tergo* of the auricular systole, the early and mid-distolic murmurs result from the *vis a fronte* of the expanding left ventricle and its suction-pump action. As far as it goes this is quite in accord with the opinions expressed above; but it does not go far enough, for early and mid-diastolic murmurs are not diagnostic of mitral stenosis—in fact, are often present when the orifice is even larger than normal. And it should be added that cases are far from infrequent in which the exact rhythm of the murmur depends on the position of the patient. For instance, in K. V—— (Brompton Hospital, 4231), the rhythm while she was standing up was—diastolic murmur, pause, presystolic murmur (Fig. 3*a*); when lying down,

FIG. 3*a*.



characteristic rolling presystolic murmur (Fig. 3*b*) alone wa

FIG. 3*b*.



audible. So that, although the suction force of the ventricle is in all probability concerned in the production of the murmurs, the murmurs are not themselves characteristic of mitral stenosis. When there is an obstructed mitral orifice the pressure in the pulmonary circulation and in the left auricle is high; consequently at the commencement of ventricular diastole there is sufficient blood under high tension, aided by the suction power of the ventricle, to force its way through the obstructed orifice and to fill the distending ventricle, until towards the end of diastole. At this point the auricular systole comes into play, the ventricle tends to expand more rapidly than it can be filled, the auricle contracts, and all the conditions necessary for the production of the loud rough murmur are brought into existence. It is recognised that in the mechanism of its production the presystolic murmur differs from all others. The differences seem to be as follows. Not only is the blood flowing through a constricted orifice, but it is flowing into a cavity which has a constant tendency to expand more rapidly than it can be filled. This explanation of the mechanism, which is not inconsistent with any physical or physiological fact, has been overlooked entirely by Dr. Dickinson, who says "that the current from auricle to ventricle is seldom, if ever, strong enough to give a thrill along with a direct mitral murmur; if a thrill accompanies a mitral murmur, I should regard this as proof that the murmur is due to the action of the ventricle, and is truly systolic and regurgitant."[5]

Some hæmic murmurs, according to the well-known theory, are produced under conditions closely resembling these; only in such cases, the blood is deficient in quantity, and therefore cannot fill up the cavity into which it flows, in consequence of which fluid veins are produced which in their turn give rise to sonorous vibrations. With regard to these undulations, which occur, as a matter of common observation, most forcibly when a fluid is rushing through a narrow orifice into an expanding cavity (cf. filling an ordinary elastic syringe), it should be noted that a thrill very often accompanies the murmurs of aortic regurgitation—i.e., when the blood is flowing back into a cavity

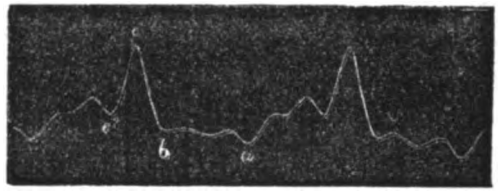
[1] Barclay, THE LANCET, vol. i. 1872, p. 283.
[2] H. Rolleston: The Endocardial Pressure Curve. Journal of Physiology, vol. viii., No. 5, p. 281.
[3] Michael Foster's Text-book of Physiology, fourth edition, p. 151.
[4] The Causation of Mitral Diastolic Murmurs, by Humphrey Rolleston, M.B., St. Bartholomew's Hospital Reports, vol. xxiv., p. 197.
[5] Dr. W. H. Dickinson, THE LANCET, vol. ii. 1887, p. 660.

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in which, during diastole, there is a constant tendency to diminution of pressure. Again, in thoracic aneurysms, there is often a thrill, and probably from the same cause—viz., the blood rushing under the high pressure of an hypertrophied left heart into a large sac with comparatively slack walls, which give opportunity for the development of large vibrations, comparable in their method of production to the *bruit de diable* of Bouillaud. These observations all tally with the accepted fact of the extreme variability of the presystolic murmur, and of its frequent disappearance when the ventricle is feeble; since, if the explanation here given of the production of the murmur is correct, active dilatation of the ventricle is necessary to allow of sufficient amplitude for the vibrations generated at the constricted orifice to produce audible sounds. And if the ventricle expand feebly or less rapidly than the cavity can be filled, the sounds generated by the vibrations produced at the point of constriction are damped, even to disappearing.

The abrupt first sound, which even without the murmur is sometimes diagnostic, often suggestive of mitral stenosis, is closely allied to the same series of phenomena. It is now generally admitted that the first sound of the heart is due to two distinct causes—viz., the ventricular contraction, and the closure of the auriculo-ventricular valves. If this be so, it is to be expected that any cause which would enable the ventricular wall to commence its contraction with more than ordinary rapidity would (supposing the closure of the valves were entirely out of the question) produce a sharper and more rapid sound than is usually heard. Such conditions are found in mitral stenosis; for when there is an obstructed orifice the dilating ventricle tends to expand more rapidly than it can be filled; the intra-ventricular tension is therefore proportionately diminished. It is, however, capable of proof that under increased resistance a muscle contracts more slowly, and, inversely, that under lessened resistance it contracts more rapidly, than under normal conditions. It has been shown that in mitral stenosis agencies are at work which tend to diminish intra-ventricular pressure; it follows therefore as a natural result that, apart from other considerations, conditions exist in the heart for producing a short, sharp first sound. That the systolic snap is in part thus produced has been suggested by various observers—Fagge, Mahomed, and Broadbent. It may be concisely stated in the words of the latter.[6] "The muscular walls at the first moment of contraction meet with less resistance, and, acting more rapidly, are suddenly brought up and made tense at the moment when resistance is encountered, so producing the sharp first sound....." That this is actually one of the causes of the first sound is in some degree borne out by the fact that in hypertrophy of the left ventricle from aortic regurgitation the first sound becomes long and booming; in dilatation it becomes short and sharp; and in palpitation the brevity of the diastolic interval does not give the ventricle time to fill, and a similar result is effected. With regard to the sharpness of the first sound being in part due to the closure of the auriculo-ventricular valves, it is admitted that the tension in the pulmonary vessels is greatly increased when there is obstruction at the mitral orifice; the tricuspid valves tend therefore to close more sharply than in health. It is not urged that it is impossible for a sharp sound to be produced by the closure of the rigid funnel into which the orifice is often transformed, for in many cases it may be proved after death that the valves have come together with sufficient accuracy to prevent regurgitation, from the fact that their thickened edges are often facetted, and that water injected into the ventricle cannot make its escape. When the valves can come together, the tendency would be entirely for them to close more sharply; since, instead of the curtains floating out from the ventricular walls with plenty of blood behind them to bring them together at the moment of the commencement of systole, they stand out hard and rigid, and, coming together with a shock which is proportionate to the sharpness of ventricular contraction, cause a loud snap, such as may often be produced by suddenly turning off a water tap. If the rapidity of ventricular contraction in uncomplicated mitral stenosis *is* increased, it should be easy to show by the cardiograph that when the first sound is sharp and loud the ventricular contraction is short, and when the first sound is long and booming the ventricular contraction is lengthened. The annexed cardiograms, most kindly taken for me by Mr. C. J. Martin, to whose kind help I am much indebted, explain themselves. The one (Fig. 4) is from E. M——, suffering from mitral

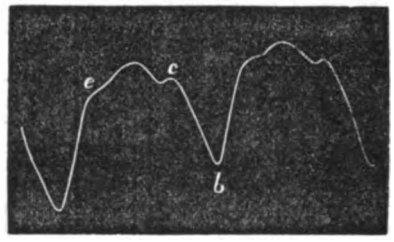
FIG. 4.



a b, Auricular systole. *b c*, Ventricular systole.

stenosis; the other (Fig. 5) from J. W——, suffering from

FIG. 5.



e, End of ventricular systole.

aortic incompetence. These cardiograms will be spoken of more at length further on.

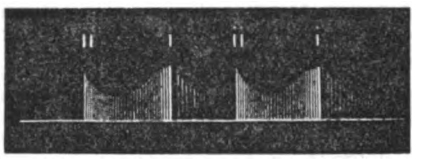
The various phases which are possible in a case of mitral stenosis make it probable that the view I have expressed as to the part taken by the diastole of the ventricle in the production of the murmur is correct. When the obstruction is slight, the murmur occurs only at the end of diastole and during auricular systole, and the snap is not so loud as in the second phase, where the obstruction is greater, and the tendency to diminished intra-ventricular tension therefore increased. In the last phase the nutrition of the ventricle is much impaired; its suction power is therefore greatly lessened. It is under such circumstances that the murmur is sometimes entirely absent, and the snap very feeble.

The extreme variability of the murmur is well known; for when the action of the heart is excited, or the ventricular beat becomes stronger under the influence of treatment, a murmur appears which was inaudible before; and conversely, when from any cause the heart's action becomes feeble, a murmur which had previously been clearly audible disappears. Thus it would seem that the presence or absence of the murmur is directly dependent on the power of the ventricle; and from the facts adduced it would seem probable that it is the suction power of the ventricle, and not its contraction, that gives the peculiar character to the murmur in mitral stenosis.

Thus far on physiological grounds an attempt has been made to prove that there are ample reasons for believing that the murmur in question is produced, at least in a large measure, by the suction action of the ventricle, and that, if this is so, a satisfactory explanation can be given of its roughness, of the thrill, and of the sudden termination of the first sound.

II. The second argument which is brought by those who deny the existence of a presystolic murmur to show the impossibility of this murmur being an obstructive one is, that were it so, when a regurgitant murmur is present as

FIG. 6.



well, there must be an interval between the two, and that if there is no interval between them to mark the change of direction of blood-flow it is impossible that any such change can be taking place. To this the reply is simple, for in the first place there often is an interval between the

[6] Dr. W. H. Broadbent, International Journal of the Medical Sciences, 1886, p. 68.

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two murmurs, as in the case of J. F——, in the Brompton Hospital, Victoria ward (Fig. 6), where there existed mitral stenosis and incompetence, and a very loud rolling presystolic murmur, followed after a distinct interval by a soft, high-pitched, systolic whiff.

Again, if it be true that the sharp snap takes place in consequence of the contraction of the ventricle on the blood, which does not yet entirely fill the ventricular cavity, as well as to closure of valves, it is not remarkable that the direct (presystolic) murmur should only be suddenly terminated by the rise of intra-ventricular pressure closing the valves and putting an end to the flow of blood from the auricle. That this is a reasonable view may be allowed from the fact, which is acknowledged by all, that there is a tendency for more blood to collect on the right side of the heart than can in the given time gain entrance to the left ventricle. There is also a tendency towards the incomplete filling of the left ventricle, which does not seem to be due to the fact that there is a want of *vis a tergo* to send the blood forward, for the auricle is often much hypertrophied, but that the time requisite for filling the ventricle is too short, and is terminated by some superior force which closes the aurifice entirely, and puts an end to the auriculo-systolic phase of the heart's cycle. This force, it seems probable, is the ventricular contraction.

Dr. Dickinson, and those who agree with him, maintain that the sharp sound which terminates the murmur is due to the fact that "the mitral orifice is constricted; that the valve, nevertheless, allows of regurgitation during the first part of the systole, while it is able to close as the systole proceeds, so as to stop regurgitation towards the end of that movement. The mitral valves are often converted into a mere funnel of stiff fibrous tissue; but with the advancing contraction of the ventricle they come together, late, rather than never, and with their closure make the short sharp sound which replaces the normal first sound. The essential features of the so-called presystolic murmur are therefore mitral regurgitation followed by mitral closure. In support of the view I have presented" (Dr. Dickinson's own words are being quoted), "I might adduce much evidence to the effect that, when the so-called presystolic murmur has been heard during life, after death it has been found, first, that the mitral orifice was contracted, and, secondly, that the valve was capable of closure."[7] This latter statement would meet with general acceptance, with the proviso only that, if the valves had *not* been capable of closure, a systolic as well as a presystolic murmur would probably have been heard.

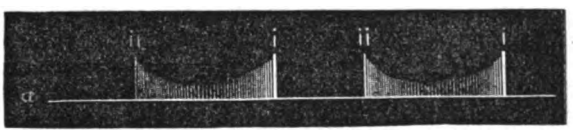
These arguments, however, that the presystolic murmur is really systolic, may be rebutted on two grounds—the physiological and the clinical. Taking the latter first, it is difficult to understand how the murmur in dispute can be systolic if it be true that the snap is caused by the closure of the valves in the middle of systole; because, if this were the case, there should be *no* snap of the valves when there is regurgitation as well as obstruction. But this snap is often clearly present, as in the case of J. S—— (Brompton Hospital, Dr. Roberts), in which there are mitral stenosis and incompetence, and in which the murmur varies very much with position, but is generally a long rolling presystolic murmur, terminated by a snap and followed by a long systolic whiff; and in the case of J. F——, already referred to (see Fig. 6). Neither should the character of the murmur alter, as undoubtedly it does, from a rough purring murmur to a soft whiff, with a well-marked interval between, but should be of the same character all through; whereas, if the explanation of the causation of the murmur and of the snap given above is true, all the physical signs follow almost as a matter of course.

Again, it is admitted that in mitral stenosis the blood-supply to the left ventricle and to the systemic circulation tends to be deficient and the arterial tension inclines to be diminished; but if really the murmur of mitral obstruction is regurgitant, the length of the ventricular systole would be increased, because under ordinary circumstances the carotid pulse immediately follows the first sound; but in cases of mitral obstruction the long rolling murmur precedes the termination of the apex beat and the carotid impulse, and its length must therefore be added to the time usually occupied by the ventricular systole. The carotid pulse is evidence that the contracting ventricle has overcome the inertia of the systemic circulation. It is reasonable therefore to suppose that when the ventricle is acting at a disadvantage—as, for instance, when there is much regurgitation through the mitral orifice,—the commencement of systole would precede the carotid pulse by a longer interval than when the valves are competent. In the former case part of the force of the contracting ventricle must be expended in driving the blood backwards, and if this be the case, the greater the narrowing of the mitral orifice, and the less therefore the chance of regurgitation, the less would be the interval between the commencement of systole and the carotid impulse. Let it be granted, however, for the moment that the "presystolic" murmur is caused by regurgitation, and that the snap is due to the closure of the valves after the commencement of systole; the carotid pulse, as a matter of observation, follows the snap, and is therefore delayed long after the commencement of ventricular systole, and takes place only when the margins of the damaged orifice come together. On the other hand, in a case of simple regurgitation, the carotid impulse follows immediately on the commencement of the systole, and although regurgitation is going on all through the systolic period, and the valves do not ever completely close the orifice, the carotid pulse is not delayed appreciably. This fact alone is a powerful argument both against the presystolic murmur being in reality regurgitant, and against the "snap" being other than the commencement of systole.

Again, it is acknowledged that the tension in the right heart is increased, and that the tricuspid valves have an extra strain thrown on them which at times leads to regurgitation. If it were true that the snap was due to the closure of the valves at a period after the true commencement of systole, equal to the length of the presystolic murmur, it ought to follow that the sharp closure of the tricuspid valves should take place at the commencement of the murmur, when, according to this view, ventricular systole begins; and that the closure of the mitral orifice, being delayed by the stiffness of the valves, should follow it, but separated by the length of the murmur. There is no evidence that this does actually occur, but it seems that the right and left ventricular systole are synchronous. From this it follows: (*a*) that the snap is at the commencement of systole, as on other and entirely different grounds has been shown to be probable; (*b*) that the murmur which precedes it is "presystolic."

Supposing, again, the murmur of mitral stenosis to be regurgitant, it follows that, unless the relations of the normal cardiac cycle are very much disturbed, the diastolic interval would be just so much shortened as the systole is lengthened, which put into plain English comes to this: the contracting venticle, having less to do, takes longer to do it; and the auricle, aided by the expanding ventricle, having more to do and greater difficulties (in the shape of obstruction) to overcome, takes a shorter time, which seems wellnigh incredible. The argument may be reduced *ad absurdum*, for practically the whole diastolic interval is frequently occupied by the murmur due to the obstructed orifice. As may be heard in the case of V. C—— (Fig. 7)

FIG. 7.



(Brompton Hospital, Dr. Roberts), where there is a diastolic ending in a long rolling presystolic murmur. In such cases it follows either that the ventricle is filled during its systole, which is impossible, or that in spite of the obstruction the auricle can fill the ventricle instantaneously at the commencement of the diastolic period, which is contrary to all that is known of cardiac pathology or physiology.

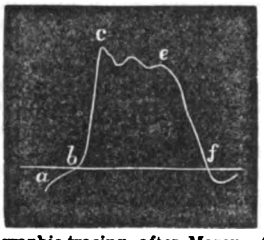
It has been frequently shown by cardiographic tracings taken from cases of mitral stenosis that the diastolic period, instead of being reduced to a minimum and the systole prolonged, the contrary is the case, and that the diastolic period is more prolonged than in ordinary health. The extent to which cardiographic tracings can be used in evidence of the true rhythm of the murmur in mitral obstruction does not as yet make it possible to record with certainty the exact period during the cardiac cycle at which a murmur commences and ends; although recently an elaborate attempt has been made to do so by Dr. Byrom

[7] Dr. W. H. Dickinson, THE LANCET, loc. cit.

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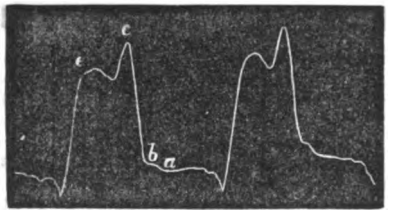
Bramwell and Dr. Milne Murray.[8] The experiment with a piece of cork and a pin made by Dr. Dickinson may be disregarded, owing to the fact that Professors Marey, Galabin, and Landois, all skilled observers, agree that the auricular contraction is represented in the cardiographic tracing; and nearly all cardiograms from cases of mitral stenosis show a rise before the commencement of ventricular systole, as may be seen on the cardiograms (Figs. 4, 10). Rolleston's objection to this, based on endo-ventricular tracings, is not of much weight, since obviously endocardial tracings are not only taken under entirely abnormal conditions, but they are not the tracings of the apical beat, which is of necessity that from which the cardiogram must be taken for clinical purposes. Marey, unfortunately, in his classical work, "La Circulation du Sang," 1881, had not appreciated the murmur which is here designated presystolic, due to the narrowing of the mitral orifice, and he calls the murmur of mitral stenosis "diastolic," and says, in conclusion, it is not known what modifications narrowing of the mitral orifice is able to impress on the cardiac pulsation. Galabin[9] sums up the result of his observations by saying that it appears "that the evidence of the cardiograph is in favour of the view that two totally distinct murmurs may be caused by mitral contraction: first, the auricular systolic bruit, which may either run up to the first sound or be separated from it by a short interval; and, secondly, a diastolic bruit due to venous flow through the roughened and narrowed orifice, which in rare cases may be blowing in character and separated from the succeeding systole by a long pause; and that, thirdly, these two may be merged together into a compound murmur, somewhat rough from its commencement, but much intensified in loudness and harshness towards its conclusion." He further adds, as the final sentence of his paper, that he has "not yet met with any cardiograms which seemed at all to indicate that the auricular contraction had been transferred in rhythm to the preceding ventricular systole, and so formed the termination instead of the commencement of each revolution of the heart," as would, in fact, be necessary, supposing the murmur to occupy the whole diastolic period, and to be caused by auricular contraction alone. Dr. Galabin expressed his belief that almost all cardiograms of mitral stenosis absolutely contradict the theory that the murmur and thrill occur during ventricular systole. Marey has shown, by

FIG. 8.



Normal cardiographic tracing, after Marey. (Fredericq: Trace Cardiographique, 1887, p. 84.) *a b*, Auricular systole. *b*, Commencement of ventricular systole. *e e*, Duration of ventricular systole. *f*, Closure of the aortic valves. The letters given in all the tracings have the same significance.

FIG. 9.

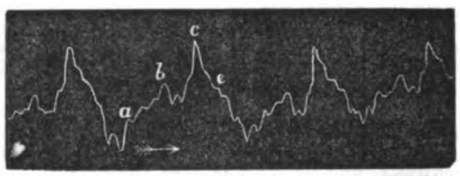


Normal cardiographic tracing from F. O. P., labourer. (Brompton Hospital.) Powerfully acting heart. No evidence of disease.

simultaneous tracings, that normal auricular systole ceases before that of the ventricle commences; and, in looking at the healthy cardiographic tracing, it is seen that the auricular elevation (Figs. 8 and 9, *a b*) does not lead gradually up to the main ventricular elevation, but is separated from the main up-stroke by a slight fall. Marey has shown that the actual commencement of the apex beat almost exactly coincides with the commencement of ventricular systole, and, if the muscular contraction has anything to do with the production of the sound, is synchronous with the commencement of the first sound of the heart.

In cardiographic tracings from cases of mitral stenosis there is seen a long irregular elevation, which is succeeded by an up-stroke quite sudden and distinct from the first part of the curve, and not shorter than might be expected from a small ventricle[10] (Figs. 4, 10), and thus the utmost probability is given to the view that the murmur of mitral stenosis occurs during ventricular diastole and auricular systole. It is clearly shown, apart from all theories, that the phase of elevation due to ventricular contraction is not lengthened (Figs. 4, 10), while the diastolic interval (Fig. 4) is in many cases remarkably so.

FIG. 10.



Cardiogram, from a case of mitral stenosis. (Galabin, Guy's Hospital Reports, 1875, p. 314, Plate iii., Fig. 19.) The fall after *b* shows the interval between a presystolic murmur which occurred before *b* and a systolic murmur which followed the apex beat. "In this case murmur and thrill extended over the whole cardiac revolution except the short interval just preceding the systolic bruit."

These facts are entirely in accordance with the views here expressed, for which little claim to originality is made, but which have in some points been amplified—viz.: (*a*) that the murmur of mitral stenosis occurs during the diastolic period; (*b*) that it is not always or solely auriculo-systolic; (*c*) that its essential characteristics are due to the fact that the murmur is produced largely by the suction of the ventricle and the passage of blood over a rough surface into an expanding cavity; (*d*) that the snap is not due to the sharp closure of the thickened valves during the systolic period; (*e*) that it is due to the increased rapidity of ventricular contraction, coupled with increased sharpness of closure on the part of the tricuspid, and at times also of the mitral valves.

ABSTRACT OF

Three Lectures

ON

TUBERCULOSIS IN SOME OF ITS SURGICAL ASPECTS.

Delivered at the Royal College of Surgeons,

BY HOWARD MARSH, F.R.C.S.,

HUNTERIAN PROFESSOR OF SURGERY AND PATHOLOGY, ROYAL COLLEGE OF SURGEONS; ASSISTANT SURGEON AND JOINT LECTURER ON SURGERY, ST. BARTHOLOMEW'S HOSPITAL.

LECTURE I.

LITTLE was known of the true nature of tuberculosis until Koch, in 1882, announced his discovery of the bacillus tuberculosis. Since this date Koch's investigations have been confirmed by numerous test experiments which have been performed. But, great as this discovery was, it carried with it no final result. It remained to gain a knowledge of the life history of the bacillus, to study its behaviour in the different tissues, and to ascertain how its development might be prevented and its progress arrested. Upon these questions much labour has been expended, and numerous facts of the highest importance have been

[8] Method of recording the exact relation of Cardiac Sounds and Murmurs. British Medical Journal, vol. i. 1888, p. 10.

[9] Guy's Hospital Reports, 1875, p. 309.

[10] Galabin, loc. cit.

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ascertained in regard to the morbid anatomy of the affected tissues, the development of the bacillus under cultivation, the methods by which infection may occur or be artificially produced, the liability to general infection from local sources, and the effect of inoculation with the bacillus, of different species of the lower animals. In these directions the knowledge obtained is sufficient to form a sound basis for reviewing tuberculosis from a clinical point of view. It is to this branch of the inquiry—which, however, I must necessarily limit to a consideration of the disease as it is met with in surgery—that I would direct attention. I have chosen this subject because the treatment of tubercular disease of the large joints is still an open question. And it is one which can be settled only by full discussion and the analysis of a large number of clinical cases. The question, indeed, is one which—though it may be advanced—cannot be settled by the application of data drawn from the biological laboratory. The only safe guide must consist in facts which are the direct outcome of clinical observation; and whenever clinical facts are found in conflict with inferences drawn from microscopic anatomy or experiments on the lower animals, these clinical facts must carry the day. But although the bacillus is the essential cause of tuberculosis, the element of fitness of soil is highly important. The chief facts respecting fitness of soil may be studied in the exanthemata—e.g., scarlet fever. 1. Here an appropriate soil is originally present in the great majority of individuals, so that infection follows exposure; yet some possess a complete immunity, while others who have long escaped are at last attacked. 2. Liability is usually exhausted by a single attack. In other cases, however, a second or even a third attack occurs, either because the material constituting fitness was not exhausted by the first attack, or because it has subsequently been reproduced. This renewal of liability is well seen in the return of liability to small-pox, which occurs some years after vaccination. 3. The immunity secured by an attack of scarlet fever refers only to that particular disease. To the other exanthemata the individual is as liable as before. Indeed, there is nothing more remarkable in pathology than the fact that scarlet fever, measles, small-pox, &c., as they severally follow each other, produce some change in the individual which confers immunity from each disease in turn, so that, without any other appreciable alteration, the individual undergoes a series of five or six changes in respect to fitness of soil each one of which renders him proof against a highly infectious disease.

This brief review of the subject will remind us that the question of fitness of soil, or, in other words, of individual liability, is very obscure. We see influences at work which are at the same time powerful and subtle. But what their exact nature is, on what elements they act, or in what the changes which they effect consists, we are unable to say. It is clear, therefore, that any views we adopt must be arrived at with caution, and only after evidence has been fully examined. Now, as to a fitting soil for tuberculosis, certain conditions are well known to promote it. But these must be carefully estimated.

1. *Inheritance.* This may be very powerful. Thus of the four children descended from a father and mother who both died of phthisis, one died of caries of the spine, and the remaining three of hip disease. Yet the effect of inheritance on tuberculosis is often much over-stated. With adequate treatment recovery so frequently occurs, in spite of strong family history, that the fact that a patient comes of a highly tubercular stock need not prevent our anticipating a perfectly sound recovery. Thus a child, several of whose relatives were phthisical, and whose brother had died of hip disease, herself developed disease of the hip. Yet, treated at once, she recovered with only a slight limp, due to muscular wasting, the joint being freely movable. In another case, a girl, whose brother had died of caries of the spine, whose mother died of phthisis, and of whose family several other members were tuberculous, was attacked with spinal caries. She was laid up for two years, and perfectly recovered, is now married, has three children, and is in good health.

2. *Defective hygienic surroundings* promote tuberculosis. Happily, however, the converse is true: that many cases make a perfect recovery from distinctly marked tubercular disease, where favourable conditions are secured—as, e.g., when a patient moves from close quarters in a town into a fresh, dry air, or takes a long sea voyage.

3. The influence of *age* on tuberculosis deserves careful attention. The facts to be noted are: (*a*) Surgical tuberculosis—diseases of the joints, spine, cancellous bone, and lymphatic glands—begins, in the great majority of cases, between the ages of three and nine. After this period, although these affections undoubtedly occur, they become more and more rare as age advances. (*b*) Experience clearly shows that, as a very general rule, the active period of these affections is limited in duration; in other words, *transitory.* It extends, broadly speaking, over from two or three to five or six years, and lies somewhere between the ages of three and nine. It is during this period that surgical tuberculosis most frequently sets in, and shows a strong tendency to advance; but when this time has elapsed there are numerous cases in which no further outbreak occurs, and and in which sound repair takes place and no relapse is observed. These conclusions are illustrated by such cases as the following. A boy aged three developed subacute tuberculous inflammation of the knee. For the next three years the joint was mainly kept at rest, but he sometimes walked on it. The disease slowly advanced. He then came under my notice, and the joint was enclosed in leather splints and complete rest was maintained. For two years the joint slowly improved, but there were relapses. He also had enlargement of the cervical glands. This was at times considerable, but would then subside and subsequently return. He had, also, disease of the left elbow. For this leather splints were used, and the joint recovered with free movement in six months. When he was nine, and when the knee had been diseased for six years, the joint improved remarkably. It became uniformly cool, all swelling subsided, and perfectly free movement was ultimately regained. It seemed evident that in this boy the tubercular period lasted about five years. For the past four years he has been in excellent health; the joint is fully movable and free from any sign of relapse. A boy, whose father had hip disease in early life, had inflammation of the left hip when he was five. A year later, when I first saw him, the symptoms were flexion, adduction, stiffness, and brawny swelling. At first weight extension in the line of the limb was used, later a Thomas's splint, and then he had crutches and a high boot on the sound side. The joint slowly improved, but between the ages of six and eight the cervical glands were several times enlarged, and many of them suppurated. At the end of this time the glands had recovered and the hip affection had subsided. He is now sixteen, he has had no relapse, the joint is freely movable, and no trace of lameness remains. This experience of the transitory nature of tuberculosis is certainly not novel. Everyone has seen cases in which, after long-continued and destructive disease of the spine or a large joint, the tuberculous process has ceased and the patients have recovered, and remained for years afterwards in perfect health. An important point in regard to age in tuberculosis is that, while surgical tuberculosis is most common between three and nine, tubercular phthisis is most common at a different period—i.e., between fifteen and twenty-five. So that these two forms are separated from each other by an interval of between five and fifteen years. Indeed, it is remarkable how seldom the two are met with together. At the Alexandra Hospital, with seventy hip cases always under observation, phthisis is very rarely met with; while, on the other hand, Dr. Douglas Powell tells me that among the patients with phthisis at the Brompton Hospital tuberculosis of the spine and joints is scarcely ever seen.

4. Another influence promoting the growth of the bacillus tuberculosis is *inflammatory action.* This is seen when phthisis follows catarrh of the pulmonary mucous membrane, when tubercular disease develops after gonorrhœal epididymitis, and when joint or spinal disease ensues after slight injuries. It is clear, also, that the tuberculous process advances while inflammatory action is in progress, and recedes when inflammation is arrested. This is seen every day in cases of tuberculous disease of the joints and the spine.

Thus the various influences I have mentioned have an important bearing on the course of tuberculosis. We see that the bacillus is dependent for its vitality and maintenance on conditions which are either in their nature transitory or which can be counteracted or removed, and that when these conditions are withdrawn the bacillus perishes and the tuberculous process comes to an end. This point reached, tubercle becomes a mere *corpus mortuum*, and is either absorbed or gives rise, as any other "sequestrum" might, to an abscess, with the evacuation of which

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it is swept clean away, or is got rid of more gradually by continued suppuration, a process often to be observed in lymphatic glands. These views, so contrary to the opinions which some observers entertain, may be illustrated by one or two typical cases. The first is that of a girl of tuberculous family, whose father died, aged thirty, of phthisis accelerated by intemperance. She had hip disease when she was four. She was treated by weight extension for two years, and was then supplied with crutches and a high boot. At the age of eight an abscess suddenly formed under the tensor fasciæ femoris. Two ounces of pus were removed with the aspirator. The abscess never refilled. The patient, now twenty, has had no relapse, is constantly on the limb, and walks with scarcely a limp. In this case the tuberculous process ceased under rest; the tubercle was, no doubt, in part absorbed, and the remainder was swept away in the abscess. In another case, a girl aged seven had tuberculous disease of both knees. Both joints suppurated for several months, and then the sinuses closed. She recovered, with perfectly free movement. Here the necrotic tubercle was gradually removed by the suppurating process. This girl has been well for eight years, and walks and runs without a trace of lameness. But some cases show that, even when the conditions are highly favourable to the continued formation of tubercle, the process may die out and come to an end. A boy aged five had hip disease. Two years later there was free suppuration. This continued for many months, and was attended with high temperature and lardaceous disease. Excision was precluded by the burrowing of matter far down the thigh and by his exhausted state. Nor was it thought that he could bear amputation. The disease was therefore regarded as incurable. But very shortly afterwards he suddenly began to improve. In four months all his wounds were healed. He steadily recovered, and the lardaceous disease passed off. He is now quite well and walks with little limp; the joint is fixed, in a position of slight flexion and adduction. In this instance, I believe, the tuberculous process had long ceased, but suppuration continued profuse until the necrotic material had been got rid of. This eliminative process nearly cost the boy his life. But when it was complete, suppuration ceased and sound repair followed. In phthisis, even when a cavity has formed, the tuberculous process may, under favourable conditions, be arrested, and then, during a period of copious expectoration, the caseated tubercle is coughed up and sound healing occurs. Again, it is now well known that, in cases of tuberculous peritonitis which have even gone on to suppuration, laparotomy and draining of the peritoneal cavity may be followed by evacuation of all the tubercle that has been deposited and by complete and permanent recovery.

I believe that such cases as I have related—and which I submit, not as rare and exceptional, but as strictly representing the course of tuberculosis under favourable circumstances—show that the disease is by no means inveterate or beyond control. They are evidence that the bacillus often for want of an appropriate soil dies out. They show, in other words, that, instead of being tenacious of life, the bacillus is perishable and often short-lived; so that, in a large number of cases, its action entirely ceases. And when this is the case, and when its products have been got rid of, either by absorption or by suppuration, the tissues undergo sound repair. Holding these views regarding the course of tuberculosis, I turn to the question of treatment. The treatment of tuberculous joint disease has till lately been pursued under considerable disadvantages. First, it has been prejudiced by the tradition that these affections are little better than incurable. Secondly, the cases are so tedious that it is difficult to watch an adequate number of them to a conclusive result, or even to secure the requisite period of treatment. Thirdly, it is only recently that operative treatment has been so much improved that results hitherto unlooked for have been obtained. Fourthly, treatment of whatever kind has been subjected to the drawback that the cases have been often far advanced when it is brought to bear upon them. Under these circumstances it was inevitable that two main lines of treatment, widely divergent from each other, would be adopted and worked out: the one founded on the principle of removing all the structures involved in the parasitic growth by free excision of the joint; the other consisting of placing the joint under conditions most favourable to the arrest of the tuberculous process, so that the joint might be ultimately saved. The question which of these two methods is right is still under discussion. While some surgeons strongly advocate early and free excision, the great majority do all they can to avoid this operation. It is important, alike to the patients concerned and to the progress of surgery, that a definite conclusion should be arrived at as soon as possible. This subject will be discussed in the next lecture.

LECTURE II.

The principle upon which the operation of excision rests is easily grasped It is the cutting away of a part instead of the cure of the disease in which the part has become involved. It is like removing the eyeball or the testis instead of curing the disease by which these organs have been attacked. Of course this treatment may be the best that can be adopted. But it is, at all events, a method which should be reserved for cases in which it is believed that no means of less severity will suffice. It was undoubtedly a great advance in conservative surgery when, forty years ago, Sir Wm. Fergusson and his contemporaries introduced excision as a substitute for amputation in the treatment of diseases of the joints. But, although excision has thus had the important effect of largely diminishing the number of amputations for joint disease, it rests upon a principle which many confidently anticipate is only a link in the chain of progress.

The following are the grounds on which excision is recommended. Mr. Croft holds that when there is fluid in the joint antiseptic incision should be made, as if the surgeon intended to excise, and he should only desist on finding the articular structures in a condition from which they could rapidly recover and yield a movable joint. When pus is known to be present, even if the surgeon is uncertain as to the condition of the joint, he should excise. If the surgeon is certain that necrosis has occurred, he should decidedly excise. Mr. Barker, in his lectures here last year, remarks: "It is most important to draw the clearest distinction between the liquefaction of caseation and true suppuration, not only as an abstract pathological axiom, but also for practical purposes. If a surgeon adopts the view that no operation is proper until suppuration has taken place in the tissues of a joint, he will always operate in very advanced disease. Tubercular affections are not associated with true suppuration, except in what may be called an advanced stage, so that if the surgeon waits till it is present much valuable time will have been irrevocably lost. But if the rule is made to operate as soon as there is evidence of the commencement of caseation, the conditions of operation are totally different. We shall be interfering in such a case relatively early, with all the consequent advantages. We must, therefore, in the future, watch for and endeavour to recognise early the doughiness of commencing caseation, rather than wait for the distinct formation of suppuration." And further on he says: "I venture to think it would be a wholesome rule that in cases where general tuberculosis does not contraindicate it, the infected tissues of a joint should be thoroughly removed as soon as it is suspected that caseation is advancing in it." Thus Mr. Croft would excise as soon as matter has formed, even without making himself certain as to the condition of the joint; while Mr. Barker would not wait for suppuration, or for a certainty that caseation has commenced, but he would operate as soon as he even suspected that this condition has set in. I think I am right in saying that Mr. Barker founds his views mainly on the nature of the tubercular process; for after remarking that, in the manner in which the disease spreads by continuous infection through the lymphatics and by entrance into veins, it offers a close parallel to the modes of generalisation of the so-called malignant neoplasms, he adds: "Indeed, there is much to justify our regarding tubercle in the light of a malignant growth, and our dealing with it accordingly." This appears to me to define his position in a single sentence, for every surgeon agrees that malignant disease should be freely removed as soon as its presence is detected. But, secondly, Mr. Barker dwells on the danger that, unless the local centre is removed, systemic infection may occur and general tuberculosis be developed. I propose to examine these arguments for early excision and the evidence on which they rest.

1. The view that there is much to justify our regarding tubercle in the light of a malignant disease, and our dealing with it accordingly, is, I think, derived from two considerations—(*a*) that tuberculosis is now known to be

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due to the presence of a parasitic organism, and (*b*) that the disease so often runs an inveterate and destructive course. The fact, however, that a parasitic growth is present offers no indication that the disease is inveterate. Some parasitic micro-organisms are virulent and persistent in their action, while others are comparatively innocuous and short-lived. But it may be urged that a full warrant for regarding tubercle in the light of a malignant growth is found in the post-mortem room. I quite allow that some of the evidence here met with points in this direction. But such evidence must not be taken alone, for it is, in fact, indirect and inconclusive, and must be kept subordinate to the evidence derived from a careful clinical observation of a large number of instances of tuberculous disease, the great majority of which happily escape the post-mortem room. Such evidence I shall appeal to further on to show that tuberculosis is neither inveterate nor intractable, but that under favourable circumstances numerous examples of it result in sound repair. But the post-mortem room itself affords conclusive evidence that the tubercular process is often entirely arrested. This is the case in those numerous instances in which cicatrices are found in the lungs, the glands of the posterior mediastinum, and other parts. A very interesting paper confirmatory of these views was lately read before the Islington Medical Society by Dr. Sansom,[1] who, after an analysis of twenty cases in which he was satisfied that phthisis had been arrested, expressed the opinion that the bacillus of tubercle has a tendency to die out like other germs when placed under unfavourable circumstances. And a writer in THE LANCET, in reviewing this paper, reminds us of the following words of the late Dr. Hughes Bennett: "The careful dissections of morbid anatomists have recently shown that this arrestment (of the deposit of tubercle) really happens with extreme frequency"—as frequently, Dr. Bennett himself believed, as in one-third to one-half of all the individuals who die after the age of forty. As to the estimate of the inveterate nature of tuberculous disease which has been formed from clinical evidence, I may say at once that it urgently requires revision. Old statistics must be thrown aside, and present estimates must be derived from a critical examination of present results. In the instance before us it is necessary to take a comprehensive survey of these cases in their early as well as in their advanced and aggravated stage; to take into account those in which adequate treatment has been applied, as well as those which have been allowed to go on from bad to worse practically without treatment; and then to sum up and weigh the evidence afresh. I shall offer some figures bearing on this subject in the next lecture.

2. As to the view that early excision should be performed in order to avert the occurrence of systemic infection. I do not for a moment question the pathological doctrine of the production of general tuberculosis through the diffusion from a local source of tuberculous material along the lymphatics and the venous system. Such a result is, I believe, far from rare in children in whose bronchial glands tuberculous deposit occurs after whooping-cough or prolonged bronchitis. Many children, under these circumstances, die of tubercular meningitis, and, on post-mortem examination, their internal organs are found loaded with recent tubercle. Nor do I question that systemic infection may take place when it is one of the joints that is the seat of the primary deposit. I am fully persuaded that it does. But the point to estimate is in what percentage of cases does systemic infection occur? My own conviction is that its frequency, in proportion to the total numbers of cases of local tuberculosis, has been greatly over-estimated. That infection from the joints is comparatively rare becomes evident when a sufficient number of cases are examined. For example, the cases treated in the Alexandra Hospital for Hip Disease between 1867 and 1879, and which were tabulated by the Clinical Society in 1880, show that in 260 suppurating cases in which no operation was performed there were 16 deaths (i.e., 6·15 per cent.) from tubercular meningitis—in other words, from acute general tuberculosis; and in 124 non-suppurating cases there had been 7 deaths (i.e., 5·6 per cent.); while a careful analysis of cases treated in this hospital since 1880 shows that the mortality from general tuberculosis has fallen to less than 5 per cent.

In forming an estimate of the frequency of general infection, we may also examine Mr. Croft's 45 cases, and Mr. Wright's[2] 100 cases of hip disease treated by excision; for in a large proportion of these 145 cases the disease was well advanced before the operation was performed, and after the operation convalescence was in many retarded, so that the conditions favourable to general infection were present for a considerable period. In Mr. Croft's 45 cases, although the total mortality amounted to 35·5 per cent., the mortality from tubercular meningitis was only 4·4 per cent. While in Mr. Wright's series of 100 cases, although several patients died of tubercular disease, there was apparently only one case of acute general infection. From these figures it appears that, although the possibility of general infection from a tubercular joint is a distinct element of danger, the risk is so small that it cannot be regarded as affording any substantial support to the practice of early excision. For let us grant that in every hundred cases of tubercular joint disease going on to caseation there are five in which systemic infection will occur. This means that in every twenty children one will fall a victim, and that the remaining nineteen will escape; or, to state it otherwise, that the chances of escape in any given case are twenty to one in the patient's favour. The question therefore is, are we justified in resorting to excision in twenty cases in order to rescue the one case in which general infection would otherwise occur? Are we justified in excising the joint of a patient in order to avert the danger of general infection when the chances that he will escape are already twenty to one in his favour? I believe we are not. This seems to me to be the proper view to take even if there was a certainty that the operation could be performed in such a way as to ensure (*a*) that no tubercle should be left behind, and (*b*) that there was no other deposit from which infection might still occur. But there is no guarantee on either of these points. In the first place, no one can tell that he has removed all the tubercle in the neighbourhood of the joint so that none remains as a source of infection, or be sure that the joint which he excises includes all the tubercle that is present in the body of the patient.

There is, however, a further and very important matter to be taken into consideration. This is the fact that the operation of excision may precipitate the very result it is intended to prevent. Mr. Barker points out that cases have occurred amounting, according to the figures which he quotes, to no less than 10 per cent. of the total number of deaths, in which, after the operation, "rapid general miliary tuberculosis supervened in such a way as to suggest strongly, if not to prove, that the surgical interference was the exciting cause of the generalisation of the disease"; and he adds, "I cannot help feeling, after careful study of large masses of statistics, that, if it were possible to analyse them more accurately, this percentage would be still higher." I have myself seen this result of operation in a few cases. I should, however, say, from my own experience, that this rapid generalisation after operative interference is much less common than Mr. Barker thinks it is; and I notice, in confirmation of this view, that in Mr. Croft's 45 cases of excision of the hip there was no instance of it, and in Mr. Wright's 100 cases of excision of the hip there was only a single example (No. 63); in this case the patient died of general tuberculosis and tubercular meningitis two months after the operation. Still, whether it is rare, as I believe, or common, as Mr. Barker holds, it is a danger which those who often resort to excision must be prepared to encounter.

Thus, after carefully weighing the evidence we at present possess respecting systemic infection from tubercular joints, I am led strongly to the conclusion that the number of cases in which it takes places is so limited that the prospect of its occurrence constitutes no valid reason for early excision. And this opinion is confirmed by the fact that there is no certainty that after excision there may not remain other tubercular centres from which infection may still be developed, or any certainty that the operation may not itself precipitate the result.

When we leave this part of the subject, and, turning to clinical experience—which, after all, must be the ultimate test—ask what actual results have been obtained by early excision, we are met with a serious and, it may be, to some an unexpected difficulty. This consists in the small amount of evidence that has yet been produced. Mr. Barker, who has carried his advocacy of the operation further than any other English surgeon, gives in his College Lectures no results whatever. He has an entirely different object in view. He defines his position by saying, "I am anxious, in the first place, to emphasise the need there is of attending to the reduction of the mortality from tubercular disease of joints before we have anything to say as to the preservation

[1] THE LANCET, April 6th, 1889.
[2] Hip Disease in Childhood (1887), p. 136 et seq.

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of their functions." Such an attitude as this will occasion no surprise when we remember that in his opinion "there is much to justify our regarding tubercle itself in the light of a malignant growth, and our dealing with it accordingly." Of course, if this is the correct view, tubercle must be treated as we treat carcinoma and sarcoma. A tuberculous joint must be excised, and the sooner the better, just as we excise a cancerous breast. We cannot arrest disease which presents the characters of malignancy; we can only remove the part upon which the disease has fastened itself. It is impossible, however, to shut one's eyes to the fact that this is an estimate of tuberculosis which the great majority of surgeons would not for a moment entertain. The estimate formed by Brodie, endorsed by Paget and Hilton, and accepted by a very large proportion of those who have studied the subject from a clinical point of view, is that, though often intractable and destructive in its later stages, tuberculosis, on a general survey, wears the aspect of merely an obstinate inflammatory process, the whole course and tendencies and results of which are widely divergent from those of malignant disease. And to such as hold these views excision presents itself, not as a strict necessity, as it is when we have to deal with cancer or sarcoma, but as a method which may possibly yield better results than can otherwise be obtained. But this is an open question, and one which can only be settled by ample and thoroughly sifted clinical evidence. Those who advocate excision must prove their case by the results which they produce. But since his lectures were given Mr. Barker has shown a case at the Medical and Chirurgical Society. In this instance, in regard to the operation itself, an excellent result had been obtained, for the wound healed by primary union, and the case was an excellent example of the progress which has lately been made in the treatment of wounds. When, however, the limb was examined at the meeting, it was found to be flexed and adducted, and there was considerable lameness. Thus, while the great and quite undeniable advantage of immediate repair of the wound had been secured, the condition of the limb in regard to the patient's power of walking was scarcely superior to the average results hitherto obtained, and with which many surgeons have been so much dissatisfied. On the same evening Mr. Bilton Pollard showed three examples of excision of the hip in which the same excellent result of primary union had been secured; but, as he was careful to point out, the cases were all recent, and the patients, who were still wearing splints, had made no attempt to walk, so that what the future condition and powers of the limb would be was as yet undecided.

LECTURE III.

Next let us examine the results of the operation when undertaken for more advanced disease. It would be unjust to Mr. Croft to regard the results which he obtained in the group of 45 cases of excision of the hip which he published in the Transactions of the Clinical Society in 1880, and which showed a mortality, when the deaths from intercurrent disease had been excluded, of 35·5 per cent. as representing his present results. These would, I do not doubt, be much more favourable, but they have not yet been published. I hope, however, we may have them soon. I will now take Mr. Wright's table, which furnishes us with a full record of 100 cases in which he excised the hip-joint between 1880 and 1886. Of these, 17 were soundly healed; 57 were unhealed; 13 had died; 5 were dying or going downhill; 2 were in a bad condition; 1 might need amputation; 4 had undergone amputation; 1 recent case, doing well. As this table includes just 100 cases, the percentage results are apparent at a glance. Now, as all these cases occurred within the last ten years—that is, since the management of wounds has been so much improved,—and as they were in the hands of a surgeon of well-known ability and ample experience, they can scarcely be regarded as affording strong evidence in favour of excision. For, of the whole number, 17 only were satisfactory—that is, had healed; and against these successes must be placed 17 in which the operation had completely failed—i.e., there were 13 deaths (1 after amputation) and 4 amputations, and 8 in which there seemed no hope that failure could be averted, for 5 were reported to be dying or going downhill, 2 were in a bad condition, and 1 was a case in which amputation might be required. In other words, while 17 per cent. were successful in regard to sound healing of the wound and a useful condition of the limb, 25 per cent. ended in failure. The remaining 57 (one case being excluded as too recent to be classified) were still unhealed, although in a large number more than a year had elapsed since the operation was performed. In many of these the patients were in good health, and the wound appeared to be merely superficial and the discharge was slight; but, on the other hand, in several the discharge was free and the general health defective. I think, in short, that anyone who studies these cases will be driven to the conclusion that about 20 per cent. were successful and that about 80 per cent. were unsatisfactory.

In these 100 cases of Mr. Wright's, there are 30 in which the disease had been in progress either nine months or less than nine months when excision was performed, the average period being six months; so that they afford us some information as to the ultimate results of early excision—a point upon which, as I have already said, evidence is at present very meagre. Of these 30 cases, 1 died of pyæmia, 1 of measles and tuberculosis, 1 of exhaustion, 1 was dying of lardaceous disease, 2 underwent amputation, 6 (20 per cent.) entirely failed, 6 (20 per cent.) healed soundly, 7 (about 20 per cent.) were unhealed at the end of one year and 6 (20 per cent.) at the end of two years, and 5 (about 20 per cent.) were too recent to be classified; that is, omitting the 5 recent cases, about 20 per cent. were successful, 20 per cent. ended either in death or amputation of the limb, and another 40 per cent. were unsatisfactory. I will refer to these results again further on.

While I am speaking of excision, I may be allowed to express a hope that Mr. Howse, who has, I believe, performed more operations of this kind than anyone else in England, but who has not yet published the results he has obtained, may shortly find time to give us his experience. The statistics he could lay before the profession would be of the greatest value, and would furnish us with facts in regard to many important and still warmly debated questions upon which we possess at present but very meagre information.

Before leaving this part of the subject, I wish to allude to Mr. Croft's view that "when pus associated with pan-arthritis (or strumous disease of joints in children) is known to be present, even if the surgeon is uncertain with regard to the state of the bone, he should excise."[2] I cannot but regard this rule, when it is thus made absolute and stated without qualification or reservation, as altogether misleading, because it ignores cases that are frequently met with in which the formation of an abscess is intimately connected with the curative process, and takes place as the immediate precursor of sound and permanent recovery. The cases I allude to are those in which the tuberculous process has come to an end, and in which the tuberculous material, becoming necrotic, plays the part of a sequestrum. Around this effete material an abscess forms, and when it is evacuated the necrotic products are also swept out, with the result that the tissues, now free from this foreign material, and having become otherwise sound, quickly return to a normal condition. Such abscesses as these belong to the general class which Sir James Paget has termed "residual." They form in chronic joint disease quietly, without pain or fever, and often very rapidly. If left, they frequently attain a large size; and if evacuated with due care, they frequently heal without any further formation of pus; or they heal in five or six weeks, often at last secreting no pus, but merely clear amber-coloured serum. Some, indeed, cease to increase, and remain quiet, and are at length completely absorbed. A boy of eighteen was lately in St. Bartholomew's Hospital who, when he was between five and eight, was under my care for hip disease. When he had been lying for nine months, an abscess, holding not less than six ounces, formed on the outer side of the thigh. This was entirely absorbed in the course of six months, and has not reappeared, nor has the patient since had any trouble with the joint. Others among these abscesses, if left, burst spontaneously, and then quickly and safely heal. Thus, as I have remarked already, an abscess often constitutes the last step in repair. Obviously, to excise a joint in such cases as these would be a calamity to the patient, and a reprehensible step on the part of the surgeon.

The cases met with at the Alexandra Hospital contain conclusive evidence upon the important question of the frequency of necrosis in mass, in hip disease, so that sequestra are produced of such a size and consistence that

[2] Clin. Soc. Trans., vol. xiii., p. 71.

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it is necessary to perform an operation for their removal. It has been maintained that sequestra often form, and that the whole head of the femur frequently undergoes necrosis and becomes detached. That the head may be separated so as to form a large solid sequestrum is well known. But that both this necrosis of the whole head, and necrosis of any part of the head of the bone or of the floor of the acetabulum, so that firm sequestra requiring operative interference for their removal are formed, are rare, is clear upon the following evidence. First as to necrosis of the whole head. So far as I can remember, I have met with only four examples of it. And Mr. Bowlby informs me that neither at the Alexandra Hospital nor at St. Bartholomew's Hospital, where he has been surgical registrar for several years, has he ever seen it; nor has he ever found it in the post-mortem room. Secondly, I recently examined fifty cases of suppuration, in which all sinuses had soundly healed. Now in no single instance among them had any sequestrum been either removed by operation or extruded in the discharge, so that it is evident either that sequestra are rarely produced or that they are soft and easily removed in the discharge. The true explanation is to be found in the structure of the bones that form the hip-joint. These are composed of cancellous material, rich in marrow and blood-vessels. When this vascular soft structure is inflamed, it becomes so soft that it is easily cut with a knife or broken down with a gouge. Such a structure is readily destroyed and got rid of by suppuration.

An account may now be given of the results to be obtained by means short of excision. In the following summary I shall keep to the instance of the hip, because it is in reference to this joint that the operative treatment of tubercular disease has been most strongly advocated.

The treatment adopted, that of prolonged rest in the horizontal position combined with weight extension of the affected limb, is so simple and so well known that it is needless to describe it. But the method of dealing with suppuration claims more particular notice. All abscesses are opened as soon as they are detected. An incision from an inch to an inch and a half is made, matter is evacuated by gentle pressure, and a drainage-tube just long enough to enter the cavity is used for two or three days. The dressing consists of carbolic gauze next the wound, and this is covered with alembroth wool. The dressing is changed according to the case. In many instances the wound closes in a fortnight or three weeks, sometimes even sooner. In others it becomes a sinus, slightly discharging for a month or six weeks, and then soundly healing. In others, again, suppuration remains free for several weeks or even longer, and further openings have to be made. But at length in a large majority of cases the wounds heal, and no further suppuration, except in a very few instances, takes place.

The following is an analysis, in which I had the valuable assistance of Mr. Bowlby, of cases treated at the Alexandra Hospital since 1880. One hundred and sixty patients (taken without selection) were written to, and 76 came for inspection. Of these 76 patients, 37, or a little less than half, were cases which had suppurated; and 39, or a little more than half, had not suppurated. Among the 37 there were 2 cases of double disease, and in the 39 there was 1 double case. Of the 37 suppuration cases (only 4 of which still had sinuses, and these were superficial), 24 (65 per cent.) were either perfect (1), excellent (6), or good (17), and 13 (35 per cent.) were moderate. When examined, 7 had been discharged between one and two years, 9 between two and three years, 5 between three and four years, and 16 over four years. As to shortening, 3 had none, 17 had under an inch, 12 between one and two inches, and 3 had two inches and over. (As to movement, 1 had perfect movement, 10 had free, 7 had slight (50 per cent.), and 18 (or 50 per cent.) were fixed (one not noted). As to power of walking, 2 walked perfectly, 22 walked well, and 13 walked indifferently. (Of the 39 non-suppurating cases, 9 were perfect, 9 excellent, 12 good (77 per cent.), and 9 moderate (23 per cent.). The average shortening was two-thirds of an inch. In 50 per cent. there was perfect or free movement, and 50 per cent. had slight movement, or were fixed; 12 walked perfectly, 20 walked well (84 per cent.), and 16 per cent. walked indifferently. I believe these cases fairly represent the results of non-operative treatment. The number of deaths from the disease, so far as we could learn, in 614 cases treated since 1880 was 35 (meningitis, 12; phthisis, 5; lardaceous disease, 9; following amputation, 3; exhaustion, 2; uncertain, 4). This mortality in 614 cases amounts to nearly 6 per cent.; the deaths from meningitis being a little under 2 per cent., and from phthisis less than 1 per cent. In 13 other instances in the total of 614 cases the patients were incurable. If these are added to the deaths, we have 52 cases—i.e., 8·4 per cent. in which the treatment is known to have failed. Comparing the results of excision with those of the treatment by long rest, we find that, while the mortality under the latter system is considerably less than 10 per cent., under the former, if we take Mr. Wright's cases, it is certainly not less than 20 per cent. Mr. Barker's and Mr. Pollard's cases, however, foreshadow a great reduction; and no doubt the immediate result of excision will show a great improvement on former experience. The main defect of excision will lie in the ultimate condition of the limb when it is compared with a limb in which no operation has been performed. It is now seen that, although in excision of the knee in children primary union may occur, especially when the operation is done early, the ultimate result is often very unsatisfactory. It will, I think, be the same with the hip. Early operation will be followed by rapid healing, but the limb will be weak and defective in usefulness; while, if adequate rest is secured at the same stage, a much more serviceable limb will be secured.

A CASE OF

RAYNAUD'S SYMMETRICAL GANGRENE IN A PATIENT SUFFERING FROM CONSTITUTIONAL SYPHILIS.

WITH SOME REMARKS ON THE HISTORY, NATURE, AND MANIFESTATIONS OF THE DISEASE.

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(*Concluded from page 108.*)

DR. DICKINSON has shown that a large proportion of those who have experienced attacks of hæmoglobinuria have, at some time of their lives, suffered from some form of malarial fever. Indeed, in fifteen of his twenty-one cases he discovered a history of ague, or, at all events, a probability of exposure to malaria. These figures clearly indicate that intermittent fever is very much more often associated with hæmoglobinuria than with any variety of Raynaud's disease. In the ninety-three cases which I have collated, ague in one or other of its varieties is only alluded to five times as one of the diseases which preceded gangrenous paroxysms. At the same time the great value of quinine in the treatment of the latter disease has been frequently insisted upon, and is, it must be admitted, a noteworthy fact. This is well shown in one of the cases in my tables. It is recorded in the first volume of the Annual Register, and was described by Mr. Richard Grindall, surgeon to the London Hospital, in a letter read before the Royal Society on Dec. 8th, 1757. I will transcribe a portion of the letter, which is somewhat quaint: "On June 28th, 1757, Mary Alexander, of the parish of Whitechapel, aged thirty-seven, was brought into the London Hospital, having a mortification in both hands, which reached about an inch and a half above the wrists. All her toes and about an inch of one foot beyond the last joint were mortified. Her nose was also entirely destroyed by mortification; and all this happened at the same time. Upon inquiring into the cause of this misfortune, I found that on Monday, May 30th, she was seized with quotidian ague, which usually began about 3 o'clock in the afternoon, and lasted nearly two hours, which was succeeded by a hot fit and then a violent sweat. This patient, as soon as she arrived at the hospital, was given a drachm of the powder of bark every four hours, and after taking it for forty-eight hours there was a separation of all the mortified parts."

The cases I have collected lend no support to the opinion of those who believe that, in many cases of symmetrical gangrene, a dissolution of the blood-corpuscles is liable to occur in the vessels of the extremities during the paroxysms of asphyxia. To these destructive changes in the blood

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some authorities have attributed the jaundiced tint of the skin which has been occasionally observed in these patients. In my own case no such change in the blood cells was observable, either in that taken directly from the tips of the fingers or from other parts of the body. The outline of the discs, and the manner in which they arranged themselves in characteristic rouleaux, was in all respects normal. Raynaud also observes that, in one of his cases, when the digit was pricked, no change was discovered in the blood-corpuscles under a microscope. In describing the more prominent symptoms experienced by my patient, I have directed attention to a narrowing and constriction of the arteries in the retina, which was seen with the ophthalmoscope during his first stay in the infirmary. At this time his sight was sufficiently good; on his return to the hospital, four months after his discharge, he stated that shortly before his admission he was attacked with violent pains in his head. These pains were unlike the pains of ordinary headache; "they were severe shooting pains, darting across his forehead in violent paroxysms; while they lasted, his sight was strangely affected; different objects appeared dim to him and looked as he had been accustomed to see them when under the influence of drink." At the time these attacks were most pronounced he was not as yet an inmate of the hospital. It is impossible, therefore, to say what may have been the ophthalmoscopic appearances of the arteries of the retina at that time; perhaps, however, it is permissible to assume that they coincided with those observed by Raynaud in one of his patients. In reference to this case, he remarks that "the sight of his patient at times became troubled and confused; when the eyes were examined on these occasions, the central artery of the retina and the arteries which proceeded from it presented very clear contours, and it was established very definitely that they were narrower in their commencement near the papilla than at the periphery; here and there was observed a sort of partial strangulation." In this case a partial and intermittent anæmia was accompanied by visual disturbance; in another case, also recorded by Raynaud, a patient complained of experiencing, at the moment of the commencement of the cyanosis, a notable obscuration of the sight. Mr. Bland has lately called attention to another case, in which the vision was materially affected, and the patient complained of dimness of sight and inability to read. On ophthalmoscopic examination, the fundus of the eye was seen to be unusually pale, while the vessels were blanched and almost indistinct. In this case vision was restored, and the optic disc appeared normal. Mr. Hutchinson[1] also has recorded the case of a woman, aged thirty, who suffered from symmetrical gangrene. In this patient he demonstrated the presence of iridoplegia, which was, in his opinion, in some way connected with disease of the vaso-motor system. The influence of this system on the circulation of the brain is curiously exemplified in a certain proportion of the cases of symmetrical gangrene which I have collated in my tables. This interesting fact had not escaped the observation of Raynaud, for he remarks, in reference to one of his cases, that occasionally, "on waking, the patient knows no longer where he is; he has lost the notion of the time, seems foreign to all that surrounds him, and remains a considerable time in a state of profound hebetude; it is of importance to rouse the patient promptly from this condition, because, whatever may be the cause of it, we have reason to fear, on the part of the brain, a morbid process analogous to that which affects the periphery." Numerous similar cases have been recorded, in some of which loss of consciousness, in others loss of speech, and in others loss of motor power, have been observed. Thus Dr. Southey refers to a patient who on one occasion had a fit, which lasted an hour, in which consciousness was lost. Englisch also alludes to a woman who was frightened, fell down insensible, and lost her speech for a time. In another of Raynaud's cases, a patient, aged fifty-two, one day while at church lost consciousness and became hemiplegic on the left side for two hours. Dr. N. O. Bernstein speaks of a patient in whom the symptoms of local asphyxia were associated with epileptic fits, which he attributed to a local anæmia of those portions of the brain which determine the occurrence of these attacks. M. Weiss also describes a case of symmetrical gangrene in a young woman who on two occasions was the subject of aphasia; the aphasia in this case was ascribed to an ischæmia of the arteries which supply the centres of speech. Fits, accompanied by loss of consciousness and epileptic convulsions, were also observed in Mr. Caut's case. In all these examples of the disease, it may, I think, be reasonably assumed that the disturbance of the blood-supply seen in the feet and hands was imitated in the vessels of the brain.

What proportion of the cases I have collected terminated fatally it is not easy to calculate. In numerous instances the sufferers, being hospital patients, were lost sight of, and nothing was known regarding the terminations of their illnesses. Still, it is distinctly stated that in fifteen of the ninety-three cases the patients died while under medical observation. Several of these deaths, however, were attributed to phthisis or some intercurrent attack of illness. Numerous points of interest bearing on Raynaud's disease are scattered through my notes. Thus in a considerable number of cases, even where the disorder proved symmetrical, the attacks on the two sides did not exactly coincide in respect to the time of their occurrence. Sometimes a few days, sometimes several months, intervened before the gangrenous processes observed on one side of the body appeared on the other. Another point clearly demonstrated goes to show that the paroxysms were not by any means always either induced by cold or aggravated by a low state of the temperature. In my own case the symptoms began in comparatively warm weather, in the month of June. One of Raynaud's patients, a thrasher, was invariably worse during the great heat of summer. In Mr. J. R. Bigg's case it is stated that for years the extremities were very cold even in hot weather. Dr. Duka, moreover, has recorded a case of gangrene of both the lower extremities observed in a Hindoo girl from Simla, who was never exposed to cold. Gangrene, it is said, is not uncommon in that part of India, being generally met with in malarial districts among persons suffering from various forms of anæmia.

Although, in the vast majority of cases, Raynaud's disease is, in its distribution, symmetrical, the patches on one side often corresponding with extraordinary exactness to those on the other, still in some few instances (eight out of ninety-three) only one extremity was affected. In certain cases, also, the secretions appear to have been more or less involved; here the mummified parts, instead of looking dry and parched, were covered with large drops of cold perspiration. Special reference to these secretory disturbances is made in six of the cases I have collected. The number of cases in which either the terminal phalanges of the fingers or a whole limb was lost, either spontaneously or by an operation, is very considerable, no fewer than seventeen of the ninety-three patients having suffered from this grave complication. Many symptoms to which I have not alluded have been described by Dr. Barlow in his appendix to Raynaud's papers. Among others he refers to various skin disorders, such as chilblains, urticaria, and scleroderma. He also speaks of changes in the joints and the structures which surround them, and generally throws much valuable light on the etiology and manifestations of the disease.

A study of the history of medicine often brings to our notice cases which we are altogether unable to explain, but which nevertheless, from a consideration of the trustworthy sources from which they are derived, it is impossible wholly to reject. Such a case is recorded in the Philosophical Transactions for 1761. The particulars are contained in a letter written by Dr. Wollaston to Dr. William Heberden, two of the most distinguished physicians of the last century. The case is thus described by Dr. Wollaston: "John Downing, a poor labouring man, who lives at Wattisham, in January last had a wife and six children, the eldest a girl about fifteen years of age, the youngest about four months. They were at that time very healthy. On Sunday, Jan. 10th, the eldest girl complained in the morning of a pain in her left leg, particularly in the calf of the leg. Towards evening the pain grew exceedingly violent. The same evening another girl about ten years old complained of the same violent pain in the leg. On the Monday the mother and another child, and on the Tuesday all the rest of the family except the father, were affected in the same manner. The pain was exceedingly violent, insomuch that the whole neighbourhood was alarmed with the loudness of their shrieks. The left leg of most of them was only affected, but in some both legs. The little child was taken from its mother's breast as soon as she was taken ill, and lived

[1] Medical Times and Gazette, 1871.

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a few weeks; the nurse told me it seemed to be in violent pain, and that its legs were black before death." The state of the extremities is thus described by Dr. Wollaston: "Mary, the mother, aged forty, the right foot off at the ankle, the left foot mortified; Mary, aged fifteen, one leg off below the knee, the other perfectly sphacelated; Elizabeth, aged thirteen, both legs off below the knees; Sarah, aged ten, one foot off at the ankle; Robert, aged eight, both legs off below the knees; Edward, aged four, both feet off at the ankles. The father was attacked about a fortnight after the rest of the family, and in a slighter degree, the pain being confined to two fingers of the right hand, which turned blackish and were withered for some time, but are now better, and he has in some degree recovered the use of them." It is further added that "during all the time of this calamity the whole family were said to have appeared in other respects well; they ate heartily and slept well when the pain began to abate. One poor boy, in particular, looked as healthy and florid as possible, and was sitting on the bed quite jolly, drumming with his stumps." These poor persons are said to have lived, in so far as their diet and mode of life were concerned, much in the same way as their neighbours, and Dr. Wollaston remarks: "I cannot discover anything to which I can in the least attribute this very surprising attack." It is distinctly stated that no rye bread was eaten by any of these persons, and that they were not exposed to severe cold, as the weather was remarkably mild for the season. It is added that a nurse who lived with this family from the beginning of their illness had not been affected.

It is, it must be admitted, no easy matter to explain such an epidemic outbreak of gangrene as that here described. Personally, I have seen no examples of gangrenous ergotism; but from what I have read of that disorder it differs materially from Dr. Wollaston's cases. The constitutional symptoms are far more grave; it is rarely observed among women, never in children at the breast, while the upper extremities are but seldom invaded, as in the case of the father of this family. Nevertheless, whatever may have been the exciting cause of these destructive changes, solely confined to the members of one family, and altogether inexplicable to those who studied the features of the malady, it seems reasonable to assume that some constitutional peculiarity, a state of system somewhat vaguely described as an idiosyncrasy, existed in these persons in so exaggerated a form as to render them susceptible to influences inappreciable to their neighbours, persons living under the same outward conditions of life as themselves.

As regards the nomenclature of this disease, no name can more fittingly convey to the reader its characteristic features than the name of its distinguished discoverer. The term "symmetrical gangrene" is certainly inappropriate, inasmuch as a considerable number of cases have been recorded wherein one extremity, and one only, was at any time affected. This fact was recognised by Raynaud himself; and, seeing that the science of medicine is indebted to him for almost everything we know regarding the etiology, the symptoms, and the pathology of this interesting neurosis, it may, I think, most appropriately be known in medical literature as "Raynaud's disease."

Manchester.

PRESENTATIONS.—Recently, at St. Bartholomew's Hospital, Mr. Mark Morris, the steward, was presented with a portrait of himself (painted by Mr. W. W. Ouless, R.A.), which had been subscribed for by his many friends and colleagues, as an appreciation of his long and honourable connexion with the hospital, covering a period of nearly fifty years. In concurrence with the wish of the subscribers, and by his own desire, the portrait was at the same time offered to the governors, and on their behalf accepted by the treasurer, and it will be placed in a suitable position in the hospital.—On the 12th inst., in view of Mr. John Poland retiring from the post of senior demonstrator of anatomy at Guy's Hospital, the students presented him with some handsome lamps and an album, as a slight recognition of the work he had carried on for their welfare during the past eight years.—Mr. Christopher Bulteel has received two handsome testimonials from the Royal Hospital, Devonport, on his retiring from practice; from the sisters and nurses of the institution an ebony paper-cutter, in the shape of a scimitar, with an embossed silver handle; and from the medical staff and resident officers a silver salver.

THE

ETIOLOGY AND TREATMENT OF CHRONIC SUPPURATIVE CATARRH OF THE EAR.[1]

BY H. MACNAUGHTON JONES, M.D., M.CH., &c.

IN discussing the subject with the above title, I do not mean to limit myself to the more modern interpretation of the term "otorrhœa," but to include also in my observations discharges from the external ear passage. The affection is of peculiar importance to the practitioner from three points of view: First, the wide field of causation which makes discharge from the ear following otitis externa or media an accompaniment of, or a consequence upon, other diseases we are called on to treat. Secondly, the tediousness and obstinacy of ear discharges which generally resist insufficient and inefficient treatment until complications have arisen that either permanently impair hearing or destroy it, or perchance may threaten life. Thirdly, the gravity of the sequences that may follow—as deafness, mutism, mastoid necrosis, septicæmia, and cerebral and cerebellar abscess.

It is not my intention to discuss any matters outside the limits of the title of this paper, and which I would point out has purely to do with the etiological facts that bear on the treatment of chronic suppurative catarrh itself, and not with the graver consequences that unfortunately at times attend on it. In short, it is to the prevention of those too frequent evidences of either ignorance or neglect that I desire to dwell upon rather than on what are often the hopeless endeavours to redeem the lost time, in restoring a shattered sense, or rescuing a life that is doomed. I ask attention, in the first instance, to some general considerations that affect our view of all suppurative states of the ear passages from the external meatus to the Eustachian tube. It will be sufficient for me here to acknowledge the labours of Löwenberg, Weber-Liel, Orne Green, Bezold, and Zaufel, among many others, in advancing, if not indeed creating, modern aural bacteriology, which creation itself we owe to the genius of Pasteur, who assisted Löwenberg in working out some of his researches on aural furuncle in the inoculation of rabbits, and the cultivation and reproduction of the aural microbe or pyogenetic staphylococcus of Pasteur.

Here with benefit may be broadly reviewed the present position of otology both as regards ear ferments and bacteria. I would first, however, remark upon the suitability of the ear passages for the origin and completion of fermentative processes. Whether we look to the external meatus, the cavity of the tympanum, or the Eustachian tube, we find those essentials for fermentation, fermentation products, and ferment life which we artificially secure in advancing that process elsewhere or outside the body. We have a limited supply of air and light, with, in the case of the tympanum, only periodical or interrupted interchange. There is an elevation of temperature due to the free vascular supply in the auditory walls and structures; there is a constant condition of moisture; there is a near approach to "life without air," as Pasteur defined fermentation. Look a little further, and we find the ready elements for providing the initial ferments in the ceruminous particles, the sebacious secretion, the epithelial débris of the external ear, the mucus of the tympanic cavity, and the presence in the Eustachian tube of throat mucus, or nasal and pharyngeal epithelium, that may find its way thither. Also other nasal and gastric gaseous emanations enter periodically into the tube and the middle-ear cavity—for example, those of ozæna. This fermentative process finds occasional expression in the spreading forms of aspergillus; while in the crevices of the external meatus, the elevations and depressions of the tympanic walls (should it invade the tympanum), or in the ossicular folds, the fungus finds secure shelter and resting-places for its spores to sprout afresh. This being so in the case of fungi and ferments generally, it is not surprising to find such fungi participating in the morbid processes that lead to the chronic purulent discharges of the external or

[1] Paper read at the West London Medico-Chirurgical Society.

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middle ear; couches of inspissated pus and dead epithelial débris, with hardened mucus, form comfortable beds for the troublesome tenants, who, once in possession, will not stir without forcible eviction. To Wreden, Cramer, Burnett, Orne Green, Mayer, and Schwartze we are permanently indebted for our knowledge of the life history of these fungi. It should be remembered that they grow somewhat like mould on an old boot, when left in a damp place, ignored and neglected.

We turn now to the microbic side of this bacterial pathology of the ear. Though it has not yet been shown that characteristic pathogenic bacilli (that is, bacilli capable of producing some specific or contagious disease, local or general, with typical features and distinctive characters) exist in the healthy individual's ear passages, or in the secretions therein formed, the non-pathogenic varieties have been found; and, as was well remarked at the International Congress in 1887 by Professor Frothingham, in referring to Professor De Rossi's observations on the presence of benign organisms (streptococci and bacilli) in healthy Eustachian mucus, and the absence of the pathogenic varieties, "who can say under what circumstances non-pathogenic organisms may not become pathogenic?" As aerobic (twin, spherical) bacteria, the pathogenic microbes infect the outer ear in the case of furuncle and abscess, are found in the pus, and may, as suggested by Löwenberg, reinoculate the neighbouring parts. Cornil and Ranvier put forward the hypothesis that in those isolated and recurring contagious inflammations, the bacteria, as they cannot live in the blood, are arrested in the lymph vessels of the connective tissue. But in abraded states of the mucous membrane (no matter how slight), whether in the external meatus or the membrana tympani, or in the Eustachian tube, we have the door opened for the entrance of septic and miasmatic bacteria and the establishing of the septic process. Indeed, in catarrhal conditions these bacteria find access to the increased or altered mucus, and through it to the underlying tissues. The same remark applies to the pathogenic bacteria. Imperceptible abrasions are the welcoming portals for aerial and liquid microbes to enter and form purulent deposits in. Löwenberg points out how the fine hairs of the meatus may arrest the microbes, and actually direct them in their course to the congested follicle. The micrococci both of suppuration and putrefaction are thus furnished from the outer air to the meatus, from the nose (Löwenberg's micrococcus of ozæna), and from the mouth. Thus we find that the putrescent processes in the external and middle ear, so often associated with disease of the mucous membrane and bone, are originated by some injury to the external ear, or by a diphtheritic or other ulceration of the mouth, nose, or palate. The investigations of Moos and Klebs have proved the migration of pathogenic organisms in diphtheria into all parts of the labyrinth, and also into the adjacent portions of the petrous bone.[2] The avenues of entrance may be (according to these authorities) roughly divided thus: (1) The general circulatory current through the thoracic duct and lymphatic vessels, and thus to the Haversian canals and perilymphatic spaces; (2) in other directions by way of the ductus perilymphaticus of the aqueductus cochleæ to the scala vestibuli of the cochlea; (3) the endolymphatic spaces by the lymphatics of the nasal mucosum and the subdural spaces of the nerve roots and the lymph channels of the peripheral nerves; while others apparently find their way by the fissures (? lymphatic vessels—Schwalbe) in the fibro-periosteal tissue lining the aqueductus vestibuli.

I will leave now these pathological and septic bacteria, and dwell for a moment on a class of micro-organisms of a different morphological, etiological, and clinical interest. I refer to malarial bacilli. We know that it is now an established fact, thanks to the researches of Klebs, Nägeli, Salisbury of Cleveland, Crudeli, Cecci, Laveran, and Richard, that associated with malarial and miasmatic conditions are to be found species of schizophytes in the blood and on the mucous membrane of the intestinal canal. The association of intermittent affections with miasmatic surroundings in marshy valleys, in swamps, and wet grounds and malarial districts generally is well known. Klebs, Tommasi-Crudeli, and others have found bacilli furnished with spores in the soil of such regions. The inoculation of the culture of these bacilli into rabbits has caused intermittent fever, though it is not to be forgotten that Cornil and Ranvier criticise the views of Laveran as to the presence of such malarial bacilli in the blood of those attacked with intermittent fever, rather regarding the mucous surfaces as the habitat of the microbes, and the chemical poisons generated through their action as the agents operating on the corpuscular elements in the blood. As far back as 1871 Weber-Liel gave the name of "otitis intermittens" to those recurrent attacks of middle ear inflammation which he attributed to the influence of malaria. The rhythmical nature of the onset of pain, fulness, giddiness, rigors and perspirations, tinnitus, and deafness were characteristic, ending occasionally in perforation of the drum head. With the same recurrent obstinacy furunculi occur in the meatus. Aural neuralgia is a marked feature of the affection. General vaso-motor fulness, tendency to exudations, and chronic catarrh are constant consequences of this form of otitis. Weber-Liel, Orne Green, Löwenberg, and others have traced the relation between these intermittent attacks of otitis media and malaria. Season of year, foul emanations from drains, defective sewerage, and rainfall have explained the epidemic nature of the disease. Miquel and Rindfleisch have shown that there is a distinct relation of the rainfall to the growth of the parasitical fungi, the development of which latter it encourages, while it is destructive to the growth of schizophytes. Miquel, at the laboratory at Montsouris, has proved the relation of season of year and rainfall to the amount both of germs and fungi in the air. On the other hand, Löwenberg has pointed out that there is a close connexion between the number of micrococci found in the pus of furunculi and in chronic discharges and the duration and age of the discharge. The same observation applies with almost equal truth to the putrescent character of the discharge and its unpleasant odour.

From these necessarily condensed observations it may be perceived how important a part is played in the etiology of aural suppurative discharges by vegetable micro-organisms. In order that we may the more clearly recognise this etiological fact, I may here classify the causes of chronic suppurative discharges from the external and middle ear.

External Ear.

Diseases of the external meatus more especially causing otitis media	Traumatic affections. Cerumen. Otomycosis. Furuncle. Dermatitis. Abscess. New growths.
Sea-bathing.	

Causation of Chronic Suppurative Catarrh (External Meatus).

Diathesis	Struma. Tubercle. Gout.
General diseases	Syphilis. Diabetes. Fevers. The exanthemata. Scarlet fever. Measles. Diphtheria. Whooping-cough (associated with). Mumps. Erysipelas.
Eczema and some cutaneous diseases.	
Traumatic	Injuries. Foreign bodies. Stings of insects.
New growths	Polypus of various kinds.
Climatic and hygienic	Residence in the tropics. Temperature, dust, sand. Rainfall and moisture. Season of year. Miasmatic influences. Sewer gas. Defective drainage. Gas leakage. Auto-infection with hand. Epidemic influences. Trades or occupations.

[2] Annual of Universal Medical Sciences, 1888, vol. iii., pp. 244-47.

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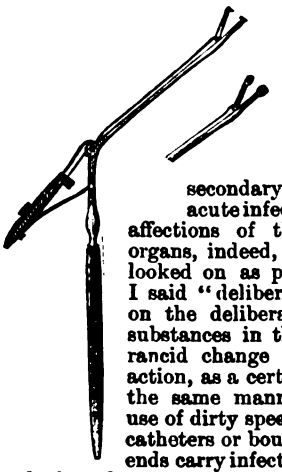
Neglect of cleanliness	Dirt. Cerumen. Dead epithelium. Rancid oils. Pieces of wool.
Fungus	Aspergillus.
Idiopathic inflammations	(Arising from cold, sitting in draughts, &c.) Acute localised and diffuse dermatitis. Abscess.
Sea-bathing.	

Causes more especially operating in the Middle Ear.

Diathesis	Gout. (Rare.) Struma (tubercle). (Frequent.)
General diseases	Primary syphilis. (Rare.) Inherited syphilis. (Occasional.) Fevers. (Exceptional.) Phthisis. (Occasional.) Exanthemata. (Frequent.) Diphtheria. (Occasional.) Mumps. (Occasional.) Angina Ludovici. Whooping-cough. (Not infrequent).
Paroditis.	
Tonsillitis.	
Naso-pharyngeal adenoid.	
Naso-pharyngeal catarrh (acute and chronic).	
Ozæna.	
Catarrhal inflammation of the Eustachian tube.	
Other unhealthy throat states.	
Traumatic	Injuries inflicted from the direction of the external meatus. Injuries inflicted from the direction of the Eustachian tube. Puncture or rupture of the membrana tympani. Direct injury to the tympanic cavity. Injuries inflicted with the Eustachian catheter. Foreign bodies: (1) approaching from the Eustachian tube; (2) approaching from the external meatus. Injections through the Eustachian tube.
New growths	Generally associated with external ear discharges. Polypi. Papillomatous growths. Sebaceous tumours. Cystic tumours.
Hygienic	Nearly all those causes operating in the instance of the external meatus.

Glancing at both tables, we perceive that with few exceptions we are confronted with conditions or diseased states that either owe their existence to, or are associated with, special microbes. Gout, only very indirectly, through its tendency to produce dermal swelling, pasty secretion in the meatus, ulceration associated with hyperostosis, or the inflammatory blood state attendant upon its presence, shown often in the appearance of the throat, can give rise to suppurative catarrh. Eczema does so very rarely, and only when, as in the case of psoriasis, there is neglect, and dead epithelial particles or those of dried pus are allowed, together with cerumen, to collect in the canal and create ulceration, when we cannot avoid meeting either the parasitic fungus or bacterial life. In some other instances those conditions which I have enumerated as causing chronic suppurative catarrh are more truthfully the consequences of it—for instance, polypi, papillomatous growths, cystic and sebaceous tumours. A pretty example of the latter growth occupying the cavity of the tympanum is in my "Practitioner's Handbook," taken from my "Atlas of Diseases of the Tympanum," the tympanum being shown before and after removal of the growth. In this instance there was a polypus removed from the meatus, attending upon chronic discharge; on its removal, the tumour was discovered (as shown in the drawing) occupying the cavity of the tympanum beyond. It was removed with the crocodile lever ring forceps. (Fig. 1.) Sea-bathing is an undoubted source of chronic suppurative catarrh—a result, however, rather more frequently found in those who are fond of diving. The strong salt water enters the meatus, or through the nostrils into the Eustachian tube, giving rise to a catarrh of the middle ear, which occasionally leads to suppuration and perforation of the membrana tympani. Now, with these exceptions, every other instance is no doubt due to the original accidental or deliberate introduction of germs into the auditory bloodvessels or lymph channels, or to their secondary presence as a consequence of acute infective diseases or infective germ affections of the throat and nose — which organs, indeed, for clinical purposes must be looked on as part of the organ of hearing. I said "deliberately" introduced, for I look on the deliberate use of oil and unctuous substances in the external meatus, liable to rancid change and consequent fermentative action, as a certain means of introduction, in the same manner that unquestionably the use of dirty speeula, undisinfected Eustachian catheters or bougies, and uncleansed otoscope ends carry infection. In the Atlas (and Handbook) is a drawing of a membrane covered with a yellow layer of an amalgam of oil and hardened epithelium, which occurred in a person from whose meatus I removed a quantity of epithelial débris and some cerumen; on removal of this scale the membrane was seen in part eroded, and is represented in the companion drawing. But if we do not introduce, we may most successfully imprison and retain. We do this by means of plugs of cotton wool, heat-producing, moisture-absorbing, pus-collecting, incubating pellets for broods of embryonic germs. We do it, likewise, when we blow insoluble powders into the ear or direct patients to do so for themselves, creating artificial bone manures for the auditory passages. We do it also when we syringe the ear carelessly and improperly, and at times too forcibly, with perchance impure water, hosing our little bacterial mobs out of sight into the intricate shelterings of the ear passages. We do it, again, when we use old, decomposing, fungus-generating lotions for purposes of medication; our remedy is as bad as the disease we are endeavouring to aid rather than arrest by the dissemination of new colonies of germs on a fertile and welcoming soil. And let me, in passing, protest against all forcible syringing in ear surgery, with the two exceptions of foreign bodies and impacted cerumen, when it frequently becomes a necessity. Recently I saw a gentleman into whose tympanum an eminent ear specialist (now dead) drove accidentally the point of an ear syringe in forcibly syringing the ear. He has had a chronic ear discharge ever since. If there be two rules in the whole range of aural therapeutics more valuable to remember than any other, they are these: (1) Avoid forcible syringing of ears, always being sure what it is that is being syringed, not driving a forcible stream on an inoffensive drum head to endeavour to batter it in. (2) Always, save in rare exceptions, which only prove the rule, trust to syringing for the removal of foreign bodies. Many a permanently impaired tympanum would have been saved violation had this rule been observed, and the necessity for treating chronic suppurative catarrh would have been obviated. We should not then see the tympanic membrane dragged away in mistake for a foreign body, and irreparable mischief inflicted on the organ of hearing. I have elsewhere recorded the removal of a grain of shot, which I took with some cerumen from the ear passage, leaving the membrane perfect and the hearing intact, and which had remained harmless in its snug retreat from childhood to adult age.[3]

FIG. 1.



(To be concluded.)

[3] Practitioner's Handbook of Diseases of the Ear and Naso-pharynx, p. 12.

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ON THE

DISPOSAL OF THE SPUTA IN PHTHISIS.

BY ARTHUR HILL HASSALL, M.D., LOND.,
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THE bacillary origin of phthisis is now very generally acknowledged. A proof of such origin is furnished by inoculation, but it has been recently still further established, especially by the experiments of Cornet, that the disease—at all events in certain animals, as guinea-pigs—may be produced simply by the inhalation of the dried dust of the sputa. Now the fact that the disease may be communicated in this manner is of immense practical importance, for while, on the one hand, it proves the extreme danger of such a mode of introduction, on the other it indicates the measures and precautions which should be adopted to reduce that danger to a minimum. It is, of course, where the expectoration most abounds, and where it is most liable to become dried, that the danger is greatest—as in the rooms, hotels, and hospitals occupied by consumptives. Again, it has been experimentally shown that but little if any danger is to be apprehended from the inhalation of the breath of the phthisical, or of the air of streets, towns and promenades frequented by them. In the first place, the expired air has been found to be free from bacilli; and, in the second, although the sputa may be expectorated on the ground &c., the dried particles or dust of these quickly become dispersed and scattered through the air to such an extent as to be rendered practically harmless. Moist and freshly expectorated sputa consist in great part of water, and when dried become not only very light but very friable, so as to be easily broken up into dust and so scattered about by slight currents of air. The rate of drying depends not only on the temperature and state of humidity of the air, but also on the nature of the material on which the sputa fall. Thus, if they come into contact with any absorbent material, such as carpets and pocket-handkerchiefs, they quickly dry in consequence of the withdrawal of the water by capillary attraction. Hence, the great danger which arises from expectorating into handkerchiefs.

In the preceding facts, then, we are furnished with the data on which a number of precautionary measures should be based. On no account should patients expectorate on to floors, carpets, and, above all, into handkerchiefs. It is indeed from these last that the greatest danger is to be apprehended. It should be made an invariable habit by day, and, as far as practical, even at night, to expectorate into spittoons. These receptacles should be always partially filled with water so as to avoid the drying of the sputa, and they should be emptied and thoroughly cleansed daily by scalding with boiling water. It is not necessary that the water should contain a disinfectant, but, if any be used, it should be one which would be really effective and free from all disagreeable odour, such as that possessed by carbolic acid. Perhaps the best germicide which can be employed is a strong solution of perchloride of mercury; this should be freely added to the water in the spittoon each morning before use. The use of cloths (as is the common practice) to wipe out these receptacles should be strictly prohibited, as these cloths might, like the handkerchiefs, become a source of danger.

The question now arises, in what way should the contents of these spittoons be disposed of? Pouring them into watercloseta, whence they would be conveyed into cesspits or sewers, might possibly in certain cases be attended with danger, as still more probably would the throwing them on to the soil. The safest and surest plan is the complete destruction of the sputa, and this object may be accomplished in the following manner. A covered vessel, preferably of glass, of suitable size and provided with a rod, should be partially filled with a strong solution of perchloride of mercury, and into this vessel the contents of the spittoons should be daily emptied, until it becomes necessary to dispose of the accumulated but now harmless sputa, which may then safely be done by means of the closet or the soil. The use of a stirrer is necessary in order to break up the sputa and allow of the effective action of the germicide. In very advanced cases, and under some circumstances, it may not be possible to do away altogether with the use of pocket-handkerchiefs—unless, indeed, some substitute of little or no value (such as a specially prepared paper) were devised in place of them, so as to allow of its being destroyed as soon as it has been used.

Next, we may consider how the linen worn by phthisical patients should be dealt with. It should be kept entirely apart, and on no account mixed with the linen of other people; and even when made into a separate bundle it should not be sent to an ordinary laundry to be washed, as in the latter case it would sure to become mixed with the other linen The infected linen should be washed, with certain precautions, either at home or in a special laundry. The handkerchief—the use of which should as far as possible be altogether dispensed with—should never be allowed to become dry, but should be at once wetted, even before being conveyed to the laundry, and no handkerchief should be in use longer than a day.

Then the rooms, particularly the bedrooms occupied by consumptive patients, require special attention. Carpets, curtains, rugs, &c., should be dispensed with as far as practicable, the sheets and night clothing frequently changed, and the rooms themselves thoroughly purified, the floors and walls being well and frequently cleaned and dusted. In case of a death from phthisis, the bedroom should be treated in very much the same manner as in the case of a contagious malady. In hotels and hospitals occupied by consumptives, precautions on the same lines and principles should be adopted, but on a more extensive and complete scale.

In hospitals for consumption some few regulations have been more or less in operation for some time, but in the case of the hotels little or nothing, as a rule, has been done. In the furnishing of these hospitals great simplicity should be aimed at; all carpets, curtains, rugs, mats, &c., should as far as possible be done away with, and where mats or other such articles are required, they should be made of some non-absorbent material, as indiarubber or floor-cloth. The floors of all rooms, wards, and corridors should be frequently cleansed, and the walls, even to the ceilings, thoroughly dusted at least twice a week, and as far as practicable in the absence of the patients. Not only should each patient be provided with a spittoon for his own special use, but other spittoons should be placed in the corridors, public rooms, closets, and all other suitable places; these should be partly filled with water, as has been already pointed out, and never, as is so often the case, with sand, sawdust, ashes, and such absorbent substances. These receptacles should be emptied daily, thoroughly cleansed, and disinfected in the manner before described. Expectorating on the floors, into the grates, or on to the garden walls and public promenades, should be strictly prohibited under severe penalties. Again, every hospital should have its own well-appointed laundry, or one under its control. To this all the linen of the patients should be sent and specially dealt with. For the reception of the soiled linen, each patient should be provided with a closed box—not a basket,—and the contents of this should be conveyed daily in covered receptacles to the laundry. Further, each patient should be required to give up his handkerchiefs every morning, and of course be supplied with one or more clean ones. With respect to the use of disinfectants in the laundry these are scarcely necessary, as the boiling, steaming, and washing processes are sufficient.

In the case of health resorts much frequented by consumptive patients, some regulations analogous to the foregoing are also needed. Dr. Goltz, one of the German medical men practising in San Remo, has drawn up a series of rules applicable to hotels frequented by consumptives. The number of phthisical patients is, however, so small in many of the hotels as in such cases to render any general and systematic precautions unnecessary; those really required in individual cases may be left to be dealt with by the medical man in attendance.

Another matter requiring serious consideration, but into which I do not now propose to enter, is the possibility of the communication of tubercular disease through the medium of the sputa to certain domestic animals, such as fowls, cows, sheep, and pigs, and from these again to the human subject. Such a result may occur where those animals are kept in the grounds belonging to a hospital for consumption, the soil and herbage being liable to be contaminated with expectoration.

Zürcherstrasse, Lucerne.

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SPECIMENS OF BILHARZIA AFFECTING THE URINARY ORGANS.

By REGINALD HARRISON, F.R.C.S.,
SURGEON TO THE LIVERPOOL ROYAL INFIRMARY, AND LECTURER ON CLINICAL SURGERY IN THE VICTORIA UNIVERSITY.

BY the kindness of Dr. Mackie of Alexandria I am able to give a short description of some specimens of bilharzia as seen affecting the urinary apparatus which I have recently examined. I am also indebted to Professor A. Barron for his valuable assistance in preparing the specimens for the microscope and in describing them.

1. Bladder received in 1887. Half of this was sent to the Owens College museum, and sections cut by Dr. Harris showed many ova lying in the bloodvessels, and also carcinoma, with well-marked cell-nest formation (epithelioma). No history of case received.

2. Bladder and kidneys of a fellah, aged forty, from Damanhour, who died March 6th, 1888. This patient came for relief to the Deaconesses' Hospital thinking he was suffering from stone in the bladder. On sounding, no stone was detected, but a large hard tumour was felt above the pubes, and the interior of the bladder seemed to be covered with small growths. The urine, which was bloody and purulent, contained ova of bilharzia in the sediment. The tumour was supposed to be either entirely due to bilharzia or partly cancerous. Perineal urethrotomy was performed, and the mass explored with the finger, but it was found impracticable to interfere with it. Microscopic examination showed it to consist of a glandular-celled carcinoma rich in cell columns and acini, poor in stroma, no cell nests, many ova, with much thickening of muscular coat and dilatation of lymphatics.

3. Bladder of a fellah, aged twenty-five, from Damanhour, who died Jan. 25th, 1888. The patient was admitted with a large, irregularly shaped phosphatic calculus, complicated with bilharzia. Supra-pubic lithotomy was performed on Jan. 13th. The cause of death was pelvic cellulitis. Examination of the bladder showed thickening of all the coats, much inflammatory effusion in mucosa and submucosa, immense number of bilharzia ova in patches, in mucosa and submucosa especially. In parts the ova were so numerous and so closely packed that the bladder tissue lying between the strings of ova was with difficulty to be distinguished.

4. Pieces of bilharzia growth taken from the bladder of a fellah during a lateral lithotomy performed on March 6th, 1888. The stone was composed of phosphates. Microscopical examination showed these growths to be partly inflammatory tissue, but mainly of cancerous formation, having the structure of a squamous-celled carcinoma (epithelioma). Well-marked cell-nest formation; few ova.

5. Bladder of a fellah, aged thirty, who died March 15th, 1888, from septicæmia following a lateral lithotomy performed on March 5th. At the post-mortem examination, an opening one inch in diameter with an ulcerated margin was found in the posterior wall of the bladder. The viscus was very thin around it. About three ounces of pus were found in the cellular tissue behind the bladder. Microscopical examination showed squamous-celled carcinoma, much cell-nest formation, with very few ova in the sections examined.

It will be observed that in four of these five cases of bilharzia cancer was present as a complication. Prolonged investigations in places where such cases are common, relative to the frequency with which bilharzia, cancer, and calculus coexist, and the order of their appearance, would be of very great value in reference to certain points in the natural history and pathology of these three affections. Whether the parasite merely plays the part of an irritant in a person in some way predisposed to generate cancer, or whether the relationship between the parasite and the proliferous tissue growths which we are accustomed to speak of as cancer is even still more connected and intimate, are points amongst others which naturally become prominent in connexion even with such brief records as I am now presenting.

Liverpool.

OWENS COLLEGE, MANCHESTER.—Mr. T. N. Kelynack has been awarded the Dumville Surgical Prize, of the value of £20.

A CASE OF

HYSTERO-EPILEPSY IN THE MALE; RIGHT HEMIPLEGIA, ACCOMPANIED WITH ANALGESIA AND ANÆSTHESIA.

BY FRANCIS R. B. BISSHOPP, M.A., M.B. CANTAB.

THE extremely interesting nature of the following case must be my apology for the length of the report.

G. B——, aged twenty-seven, was first seen by me in July, 1888. He complained of "fits and paralysis of the right arm and leg," which he had suffered from for the previous three years. He was a hairdresser by trade, married, and had two children; the eldest died when four months old, from bronchitis; the surviving child had always been well, never had fits, but was "very nervous." The patient's father died of consumption, aged fifty-two; mother, aged forty-six, and two of her sisters died "in decline." The grandmother suffered from fits. One aunt died in Chatham Asylum. He had two brothers, strong and in good health. As a child he was never strong, having always been thin and pale. He suffered from the ordinary diseases of infancy and childhood, but never had fits or convulsions. He went to school till the age of fourteen; about this time he commenced to suffer from a cough, and occasionally spat up a little blood. On leaving school he was apprenticed to his trade; his cough, however, was still troublesome at times, otherwise his health was good. He married at the age of twenty-one. Two years later he had an attack of rheumatism in his right knee, and was laid up for a fortnight. He became quite well and went back to work; but owing to the cough, which had never left him, becoming much worse, accompanied by spitting of blood and matter, he was obliged to take to his bed. He went to a doctor, who told him he was "in a decline, and had only one lung." About this time he lost his child, which was a great shock to him, and also had some family trouble. He improved somewhat and was able to sit up, but shortly after this he had his first fit. There was no history of injury or venereal disease. He had always been very temperate, taking about half a pint of beer a day, and was not a smoker. The patient had his first fit in July, 1885. He suddenly fell down without any warning while undressing before going to bed. He did not hurt himself, but was unconscious all night. The doctor who saw him said that it was "an epileptic seizure." After recovering from the fit, he found that he had lost his voice and was unable to speak for a fortnight. He also had some difficulty in swallowing. He now took to his bed. In less than a week he had another fit, lasting two or three hours. The fits then recurred every day, sometimes two or three a day. In one of unusual severity, lasting all day, and in which he was very violent, on regaining consciousness he found that he had lost the use of the right arm and leg, "the arm being fixed down to the side." The fits had continued ever since, one on an average occurring every other day; for the last six months, however, they had been less frequent, and not so severe, occurring about once or twice a week. He said that he occasionally passed urine during the fits, but never fæces. He never bit his tongue, but was always very violent, requiring to be held down to prevent him injuring himself. He endeavoured to tear the bedclothes to ribbons, tried to strangle and bite himself, screamed, sobbed, and talked incoherently. After the fits set in the cough and spitting of blood stopped, but he had remained bedridden ever since. He was told by all the doctors who saw him that he would never recover the use of his side again.

The patient's condition when I first saw him was as follows. A spare man, of medium height, dark complexion, and scanty growth of hair on the face; extreme melancholic expression of countenance, which was dull and vacant. He lay on his back in a semi-recumbent position, propped up with pillows, complaining of pain over the lower part of the abdomen. Appetite bad; teeth decayed; tongue furred; bowels constipated, acting on an average once a fortnight, and then only by taking strong aperients. On examining the abdomen, the area of liver dulness was found to be normal. Spleen not to be felt. There was great tenderness and resistance to pressure in both inguinal regions, especially the right, and if made firmly caused the patient to groan and scream

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out, and his facial muscles to contract as if initiating a fit. Both testes in the scrotum; extremely sensitive to slight pressure, which produced similar symptoms. Penis well formed. Heart sounds normal; no increase of cardiac dulness; action regular. Pulse 64. Chest well formed. No flattening below clavicles. There was slight impairment of resonance at the right apex, where the expiratory murmur was somewhat prolonged. No other physical signs. Urine pale and clear; acid; sp. gr. 1022; no albumen or sugar; he sometimes passed a larger quantity after the fits. Sexual desire absent. The eyelids on being closed quivered violently; pupils equal, widely dilated, and reacting both to light and accommodation; discs and fundi normal; marked retraction of the field of vision in the right eye, and slightly in the left; also retraction of colour vision for red and green, the latter more extensive, and complete achromatopsia for blue in both eyes. Hearing, smell, and taste normal on the two sides. Marked anæsthesia of pharynx. General paresis of right arm and leg. Muscles small and flabby from disuse. Complained of no pain. The arm was extended down by the side; the hand, in the shape of a cone, was slightly flexed at the wrist and metacarpal phalangeal joints, with the thumb in the palm; slightly rigid. Marked tremor evoked on raising the limb, which he could do to a limited extent, the grasp not being so strong as on the opposite side. Electric reactions normal. Patch of anæsthesia and analgesia just above the elbow-joint, extending round the limb, also over the whole of the extensor and flexor surfaces of the forearm, terminating at the wrist-joint. No impairment of muscular sense; limb colder than opposite side. The leg could be drawn up slightly at will, which caused the whole extremity to be thrown into violent tremor. Marked extension of foot, and pointing of toes. Resistance to forcible extension and flexion of limb fairly good; electric reactions normal; knee-jerks brisk; no ankle-clonus. Anæsthesia and analgesia of foot, leg, and lower third of thigh; slight impairment of muscular sense. On the right side of the thorax, in the axillary line, there was a circular patch of anæsthesia and analgesia, extending over the sixth, seventh, and eighth ribs. Abdominal and cremasteric reflexes slightly exaggerated. He had perfect use of the left arm and leg. Tendon reflexes increased. Tremor present. Marked dropped foot. No anæsthesia or analgesia. No impairment of muscular sense. No paralysis of face, or any cranial nerve. The mental condition of the patient was one of extreme depression, constantly being in tears. He was also very religiously inclined. He was, moreover, excitable, and easily put out of temper, and a fit would often supervene when very much vexed.

With reference to the fits which I have had an opportunity of witnessing, they were for the most part similar in their mode of onset, main characters, and duration, the final period of semi-consciousness and confusion, however, lasting longer in some than in others. Briefly, their main features were as follows. The patient, while sittfng up in bed, suddenly uttered a low moan and fell back, becoming rigid and quite unconscious. This was followed by twitching of the muscles of the right side of the face and noisy breathing; conjunctivæ quite insensitive. Both hands then violently dragged at the skin of the throat. This was succeeded by violent clonic convulsive movements of the whole of the body, the arms and legs being thrown about in every conceivable direction, and the trunk at times assuming a position of complete opisthotonos. The respiration then stopped, and, after sighing deeply two or three times, he opened his eyes, stared about him, and commenced talking incoherently, at times interrupted by violent sobs. If spoken to sharply, he recovered himself and answered rationally; otherwise he would remain in a drowsy condition. The average duration of each fit was half an hour. He never had more than three in succession. He never bit his tongue, but in one passed urine involuntarily. Pressure made in the inguinal regions or squeezing the testes was not productive of any abatement or alteration of the fit.

The condition of the patient at the present time is extremely satisfactory. He is up nearly all day, and can walk about the room, up and down stairs, and goes out. The anæsthesia and analgesia of the trunk and limbs have entirely disappeared. The hyperæsthesia of the inguinal regions and testes is much diminished. There is still marked retraction of the field of vision, and also for colour vision in the right eye and slightly in the left. The fits occur much less frequently; on an average once a month. (It is an interesting fact to note that the last fit came on in the early morning, after having had connexion with his wife during the night, the first time for three years and a half.) The appetite is good, the bowels act daily without aperients, he has put on flesh, and his whole physical and moral condition is much improved.

The treatment briefly has consisted in faradisation, massage, tonics, and good feeding, and complete isolation, as far as was possible, from the visits of all sympathising friends, accompanied by the moral treatment which is so essential in these cases to restore that control to the will which it has lost.

Remarks.—Reports of cases of this nature are very rare in this country. Dr. Savill, in the report of a most interesting case which he read before the Clinical Society in the same month, states that he was only able to find the records of four undoubted cases of hystero-epilepsy in the male from English sources. With regard to the diagnosis: the character of the fits, exhibiting as they do so typically the four stages as described by M. Charcot—viz., (1) epileptoid, (2) purposive, (3) convulsive, and (4) delirious,—the anæsthesia and analgesia, the hysterogenic zones, the contraction of the field of vision, and the achromatopsia, together with the result of the treatment employed, as shown by the present satisfactory state of the patient, clearly point to the nature of the case. The hysterical aphasia (which is described by Charcot under the term "mutism") which followed the first fit, the character of the hemiplegia which developed itself in a latter fit of much greater severity, unaccompanied by facial paralysis, and the absence of any disease of the heart or vessels, or optic neuritis, or affection of the other cranial nerves, put on one side the question of an organic lesion in the brain. The fact that the right side only was affected, without any spasm, rigidity, wasting of the muscles or change in their electric reactions, and the peculiar character of the anæsthesia and analgesia, accompanied by the other well-marked "stigmata," negatived any disease of the cord or its membranes. The history of this man emphasises the extreme importance of arriving at a correct diagnosis in cases of a similar nature—a diagnosis which at once obviates the evil results of a hopeless prognosis, and does away with the faintest suggestion on the part of the relatives or friends that the patient is a malingerer. Finally, as far as I am aware, this is the only case recorded in this country of hystero-epilepsy in the male, accompanied by hemiplegia, which was not preceded by a history of traumatism.

Tunbridge Wells.

NOTE ON THE

THERAPEUTIC ACTION OF SENNA PODS.

BY A. W. MACFARLANE, M.D.,

EXAMINER IN FORENSIC MEDICINE IN THE UNIVERSITY OF GLASGOW.

MY friend Dr. Thomas Keith mentioned to me, eighteen months ago, the efficacy of senna pods as a laxative in cases of obstinate constipation. A day or two afterwards I prescribed them in a case which seemed suitable for their administration, and was so agreeably impressed with their effects that, notwithstanding I had discarded the use of senna in most of its forms for several years, I resolved to test the utility of the pods in various cases. As it was early apparent that their properties differed vastly from those of senna leaves, I endeavoured, while estimating their value, to ascertain wherein the disparity of their action lay.

Let me briefly premise that an infusion of senna leaves has a characteristic and nauseous taste and odour; that it acts as a mild acrid or drastic purgative, exciting increased peristaltic movements in the small intestines, which, hurrying the contents quickly through the colon and rectum, cause the evacuation of watery stools in four or five hours; inducing concurrently, in many instances, hyperæmia of the pelvic bloodvessels, which excites or aggravates hæmorrhoidal and menstrual losses. Its administration is so commonly attended by griping, tenesmus, and flatulence, that it is seldom prescribed except in conjunction with a carminative, these disagreeable symptoms being more marked if the leaves are long infused, to obviate which the time fixed for the preparation of the infusion in the British Pharmacopœia is

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half an hour. In nursing women the active principles of senna leaves are partially excreted through the milk, giving rise to griping and purging in the infant. On account of the irritating effects, the infusion of senna has long been discarded in cases in which there is any tendency to congestion of the gastro-intestinal canal, to miscarriage, and to hæmorrhoids &c.; and in consequence of its drastic and depressing properties it has been deemed an unsuitable remedy in neurasthenic conditions.

The products of the senna plant, as imported into this country, consist of leaves, stalks, pods, and flowers, with certain other extraneous materials; these are sent to the great prisons to be picked, and the leaves are carefully selected and returned to the druggists, while the other parts are rejected. Senna pods have been so little used in Great Britain, that no reference is made to their medicinal properties in any of the text-books on materia medica or therapeutics with which I am acquainted. They are thus described by the late Dr. Scoresby-Jackson in his Note-book on Materia Medica:—"Legumes, pendulous, flat, slightly enlarged over the seeds, upper margins a little curved, brown, containing from five to eight seeds." The only references to their therapeutical employment which have come under my notice are as follows. 1. By Dr. James, in the New Universal English Dispensatory, second edition, 1752, page 252: "The follicules or fruit of the sena (*sic*) tree purge in a less degree than the leaves." 2. By Dr. Pereira in his work on the Elements of Materia Medica and Therapeutics, third edition, 1853, vol. ii., part 2, page 1870: "The legumes are much milder in their operation than the leaflets." 3. By F. A. Flückiger and D. Hanbury, in the Pharmacographia, 1874, page 191: "The Arabian and the mediæval physicians of Europe used both the pods and the leaves—preferring, however, the former. ..... The pods (folliculi sennæ) are still employed in some countries." It is thus apparent that the dissimilarity of action which exists in the leaves and pods, which I recognised, was long ago appreciated. In connexion with the last quotation, I may mention that I have been informed that the pods which are preserved in the sorting process in London are exported to the European continent, and that they are rarely purchased by chemists in this country. As a matter of fact, the majority of chemists do not keep them in stock, and there is at times difficulty in procuring them.

An infusion of senna pods is almost free from taste and smell; certainly it is devoid of the characteristic odour and flavour of "senna." It appears to increase activity in the muscular movements of the whole gastro-intestinal canal, acting quite as much on the colon and rectum as upon the small intestine. It is slower in its action than an infusion of the leaves, but equally certain; an ordinary dose produces without fail one motion, seldom more, of soft consistence, in from eight to ten hours, and without exciting any congestion of the pelvic vessels, or increasing or aggravating hæmorrhoidal or menstrual discharges. It is, in short, a reliable evacuant, free from irritating properties such as cause griping and flatulence; and, if the experience of one case is worthy of mention, it does not appear to be excreted through the milk in the nursing mother, for in one such patient the child was unaffected by its use. Administered regularly for several nights in cases of intestinal torpor, it cleans the tongue, increases the appetite and digestion, and promotes natural evacuation of the bowels, so that the quantity taken requires to be decreased, and eventually it can be dispensed with. The cases in which I have found it most serviceable are those depending upon impaired muscular movements, from defective innervation, usually associated with flatulence and intestinal discomfort. It has also proved useful in cases of hæmorrhoids, and in constipation in children, as well as in the aged. Like all purgative medicines, the infusion acts better in some persons than in others, and also in the same person at different times; but, after a fairly extended experience of its use, I have not been disappointed in its utility in any one case, nor have I been annoyed by any untoward effects. I am not sanguine enough to hope that it will meet the exigencies of every case of constipation, but that it is a real addition to our remedies I cannot doubt. It has afforded me better results than any other medicine I have yet used, exceeding in efficacy cascara sagrada; while its freedom from disagreeable taste is a strong point in its favour.

I think I have written enough to indicate that the properties of the pods differ very considerably from those of the leaves. I have, therefore, only to add that I know of no condition which contraindicates their use, being as harmless as castor oil. The dose for an adult is from six to twelve pods; for the young and very aged, from three to six. They are best infused in a claret-glassful of cold water for six or eight hours. Mr. John Borland, F.C.S., late examiner in the Pharmaceutical Society of Great Britain, of the firm of Rankin and Borland, chemists, Kilmarnock, has kindly prepared for me a plain and simple liquid extract of the pods, the dose being from half a drachm to a drachm in a wine-glassful of cold water at bedtime. It has little taste, and it is exceedingly certain in its action, while it possesses the advantage of always being ready for use.

Manchester-square, W.

A CASE OF

STRANGULATED OVARIAN HERNIA IN AN INFANT AGED THREE MONTHS.

BY BILTON POLLARD, B.S., F.R.C.S.,

ASSISTANT SURGEON TO UNIVERSITY COLLEGE HOSPITAL; SURGEON TO THE NORTH-EASTERN HOSPITAL FOR CHILDREN.

MOST surgeons must have observed, in both infants and adults, herniæ which they have considered to be ovarian. In January, 1882, Dr. Barnes read a paper on Hernia of the Ovary before the Medical and Chirurgical Society, and in the eighteenth volume of the St. Bartholomew's Hospital Reports there is a paper on the same subject by Mr. Langton. Since the introduction of the modern operation for the radical cure of herniæ, irreducible prolapsed ovaries have occasionally been met with, but I am not aware of a case in which the ovary was found strangulated. In the following case the hernial sac contained an ovary and the free end of the Fallopian tube; they were both tightly strangulated and inflamed.

E. R——, a female child aged three months, was admitted into the North-Eastern Hospital for Children, under my care, on March 30th, 1889. When the child was two months old, its mother noticed a lump in its groin; the lump used to disappear for a time and then return; its size was variable. On March 19th an inguinal truss was ordered at the hospital. On March 26th the truss was applied by the instrument maker; the hernia was then supposed to have been reduced. On the 27th the truss was removed in order to wash the child, and then an irreducible swelling was noticed in the right groin. On the 29th the patient was seen at the hospital by the house surgeon, who found the hernia irreducible. The child had vomited a few times since the 27th, but its bowels had been moved on the morning of the 30th. When admitted on the latter date, there was a swelling of a rather larger size than a pigeon's egg situated over the right external abdominal ring, and distending the upper part of the right labium majus; the skin over it was red and hot; the swelling felt elastic, and indistinct fluctuation could be made out; it was irreducible, gave a dull note on percussion, and altogether simulated an abscess. I suggested that it might be a strangulated ovarian hernia, for the history of the case pointed to its being a hernia of something from the abdominal cavity, and the child's symptoms during the past three days were such as to exclude a strangulated intestinal hernia. Soon after admission the child was placed under the influence of chloroform, and an incision one inch and a half long was made through the superficial tissues, which were all œdematous and matted together. On opening the sac some turbid blood-stained fluid escaped. The sac contained an ovary and the fimbriated extremity of the Fallopian tube; they were both greatly swollen, black or grey in colour, and in places coated with lymph. It was not thought advisable to return them into the abdomen, so the sac and its contents were mopped over with a 1 in 500 solution of perchloride of mercury, the pedicle was drawn down, transfixed, and tied in two pieces with silk ligatures, and the pedicle was returned within the abdomen. The neck of the sac was tied with a silk ligature, and the body of the sac was excised. In order to reduce the stump of the sac, which was much thickened by inflammatory exudation within the abdominal wall, the external abdominal ring had to be slightly enlarged. The pillars of the ring were then sutured with silk. The wound was made as dry as possible, and the skin

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brought together with silk sutures. No provision was made for drainage. A dressing of boracic-acid powder and sal-alembroth gauze and wool was applied. The temperature reached 101·2° F. on the day after the operation; it had fallen to 98·6° by the following day; on the fifth day after the operation the temperature rose to 101·8° without any obvious cause; with these exceptions the temperature kept about normal. The dressing was changed daily, as it either got shifted or soiled. The wound healed by first intention. The stitches were removed on the seventh day, and the child was discharged on the eighteenth day after the operation.

I was in some doubt as to how this case should be dealt with. The ovary and Fallopian tube might have been reduced if the abdominal ring had been very freely enlarged. They were, however, almost black from extravasated blood, and were coated with lymph, but, as the inflammation was the result of strangulation, and quite independent of septic causes, they might doubtless have been returned into the abdomen without giving rise to a spreading peritonitis. On the other hand, they would probably have become adherent to the pelvic wall or some viscus, and might have given rise to subsequent trouble. And, further, the ovary appeared to be so much damaged by extravasation of blood into its substance as to render it of little or no physiological importance. After removal the ovary was found full of blood, which occupied several distinct cavities. The treatment adopted was most probably the best.

Harley-street, W.

CASE OF STRYCHNINE POISONING; RECOVERY.

By HERBERT C. W. JONES, M.B. CANTAB., M.R.C.S.

ON June 10th I was called at 11.5 A.M. to see A. B——, a night watchman, formerly a soldier, who was said to have been drinking heavily for a week, and to have "done something to himself" that morning. Going at once, I found the patient, a muscular man about thirty years of age, lying on his back in bed. Within a few seconds of my arrival he was seized with a tetanic convulsion, opisthotonos being well marked, the arms flexed across the chest in a condition of rigid tremor, with the hands clenched and the legs extended. His face was livid and congested, and his features were fixed in a spasmodic grin. At the onset of the paroxysm he gave an agonised shriek, which ceased as the respiratory muscles became involved in the spasm. This paroxysm lasted nearly two minutes, and during its continuance the pupils were considerably dilated. Suspecting strychnine poisoning, I questioned him (his mind in the interval being quite clear), and he confessed to having swallowed two threepenny packets of Battle's vermin-killer at 10.45 that morning. After an interval of about three minutes, during which muscular twitchings occurred almost continuously, another violent paroxysm supervened, followed rapidly by others, all of the same character, more than one of which threatened to be fatal from asphyxia. Finding that the slightest touch at once brought on an attack, I judged that any attempt to wash out the stomach or produce emesis would very likely prove fatal, and having by this time (11.30 A.M.) procured chloral hydrate, twenty grains dissolved in water were injected subcutaneously during an attack. At midday the attacks were rather less frequent, but still very severe, so another twenty grains of chloral were injected hypodermically during an attack. The intervals between the successive attacks now became about ten minutes, and at 1 P.M. ten grains more of chloral were injected. Between 1 and 2 o'clock he had only three paroxysms. He complained of great thirst throughout, but the attempt to swallow brought on an attack. Towards 3 P.M., soon after a paroxysm, he swallowed some water and was given twenty grains of chloral by the mouth. After this he had no more attacks, but the muscular twitchings still continued until about 7 P.M. Soon after 3 P.M. he retched several times, but only brought up a little frothy mucus. From 7 P.M. to 8 P.M. he slept, and woke feeling very weak and sore in the arms and back. From this time he rapidly recovered, and was able to go out in three days. He tells me that on Sunday, June 9th, he swallowed the contents of two threepenny packets of the vermin-killer, but vomited immediately, and felt no ill effects. On Monday, the 10th, he breakfasted at 4 A.M., and bought two threepenny packets of the same vermin-killer at a chemist's, who confirms his statement. He was in the habit of getting it there to destroy rats on the premises where he is employed. He then drank some ale and spirits, went home, and, emptying the packets into a glass of water, swallowed them, leaving none in the glass. This was at 10.45 A.M. He almost immediately felt faint and went to bed, the convulsions beginning in about five minutes. He did not vomit. The threepenny packet of this vermin-killer contains about fourteen grains, and, according to Dr. Letheby's analysis, 23 per cent. of this is strychnine; therefore, assuming the man's account to be true (which I see no reason for doubting), he must have taken about six grains of strychnine in the two packets. Whether the alcohol he had taken in any way modified the action of the poison I will not venture to say, but the case appears to me interesting, as confirming the fact that in chlorate hydrate we possess a reliable antidote to strychnine.

Chelsea.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

GUY'S HOSPITAL.

A CASE OF LEPROSY; LARYNGEAL OBSTRUCTION; TRACHEOTOMY; DEATH; NECROPSY.

(Under the care of Dr. FREDERICK TAYLOR and the late Dr. WOOLDRIDGE.)

MUCH attention has been given to the subject of leprosy during the last few weeks, more especially to the question of its contagiousness. We have fully discussed this point in our columns,[1] as also the various causes which have led to this unusual interest in the disease. We do not therefore propose to reconsider these points, but to put before our readers the account of a case which was under skilled observation in England. As this observation extended over many years, it would not be possible to give the full history of the case, but the following account will be found interesting, as the disease is rare in this country, and post-mortem records of it are not frequently to be obtained. The disease appears to have developed in a boy, the son of healthy European parents, which is very unusual, and to have commenced at an earlier age than is commonly found, the first symptoms generally appearing about the age of puberty, or in early adult life. The course of the disease presents nothing of a remarkable character, excepting for the pyrexia, until the onset of the laryngeal symptoms. On the occurrence of these complications Dr. Vandyke Carter says:[2] "There is one occasion of death which is in its way also peculiar, and is only mentioned by the Norwegian physicians. I mean that entered as 'Laryngitis and Suffocation,' which had occasioned fifteen casualties (out of 300); and on inquiry during my late visit to Bergen, I ascertained that this event was sometimes a very sudden one in leprosy; but whether the laryngeal disease causing suffocation is always leprous, or is sometimes strumous remained uncertain. The possibility of sudden asphyxia in lepers is well known to surgeons in India." That a large number of cases of leprosy die from phthisis is well known, and Dr. Beavan N. Rake has exhibited at the Pathological Society[3] specimens from a case of mingled tubercular and anæsthetic leprosy, demonstrating the occasional presence of tubercular disease of the larynx in leprosy. There is usually no fever;[4] Dr. Vandyke Carter[5] also adds: "From this table

[1] THE LANCET, vol. i., 1889, p. 1309.
[2] Report on Leprosy to the India Office, 1874, p. 143.
[3] Path. Soc. Trans., 1886, p. 544.
[4] Fagge's Practice of Medicine. [5] Op. cit., p. 143.

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may be learnt that form of fever which is peculiar to leprosy, but which is seldom or never of itself fatal; the so-called catarrhal fever of Bergen belongs to the same category; and these should, I think, be associated here with the frequent 'erysipelas' as an appanage of leprosy." In Dr. Taylor's case there were attacks of inflammation resembling erysipelas, whilst death ensued in consequence of pyæmia. Accompanying Dr. Carter's report there are illustrations of the disease in various stages, and the New Sydenham Society's Atlas gives two portraits of patients suffering from it. The subjoined notes were taken by Messrs. Aymard, Lewis, and Kitching.

R. S——, bill-poster, aged twenty, was admitted on Nov. 21st, 1886, under the care of Dr. F. Taylor. His father died of sunstroke in India; mother alive and well; a brother and sister alive and healthy. The patient cannot recollect having had any previous disease.

History of present complaint.—The patient went to India when two months old with his father and mother; his father died there. He was sent home by the Government when six years old, and placed in the Duke of York's School at Chelsea. Here his arms and legs came out in blue blotches. He has no recollection when his face became affected. The blotches turned into raised lumps, and were only painful when they ulcerated. He was not treated at the school. The patient then went to Ireland and afterwards to Folkestone, where he was treated by a doctor, who three years ago sent him to this hospital. The report of his case cannot be found, but he was under Dr. Moxon. From what the patient says, his face had not broken out then, but his legs were in much the same state as they are now.

Present condition.—Hair light colour, inclined to be bald in places. Alopecia of eyebrows. Eyelashes scanty. No hair on chin or upper lip. Over the front of the face the skin is raised, nodular, and tubercular-looking, and appears thickened. On the front of the chest, buttocks, and front of the thighs there are numerous red spots, round in some places, raised in others, which do not fade on pressure. The abdomen and arms are covered with brown spots, which are not so raised, nor so deeply coloured, as over the former situations. There are numerous scars, the seat of former ulcers; these are mostly anæsthetic, and are placed on the extensor surfaces of the arms and legs. There are also scabbed ulcers on the extensor surfaces of the arms, legs, palmar surfaces of hands, right buttock, back of neck, over the right eyebrow, lower portion of the nose and nasal apertures, upper and lower lip, chin, and glans penis. The skin over the lower two-thirds of both tibiæ and the back of the right hand is tense, red, shining, œdematous, and desquamating. There are ulcers of large size over the right olecranon and front and outer sides of both legs. The largest ulcers are situated in the lower third of the legs. They are devoid of granulations on the surface, which is smooth and pale. The edges are slightly raised and bluish white in colour. The sore on the penis is the same in character as the other scabbed ulcers; the patient first noticed it after slight difficulty in micturition. A white line extends laterally from the umbilicus. The spots on the front of the chest and abdomen are limited to the space enclosed by two lines drawn vertically downwards from each nipple to about the centre of Poupart's ligament. The heart's apex beats in the nipple line about an inch below it; cardiac dulness normal. There is a systolic bruit at the apex and over the pulmonary area. Bruit de diable over the veins at the root of the neck. The pulse is small, regular, compressible. The lips are bluish white, thickened, and scabbed over. The tongue is ulcerated at the tip, and covered at the sides and front with thick yellowish material and heaped-up epithelium; papillæ enlarged. What remains of each tonsil is covered with whitish tubercular masses. The soft palate is hyperæmic in patches and ulcerated. Uvula thick and scarred. The patient breathes through his mouth, as his nasal apertures are blocked with scabs and crusts. The breath is very foul. The epiglottis shows some loss of substance, with growth on the anterior surface. Ary-epiglottidean fold thickened. No growth on the vocal cords, but they appear somewhat thickened. The patient's voice was normal till two days before admission, when it became as it is now, a husky whisper. Chest sounds normal. Bowels regular. Urine normal. Splenic dulness normal.

Nov. 10th.—Dr. Taylor saw under the microscope what were, no doubt, leprosy bacilli. The specimen was taken from pus from the patient's finger, and stained by Ehrlich's method. It was looked at under a $\frac{1}{12}$ oil immersion. Similar bacilli have been seen in the patient's sputum. The bacilli are seen in small clusters stained red; these clusters are usually round; each bacillus is a small rod-shaped body, its breadth being about one-fourth of its length.

Dec. 11th.—The patient thinks that he is improving. His voice is still husky and hoarse. The face is quite sensitive, with the exception of two scars on the right cheek; over these spots sensation is impaired; sensation does not return gradually as the healthy tissue is approached, but abruptly on the margin of the scar. There is anæsthesia over the dorsal surface of the little and ring fingers of the left hand and on the ulnar side of the middle finger. Sensation exists over the other digits; it is lost over the whole of the dorsum of the hand, with the exception of the meta-carpal bone of the thumb. Sensation is entirely absent on the ulnar surface of the wrist for about two inches and a half, gradually improving as the radial side is approached, until at length it becomes normal on that side. On the palm of the hand and the palmar surface of the fingers sensation is unimpaired. There is anæsthesia on the flexor surface of the wrist for about two inches, improving as the elbow is neared. Around the wrist (extensor and flexor) there is a good deal of scar tissue and tubercular elevations; over these sensation is absent, and it is also more marked on the ulnar than on the radial side of the forearm and hand. From the elbow upwards sensation is unimpaired. Anæsthesia exists over the dorsal surface of the right little finger and ulnar side of the ring finger; the others are normal. There is anæsthesia over the back of the hand and the back of the wrist, but it is not so marked or so high up as on the left arm; individual patches on the extensor surface have quite lost sensation. On the palmar surface of the hand sensation is normal or slightly hyperæsthetic.

Feb. 8th, 1887.—Anæsthesia is marked in a few places on both legs, but not so definite as that of the arms, nor confined to any particular region. The patient left to-day.

He was readmitted into Dr. Taylor's ward, under the care of the late Dr. Wooldridge, on July 30th, 1888. The patient appeared to be well nourished and intelligent. He looked quite forty years old. His swollen face and heavy forehead gave him an "old" but hardly a "leonine" expression. The forehead, cheeks, chin, and nose were covered by large, dark, dry scabs, which were very thick and rough. Between these the skin was dry, shiny, and almost polished; this was most marked on the forehead. The lips were swollen, thick, and nodular. The nose was flattened and broad. The eyelids were swollen, but the eyes were apparently normal. On the right side of the nose and upper lip were larger scabby masses, apparently of long standing. Some tubercles were present on the upper eyelids, and several well-marked ones in the occipital region. The front and back of the trunk were covered and mottled by patches, which had a brownish tint, looking like old "specific" stains. This was also well marked on the arms and wrists. The left hand was swollen and red, but not hot. The fingers were swollen, and the skin was tense, polished, and marked in places by large scabs; but there were no open ulcers. The terminal phalanx of the little finger was absent, having been eaten away by the disease. Over the left olecranon was an ulcer (one inch and a half by one inch), base flattened, non-adherent, edge not raised, and its border surrounded by a dark band of congestion; the base showed no granulations. Three inches below this was a large scar. The right upper limb presented two ulcers on the elbow and some scabs on the wrist, in appearance like those on the left elbow. The palmar surface of the hand was normal, but swollen. The dorsum of the hand was red and congested, and covered by large cicatrices. The whole hand was swollen, the fingers very much so, and they had the appearance of being shortened. The ball of each was occupied by a dry scab, and the nails seemed placed close to the distal end of the second phalanx, the third phalanx being apparently destroyed to a large extent. In the case of the little finger the whole end of the finger was absent. Both legs were much swollen and œdematous, tense, and brawny. The feet were swollen, and the skin tense and shiny. There appeared to be no loss of bone. There were a large number of ulcers of various sizes and shapes, but all presenting the same appearance as those described on the arms and elbows; one large

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one was over the left inner malleolus, and another over the inner aspect of the left great toe; one was over the peroneal region, and several over both calves. On the outer and inner aspect of the right shin, about three inches above the ankle and passing round to the posterior aspect of the limb, was a large ulcer. Heart sounds normal. Voice very husky—in fact, little better than a whisper. The larynx, as seen with the laryngoscope, was ulcerated and deformed. No cough or expectoration. The epiglottis was wrinkled up and swollen.

July 31st.—At 2 A.M. the patient woke and found some difficulty in his breathing. He had some water and tea, but this did no good. Later on he began to get dusky, and then blue; he could only breathe in a sitting posture. At 10 A.M. he was given a dose of senega and ammonia. He seemed in great distress. Air entered the chest badly; both sides were full of loud râles and bubblings. Above the clavicle and sternum the tissues were sucked in very much, and expiration as well as inspiration was very laboured. There was also profuse perspiration. The patient was every few minutes troubled by a hoarse, muffled cough, and had by 10 A.M. expectorated half a porringer of yellow, slightly frothy serum, with a little mucus and pus (?), but no blood. He was ordered a steam kettle, and at 12 P.M. an alkaline inhalation in a spray every half-hour, and two leeches, one on each side of the larynx. The latter abstracted a good deal of blood, and one wound bled profusely. This appeared to ease the patient considerably, but by the afternoon he had orthopnœa and attacks of coughing, which shook and disturbed him very much. The face was still dusky, but no longer blue and livid. Later on the treatment was changed by substituting a tannic acid inhalation for the alkaline one.

Aug. 1st.—In the evening Dr. Wooldridge saw the patient, and then he was worse, with very laboured breathing, and becoming exhausted. Tracheotomy was therefore performed at 6 P.M. by the house surgeon, Mr. Hawkins. Some relief was obtained thereby, but his breathing continued very rapid, he was occasionally delirious, and his temperature ranged between 101° and 103·5°.

3rd.—The patient's right and left hands are very swollen, red, hot, and painful. The redness disappears on pressure, and has no well-defined border. Spirit lotion was applied.

7th.—The patient's breathing in the night was not so good. The thighs are now red and swollen, as the hands have been. A crop of pemphigus-like pustules are making their appearance. These are present also on the scrotum, and there is a large sloughy-looking scabby sore on the left side of the glans penis, which has presented itself during the last two or three days.

8th.—At about 4 P.M. the patient became excited, wished to make his will and to leave large sums to the nurses; he then refused food, and afterwards became comatose for about a quarter of an hour. The pulse was good all the time. From this condition, however, he recovered. He has become very despondent. The legs, thighs, and arms are very swollen and tense. He slept soundly after a morphia injection. Takes his food well.

10th.—The patient was very restless and excited during the night, trying to get out of bed and wanting to remove the tube. He vomited once.

12th.—The patient remained quiet, but not comatose, all day, waking up to drink when roused, and yet losing the painful restlessness with its accompanying suicidal tendencies. Attempts to find a bacillus at this time failed entirely, though blood, pus, and fluid from the tubercles and ulcers were examined.

14th.—The temperature has fallen below normal; pulse weak and rapid. Spots are now coming out all over the back and shoulders, and some hæmorrhagic-looking sores about the mouth are again suppurating. There is very marking wasting of the upper arms and thighs. There is a pustular eruption breaking out over the chest and abdomen, the pustules being discrete; the glans penis is very bad, nearly the whole surface being one sloughy mass, though the destruction proceeds but slowly. The scrotum also has very bad sores over it, and there is an eczematous discharge.

16th.—The arms and legs are desquamating in large thick stiffened scales. Temperature subnormal; breathing rapid; air enters everywhere; a few râles heard here and there, and loud rhonchi also when he coughs; but otherwise, and with the exception of the masses of blood-stained mucus and fibrinous-looking material, the lungs seem healthy.

17th.—About 3 A.M. the right parotid region became uncomfortable, causing the patient to touch and rub it, and later on it became swollen considerably and very tender. This morning (10 A.M.) there was a tense swelling all over the parotid region, and extending back to the mastoid process; it is not hot or red; on the contrary, the most prominent part is bleached. About 12 P.M., without any other change, except that he became much weaker and quite unconscious, the patient died quietly.

From the day of admission until Aug. 12th the temperature was high, mostly between 101° and 103·5°. On Aug. 13th it was subnormal, and was mostly between 95° and 96° until his death. Cod-liver oil, iron, and iodide of potassium were given on his first admission; and on the second occasion quinine and sedatives, such as opium, morphia, chloral, and potassium bromide, were mostly employed, with brandy and fluid nourishment.

Necropsy, four hours after death.—Rigor mortis well marked. All the glands that were opened were found suppurating—viz., femoral, inguinal, iliac, axillary on both sides, and the right parotid were all full of pus. The subcutaneous tissue of both arms was, wherever cuts were made into it, suppurating. Both ulnar nerves (about three inches of each) were removed from behind the internal condyles, and both seemed to be enlarged, though there was some difference of opinion on this point. The larynx was covered by small ulcers, and the cords were clogged and almost fixed by secretions, though there seemed to be no ulcers on the true cords. The tonsils and pillars of the fauces and back of the tongue were covered by ulcers. Epiglottis short, thickened, rolled transversely, and ulcerated. Trachea below the wound clogged by blood-stained fibroid material. The wound was itself healthy. Œsophagus normal, but pale and flabby. Aorta quite healthy. Lungs rather compressed. A few adhesions of right pleura. Ten ounces of fluid were found in the left chest and thirteen in the right The lungs themselves were healthy. In the pericardium a few adhesions existed over the auricles. Heart flabby, but healthy; no disease of valves. Stomach small and contracted. Intestines healthy. The pancreas was large, and almost as hard as cartilage, but otherwise looked healthy. Weight of liver 95 oz., fatty, and containing a small yellow nodular growth. Gall-bladder full of very viscid mucoid bile. Bladder and rectum normal. The right testicle was hard, and would not tease out well; it was marked by small yellowish spots about one-eighth of an inch in diameter, evidently abscesses on the point of breaking down. In the left the globus major was as hard as cartilage and enlarged; the testis was small and hard on section, and seemed made up solely of fibrous tissue. Kidneys large, but healthy. Brain healthy.

Dr. Washbourn exhibited at the Pathological Society on May 21st, 1889, specimens from this case showing the bacilli of leprosy.

EVELINA HOSPITAL FOR CHILDREN.

A CASE OF UMBILICAL PYÆMIA, WITH DISINTEGRATION OF THE STERNUM, LEFT STERNO-CLAVICULAR JOINT, AND SEVERAL COSTAL CARTILAGES, IN AN INFANT.

(Under the care of Mr. R. CLEMENT LUCAS.)

THIS case is an example of chronic pyæmia in an unhealthy child, and is remarkable for the large size of the abscess of the chest wall and the extensive destruction of the bones and cartilages found within the abscess. Mr. Lucas draws attention, in his remarks, to the necessity of a more antiseptic method of treatment of the umbilical cord in children. The report of the case is from notes taken by Mr. L. A. Bidwell, registrar.

D. B——, aged four weeks, was admitted on April 20th, 1889. She was supposed to have been a seven-months child. There was a strong specific history, and the infant was suffering from snuffles and a papular rash on the body, buttocks, and arms. There was swelling in the middle line on the front of the chest about the size of a small Tangerine orange. It moved with respiration, and had a marked expansile impulse when the child cried. There were no heart or breath sounds to be heard on auscultation over the tumour. The skin covering it was red and thin, and the

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superficial veins were enlarged. The swelling had been noticed for fourteen days. There was no sign of disease in the heart and lungs. As this was evidently an abscess and on the point of bursting, an aspirating needle was introduced, and an ounce of foul pus was obtained. This was followed by rather intense dyspnœa, the anterior wall of the abscess being sucked in during inspiration. On examining the abscess, it was found that nearly the whole of the gladiolus was absent, and that parts of the cartilages of the third, fourth, and fifth ribs of both sides were wanting. The next day there was some oozing from the puncture made by the aspirator, and an antiseptic dressing was applied. The child also had some dyspnœa and difficulty in swallowing. The temperature was subnormal the whole time, and the child gradually sank, dying on April 25th.

A necropsy was made the same day. The lungs were found only partially expanded, but not broncho-pneumonic, and they contained no abscess. The heart showed a widely open foramen ovale, and the septum ventriculorum presented a large perforation. On opening the abdomen by cutting through the umbilicus, the cicatrix of which was quite sound, pus welled out of the still patent umbilical vein. The whole of this vein was much dilated and its walls thickened, the contents being pus. The prolongation of the umbilical vein to the right lobe of the liver was also filled with pus, but there was a septum shutting off the ductus venosus from the inferior vena cava. There were no distinct abscesses in the liver. The sterno-clavicular joint of the left side was disorganised, and from this spread downwards an abscess cavity about the size of a large walnut. The only traces of the gladiolus that remained were three ossicles lying loose in the abscess cavity; one of these was globular, about the size of a buckshot; the other two were disc-shaped, and larger. The rounded ends of rib cartilages of the second, third, fourth, and fifth were seen lying free in the abscess cavity. The floor of the abscess was covered with granulations. The posterior surface was adherent to the parietal layer of the pericardium and to both pleuræ. The right sterno-clavicular joint was healthy, but the lower part of the manubrium seemed to have been destroyed. There were no other secondary abscesses found.

Remarks by Mr. CLEMENT LUCAS.—This case is reported to draw attention to the importance of keeping the umbilicus disinfected and aseptic after detachment of the cord in newly born infants. I am too far removed from midwifery to know what is now the general custom adopted; but, from what I gather, the time-honoured swealt rag is still the only disinfectant used among the poorer classes. It is quite time to insist that the wounded, and soon to become gangrenous, stump of the umbilical cord should be treated with the same care and attention as other surgical injuries. That death not unfrequently takes place from suppuration of the umbilical vein in the lower animals as well as in man is pretty generally known; but the precautions to be adopted to prevent such an occurrence have probably been delayed owing to the natural tenacity of life of the infant and the accustomed security felt by the practitioner that nature will do all that is necessary. Now, I would emphatically protest against this negligence of a past age, and strongly recommend that iodoform or some other reliable solid antiseptic powder be used above the umbilicus till the cord is detached and the umbilicus soundly healed. The little patient was admitted under my care on account of the swelling in front of the sternum, which fluctuated and was influenced by the respiratory movements, yielding impulse on coughing or crying. This proved to be the conical point of a large abscess, which probably commenced in the sterno-clavicular joint as a pyæmic synovitis, and, burrowing down, had absorbed the sternum and detached the adjacent costal cartilages. The child was born prematurely, and, further, was degenerate from hereditary syphilis, so that it became a ready prey to bacterial infection of the umbilicus. It will be noticed that the post-mortem examination revealed that the umbilical vein within the abdomen was filled with pus, and this was no doubt the primary source whence the fetid and fatal abscess took origin.

MEDICAL MAGISTRATE.—Councillor W. J. Beatty, L.R.C.P.E., L.F.P.S.Glas., youngest son of Dr. Beatty of Seaham Harbour, has been appointed by the Lord Chancellor a Justice of the Peace for the borough of Stockton-on-Tees.

Medical Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Spread of Tuberculosis by Contagion.—Tuberculosis in Fowl.

A MEETING of the section of State Medicine was held on April 26th.

Dr. MACDOWEL COSGRAVE read a paper on the Spread of Tubercular Diseases by Contagion. The position of tubercular diseases had recently changed, and their contagiousness had become widely recognised. The discovery of the tubercle bacillus by Koch in 1882, and the answers received by the Collection Investigation Committee in 1884, contributed to this. More recently Dr. Cornet's important experiments with dust from wards and other places where tubercular cases were treated, also experiments by Fischer, Schill, and others, had shown that contagion is most easily caused by dried and desiccated sputa. Professor Bang and Dr. Sims Woodhead had shown how milk from cows with tubercular udders contains bacteria, and so may be a source of infection. Probably no true heredity had place in tuberculosis. Apart from intra-uterine infection the children of consumptives were in danger, because (*a*) they had deficient resisting powers; (*b*) because they were liable to contagion from their parents. Contagion might be caused as follows. 1. By auto-infection. 2. From animals. The meat and milk of cows suffering from tuberculosis should not be used for food; the 400 dairy yards in Dublin should be removed outside the city. Dairy cows and meat should be regularly inspected. 3. From person to person, either directly or through fomites.

Sir CHARLES CAMERON read a paper on Tuberculosis in Fowl. He had from time to time received dead fowl for the purpose of analysis. They were individuals from large numbers that had died very rapidly, and, as it was believed, from poisoning, malicious or accidental. No poison was found, but, on the contrary, death was due to tuberculosis. The lungs, liver, and spleen were enlarged and much affected. In one case, where about fifty hens had died within a period of three or four months, the deaths commenced to take place some weeks after the arrival of a consumptive patient in the house near which the hens were kept. There was little doubt that the sputa of patients affected with phthisis were devoured by fowl, and no doubt, too, the inspissated sputum, in the form of dust, found its way into their lungs. Evidence was adduced to show that fowl affected with tubercle sometimes—when consumed as food—induced the disease in man. The bacilli in the fowl, though closely resembling the bacillus tuberculosis of man, were decidedly smaller.

The PRESIDENT observed that both papers, dealing as they did with topics of the greatest interest to physicians, showed what revolution in opinion had in the last ten years taken place with regard to the nature of pulmonary consumption and tubercular disease. Thus, Cornet denied hereditary predisposition, and declared that nobody had immunity from tubercle who received the contagious particle in the way in which it was active; that it was never conveyed by the breath (a proposition which was not so generally acknowledged as the others); that it was not conveyed in a moist state; that expectoration was the medium of conveying the virus; and that it must be dried to acquire the active condition. Hence his prophylactic advice that tubercular patients should not be treated in hospitals with other patients, and that they should not be allowed to expectorate on the floor or into handkerchiefs, but into spittoons, which, if emptied and cleaned with water, prevented danger.—Dr. FRAZER said monkeys were also liable to be infected, and to such a degree that often the whole stock in the Zoological Gardens had been killed off. Perhaps they got it from the sputa in the house. No doubt a certain amount of predisposition was needful to receive the germs. At the same time, it was startling to find that dogs got the disease, and they were not predisposed to it. As regards treatment, it was remarkable that if cows gave the disease to human beings, as was now contended, the old Irish remedy used to be to sleep in a cowshed. As yet there was no positive proof that any disinfectant destroyed bacteria.—The REGISTRAR-GENERAL (Dr. Grimshaw) thought it would be unwise to lay aside the notion of predisposing causes. In

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his opinion there were predisposing causes in respect of nearly all diseases. Certain persons had a greater capacity for the reception of certain diseases than others, owing to their constitution and innate peculiarities; but that predisposition was the main element in contracting disease was, he thought, doubtful. Besides the predisposing cause of heredity, another very important element entered into the question of the spread of tubercular disease—namely, the condition of the soil. Many years ago Dr. Buchanan showed that in particular districts, with a particular stratification of soil, phthisis was prevalent, and that in certain towns in which the subsoil had been drained the rate of mortality from consumption was materially reduced. It would not do, therefore, to ignore the consideration as to the condition of the subsoil, because of believing phthisis to be an infective disease. The difference of capacity of various domestic animals for the reception of tubercle might be explained on similar grounds. He had not the smallest doubt that consumption was increasing, and prevailed to a greater extent than ever, taking the country all over, while other diseases had been more effectively cut down.—Dr. DOYLE considered the term "infection" rather than that of "contagion" was the more correct in describing the propagation of tuberculosis. The bacteria were found in the lower stratum of the sputum, showing they were inclined to lie low, and were heavier than other constituents of the sputum, and therefore, as regards the communication of the disease by breath, he did not think bacteria would be found floating about the atmosphere.—Dr. COSGRAVE and Sir C. CAMERON replied.

In reply to Sir Charles Cameron, it was announced that the President and Secretary of the Public Health Section had been selected to represent the Academy of Medicine on the General Committee of the International Sanitary Congress, to be held in 1891.

Dr. EDGAR FLINN read a paper on the Compulsory Registration of Plumbers, which was discussed by Sir C. Cameron and Drs. Doyle and Cosgrave.

Arterio-sclerosis.—Cancer of the Liver Secondary to true Cancer of the Rectum.—Ulcer of the Stomach.—Ununited Fracture of the Patella.

Meetings of the Pathological Section were held on May 1st and 3rd.

Microscopic sections from the Tumour of the Pons exhibited at the meeting of March 22nd were shown by the President of the section.

Dr. M'KEE read a paper on the Distribution of Bacilli in Leprosy. He showed numerous microscopic specimens, some prepared by Professor Unna, and some by himself. He explained Unna's views, and pointed out the reasons which induced him to differ from them.

Dr. LENTAIGNE exhibited a Tumour of the Larynx.

Dr. NIXON exhibited the Viscera of a young married woman aged thirty-two, who was admitted into hospital suffering from extreme gastric irritability, accompanied by hepatic tenderness. There was a history of most intemperate habits. Her parents were also addicted to the use of alcohol. During the course of the case attacks of diarrhœa set in; the patient became drowsy and delirious; and she died of progressive asthenia about a month after her admission. The urine was examined, but it contained no trace of albumen. The necropsy disclosed a very widespread arterial degeneration, affecting mainly the arteries at the base of the brain and in the spinal cord. The coronary arteries were likewise affected by the atheromatous process, and in connexion with this degeneration localised fatty changes were observed in the myocardium. The aortic valves presented evidences of inflammatory thickening, principally starting from the corpus Arantii; they were, however, competent. The interior of the entire of the arch of the aorta and the thoracic aorta was in a condition of atheromatous change. In the abdomen the spleen was found small and dense from increase of trabeculæ. The pancreas was in a condition of marked induration. The kidneys were in an advanced condition of cirrhotic change, the branches of the renal arteries being markedly thickened, and presenting open gaping mouths on section. Dr. Nixon, in presenting the case as a contribution to the pathology of chronic alcoholism, drew attention to the three conditions under which arterio-sclerosis was met with. (1) Associated with coincident renal cirrhosis; (2) independent of it; and (3) when the widespread arterial degeneration was secondary to the changes in kidney induced by granular disease of those organs.—Dr. M'WEENY said under one microscope was a small artery with thickened walls from the pancreas. In the spinal cord there was a peculiar granular alteration of the grey matter. A small artery with thickened walls could be distinctly seen running in the midst of the grey matter. The white matter showed a superabundance of connective tissue between the nerve tubes. Under another microscope a section of the kidney showed shrinkage of the capillary tufts and alteration of the glomeruli into masses of fibrous tissue.

Dr. JOSEPH REDMOND showed Specimens and Microscopic Sections from the following case:—A man aged thirty-six, a cooper by trade, was admitted into the Mater Misericordiæ Hospital suffering from well-marked symptoms of cancer of the liver. His abdomen was enormously enlarged, and bulged abruptly forwards below the ribs. The liver was hard, greatly enlarged, irregular on the surface from the presence of nodules, some of which were depressed in the centre, and extended downwards to midway between the umbilicus and pubes. As he stated that he suffered from piles, an examination of the rectum showed the presence there of malignant disease. The patient grew gradually weaker, and died on Nov. 24th, 1888. At the necropsy, which was made by Dr. M'Weeny, the liver was found to be enormously enlarged, and weighed, on removal from the body, 20 lb. 12 oz. Scattered everywhere, both over the surface and through the substance of the gland, were whitish-yellow nodules, varying in size from a pin's head to that of an orange. On examining the rectum a hard mass was found close to the anus, almost completely encircling the gut, and blocking up its lumen; above this the walls of the rectum were considerably and irregularly thickened, and were connected to the sacrum by a tough mass of neoplasm. The omentum, diaphragm, and pleura were found to be more or less studded over with flat whitish masses. Microscopic sections of the liver showed masses of carcinoma assuming an encephaloid type. Sections of the tumour in the rectum showed no trace of glandular structure &c., and the growth must be pronounced a scirrhous cancer.—Dr. M'WEENY said an inspection of the edges of the primary disease in the rectum showed it to be unquestionably scirrhus, and, therefore, they must conclude the disease in the other organ to be cancerous also. The alveolar arrangement was not generally distinct, but could be traced in places. Another microscope showed the disease of the rectum presenting isolated masses of epithelial cells embedded in an abundant connective tissue stroma, which stamped the disease as scirrhus.

Dr. JOSEPH REDMOND exhibited a Stomach showing perforation of both the anterior and posterior walls. The specimen was removed from the body of a patient aged twenty-six, who had been admitted into the Mater Misericordiæ Hospital on Feb. 4th, 1889, presenting all the usual symptoms of perforation of the stomach, which untoward event had occurred three days prior to admission to hospital. The patient's condition improved so much under treatment that great hopes of his ultimate recovery were entertained; but symptoms which unmistakably pointed to the occurrence of a second perforation developed on Feb. 6th, and the patient died of collapse in about twelve hours. The necropsy showed that death was due to acute purulent peritonitis, following double perforation of the wall of the stomach, the opening in the anterior wall being the older, as evidenced by the presence of lymph, which glued it to the under surface of the liver. The opening in the posterior wall had no such appearance. Both ulcers were situate exactly opposite each other, and somewhat nearer the lesser than the greater curvature, midway between the cardiac and pyloric ends of the stomach.—Dr. C. NIXON said they could always tell whether there had been a perforation, with escape of the contents of either the stomach or the intestines, by the nature of the effusion and of the peritonitis that was set up. If the peritonitis was set up merely from the extension of an ulcerous process in either intestine or stomach, the effused product would be a flaky lymph. But if—excluding the case of tubercular disease of the mesenteric glands—they found purulent matter in the cavity of the peritoneum, they might be certain that perforation, with an escape of the gastric or intestinal contents, had taken place. They were told that gastric ulcer depended on emboli or thrombi occurring in the vessels of the stomach; but in all the cases of gastric ulcer that he had seen the existence of thrombus or embolism was—to use a bull—conspicuous by its absence.

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Dr. E. H. BENNETT presented to the meeting an example of Ununited Fracture of the Patella, which showed an exceptional arrangement of the fragments and the structures related to them in the knee-joint. He exhibited also a cast taken many years ago from the injured limb at the close of the treatment of the fracture, for which injury the man had been admitted to Sir P. Dun's Hospital. He also showed two specimens of transverse fracture united by ligamentous union and a dry preparation of ununited fracture which had been described by Professor R. W. Smith. Having referred to the account given by Mr. William Adams (Trans. Pathol. Soc. London, vol. ii.) of the modes of union by fibrous tissue, the ligamentous and the aponeurotic, Dr. Bennett said the specimen exhibited differed in its details from any of the thirty-one examples given in that account. In this specimen the upper fragment was completely concealed when the joint was opened in front by layers of fibrous and fatty tissue, which were formed by the thickened fascia, and were inserted into the margin of the femoral trochlea. The upper fragment articulated with the front of the femur by a synovial joint, which communicated by only a minute opening with the general cavity of the knee. The ligament of the patella had shortened to such a degree as to bring the apex of the lower fragment within half an inch of the tubercle of the tibia. Dr. Bennett showed also, by permission of Mr. Thomson, an example of fracture of the patella, which had been treated by suture. Subsequently the patient was admitted under Mr. Thomson's care for rupture of the bond of union with rupture of the skin, opening the knee-joint.—Dr. KNOTT said he would like to have some explanation of what appeared to him to be a rather singular condition of the fragments. The lower fragment appeared to have expanded to a size very much larger than it ought to have anatomically; but that might be explained by the inflammation that must have occurred after the original injury. He quite agreed with Dr. Bennett that the fracture was of an unexampled type.—Mr. WILLIAM THOMSON said, with regard to the specimen which he gave to Dr. Bennett, the wiring was done on the other side of the Channel. Surgeons here were entirely opposed to any such operation as wiring together the fragments of a recently-fractured patella. The section had now before them an excellent example of what might result from the partial fixity that was accomplished by wiring. The slightest trip in walking made by a patient whose patella had been wired led to a refracture and separation of all the fragments.—Dr. NIXON asked to what Dr. Bennett attributed the shrinking of the ligamentum patellæ.—Dr. BENNETT, in reply, said he could give no explanation of the shrinking. The fact that the ligament did shrink in these transverse fractures was first recorded and described by Malgaigne, his idea being that a degeneration of the fibrous tissues took place from the want of the muscle having something to do in the way of contracting. He went so far as to say that the projection forwards of the fractured face of the lower fragment was the direct result of that—that it was the direct result of the fact that the ligament was longer on the anterior face than the posterior, by reason of the degeneration, and that consequently the other ligament pulled the stronger. Whether that was true or not he could not say. In Dr. Smith's case the shrinking was comparatively small. If the patella was rendered movable by any other cause than fracture, no such shrinking occurred. With reference to Mr. Thomson's question when he (Dr. Bennett) cut down into the synovial cavity he found that the prepatellar bursa was unusually enlarged, and that the two membranes had been blended into one, so that he could not tell where each ended. The curiosity of the specimen was that the two fasciæ had inserted themselves into the cartilaginous border of the femur, and had absolutely separated the synovial sac from the rest of the cavity. He believed that must have been brought about by this, that as soon as the man was let out of hospital he began to work at his business with his cab, and an irritation of the parts resulted which caused some slight inflammatory adhesion between the fascia and the trochlea of the femur; but it was remarkable that no such thing had been noticed in any other specimen.

CHILDREN'S CONVALESCENT HOME, EASTBOURNE.—On the 19th inst. the Duchess of Albany laid the foundation stone of this home—an extension of a similar institution already in the town for adults. After the formal ceremony had been performed the Duchess was presented by children with a large number of purses of money.

Reviews and Notices of Books.

A Text-book of Pathology, Systematic and Practical. By D. J. HAMILTON, M.B., F.R.C.S.E., F.R.S.E., Professor of Pathological Anatomy, University of Aberdeen. Vol. I. London: Macmillan and Co. 1889.

THIS is a work of the widest scope, which has no counterpart in English medical literature, and can only be compared with the more extended treatises with which the continental schools have made us familiar. For although this is but the first volume of the work, it is remarkable for the exhaustive manner in which the author has dealt with his subject, with the result that he has succeeded in producing a book which is both original and comprehensive, showing how minutely he has studied the various problems that abound in pathology. The references to literature alone prove the depth and extent of his research; but the great merit of the work lies in this, that Professor Hamilton has brought to the consideration of every topic an abundance of independent and often of highly original and fruitful thought.

The opening chapters are devoted to a detailed exposition of the technique of Post-mortem Examinations and all that follows from them. Here the student will find many hints of real practical value and importance. As examples we may indicate the preference shown by the author for testing the competency of the heart valves by air instead of by water, the usual plan; his recommendation to defer an examination of the brain in every important case until it has been duly subjected to a hardening process; and his plan (modified from Pitres) of slicing the brain for thorough examination. Most useful, too, are his various injunctions as to the care in cutting and handling organs when removed from the body. After this follow chapters dealing with the preparation of museum specimens, the methods of histological examination, and the choice of a microscope, &c., so that the information given is equal in extent to that of many a single text-book. When, moreover, it is added that there is also a full exposition of bacteriological methods, it will be gathered how thoroughly the technical part of this work covers the ground. It might be objected that the consideration of these practical points is out of place in a Text-book of Pathology, but we think that the evident aim of the author has been to supply the student with as complete a guide to the whole subject as possible within the pages of a single work. By this means it is probable that the work will be available as a guide for the laboratory as well as a work of reference for the study.

Part II. deals with General Pathological Processes, and we meet on almost every page the marks of original thought and observation. Nowhere is this more obvious than in the definitions given by the author at the head of each section. There are few things more difficult than to frame a definition, and perhaps the most difficult thing of all is to define what we mean by health and disease. Exception might be taken to almost every such definition that has hitherto been framed, and even the somewhat wide statement of Professor Hamilton hardly seems to precisely meet the case. He says: "Health is that condition of structure and function of an organism which, on examination of a sufficient number of examples, we find to be the commonest." Again: "Disease is any departure from the normal standard of structure or function of any organ or tissue." These definitions have at least the merit of brevity, but obviously everything depends upon the interpretation given to the "sufficient number," and here there is room for divergent opinion. After a brief discussion of growth and development, with a glance at hypertrophy (it is to be noted that a greater limitation is put upon this condition than is mostly assigned it), the Degenerations are dealt with.

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Here is included a description of caseation, and it is pointed out that where there is abundant blood-supply caseation cannot occur, the statement being made that "caseous pulmonary phthisis is a thing practically unknown in a person who suffers from regurgitant mitral disease," if the latter be primary. The important subject of Inflammation is treated at remarkable length, the chapters devoted to it containing many novel studies of the circulation, especially with reference to the behaviour of the white corpuscles. The process is described in detail as observed in vascular and non-vascular tissues, and it is stated that the sources of pus in the latter—e.g., the cornea—are twofold: the nucleated tissues and the marginal bloodvessels. Professor Hamilton shows that the so-called branching cells of the cornea are due to the distension of the plasma spaces with effused fluid. The subject of Healing of Wounds is discussed in a most lucid manner, and the author himself has by his researches on sponge grafting made a valuable contribution to the question. The analogy of this process to the organisation of blood-clot is obvious. With the consideration of thrombosis and the regeneration of special tissues, the forms of ulceration, &c., this interesting section closes. The subject of Dropsy receives fuller treatment than is usually accorded to it, and no fewer than eight separate conditions are described as favouring its occurrence. The subject of Fever is deferred to the second volume, where it is to be dealt with under the head of "Vegetable Parasites," a clear indication of the views of the author as to its essential cause.

Part III., dealing with Diseases of the Various Tissues and Organs, opens with a chapter upon Cells, in which the process of "karyokinesis" is very succinctly described, aided by excellent reproductions of Flemming's figures. A new formation is defined as follows: "The excessive production of some tissue naturally existing in the body during fœtal or adult life, either locally where such tissue is normally present, or in some part of which it is not an actual constituent." The descriptions of the various types of Tumours are aided by a large number of original histological drawings, and the classification adopted corresponds with that most frequently employed. Tubercle, lupus, and syphilitic gummata are dealt with as "Tumours due to a Micro-organism." Several chapters are devoted to the pathology of the blood, and they include a full discussion of the moot question of the origin of its corpuscular elements, in which we note that Professor Hamilton considers that the chief source of the coloured corpuscles is in the colourless, holding that Hayem has not proved his statement that the former are derived from hæmatoblasts. It is further held that the leucocytes are of two kinds, the "leucoblasts" and the "erythroblasts"—these latter giving rise to the coloured corpuscles. The lymph glands are believed to be the primary seat of origin of leucocytes, the spleen and marrow holding a subsidiary place, and being perhaps concerned rather in the conversion of the white into red corpuscles. Anæmia, Diabetes, Rheumatism, Gout, &c., are each in turn discussed, the author showing a full acquaintance with the literature of these somewhat abstruse subjects. The Pathology of the Heart and Bloodvessels occupies several chapters, being treated with abundant reference to physiological teachings, as well as the facts gleaned from morbid anatomy. Especial attention may be directed to the chapters on Valvular Diseases and their effects, for the questions of the degrees of functional interference and the relationship to hypertrophy and dilatation have seldom been so clearly or exhaustively stated. In the chapter on Embolism, it should be noted that the accepted doctrine of the pulmonary hæmorrhagic infarction is not adopted. It is held to be a simple "apoplexy"—thus reviving an old doctrine in a new way—or rupture of capillaries by excessive blood pressure, the wedge shape being favoured by the shape of the bronchus and the air vesicles. It is shown that an artificial infarction may be produced by injecting prussian blue into the air vesicles.

The work is one which must have entailed upon its author a great expenditure of time and thought; and if from the manner in which he has treated the subject, it may seem that he has entered more into detail than is desirable in a text-book, it must be added that there is a fulness about the work which must ensure it a chief place in pathological literature. For Professor Hamilton has not been content with a superficial discussion of pathological problems; he has himself investigated anew a large number of them, throwing fresh light upon many, correcting doctrines long current about others, and altogether succeeding in opening up many paths to the investigation of future observers. It is therefore a work which is likely to be widely studied by pathologists, for, however in some respects its teachings may appear to run counter to current opinion, it is so manifestly the outcome of patient and devoted labour that its conclusions cannot fail to be received with respect, and the whole work with admiration. It is emphatically a book to be proud of, and, as said above, it will bear comparison with the kindred works that emanate from the German school.

OUR LIBRARY TABLE.

Œuvres Complètes de J. M. Charcot. Tome V.: Maladies des Poumons et du Système Vasculaire. Paris: E. Lecrosnier et Babé. 1888.—The position gained by M. Charcot as a neurologist has almost made us forget the services he has rendered to pathology and medicine generally. For many years he held the important office of Professor of Pathological Anatomy in the École de Médecine, and in this capacity his great powers of teaching and wide erudition were put to good account. Some of his earliest work was done in the department of pulmonary pathology. The publication of his collected writings has given opportunity for reminding us of this fruitful research. Thus in the volume before us we find his inaugural thesis upon Chronic Pneumonia, which is one of the best contributions that have been made to a most interesting subject. It also contains his anatomical descriptions of the lungs (which did much to simplify our knowledge of their complex structure), as well as his clear exposition of the Pneumo-konioses and the lesions of pulmonary phthisis. For these contributions alone M. Charcot deserves, we think, the gratitude of all pathologists. The present volume also contains his paper on Leucocythæmia, in which he describes the peculiar crystals in the blood that have since been known by his name. There are, besides, memoirs and papers upon embolism, thrombosis, endocarditis, &c., mostly contributions to the Anatomical Society, and many interesting facts, both clinical and anatomical, relating to diseases of the vascular system. Amongst these may be noted his account of a case of ulcerative endocarditis where the tricuspid valve was involved, with secondary pulmonary embolism. It would, however, be impossible to review in any detail the numerous and important topics contained in this volume; we must be content with bringing it under the notice of our readers in the hope that they will be induced to read for themselves the lucid descriptions and suggestive remarks upon matters of general interest by one who is an acknowledged master in medical literature and science.

De la Tarsectomie Antérieure totale et partielle dans les Cas Pathologiques. Avec deux planches gravées. Par le Dr. CHOBAUT. Paris: J. B. Baillière et Fils. 1889.—Dr. Chobaut is a pupil and an ardent admirer of M. Ollier, who placed at his disposal all his private records and specimens bearing upon this operation. Total anterior

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tarsectomy consists of the removal from within their periosteal and ligamentous covering of the scaphoid, cuboid, and three cuneiform bones, with or without slices off the astragalus and os calcis and the bases of the metatarsal bones. The main purport of Dr. Chobaut's *brochure* is to prove that there are many cases which ought to be submitted to this operation rather than to amputation through the foot or at the ankle-joint. Also he shows that tarsectomy should always consist in the removal of a transverse section of the foot, not a longitudinal one. In the latter case deformity of the foot is certain to follow, due to the contraction of the cicatrix upon one or other side. For the operation to succeed, a proper selection of cases must be made, the disease must be thoroughly eradicated, the wound must be kept aseptic throughout, and the after-treatment must be carefully attended to until the function of the foot is quite restored. The method of operating recommended is Ollier's, in which four longitudinal incisions are made, one at either side of the foot and two on the dorsum. The ligamentous and periosteal sheath is then to be carefully opened without injury to the tendons, vessels, and nerves passing over the bones to be removed, and then all the diseased structures are to be eradicated. Like his master, Dr. Chobaut is a strong advocate for the use of the actual cautery in the earlier stages of tubercular disease, as well as for the destruction of tubercular granulations.

Notes on Physiology. By HENRY ASHBY, M.D. Lond. Fifth Edition. London: Longmans, Green, and Co. 1889.—This is a handy little manual, which will serve to give the first-year student a good general idea of the subject, of which he ought to acquire a very thorough knowledge, and may with advantage be used by the candidate who is about to present himself for examination, but it should not be in any way regarded as a substitute for laboratory work, nor should it be considered to give anything more than a succinct and correct *résumé* of the principal physiological facts. With this reservation it will be found very serviceable, and the successive editions through which it has passed have enabled the author to remove some errors and to rewrite other parts with much advantage. The present edition contains many new woodcuts, which are well executed.

Elements of Histology. By E. KLEIN, M.D. New and Enlarged Edition. London: Cassell and Co. 1889.—This is, perhaps, the best of all the little manuals that have been published to help the student in his arduous work. Professor Klein is acknowledged to be one of the first histologists of the present day, and has a thorough practical acquaintance with every tissue he describes, and in accordance with this he has found it requisite to make some alterations in the present edition, which show the advances that have been made in the course of the last few years. Amongst these the more important are the account of the division of the nucleus of cells, the mode of termination of nerves in epithelium, and the structure of the intestinal mucous membrane. Professor Klein adopts Rollet's views in regard to the structure of striated muscular tissue, and agrees with Kühne in regard to the mode of termination of nerves in muscle. Many illustrations have been added. The work as a whole is excellent.

Strathpeffer Spa, its Climate and Waters; with Observations, Historical, Medical, and General, descriptive of its Vicinity. By FORTESCUE FOX, M.D. Illustrated. Pp. 165. London: H. K. Lewis. 1889.—This volume was written with the double object of contributing to the better knowledge of the profession of an important health resort, and of affording to visitors some guidance in their use of the waters and information respecting the excursions and scenery of the region in which the spa is situated. Dr. Fox has given a detailed account of the climate of Strathpeffer which cannot fail to prove useful to those who have to choose a health resort for invalids, and to afford valuable directions to those who are looking out for a highland summer resort where they may enjoy themselves without living perpetually in waterproofs. Strathpeffer has two distinct classes of mineral waters—cold sulphur and chalybeate. Of the former there are three springs, the analyses of which are given, and which vary in strength, the strongest standing nearly at the head of that class in Great Britain. Dr. Fox has devoted a chapter to the medicinal properties of the waters and the class of cases in which they are found useful. Fifteen illustrative cases are given, but as the book is intended not only for the edification of the profession, but for the general reader, they might with propriety have been omitted. The season at Strathpeffer extends from May to October, and a good account is given of the conditions of spa life there. The excursions are well laid out, and bring to notice a most picturesque country, well deserving a visit from the hale and strong who are equal to good long walks, and who wish to spend two or three weeks pleasantly in accumulating a store of health in anticipation of the wear and tear of future work.

Bournemouth as a Health Resort. By A. KINSEY-MORGAN. With illustrations. Pp. 98. London: Simpkin, Marshall, and Co. 1889.—The object of this work is to bring forward the just claims of Bournemouth as a health resort, and these seem to be considerable, not merely from the point of view of climate, but also from the careful attention paid to general sanitation. The water-supply is said to be good and the drainage satisfactory, the arrangements for the removal and destruction of the town's refuse seem to be judicious, and bye-laws have been passed for the regulation of dairies and milkshops, slaughterhouses, public carriages, and for the prevention of nuisances. These conditions, if duly attended to, should entitle Bournemouth to rank high among the English health resorts. The book affords much useful information respecting the climate and the class of cases in which it is found beneficial. We are disposed, however, to think that the author is not quite fair in his remarks on the foreign health resorts. Bournemouth is undoubtedly an advantageous resort in many cases, but we are scarcely prepared to admit that it is fitted to supersede all the continental watering places. If a second edition of the book is called for, the author would do well to add a section indicating those cases in which a residence at Bournemouth might be deemed undesirable; a good index would also increase its value.

Analytical Records.

CAMISOLE'S CHAMPAGNE (TRÈS SEC).

(CAMISOLE & CIE., ÉPERNAY. SOLE IMPORTERS, CARSWELL & CO., 32A, PICCADILLY.)

THIS is a good sound dry champagne, of excellent flavour. Our analysis gave alcohol by volume, 12·58 per cent.; dry extract, 3·75 per cent.; and ash, 0·095 per cent. The ash was rich in iron, and was, indeed, quite brown. The wine may safely be commended.

ST. DIEGO BALFONTAIN.

(N. P. SANDIFORD & SON, MANCHESTER.)

This is a full-bodied and generous wine of the Burgundy class. It contains 15·45 per cent. by volume of alcohol, equal to 27·1 of proof spirit; 2·72 of extract dried at 100° C., and 0·255 ash. In flavour as well as chemical composition it compares favourably with many of the well-known wines of France.

FRAME FOOD.

(THE FRAME FOOD COMPANY, LD., LOMBARD-ROAD, BATTERSEA.)

A preparation of wheat-bran of great interest and high dietetic value. The sample examined by us contained a

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large proportion of ash, rich in phosphates; much dextrine, but little starch, and much albuminoid. It dissolves well in water, and appears well adapted for addition to starchy foods, which will thereby be rendered richer in flesh-forming and mineral elements. The appended analysis by Prof. Percy Frankland, which we have partially verified, gives—ash, 10·69; phosphoric acid, 3·68; potash, 4·24; albuminoid, 21·4; sugar, dextrine, and starch, 47·9 per cent. We are inclined to regard the article as an important contribution to scientific food-supply.

BLATCHLEY'S BREAD AND BISCUITS FOR INVALIDS.
(E. BLATCHLEY, 107, OXFORD-STREET.)

The bread contains a definite proportion of added gluten, and the biscuits some flavouring matter in addition—almond, cocoa-nut, ginger, &c. They are, of course, intended for use in cases of diabetes where a partial return to starch is permitted, and, as they are very well made, they are well adapted for the purpose.

KOLA-NUT BREAD.
(THOMAS MICHELHILL, 75, CLERK-STREET, EDINBURGH.)

The virtues of the kola nut, of which so much has been written, are in this patent article introduced into ordinary wheaten bread. The bread so made has a peculiar rich taste, and microscopical examination shows that its name describes it correctly.

DAHL'S DYSPEPSIA CAKES.
(DAHL'S AGENCY, 41, EASTCHEAP, LONDON.)

We noticed these cakes some time ago, but the present seems to be a new form of the staple article. The sample now before us is a brown powder, resembling bran in taste. Under the microscope some cells of wheat starch are detected, but not many. The advantages and disadvantages of the original preparation seem to remain unchanged.

ORANGE CHAMPAGNE (NON-ALCOHOLIC).
(THE PURE WATER COMPANY, QUEEN'S-ROAD, BATTERSEA PARK.)

This beverage is so very well prepared that, without the aid of chemical analysis or personal experience, it would be difficult to believe it was non-alcoholic. It is delicately flavoured, and not too sweet, and has a peculiar fulness or body that suggests sparkling wine. All advocates of temperance should hail it as a formidable rival to their great enemy.

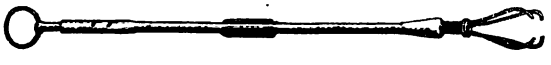
SACKER'S ANTISEPTIC TABLETS (15 GRAINS).
(W. E. SACKER, 79, FENCHURCH-STREET.)

These tablets are made from a somewhat complex mixture, in which borax, benzoic and salicylic acids, and eucalyptol are readily detected. They are intended for definite medical use, and each tablet may be dissolved in two quarts of water, preferably with the addition of a little glycerine.

New Inventions.

NEW FORM OF SPONGE-HOLDER.

THE ordinary form of sponge-holder, as sold by the instrument makers, is not reliable, as the collar which moves up and down on branches of the holder very often slips down while in use, and sometimes at the most awkward times. Having experienced this failing, I had a screw collar made on mine, which travelled on a thread cut



on branches of the holder. This I found to work well for a time, but the thread on which the collar worked soon wore away, and the instrument degenerated into the older form. The illustration represents a reliable form of sponge-holder, the sliding collar, or rather disc, being made to embrace the four branches separately, which effectually prevents feathering. On the disc being pushed up so as to make the branches approximate sufficiently to embrace the sponge closely, the ring at the base of the instrument is turned to the right, so as to bring the projecting pin into one of the slots cut in the cannula (bayonet-joint principle), which fixes the disc above, and will not allow it to slide down, and so release the hold of the sponge. This holder will be found on trial trustworthy, and can be safely used by dentists, and also for the toilet of the peritoneum, without any fear of leaving the sponge in the abdominal cavity. I have found it a great improvement on the older form, and it is sold at a moderate price by the makers, the Argyle Rubber Company, Gordon-street, Glasgow.

ALEXANDER DUKE, F.K.Q.C.P.I.,
Ex Assistant-Master to the Rotunda, and Gynæcologist to Dr. Steevens' Hospital, Dublin.

A GUARDED CAPILLARY TROCAR FOR SUPRA-PUBIC PUNCTURE OF THE BLADDER.

THE accompanying woodcut illustrates a guarded capillary trocar which Messrs. Arnold of West Smithfield have lately made for me. The immediate purpose for which I had it made was the supra-pubic evacuation of the contents of the bladder in cases of retention. The ordinary appliance used for this little operation is some form of aspirator. But there is no possible reason for the employment of that rather cumbersome piece of apparatus except the fact that no simple trocar adapted to the purpose has hitherto been obtainable. Now, my instrument has at least the advantage of simplicity. After the hollow trocar has been introduced into the bladder, the guarding cannula is slipped down over



its point, and fixed in position by an arrangement of the bayonet-joint kind. Thus the chance—a remote one, it is true—of wounding the posterior wall of the bladder is excluded; for it must not be forgotten that tradition has handed it down, though I confess that personally I do not place much credit on the tale, that an ingenious operator did once succeed in perforating the rectum before the completion of the operation. The instrument can also be substituted for the needle of the aspirator in various operations of exploration or evacuation, and is obviously much more portable and easy to work with. When pus has to be dealt with, there is always a possibility of a fine trocar like this one getting blocked up. I have, therefore, had a small removable plug fitted on to the end of it, so that a wire may be passed along its entire length without the withdrawal of the instrument. Messrs. Arnold have fitted the trocar, with the necessary length of capillary indiarubber tubing, into a very neat little case, which may fairly be said to be within the holding capacity of that much abused receptacle, the waistcoat pocket.

ALEX. G. R. FOULERTON,
Resident Assistant Surgeon to St. Bartholomew's Hospital, Chatham.

NOTIFICATION OF INFECTIOUS DISEASE.

To the Editors of THE LANCET.

SIRS,—It seems to me that the matter might be most amicably arranged by adopting a method similar to that now pursued in vaccination. The private practitioner performs vaccination, giving a certificate which the parent or person in charge of the child must forward to the authorities. The public vaccinator must send the certificate himself. Now, let the private practitioner sign a certificate that the patient is suffering from an infectious disease (to wit, ————), and let the head of the family be responsible for sending this to the authorities; parochial medical officers, resident medical officers, and dispensary house-surgeons to forward these themselves. It seems to me that this is a solution of the difficulty.

I am, Sirs, yours very truly,

July 20th, 1889. ALPHA.

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THE LANCET.

LONDON: SATURDAY, JULY 27, 1889.

IN this month's number of the *National Review* there is a reply by Dr. CREIGHTON to an article in the same journal of the preceding month, in which Mr. PRESTON-THOMAS drew attention to a number of statistical inaccuracies in Dr. CREIGHTON'S article on Vaccination in the "Encyclopædia Britannica," and to his generally one-sided treatment of the subject. Dr. CREIGHTON freely admits the inaccuracies complained of, but refers to them as "these small inaccuracies, omissions, approximations, or insufficiently guarded expressions," and as not "different in kind from the slips which might be detected in almost any encyclopædic statement on a subject of entangled controversy." It is not worth while here to discuss whether Dr. CREIGHTON is successful in his attempt to minimise the nature and extent of these statistical inaccuracies, the existence of which he admits, and almost seeks to justify. Bearing in mind, however, the authority with which Dr. CREIGHTON'S article is invested by its publication in the "Encyclopædia Britannica," it may be well to refer to one or two points in his recently published defence which throw additional light upon his method of dealing with this controversial subject, which he professed to treat judicially and from a neutral standpoint.

Dr. CREIGHTON accuses Mr. PRESTON-THOMAS of inaccuracy in representing him as tracing the decline of small-pox to "sanitation," and yet almost in the same sentence asserts that "better hygiene of the person, better ventilation, and more spacious residential quarters" have lessened the amount of small-pox, especially among the well-to-do. This is simply a reassertion of the favourite argument of anti-vaccinationists, that the decline of small-pox is due, not to vaccination, but to improved sanitation. No attempt is made even to mention the statistical difficulties which beset this argument. For instance, there is no attempt to explain why the undoubtedly improved sanitary condition of the country should have affected the mortality from small-pox so much more markedly than other zymotic diseases—such as measles and whooping-cough—or than all other diseases; or why this supposed effect of sanitation on small-pox should have caused such a remarkable decline in the death-rate of children, while the death-rate of adults has actually increased. Such assertions are, from a scientific point of view, to be deprecated, unless the statistical evidence on which they are based be clearly stated, and thoroughly examined from all points of view.

Dr. CREIGHTON puts forward another favourite assertion of the opponents of vaccination—the vicariousness of zymotic mortality,—calling it the "principle of equivalence, or substitution among prevalent types of disease." He says: "There is a sort of competition among existing epidemic species, so that the mortality, especially among infants and children, is caused now by one prevalent type, now by another; to use the words I took from Dr. FARR, these are displacing or substitutive factors of mortality." It would be interesting to know, but Dr. CREIGHTON does not explain, what he really means when he says, "The truth being that plague was 'displaced' by typhus and small-pox." It is matter of history that one form of zymotic disease has declined in intensity simultaneously with the increase in intensity of another zymotic disease, but Dr. CREIGHTON leaves it in doubt whether he wishes this to be regarded as cause and effect, or merely coincidence. We are, moreover, completely at a loss to understand why the assertion in the House of Commons on June 17th, 1840, that "it was well known that typhus carried off the greatest number of children, and that small-pox took off the next greatest number," is not only quoted, but endorsed with the remark, without an attempt to prove its accuracy, that it was "doubtless said as a matter of contemporary experience." Surely Dr. CREIGHTON knows that typhus is not, and, so far as is known, never has been, a fatal disease among children, and that the word typhus must have been loosely used by the member of Parliament referred to above to mean "fever," and further that by "fever" was probably meant scarlet fever, which was specially prevalent in London in 1839 and 1840. It is true that the mortality from typhus has declined in recent years almost to the same extent as small-pox; but anti-vaccinationists never allude to the fact, and neither does Dr. CREIGHTON, that typhus has declined at all ages, whereas the decline of small-pox has been mainly confined to children, while after middle age the mortality has increased. In spite of this statistical fact, of which we must presume Dr. CREIGHTON to be aware, he calls attention to the "many indications that small-pox, like typhus, has been dying out according to some law of succession or substitution among the types of disease." In support, moreover, of his theoretical principle of "equivalence or substitution," he asserts that if there had recently been less infantile diarrhœa in Leicester "there would probably have been more of contagious maladies; perhaps there would have been a certain amount of small-pox itself." We hesitate to think that Dr. CREIGHTON can mean more than that if so many infants in Leicester had not died from diarrhœa the amount of susceptible material for contagious maladies would have been larger. His words, however, especially as regards small-pox, suggest a good deal more, which is unsupported by fact or argument, and the meaning of which seems purposely left vague and unexplained.

We can only refer to one other instance, in Dr. CREIGHTON'S reply, of his method of dealing with specially controversial parts of his subject, which appears inevitably to lead him to assume the character of an anti-vaccination advocate. One of the most serious allegations of the opponents of vaccination is the attribution thereto of the increase in the recorded death-rate of infants from syphilis, more especially the remarkable and as yet unexplained increase that occurred in 1854, the first year of compulsory vaccination. Dr. CREIGHTON'S treatment of this allegation is specially characteristic of his method of argument and of his treatment of statistics. It is not surprising to be told that, writing as a pathologist on the increase of infantile syphilis, in his book published in 1887, he came to the conclusion "that the alleged cause was antecedently improbable," and

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that the statistical evidence in the Scotch returns seemed "wellnigh irresistible, and did, as a matter of fact, create a strong bias against the theory of the increase being due to vaccination." In this frame of mind, strongly biassed against the theory, he proceeds to consider the remarkable increase in the recorded amount of this disease between 1853 and 1854, and "to entertain the possibility that there might be an element of cause and effect in it." It has been pointed out, and Mr. PRESTON-THOMAS called attention thereto, that whereas the increase of the disease between these two years was 42 per cent. among infants aged under one year, it was no less than 79 per cent. among persons aged upwards of one year. Dr. CREIGHTON, having examined this statement critically in order to explain the increase above the age of one year, tells us that the late Dr. SEATON, in his evidence before the Royal Commission in 1871, stated that in the first year of compulsory vaccination people not only brought their babies to be vaccinated, but also brought their elder children. He further states: "Accordingly we find that while the vaccinations increased in 1854 by 103 per cent. in infants under one, they increased by 65 per cent. in persons above one year." Now we are not told how many of these persons above one year of age were children and how many adults, but Dr. CREIGHTON assumes, on the strength of Dr. SEATON'S remark, that they were to a great extent made up of "elder children," and points, as it appears to us in a tone of ill-disguised triumph, to the marked increase in the fatality of the disease among children in the second year of life as proof that these "elder children" also suffered from vaccination. This seems to be felt by him to be sufficient reason for doubting, if not for surrendering, his pathological conclusions and his strong bias against the theory of the increase being due to vaccination. The amusing part of the matter is that he would seem to have entirely misunderstood the true import of the figures he quotes, which really tell strongly in favour of his original conclusions, and against the theory of the increase being due to vaccination. If the increase of disease were due to vaccination, it should bear a distinct relation to the increase of vaccination; and yet, taking Dr. CREIGHTON'S figures, the increase of vaccination under one year was 103 per cent. and that of the disease 42 per cent., while above the age of one year with an increase of only 65 per cent. of vaccination the increase of disease was no less than 79 per cent. This difference is quite in the opposite direction to what would have been the case if the increase of disease had been directly due to vaccination. Nor does Dr. CREIGHTON strengthen his indictment against vaccination when he goes into details of single years, for as we get farther away from the first year of life, the usual age for vaccination, the ratio of this remarkable increase is augmented. We have said that the increase in the first year of life was 42 per cent.; in the second year it was more than 200 per cent., and between the ages of two and fifteen the fatal cases were more than thirteen times as numerous in 1854 as they were in 1853. The ratio of increase between the ages of one and fifteen years is based, it is true, upon very small numbers, but while its explanation has still to be discovered, the fact that it becomes larger as the usual age for vaccination is left behind certainly points to some other cause than vaccination. We need only further notice that Dr. CREIGHTON, in his one-sided statement of the argument, does not mention that the increase of disease among persons aged upwards of fifteen years was 49 per cent., and still higher than it was among infants. Should so powerful an argument against the "theory of the increase being due to vaccination" have been omitted in a judicial statement and discussion of the theory? It is only fair to Dr. CREIGHTON to say that in the conclusion to his reply he states that he is still open to any good explanation which will prove the coincidence of the disease with vaccination not to be cause and effect, and that he still has "a strong bias towards the opinion that vaccination never communicates that infantile disease as correctly diagnosed." These assertions, however, make it all the more difficult to understand why the arguments against the theory of the opponents of vaccination were not as fully stated as are those in its favour.

In conclusion, our main complaint of Dr. CREIGHTON is—not that he has not summed up the evidence on this controversial subject, which he says did not "seem to be his business," but that, in order to enable his "readers to draw their own conclusions from the statistical evidence," he did not clear the ground by giving an equally full and correct statement of the arguments on both sides of the points at issue between the advocates and opponents of vaccination, as he declares he endeavoured to do.

OUR contemporary the *Saturday Review*—which of late has devoted several articles to an account of the medical profession, or rather the prospect of those who are so singularly rash as to enter it—has an article in last week's impression headed "Professional Tattle." In this article our contemporary moralises in characteristic fashion on certain declensions from what it calls the "old standard of etiquette, or rather of decency and honour," especially in respect of a certain undignified looseness of the tongue as to the affairs of patients in the case of doctors, and of clients in the case of lawyers. The evil is not quite so great, the author thinks, in the legal profession as in our own, but it is bad enough in both, and it is on the increase and ought to be put down. Professional opinion in both Faculties has still pretty considerable power, and it is high time that it should be exerted to remedy this great and sore evil.

We fear there is some amount of justification in our contemporary's complaint. It has been occasioned by the appearance in a much-read monthly magazine of an account of the failing health and last illness of a late leading statesman by the physician first in attendance. This article has been criticised in the columns of other lay contemporaries as very questionable in point of taste—whether on the score of disclosure of medical secrets, its suggestions of the writer's skill in prescription, or of the want of skill in other members of the same great profession. It is a healthy sign in days like these to see lay journals strike so sound a note and call for a return to "old standards of etiquette, or rather of decency and honour." It would have a disastrous and deterrent effect if every distinguished invalid had the fear that his particular symptoms and his deepest diseases were to be divulged to the world in newspaper bulletins, and to be amplified before or after his decease into a magazine article. Even undistinguished

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invalids would lose half the avidity with which they send for their medical adviser if they lost the conviction that the medical profession is a quiet profession and its members are men of reticence. This conviction is at the very root of the confidence reposed in medical men, and it is this which makes them, and will make them more and more, the guides of men and women at all ages and in all conditions of life. The medical history of every family is a delicate matter, and there are some families to whom such "tattling" would be an unpardonable sin—not because of any particular sin in the family, but because of the infinite delicacy and tragedy of their medical history. There is no profession that can compare with ours in the confidence it excites if we are true to our trust. But we shall suffer grievously if we are unfaithful to this—if we are unmindful of PERCIVAL'S remark: "The familiar and confidential intercourse to which the Faculty are admitted in their professional visits should be used with discretion, and with the most scrupulous regard to fidelity and honour."

Our contemporary relies on the power of professional opinion to correct the evil of professional tattle and advertisement of all sorts. The corporations have some power, which unfortunately they are rather slow to use; but we are convinced that our true leaders are more than ever conscious of the duty of preserving the privacy and secrecy of professional life, and that they will be followed in this by all who value the reputation and dignity of medical practice. It is well worth consideration whether our Medical Associations should not do more to assert the great principles of medical etiquette and conduct. In THE LANCET of last week, page 141, our Berlin correspondent showed how ably and loftily these principles have been asserted at the recent meeting of the Congress of German Physicians at Brunswick. We commend the resolutions passed at this Congress to the consideration of the President of the approaching meeting of the British Medical Association. He would do real service to the profession in England if he could induce the Association to adopt a similar set of resolutions.

THE word "civilisation" is one of those convenient general terms which, though incapable of precise definition, nevertheless convey a sufficiently accurate meaning. By civilisation we mean a certain proficiency in the art of living, some considerable command over the forces of nature, some degree of refinement in manners, some progress in morals. It has been well said that if we compare the word "civilisation" with the word "cultivation" we easily realise how much is gained by the use of the former term, which, though more vague, is much more pregnant in meaning.

If the question be put whether or not we are civilised, few would hesitate to return an answer in the affirmative, without stopping to reflect upon what is precisely implied in such an assertion. We take it for granted that we are civilised, that civilisation is unquestionably a good thing, and that our condition is far in advance both of the uncivilised savage and of other nations, ancient and modern, whose civilisation is assumed to fall decidedly beneath our own. If we interrogate any man of average culture and intelligence upon what he means by his statement, the answer is not always very satisfactory. In proof of our advanced state and great superiority over uncivilised nations, he will usually point to our express trains, our "greyhounds of the Atlantic," our telegraphs and telephones, our great cities, and our enormous commerce. He does not realise very clearly that these things, however excellent in themselves, are results, not causes, and owe their origin to a certain intellectual and moral fibre in the nation, which is the real thing, and the strengthening of which must be the truest object of our solicitude. Still less is it commonly realised that great material prosperity, though to some extent dependent on such moral factors as industry and patience, may yet coexist and has often coexisted with a great corruption of manners, which in the end works its overthrow and destruction. Thoughtful men of all shades of opinion realise that our modern civilisation, wonderful though it be, has some terrible defects. They perceive that the raising of the average standard of comfort has not yet availed to banish the direst poverty and distress, that the cleavage of classes is as wide as ever, that the progress in education has served to make more vivid the realisation of the defects of our social system, and that the condition of large masses of the industrial classes threatens both the moral and physical well-being of society. Mr. RUSKIN has sounded many a trumpet note regarding the dangers to mind and morals which threaten to spring from the spread of modern industrialism. Like other prophets, he has often been as one crying in the wilderness; but the practical, if somewhat slow-moving, intelligence of our countrymen has gradually come to perceive that "there is something in" this view of the case, and that perhaps, after all, spacious docks, fast trains, and forests of mill chimneys are not altogether satisfying as a complete ideal of progress. Another prophetic spirit of this age (GEORGE ELIOT) expresses a similar feeling when she says: "It is difficult to keep up one's faith in a millennium within sight of this modern civilisation, which consists in 'the development of industries.' Egypt and her big calm gods seems quite as good." It would be something gained to lucidity and sense if we could persuade ourselves that material comfort is, after all, not the only (perhaps not the chief) factor in civilisation, and that it can hardly be called a factor at all unless it is generally diffused, and not restricted to limited and favoured classes.

Mr. FRANCIS GALTON has given a somewhat rude blow to the complacent self-satisfaction with which we so commonly survey our progress in civilisation in his well-known assertion that the Greeks of the age of PERICLES were as superior to us in intellect as we are to the savage. We neither affirm nor deny the truth of this assertion, which deals with a matter where precise proof is peculiarly difficult, but if the Athenians of the golden age were all that has been claimed for them, we cannot forget that their undoubtedly brilliant civilisation rested upon a foundation of slavery. Ours rests upon an industrialism which is not without its elements of degradation. Have we got rid of one great reproach to humanity by substituting another—less black, no doubt, but still real?

How far modern civilisation contains elements threatening the physique of the nation is a question which has often been discussed in these columns. While recognising great dangers, we have not seen any reason for adopting a pessimist attitude. The truth probably is that the beneficent play of

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nature—the tendency of the race to revert to an original healthy type—is constantly at work, and serves to palliate the effects even of very grave errors. Happily, the inheritance of acquired defects is very feeble, and natural selection is ever endeavouring to eliminate the weak and to perpetuate the strong. Industrial progress presses with crushing weight upon individuals and even upon limited classes, but the general physique of the nation is altered very slowly, if at all.

A healthy national sentiment will shun alike the cant of progress and the cant of pessimism. We must acknowledge that our ideals of civilisation have often been very faulty, and, faulty as they are, have been only very inadequately realised. The philosophy which says or implies that it is rich and increased in goods and has need of nothing, should be as uncongenial to us as that which utters the lament, "After me the deluge!"

SMALL-POX was somewhat prevalent in Oldham during the second quarter of last year, and its diffusion into the neighbouring district of Chadderton, near the boundary of which stands the Westholme infectious hospital, belonging to the Oldham corporation, led to an allegation that this hospital, like its fellows at Fulham and West Ham, was concerned in the dissemination of the infection of small-pox in its neighbourhood through the medium of the atmosphere; and Dr. JAMES NIVEN, medical officer of health for Oldham, who has on former occasions written to show that such distribution was not likely to have been in operation on this occasion, has now prepared a report dealing with the subject. He admits that, on following Mr. POWER'S precedent in the case of Fulham, the distribution of the infection on houses in the several zones around the hospital was found to be similar to that discovered by Mr. POWER, the attacks diminishing regularly as the distance from the hospital as a centre increased. He then took two other centres; one where there was a lodging-house which had contributed towards the epidemic, the other a centre in the adjoining district of Chadderton. No similar diminution was found round the lodging-house; and although there was a distribution diminishing from centre to circumference around the other centre, yet it was admittedly not so marked as around the hospital. The matter is discussed with care in the report; and in the end Dr. NIVEN comes to the conclusion that, when all the circumstances are taken into account, the existence of antecedent cases would alone have produced much the same result as was actually experienced. In short, the case against the hospital is held to be not proved. This is an experience which we can well believe; but assuming that all the data were correctly procured by Dr. NIVEN, his results go but for little as regards the influence for harm of small-pox hospitals generally. He says the disease was not conveyed aerially, "in spite of winds and other conditions favouring." The fact is that no one has alleged that such distribution is a necessary result of small-pox hospitals under all circumstances; and it has, above all, been contended that there are probably meteorological conditions which are necessary to results such as those at Fulham. But "wind" is certainly not one of these conditions. Quite the contrary; wind in all probability prevents the infection from settling down upon an area immediately around a hospital. It tends rather to drive it away to a distance, where its influence is either destroyed or is lost beyond detection. Then, again, comes the very important question of epidemicity. Probably such distribution is limited to some definite period of an epidemic—the rise rather than the decline of the prevalence. Hence it happens that mere absence of similar results to those obtained at Fulham by no means invalidates the argument that grave risk attaches to small-pox hospitals in populous localities. It may mean no more than that the conditions necessary to such distribution did not happen to exist at the time and place under consideration.

Annotations.

"Ne quid nimis."

UNIVERSITY EDUCATION IN GREAT BRITAIN.

FOR the first time a grant has been made by the Government for the encouragement of higher education in the University Colleges of Great Britain. Money has been freely given to the Scotch, Irish, and Welsh Universities and Colleges, but with the exception of a small sum granted to the Victoria University to meet the expenses of examinations, no grants have hitherto been awarded which could either directly or indirectly benefit those Colleges which devote themselves to superior education. The £15,000 now given by the Government and voted by Parliament, has been thus allocated: to Owens College, Manchester, £1800; to University College and King's College, London, £1700 each; to Liverpool University College, £1500; to Mason College, Birmingham, the Yorkshire College, Leeds, and Nottingham University College, £1400 each; to Bristol University College, the Durham College of Science, Newcastle-on-Tyne, and Firth College, Sheffield, £1200 each. For the present year, under special circumstances, Dundee University College will receive £500. The Treasury propose that the distribution of the grant, if Parliament continue to allow it, be reviewed every five years, so that we may hope that this will become a permanent endowment for these Colleges. The grants to each College have been calculated as a fixed sum to each for the provision of the necessary professorial staff and apparatus, and an additional sum in proportion to the amount of local support and the instruction given, these being based on the total amount of local subscriptions and students' fees, rather than on the mere number of students in attendance. Not only must an elaborate return of the work done be furnished annually, but it is further provided that a periodical inspection of each College receiving State aid by a person representing the Government shall take place from time to time, to examine the buildings and laboratories and to become acquainted with the courses of instruction. Here we have a new educational departure in this beginning of an organised system of State supervision over the higher educational institutions in this country, and we expect such supervision to increase rather than diminish. £15,000 will do something to strengthen the financial position of these Colleges, but unless local endowments largely supplement the students' fees a much more considerable sum will be required to bring any satisfactory scheme of higher education within the reach of the majority of the community, as it is in Scotland and Germany, and as it should also be in this country. In adjusting the claims of the various educational bodies, medical education was not taken into consideration, and regard was only given to the work of the Colleges in arts and science.

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NOTIFICATION OF INFECTIOUS DISEASE IN LONDON.

WE may assume that no question will be raised in London as to the desirability of having some system of notification of infectious disease. This has already been determined by the experience of other towns. We have in a former number discussed the question, Upon whom should the duty of notifying devolve? We have therefore only to consider the machinery which shall be used for making the returns as useful as possible to the public. The London County Council have decided to ask the President of the Local Government Board to permit copies of medical certificates as to cases of infectious disease sent in the first instance to district medical officers of health to be forwarded to the Council, the Bill, as originally drawn, providing for such copies to be sent to the Metropolitan Asylums Board. With this we are altogether in sympathy. The Metropolitan Asylums Board are simply a hospital-providing authority, while the London County Council are the sole disease preventing authority dealing with the whole metropolitan area. The main object of notification is the prevention of infectious disease, and, inasmuch as hospital provision is only one means towards this end, and in no way touches the question of cause of infectious disease, it is more important for the Council to receive the early intimation than for the managers of the Asylums Board. Doubtless the managers, as a hospital-providing authority, are interested in knowing in advance what claims may be made upon them; but we may trust Mr. Ritchie for arranging that information conveyed to the County Council in the first instance shall be communicated without delay to the Metropolitan Asylums Board, and in such detail as the managers may feel to be necessary for their purposes; but the managers can only need to know of cases in their aggregate, and not of individual houses that may be invaded. We hope that the relative importance of disease prevention and hospital provision will not be misunderstood.

FACTS AND FALLACIES.

WE published last week, at the request of Dr. Brown-Séquard, an account of his recent auto-inoculations, which have given rise in various quarters to some more or less sensational statements. We freely granted the use of our columns to the veteran physiologist, whose former connexion with the London medical world, and high position in scientific circles, render it incumbent on us all to receive what he has to say with respect and courtesy. At the same time we may be permitted to express the gravest possible doubts as to the remarkable results which he claims from his inoculation of the senile organism with the fluids expressed from the glands, in a state of functional activity, of young animals, even although these glands be of the highest order from the secretory point of view; and it would require far more evidence than he has adduced himself, or than has been afforded by the subsequent experiments of M. Variot, to carry conviction to our minds. We base our objection mainly upon the known anatomical and physiological facts of senile degeneration and denutrition, which, with all deference to one whose life has been passed in the pursuit of physiology, seems to us to afford insuperable obstacles to any such extended recuperation of function as is suggested in the paper by Dr. Brown-Séquard. A temporary excitation or exaltation of function is conceivable through the agency of the nervous system, and it is just possible that such is the explanation of the results gained. We note that the learned Professor has now returned to the condition experienced previous to his injections; and we cannot see in this, as he does, any proof of the efficacy of his method. Medically speaking, we should be justified in expressing a fear lest such experiments may really injure the organism they are intended to revitalise; and we sincerely trust that no individual who is subject to the "disease" of "old age" will be rash enough to follow an example so enthusiastically, though, we think, unadvisedly, set by our esteemed colleague.

RAILWAY REGULATION.

THE short Bill which has been introduced into the House of Commons for the purpose of regulating the railways of the United Kingdom is one which, when suitably amended, we sincerely hope to see passed into law. The objects at which it aims are to enforce the adoption of the "block" system and of interlocking signals, to provide proper conveniences for the passage of level crossings, to secure the enforcement of Board of Trade orders, to provide for the regular collection of returns of overtime work by railway servants, to improve and strengthen the law relating to frauds perpetrated upon railway companies by passengers who evade the payment of their fares, and to give power for the making of bye-laws to regulate the use of railway stations. These are all excellent objects, and those at least which have reference to the public safety have long and pressingly clamoured for legislative attention. The drafting of the present Bill, however, does not impress us with any great confidence that the matter has even now received the attention that it deserves. For instance, the very first enacting clause gives the Board of Trade power to order the adoption of "the block system." This, no doubt, is well meant, but so vague a term as "the block system" gives the public practically no security at all. The expression includes many different systems of working signals—some good, others bad, but all alike in this, that the signal normally stands at "danger" so as to block the passage of a train, and is moved over by the signalman when a train arrives for the purpose of allowing it to pass. In the manner of restoring the signal to the "danger" indicating position the various systems differ widely, and this makes all the difference between what we have called a good system and what may be styled a bad one. A good block system automatically shuts up a section of the line upon which a train has entered, and does not permit the signalman to work his signal again until the train has passed off the section at the other end. An efficient system of this kind affords all the protection which it is at all possible for the travelling public to have. But if, on the other hand, the signalman be left to replace the signal at his own discretion, and to move the various levers actuating different parts of his network in any order that his fancy or his convenience may dictate, there is practically in such a system no protection at all. The present Bill does not, so far as we can see, give any power to the Board of Trade to prescribe the variety of block system which is to be adopted, or to take measures to secure its efficiency. This is a point which will need considerable amendment in committee. Equally infelicitous is the language used to enact a statutory return of overtime. The return is to comprise cases of servants who are employed for "more than twelve hours at a time." Such instances are very rare. The common case is that of a guard or engine-driver who does not work for more than twelve hours at a time, but for two or three long stretches aggregating more than twelve hours, and as much may be as seventeen or twenty hours, with intermissions of a few minutes or perhaps of an hour or two interspersed, which periods of intermission must be spent at a distance from home, and under conditions which make repose impossible. In this way men are subjected to a strain as great as that of continuous work, although it may well be that they have been employed only for a number of periods

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individually shorter than the proposed statutory limit. The Bill is one which deserves to pass, but which even more emphatically deserves to be amended.

INTUBATION OF THE LARYNX.

DR. WAXHAM of Chicago contributed the results of his additional experience of intubation of the larynx to the recent meeting of the American Medical Association (*American Medical News*, July 6th). He gave 60 additional cases, with 28 recoveries, or 46·66 per cent.; making, with his previous cases, a total of 210 cases, with 70 recoveries, or 32·89 per cent. An improvement in the method of feeding—viz., giving the child drink in the inclined position, with the head down—was the chief factor in the increased success; an artificial epiglottis being rendered unnecessary. The use of a smaller tube, and greater facility for expulsion of membrane, were also aids towards the better results. In all cases but one the operation was performed for membranous laryngitis. The age of the youngest patient was six months, and it died; but patients aged only fifteen and eighteen months recovered. Dr. Gay stated that at the Boston City Hospital the results were slightly in favour of tracheotomy, which had been resorted to in 32 cases where intubation had failed; only 3 of these patients recovered. In ordinary cases, however, he preferred intubation. Dr. Dennison of Colorado had performed intubation 25 times, with 7 recoveries, and 9 of the fatal cases were attributed to pulmonary œdema induced by aspiration of blood to the lungs during the time that the breathing was suspended. Dr. Brush had only 1 recovery in 23 cases. He said it was a mistake to persevere in attempts to introduce the tube when there was great difficulty. Dr. Larrabie had only experience of tracheotomy (25 per cent. of recoveries), and argued in its favour, at any rate for cases over two years of age.

CHILDREN IN THEATRES.

EVERY Act of Parliament must have its title as well as its clauses, and it occasionally happens that the relationship between the one and the other is not at first evident. Some misunderstanding of this kind may naturally have influenced the deputation which lately waited on Lord Dunraven to press the exclusion from the Cruelty to Children Bill of a clause forbidding the employment of children under ten years of age in theatres. We need hardly say that the term cruelty as here used is a most elastic one. In its strict sense it applies to the Bill, not to the clause in question. As regards the latter, the point really at issue is merely whether theatrical employment is or is not contrary to the needs of healthy child-life. If it is not, there is clearly no necessity for interference; if it is, intervention is constitutional, conservative, and unavoidable. The arguments used by the deputation were even more fully and more forcibly stated in the recent Parliamentary debate on the same subject. On both occasions the opponents of restriction denied in the strongest manner the assertion that their connexion with the stage endangered either the moral, mental, or physical welfare of young children. According to their statements, not only is there no cruelty in the process of ordinary theatrical training, but prohibition, in the words of Mr. Augustus Harris, would be received by the children themselves as a positive hardship. Moral objections, we are told, have been greatly over-stated, and this may very well be. Physical health, it is alleged, is promoted by a liberal diet, by cleanliness, and by general care. Educational interests have not been forgotten—in Drury Lane at least. Late hours are, of course, inevitable; but we are reminded that the street arab class of children from which these young performers are taken do not usually retire early. As regards the social position of the children, however, reports differ widely. Some appear to be of the true ragamuffin order. Others, including a large proportion of the whole, are the offspring of well-to-do parents, often themselves connected with the theatre. For the former the weekly wage is an important consideration, sometimes the support of the home. It is further urged that without that early acquaintance with the stage now allowed to theatre children, our actors and actresses of the future would lose one educational advantage possessed by their predecessors. This sums up the case against special legislation. Its advocates, on the other hand, are no less decided in their views. Mr. Samuel Smith is emphatic in condemning the "heated and forcing atmosphere of theatres," both from a physical and mental standpoint. He strongly objects to the employment of children on moral grounds also—at all events, in theatres of an inferior grade. Arguments of equal cogency have been put forward by others on the ground of interference with education. In this regard it certainly does appear somewhat strange that while every other calling, however wholesome or profitable in itself, has to bear the loss of child labour, and while the claims of home duty enjoy no preference, one art alone, and that a medium chiefly of amusement, should claim exemption as a right. Our own views on this question have already been clearly stated. The ability and earnestness of what we may call the theatrical party are undeniable. Their case has been stated with moderation, and with an evident desire to meet as far as possible any demands made in the children's interest. For our own part, we readily admit the value of child actors in rendering certain plays; but cases of this kind must be quite exceptional, for which the ten years' limit does not make due provision. Even at this age, and still more certainly before it, the late hours, heat, and excitement of the theatre, added to the work of rehearsals, and often also to the tasks of school, cannot be regarded as conducive to health. The functions of the breadwinner should not be thrust upon children at this early period, and, however desirable it may be to cultivate a theatrical instinct, we must remember that an actor should not be less efficient for devoting his early years to ordinary school work. We are, therefore, of opinion that legislation such as that proposed by the new Act ought to accomplish much good, and can do but little harm. Compared with similar enactments in America and on the Continent it is a measure of the most moderate character.

YELLOW FEVER IN BRAZIL.

AT San Paulo, the seat of a colony of Italian immigrants, yellow fever has raged so fiercely as to compel a precipitate stampede homewards of nearly a thousand recent arrivals. The sufferings of these poor labourers in quest of a livelihood at San Paulo itself and on the return voyage are among the most harrowing on record. The savage treatment they underwent from their employers, coupled with the deadly climate, resulted in their demanding to be sent home, a demand which, after vexatious delays, was granted. The Italian steamship *Birmania* deposited some six hundred of of them at Genoa, the majority more dead than alive. Reduced almost to inanition by fever and famine, they had barely embarked from Santa Caterina when smallpox cut off four of their original number and scarlatina and measles caused the death of twenty-five children. The hardships of their lives as settlers, reported from their own lips, were such as to make the listener shudder. To anticipate death by starvation, the father of a family killed his wife, his five children, and finally himself. To avoid something worse than starvation, the young women often committed suicide. "With my own eyes," says an Italian commissioner, who saw the debarkation at

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Genoa, "I have seen girls of thirteen and fourteen years, chlorotic and semi-phthisical, who within a month or two will be mothers!" But yellow fever remained the persistent enemy those poor colonists had to encounter, diminishing their number at Santos, and reducing the population at Campinas from 20,000 to 4000. The Medico-Sanitary Commissioners conclude that while the prolongation of the rainy season and the exceptional heat of the year doubtless reinforced the fever, its base of operations still lay in Campinas itself, constructed as is that city on a low-lying, marshy soil, with little or no means of ventilation, and, worst of all, with no outfall for the fæcal matters constantly accumulating, and with difficulties almost insurmountable in constructing the necessary apparatus. Till the sanitary condition of these Brazilian settlements is placed on a normal footing, it is vain to expect the influx of colonists from Europe. These 600 arrivals at Genoa, after having been fed and clothed by the civic authority, were sent off in a special train to Chiappella, thence to diffuse through the Alta Italia a story of misery, of disease, and death, which, according to the *Opinione*, must act as the strongest of all deterrents to their compatriots from voluntarily incurring risks so disastrous.

GENIUS, MANIA, AND CRIME.

WHILE it is fully recognised by medical men that genius and insanity are sometimes curiously intertwined in the same person, or are displayed in closely connected members of the same family, it is not so easy to trace the connexion between these mental conditions and those sinful or criminal acts which are apt to be committed by persons so organised. The medical profession recognises forms of affection or moral insanity in which the capacity to govern the emotions is in abeyance. In this phase of mental disease a marked feature is the absence of delusions; hence the conflict of opinion between the medical and legal aspects which often arises where the question of criminality has to be taken into consideration. A person is often tried and condemned by the law, but is exonerated and protected by medical judgment which is permitted to supersede legal judgment. Thus the condemned criminal escapes the gallows, becomes an object of pity and commiseration, is protected by and at the expense of the State, and saved henceforth from further harm to himself or others. He may have been—nay, indeed often is—a person of the highest talent or even genius. The Rev. William Dodd, a canon of the Church, the unfortunate English divine who was executed on the 27th of June, 1777, for forgery, after trial at the Old Bailey, is an instance in illustration of the insufficiency of the law acting apart from medical judgment, which unfortunately in those days had not acquired the authority it now possesses. In our day, where doubt exists the law leans to the side of mercy, that quality which is "twice blessed." Where the acts of the subject of moral mania are criminal, the question of his responsibility is settled with much difficulty, even when, as in such cases, every opportunity of investigation is afforded. How much more difficult, then, must it be to arrive at a right judgment in those cases of moral mania where the acts are sinful but not criminal. The law does not come to his rescue. He is not the subject of delusions, yet his acts are the acts of "madness, not badness." He may inflict on himself the punishment of degradation and ruin, and life-long misery on those previously near and dear to him. He bears the scorn of former friends, and in his lucid intervals feels it keenly. But when the impulse is on him, nothing but the absolute control of others is sufficient to check his wayward career. The influence of religion may have some weight on him, but unfortunately it is too frequently the case that the strongest faith is inadequate to stay the downward course. Men are apt to judge their fellow-men uncharitably, and to deal harshly with them, believing them to be capable of exercising restraint over themselves, while all the time nothing short of enforced restraint and medical treatment can avail.

THE BIRMINGHAM WORKHOUSE INFIRMARY.

THE Birmingham Board of Guardians, in appointing a new senior resident medical officer to their workhouse infirmary, have decided to give him the services of an additional assistant resident medical officer. A member of the board, who moved a resolution with this object, is reported to have stated that, "without taking any notice of what THE LANCET and other critics had to say on the subject of the strength of the infirmary medical staff, the committee had come to the conclusion that they were putting more work on the medical officers than they were justified in doing. It was that consideration which prompted them to recommend that an assistant resident medical officer should be appointed." We are glad to see this step taken by the guardians, because we are convinced that not only is it wanted, but because it is a promise that they will make the medical service of the institution as efficient as possible. The Birmingham authorities have not been wanting in willingness or in capacity to govern properly the institution in their charge, and for our own part we are better pleased to see the staff increased, not because we pointed out the necessity, but because the necessity is now recognised by the authorities themselves. It may be more possible to manage efficiently in Birmingham an enormous institution than if it were situated in many other localities; but we do not the less insist that it is a mistake to permit, even in Birmingham, the erection for poor people of infirmaries which in respect of size contravene the regulations published by the Local Government Board.

THE TREATMENT OF GASTRO-INTESTINAL CATARRH IN INFANTS.

IN a clinical lecture, Dr. Edward P. Davis of Philadelphia deals with the important topic of infantile diarrhœa and its treatment (*Medical News*, Philad., July 6th.) He points out that lactic fermentation is a part of the normal process of digestion, and that it is a further acid fermentation resulting in the conversion of neutral lactates into butyric acid, with the formation of acetic acid and acetone, which is pathological, and of which the bacteria are injurious. The causes, then, of acute gastro-intestinal catarrh are such as tend to produce the latter change, and it is readily conceivable that the fermentative processes may under certain conditions (especially high temperature) be cultivated in the food (e.g., milk) outside the body. In addition to such changes in the ingesta, there are predisposing conditions in causes favouring vaso-motor disturbance in the digestive organs; and here, again, besides exposure to cold, exposure to heat is a common contributory cause. Hence the prevalence of this form of diarrhœa in the hot season. Dr. Davis points out that it is of prime importance that the milk should be sterilised, and gives directions for the best method of effecting this. He advises the addition of extract of malt in preference to sugar. As to treatment of the attack, he advocates, in cases of pronounced gastric irritation, the washing out of the stomach by means of a small soft catheter and rubber tubing, boiled water, containing sodium bicarbonate or sodium salicylate (one grain to an ounce) being employed; but he advises caution in the procedure. If the case passes on to well-marked intestinal catarrh with enteritis, he states that "an effort should be at once made to remove irritating ingesta from the intestines, to prevent the growth of bacteria, and to feed and support the patient in every possible way."

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Calomel in one-tenth or one-twentieth grain doses is the most suitable intestinal antiseptic; and, for the first six or eight hours, teaspoonfuls of whisky and boiled water, or this with white of egg added, taking care that fluid in small quantities be freely taken. Should these means fail, intestinal irrigation, before prostration sets in, should be had recourse to, the fluid injected being made alkaline by sodium bicarbonate. Thymol (1 to 1000) or sodium salicylate (twenty grains to twenty ounces of water) is useful, and care should be taken to ensure the free flow of the fluid. Directions are also given for the after treatment; but we must refer the reader to the paper itself, which deals with the subject in a rational and practical way.

PHTHISIS IN ARMIES.

IN his statistics of phthisis, Dr. R. Schmidt of Munich (to whose observations on this subject we drew attention in THE LANCET of the 6th inst.) states the number of cases in the English army at 11·8 and of deaths at 6·2 per 1000. We do not know from what source he has derived these ratios, or the period to which they refer; but as regards the last thirty years they are decidedly erroneous. In his "Manual of Practical Hygiene" (fourth edition, p. 371, 1873) Dr. Edmund Parkes says: "The deaths from phthisis and hæmoptysis in the eight years ending 1866 averaged 3·1 per 1000 of strength, the highest annual ratio being 3·86 and the lowest 1·95. In 1867-71 the mean mortality was 2·648 per 1000." With a view to ascertain whether any change has taken place in more recent years in the phthisical death-rate of the army we have extracted from the Army Medical Reports the necessary information for the seven years 1879-85 inclusive. We have not included the two following years, as a change was made in the nomenclature and classification which might possibly affect the results. During these seven years the admissions into hospital for tubercular diseases in the whole army, at home and abroad, were 8·01, and the deaths 1·61 per 1000 of the strength. On further analysing the figures, we find that the admissions and deaths by these diseases were: among the troops serving in the United Kingdom, 9·36 and 2·04; in India 6·93 and 1·24, and at other stations abroad 6·23 and 1·03 per 1000 of strength. It is probable that Dr. Schmidt has obtained his figures from some of the earlier army reports, which date so far back as 1838, but the changes in our army during the last thirty years and the careful attention to sanitation on the part of the medical officers for a still longer period have had the effect of reducing the mortality by consumption in a very remarkable degree. It seems very desirable, in all comparisons of the nature of those made by Dr. Schmidt, that the period over which the statistical data extend should be clearly stated, as upon that may depend much of the present value of the observations.

VACCINATION IN NEW SOUTH WALES.

THE Government of New South Wales has published a letter from Dr. Norton Manning, the medical adviser to the Government to the principal Under Secretary, pointing out the great diminution in the number of vaccinations performed in that colony by public vaccinators. Thus, in 1888, there were only 2069 such vaccinations, the number of children born being 38,505. Dr. Manning says there is no real reason to believe that the decrease in the amount of vaccination is due to any objection to the operation or to any want of belief in its protective influence; a few cases of small-pox at the quarantine station, a single case in Sydney or its suburbs, or even one or two newspaper articles on the subject, is sufficient to greatly increase the number of persons presented for vaccination. That Dr. Manning's conclusions are well founded is proved by the fact that the number of vaccinations by Government vaccinators in 1881, when public attention was drawn to the subject, exceeded the number of births in that year by nearly thirty thousand; but Dr. Manning states that "there is an increasing number of persons in the colony who have never seen small-pox, to whom its very existence is only a vague belief, and who are not imbued with either the dread of the loathsome and fatal malady which renders vaccination a prudent and safe necessity or the wholesome English tradition which prescribes it as a duty." The Hon. C. K. Mackellar, who preceded Dr. Manning in office, did his best to make the Government and people of New South Wales understand the danger to which they were exposed. He urged that quarantine could not be depended upon, and expressed the fear that one day the people might be aroused from this condition of apathy by an epidemic of small-pox which might decimate the colony. While New South Wales might with advantage learn lessons from the experience of Montreal and other places where vaccination has been neglected, we, in our turn, may learn from the experience of New South Wales the inevitable results of a repeal of the Compulsory Vaccination Acts. In the interval between epidemics a population becomes apathetic, and, indeed, ignorant of the dangers against which it has to guard, and is only aroused to a sense of the importance of vaccination when small-pox is committing ravages in its midst. It is impossible at such times that provision for efficient vaccination can be made for the large numbers of people who then seek its aid, and the result is a loss of human life which a little forethought might have prevented.

DEATH FROM ELECTRICITY.

A DEATH has recently occurred at Brighton from the accidental contact of the conducting wire of the electric lighting apparatus with the neck of one of the *employés* at a brewery. The deceased was "found dead" in the neighbourhood of the fatal electrical conductor, and we are told by a report in a daily newspaper that a post-mortem examination revealed perfectly healthy organs, the only abnormality in this case being "a mark half-way round the neck as if grazed by the wire." With the extension of electric lighting occasional fatalities of this kind are to be expected, and the number of deaths from this cause has already been considerable. In the case recently reported there was, it is to be observed, a slight mark upon the body, and in a case which occurred in 1884 a blister was found upon one of the fingers of the deceased with which contact had been accidentally made by the machine. In other cases there has been no mark whatever, so that we may conclude that the pathological evidence of the cause of death in such cases is almost *nil*. It seems to us of the greatest importance that these accidents should be carefully studied, and it would almost seem to be the duty of the Local Government Board to send a trained pathologist to attend the post-mortem examination of every case which occurs, in order that a careful comparison might be established between the cases, and any points which they might present in common be duly noted. This could only be done by one having considerable accumulated experience, and such experience could only come to one having such opportunities as an official position would give. The matter is of very great importance, because a cause of death which is, so to say, gradually becoming omnipresent, and which leaves no mark, is tolerably sure to be made use of for criminal purposes, and if there be any certain means of establishing how death took place, a knowledge of this would be the only means of checking the misdeeds of persons with criminal intentions. It generally has happened hitherto that the surrounding circumstances have left no doubt as to the cause of death, but it is not reasonable to sup-

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pose that such would always be the case, and if it suited the crafty schemes of a criminal it might very easily be contrived otherwise. In short, there is no doubt that we ought to use every endeavour to increase our exact knowledge of this cause of death, and we can only hope that post-mortem examinations will be carefully made in all cases which occur, and that practitioners will regard it as a duty which they owe to the profession and the public to place upon record the results of such examinations.

LOCAL GOVERNMENT (SCOTLAND) BILL

THE House of Commons appears to be more in earnest about the sanitary government of Scotland than it is about that of England. County Councils in Scotland *must* appoint a medical officer of health; in England they *may* do so; in other words, if they like they may not, and the sanitary administration of a county may be little less than a farce. But Scotland has yet another advantage over England. In future every medical officer and every sanitary inspector appointed under the Local Government or under the Public Health Acts of Scotland shall be removable from office only with the sanction of the Board of Supervision; for this amendment the public are indebted to Dr. Farquharson, who proposed it, and Dr. Cameron, Dr. Clark, and the Lord Advocate, who supported it, and the amendment was carried by 229 votes against 126, giving a majority of 103. We congratulate Scotland on the prospects of good sanitary administration which are before it. The amendment recognises an important principle—that the medical officer of health, whose duty often compels him to give advice unpalatable to his authority, is not to be disturbed in the possession of his office for so doing. The effect will be, we are convinced, advantageous; for while it will strengthen the officer in the performance of his duties, it will not remove from him his sense of responsibility, and he must be careful to exercise the greatest judgment and tact in dealing with his authority. To none will this news be more welcome than to the medical officers of health of England, who may with confidence look forward to sharing at no distant date in the protection which is now accorded to their Scottish brethren.

THE DENSITY OF THE BLOOD IN RENAL DISEASE.

DR. LLOYD JONES, of St. Bartholomew's Hospital, who has devised a simple clinical method of estimating the specific gravity of the blood (*Journal of Physiology*, vol. viii.), contributes to the current issue of the *Practitioner* the results of some of his investigations in this direction. By comparison with several hæmocytometric numerations, he shows that, as might be expected, the specific gravity varies in proportion to the relative amount of corpuscles and plasma; and, this being so, it suggests that in renal disease changes in the specific gravity would be prone to occur. He therefore made a number of observations on the blood of cases of acute nephritis, chronic parenchymatous nephritis, and chronic interstitial nephritis. In the first the specific gravity was variable, being either normal or below the normal; in the second it was diminished in every case but one. But as regards chronic interstitial nephritis, he found that in the cases accompanied by gout the rule was for the specific gravity to be below the normal (average about 1051), whilst in those in which gout did not occur it was above the normal (average about 1058). Among these latter, however, the interesting fact was shown that in those dying from cerebral hæmorrhage the specific gravity was highest (average about 1060), and that the presence of such a condition in a case of chronic interstitial nephritis is an index of the liability of the patient to cerebral hæmorrhage. Dr. Lloyd Jones argues that the tense pulse of acute renal disease is attributable to a non-excretion of water, causing an increase in the volume of blood, and further suggests that such an increase may occur in the early stages of granular kidney, and contribute to the cardiac hypertrophy and vascular changes, which in the later stages suffice *per se* to explain the heightening of the blood-pressure.

CAN A MEDICAL OFFICER OF HEALTH BE A JUSTICE OF THE PEACE?

THE city authorities of York appear to enjoy the privilege of submitting to the Crown the names of such persons as they consider fit to be raised to the magisterial bench. One cannot object to their exercising such a right with care and deliberation; but it does appear to us that they have somewhat unwisely decided not to present the name of Mr. S. W. North, their medical officer of health. To Mr. North's personal fitness for the office of Justice of the Peace the testimony is unanimous. But, it is objected, he is obliged occasionally in the performance of his official duties to give evidence before the magistrates, and on these occasions he would be unable to occupy his seat upon the bench. That may be admitted; but even then it does not seem to us to constitute a serious objection to a candidate otherwise eligible. Any one of the magistrates may from time to time be placed in the same position, for he may in like manner be interested in a matter coming before the bench for adjudication. The objection, therefore, is one not of principle but of detail. And even if it be contended that the medical officer of health would more often than a wholly private person be placed in this difficulty, it surely does not follow that the difficulty in his case amounts to a practical bar, His appearance in the witness-box can hardly be an every-day occurrence, and when he does appear there in his official capacity, it is rather in the character of an adviser than of a mere informer that he comes forward. It seems to us, therefore, that the scruple which has led to the withdrawal of his name is not altogether worthy of the consideration which it has received; and although we would not for a moment suggest that the citizens of York who are acting in this manner are influenced by any but the purest considerations of public policy, nevertheless we cannot bear testimony to their probity without in some measure reflecting upon their judgment.

TUBERCULOSIS AND FOOD-SUPPLIES.

IN an interesting address on Tuberculosis recently delivered by Dr. James Niven, medical officer of health for Oldham, before the Association of Public Sanitary Inspectors, the lecturer drew the attention of his audience to various aspects of tuberculosis, both in the human subject and in some of the lower animals, with especial reference to their bearing on the question of public health. As regards the influence of foods in the production of tuberculosis, Dr. Niven held that everyone would probably allow that milk from an animal having tuberculous udders might be infective; and, since there is much difficulty in determining when there is a tuberculous focus of disease in the udder, the milk of tuberculous cows should be always condemned. In this connexion he referred to the fact that the owner of a valuable herd of cattle, on finding that a large proportion of his cows were tuberculous, withdrew the milk from the market, and used it, without previously boiling it, for the fattening of his pigs. The result was that the pigs, almost without exception, were so affected with the disease as to necessitate the slaughter of the whole stock. As to the use for food of the flesh of tuberculous animals, the question

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was regarded as one of greater difficulty. Observation seemed to show that the meat of tuberculous animals—and this especially in the case of chronic disease—did not necessarily convey disease, and this although it is difficult to conceive how tubercle bacilli, which are liable to be scattered throughout the body by means of the bloodvessels, can fail to find lodgment in the flesh. Dr. Niven's own opinion is against the use of such flesh as a food, although he admits that this by no means constitutes the greatest danger as to tubercle in its relation to food-supplies.

PROPOSED HOSPITAL RATE FOR LONDON.

BEFORE we even know what the Hospital Sunday and Hospital Saturday collections are to be, we have suggestions for a hospital rate for London, and crude statements, inaccurate and quite irrelevant of course, about the salaries of the treasurers of the endowed hospitals. Two of the endowed hospitals receive no grant from the Hospital Sunday Fund. The third, which does, has satisfied the Distribution Committee that it deserves the grant it has received. The treasurer of St. Thomas's Hospital, instead of receiving £2000 a year, receives no remuneration for his services, though he is supplied with a residence, and well must the treasurer of such a hospital and the responsible trustee of such an estate work for his residence. The fact is that there is ample wealth in London for the maintenance of all legitimate hospitals in a charitable way if all the healthy and the wealthy would make a fit thank-offering in the shape of generous hospital subscriptions, and give a little personal attention to the question of removing abuses in the administration of hospitals, especially in the way of excluding unfit cases from the out-patient department.

THE ADMINISTRATION OF CHLOROFORM BY GAS-LIGHT.

As is well known, it has been the practice to avoid the use of ether for anæsthetic work if artificial light is needed, whenever there is fear lest the ether vapour mixed with air be heated sufficiently to explode. The heavier vapour of chloroform, in addition to not being liable to form an explosive mixture with common air, is far less inflammable, and so has been hitherto regarded as a safe anæsthetic in such cases, at least as far as dangers from fire are concerned. Recent researches undertaken by Dr. Iterson, however, seem to show that chloroform vapour, when allowed to mix with the products of combustion of ordinary coal gas, undergoes decomposition and liberates gases of a most irritating nature. Dr. Iterson believes death has been brought about in one case at least by inhaling these noxious vapours, and recounts other instances in which alarming symptoms have supervened. One patient, although apparently but little affected while inhaling the chloroform, became painfully dyspnœic afterwards, gasping and evincing the usual symptoms of asphyxia due to irritant vapours. These alarming effects passed off when the windows were thrown open and the fumes of coal-gas combustion and chloroform were permitted to escape. It is well known that samples of chloroform which have been kept exposed to diffused light will after a while become contaminated with chlorine and acid substances, which possess most irritating properties; but until Dr. Iterson's warning arrived, we were not aware that chloroform vapour would, when diffused in the air of a room or operating theatre, be decomposed in passing over a jet of ignited coal gas. We know that, heated to redness, chloroform splits up into hydrochloric acid, chlorine, and other products, including the trichloride of carbon; and both Soubeiran and Liebig have pointed out that, although chloroform vapour cannot be ignited in the air, it will, if passed over a spirit-lamp flame, burn, and liberate irritating vapours. The question as to the gases most probably formed, if the coal gas is capable of uniting with the products of chloroform decomposition, is too wide a one for us to enter upon; nor do we think that we need go farther than to say that, if Dr. Iterson's facts are to be taken without reservation, the irritant bodies which exercised so deleterious an influence were, in all likelihood, the products of the ordinary decomposition of chloroform—namely, free chlorine, hydrochloric acid, and possibly other chlorides and ammoniacal compounds.

THE CASE OF INOCULATED LEPROSY.

AT the recent Dermatological Congress at Prague, Dr. Arning of Hamburg gave an account of the notorious case of inoculated leprosy which he had supervised when in the Sandwich Islands (*Wiener Med. Woch.*, No. 29). Dr. Arning, in 1884, was permitted to inoculate a condemned criminal, with the latter's consent. Up to that time he says that the results of inoculation had been negative (e.g., twenty recorded by one observer, ten by another). The man whom he inoculated had no inherited taint. The virus was introduced by "suturing" a piece of affected skin on to that of the subject, and also by punctures &c. in various parts of the body, the giver being a girl nine years old who had passed through a severe febrile period and was suffering from tubercular leprosy. The immediate result was negative, but four weeks following the inoculation the man was attacked with an affection resembling an apyrexial subacute rheumatism. The first joint involved was the left elbow, the left arm having been selected as the site for the transplantation of a portion of leprous skin; and then other joints became attacked, the attack lasting for four months. Then occurred some characteristic swelling of the left ulnar and median nerves, which subsided in the course of six months. Meanwhile there had developed on the keloid-like scar of the inoculation site a typical leprosy nodule, from which abundant bacilli were obtained. Since Dr. Arning has returned to Europe he has learned that the disease had made marked progress (the drawings of the man's condition had been unfortunately lost, probably owing to the changes which had lately taken place in the staff of the prison and infirmary), and the unfortunate man was now in a condition of marked marasmus. Dr. Arning remarked that the case was not absolutely conclusive of the communicability of leprosy, since the man by birth and residence might have been predisposed to the disease.

HYGIENE IN THE GERMAN UNIVERSITIES.

THE transference of Professor Hueppe from Wiesbaden to the vacant chair of Hygiene at Prague is strongly advocated by the *Wiener Allgemeine Medicinische Zeitung*. It is remarkable (as pointed out in the *Medical News*, Philadelphia, July 6th) that at the present time there are chairs of Hygiene in all but two of the German Universities—viz., Bonn and Königsberg. These chairs are filled by pupils of Dr. R. Koch—viz.: Kiel, Dr. B. Fischer; Giessen, Dr. Gaffky; Jena, Dr. Gärtner; Greifswald, Dr. Löffler; Wiesbaden, Dr. Hueppe; Leipsic, Dr. Becker; and Berlin, Dr. Fraenkel.

TENDON REFLEXES IN LEPROSY.

S. M. SUZUKI, M.R.C.S., L.R.C.P., contributes a paper to the *Sei-i-Kwai Medical Journal* (May) upon the Tendon Reflexes in Leprosy. His attention was called to this subject by finding to his surprise that the reflex was increased in a case of anæsthetic leprosy. In five other cases since observed by him, including both the anæsthetic and tubercular forms, the reflex was similarly exaggerated. A like result appeared from the examination of seventeen cases from a leper asylum

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and among Mr. Suzuki's out-patients at the Tokyo Charity Hospital. He remarks that the change in leprosy is that of interstitial neuritis, and that the bacillus of leprosy has been found in the new-formed connective tissue. Yet in other forms of multiple neuritis the tendon reflex is abolished. Moreover, in leprosy muscular strength is well preserved, paralysis being of rare occurrence, even in advanced cases. He concludes, therefore, that in this disease there must be other changes in the nervous system besides multiple neuritis, and intends to report at a future date upon the electrical reactions.

THE MORTALITY FROM ACUTE LOBAR PNEUMONIA.

AT the American Climatological Association meeting at Boston, Drs. C. W. Townshend and A. Coolidge, jun., of Boston, contributed a study of all the cases of acute lobar pneumonia treated at the Massachusetts General Hospital, from the first case in 1822 to the present time. They conclude that:—1. In the 1000 cases of acute lobar pneumonia treated at the Massachusetts General Hospital from 1822 to 1889 there was a mortality of 25 per cent. 2 The mortality has gradually increased from 10 per cent. in the first decade to 28 per cent. in the present. 3. This increase is deceptive from the following reasons, all of which were shown to be causes of a large mortality: (*a*) the average age of the patients has been increasing from the first to the last decade; (*b*) the relative number of complicated and delicate cases has increased; (*c*) the relative number of intemperate cases has increased; (*d*) the relative number of foreigners has increased. 4. These causes are sufficient to explain the entire rise in the mortality. 5. Treatment, which was heroic before 1850, transitional between 1850 and 1860, and expectant and sustaining since 1860, has not, therefore, influenced the mortality rate. 6. Treatment has not influenced the duration of the disease or of its convalescence.

METROPOLITAN HOSPITAL SUNDAY FUND.

A SPECIAL MEETING of the Council of the Hospital Sunday Fund will be held at the Mansion House, under the presidency of the Lord Mayor, on Monday next, the 29th inst., at 3 P.M., for the purpose of receiving the recommendations of the Committee of Distribution as to the amounts to be awarded to the various metropolitan hospitals and dispensaries from the fund collected on Hospital Sunday. The sum to be distributed will amount in round figures to £40,000, as against £39,536 last year. The returns are still incomplete, as the collections from a number of outlying congregations have still to be sent in to the central Fund. When that has been effected it will be found that this year's total is considerably larger than any Hospital Sunday collection since the Fund was initiated by the late Dr. James Wakley, in conjunction with Sir Sydney Waterlow.

THE CHAIR OF ANATOMY AT ABERDEEN.

THE following names have already been mentioned as probable candidates for this chair: Dr. R. W. Reid of St. Thomas's Hospital; Mr. Arthur Thomson, M.B., of Oxford; Dr. Symington and Mr. J. Macdonald Brown of Edinburgh.

LORD SANDHURST has set down a notice of motion in the House of Lords for Monday, the 29th inst., to present a petition signed by members of the medical profession and also on behalf of charitable institutions, praying for inquiry with regard to the financial and general management and common organisation of medical institutions, endowed and voluntary, and with regard to the administration of Poor-law institutions for the aid of the sick in the metropolis, and to move that the petition be granted.

THE monument to Ohm which, as we lately mentioned, is to be erected in Munich, has been the occasion of most gratifying co-operation on the part of physicists and physicians of all nationalities. The great pioneer in the enlistment of the electric force in industrial and professional work—for technical and therapeutic purposes—illustrates, in the movement to honour him, the essential kinship of the sciences, the subscriptions for his monument coming in with equal liberality from French, Italian, English, and Russian *savants*. The Munich Committee, in announcing the imminent close of the subscribers' list, dwells with peculiar gratification on this fact.

OUR readers will remember that the late Dr. Wilson Fox left behind him not only the magnificent Atlas of Diseases of the Lungs, published a year ago, but also a systematic treatise on the same subject. The representatives of the author have been fortunate in securing the services as editor of a physician—Dr. Coupland—who brings to the task the advantage of having been a pupil of the author. We understand that the publishers, Messrs. Churchill, have decided to publish the work by subscription, and that its appearance may be looked for early next year.

FROM Kiel will shortly set sail the expedition to explore the submarine flora and fauna of the ocean, under the supervision of Geh. Medicinal-Rath Professor Hensen, M.D. The expedition, which is to last for several months, has been subsidised by the Emperor William to the amount of 80,000 marks. A special subject of investigation will be the effect of light on the oceanic fauna, and Dr. Hensen, it is understood, will undertake a series of experiments with this object by means of a novel application of the electric light.

AT the Royal College of Physicians of London, Dr. Norman Moore will deliver the Bradshawe Lecture, on Monday, Aug. 19th, at 4 o'clock, the subject being "The Distribution and Duration of Visceral New Growths."

MR. VICTOR HORSLEY and Dr. DAVID FERRIER were elected honorary members of the American Neurological Association at the fifteenth annual meeting, held at Long Branch on June 26th and 27th.

THE Board of Trade have received through the Secretary of State for Foreign Affairs the following telegram, dated the 19th inst., from Her Majesty's representative at Alexandria: "Bombay has been placed in quarantine."

ALL the elementary schools in Coventry are now closed in consequence of the prevalence of measles, of which there are said to be at the present time some thousand cases—chiefly, however, of a mild type.

MR. E. B. WHITCOMBE, medical superintendent of the Birmingham City Asylum and Professor of Psychological Medicine in Queen's College, has been unanimously chosen Ingleby Lecturer for 1890.

MR. JOSEPH GRIFFITHS, Assistant to the Professor of Surgery, Cambridge, has been reappointed Medical Tutor of Cavendish College.

PROPOSED COTTAGE HOSPITAL FOR MEXBOROUGH. A number of the leading working men of Mexborough and Swinton are taking steps towards procuring the erection of a cottage hospital at Mexborough for the district.

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THE HEALTH OF THE ARMY IN 1887.

No. I.

THE annual report of the Army Medical Department for the year 1887 states the average strength of the troops serving at home and abroad, exclusive of colonial corps, to have been 194,037 warrant officers, non-commissioned officers, and men. The admissions into hospital were 985, the deaths 8·84, the discharges by invaliding 13·30, and the proportion constantly non-effective from sickness 54·17 per 1000 of the strength. These are all considerably lower than in the preceding year, the reduction in the death-rate amounting to 2·84 per 1000, or one-fourth of the total mortality in 1886. In the United Kingdom a force of 101,114 furnished 787 admissions, 5·13 deaths, 14·80 discharges by invaliding, and 45·12 constantly sick per 1000, all lower than in the preceding year. The lowest ratios of admissions and mean sick were among the troops in Scotland, and of deaths and invaliding among those in Ireland. The highest ratio of admissions was in England, the excess being chiefly in venereal diseases. We observe a judicious alteration in the report of this year, the abstracts showing the sickness and mortality being framed for the three great divisions of the kingdom instead of the various military districts in each. Scarlet fever prevailed to some extent, there having been 185 admissions and 8 deaths. Woolwich, Chatham, and London were the stations most affected, nearly half the cases having occurred in them. Aldershot and Templemore also had a number of cases. Measles were pretty generally prevalent, Chatham and the Channel Islands being the only districts in which no case occurred; Aldershot, Dublin, and London were those which furnished the largest number of cases. There were 137 admissions and 28 deaths by enteric fever, being under the numbers in 1886, but very slightly above the average of the last ten years. It was much more prevalent in Ireland than in England or Scotland, the admissions being 2·9 per 1000, as against 0·8; the deaths also were higher, being 0·40 per 1000 in Ireland, 0·27 in Scotland, and 0·24 in England. In Ireland, of 73 cases, 50 were in Dublin, with 4 deaths; and 23, or nearly one-half of these, with 2 deaths, occurred in the Royal Barracks. There were 10 cases, with 2 deaths, in London, but in 3 of them the disease is said to have been imported from Dublin. A detailed statement is given of the various stations at which cases occurred, and the supposed causes at each, where these could be ascertained. In a considerable number of instances they were believed to have arisen from defective drainage or impure water-supply.

The admissions by veneral diseases were 219·4 per 1000 of the strength, and the proportion constantly non-effective from this cause was 16·65 per 1000, or upwards of one-third of the mean daily sick. To this number of cases, however, should be added simple venereal ulcers, returned under the class of diseases of the generative system; these would increase the ratio of admissions to 253 per 1000. The admissions under the head of alcoholism amounted to 3·2, and the deaths to 0·05 per 1000—all the latter from delirium tremens. There were 2 deaths from accidental poisoning by chloroform while being administered as an anæsthetic, one of them in a civil hospital during the reduction of a dislocation of the shoulder-joint. There were also 1 death from eating poisonous fish, 1 from an overdose of opium in an habitual opium eater, and 1 from alcohol taken in a poisonous quantity. The most frequent causes of invaliding were diseases of the circulatory system, amounting to 3·12, those of the nervous system to 2·21, and tubercular diseases to 1·65 per 1000.

A table is given showing the relative sickness and mortality of the troops quartered in camps at Aldershot, Colchester, Shorncliffe, and the Curragh, and at thirty-six large towns. The admissions per 1000 of the strength were in the camps 791, in the towns 840; and the deaths in the camps 3·91, and in the towns 5·61. The proportion constantly sick was almost identical in the two groups. By arms of the service the admissions ranged between 575 per 1000 in the Household Cavalry and 934 in the Foot Guards, and the deaths between 4·01 in the Household Cavalry and 6·46 in the Foot Guards, who also had a much higher proportion constantly sick than any of the other arms.

The mortality by ages among the troops in the United Kingdom was: under twenty, 2·60; twenty and under twenty-five, 3·92; twenty-five and under thirty, 5·48; thirty and under thirty-five, 8·81; thirty-five and under forty, 14·31; forty and upwards, 27·37 per 1000. These results correspond closely, but showing a slight decrease, with the average of the ten preceding years. Among the officers the cases of sickness were 309 and the deaths 4·39 per 1000, both lower than in the preceding year. Among the women there were 357 cases and 5·54 deaths per 1000, and among the children 468 cases and 26·10 deaths per 1000—all under the proportion in 1886.

The reports on the sanitary conditions of the Home Stations show that a vigilant supervision is exercised by the medical officers; numerous improvements have been effected, but much yet remains to be done. We notice especially in the report of the southern district, that "the sanitary condition of the new barracks, Gosport, was frequently reported owing to the unsatisfactory condition of the adjacent moat, from which, especially during the summer months, offensive smells emanated; it is stated, however, that steps had not yet been taken to remedy the evil." Surely, in the case of new barracks this should have been provided for before they were taken into occupation by the troops.

At Gibraltar the average strength of the garrison was 4614. The admissions into hospital were 674, the deaths 6·29, the mean sick 38·09, and the number finally discharged as invalids 7·15 per 1000; all much lower than in 1886, and under the average of the decennial period. In none of the corps was there an excessive rate, either of sickness or mortality. There were 35 admissions and 9 deaths by enteric fever, being in the ratio of 7·6 and 1·95 respectively, both considerably under the average. The admissions from all forms of venereal disease were 287 per 1000, and the proportion constantly non-effective from it was 19·83 per 1000. These results show a decrease from those of the preceding year, but correspond closely with the quinquennial average.

The cases of illness among the officers amounted to 411 per 1000, with no death. Among the women the cases were 480 and the deaths 11·81 per 1000; and among the children they were 576 and 38·99 respectively. In the last quarter of the year, scarlatina in a mild form prevailed among the civil population, but no cases occurred among the military. During the year considerable improvements were effected in the drainage and ventilation of some of the barracks; but the Principal Medical Officer observes that, "much remains to be done in the way of sanitation. The whole system of soil drains requires to be thoroughly overlooked, and nothing short of laying down new soil pipes can possibly meet the urgent requirements under this head. The present soil drains of brick are defective, and the fall in the lower system of drains is so small that it is impossible to flush them effectually."

The strength of the garrison of Malta was 5499; the admissions into hospital were 547, the deaths 6·54, the mean sick 35·94, and the final discharges by invaliding 7·09 per 1000 of strength. These are all much below the proportion in the preceding year and the decennial average. There were 14 cases and 5 deaths due to enteric fever, being in the ratio of 2·5 and 0·91 per 1000. It is stated by the Principal Medical Officer that "the cause remains obscure, but most probably the insanitary condition of the wine-shops and other houses frequented by the men was in fault in many cases, and not insanitary conditions inside barracks or quarters. . . . . It is rather remarkable that only one woman contracted the disease, although the women's quarters were close to the various barracks and had the same water-supply. This is another reason for thinking that the disease is seldom contracted inside the barracks." During the months of August, September, and October an epidemic of cholera prevailed among the civil population. Only one case occurred among the soldiers, which, however, proved fatal; it was attributed to his "indulging excessively in over-ripe fruit, particularly that of the prickly-pear." There has been a considerable decrease in the amount of venereal diseases, which is attributed to the police supervision. Including all forms of venereal affection, the ratio of admissions was only 76·4 per 1000.

The Royal Malta Fencible Artillery, 360 strong, furnished 661 admissions, 2·78 deaths, 25·16 constantly sick, and 22·22 discharges by invaliding per 1000 of strength. One fatal case of cholera occurred during the prevalence of the epidemic.

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of that disease among the civil population. The medical officer in charge considers the system of giving a money allowance in lieu of rations "not calculated to improve the efficiency of the men."

The average force at Cyprus was 472; the admissions amounted to 710, the deaths to 6·36, the mean sick to 37·43, and the invalids finally discharged to 14·83 per 1000 of the strength—all very much under the average. For four months, June to September, the troops occupied Troodos. There were 3 cases and 1 death due to enteric fever; in two of them the disease was believed to have been contracted at Polymedia, and in the third case at Limassol. At Polymedia considerable improvements were made in the barracks, and apparently with beneficial sanitary results.

The strength of the troops at Halifax, the only station occupied by them in the Dominion of Canada, was 1282. The admissions amounted to 625, the deaths to 5·46, the mean sick to 35·56, and the discharges by invaliding to 8·58 per 1000—all, except the deaths, under the decennial average. None of the diseases seem to call for special remark. Only one case of enteric fever was admitted—an officer's servant, who was supposed to have contracted it in the town.

A TEACHING UNIVERSITY FOR LONDON.

AN important deputation waited upon Lord Cranbrook at the Privy Council Office last Thursday afternoon for the purpose of making certain representations with reference to the recent reports of the Royal Commission on a University for London. The deputation consisted of the Bishop of London, Sir Henry Acland, Mr. Bywater, Mr. J. E. Erichsen (President of University College), Mr. Berkeley Hill, Dr. Priestley, Mr. Rotton, Dr. Wace (Principal of King's College), and Sir George Young. The subjoined "Statement of the Councils of University College and King's College, London," was presented to Lord Cranbrook.

To the Lord President of the Council:

1. The Councils of University College, London, and King's College, London, have had under their consideration the report of the Royal Commission on a University for London, to which was referred the joint Petition of the Colleges presented July 1st, 1887, to her Majesty in Council, together with the petitions in support of its prayer presented by the Lord Bishop of London, dated Sept. 1st, 1887, and by the Association for Promoting a Teaching University for London, dated July 21st, 1887, and the letter of the University of London, dated Aug. 3rd, 1887, opposing the joint Petition of the Colleges.

2. Besides a principal report signed by six of the seven Commissioners, there is also a dissentient or qualifying report, signed by those three of the six who are most practically conversant with the work of education. This second report differs from the principal report in a sense favourable to the prayer of the petitioners.

3. A University such as is contemplated by the petitioners is that of which the purpose is not examinations, but education and the advancement of knowledge. It is needed in London as a centre for efficient colleges and institutions doing University work, where, while their several traditions are mutually respected, they may take measures in common for organising and economising their teaching power, for supplying its deficiencies and extending its usefulness. This University ought not to be burdened with obligations towards external candidates for degrees, or towards institutions of imperfect efficiency, or it will be unable to adapt its examinations to its teaching, and will fail to utilise as it should the special gifts and studies of eminent men, whose presence and influence make the success of a University.

4. The recommendations of the principal report are limited to suggestions for the reform of the University of London considered as an examining body, and for its assumption of teaching functions, the scope of which is not clearly indicated. In the event of the adoption of these recommendations by the University of London, it is further recommended that the prayer of the petitioners be not granted. Some considerations of a public nature may arise when it is proposed to institute in London a new staff of University teachers. But apart from these considerations, it is not the desire of the Petitioners to assume an attitude of hostility to reforms in the constitution of the University of London which are perfectly compatible with their petition. Such reforms, however, would not supply what in their opinion is now required in the interests of education in the metropolis, and, if accepted by the University of London, would not render it less expedient that the prayer of the petitioners should be granted.

Signed on behalf of the Council of University College.
JOHN ERIC ERICHSEN, President.

Signed on behalf of the Council of King's College.
F. LONDIN, Chairman.

A petition was also presented, addressed by the Bishop of London to the Queen in Council, entitled "In the Matter of a Teaching University for London," in which his lordship prays for the grant of a charter to a teaching university for the metropolis, side by side with the existing University, which occupies an imperial rather than a metropolitan position. The petition, which was published in THE LANCET of March 10th, 1888, p. 501, points out that the population of London, consisting of over four millions of people, is quite sufficient to justify the existence of, and to supply material for, two universities, framed on different lines. His lordship, in introducing the deputation, complained of the fact that his petition, although referred to the Royal Commission by Her Majesty, had been neither printed nor noticed by the Commissioners. He also animadverted upon the fact that the views of the Councils of University College and King's College had been ignored by the Royal Commission. He then detailed at some length the advantages which would be offered by a Teaching University for London providing the highest form of academical education. There was an increasing demand in the metropolis for such education, and this could only be provided by a Teaching University acting independently of the existing University, which was merely an examining body, the value of some of whose degrees, he thought, was greatly overrated. In conclusion, his lordship said the deputation asked that a charter should be granted to such a body as could afford the highest academical education.

Sir GEORGE YOUNG strongly supported the views of the Bishop of London, and begged Lord Cranbrook to seriously weigh the arguments in favour of the establishment of a Teaching University.

Mr. ERICHSEN spoke of the great difficulty experienced by medical students in London in obtaining an M.D. degree on fair and reasonable terms. When a student finished his medical education in London he remained, as a rule, a Member of the Royal College of Surgeons or a Licentiate of the Royal College of Physicians. He could certainly obtain his M.D. degree by going to the London University, but the examinations for that degree had been pitched so high that the degree was practically unobtainable. To such an extent was this the case that out of the 1500 or 2000 medical students in London, on an average, not more than twenty-five annually took the M.D. degree at the University of London, and that had been the average from the year 1882 to 1887 inclusive. Others who desired the M.D. degree went to the Scotch or continental universities, where degrees were granted on easier terms. Whilst he should regret to see any lowering of the standard of knowledge necessary to obtain the degree of M.D. at the London University, he urged that a degree should be made available for the average medical student in London which should be of equal value to the degrees granted at the Universities of Glasgow and Edinburgh.

Sir HENRY ACLAND said he had very carefully considered the proposal that the Colleges of Physicians and Surgeons should have power to grant degrees in London; but the suggestion met with no favour in his eyes. The scientific and practical departments connected with the science of biology had become so vast that it was absolutely necessary to have the best kinds of examinations for average practitioners. The practical result, however, of having the teaching done by one class of men and the examining done by another class, on an entirely different principle from the teaching class, was to drive the students into the arms of the crammers.

Lord CRANBROOK, in reply, thanked the deputation for the compendious and temperate manner in which the subject had been placed before him. He submitted that a reasonable time should be allowed to the University of London to consider the report of the Royal Commission, and to see whether that University intended to apply for a Charter. No such application had up to the present been received. Should the application be made, it would, of course, have to be considered by the Privy Council. He thought twelve months would not be too long a time to allow the University of London to enable it to come to a decision. In the meantime, he would point out that the Royal Commission were to this extent in favour of the views of the deputation—viz., that they had reported in favour of the establishment of a Teaching University for London. The question that remained was, How should it be established? In conclusion, he promised to go carefully through the report of the Royal Commission, and bear in mind the views put forward by the deputation.

The deputation, having thanked his lordship for his courtesy, then withdrew.

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THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

The International Workers' Congress on Sanitary Legislation.

LEGISLATION on labour questions is so intimately connected with the preservation of public health that no one studying the political symptoms of the day would be justified in neglecting such an important event as the International Workers' Congress which has just met in Paris. The political significance of this great Congress is a matter others must discuss. It is its likely influence on such legislation as affects public health which we must not pass by. But, to judge of this influence, a few words on the strength and organisation of the Congress are indispensable. It follows on a series of three trades union congresses held since 1883 in Paris and London, with the difference that on this occasion and on all future occasions political as well as purely trade societies may send delegates. The Congress was organised by what is known as the Possibilist party, or the workman's party, of France. Their strength may be judged by the fact that, though they have been opposed by all middle-class parties, whether Conservative or Liberal, they have elected nine out of the eighty municipal councillors who govern Paris. It is the aid of this compact body which has facilitated the introduction of measures of sanitary reform in Paris, measures I recently described at length. When M. Durand Claye advocated sanitary reform in respect to drainage and the reconstruction of sewers, he received the support of the Possibilist municipal councillors. On the other hand, when the scavengers and other workmen employed by the town sought to constitute a trades union, M. Durand Claye, in his capacity of chief sanitary engineer for Paris, did not resist them, but, on the contrary, gave some help. Thus the alliance of the labour representatives and the sanitary reformers has contributed to improve the health of the Paris population, and has done something towards rendering the sojourn of the numerous visitors to the Exhibition less fraught with the danger of epidemics.

The International Workers' Congress, brought together by the Possibilists, is the largest and most representative Congress of the sort ever held. There were forty-four English delegates, including Mr. Burt, M.P., and Mr. Fenwick, M.P. These delegates represented thirty-eight societies and federations of societies, possessing altogether 139,000 members. There were nine Belgian delegates, representing the labour party of Belgium, which has about 150,000 subscribers. Austro-Hungary had seven delegates, representing thirty-one trade and secret political societies. The United States had four delegates, representing Knights of Labour, the Federation of Labour, &c. The Danish, Italian, and Portuguese labour parties were represented. Holland, Poland, Russia, Switzerland, and Egypt sent delegates. Altogether there were ninety-two foreign delegates, representing 142 societies and federations of societies, and fourteen nationalities. France and Algeria had 227 societies and federations of societies represented by 521 delegates, giving a grand total of 613 delegates. When we consider that the greater part of these delegates were working men, whose expenses had been paid by subscriptions raised by fellow-workers, the importance of such a Congress cannot be contested. What, then, did this Congress decide in matters relating to public health? First and foremost, they recognised that the hours of labours must be limited by legislative enactment. Skilled artisans in receipt of good wages might form societies strong enough to reduce the hours of work; but the unskilled labourer, the sweater's victim, could never so protect himself. On the other hand, and this was forcibly brought forward by Mr. Fenwick, M.P., no one country or district could afford to reduce its hours of labour. This would place that particular country at too great a disadvantage when competing with other nations. The law therefore must be an international law. These are precisely the same arguments which were adduced at the International Congress of Hygiene held in Vienna two years ago. A resolution was then carried unanimously fixing the day's work at ten hours maximum, to be enforced by an international law. An amendment proposing eight hours was only lost by a narrow majority. A vast amount of medical evidence was adduced to prove the injury resulting from overwork and the necessity of legislative interference. This week, in Paris, the working-men representatives of Europe have confirmed entirely the opinions expressed at Vienna two years ago by the medical men and sanitary reformers who attended the International Congress of Hygiene.

The second resolution carried on international labour legislation proclaimed the necessity of one day's rest out of seven, a principle with which all who desire the physical and moral progress of mankind will approve. It was then resolved that nightwork for men should be abolished as far as possible, and absolutely forbidden for women and children. If, from a commercial point of view, there are some doubts as to the practicability of this measure, its advantage from a physical point of view is not open to question. It was proposed that the work of children under fourteen years should be prohibited, and that of young persons from fourteen to eighteen subjected to certain restrictions. The physical and other advantages of a reduction in the hours of labour are often defeated by the systematic working of overtime; therefore the Congress passed a resolution that overtime should always be paid double the usual wage, and that it should never exceed four hours in the twenty-four. The English delegation voted against this clause on the ground that they were completely opposed to overtime, and would not appear to sanction it by stipulating that it should be limited to four hours. The Congress then discussed the question of inspectorship; and here, as at Vienna, it was pointed out that the workmen, who were the principal victims, were best able to detect efforts to avoid the law. M. Jennsen, the delegate from Denmark, spoke eloquently on the question of home work: the home work which, in the columns of THE LANCET, has so often been described and denounced; the home work where the unfinished coat is laid over a scarlet-fever patient; the home which is converted into a workshop, where people eat, drink, sleep, work, cook, and wash all in one and the same room. This centre of infection, of dirt, of immorality, should be abolished, and the home restored to its proper purpose—the dwelling-place of the family. If it was impossible to prevent home work altogether, then every home where work is done should be registered, so that factory and sanitary inspectors may at all times have the right of entry. Such were the principles advocated by the Danish and other speakers, and they confirm the conclusions which were arrived at by THE LANCET during the course of its inquiry on the sweating system. Further, the Danish delegate was very anxious to see built in suitable districts model workshops, where those who now work at home might go, where they would enjoy better ventilation, better light, greater cleanliness, and inspection of a more regular and strict character.

The present agitation for the abolition of sweating in England was commenced by THE LANCET report on the new phase of sweating introduced in the East-end of London by Russian Polish Jew refugees. The facility of obtaining foreign labour at a price much below that commanded by native labour brought about a state of overcrowding, misery, and filth that constituted a serious danger to the health of the entire community. It is therefore interesting to note how this numerous and highly representative Congress has dealt with the question. They revived and carried the suggestion made at the International Trades Union Conference of 1883. It was proposed to render it illegal to employ foreigners at a rate of wages below what is usually paid to natives engaged in the same trade. By this means the wholesale importation of foreigners to reduce the cost of native labour would be prevented. On the other hand, it would not hinder workmen travelling from country to country. Many objections may be raised to such a drastic enactment, which it is not our province to discuss. The measure, however, would not involve a greater interference with the liberty of the subject than the proposed imposition of a poll-tax or the total prohibition of immigration, methods so often suggested since the revelations of the Sweating Commission.

Dealing with the work of women and children, which, far more than the influx of foreign workers, tends to reduce wages and to bring about a state of poverty and neglect that materially compromises public health, the Congress proclaimed that the same work should be paid the same price whether it was done by a man or a woman. Dr. Cæsar de Paepe proposed two important additions to this series of resolutions. Dr. de Paepe is well known throughout Europe. The son of a simple workman, he devoted from his boyhood all his leisure time to arduous studies,

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and succeeded, in spite of poverty and every obstacle, in qualifying himself as a Doctor in Medicine at Brussels. Here he has practised ever since. In spite of his position as physician to one of the largest hospitals in Brussels, he has never forgotten that he is a workman's son, and he has never ceased to devote himself to the interests of the working classes. Hence when the working-class interest of Belgium obtains voice, it is generally Dr. Cæsar de Paepe who is their representative. On this occasion he proposed that the Legislatures of all countries should combine to prohibit the use in factories of toxic substances, such as lead and phosphorus, when these could be replaced by non-injurious materials. Where the use of poisonous materials was inevitable, then the industry should be subject to very strict protective regulations. He did not hesitate to qualify as murderous—morally murderous—the employment of a substance which was poisonous when it could easily be replaced by some other material which, though perhaps a trifle dearer, would answer the purpose just as well. As all these reforms and remedies were to be of an international character, and the labour parties of each country were to press them upon their respective Governments, and make these Governments come together and agree on a general assimilation of labour laws, Dr. de Paepe urged that international inspectors should be appointed. If an abuse was abolished in another country, it was sure to reappear on the other side of the frontier. This is true enough. Thus, in one country the use of salicylic acid for the preservation of beer is abolished, but it is largely used in another. Thus also, while toys made in one country are dear, but free from poisonous paints, toys made in another are cheap and not so innocuous. As for the difficulty of applying internationally laws of this description, there already existed international laws relating to fishing rights; and surely, if it was possible to control fishing smacks sailing over the broad seas, it was more easy to watch over workshops and factories that remained perfectly still on dry land. With regard to the prevention of low wages, the working of long hours, the subcontracting or sweating system, the Congress was strongly of opinion that, as a first step, the State and municipalities should give no contract, make no concession, allow of no enterprise where their sanction was necessary, unless the persons concerned pledged themselves to pay proper wages, and to avoid long hours of work and employment of sweaters.

Such were the resolutions adopted by this Congress that bear, directly or indirectly, on the preservation of public health. Many other things were said, many other resolutions voted, of a political character, which doubtless will not be so generally approved. To pronounce the theories propounded as subversive, to attack them, to stigmatise them, has, however, nothing to do with the fact that every sanitary reformer should fully understand that this Congress represents a great and growing power, a power for good or for evil, but still a power. This power, the intelligent labour organisations of Europe and America, will now systematically seek to force forward measures based on the ideas and principles enunciated above. Such a fact cannot be passed in silence, for it will influence very considerably politics in general, and in particular that special class of politics or legislation which bears on public health questions. I have described the Congresses on the Housing of the Poor and on Factory Legislation, held at the Exhibition under Government patronage and extensively advertised. At these Congresses anybody was admitted, and yet there were never a hundred persons present. At the International Workers' Congress there was no Government patronage, no hall gratuitously provided, none could attend who were not elected, the credentials were submitted to the strictest scrutiny, and yet there were 613 delegates present. This difference is surely significant, particularly when we find that there was at the same time another Congress held in Paris where similar views were enunciated so far as factory legislation and kindred subjects bearing on sanitation are concerned. This second Congress had not the same representative character, the delegates were not nearly so numerous, their credentials were not so strictly examined, but it possessed an imposing delegation of German workmen, and the fact that the Germans also agree to such international legislation on labour is an important addition to make to the list of the forces arrayed to obtain reform in this direction.

Paris, July 22nd.

METROPOLITAN HOSPITAL SUNDAY FUND.

WE have been favoured by the Chief Rabbi with a list of the contributions to the Fund made in the various synagogues of the metropolis. The largest amounts were as follows:—

			£	s.	d.
Great Synagogue	(per Alfred Henry, Esq.)	.. ..	233	11	6
New West-end Synagogue	(per Rev. M. Haines)	.. .. ..	76	3	0
Bayswater	,, (per Rev. Dr. Hermann Adler)	..	76	2	6
Central	,, (per Rev. D. Fay)	.. ..	60	5	0
Dalston	,, (per Rev. H. Gollancz, M.A.)	..	29	2	3
North London	,, (per J. A. Gouldstein, Esq.)	.. ..	28	10	0
St. John's Wood	,, (per M. Rosenstein, Esq.)	.. ..	24	19	6
New	,, (per J. Cohen, Esq.)	.. .. ..	21	4	8
Maiden-lane	,, (per Henry Harris, Esq.)	.. ..	18	1	0
Borough	,, (per Rev. F. L. Cohen)	.. .. ..	14	1	0
East London	,, (per J. F. Stern, Esq.)	.. .. ..	11	17	9

In addition to the above, the aggregate sum of £63 17*s.* 6*d.* was collected in sixteen other synagogues or Jewish religious associations, making a total of £657 15*s.* 8*d.*

MALCOLM MORRIS INDEMNITY FUND.

THE following additional subscriptions to the above fund have been received:—

	£	s.	d.
Amount previously acknowledged	330	7	0
Lawson Tait, Esq.	10	10	0
J. C. Rollin, Esq	5	5	0
Dr. John Williams	3	3	0
Dr. Buzzard	3	3	0
Dr. Gairdner (Glasgow)	2	2	0
F. Treves, Esq.	2	2	0
Dr. Waller	2	2	0
Dr. Fancourt Barnes ..	2	2	0
John Tweedy, Esq. ..	2	2	0
Dr. Lauder Brunton ..	2	2	0
Dr. Edward Clapton ..	2	2	0
Reginald Harrison, Esq. (Liverpool)	1	1	0
George Cowell, Esq. ..	1	1	0
Dr. Farquharson, M.P. ..	1	1	0
W. J. Pilcher, Esq. (Boston)	1	1	0
Dr. Stanley Murray (Putney)	1	1	0
A Friend	1	1	0
Dr. Lewers	1	1	0
Dr. R. W. Burnet	1	1	0
Dr. Frederick Taylor ..	1	1	0
Dr. Staples	1	1	0
Dr. Prickett	1	1	0
Dr. Felce	0	10	6
Dr. Walters (Reigate) ..	0	10	6
Dr. Robert Blair (Goole)	0	10	6
Dr. Alfred Clarke (Brigade Surgeon) ..	0	10	6
Dr. W. A. Smith (Newport)	0	10	0

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Enteric Fever at Mytholmroyd, by Dr. PAGE.—This inquiry elicited a very curious instance of confusion in sanitary administration. Mytholmroyd, a well-to-do and thriving little community in the West Riding of Yorkshire, lies at the meeting point of four separate sanitary districts in a portion of each of which it is situated. Thus it is in the Todmorden rural, the Hebden Bridge urban, the Sowerby urban, and the Midgley urban districts; its population being 2270 in upwards of 500 inhabited houses. The result of this division of jurisdiction was very marked in connexion with the prevalence of disease in question; and in view of the fact that the local officials were themselves sometimes at a loss to say in which district a certain locality was situated, much difficulty was necessarily encountered in properly allotting instances of disease and mortality. Even the medical officers of health, who are complimented for their services in dealing with the prevailing outbreak, had difficulty in supplying statistical material; and it is mainly to Mr. J. H. Thompson, a resident medical practitioner, that Dr. Page was indebted for some of his information. According to him, enteric fever has been more or less prevalent in the village for the past eleven years; and during the winter of 1885–86 he observed over fifty cases of diarrhœa with typhoid symptoms. Indeed, when the material came to be collected it appeared that in this small community there were during 1887–88 no less than ninety-five cases of enteric fever, the large body of which occurred during the months of August, September, and October. Indeed, the disease is properly spoken of as being endemic in the village. In August and September, 1887,

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no fewer than seventeen households were affected, and Dr. Page evidently suspects milk as a source of the disease, although, at the remote date of his inquiry, this could not be verified. As a result of an inspection of the district, it became obvious that unwholesome conditions of water-supply, drainage, and excrement disposal prevailed concurrently with the enteric fever; and that in houses where repeated attacks took place obvious local defects were observed. The tainted condition of the river Calder was by some held responsible for the maintained prevalence, but the evidence obtained did not go far to implicate the river. The divided responsibility for different portions of the village necessarily hampered proper sanitary administration; and Dr. Page points out how needful it is that there should be unity of action if any comprehensive measures of sanitary improvement are to be effected. In all probability it is singularly English that we should maintain one village under four distinct bodies, each of which is expected to provide, for its own portion, water, sewerage, and all other sanitary requisites, and to take independent action on the occurrence of preventable disease. There is work here for the County Council.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Hackney.—The death-rate for this metropolitan district during the past year is stated by Dr. Tripe to have been the lowest on record—namely, 15·5 per 1000 persons living; and the circumstance is naturally in large part ascribed to the cool and rainy June, July, and August, and to the warm November which characterised 1888. Diphtheria was the most prevalent of the zymotic diseases; and Dr. Tripe records an interesting observation with reference to one theory as to its causation. A prevalence of the disease in connexion with the Detmold-road Board Schools was assigned by some to the unwholesome soil on which those attending that school reside. The soil in that neighbourhood was several years ago, before building operations commenced, made up with ashes and other refuse, this being then covered over with dry rubbish. When trenches were in 1888 cut for drainage purposes, offensive emanations were given off, and this in part from the soil, but mainly from the drains and sewers. To these emanations the outbreak was in part attributed. In answer to this, it would appear that, although the houses in question contained multiple families, it was rare that more than one family in a house was attacked; nevertheless, owing to personal infection, it at times happened that no less than four members of a single family contracted the disease. Personal infection at school and in the playground was evidently in the main concerned with the distribution of the infection; indeed, from the date of closing the schools and the subsequent shutting up of the playground the outbreak diminished and soon ceased. Dr. Tripe discusses the vital statistics of Hackney at considerable length; he shows the action taken in connexion with the disinfection of houses and infected articles; he refers to the pollution of the river Lea, with special reference to the Tottenham sewage works; and he explains the steady progress effected in the matter of cow-sheds, slaughterhouses, artisans' dwellings, &c.

Whitechapel.—The death-rate for Whitechapel during 1888 was 21·1 per 1000, which is less than that recorded for the previous year, when the rate had already reached the lowest grade then on record. Small-pox and typhus were altogether absent as causes of death, and only about half the average number of fatal cases of diarrhœa occurred; but, on the other hand, there was an increase in the number of deaths from diphtheria and enteric fever. The infant mortality rate is a favourable one for Whitechapel, for whilst it equalled 17·1 per cent. of the registered births in 1887 it was only 14·6 per cent. last year. No progress has been made as to the Bell-lane and Great Pearl-street schemes under the Artisans and Labourers' Dwellings Acts, and Mr. Loane expresses a hope that the new governing authority for London will soon take up these matters so as to remedy the existing evils. The report embodies a number of valuable tables as to vital statistics, and also information as to meteorological records.

York City.—In his report on the health of York during the first quarter of this year, Mr. North draws attention to the fact that the city is one of the towns in England characterised by a high rate of mortality from infantile diarrhœa, and, referring to Dr. Ballard's recent report, he summarises the principal needs of York in this matter as being the securing of a dry and clean soil, good drainage, and the rapid removal of filth. Mr. North reminds the Sanitary Committee that they have long been familiar with suggestions to the same effect; and it is to be hoped that, since there is now some prospect of improved drainage for the city, the question of excrement and refuse disposal and removal will also be efficiently dealt with. York has long stood in need of action in this direction.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5895 births and 3844 deaths were registered during the week ending July 20th. The annual rate of mortality in these towns, which had increased in the preceding five weeks from 16·6 to 21·5, declined again last week to 21·0. During the first three weeks of the current quarter the death-rate in these towns averaged 20·1 per 1000, and was 0·6 above the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 12·0 in Brighton, 14·7 in Oldham, 15·4 in Derby, and 15·5 in Bristol and in Blackburn. The rates in the other towns ranged upwards to 28·5 in Leeds, 29·2 in Liverpool, 29·9 in Manchester, and 38·1 in Preston. The deaths referred to the principal zymotic diseases in these towns, which had steadily increased in the previous four weeks from 400 to 944, further rose last week to 1018; they included 708 from diarrhœa, 102 from measles, 86 from whooping-cough, 58 from scarlet fever, 36 from diphtheria, 28 from "fever" (principally enteric), and not one from small-pox. These zymotic diseases caused the lowest death-rates last week in Wolverhampton, Brighton, and Bristol, and the highest rates in Leicester, Leeds, Salford, and Preston. The greatest mortality from diarrhœa occurred in Birmingham, Liverpool, Birkenhead, Leeds, Salford, Preston, and Leicester; from measles in Leeds, Halifax, and Preston; from whooping-cough in Bradford, Preston, and Birkenhead; and from scarlet fever in Salford and Plymouth. The death-rate from "fever" showed no marked excess in any of these large towns. Small-pox caused no death in any of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and London Fever Hospitals at the end of last week was 623, against numbers increasing in the preceding three weeks from 559 to 602; 92 cases were admitted to these hospitals during the week, against numbers increasing from 33 to 73 in the previous four weeks. The deaths referred to diseases of the respiratory organs in London, which had been 143 and 158 in the preceding two weeks, declined last week to 141; they were 45 below the corrected average, and fewer than in any previous week of this year. The causes of 79, or 2·2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bradford, Sunderland, Nottingham, Leicester, and in nine other smaller towns. The largest proportions of uncertified deaths were registered in Liverpool, Sheffield, Halifax, and Blackburn.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21·3 and 18·6 per 1000 in the preceding two weeks, rose again to 19·6 in the week ending July 20th; this rate was 1·4 below the mean rate during the same week in the twenty-eight large English towns. The rates in these Scotch towns ranged last week from 15·0 and 15·8 in Aberdeen and Edinburgh to 21·6 in Paisley and 21·9 in Glasgow. The 500 deaths in the eight towns showed an increase of 24 upon the number in the previous week, and included 38 which were referred to diarrhœa, 20 to whooping-cough, 18 to measles, 12 to "fever" (principally enteric), 4 to diphtheria, 2 to scarlet fever, and not one to small-pox; in all, 94 deaths resulted from these principal zymotic diseases, against 79, 81, and 91 in the preceding three weeks. These 94 deaths were equal to an annual rate of 3·7 per 1000, which was 1·9 below the mean rate from the same diseases in the twenty-eight English towns. The deaths attributed to diarrhœa, which had been 17, 22, and 37 in the preceding three weeks,

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were 38 last week, and exceeded by 26 the number in the corresponding week of last year. The 20 fatal cases of whooping-cough were 4 below the number returned in each of the preceding three weeks, and included 11 in Glasgow and 3 in Edinburgh. The 18 deaths from measles showed a further slight decline from the numbers in recent weeks; 8 occurred in Glasgow, 5 in Aberdeen, 3 in Leith, and 2 in Edinburgh. The 12 deaths referred to "fever" showed a further increase upon recent weekly numbers, and included 7 in Glasgow and 2 in Dundee. Two of the 4 fatal cases of diphtheria occurred in Greenock. The deaths referred to the principal diseases of the respiratory organs, which had been 80 and 56 in the preceding two weeks, rose again last week to 69, but were 20 below the number in the corresponding week of last year. The causes of 50, or 10 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 23·2, 22·8, and 16·3 per 1000 in the preceding three weeks, rose again to 22·8 in the week ending July 20th. During the first three weeks of the current quarter the death-rate in the city averaged 20·6 per 1000, the mean rate during the same period being 18·1 in London and 16·6 in Edinburgh. The 154 deaths in Dublin showed an increase of 44 upon the exceptionally low number in the previous week; they included 13 which were referred to diarrhœa, 7 to measles, 4 to whooping-cough, 1 to "fever," and not one either to small-pox, scarlet fever, or diphtheria. Thus the deaths from these principal zymotic diseases, which had been 8 and 11 in the previous two weeks, further rose last week to 25; they were equal to an annual rate of 3·7 per 1000, the rates from the same diseases being 4·5 in London and 1·8 in Edinburgh. The deaths attributed to diarrhœa, which had been 2, 3, and 5 in the preceding three weeks, rose last week to 13. The fatal cases of measles and of whooping-cough also showed an increase upon recent weekly numbers, while those of "fever" had declined. The deaths both of infants and of elderly persons exceeded the numbers in recent weeks. Four inquest cases and 5 deaths from violence were registered; and 58, or more than a third, of the deaths occurred in public institutions. The causes of 17, or more than 11 per cent., of the deaths in the city were not certified.

THE SERVICES.

THE *London Gazette* of the 23rd inst. announces that the Royal permission has been granted to Surgeon-Major Nathaniel McCreery, of the Medical Staff, to wear the insignia of the Order of the Medjidieh (third class) conferred upon him by the Khedive, with the authorisation of the Sultan, in recognition of his active and distinguished service before the enemy during the recent operations at Suakim.

ARMY MEDICAL RESERVE OF OFFICERS. — Surgeon Alfred Edwd. Odling, 1st Volunteer Battalion, the Lincolnshire Regiment, to be Surgeon, ranking as Captain (dated July 24th, 1889).

BENGAL MEDICAL ESTABLISHMENT. — The date of rank of the undermentioned Officers to be altered from Dec. 19th, 1888, to Dec. 20th, 1888:—Deputy Surgeon-General Archibald Hamilton Hilson, M.D., Brigade Surgeon James Cleghorn, M.D. To be Brigade Surgeons: Surgeon-Major George King (dated April 2nd, 1889); Surgeon-Major William Center (dated April 19th, 1889).

INDIAN MEDICAL SERVICE.—The Queen has approved of the retirement of the undermentioned Officers of the Indian Medical Service:—Deputy Surgeon-General Philip Warren Sutherland, Bengal Medical Establishment (dated Dec. 20th, 1888); Deputy Surgeon-General Alex. John Cowie, Bengal Medical Establishment (dated April 19th, 1889); Surgeon-Major Edwd. Colson, Bombay Medical Establishment (dated June 24th, 1889). The Queen has also approved that the retirement of Brigade Surgeon Henry Vandyke Carter, M.D., Bombay Medical Establishment, be antedated to July 13th, 1888.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Orders in Council of Feb. 22nd, 1870, and Dec. 30th, 1884, Staff Surgeon James D'Arcy Harvey has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet dated July 16th, 1889).

VOLUNTEER CORPS.—*Artillery:* 1st Volunteer (Norfolk) Brigade, Eastern Division, Royal Artillery: Robt. Wrigley, Gent., to be Acting Surgeon (dated July 20th, 1889).—*Rifle:* 2nd Volunteer Battalion, the Royal Welsh Fusiliers: Wm. Jones Morris, Gent., to be Acting Surgeon (dated July 20th, 1889).—3rd (Morayshire) Volunteer Battalion, Seaforth Highlanders (Ross-shire Buffs, the Duke of Albany's): Acting Surgeon G. H. Mackay, M.B., to be Surgeon (dated July 20th, 1889).—19th Middlesex (St. Giles' and St. George's, Bloomsbury): Acting Surgeon W. Gill resigns his appointment; also is permitted to retain his rank and to continue to wear the uniform of the Corps on his retirement (dated July 20th, 1889).—1st Tower Hamlets (the Tower Hamlets Rifle Volunteer Brigade): Acting Surgeon W. D. Waterhouse to be Surgeon (dated July 20th, 1889).

VOLUNTEER MEDICAL STAFF.—The Maidstone Division: Surgeon H. Bennett resigns his commission (dated July 20th, 1889).

Correspondence.

"Audi alteram partem."

VOTING PAPERS AT THE COLLEGE ELECTIONS.

To the Editors of THE LANCET.

SIRS,—In connexion with Mr. Lawson Tait's very reasonable proposal that at the election of councillors of the Royal College of Surgeons of England a voting paper should be sent unasked to every Fellow with the list of candidates, it may be of interest to record the following circumstances. On the 6th inst. I addressed a letter to the Council suggesting that this should be done both for the convenience of the Fellows and the saving of expenditure; and further that the voting papers should be returnable up to ten o'clock on the day of election, as there did not appear to be any real necessity for the deduction of forty-eight hours from the Fellows who might wish to record their votes through the post. Although the fact is not ascertainable from the published minutes, my letter was submitted to the Council, and Mr. Trimmer was desired to acquaint me "that the points which I raised were fully considered by the Council when application was made for the Bye-laws by which the present mode of election is governed." The restrictions imposed by these Bye-laws are peculiar to the College. In the election of the representatives of the profession in the General Medical Council voting papers are sent as a matter of course to every registered practitioner; and at the sister College in Dublin voting papers are sent unasked to every Fellow whose address is known.

I am, Sirs, yours faithfully,

July 22nd, 1889. WALTER RIVINGTON.

MEDICAL DEFENCE.

To the Editors of THE LANCET.

SIRS,—Actions against medical men show a disposition just now to become epidemic. The medical press reports several cases, criminal or civil, in which practitioners play the chief parts. In East Anglia a case has just been decided against a surgeon. Damages were assessed at £250, with costs, which will amount to another £250 or thereabouts. The object we have in addressing you is once more to point out that, from our standpoint at any rate, repeated appeals to the charity of their professional brethren to reimburse medical men for legal costs is as anachronous as would be an appeal for assistance by a man who had omitted to insure his house against fire, and which had been burnt down. The Medical Defence Union is an institution managed on insurance principles by medical men for medical men. Its executive is subject to annual election. Its officers are honorary. It has a membership of over 500, which is daily increasing; an annual income of £250; a good balance in bank; and a guarantee fund of £662, which has never been touched and is not likely to be. Apart from the financial soundness of the Medical Defence Union, the moral support which it gives to assailed medical men is enormous; and its machinery can be put into motion at any moment by the Emergency Committee. It is needless to say its policy

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is to help its members, and this it has done effectively in many instances. There can be no doubt that the scope of influence of the Medical Defence Union should be conterminous with the British Medical Association, and this is the object for which we sincerely hope and labour.

We are, Sirs, yours faithfully,

LESLIE PHILLIPS, M.D., } Hon. Secs., Med.
A. GEORGE BATEMAN, M.B., } Defence Union.

P.S.—It may be well to state that by our Articles of Association the Union cannot defend any action the cause of which commenced prior to the date of membership.

REGISTRATION OF TRAINED NURSES.

To the Editors of THE LANCET.

SIRS,—I have read with much interest the leading article in your issue of July 6th on the registration of trained nurses. As we recently had at this hospital the pleasure of listening to an address from Miss Wood on the subject, you will, I hope, pardon my intruding on your time. I observe that you quote as an object of the Association that "upon this register should be entered the names only of those who hold certificates of efficiency, their addresses, the date of their registration, and the name of the nurses' training school which granted the certificate"; and that you add the following remark: "There is therefore not the slightest intention, it appears, of interfering with these authorities, as the opponents of the Association are never tired of declaring. These institutions train, they examine, they certificate their pupils, already."

In a letter of Miss Wood, published in the *Devon and Exeter Daily Gazette* of the 6th inst., I notice the following remarks: "The provisions of the Charter must be carried out by a registration board composed of medical men and nurses; this board would certainly accept as proof of training the certificates now given by the recognised training schools of nurses, together with testimonials of good character, and on submitting these the nurse's name would be placed on the register. The responsibility of deciding upon the qualification of a nurse would therefore really rest upon the training school, which could withhold the certificate, without which the nurse could not register. There is not the slightest interference here between the training schools and their pupils." From the bye-laws of the Association I obtain the following information: "It shall be the immediate aim of the Association to obtain a Royal Charter incorporating the Association and authorising the formation of a register which shall include all nurses as described in Bye-law 4 applying for registration before the 1st day of January next following the granting of the Charter, and such nurses at subsequent dates as shall fulfil the conditions which the Charter may prescribe." At the meeting before referred to, Miss Wood was asked what these last conditions which were to be prescribed in the Charter were intended to be. She replied that "the Charter would give the governing body power to decide the conditions which should qualify nurses for registration as trained nurses." It was then pointed out to her that she was asking a hospital, which at present enjoys the power of deciding for itself who shall be certified by it as trained nurses, to aid in transferring this power to the governing body of the Association. She replied that this would be necessary, as the Charter must be comprehensive enough to last for all time.

It will be seen at a glance that there is a profound difference between a Charter which shall give the Association power to issue a list or register of persons possessing certificates of training from recognised schools of nursing, and a Charter which empowers the governing body to decide the conditions which should qualify nurses for registration. This latter might easily open the door for a central authority to recognise only certain courses of lectures, the results obtained at some central examination, or endless other conditions. This difference has been fully recognised by the nurses of the Devon and Exeter Hospital, some forty in number, who have, I believe, without exception, declined to join the Association until assured of the terms and powers of the proposed Charter. They consider that our local certificate is more valuable to them than the insertion of their names in a printed register, and that those of their station in this neighbourhood wishing to learn nursing in the future might be put to expenses for examinations &c. which do not now exist if the larger powers mentioned by Miss Wood were obtained. From the point of view of the hospital authorities such larger powers might mean the loss of probationers, and the necessity for employing fully-trained nurses for the duty now performed by these probationers, which would of course mean pecuniary loss to the hospital. It would also mean the continual change of nurses and annoyance to the managing body, inasmuch as nurses from other districts seldom stay long in places where they have few friends.

To conclude, then, the advantages to be obtained by a Nurses' Association and a register of trained nurses are fully appreciated here, but the Association will only receive our support if it can assure us that we ourselves shall retain the power of examining and certifying our nurses as trained nurses, and that it shall be stated in the Charter to be the duty of the governing body to register nurses producing our certificates as trained nurses.

I am, Sirs, faithfully yours,

Exeter, July 10th, 1889. RUSSELL COOMBE, F.R.C.S.

THE REGENT'S CANAL.

To the Editors of THE LANCET.

SIRS,—I observe in your annotation of last week that the sanitary authorities of St. Pancras vestry have at length become aware of the fact that they have been cherishing a nuisance in their midst. Every summer, with periodicity as unfailing as that of the swallows, the offensiveness of the Regent's Canal asserts itself to the detriment of its neighbours. It is only fifteen years ago that the attention of the local "powers that be" was directed to this matter. Their chief surveyor then reported that a large number of gullies, one stable, two or three urinals, and the main drain of the Zoological Gardens discharged their several and varied abominations into this *cloaca maxima*. At that time Professor Wanklyn reported that the canal water was "simply sewage." Dr. Bartlett was of opinion that the "effluent from the Zoological drain contained all the urea and the greater part of the fæcal matters in solution or suspension, and these neither disinfected nor fit to be discharged into any open sewer." With these facts before them, the St. Pancras vestry, having a mighty reputation to sustain, decided by 34 to 3, "amidst cheers and laughter," to endorse the recommendation of their "sanitary" committee to take no action in the matter. To fathom the explanation of such unseemly merriment would doubtless require such liberal education as only a vestryman can be expected to possess; but *tempora mutantur nos et mutamur in illis*, and a more sanitary and less hilarious disposition would appear to prevail in the local parliament at the present time. During the recent drought the canal has presented evidence, to eye and nose alike, of pollution of the worst description. To say nothing of "the foul weed that rots on Lethe's wharf," one may count sometimes ten or a dozen dead cats and dogs in various stages of putrid inflation; human corpses, too, are neither few nor far between—in five years 226 of these were found in the waters of the Regent's Canal. Indeed, its Stygian waters, their horrors masked by moonlight, appear to be a favourite resort of those on suicide intent, and the "slips" have been immortalised in the drama "The Lights of London." As to chemical analysis, I have from time to time examined the water with care. It is singularly rich in chlorides and ammonia. I find from 2·1 to 3·5 grains per gallon of chlorides, of free or saline NH_3 ·18 to ·60 parts per million, and of albuminoid NH_3 ·60 to 1·50 parts per million. These figures of recent analyses show less pollution than was the case fifteen years ago, when the vestry decided as I have related, but they are strong enough to claim attention and compel improvement. Lemprière tells us "the waters of Lethe had the power of making those who had to do with them forget whatever they had done, seen, or heard before, as the name implies oblivion." May we forgive the lack of enterprise of our local sanitarians in the past, and congratulate them upon their obliviousness of their former misdeeds, and the evidence they have given of a better judgment prevailing.

I am, Sirs, yours faithfully,

W. J. COLLINS, D.P.H. Lond.

Albert-terrace, Regent's-park, July 15th, 1889.

THE late Dr. George Owen Rees, Physician Extraordinary to the Queen, of Gloucester-gardens, Hyde-park, has, by his will, bequeathed the picture of Dr. Friend to the Royal College of Physicians, London.

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LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Stanley Hospital.

THE total sum realised by the late bazaar and facy fair on behalf of the Stanley Hospital reached the handsome amount of £7741, which, after paying expenses, yielded a balance of £5186. This will pay off the debt upon the hospital and leave a handsome balance over. A gloom was cast over the final meeting by the death of Sir James Picton, the honorary treasurer of the fund, and a very prominent citizen of Liverpool, the ancient and modern history of which he wrote and published. He lived to the ripe age of eighty-four, and up to within a few days of his death appeared in his full mental and bodily vigour.

Death of Mr. Lax of Ormskirk.

Death has removed another veteran member of the profession in the person of Mr. William Lax, M.R.C.S.Eng. and L.S.A., who obtained this old double qualification in 1827, and was therefore past eighty years of age. He went to Ormskirk many years ago, and remained to the last the honoured medical attendant, respected alike by rich and poor. Since he commenced practice Ormskirk has increased considerably. Until the death of the late Earl of Derby it was the burial place of that family, from whom it is said to take its name.

The Forthcoming Assizes.

The assizes for the south-west division of Lancashire have for nearly sixty years been held in Liverpool, and for some years past there have been four assizes annually, corresponding to the four seasons. The assizes which commence on Thursday next will be historical. There are already nearly fifty prisoners for trial, the cases being of a serious character, comprising already ten cases of homicide and several of severe wounding. Among the prisoners is Mrs. Maybrick, who is charged with the wilful murder of her husband by poisoning him with arsenic. The interest taken in this case increases as the trial draws near, and though cases of poisoning and other celebrated trials have taken place in Liverpool, the Maybrick case promises to eclipse all in the attention excited. As at present arranged, Mr. Addison, Recorder of Preston, will lead the prosecution, assisted by Mr. W. R. McConnell, both of whom have had considerable previous experience in conducting criminal trials. Sir Charles Russell will be the leading counsel for the defence, assisted by Mr. Pickford, who watched the case on behalf of the prisoner at the coroner's inquest and magistrate's inquiry. Mr. Justice Stephen will be the presiding judge. The case will come before the grand jury next week, and should a true bill be found the trial will probably be fixed on some day the week following. Besides the local medical witnesses, eminent London medical experts are expected to watch the case, and, if needful, to give evidence both for the prosecution and for the defence. The trial will probably extend over several days.

The convict Kerr, whose case was noticed in last week's LANCET, has been respited. It is expected that his sentence will pe commuted to one of penal servitude for life.

Liverpool, July 23rd.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Bishop of Manchester and Cremation.

THE first general visitation to the clergy of the diocese has lately been made by the Bishop of Manchester, and in the addresses he delivered Dr. Moorhouse has shown himself to be endowed, like his immediate predecessor, Dr. Fraser, with broad and liberal views. Amongst the many topics he has discoursed upon was the subject of cremation, concerning which the Bishop declares that "the practice of cremation can create for Christians no doctrinal difficulty whatever. The question becomes one of sentiment only. For my own part, I confess that, as a matter of feeling, I desire my body to be buried in the earth.....believing that, if due and well-known precautions be taken, burial may do no more harm to the living than burning. Still, I presume not to judge my brother, and if he prefers to consign the remains of his beloved to the furnace, I ought to do what I can to brighten the sorrowful days of his bereavement with Christian comfort."

The Visit of the Shah.

Last week Manchester was *en fête* during the visit of the Shah of Persia. His Majesty was taken to view the progress of the Ship Canal works, in which it is said he takes much interest, as he may have some work of the same sort on a small scale at home before long, in connexion with the opening up to navigation of some of his rivers. Notwithstanding the large crowds of people that lined the streets of the city during his stay, no accidents of any serious character were reported, with the exception of the fatal balloon catastrophe. "Professor" Higgins, taking advantage of the large number of sightseers brought together on the Tuesday, announced a parachute descent from a balloon. Higgins accomplished his part of the programme with no worse results than a bath in the ornamental water in Alexandra Park, but the unfortunate man who was in charge of the balloon by some mismanagement caused it to collapse, and fell from a height of upwards of a mile, being instantaneously killed. A question asked in the House of Commons relating to this accident has elicited the reply from the Home Secretary that he has no power to interfere in prohibiting such exhibitions if people choose to risk their limbs and lives in such foolhardy feats.

Royal Infirmary.

The annual meeting of the trustees of the infirmary is held to-morrow. In the report to be then submitted it is stated that 43,985 persons have been under medical treatment at the infirmary and its allied institutions. It appears that, notwithstanding inquiries are now instituted into the means of all applicants for relief, the numbers of in-door and out-door patients are steadily increasing year by year. Since 1885 they have increased from 23,000 to 36,000 during the year just ended. The Board are of opinion that some further steps will have to be taken in connexion with this increase, and there undoubtedly exists a feeling among many members of the profession that these large numbers contain many persons who could afford to pay something for their medical attendance. The finances of the institution appear to be in a satisfactory condition, the income having exceeded the expenditure. At the Royal Infirmary the year's expenses amount to £16,324; at the Convalescent Hospital, £5190; and at the Fever Hospital, £8873.

Owens College.

According to the report just issued of the committee appointed by the Government to consider the manner in which the imperial grant of £15,000 to university colleges in Great Britain should be distributed, Owens College is to receive the sum of £1800 per annum, whilst Liverpool University College has £300 less than this. Hitherto Owens College has depended entirely for its funds upon local effort, and nobly have the citizens of Manchester and district supported it; but each year finds the scope and amount of its work increasing, and this grant, small though it is compared with that received by some of the Scotch and Irish Colleges, will be very acceptable.

Zymotic Disease.

Scarlet fever still appears to baffle the efforts of our local health authorities to check its spread. Notwithstanding that large numbers of cases are sent to hospital for isolation, from sixty to eighty fresh cases are reported weekly, and no week passes without several deaths therefrom. Three cases of rabies were reported to have occurred last week in the neighbourhood of Rochdale, but fortunately the animals have been destroyed without having harmed anyone.

Heavy Damages for Railway Accidents.

During the assizes just ended, two actions were brought against railway companies. In one case the Lancashire and Yorkshire Railway were sued by the executors of a builder who had been killed on their line by a train starting suddenly without proper notice, and a verdict was given for £1000 for the family of the deceased. In the other, the Cheshire Lines Committee had to pay the sum of £3750 for injuries received in a collision by Mr. Lynde, a solicitor, in August of last year. The liability was not disputed, but it was argued that, although undoubtedly the plaintiff had sustained serious injury, being quite incapacitated from following his profession, it was highly

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probable that he would ultimately recover. A large array of medical witnesses were called on both sides; for the plaintiff, Drs. Dreschfeld, Ross, and Griffiths, Mr. T. Jones, and Professor Horsley were called, who all agreed that it would be at least some years before he could be restored to health; whilst, for the company, Mr. Thorburn, Dr. Renaud, and Mr. H. Page, of London, thought that in a twelve-month's time recovery would ensue.

July 24th, 1889.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle.

A SPECIAL MEETING of the House Committee of the Infirmary was held last week to appoint a lady superintendent, and from a list of over forty candidates Miss Frances H. Close of the Kensington Infirmary was elected. Miss Close served throughout the Egyptian campaign, and has received medals and distinctions in recognition of her services to the wounded soldiers.—In view of the forthcoming visit of the British Association to our city, Professor Flower (the President-elect) and other members of the Council have just paid us a visit to see the amount of accommodation which can be provided for the members. The Medical College, now nearly complete, will, it is thought, with some temporary alterations, provide room for the sectional meetings; while the adjacent St. George's Hall is capable of seating over 2000 persons, and in this Hall the President's address will be delivered, as also the three ensuing lectures. The Central Exchange Art Gallery is by far the finest building of its kind in Newcastle; in many respects it is unique as a structure, and well worth a visit. I am happy to say that the members of the Association will have an opportunity of inspecting this magnificent gallery, as Messrs. Barkas and Son have invited them to a promenade concert, with an exhibition of local paintings and works of art.

Harrogate.

On Thursday the formal ceremony of opening the magnificent Bath Hospital at Harrogate by H.R.H. Prince Albert Victor took place. The whole proceedings passed off very successfully. The entire cost of the buildings is about £34,000, the land being given by the Earl of Harewood.

The Proposed New Hospital for Halifax.

The scheme for the erection of a new hospital at Halifax is being taken up in the town and district with much spirit. Already a sum of about £31,000 has been promised or subscribed, and it is supposed that £50,000 will be required for the building and land.

Sheffield.

At a special meeting of a joint committee of the Skin Hospital and the Ear and Throat Hospital at Sheffield, it was decided to amalgamate the two institutions and thus save expense. Dr. Hardwicke pointed out some of the advantages of the union. Both hospitals were established ten years ago, and have an out-door attendance of about 1500 during the year.

White-lead Poisoning.

During the past week two inquests have been held on female white-lead workers employed in works on the Tyne, and verdicts of poisoning from lead recorded. Some idea may be formed of the detriment to health from a fact stated in reference to one of the cases—namely, that she had left off the work for two years and a half. It is a fact well known to practitioners here that there are large numbers of females suffering in the neighbourhood of the Tyne from the effects of lead.

Windermere.

Miss Preusser, a well-known lady, died at Windermere on Wednesday, aged sixty-three. She enjoyed the intimacy of Mendelssohn, Jenny Lind, and other contemporary musicians and composers, but she will be chiefly remembered as one of the first promoters of the modern system of boarding out pauper children, and was instrumental in promoting the petition to Parliament in 1870 urging that step. Under her guidance the system had been extensively carried out at Windermere, where in the village homes scores of children have been successfully trained for domestic service.

The Stockton and Shields hospital demonstrations were held yesterday, and, notwithstanding the unfavourable state of the weather, the turn out and collections were satisfactory.

Newcastle-on-Tyne, July 24th.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

The Sanitary Condition of Property in Edinburgh.

FOR some time the members of the Social and Sanitary Society have been making an organised and systematic inspection of some of the more thickly populated parts of Edinburgh, and they have just forwarded their last report for the season, dealing with the Pleasance, to the Town Council. These reports will be of enormous value to the sanitary inspector, and to owners of property in the parts to which they refer. They are not mere collections of vague generalities, but they enter into a most detailed account of the condition of drains, the ventilation and lighting of stairs, the effluvia from cesspools, and similar matters. Reference was made to this subject some time ago, and it is pleasant to find that the self-imposed task is still so faithfully carried out by the ladies and gentlemen who form the inspecting committee. That the work is valuable is evident from the fact that such prominence is given to the reports presented to the Town Council.

The Close of the Summer Session.

All the medical classes, both University and extra-mural, were brought to a conclusion on Friday last, and the medals and class prizes were awarded to the successful candidates in the various departments. On Monday and Tuesday the written examinations for the first professional examination were held. The oral examinations will commence immediately, and will be finished before August 1st, on which date the graduation ceremonial will take place. When the classes meet again in October, it is possible that one well-known face will be missed from amongst us, as Dr. Symington will be a candidate for the chair of Anatomy, to be vacated by Professor Struthers of Aberdeen. The names of other candidates, both from Edinburgh and elsewhere, are freely mentioned.

Prize given by the Lord Rector of Edinburgh University.

The Lord Rector of Edinburgh University, the Marquis of Lothian, Knt., has notified his intention of offering a prize of 25 guineas for the best essay on "Greater Scotland, or the part played by Scotsmen, prior to the Union, in the story of other countries." All graduates and under-graduates are eligible to compete, "provided they be not Masters of Arts of more than two years' standing, and provided that on Jan. 1st next they shall not have left the University for more than two years." Young medical graduates and undergraduates have ere this taken most honourable positions in the Lord Rector's essay competition, and those of their successors who have literary tastes have now a chance of obtaining similar distinction, especially as such work will, to most young Scotch graduates, prove a pleasant recreation in intervals snatched from professional labours.

Edinburgh, July 23rd.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

The Medical Schools Amalgamation Scheme.

THE new bye-laws in reference to the proposed scheme of amalgamation between the three medical schools in Dublin will, it is believed, be submitted this week to his Excellency the Lord-Lieutenant for his approval. In all probability the necessary arrangements will be completed so as to commence the ensuing session under the scheme of amalgamation between the Royal College of Surgeons in Ireland and the Carmichael and Ledwich Medical Schools.

Board of Superintendence of Dublin Hospitals.

The thirty-first annual report on the condition of the Dublin hospitals which receive Parliamentary aid has now been issued. The total number of patients under treatment for the year ending March 31st last was 9567, of whom 8410 were

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discharged cured or relieved, or left for other causes, and 400 died, or a mortality of 4·79 per cent. on the cases treated to a termination. In Steevens' Hospital a separate ward on the second floor has been converted into a maternity for the wives of soldiers. The board, however, express an opinion as to the inexpediency of having a maternity ward in a general hospital, and recommend that a suitable and detached building should be used for the purpose. Every department of the Meath Hospital is in perfect order, and supplied with the most modern improvements, admirably carried out. At the Cork-street Fever Hospital, small-pox, typhus, measles, and scarlatina cases are segregated in wards or houses, each of which may be said to have its own establishment of nurses and ward-maids. The governors of the House of Industry Hospitals gave practical effect to the recommendations submitted to them by a joint committee consisting of members of the board and members of the medical staff, in reference to the improvement of the nursing arrangements, by appointing trained medical and surgical superintendents of nurses, one to act in the Whitworth and the other in the Richmond Hospital, and also additional day and night nurses. In the Rotunda Lying-in Hospital 1538 patients were admitted (274 being discharged not delivered), the mortality, deducting the non-parturient cases, being 0·32 per cent.; while, at the kindred institution, the Coombe Hospital, the deaths were equal to 2·0 per cent. As regards St. Mark's Ophthalmic Hospital, the board fear that the structural defects of the basement and the overcrowding of some of the wards mar to a great extent the working of the hospital. They suggest that, if funds were available, a new wing should be built, which would afford additional ward accommodation and provide for the complete rearrangement of the administrative department, including the erection of offices, store-rooms, &c.

Proposed Abolition of the House of Industry Hospitals.

The following resolution was moved at a meeting of the North Dublin Union Guardians last week: "That this board is opposed to the abolition of the Richmond, Hardwicke, and Whitworth Hospitals, inasmuch as it would throw an increased charge on the rates of this union in the guardians being forced thereby to provide for a very much increased number of sick poor not being in receipt of pauper relief. We also deprecate the proposition to reduce the annual Government grant, as also the placing of its distribution in the hands of any central board not elected by, and not responsible to, the ratepayers. That a copy of this resolution be forwarded to the Chief Secretary for Ireland, to the members of Parliament for the city, county, and University of Dublin, with the request that they will oppose the abolition of the hospitals referred to, or any reduction of the grant." The motion was lost by a majority of four.

Professorship of Midwifery, School of Physic, Trinity College.

The Fellows of the College of Physicians will on Friday next, the 26th inst., proceed to the election of a Professor of Midwifery in the Medical School of the University of Dublin. The vacancy has been created by the decease of Dr. J. Rutherford Kirkpatrick, and the appointment will be for a period of seven years.

Royal Barracks, Dublin: Typhoid Fever.

It is rumoured that in consequence of the number of cases of typhoid fever that have occurred in these barracks, especially in the Royal Square, the authorities have come to the determination to remove all the troops at present quartered there. The West Surrey Regiment goes to the Richmond Barracks, and two companies of the Royal Lancaster Regiment will be placed in Island Bridge Barracks. It is stated that the present outbreak of typhoid fever is by far the worst that has taken place for years, cases occurring almost every day.

Westmoreland Lock Hospital, Dublin.

The Board of Superintendence of Dublin Hospitals in their recent report state that, although the several departments of the hospital were in good order, the aspect of the wards was one of extreme gloom, which may be ascribed to the internal arrangements, and to the structural defects of the building. They are of opinion that institutions of this kind should be made attractive to patients, so that they may be induced to seek admission at the earliest stage of their disease, and that the authorities should have power to detain them in hospital until complete recovery has ensued. The lavatories, bath-rooms, &c., are inadequate, and the board suggest that the hospital should be rebuilt on modern principles, and on a more favourable site in a less densely populated neighbourhood. They consider also that a special hospital in Dublin is necessary for the reception and treatment of female patients affected with venereal diseases.

Queen's College, Cork.

From the report of the President, which has been recently issued for the academic session 1888–9, it appears that the total number of students on the books of the College was 229, of whom 218 had matriculated, 172 being in the Faculty of Medicine. Many additions have been made to the Pathological Museum, which, under the care of Dr. Cotter, is rapidly progressing; while the Board of Works have provided in this year's estimates for the completion of the cases in the Natural History Museum, for which there have not been up to the present adequate funds. The Chemical Laboratory is still insufficient for the number of students who attend, and the Professor of Chemistry has been obliged to divide his class. The Biological and Physiological Laboratories are also inadequate for the demands made upon them, and, as practical work in these subjects is obligatory in the curriculum of the Royal University, the professors are put to great inconvenience by the limited room. The President trusts that some steps will be taken this year to enlarge the teaching staff of the Medical School in accordance with the present requirements of medical education.

The Armagh County Infirmary.

The Lord Mayor of Dublin has sent a subscription to the memorial fund which is being formed to improve this hospital, and has consented to receive donations for that purpose. The institution has met the emergency thrown upon it by the recent railway disaster most fully, and the comparatively small sum now required ought to be obtained without difficulty.

I regret to record the death of Mr. John Gibson, M.B., at the early age of twenty-five years, from typhoid fever. He was resident surgeon at Sir Patrick Dun's Hospital.

Mr. Burke Gaffney, assistant-surgeon to St. Vincent's Hospital, intends leaving Dublin next month for Melbourne. Mr. Gaffney has been a successful teacher, and his many friends in this city wish him every success in his future home.

Dr. Joseph Finegan has been elected medical officer of Carlingford dispensary district, county Leith.

Dublin, July 23rd.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Military Hygiene.

THIS subject is worthily occupying the attention of the authorities, and M. de Freycinet, the present Minister of War, manifests great interest in the well-being of the French soldier. He recently sent in a remarkable report to the President of the Republic, from which it appears that the military mortality rate in times of peace has diminished in the last twenty years from 12 to 8 per 1000. M. de Freycinet justly remarks that "the good health of an army is the first condition of its power," and acting upon this principle he is constantly searching for means to ameliorate the hygienic condition of the French army. It is known that the malady which causes the greatest ravages among the French troops is typhoid fever. The death-rate from this malady alone is frightful. In thirteen years (1875 to 1887) typhoid fever affected 141,648 men, and caused 21,116 deaths, or seven times more than those of the civil population. Among the causes of the prevalence of this affection in barracks, overcrowding plays the greatest *rôle*. But the proximate causes arise chiefly from errors in hygiene, the bad quality of the drinking water, the defective arrangements of the latrines, contamination of the soil and of the atmosphere by the emanations from the sewers and from putrescible deposits, &c. The scientific part of the report is highly interesting. It is stated that by a classification of drinking water according to its variable proportion of bacteria and microbes, one can almost follow the history of typhoid fever in the military establishments. If this water does not directly produce the malady, it prepares

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he system for it, by causing intestinal disorders which render the organism liable to become infected with the typhoid contagium. The purity of drinking water is, on the contrary, fertile in beneficial results to the public health in general and that of the army in particular. The beneficial results of providing pure water have, moreover, become evident, for since certain barracks in Paris have been supplied with spring water, the ravages of typhoid fever have diminished in the proportion of five-eighths. In fine, since the month of March last, when all the military establishments were provided with spring water, it has been observed that there has never been less typhoid fever among the troops in Paris. As it is now almost universally admitted that typhoid fever is propagated through the medium of fæcal matter, it is evident that everything should be done to prevent the contamination of the air and of the soil by the mephitic exhalations from cesspools. It must, however, be admitted, to the credit of the present Government of France, that important reforms are being carried out in this direction, for wherever the *tout à l'égout* system is not practised, movable *tinettes* or tubs are substituted for the old-fashioned permanent receptacles.

Anti-Tobacco Congress.

The first meeting of the International Congress against the Abuse of Tobacco took place recently, when M. Renaudin, formerly army veterinary surgeon, was elected honorary president. He is one hundred and four years of age, having been born in 1785, and was introduced as a non-smoker. Dr. Dujardin-Beaumetz, of the Academy of Medicine of Paris and hospital physician, was elected president, and Dr. Drysdale of London was named one of the vice-presidents. As soon as the bureau was formed, M. Ortolan, a retired naval officer, opened the meeting by a few remarks on the history of tobacco, its introduction into Europe, its properties, and its toxic principles. He said that the proportion of nicotine diminished when the stalks of the tobacco plant were placed very near each other, and when the leaves were numerous and situated very low on the stem. This is why the Germans, who smoke a good deal, are less affected, as in that country the culture of tobacco is free, whereas in France it is under strict regulations, and the number of leaves per plant is limited. French tobacco contains as much as 6 per cent. of nicotine. M. Pradel cited numerous cases of abortion produced among the women employed in the tobacco manufactories. Dr. Dujardin-Beaumetz observed that what is referred to here is only that intoxication which is effected through the skin, and that the inconveniences pointed out refer only to women who continually manipulate tobacco and not to women who smoke. These latter only experience the well-known ill effects, such as troubles of digestion, smoker's sore throat, &c. M. Marambert endeavoured to prove by statistics that the abuse of tobacco is one of the causes of the lowering of public morality. He demonstrated that all criminals, gamblers, dissipated persons, and bigamists smoke, and have smoked from their childhood. This is certainly trying to prove too much, and consequently will probably serve to do more harm than good to the objects of the Congress. The meetings of the International Congress have been brought to a close, with various recommendations, among which may be mentioned the promulgation of a law interdicting minors under the age of sixteen years from making use of tobacco in any form.

Congress on the Blind.

An International Congress for the Amelioration of the Condition of the Blind is to be held in Paris, under the patronage of the French Government, from Aug. 5th to the 8th. All persons connected with societies or establishments devoted to the blind are invited to take part in its proceedings. A subscription of five francs will be charged for membership, which will entitle each member to the publications of the Congress. Foreign members are not required to pay any subscription. Ladies will be admitted as members. An exhibition of objects which serve for the intellectual, musical, and professional teaching of blind persons will be open during the sittings of the Congress. During the same period members may visit the Valentine Haüy Museum. The Congress will hold its meetings at the National Institution for the Blind, where will also be held the exhibition referred to above. Directors, professors, or teachers of the schools for the blind in France and foreign countries who make application fifteen days before the opening of the Congress to the director of the National Institution for Blind Children will be lodged gratuitously in this establishment. The rules of the Congress, which will be sent to members, will indicate more fully the conditions to which they will have to conform. Applications should be addressed to M. de la Sizeranne, general secretary of the Congress, 56, Boulevard des Invalides, Paris.

Paris, July 20th.

ROYAL COLLEGE OF PHYSICIANS.

AT the quarterly comitia of the College of Physicians, held on the 25th inst., the President, Sir A. Clark, Bart., reported that after an interview with the President of the Poor-law Board, a clause had been framed in the Bill which would enable students to be received at the fever hospitals. He also referred to the Lunacy Acts Amendment Bill, and the steps taken to amend it in accordance with the views of the College.

The new Members, whose names will be found in another column, were duly admitted; and the College seal was affixed to the diplomas of the 122 new Licentiates. The diploma in Public Health was granted, in conjunction with the College of Surgeons, to thirteen successful candidates.

The College seal was affixed to the Moxon Memorial Trust Deed.

The President stated that the following Fellows had been appointed to deliver the lectures during the ensuing year: Goulstonian, Dr. G. N. Pitt; Milroy, Dr. Ransome (Manchester); Lumleian, Dr. Hughlings Jackson; Croonian, Dr. D. Ferrier; and that for the year 1891 Dr. Burdon Sanderson had consented to deliver the Croonian Lectures.

The following gentlemen proposed by the Council were duly elected to the offices named for the ensuing year:—Censors: Drs. J. S. Bristowe, J. Hughlings Jackson, W. H. Broadbent, and Sir W. Roberts, M.D. Treasurer: Sir D. Duckworth, M.D. Emeritus Registrar: Sir H. Pitman, M.D. Registrar: Dr. E. Liveing. Harveian Librarian: Dr. W. Munk. Elected Members of the Library Committee: Drs. J. F. Payne, I. B. Yeo, R. Farquharson, and N. Moore. Curators of the Museum: Drs. W. Wegg, W. H. Dickinson, W. Cayley, and N. Moore. Finance Committee: Sir E. Sieveking, M.D., and Drs. G. T. Fincham and R. Martin. Examiners—Chemistry and Chemical Physics: Dr. C. H. Ralfe, J. M. Thomson, F.C.S., W. Ramsay, Ph.D., F.R.S. Materia Medica, Medical Botany, and Pharmacy: Drs. H. I. Owen, N. I. C. Tirard, J. M. Bruce, W. Hale White, and C. Y. Biss. Elementary Physiology: Drs. H. L. Jones and F. W. Mott. Physiology: W. H. Allchin, M.B., Dr. A. Gamgee, and C. S. Sherrington, M.B. Osteology and Anatomy: W. P. Herringham, M.B., and Dr. S. Taylor. Medical Anatomy and Principles and Practice of Medicine: W. H. Stone, M.B., Sir Dyce Duckworth, M.D., Drs. A. B. Duffin, J. F. Payne, T. H. Green, J. Cavafy, F. T. Roberts, A. E. Sansom, S. Coupland, and J. F. Goodhart. Midwifery and Diseases peculiar to Women: Drs. J. B. Hicks, A. L. Galabin, C. J. Cullingworth, and F. H. Champneys, M.B. Surgical Anatomy and Principles and Practice of Surgery: Sir William Mac Cormac, F.R.C.S., and Professor Humphry, F.R.C.S.

Dr. W. S. Church and Dr. Fred. Taylor were appointed Examiners for the Murchison Scholarship.

On the recommendation of the Council, it was resolved to award the Baly Medal to Prof. Heidenhain of Breslau.

A letter was read from the Rev. E. C. Lucey, rector of Merstham, Ashford, in support of a memorial window to Linacre, to be placed in his church. The letter was referred to the Finance Committee, Dr. Munk, V.P., remarking that Linacre was a great pluralist and held about eleven livings.

Letters were read from the Colonial Office thanking the College for the Reports on Blackwater Fever and Quarantine.

A letter was read from Mr. G. C. Bright offering to the College the original drawings and manuscripts of the "Medical Reports" of his father the late Dr. Bright. The gift was cordially accepted.

Communications were received from the General Medical Council (1) dealing with the question of precedence and the steps taken by the Council in the matter; and (2) respecting

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an inquiry into the methods of the examinations &c., which was referred to the Committee of Management.

A communication was read from the Father Damien Memorial Committee respecting their proposals; the consideration was deferred until the report of the Leprosy Committee was received by the College.

A communication from the Senate of the University of London, inviting suggestions respecting the proposals of the recent Commission, was also deferred pending the reception of the report of the Committee appointed at the last comitia.

The report of the Leprosy Committee was then presented. It expressed satisfaction that the action taken by the Father Damien Memorial Committee would enable the proposals of the College to be carried out It also dealt with each of the suggestions of the Memorial Committee, and, having been received, it was resolved to circulate it, together with the report of the Damien Memorial Committee, among the Fellows for consideration at the adjourned meeting to be held next week.

Obituary.

CHARLES METZGAR, F.R.C.S. ENG.

THE news of the unexpected death of this gentleman, at the early age of twenty-five, will come as a painful shock to the very large circle of his friends. Mr. Metzgar was born at Kingstown, Jamaica, in 1863. He received his early education at Dulwich College, and entered Guy's Hospital in 1881. During his career there he took especial interest in surgery, and after having taken the F.R.C.S. in 1888, he held the post of house-surgeon. He left his old school early in that year to accompany a shooting party in South Africa. Fond of sport from boyish days, of pigeon and duck shooting in Jamaica, and being from his comfortable circumstances able to take life easily, he had previously joined shooting parties in Austria. He returned to England on June 23rd. He had been feeling ill and depressed for some days before landing. On July 4th he took to his bed, and was seen by Dr. Taylor and Dr. Washbourn, who continued in attendance throughout the illness, which proved to be typhoid fever. Weakness of the pulse was noticed throughout, and the disease proved fatal on July 10th. His kindly and genial temper and his eminently manly and straightforward character greatly endeared him to all with whom he was brought in contact; and his sudden death is very keenly felt by his many friends at Guy's and elsewhere. The funeral took place on July 13th at Christ Church, Forest Hill. Among those gathered around the grave were some of the staff and many of the students of his hospital.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members of the College on the 25th inst.:—

Carr, John W., M.D. Lond.
Cordes, Auguste E., M.D. Paris.
Hunter, William, M.D. Edin.
Paterson, Donald R., M.D. Edin.
Taylor, Fredk. H., M.D. Lond.
Turner, Duncan, L.R.C.P.
Turner, Wm. A., M.B. Edin.
Tyson, Wm. Joseph, M.D. Durh.
Wheaton, S. Walton, M.D. Lond.
Whitehead, J. L., M.D. St. And.

On the same day the following gentlemen, having conformed to the bye-laws and regulations and passed the required examinations, were admitted Licentiates of the College:—

*Aaron, David Jacob, King's Coll.
Aylward, Walter Chas., London.
Barber, Sidney Fredk., Sheffield.
Barkworth, H. Smith, St. George's.
*Bartlett, Walter Fredk. Cope.
Beauchamp, S., St. Bart. and Cam.
Bennett, C. H. W., St. Bart.'s.
Bennett, Colin E. W., Middlesex.
Berryman, Henry A., St. Bart.'s.
Bishop, Reginald Wm. Snowden, Sheffield and St. Mary's.
Bokenham, T. J., St. Bart.'s.
*Bowlby, George Herbert, Toronto.
Bowman, Henry Moore, St. Bart.'s.
*Brenton, William Hore, Guy's.
Brown, David, London.
*Brown, F. Nathaniel, St. Bart.'s.
Carpenter, E. Godfrey, St. Bart.'s.
Challis, Harry Thornton, London.
*Clarke, John Kempe, Middlesex.
Clarke, J. Tertius, St. Thomas's.
Clemson, Thos. F., Manchester.
Colyer, J. Frank, Charing-cross.
*Cooper-Pattin, W. H., Cambridge and St. Thomas's.
Creswell, J. E., University Coll.
*Crompton, Ernest, St. Barthol.'s.
Crook, Arthur, London.
*Cross, James Allan, Toronto.
Crosse, R. E., St. Bartholomew's.
Crump, T. G., Cam. and Birming.
Curwen, Eliot, Cambridge.
Dallas, S. A. C., University Coll.
Daniel, Herbert, Middlesex.
*Dawson, Ernest, Westminster.
*Dennison, T. Stephenson, Leeds.
De Jersey, W. B., Cam. & St. Thos.
Dodwell, P. Rashleigh, Univ. Coll.
Eaves, W. Vaughan, Univ. Coll.
Farrington, John, Manchester.
Fazan, C. Herbert, Middlesex.
Fitz-Gerald, E. D., St. Barthol.'s.
Forward, F. E., St. Thomas's.
Foster, Alfred, St. Mary's.
Folker, H. H., Charing-cross.
Frossard, Emilien E., King's Coll.
Gravely, Ronald T., St. Mary's.
Griffith, John, St. Mary's.
Habbijam, E. T., Charing-cross.
Hale, Edward, Liverpool.
Hall, Walter, St. Bartholomew's.
Hamilton, H., Univ. Coll. and Bristol.
*Harrison, J. H. H., Univ. College.
Haslett, William John, London.
*Heberden, W. S., St. George's.
Henniker, J. G., St. George's.
Hicks, Edward James, London.
Hill, L. E., University College.
Hinds, T. W., University College.
Hitchon, H. H. I., Manchester.
*Hodgson, G. G., Univ. College.
*Holmes, J. W., Charing-cross and Sheffield.
*Holman, Henry James, Guy's.
Horden, H. H., Univ. College.
Hore, E. W., University College.
Hume, F. N., St. Thomas's.
Hutchinson, R. J., London.
Jackson, B. F. F., Charing-cross.
Jacobsen, G. O., St. Barthol.'s.
Jessop, J. W., St. Bartholomew's.
Johnson, H. P., St. George's.
Johnstone, J. L., Manchester.
Jones, A. W., Oxford and St. Thomas's.
Jordan, Henry Martyn, Guy's.
Kent, C. A., University College.
*Kent, Robert T., Edin. and Mid.
Kerr, George D., St. Thomas's.
Lambert, T. W., St. Thomas's.
*Lander, Francis Joseph, London.
Lange, André P., King's College.
*Lea, Arnold W. W., Manchester.
Lemon, Edward H., St. Bart.'s.
*Le Riche, P. J., University Coll.
Lloyd, John Wesley, Liverpool.
Lodwidge, W. C., St. Mary's.
Long, Edward C., Middlesex.
Mack, Cyril Gordon, St. Mary's.
*Molyneux, Edward, Liverpool.
Morgan, S. Wolferstan, Bristol.
Munday, R. Cleveland, St. Bart.'s.
*Murray, George, St. Mary's.
Oakeshott, W. Field, St. Bart.'s.
Offord, James Albert, London.
Oldham, George F., London.
Osburn, Harold B., St. Thomas's.
Parham, H. C. H., Charing-cross.
Paton, Edward Percy, St. Bart.'s.
Pearce, Frederick William, Guy's.
*Phillips, E. J. M., Liverpool and St. Thomas's.
*Ramsden, Herbert, Manchester.
Robinson, E. H., Manchester.
*Russell, W. A., Charing-cross.
Saul, Victor Salmon, London.
Sellers, Arthur Edward, Leeds.
Sharpin, A. L., St. Bartholomew's.
*Sheldon, Robert G., Liverpool.
Smith, R. A., University College.
Spratly, E. R. Woody, Liverpool.
Stocken, L. M., University College.
*Stephen, G. Caldwell, Montreal.
Stocker, W. Woodley, St. Mary's.
Swallow, Allan Jas., St. Thomas's and Durham.
Swift, Sidney Sampson, Liverpool.
Sykes, John Herbert, Manchester.
Vise, Arthur Blithe, Westminster.
Walker, G., St. Bartholomew's.
Wallace, Richard Teale, Guy's.
*Ware, E. Edwin, St. Thomas's.
*Weld, O., Toronto and Middlesex.
Wickham, G. Hy., St. Thomas's.
Wilkinson, Jas. Howard, London.
Worboys, T. S., St. Bartholomew's.
*Yeld, Walter Harry, Manchester.

* Candidates who have not presented themselves under the regulations of the Examining Board.

* Candidates who have not presented themselves under the regulations of the Examining Board.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen having passed the necessary Examinations of the Board, received the diploma in Public Health at a meeting of the Royal College of Physicians on the 25th inst.:—

Bevan, Richard, L.R.C.P., M.R.C.S., Guy's Hospital.
Bond, Frederick Fielding, M.D.Edin., Edinburgh.
Bulstrode, Herbert Timbrell, M.D.Camb., L.R.C.P., M.R.C.S., St. Thomas's Hospital.
Copeman, S. A. M., M.B.Camb., L.R.C.P., M.R.C.S., St. Thomas's Hospital.
Hope, George, L.R.C.P., M.R.C.S., St. Thomas's Hospital.
James, A. Wm., L.R.C.P., M.R.C.S., St. Bartholomew's Hospital.
Lawless, Edmund James, L.R.C.P.Edin., London Hospital.
Manley, J. H. H., M.B.Camb., Guy's Hospital.
Muspratt, C. D., M.B.Lond., F.R.C.S., Guy's Hospital.
Scatliffe, A. W., L.R.C.S.Edin., St. George's and London Hospitals.
Southcombe, A. G., L.R.C.P., M.R.C.S., St. Bartholomew's Hosp.
Wheaton, Samuel W., M.D.Lond., L.R.C.P., M.R.C.S., St. Thomas's Hospital.
Yarrow, Eugene, L.R.C.P., M.R.C.S., St. Bartholomew's Hosp.

COLLEGE OF PHYSICIANS IN IRELAND.—At the July Examinations the following obtained the Licences in Medicine and Midwifery of the College:—

Medicine.—Frank Charles Butt, William Jenkinson Corrigan, Henry Cooke Drury, John Hickling Gwynne, Francis Johnson, John Keys, John James Langston, Joseph O'Connor, Robert Crout Richards, Patrick Stephenson.

Midwifery.—F. Charles Butt, Wm. Jenkinson Corrigan, John Hickling Gwynne, John Keys, John James Langston, Robt. Crout Richards, Patrick Stephenson.

The undernamed were admitted Members:—

Joseph Francis O'Carroll; Alfred Vavasour Lane, Surgeon Army Medical Staff.

ROYAL UNIVERSITY OF IRELAND.—The following gentlemen have obtained the diploma in Sanitary Science of this University:—

John C. Deacon. | Robert L. Heard.

CONJOINT SCHEME OF THE COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND.—The following gentlemen have passed the Second Professional Examination:—

P. Barragry, H. K. Bentley, T. F. Brophy, M. S. Byrne, A. A. Carbery, F. W. Condon, R. P. Connell, V. Cooke, P. J. Cullen, E. W. Dickson, F. F. Dillon, H. Dowling, J. H. Elmes, J. H. Farmer, M. Ferguson, D. H. Foley, E. F. Frazer, P. Garland, W. Hall, W. C. Hamilton, H. Jones, W. J. Keane, W. H. Langley, P. J. Liston, E. W. Lynch, H. McCormick, F. A. Madden, R. M. Madden, J. M. Mangan, A. R.

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Moore, R. Moynahan, T. E. Myler, J. O'Donoghue, J. O'Dwyer, J. S. Proctor, P. J. Quinlan, R. W. Roe, W. Russell, J. P. Sexton, F. P. Smith, Temple Smyth, F. Stoker, A. P. Swanson, A. W. Tabuteau, H. Tweedy, S. W. Wilson, T. F. Wyse, W. Zimmer, D. A. McCurdy.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following gentlemen have been admitted Fellows:—

T. G. Bolster, Surgeon-Major Medical Staff; John Holmes, of Limerick; and Graves Stoker.

At the Preliminary Examination held on July 17th, the the following candidates were granted certificates:—

First Class.—M. Betty, C. Browning, C. S. Cahill, D. J. Carroll, A. Chadwick, S. M. Dooley, H. Eardley, J. W. Frazer, G. L. Freeman, P. Good, J. Gorman, C. P. Hannan, L. W. Harvey, A. J. Kearney, P. Lyons, E. P. Magee, J. S. Maher, H. F. Martyn, H. H. Moffat, D. Morrissy, J. Murphy, J. J. A. Sherry, S. Watson, M. Esmond White, and W. A. Woodride.

Second Class.—J. Black, A. W. N. Bowen, M. Breen, J. Campbell, P. P. Casey, T. V. Conway, W. S. Crosthwaite, T. E. Dobbs, S. C. Elgee, B. F. Eustace, F. M. Farmer, R. T. Fox, J. Graham, F. Hamilton, R. Hassard, R. J. Harvey, H. S. Henderson, R. Jennings, C. Kapp, J. C. Lloyd, P. J. MacHale, D. Molyneaux, J. J. Morrissey, A. Odbert L. O'Donnell, A. N. O'Neale, F. T. W. Trench O'Rorke, M. P. O'Shaughnessy, C. N. O'Sullivan, F. O'Sullivan, G. E. Palmer, T. Phelan, W. H. Pidgeon, D. C. S. Potterton, E. Pyne, J. M. Quirke, R. E. Smith, A. F. Studdert, T. F. Smith, and W. T. Wood.

Unclassed.—R. C. Boland, T. Considine, J. W. Jenkins, E. R. Kellett, T. Lauder, F. Little, Miss H. F. M'Card, R. Murphy, J. Nolan, D. A. O'Connor, C. J. Powell, G. G. Roe, A. O. Slocock, G. R. Stritch, J. F. Sutcliffe, and F. W. Woods.

Additional Certificates in Physics.—C. Browning, A. Chadwick, J. W. Frazer, G. L. Freeman, R. J. Harvey, H. H. Moffat, G. E. Palmer, D. C. S. Potterton, A. F. Studdert, J. F. Sutcliffe, and S. Watson.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates, having passed the qualifying examination in Medicine, Surgery, and Midwifery, have received certificates entitling them to practise in the same, and were admitted Licentiates of the Society on the 12th inst.:—

Loveday, Ernest, St. Bartholomew's Hospital.
Seccombe, Samuel Herbert, Guy's Hospital.

Passed on the 17th inst.:—

Barrs, John Harry, St. Thomas's Hospital.
Clarke, Joseph John, Queen's College, Cork.
Costine, William Courter, Royal Infirmary, Liverpool.
Ellaby, Charlotte Louisa, M.D. Paris, Paris.
Knight, Mary Adela M'Culloch, Royal Free Hospital.
Porter, Frederick Joseph Wm., London Hospital.
Verano, Louis Lawrence, St. Bartholomew's Hospital.

Passed on the 18th inst.:—

Appleyard, Walter Rooke, University College, Liverpool.
Hurst, Walter, Owens College, Manchester.
Wallington, Wm. T., L.S.A., Charing-cross Hospital.
Winter, George Mitchell, St. Mary's Hospital.

THE NEW HOSPITAL AT HARROGATE.—Prince Albert Victor of Wales performed on the 18th inst. the opening ceremony of the Bath Hospital and Convalescent Home at Harrogate, which has been erected at a cost of £32,000. The building has been planned as a home rather than an ordinary hospital. The best modern sanitary appliances have been adopted. The accommodation is ample for 150 inmates in all. The Convalescent Home is constructed so as to be readily extended if required.

ST. BARTHOLOMEW'S HOSPITAL. — The annual "Stewards' Feast" was given at the hospital on Wednesday evening. The Prince of Wales, as President, occupied the chair. A large and distinguished company were present. After the usual loyal toasts, the chief toast of the evening, "Prosperity to St. Bartholomew's Hospital," was proposed by His Royal Highness, who entered into considerable detail on the progress which the institution had made during the past few years, and the claims it had upon public support. Sir Sydney Waterlow (the Treasurer) responded. Other toasts followed, and a pleasant evening was brought to a close.

THE SAMARITAN FREE HOSPITAL FOR WOMEN, MARYLEBONE-ROAD.—The Prince of Wales, who was accompanied by the Princess of Wales and two of their daughters, laid on Wednesday the memorial stone of this new hospital. The Prince, in the course of his reply to the address to him read by Lord Selborne, remarked that during the past thirty-one years the hospital had existed, 1146 women had been cured of dangerous diseases. The hospital, when completed, will provide accommodation for 100 patients. The Prince having laid the stone, the Princess of Wales received purses of money. The amount thus collected was £1208 2*s.* 6*d.*

ROYAL COMMISSION ON VACCINATION.—The Royal Commission on Vaccination held a meeting on July 24th. There were present:—Lord Herschell (chairman), Sir James Paget, Sir Charles Dalrymple, M.P., Sir W. Guyer Hunter, M.P., Sir Edwin Henry Galsworthy, Mr. W. Scovell Savory, Mr. Charles Bradlaugh, M.P., Dr. John Syer Bristowe, Dr. W. Job Collins, Mr. J. Stratford Dugdale, Q.C., M.P., Professor Michael Foster, M.D., Mr. Jonathan Hutchinson, Mr. J. Allanson Picton, M.P., Mr. Samuel Whitbread, M.P., Mr. F. Meadows White, Q.C., and Mr. Bret Ince, secretary. Dr. R. Thorne Thorne, Assistant Medical Officer to the Local Government Board, was further examined.

THE PASTEUR INSTITUTE.—Towards the Lord Mayor's Fund which is being raised in connexion with M. Pasteur's Institute in Paris the Earl of Rosebery has given £100; the Merchant Taylors' Company, £31 10*s.*; Mr. Alderman Evans, £21; Dr. Hugo Müller, F.R.S., £10; Sir Prescott Hewett, F.R.S., £10; Dr. Pye-Smith, F.R.S., £10 10*s.*; Sir Frederick Bramwell, F.R.S., £5 5*s.*; Mr. Lennox Browne, £5.; Mrs. Edmund Potter, £10; Sir Henry Roscoe, M.P., £10; and Mr. George Matthey, £21. There are several English patients now undergoing the course of treatment for the prevention of hydrophobia at the institute in Paris, including one sent over by the Lord Mayor last week.

OPEN SPACES.—The Lambeth vestry has resolved to contribute £20,000 towards the purchase of Brockwell Park as an open space for South London, on the condition that the scheme for the purchase of Raleigh Park is abandoned.—Sir Edward C. Guinness, Bart., has intimated to the trustees his intention of increasing his original donation of £9000 to £14,000 for the erection of a winter garden for the inhabitants of East London.—Lady George Hamilton, on the 17th inst., formally opened the Acton public park and recreation-ground. It comprises eighteen acres of land, and has been purchased by the local board for £18,000, towards which the Goldsmiths' Company (who were part owners of the ground) have contributed £5000.

ST. ANDREWS GRADUATES' ASSOCIATION. — The annual meeting of this Association was held on Tuesday, July 23rd, at 11, Chandos-street, Cavendish-square, at 5 P.M., the President, Dr. B. W. Richardson, in the chair. The account, which shows a balance of £27 13*s.* 9*d.* in favour of the Society, was audited and received, and the Council's report for the past session was adopted and ordered to be printed. Dr. Richardson, Dr. Paul, and James M. Menzies, M.A., were re-elected to the offices of president, hon. treasurer, and hon. secretary respectively. The members of Council for the current session were elected, and, after a committee had been appointed to make arrangements for the delivery of two or more academic lectures during the session, the proceedings were brought to a close.

DEATH WHILST UNDER CHLOROFORM. — At an inquest held at Whitfield, on the 8th instant, by the East Kent coroner, on the body of Mr. John Sneller, a retired farmer, Dr. C. E. Tanner deposed that the deceased expired whilst undergoing an operation to remove a stone in the bladder, in the presence of Mr. John Langton, Mr. Macready, of London, and Mr. Long, of Dover. Witness administered chloroform, and Mr. Langton performed the operation, during which witness observed a change in the pulse. He called Mr. Langton's attention to it, who withdrew his instrument, and they began artificial respiration, and continued it for upwards of half an hour, but without avail. He was about twenty minutes under chloroform.

MEDICO-PSYCHOLOGICAL ASSOCIATION. — The following gentlemen passed the examination for the certificate in Psychological Medicine, granted by the above Association held in the Edinburgh Royal Asylum:—Messrs. J. B. Bird, A. W. Carter, R. J. Drummond, M.B., C.M., H. M. Eames, R. A. Fraser, M.B., C.M., G. Fitzgerald, G. Hennan, M. L. Hewat, J. Monteith, M.B., C.M., R. Renton, F. M. Ritchie, B.Sc., J. D. Stanley, M.B., C.M., W. Day Stewart, M.D., and R. R. H. Whitwell, M.B., B.Sc. The examination was conducted by Dr. Yellowlees (Glasgow Royal Asylum), with Dr. Clouston (Edinburgh Royal Asylum) as assessor. — Dr. Rorie (Dundee Royal Asylum) and Dr. Reid (Aberdeen Royal Asylum) report that the following gentlemen have passed the examination for the certificate in Psychological Medicine granted by the same Association:—Messrs. Wm. Bulloch, Wm. Davidson, James Rannie, and James Wilson. The examination was held in the Aberdeen Royal Asylum on the 19th inst.

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MEDICAL NOTES IN PARLIAMENT.

Overtime Work of Railway Servants.

IN the House of Lords on Friday, the 19th inst., Lord de la Warr called attention to the recent return of overwork of railway servants. He analysed the document to show that in numerous instances signalmen and engine-drivers were at work from fifteen to eighteen hours out of the twenty-four, and urged that when a man had been employed for twelve consecutive hours it was almost impossible for him, either mentally or physically, to continue to discharge his responsible duties in the manner required of him. He had been assured on good authority that the great stretch of mental attention to which many railway servants were subjected produced a listlessness which increased the risk of accidents, and brought on premature infirmity. He moved for the official report of the recent railway accident in the north of Ireland. Lord Stalbridge maintained that the average time worked by men on railways was by no means excessive.—Lord Balfour promised to produce the official report of the accident in Ireland when it was prepared, and the motion of Lord de la Warr was thereupon withdrawn.

Cruelty to Children (Prevention) Bill.

On Monday, the 22nd, Lord Herschell moved the second reading of this Bill. As to the provision in the Bill prohibiting the employment of children under ten years at theatres and other places of amusement, he was of opinion that no case had been made out by those who wanted to expunge that sub-section, and he asked their lordships to support the decision come to by the House of Commons.—Lord Dunraven gave formal notice of his intention at the proper time to move the omission of the sub-section in question.—The Archbishop of Canterbury and Lord Meath supported the provision prohibiting the employment of children under ten years of age on the grounds of education and health.—The Bill was read a second time.

Otford and Dunton Green Sewerage.

In the House of Commons, on Friday, the 19th inst., Mr. Ritchie, replying to Mr. Bradlaugh, said that the Local Government Board had sanctioned loans for works of water-supply and sewerage for the parish of Otford, which included the villages of Otford and Dunton Green. The medical officer of health had testified that the existing water-supply at Dunton Green was bad, and it further appeared that some, at least, of the houses at Otford were badly supplied. There was also evidence that sewerage was needed, and it was pointed out that if a system of earth-closets were adopted the slop-water would still have to be dealt with. He (Mr. Ritchie) had no information to show that earth-closets had been generally provided in the places in question.

Roburite.

Mr. J. S. Balfour asked a question as to the injurious effects to the health of miners of the use of roburite.—Mr. Matthews, in reply, stated that, according to his information, roburite was in growing use in Lancashire collieries, and was a useful explosive, and practically safe for use in fiery mines. An inquiry had been held by a committee of experts, and the conclusion arrived at was that, proper care being exercised, the use of roburite would not add to the unhealthy conditions under which the miner works. He did not think that any further inquiry was necessary, at any rate at present.

Prison Cells and Ophthalmia.

Mr. A. J. Balfour, replying to Mr. MacNeill, stated that the cells of Londonderry Prison are whitened, but the General Prisons Board were not aware of any prisoner being thereby exposed to any injurious glare. Had any necessity existed for altering existing arrangements, the prison surgeon, in the ordinary discharge of his duty, would have called attention to the matter. The Board had also reported that there was no medical evidence that Mr. Blunt's sight was injured either in Galway or Kilmainham Prisons. As a matter of fact, the cells in Galway Prison have been for a long time coloured yellow. Mr. Cox, M.P., had been suffering from ophthalmia, and had consequently been removed to the prison hospital, but that did not appear to have been produced by the glare of the cell walls, nor was his sight, so far as the Board was aware, seriously and permanently injured.

Muzzling of Dogs.

On Monday, the 22nd, Mr. W. H. Smith, in reply to several questions, stated that it was not contemplated at present to issue a general order for the whole country for the muzzling of dogs.

Grants to the University Colleges.

Mr. Jackson, in reply to Mr. Mundella, stated that the papers bearing upon the scheme for the allocation of annual grants to the University Colleges were presented on Friday (the 19th), and he hoped they would be in the hands of members immediately.

Local Government (Scotland) Bill.

On Monday, the 22nd, this Bill, as amended, was considered. On Clause 17, which deals with the transfer of the powers of parochial boards under the Public Health Act, and gives a right of appeal from a district committee to the County Councils in certain cases, an amendment by the Lord Advocate was inserted enacting that the power of appeal should not apply to any order for the removal of a nuisance. An amendment by Mr. Caldwell was agreed to, enacting that the medical officer or the sanitary inspector of the county or district may appeal to the County Council from any order made or refusal to make any order by a district committee, and the County Council may review, confirm, vary, alter, or rescind such determination or order, or may make an order under the Public Health Acts.—Mr. Caldwell moved an amendment in Clause 17 to provide that the medical officer or sanitary inspector should hold office at the pleasure of the County Council.—The Lord Advocate could not accept that amendment, which raised a point of serious importance. They were dealing with the existing machinery of the public health system, and he held that it was of vital importance that there should be that amount of independence in the medical officers and sanitary inspectors as would give them the consciousness that unpopular and invidious as their duties must often be they would not be subject to dismissal merely on the ground of the unpopularity of their proceedings.—Dr. Farquharson was glad that the Lord Advocate was going to stand firm on that point. It was of paramount importance that those medical officers should be so entirely independent of local feeling and local prejudice as to be able to do their duty without any fear of possible danger to themselves from faithfully performing it. The amendment was negatived.

On the following day (Tuesday, the 23rd), on Clause 43, Dr. Clark moved the insertion of words providing that no person shall hereafter be appointed the medical officer of any county or district unless he "is a registered medical practitioner." The wording of the clause as it stood would exclude a large number of men who were qualified for the post of medical officer. The amendment was agreed to. Dr. Farquharson moved to insert the following subsection:—"Every medical officer and every sanitary inspector appointed under this Act or under the Public Health Acts shall be removable from office only with the sanction of the board of supervision." Mr. Esslemont opposed the amendment, and Dr. Cameron and Dr. Clark supported it in principle. The Lord Advocate hoped the hon. member for West Aberdeen would adhere to his amendment as it stood, and that he would not desire the sanitary inspectors to be excluded from protection. They would require protection as much as the medical practitioners. The amendment was carried by 229, against 126.

The Bill was read a third time on the following day (Wednesday, the 24th).

Universities (Scotland) Bill.

On Wednesday, the 24th, this Bill as amended was considered. On Clause 10, which relates to the composition of the Commission, the name of Sir William Thomson was added. The names of Mr. Walter Graham Blackie, Mr. S. H. Butcher, Dr. Patrick Heron Watson, and Mr. Fuller were also, after some discussion, agreed to; whilst that of Mr. Alexander Bain was rejected by 179, against 143. A proposal by Dr. Farquharson to add the name of Mr. William Bruce, A.M., M.D., the elected representative of Scotland on the General Medical Council, was negatived. An amendment by Mr. Wallace, fixing the maximum fee at three guineas, was rejected by 199, against 114.

The Commission on Vaccination.

In the House of Commons on Thursday night, Mr. John Ellis asked the President of the Local Government Board whether, inasmuch as the subject of notification of infectious diseases is embraced in the inquiry referred to the Commission on Vaccination, he proposed to press forward the Bill for the Notification of Infectious Diseases now before the House.—In reply, Mr. Ritchie said: I cannot concur in the suggestion that the fact that one of the questions referred to the Royal Commission on Vaccination—i.e., "What means other than vaccination can be used for diminishing the prevalence of small-pox"—has any practical bearing on the question of the notification of infectious diseases, and it is my intention to press forward the Bill on that subject now before the House.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

HART, F. J. LORIMER, M.B.Ed., C.M., L.M., has been appointed Medical Officer and Public Vaccinator to the Wansford District of the Stamford Union, and Surgeon to the Oddfellows and other Friendly Societies.

HOSEGOOD, SAMUEL P., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer of the Infirmary, Hamlet of Mile-end Old Town.

JEROME, ERNEST J., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of the Camelford District and Workhouse Infirmary, Camelford Union.

LYTLE, J., M.D., M.Ch. Qu. Univ. Irel., has been appointed Surgeon to the Foresters' Medical Aid Association, Shrewsbury.

MACDONALD, JAMES A., M.D., M.S., R.U. Irel., has been appointed Medical Officer of the Taunton St. Mary District, Taunton Union.

MACGILVRAY, WILLIAM J. HOOKER, L.R.C.P., L.R.C.S., L.M. Edin., &c., has been appointed Medical Officer of the Royal Humane Society for Kensal-green, W.

ODELL, THOS., M.R.C.S., L.S.A., has been reappointed Medical Officer of the Third District, Hertford Union.

PARSONS, F. J. C., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health, Bridgwater Union and Rural Districts.

REID, GEO., M.D., M.B., C.M. Aberd., has been (temporarily) appointed Medical Officer of Health of the County of Staffordshire.

ROBERTS, REGINALD, M.R.C.S., L.S.A., has been appointed Assistant House Surgeon to the Royal South Hants Infirmary, vice Sydney Herbert, resigned.

SHAW, L. E., M.D. Lond., M.B., M.R.C.P., M.R.C.S., has been appointed Curator of the Museum, Guy's Hospital.

UNDERWOOD, ARTHUR SWANE, M.R.C.S., L.D.S., has been appointed to the Chair of Dental Surgery at King's College, and Dental Surgeon to King's College Hospital, vice Ashley Gibbings, resigned.

WARD, G. S., L.R.C.P., L.M., L.R.C.S. Edin., has been reappointed Medical Officer of the Fifth District, Hertford Union.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BIRMINGHAM WORKHOUSE INFIRMARY. — Senior Resident Medical Officer. Salary £150 per annum, with board, lodging, washing, and attendance.

BOROUGH OF NOTTINGHAM.—Medical Officer of Health.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Assistant Physician.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House Surgeon.

HOSPITAL FOR WOMEN, Soho-square, London.—House Physician. Salary £75 per annum, with board, &c.

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LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Registrar and Chloroformist. Salary 50 guineas per annum, non-resident.

NORTH CAMBRIDGESHIRE HOSPITAL, Wisbech.—House Surgeon, and to undertake the Secretary's duties. Salary £130 per annum, with detached house, furnished. Coals, gas, and water provided.

RIPON DISPENSARY AND COTTAGE HOSPITAL, Ripon.—Resident House Surgeon and Dispenser. Salary £70 per annum, with board and lodging.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Junior House Surgeon. Salary £50 per annum, with board and residence.

SOMERSET AND BATH LUNATIC ASYLUM.—Junior Assistant Medical Officer. Salary £100 per annum, with board, lodging, and washing.

TOWCESTER UNION, Towcester.—Medical Officer of the Workhouse and the Towcester District of the Union. Salary £110 per annum, exclusive of Midwifery, surgical fees, vaccination fees, and drugs.

TOWN OF HOVE, Sussex.—Medical Officer of Health for the Town of Hove. Salary £100 per annum.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Honorary Dental Surgeon.

Births, Marriages, and Deaths.

BIRTHS.

BLOUNT.—On July 20th, at Alexandra-road, Hornsey, the wife of Arthur Blount Blount, M.R.C.S., L.R.C.P., L.S.A., of a son.

CHURCHOUSE.—On July 15th, at Long Buckby, Rugby, the wife of W. J. Franklin Churchouse, L.R.C.P., &c., of a daughter.

ELLIOTT.—On July 16th, at Andover, the wife of Dr. F. Elliott, of a son

LANE.—On July 23rd, at St. Thomas's-st., S.E., the wife of W. Arbuthnot Lane, M.S., of a daughter.

MILLER.—On July 17th, at Horwoods, Basingstoke, the wife of Frederic D. Miller, L.R.C.P. Lond., &c., of a son.

STEWART.—On July 19th, at 98, Redcliffe-gardens, South Kensington, the wife of Dr. Howard D. Stewart, of a daughter.

THORN.—On July 17th, at Southend, the wife of Harry Thorn, L.D.S., Dental Surgeon, Gloucester-road, South Kensington, S.W., of twins, son and daughter.

WILKINSON.—On July 21st, at Elwick-road, Ashford, Kent, the wife of J. Cooper Wilkinson, L.R.C.P. Lond., M.R.C.S., of a daughter.

WORNUM.—On July 19th, at College-terrace, Belsize-park, Hampstead, the wife of G. Porter Wornum, M.R.C.S. Eng., of a daughter.

MARRIAGES.

BARRINGTON—SWAINE.—On July 18th, at St. Nicholas', Guildford, Harry E. W. Barrington, Army Medical Staff, to Alice Muriel, youngest daughter of the late W. E. Swaine, of Brabaeuf, Guildford.

CORKHILL—COLLINGWOOD.—At Christ Church, Derby, Joseph G. G. Corkhill, M.B., eldest son of Joseph Corkhill, of Bootle, to Amy, second daughter of the late William Tidd Collingwood, of South Hackney, London.

FERGUSON—HUNTER.—On July 6th, at St. Andrew's Church, Cutch Bhuj, by the Rev. W. Scott, B.A., Surgeon-Major J. E. Ferguson, M.B., Bombay Medical Service, eldest son of the late John Ferguson, M.D., of Nigg, Kincardineshire, to Grace Alexa, eldest daughter of Lieut.-Col. F. M. Hunter, C.B., C.S.I., Political Agent, Cutch.

FLUX—MANN.—On July 16th, at St. James', West Hampstead, by the Right Rev. the Bishop of Colchester, D.D., assisted by the Rev. A. W. Flux, M.A., brother of the bridegroom, George Belben Flux, M.R.C.S. Eng., L.R.C.P. Lond., M.D. (Brux.), &c., of Highworth, Wilts, to Florence, daughter of the late G. Mann, of Hamilton-terrace, N.W.

KING—OULD.—On July 18th, at St. Oswald's Church, Chester, Henry William King, M.D., M.R.C.S., of Chester, eldest son of W. N. King, of Great Barton, Suffolk, to Annie Sarah, daughter of the late Rev. Fielding Ould, Rector of Tattenhall, Cheshire.

LERMITTE—SCOTT.—On May 28th, at St. Andrew's Church, Walkerville, South Australia, Charles Gower Lermitte, M.R.C.S. Eng., second son of the late Frederick A. Lermitte, Windsor, Ontario, Canada, to Augusta Katherine Winifred, youngest daughter of E. B. Scott, of Yatala, South Australia.

WICKHAM—WADHAM.—On July 17th, at St. John's, Duncan-terrace, N., O. A. Wickham, M.R.C.S., L.R.C.P. Lond., of Arundel-square, N., to Lydia, daughter of F. Wadham, and adopted daughter and niece of the late David Howell, Solicitor.

DEATHS.

CURREY.—On July 15th, in London, J. Edmond Currey, M.D., of The Villa, Lismore, Ireland, aged 70.

HUTCHINSON.—On July 19th, at High-street, Bridlington, Christopher Francis Hutchinson, M.D., aged 81.

KEANE.—On July 11th, at Castle Connell, Limerick, Marcus William Allatson Keane, L.R.C.S., L.R.C.P. Edin., youngest son of the late Rev. W. Keane, Rector of Whitby, Yorks., aged 28.

STEELE.—On July 18th, at Somers-road, Reigate, John Sisson Steele. M.R.C.S., L.S.A., in his 80th year.

WEBBER.—On July 20th, at Abbey-road, St. John's-wood, after many years' suffering, Charles Samuel Webber, F.R.C.S., in his 80th year.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 25th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. in Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
July 19	29·95	N.E.	59	54	114	73	53	..	Hazy
,, 20	29·83	S.W.	63	55	88	67	55	..	Raining
,, 21	29·70	W.	64	59	111	70	59	·02	Cloudy
,, 22	29·88	N.W.	59	53	111	70	52	·67	Cloudy
,, 23	29·81	W.	60	55	101	66	53	..	Overcast
,, 24	29·82	W.	59	55	104	68	51	·39	Cloudy
,, 25	29·60	W.	61	57	89	64	57	·07	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE QUESTION OF MEDICAL AID IN BARNSLEY.

THE *Sheffield Telegraph* intimates that there has been much discussion in Barnsley over the proposal to have an association whose members shall be attended by a medical man to be appointed, and to provide surgeries at various convenient points. The friendly and trade societies have been asked to join; the subscription, "when fairly reckoned up," to be 3*d.* to 4*d.* per week per family, it being said that similar associations flourish in Leeds, Bradford, and other towns. By all means let the question be discussed in connexion with other schemes, and let the working classes of Barnsley, with its 30,000 inhabitants, consider whether it is better to be doctored wholesale by one man, without the alternative of choice, or to have some individual attention from a selected practitioner. There is nothing in which preference and selection go for so much as in the question of medical attendance, and to be doctored in a crowd by a practitioner chosen by a crowd is not the arrangement that is likely to answer best. The question of 10*s.* or 20*s.* a year, more or less, for medical expenses is not so important to a respectable working man as the freest range of choice for a medical man whom his wife and children prefer

G. W. H.—Any registered medical practitioner can treat the case. We do not give advice.

Cyclops.—1. The question of "right" is one for the company alone.—2. Yes.

"OPHTHALMIA NEONATORUM."

To the Editors of THE LANCET.

SIRS,—In your issue of to-day's date, under the above heading, I see an annotation on the Report of the Royal Commission on the Blind. It is therein suggested that a paper should be given to the parents or relatives of the child at the time of the registration of the birth, and that this paper should contain a short account of the disease, indicating its gravity, &c. If any material good is to be done by advice to parents in respect of this affection, it is essential that it should be given at the onset, and not after it has been established an indefinite time. Registration of births is often delayed two or three weeks after the event, and eyes may be irreparably damaged before the notice of the parents is directed to the dangerous character of the disease. Would it not be more effectual to supply the paper in question to parents at the time of the confinement through the medium of the medical attendant? I am sure no reasonable practitioner would refuse to comply with this request of the Commissioners were these gentlemen to make it. The proportion of parturient women who call in the midwife must surely be small as compared with those who seek the general practitioner's assistance. I am, Sirs, yours truly,

Seymour-street, W., July 20th, 1889. A. ST. CLAIR BUXTON.

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THE RABIES ORDER.

ACCORDING to the *Law Journal*, the Rabies (City and Metropolitan Police Districts) Order of 1889 is a local and temporary order, based on the Rabies Order, 1887, which is a permanent and general order. Rule 5, which provides that the local authority shall cause all dogs affected with or suspected of rabies, or having been bitten by a dog so affected or suspected, to be forthwith slaughtered, is made under Section 6 of the Contagious Diseases Act, 1886, which provides that the Privy Council may authorise the slaughter of animals by local authorities, "either generally or in particular instances, and in all or any of such cases the payment of compensation for the same by local authorities out of the local rate." The present order is made "generally," and, *reddendo singula singulis*, the section must be read as requiring that in all such cases—that is, where disease exists or is suspected—compensation must be ordered out of the local rate. If this is the true reading of th section, Rule 5 of the new order is beyond the powers of the section, as not containing one of the conditions essential to its exercise.

Student.—G. R. Cutter's book, published in New York, would probably answer the purpose of our correspondent.

THE "QUEEN'S JUBILEE" HOSPITAL.

To the Editors of THE LANCET.

SIRS,—Referring to a letter which appeared in your last issue containing a statement by a Mr. C. S. Loch, who styles himself "Secretary of the Society for Organising Charitable Relief and Repressing Mendicity," I am requested to ask you to publish the following replies.

Mr. Loch says that on the Saturday preceding Hospital Sunday a collection was made on behalf of this hospital by persons carrying boxes in the streets. To this I reply that the Queen's Jubilee Hospital made no collection whatever on the Saturday preceding Hospital Sunday, and no collection boxes were used on its behalf on that day. He further says that boys collecting for this hospital on the Saturday preceding Hospital Sunday wore badges inscribed "Hospital Sunday Fund." I reply that never has anyone carrying a collection box in aid of this hospital worn a badge of any description. Your correspondent then suggests that by the alleged devices the public had been induced to mistake this collection for the one instituted by the Hospital Sunday Fund. To this I reply that, apart from the fact of there having been no collection on our part on that day, never has there been on our collection boxes any writing calculated to mislead the public, nor have we pretended in any of our collections that they have been in connexion with the Hospital Sunday or any other fund. As regards Mr. Loch's statements concerning the increase and status of special hospitals, they are obviously quite inapplicable to this institution, inasmuch as this is not a special, but a general hospital. I enclose our last annual report, by which you will see that we are treating over 400 cases weekly, and yet do not participate in either the Hospital Saturday or Sunday Funds.—I remain, Sirs, faithfully yours

(For the "Queen's Jubilee" Hospital),
July 22nd, 1889. GEO. A. BEVAN, Secretary.

"MEDICAL ADVICE FREE: MEDICINE 2D. PER BOTTLE!"

To the Editors of THE LANCET.

SIRS,—I must ask you, in deference to the widespread feeling in our neighbourhood, to publish the accompanying letter, to correct the erroneous impression which the letter you published in your last issue would probably create. The whole tone of the letter is quite beside the question. What we object to solely is not the formation of "non-pauperising" dispensaries, but the gross and shameless advertising by means of handbills, which are placed under every knocker and into every letter-box in the whole district. This we do object to. What can this be termed but touting? It is notorious amongst us, under this guise of charity (?), how this new-fangled system of dispensaries is carried on and made to pay. To call this charity is, as you remark, the greatest abuse of language, combined with the greatest stretch of imagination. In conclusion, I may just add that we are in process of sending up a petition to the Irish College of Physicians, signed by over forty medical men in the immediate neighbourhood, drawing their serious attention to the matter.—I am, Sirs, yours faithfully,

July 23rd, 1889. PRO BONO PUBLICO.

BABY-FARMING IN FRANCE.

M. LEDÉ recently placed before the French Academy some statistics as to baby-farming, which go far to account for the unsatisfactory decrease of the population of Paris. Of 5819 children born in the capital and farmed out when about a fortnight old in five different departments 2241 legitimate children were given into the charge of women who undertook to feed them on human milk. Of these exported infants 401 were taken back by their parents during the first year; of the 1840 remaining in the country 228 died. Then, again, 1487 legitimate children were farmed out to be brought up by the bottle; 297 went back to their parents after a few months; and of the remaining 1190 babies 525 died during the first year. The mortality among the illegitimate infants put out to nurse was even greater, being 35 per cent. among those fed on human milk, and nearly 60 per cent. among those brought up by the bottle.

An M.R.C.S. has not enclosed his card.

LUNACY LAW: SINGLE PATIENTS.

Larnaca.—1. The father's guardianship, and his power of transferring it, under the circumstances mentioned, would appear to cover the rightful requirements of the case. No definite age is given as protective against legal responsibility.—2 The following is the wording of Clause 33 (1) of the Lunacy Acts Amendment Bill, having reference to single patients:—

"After the commencement of this Act, except in the case of persons who shall by the medical certificates accompanying the reception orders, be certified to be suffering from unsoundness of mind of a temporary character, or from decay of mind in old age, or to be desirous of voluntarily submitting to care and treatment, no order shall be made for the reception of a lunatic as a single patient in a house belonging to or kept by a medical practitioner, except by the Judge in Lunacy, who is hereby authorised to make the same, and every such order shall, subject to the General Orders in Lunacy for the time being in force, be obtained in the same manner and subject to the same conditions as an order made by a judge of county courts, magistrate, or justice upon petition under this Act. The provisions of the Lunacy Acts, and of this Act relating to single patients, and all other relevant provisions, shall apply to patients for whose reception an order is made by the Judge in Lunacy under this sub-section, and the person upon whose application the order is made shall, with reference to the lunatic to whom the order relates, have and be subject to the same authorities, powers, obligations, and liabilities, as if the order had been made by a judge of county courts, magistrate, or justice, upon the petition of the applicant."

Attempts are being made in committee to have the terms of the clause modified. In the present unsettled and shifting state of the details of the lunacy laws generally, we think the best and safest course is to refer cases of question and difficulty to the Commissioners in Lunacy.

"REJUVENESCENCE OF THE HAIR."

To the Editors of THE LANCET.

SIRS,—Seeing an account of the rejuvenescence of the hair described by Dr. O'Neill in your last issue, I thought it would be interesting to bring before your notice another case, which has happened lately in my practice—on Jan. 23rd last.

A patient of mine, J. M——, aged sixty-one, grey-headed and bald (I believe he lost his hair somewhat early), noticing a strong smell of gas in his drawing-room, proceeded to discover the cause with the aid of a lighted candle. He certainly found the leakage, at the same time causing an explosion, which set fire to the place, and blew off what hair he possessed, severely burning and blistering the scalp. He recovered from the shock in a few days, and when the burns had healed went about as usual, wearing a silk cap. I saw no more of my patient until last week, when he called to pay his half-yearly account and to show me his "new head of hair." It is somewhat of a dull brown colour, with a few white hairs amongst it. It has grown all over his head, so that he is no longer bald. He tells me he now has quite as much as he had when thirty years of age, and he quite considers his "restorer" a powerful rival to any advertised.—I am, Sirs, yours truly,

West Norwood, S.E., July 22nd, 1889. JOHN B. HARRIS, M.D.

THE JONES FUND.

THE following subscriptions have either been received or promised in response to the appeal made last week on behalf of Mr. Jones of Edmonton:—

A. Durham, Esq.	£2	2	0	E. Nettleship, Esq.	£1	1	0
Messrs. Jackson and Ward	2	2	0	Dr. W. M. Ord	1	1	0
S. Sibley, Esq.	2	2	0	Sir E. Saunders	1	1	0
Dr. J. O. Adams	1	1	0	Dr. Brodie Sewell	1	1	0
Dr. Bridgwater	1	1	0	T. Smith, Esq.	1	1	0
Dr. Bristowe	1	1	0	W. P. Warren, Esq.	1	1	0
Dr. Hare	1	1	0	Dr. Dickson	0	10	6
Dr. J. W. Hunt	1	1	0	Dr. A. T. Gibbings	0	10	6
Sir W. Mac Cormac	1	1	0	St. Clair Shadwell, Esq.	0	10	6
C. Macnamara, Esq.	1	1	0	E. English, Esq.	0	7	6

The total amount of Mr. Jones's legal expenses was about £60.

CHARITY VOTING REFORM.

To the Editors of THE LANCET.

SIRS,—The committee of this Association direct me to thank you for calling attention in your last issue to the evils of canvassing for the benefits of some of the principal London charities. The extracts from the letters of the candidates which I beg to enclose are conclusive as to the absolute necessity for abolishing the voting and canvassing system. Hardships are imposed upon the poor at the very time when, from a medical point of view, their difficulties and sufferings should be relieved, instead of being aggravated. The lists of subscribers to the voting charities, especially the Medical Benevolent College, contain the names of a large number of medical practitioners. To them I beg leave to appeal through the medium of your columns to use their best endeavours to bring about a different state of things by communicating their objections to the voting system to the committees of the various charities to which they subscribe.—Your faithful servant,

J. A. DOW, Secretary.

Charity Voting Reform Association, 30, Charing-cross, S.W.,
July 24th, 1889.

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THE BRITISH NURSES' ASSOCIATION.

THE report of the recent meeting of the above-named Association at the Mansion House is in type, but, being of considerable length, is unavoidably crowded out of our present number.

E. W. (Lowfield).—No. The resignation of the one involves that of the other.

THE "EXCELSIOR" BED-LIFT.

To the Editors of THE LANCET.

SIRS,—As inventor and patentee of the "Excelsior" Bed-lift, may I be permitted to supplement Mr. Cowell's observations by saying that the lift is on view daily until 4 P.M. (Saturdays excepted) at the offices of the British Nurses' Association, 8, Oxford-circus-avenue (231, Oxford-street), where visitors will be afforded every facility for examining the appliance? I am, Sirs, faithfully yours,

Tulse-hill, S.W., July 20th, 1889. HELEN MONKHOUSE.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Bristowe, London; Mr. J. M. Menzies, London; Mr. Lloyd-Owen; Prof. Horne-Rosenberg, Venice; Mr. J. A. Dow, London; Mr. F. W. Jollye, Warminster; Dr. A. G. Miller, Edinburgh; Surgeon-General Johnston; Mr. A. Miles, Edinburgh; Sir J. Grant, Ottawa; Messrs. Maw and Son, London; Dr. F. T. Bond, Gloucester; Dr. T. H. Manley, New York; Mr. T. W. Thompson, London; Messrs. McEwan, Brown, and Wyatt, Boscombe; Mr. H. A. Jackson, Coventry; Mr. St. Clair Buxton, London; Mr. Davidson, Congleton; Mr. Weatherley, New Ferry; Mr. Siewers, London; Mr. E. H. Hare, London; Drs. Leslie Phillips and Bateman; Dr. Price, London; Mrs. Monkhouse, Tulse Hill; Mr. Condy, London; Dr. Spender, Bath; Messrs. Harrison and Branthwaite, Halesowen; Mr. Rivington, London; Dr. Masterman, Stourport; Mr. A. B. Macdowall, London; Mr. Addison, Glasgow; Mr. Praagh, London; Mr. Whitton, Towcester; Mr. Wood, Pontypool; Dr. White, London; Mr. Turner, Suffolk; Mr. Kinsey-Morgan, Bournemouth; Mr. Potter, Bradford; Mr. Bennett, Liverpool; Dr. T. Harris, Manchester; Mr. R. B. Brookes, Tottenham; Mr. Pugin Thornton, Canterbury; Mr. T. N. Thomas, Leicester; Messrs. Cook and Son, London; Dr. Steele, London; Mr. E. Clark; Mr. Howard Marsh, London; Mr. Field, London; Mr. Loch, London; Mr. Hogg, Leeds; Mr. Foulerton, Chatham; Mr. McAndrew, Dalkeith; Dr. J. B. Harris, Norwood; Mr. Kelynack, Manchester; Dr. C. S. Watson, London; Mr. Freeman, London; Mr. Schofield, Wisbech; Mr. R. R. Sleman, London; Mr. Woolley, Hove; Dr. C. W. Ward, Chicago; Dr. Macfarlane, London; A Subscriber, Chester-le-Street; Birmingham Infirmary, Birmingham; M., London; Lowfield; Fairplay; Nursing Record, London; Shenfield; Cyclops; Western General Dispensary, Marylebone; Alpha, Bangor; M.D., London.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Earle, Brighton; Mr. Davies, Wales; Mr. Brooks, Acton; Mr. Latham, Wakefield; Messrs. Maclehose, Glasgow; Mr. Banks, Southampton; Mr. Graham, Northampton; Mr. Crassweller, London; Mr. Lawson, London; Mr. Leigh, Liverpool; Mr. Allen, Grimsby; Mr. Williams, London; Mr. Williams, Wales; Mr. Forbes, Oldham; Mr. Wilson, Leeds; Dr. Muir, Monmouth; Mr. Taylor, Norwich; Mr. Driver, Chelmsford; Mr. Heywood, Manchester; Messrs. Richardson and Co., Leicester; Mr. Bastian; Mr. Millard, Reading; Mr. Shepherd, Lincoln; Mr. Vachell, Monmouth; Mr. Nicholls, Bury St. Edmunds; Mr. Ashwell, Dewsbury; Mr. Strudwick, London; B.A., London; Freemason, London; E. L., Bournemouth; Junior, Exeter; High Shot House, Twickenham; B.A., Strand; Surgeon, London; Lady Superintendent, Kent; S., Peckham; Medicus, Lochgoilhead; Zeta, London; P. M., London; C. A. S., London; C., London; Florence, Yorks; P. B. D.; Beta, Sussex; E. J. F., Canary; M.D., F.R.C.S., London; Secretary, Cambridge; Alpha, London; Z., London; The Hospital, Salford; W. L., London; X. Y., Greenwich; University College, London; F. P., Birkenhead; Dorset, London; Lux, Liverpool; Surgeon, Gloucester; Meredies, London; Delta, London; Beta, London; Oliver, London; H. H., London; A. L. C., Notts; North, London; Chemicus, Kidderminster; Reisender, London.

Derby and Chesterfield Reporter, Hertfordshire Mercury, Ashton-under-Lyne Reporter, Brecknock Beacon, Reading Mercury, Mining Journal, Newport Observer (R. I.), Weekly Free Press and Aberdeen Herald, North Star (Darlington), Surrey Advertiser, Western Times, Pendleton, Salford, and Broughton Reporter, Carlisle Journal, Glasgow Herald, &c., have been received.

Medical Diary for the ensuing Week.

Monday, July 29.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M. and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations P.M., and each day in the week at the same hour.

Tuesday, July 30.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

Wednesday, July 31.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, August 1.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Friday, August 2.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, August 3.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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Agent for the Advertisement Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

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ABSTRACT OF

The Croonian Lectures

ON THE

RELATIONSHIP BETWEEN CHEMICAL STRUCTURE AND PHYSIOLOGICAL ACTION.

Delivered at the Royal College of Physicians of London,

By T. LAUDER BRUNTON, M.D., F.R.S.,

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS; ASSISTANT PHYSICIAN AND LECTURER ON MATERIA MEDICA AT ST. BARTHOLOMEW'S HOSPITAL.

LECTURE IV.

THE two classes of drugs, general anæsthetics and local anæsthetics, both abolish pain: the latter by acting upon the peripheral terminations of sensory nerves, so that they do not receive the painful stimuli; and the former upon the nerve centres, so that they do not perceive them. But pain will also be relieved by interference with the transmission of impressions along the sensory nerve trunks or the paths in the spinal cord. Cocaine has this effect when locally applied, for when injected near a nerve it produces anæsthesia of the whole district to which the nerve is distributed, the spinal cord and cerebral cortex being affected in a similar manner, the insusceptibility to stimulation extending also to the motor functions. As is sometimes seen under the influence of cold, a nerve tract may continue capable of conduction, though actual stimulation of the fibres is without obvious effect. Loss of conductivity may also be produced by the application of various substances to the nerve trunks. Thus carbonic acid and phenol were found to destroy the irritability of the nerve before its conducting power was affected; whereas alcohol and ether destroyed conductivity before irritability disappeared. So that, in the first place, irritation beyond the site of application of the drug produced contraction of the attached muscle; and, in the second, stimulation of the actual site did so; the application of the faradic current in the first instance to the drugged portion of nerve, and in the second to the part beyond, producing no movement. On the other hand, though orthodimethyl benzene or orthoxylene had next to no action, paroxylene, and still more metoxylene, increased the irritability of the nerve, so that a single stimulation produced tetanus. Painful impressions are conveyed by the grey substance in the spinal cord. Tactile impressions are conveyed by the white matter, probably in the lateral columns. The latter are conveyed more quickly to the brain than the former, and a more powerful impression is required to produce a painful impression than a tactile one. This may be referred to the more direct course of the tactile fibres in the white matter, as compared with the zigzag course afforded by the branching cells of the grey substance, which presents greater resistance and more opportunity for loss. Thus, unless the stimulus is tolerably powerful, none of it may pass upwards to the brain, and therefore no painful sensation will be perceived. But, on the other hand, it would appear that the cells in the grey substance in the spinal cord or the sensory ganglia of the brain may be so excited by a succession of very feeble stimuli, each reinforcing the other, that the extremest agony may be produced. Thus we have all heard that one of the most dreadful tortures of the Spanish Inquisition consisted of allowing a single drop of water to fall at regular intervals; and Naunyn has found that in some cases of spinal disease intense pain may be caused by gently touching the foot with the point of a camel's hair pencil at regular intervals. A summation of the stimuli appears to go on in the cells, each stimulus increasing the effect of the preceding, just as a slight touch upon a swing, repeated at the proper moment, will send it higher and higher, until it oscillates to the fullest extent of which it is capable. But if similar touches be applied to the swing so as to interfere with, instead of to assist, its oscillation, they will soon bring it to rest. These correspond with a case of summation and one of inhibition. We seem to have a somewhat similar condition in the nervous system. In making experiments with one of Francis Galton's whistles, I found that when adjusted so that the sound produced was almost at the upper limit of the sense of hearing, and when blown continuously, the sound was alternately audible and inaudible, though no corresponding change occurred in the strength with which it was blown. A similar observation was made by the younger Remak in relation to pain in a case of tabes dorsalis. He found that when a faradic current was applied by a brush the sensation it produced gradually increased, then diminished, and increased again, although the strength of the current remained perfectly the same. With a weak current, the increase each time became less and the pauses between became greater, until at last no sensation was felt. With a stronger current the sensation gradually increased until it became so painful as to be unendurable. I observed some years ago a capillary pulsation in man which usually occurs about once in twenty seconds, and this appeared to be nearly the time of each wave of hearing, but in Remak's case the waves of sensation were from twenty to fifty seconds.

A marked analogy seems to exist between sensory and motor processes in the spinal cord, Stirling having showed that reflex contractions only occur from repeated shocks to the nerve centres—that is, through summation of successive stimuli. According to Naunyn, the same rule holds good for pain, which he regards as also a consequence of summation, taking place in the grey substance. Extraordinary motor effects can be produced by the application of extremely slight stimuli to the skin, the most sensitive parts being the soles of the feet. Yet, of all parts of the body these are liable to the most constant and severe stimulation in walking, running, and leaping. Possibly the different effect of a slight stimulus like the touch of a feather, which causes intense reflex action, and of a gentle but steady pressure of the finger, which gives rise to no reflex action at all, may be due to the stimulation by the latter of two sets of nerves, which counteract or inhibit each other. A similar phenomenon to the effect of steady pressure in lessening reflex action may be observed in the relief afforded by rubbing or stroking a part which has been pinched or bruised, or by scratching an itching spot.

Analgesics possibly have some effect on nerve endings, peripheral and central, as well as upon nerve trunks and nerve cells, the parts free from medullary sheath being most accessible. This appears to be the case with cocaine, which paralyses the peripheral terminations of the nerves before the fibres in the trunk. Probably the sensory impulses which in the normal condition would give rise to summation in the cord or sensory ganglia, and, being transmitted to the brain, give rise to pain, may be diffused from one cell to another, and the impulses, instead of causing summation, may even produce inhibition. Most of the analgesics, as distinguished from the anæsthetics, tend to cause irradiation of motor impulses, with excitement of reflex action. This condition is observed when frogs are poisoned by the most powerful of all analgesics—namely, morphine; and it is common to most of the others—cocaine, antipyrin, antifebrin, phenacetin, and exalgine. All those substances belong to the aromatic group of bodies, and it is in this group that we are likely to find the most powerful drugs to relieve pain as well as to reduce temperature. The constitution of morphine is very complicated, and not yet completely known, but it is probably a quinolin of phenanthrene. Antifebrin (phenyl acetamide) consists of aniline in which one atom of hydrogen is replaced by acetyl, and may be regarded as ammonia in which one hydrogen atom is replaced by phenyl and another by acetyl; or as benzene in which one atom of hydrogen has been replaced by NH_2, and thus converted into aniline, and then an atom of H in the NH_2 has been replaced by acetyl, $CO.CH_3$. When regarded from this point of view it is called acetanilid.

Ammonia and its salts stimulate and afterwards paralyse the spinal cord, the stimulant action being most marked in ammonia, ammonium bromide, and chloride; and the paralysing in the iodide. The compound ammonias have a much more powerful paralysing action both on the spinal cord and the motor nerves, especially the latter, this effect being, again, most marked in the case of the iodides. The aromatic compounds all tend to produce increased sensibility, incoördination and tremor, but they do not all seem to affect the spinal cord alike, for while benzene and its haloid com-

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pounds produce in frogs tremors like those of disseminated sclerosis in man, ethyl benzene brings about short clapping ineffective movements like those of locomotor ataxy. Aniline may either be regarded as benzene in which one atom of hydrogen has been replaced by amidogen, or as ammonia in which one atom of hydrogen has been replaced by phenyl. In accordance with this constitution, the symptoms produced by it resemble those of ammonia in the tendency to more violent spasm and to greater paralysis of muscle and nerve, whilst they differ from those of ammonia inasmuch as the convulsion never assumes the form of true tetanus. If the hypothesis be correct that a relation exists between the power of a drug to cause diffusion of motor and sensory stimuli in the cord, one would expect that substances which cause tetanus, like ammonia, chloride of ammonia, and strychnine, ought to act in some measure as analgesics. This may be the case, since ammonium chloride is sometimes a very successful remedy in the treatment of neuralgia, and strychnine in the lightning pains of locomotor ataxy. But the fact that ammonia, benzene, and ethyl benzene, while all tending to produce spasm, cause movements of such different kinds, indicates that they affect the motor parts of the cord in different ways. We might expect, therefore, that similar differences would exist in the sensory parts, so that one drug might have a special tendency not only to relieve pain in general, but to relieve a particular sort of pain more than another.

According to Dujardin-Beaumetz the analgesic power is most marked in those amidogen derivatives of the aromatic group in which an atom of hydrogen is replaced by an alkyl, and especially by methyl; whilst the antipyretic action is most marked in the amidogen derivatives in which no such substitution has taken place. The position of the methyl in the group is a matter of some importance, meta methyl acetanilide being the only one which retains the antipyretic action, the para compound being inactive and the orthotoxic. The latter, though not antipyretic, has a marked analgesic power, and has been called exalgine. If the two hydrogen atoms in the amidogen group of ortho-amido-phenol be replaced by two of methyl, a weak narcotic substance is produced, which is still weaker if the hydrogen in the hydroxyl be similarly replaced; but if all these are replaced by ethyl, the substance has a distinct narcotic effect and a powerful analgesic action. The combinations of such bodies are numberless, and a great increase in the number and power of analgesics may be expected; it is necessary, however, to be cautious in their use, as the habitual exhibition of such drugs, as is seen in chloral, may have a deleterious effect upon the mental functions, upon the condition of the spinal cord, or upon the blood.

It is of the utmost importance in the treatment of disease to maintain the action of the heart and to stimulate it when it is flagging. Amongst cardiac stimulants beef-tea still maintains a foremost position. We have drugs which increase the power of the heart, and which are most useful in their place—digitalis, strophanthus, convallaria, adonis vernalis, and erythrophlœum, and the whole class of drugs usually known as cardiac poisons. Unfortunately these drugs do not always give us the result we desire, and at present we are often unable to say why they fail. We do not know their chemical constitution, and consequently we cannot modify it or produce at will drugs having a similar but not identical action, as we can, to a certain extent, in the case of antipyretics and analgesics. Xanthine, one of the constituents of beef-tea, has a very powerful action on voluntary muscle fibre, but its effect on the heart requires to be more carefully made out. Methyl xanthine, or caffeine, is now recognised as an important cardiac tonic. Like xanthine, it tends to increase the contraction on muscular fibre, both voluntary and involuntary, and, when its action is pushed far enough, it produces an extraordinary state of muscular rigor. In consequence of this, voluntary muscles dipped into a solution of it frequently contract to the utmost extent of which they are capable; and when applied to the frog's heart it causes the beats to become slower and the heart more and more contracted, until it ceases to beat in systole. In this action it agrees with the other cardiac tonics, like digitalis, although it usually causes firm contraction of the frog's muscle; yet sometimes it causes none at all, and may even cause elongation. The most ready explanation of this is afforded by the supposition that muscular fibre not only contracts longitudinally and thus becomes shorter, but may contract transversely and thus become longer, the different effects observed resulting from the preponderance of one or other of these. The action of drugs upon muscle is not always alike. It differs in different animals and for different kinds of muscle fibre. In the heart we are not dealing with muscular fibre only, but with nerves and ganglia as well; and the effect of any drug upon this organ is the resultant of its action, not only upon all these structures in the heart, but upon the medulla as well, the condition of contraction or relaxation of the blood-vessels also playing an important part. Most drugs belonging to the class of cardiac tonics are also local anæsthetics, and it is amongst these that some new ones may be found.

The agents which cause dilatation of the vessels most markedly are nitrites, or substances which yield nitrous acid in the blood, though all nitrites have not an equally powerful action, the efficiency of the NO_2 depending to a great extent on the radical with which it is combined, and the mode in which this combination occurs. For the group NO_2 may be arranged thus: $-O-N=O$, or $-N<^{O}_{O}$. In each of these the nitrogen is trivalent. But it may be quinquevalent, in which case the group would be $-N<^{O}_{O}$. In nitrous compounds it is probably $-O-N=O$, while in nitric compounds it is probably $-N<^{O}_{O}$. But in nitrous compounds we have two classes: nitroso and iso-nitroso. There may be considerable differences, then, in the NO_2 groups, and the action of this group is determined to a considerable extent by the alkyl to which it is joined and the manner in which the joining takes place. When we have the junction taking place through oxygen, the group NO replacing hydrogen in alcohol, we obtain the nitrites of methyl, ethyl, propyl, butyl, amyl, and so on; but when we have the nitrogen directly united to carbon by one affinity, the group NO_2 replacing hydrogen in methane, we get the nitro compounds, nitro-methane, nitro-ethane, nitro-propane, nitro-butane, and nitro-pentane. These nitro compounds appear to have less action on the vessels than the nitrites. They tend rather to produce narcosis like the haloid compounds. Amyl nitrite has a rapid action, quickly occurring and quickly passing off; other nitrites, and especially sodium nitrite, have a similar action. Both ethyl and lapryl nitrite are less active than amyl, but recently Cash and Dunstan have found that butyl nitrite is still more powerful than amyl, but it also produces vomiting. Prolonged dilatation of vessels is desirable: first, in cases where the heart is weak and barely able to carry on the circulation; secondly, where the vascular tension is very high and there is danger of rupture, as in Bright's disease. In both of these it is highly probable that we may obtain better results with the nitrites of some of the higher alkyls than with any that have yet been employed. Nitrites have a very marked action upon the blood, producing a chocolate colour, and, as it were, locking up the oxygen in the hæmoglobin, so that blood thus acted upon will neither take up nor give off oxygen so readily as normal blood. Before suffocation occurs, however, the nitrous compound becomes reduced, and the hæmoglobin then resumes its normal functions. A similar effect is produced by nitro-glycerine and also by hydroxylamine. Nitrites must almost necessarily interfere with oxidation of the blood, and probably it is on this account that they give rise to the appearance of sugar in the urine. Nitrites do not destroy blood-corpuscles, and consequently do not give rise to the presence of hæmoglobin in the urine; but a number of substances, more especially those belonging to the aromatic group, like toluylene-diamine, have this power, and an interesting question arises how far paroxysmal hæmoglobinuria may not really be a form of poisoning due to the absorption of poisonous compounds of the aromatic series, and pernicious anæmia has been attributed by Sandoz to poisoning by substances formed in the intestine and there absorbed.

The liver possesses a twofold power to prevent poisons entering the portal vein from passing into the general circulation, for it turns back some and destroys others. Some, such as the metallic poisons, are arrested, excreted by the bile, and finally ejected from the body. Some organic poisons, such as curara, appear also to be partly excreted in the same manner; but the liver appears to have the power of actually destroying them, or at any rate

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rendering them innocuous, for double the quantity of strychnine, veratrine, quinine, and morphine is required to kill an animal, if injected into the portal vein, as would be sufficient if injected into the jugular vein, while no less than three times the quantity of curara is requisite. The liver exerts a similar power over peptones and ptomaines, as well as over compounds of ammonia with weak acids, such as ammonium acetate; but chloride of ammonium is unaffected, the protective power being apparently associated with the presence of glycogen. Conversely, these bodies may be expected to exert an action upon glycogen, perhaps rendering it less easily decomposed. We can readily understand on this supposition how the addition of a single egg or a piece of cheese to a meal of bread-and-butter will increase its staying power, so that a person will be able, with this slight addition, to go on for four or five hours, instead of wanting another meal at the end of two. It would also explain the action of morphine in cases of diabetes. As Claude Bernard found that reflex dilatation of the hepatic artery would increase the transformation of sugar in the liver and induce diabetes, one was inclined to attribute the beneficial action of morphine or codeine to their sedative action on the nerve centres, preventing any irritation which might exist from affecting the hepatic vessels. But Mitchell Bruce has clearly shown that this is not the case, and that we must look to a direct action of morphine upon the liver itself for an explanation of its utility in diabetes.

There are a number of drugs which will produce temporary glycosuria. Many of these are supposed to act by dilating the hepatic artery; for example, amyl nitrite, curara, ortho-nitro-propionic acid, and methyl delphinine, chloroform, chloral hydrate, alcohol, and hydrocyanic acid. It is not improbable, however, that some of these at least may cause sugar to appear by lessening the normal processes of oxidation, by which it ought to be converted into carbonic acid. For carbonic oxide is a most powerful agent in producing glycosuria, and amyl nitrite, alcohol, and chloroform all tend to lessen oxidation. The most remarkable substance in producing glycosuria seems, however, to be phlorizin. This substance, which is obtained from the root bark of apple trees, appears to have the power of preventing the organism from oxidising or otherwise utilising sugar. When dogs are kept without food for several days, but receive phlorizin all the time, the whole of the glycogen disappears both from the liver and the muscles; but if they are still kept without food quantities of sugar appear in the urine, which can only be produced, so far as one can see, from the breaking up of the albuminous tissues of the body. In birds phlorizin causes glycosuria, even after the liver has been extirpated. Arsenic, antimony, and phosphorus all cause the glycogen to disappear from the liver, but they produce at the same time fatty degeneration; whereas phlorizin appears simply to cause a general shrinking of the liver. The secretion of bile, though itself a subsidiary function of the liver, may be taken as a gauge of its activity. Bile pigments are derived from the blood, as may be seen by injecting hæmoglobin or such substances as will dissolve corpuscles, and noting the increase of bile-colouring matter and its presence in the urine. Toluylene-diamine likewise breaks up the corpuscles and produces hæmoglobinuria, and in some cases jaundice, due to the blocking of the bile ducts by the inspissated secretion. The effect of similar poisons may be the cause of so-called hæmatogenous jaundice, and the similarity of some of the products of digestion to snake poison, which is an albumen and itself causes jaundice, supports this view. Similar poisons also occur in jequirity seed, and in the blood of hag-fishes, lampreys, and eels. Epidemic jaundice may result from poisons absorbed from the intestine. In one case, at least, jaundice of this sort came on after eating ham which appeared to be tainted; and in another case, from the same cause, which proved fatal, there was found a condition of red atrophy of the liver.

The biliary function appears to be modified in a remarkable way by many substances of the aromatic series which greatly increase the bile. Ammonia and its compounds have a very important action on the glycogenic function, and it is a very remarkable thing that a great many ptomaines belong to the class of compound ammonias or amines, and the striking action of toluylene-diamine indicated the necessity for ascertaining the effect produced by bodies of the aromatic series free from nitrogen, as compared with those combined with ammonia. Dr. Collins found that both toluylene-diamine and toluene greatly increased the flow of bile, and they have been since prescribed with good success. Most of the vegetable hepatic stimulants—iridin, euonymin, and aloes—belong to the aromatic series, and it is probably among this class that new bodies which will act upon the liver will be found. The changes in hepatic cells during digestion and after the administration of drugs have been studied by Ellenberger, Baum, and Neumann, and many members of the aromatic series have been found to increase their activity, pilocarpine and atropine, however, having a contrary effect, whilst toluylene produces congestion of the liver with shrinking of the cells. The whole subject of hepatic stimulants must be studied anew, by referring it to the latest development of pharmacology, "the pharmacology of the cell." An attempt has here, however, been made to give a brief outline of it, whilst keeping in view the practical object of these lectures—the prevention, control, and cure of disease.

REMARKS ON

THE TREATMENT OF SEVERE CHOREA BY PROLONGED SLEEP, AND ESPECIALLY BY CHLORAL HYDRATE IN REPEATED DOSES.

By W. T. GAIRDNER, M.D., LL.D.,

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THE extremely interesting and practically important communication of Dr. H. Charlton Bastian on Chorea treated by Prolonged Sleep in THE LANCET of July 13th has led me to set down (necessarily in a brief and hasty fashion) certain remarks and observations which, besides having perhaps some separate interest of their own, may be advantageously perused alongside of his. Although I am by habit and constitution careless about questions of priority, I may state that Professor Liebreich, in the third edition of his monograph on Chloral Hydrate, has quoted a case of mine published in August, 1870, which I have reason to think may thereby, in some quarters at least, have given the first decided impulse to the employment of that drug in severe cases of chorea; and my own carefully watched and by no means indiscriminate use of chloral since that time induces me to think that I may be able now to add, were it only a little, to the current information upon the subject, and even to the facts and conclusions of Dr. Bastian's article aforesaid. The case in question was recorded in the *Glasgow Medical Journal*[1] as an isolated and probably unique observation; and, not having been largely commented on or followed up by others at this time, it might easily have been lost sight of altogether in the crowd and press of therapeutical printed matter, had it not been for the deliberate, and on the whole satisfactory, references of such authorities as Liebreich, von Ziemssen, and more recently Hilton Fagge and Gowers, in treating of the subject. The observation of Bouchut, specially referred to by Dr. Bastian, was published in 1873,[2] and is no doubt fully entitled to the position assigned to it in giving the first suggestion to his own employment of the remedy. Still, the main facts of my case in 1870 are so curious, and so little capable of being reproduced in the way of a practical experiment in therapeutics, that it will scarcely be regarded as superfluous now to give a brief account of them here.

The patient was a girl of eight years of age, healthy otherwise, who had been twice admitted to treatment in the Glasgow Royal Infirmary—viz., in April, 1869, and in January, 1870. On the first occasion the disease was successfully treated, as usual, by arsenic, and did not greatly differ from an average case of the chorea of adolescents, except in the cure being rather protracted (three months). On the second occasion, although the disease was not, as to its type or its degree, greatly more severe, it had proved

[1] Case of Chorea treated by Chloral; Accidental Overdose; Disappearance of the Chorea. (Glasgow Medical Journal, new series, vol. ii., 1869-70, p. 550.)

[2] Bulletin Générale de Thérapeutique, Feb., 1873; referred to by von Ziemssen, along with several other scattered observations, nearly contemporaneous with, or perhaps preceding, my own, by Frerichs, Carruthers, Briess, J. Russell, and others, to which I have no time at present to refer. (See article on Chorea in von Ziemssen's Cyclopædia, English translation, vol. xiv., p. 467.)

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much more refractory to remedies such as arsenic, zinc, and Calabar bean, which had been successively and very fully employed without any satisfactory result. At this time chloral hydrate was comparatively a new drug; and although habitually shy of employing new powerful or intoxicating remedies, and especially new narcotics, it occurred to me, just as it did to Bouchut, and later to Dr. Bastian, that by means of a drug which was reputed to be an almost pure hypnotic (and, within limits, a safe one), we might perhaps indefinitely control or keep in abeyance the inconvenient spasms which had resisted these other remedies, at least until a new and better habit was formed. The treatment was accordingly begun with five grains three times a day, steadily persevered in, and gradually increased until the dose reached fifteen grains, also given thrice daily. At this time I was desirous of still further increasing the dose to twenty grains; for although it is stated that there was a marked improvement, there seemed to be no reason against, and much to say for, the persevering use of the remedy in as high a dose as was considered safe. But, by a mistake at this time, fully explained in the journal, but with which I had nothing to do, a dose of sixty grains was accidentally given at once to this girl of eight years, instead of the twenty grains prescribed. This was about 9 A.M. on Feb. 26th (seven weeks after admission). About an hour later, symptoms of poisoning set in, which, without ever perhaps arriving at the point of extreme danger, may be said to have lasted in a severe form more or less up to 2 P.M., when a gradual recovery began to take place. Without going into the details as given in the *Glasgow Medical Journal*, it may be said that more than twenty-four hours later the patient was still unduly drowsy, and was not awakened by the introduction of the thermometer into the rectum, all the spasms having absolutely disappeared. What was still more curious was that this freedom from spasm continued even after she became fully awake, and after every trace of the action of the drug had disappeared. On April 22nd (nearly two months after the overdose) we were able to record that "since the accidental overdose described above the girl has had no return of the chorea even in the slightest degree, and is to-day sent to the Convalescent Home."

Now, although there are probably few physicians less disposed than I am to make much of a single case therapeutically, or more distrustful of the errors arising from confounding the *post* with the *propter*, I readily confess that the facts of this single case, considered as an unprepared *experiment*, struck deep into my convictions, and have had an influence on my treatment of chorea ever since. Not that chloral hydrate has ever been adopted as a routine treatment in this disease; very far from it. In the great majority of cases of infantile or of adolescent choreic spasm, it has always appeared, and still appears to me injudicious and inexpedient to have recourse to narcotics in any shape or form. I wish to emphasise this point, because I have very little doubt that a little more harping upon this case, or obtrusion of recommendations founded on it directly, might have led to a good deal of what I should regard as at least very questionable practice, and perhaps to exaggerated claims on behalf of the remedy. My practice hitherto has been, chloral notwithstanding, in the average of cases of chorea very much what it was before, and in this respect also on the lines recommended by Dr. Bastian. I can say, with him, that "in all ordinary cases of chorea I never think of having recourse to it" (chloral), and this because such cases yield readily to arsenical and other essentially tonic treatment, and will often get well, though perhaps more slowly, without any active remedies at all. Time in such cases, as respects these young subjects, is almost of no consequence; the danger of the disease is practically *nil*. The patient can be treated, if necessary, at home; or, if in hospital, are much better employed there in following good regimen and in getting good food than in contracting a habit of indulgence in narcotics. But there are unquestionably a few cases in which the tonic regimen and tonic treatment fail, and others in which their action, though ultimately successful, is so slow as to be unsatisfactory; besides a very few in which the disease *per se* is alarming and apparently dangerous from exhaustion, present or proximate, so as fully to justify (not to say excuse) a much more active treatment. In all these three classes of cases I have habitually employed chloral, and since 1870 chloral *almost alone*. These, of course, have been almost among the worst cases in my experience; and practically these have included *all* the very bad cases. And, therefore, it is surely not without importance that I declare, as I am now able to declare, that I believe in no single instance has chloral hydrate, with the comparatively modest and limited expectations I formed of its value, wholly and absolutely disappointed expectation. It has not often *cured*, it is true, directly and at once, as in the case just narrated, but it has always had an important influence in controlling choreic spasm, and has rarely failed in placing the patient *in the way of cure* when followed up by hygienic and other remedies or by lapse of time, which in many such cases is *the* remedy. And I can recall several cases of chorea in children so bad that I could not but regard them as having an element of present danger, which have yielded at once as a first step in the treatment to chloral hydrate, under which mainly the cure has been completed. Taking it all round, my experience of this remedy in chorea, while not without qualifications, is certainly not in accordance with the following expression of Dr. Sydney Ringer (*sub voce*): "Chloral *sometimes* restrains the voluntary movements of chorea, *but sometimes it is powerless.*" It would be much more correct to say that chloral can almost always be depended on to control the movements of genuine chorea for the time during which its physiological action is fully maintained, but that it is sometimes inadequate to a permanent cure.

The causes of this inadequacy it would be interesting to investigate had I before me fully the means of doing so. It must be admitted that some cases of choreiform spasms in adults are so inveterate as to defeat every kind of treatment, as in the case of an elderly man from Paisley, whom I have had more than once under my care, and in whom the very obstinacy of the disease, with some peculiarities in its characters which I do not now stop to describe, suggest a doubt as to its nature and pathological associations Chloral hydrate is probably little, if at all, useful in those strictly localised spasms, or grimaces of habit, often of a lifetime duration, which sometimes pass under the name of "St. Vitus's dance," and for which in the meantime we have no other name. It has not been at all useful, or at least not permanently useful, in those cases of post-hemiplegic spasm or of Hammond's "athetosis," in which I have tried it; notably in one of which an account was sent to THE LANCET[3] in June, 1877, but in which the result of this treatment was not given there. I do not expect to witness, nor have I witnessed, any favourable results either in paralysis agitans or in disseminated sclerosis. In other forms of muscular agitation and tremor I have no experience to offer.

On the whole, my experience of chloral hydrate entitles me to affirm this much, and no more:—1. That it sometimes succeeds in chorea absolutely, where other remedies fail. 2. That it can be depended on, as a rule, in very severe cases, to initiate a treatment which may be afterwards successfully carried out otherwise. 3. That in such cases it has an almost absolute power of suspending or controlling spasm during the persistence of its deep hypnotic action, and is therefore invaluable as a palliative (care being taken, of course, to avoid poisoning, either acute or chronic). 4. That this or other limitations will interfere with the curative action of the remedy in some very inveterate cases; the failure of chloral hydrate in these cases, however, being common to it, with all other remedies. In this respect, also, my experience appears to concur with that of Dr. Bastian, who thus writes of the eight or nine cases he has treated with this remedy during twelve years: "Some of the cases have been notably improved; other very chronic cases, however, have not derived much permanent benefit. In none of the cases has any evil resulted from the treatment." On the other hand, I have some doubts whether I have given the remedy as much scope as Dr. Bastian—following herein Bouchut—has shown forth in his late article in THE LANCET. Certainly, I do not remember having ever induced a sleep prolonged over a fortnight, or three weeks, with the exception of waking intervals of about half an hour for the purpose of administering nourishment. The mere fact that this has been done, and done successfully and without any manifest disadvantage or danger, by so good an observer, will encourage me to pursue yet further, in all probability, the treatment indicated above; having regard, however, to the doubts expressed by Dr. Bastian himself in this case

[3] Vol. i. 1877, p. 830.

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as to the expediency, at least, of the third week of artificial sleep thus induced.[4]

A case at present under observation in the Western Infirmary is one to which these remarks may possibly apply, although from the peculiarities of the spasm and the very long period of its persistence it will be at once recognised as belonging to the most inveterate order of cases of choreic spasm, if not indeed (as it is within my experience) unique in some respects. I give the facts here with the utmost possible brevity, and shall be very glad to be assisted by references either to similar cases or to any other mode of treatment likely to be of permanent service.

Christopher McI——, aged seventeen, a fairly healthy, though perhaps rather delicately organised lad, who, with the exception of an attack of so-called "gastric fever" in 1888, cannot be ascertained to have ever suffered from any acute or chronic illness but the present, was adopted at a very early age by a stepmother, his own mother having died during his earliest infancy (a fact concealed from himself). There is every reason to suppose that he has been well cared for; but no information can be had as to the cause of his mother's death, or as to any neurotic antecedents in the family. From an indefinite age before his adoption, at two years and a half, it was observed that his arms "worked" a good deal, and, although he had learned to walk, his gait was unsteady and peculiar, and, according to description, with more or less of festination and a disposition to fall forward and to walk on his toes. The arms, however, have all along been, much more than the lower extremities, the seat of the "workings." When about six or seven years of age, the boy was brought to Dr. Gairdner and Dr. Coats, but neither of these can remember the case at this time, and there are no notes of it. Since then he has been a good deal under the care of Dr. Paterson (Partick), who has employed most of the ordinary remedies for chorea, with only temporary and very slight effect, corroborating in every detail the statements of the stepmother. He is fairly intelligent, and is said to have got on well at school, though having difficulties as regards writing owing to the spasms, which never entirely ceased when he was awake, but were absent during sleep. The disease appeared to get worse shortly after the attack of "gastric fever" above mentioned. He became more unsteady in his gait, and for the first time was confined to the house by the fear of being "run over" if he was allowed to go about. In the course of November and December last he became almost completely helpless, staggering so much, even in crossing the floor, that it was useless to think of letting him leave the house, even when attended. At the same time the spasms continued, more severe than ever, in the arms and upper part of the body. How severe they had become may be judged of from what was witnessed soon after his admission to the Western Infirmary, Glasgow, on May 18th, 1889, when the impression at first given to the eye by his posture and expression when in bed was that of a severe case of tetanus, with marked opisthotonos affecting the upper part of the back and neck, so that the head was projected backwards as far as it could well go, the whole body being at the same time rolled and tumbled about in every direction, and the arms in a state of extreme pronation. Although the tetanoid character of the spasms was maintained even to the point of more or less risus sardonicus, and the opisthotonic attitude was maintained even during sleep, there was no pain, and the tonic spasm was never such as could not be momentarily overcome, the other movements being altogether those of chorea, and ceasing during sleep. He was at this time wholly unable to walk, and could scarcely speak so as to be understood, although the tongue when protruded was less affected by the jerking movements than could have been expected. As already stated, the use of chloral hydrate in this case has greatly modified the spasms, and has always controlled them when the patient has been kept directly and fully under its influence; but it has not been maintained so continuously, nor for so long periods, as in Dr. Bastian's cases, partly from fear of inducing ultimately poisonous effects. I shall now be encouraged to persevere in the hope of obtaining further relief, and perhaps even a permanent cure of this hitherto indomitable disorder.

I am able to add to these notes a brief sketch of yet one more case, which is thus far important that it seems to afford a certain amount of encouragement to the palliative use of hypnotics even in cases in which Dr. Bastian seems disposed to disallow them: "In the most acute and severe cases of chorea, in which the temperature is raised, and the movements are violent and continuous, with or without delirium or maniacal symptoms, I have never yet tried this mode of treatment, *and should not recommend its adoption.*" Notwithstanding the fatal issue, I am disposed to think that the details of treatment in the following case justify some modification of the language of this last statement.

In the terrible, but happily rather rare, form of pure chorea which sometimes occurs in adults associated with high temperatures, and tending to rapidly fatal exhaustion, I have had only one opportunity of testing the controlling influence of chloral hydrate. This was in the case of a woman (Mrs. D——) aged thirty-two, admitted into the Western Infirmary, Glasgow, on Nov. 3rd, 1874. The summary of the case made at the time (which I quote for the sake of brevity, though all the details are most interesting) shows that the patient was probably three months pregnant, had a history of rheumatic fever eight months previously to admission, and was of a nervous and excitable temperament from childhood, which made it rather difficult to exempt her from a suspicion of acute mania in connexion with the chorea. She had had, however, no other serious illnesses till adverse family circumstances brought on fits of despondency, which ended in distinctly insane manifestations, these latter apparently arising side by side with the choreic disturbance, which at the time of admission had lasted for three weeks. A brother also had had epileptic attacks, ascribed to fright, and concurring with a nervous temperament from boyhood. The patient's temperature after admission was from 103·8° to 104·6° (rectum[5]); her pulse always 120 or upwards, and when moribund estimated as 190 or upwards. There was no distinct valvular murmur, and the urine was non-albuminous. The picture of the disease during the three days she was under observation embraces all the most exaggerated incidents of the worst forms of the choreic spasm, bilateral and extending throughout the voluntary muscular system. I will only now remark on the treatment and its results. Two drachms of the syrup of chloral hydrate were ordered to be repeated every hour till some kind of effect was observed, the case being of course carefully watched. After the fifth dose (corresponding with a hundred grains in all) she slept for about two hours and a half, and during this time had no spasms of any kind, her sleep being natural to appearance and perfectly undisturbed. Liquid food was very carefully administered in considerable quantities, notwithstanding the difficulties arising from the spasms affecting both the articulation and the deglutition. "Except when under the influence of chloral the patient was a perfect picture of unrest in almost every muscle of her body, turning over and over, tossing her arms and legs about quite incoherently, protruding and retracting the tongue in an equally sudden and grotesque manner, rolling her head upon the pillows, and twisting her spine in every possible direction, snapping her teeth and lips in such a way as to make it surprising that she did not bite her tongue, rolling her eyes, and in every way as regards the general expression counterfeiting the most violent form of acute mania, but still, to a critical and informed observation, conveying the impression that the muscular system was more in fault than the volition." On Nov. 5th it is recorded that "the effects of the chloral hydrate in subduing the spasm having been abundantly proved (although it was difficult in this way to keep up a sufficiently continuous stupor without doses so large as to involve risk)," Dr. Gairdner acted on a suggestion of

[4] For the guidance of others who may be led to make trial of this treatment in very obstinate cases, it may be as well here to place before the reader the recorded limits assigned to the treatment by the French and the English observers respectively. "Bouchut's patient of fourteen years and a half, with chorea and dementia, took forty-five grains a day for twenty-seven days, making in all over two ounces and a half, spent almost the whole time in sleep, and suffered no visible bad results from the chloral. Improvement took place on the fifth day of the use of the chloral, and the cure was complete on the twenty-eighth day" (Ziemssen, *ut supra*). On the other hand, Dr. Bastian writes of his recent case in THE LANCET (p. 57, first column): "Perhaps, however, it would have been safer had she not been kept this extra week (the third) under the influence of the chloral, even though it might have involved another two weeks' sleep after an interval." The reasons for this hesitation appear sufficiently in the text; but there is no statement as to the maximum daily dose of the remedy; only that "the sleeping draught (of twenty grains of chloral hydrate, and ten grains of bromide of potassium, to be repeated on waking) was to be used as seldom as possible."

[5] There was a doubt as to the accuracy of observations taken in the axilla (on one occasion 102·4°) on account of the displacement caused by the spasm.

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Dr. Cowan, then Professor of Materia Medica, and determined to make a trial of the inhalation of chloroform and ether as a mixed vapour, this being carried out on Nov. 4th, at 9 P.M. "It was soon demonstrated that the occurrence of anæsthesia completely controlled the spasms, which were kept in abeyance just so long as the patient was completely insensible, and began again, though feebly, the moment there was the least indication of the anæsthetic effect passing off. It was, however, found that the pulse and the breathing remained without serious disturbance from the anæsthetic vapours (the pulse, however, throughout not counting less than 120); the breathing during anæsthesia being comparatively calm, and not at all stertorous. It was therefore resolved to maintain the anæsthesia for a more lengthened period, and this was easily done by relays of attendants, the vapour being administered at intervals of from a quarter to half an hour, and being regulated in the main by the evidences of returning restlessness, on which an additional dose was administered just sufficient to maintain quietude. For about twenty-two hours anæsthesia was thus maintained, being only relaxed so far as to allow of food being given, which in the liquid form was easily swallowed. She passed urine in bed spontaneously, but no fæces. The temperature in the rectum, while deeply anæsthetised on the morning of Nov. 5th, was 103·8°." Dr. Andrew Denholm (now of Chorlton-cum-Hardy, Manchester), who at this time was the resident assistant, and who had the charge of all these arrangements, and carried them out most faithfully for many anxious hours, records that at 7 P.M. on Nov. 5th the anæsthesia was intermitted, and the spasms returned, though not so violently. It became evident to him that the patient was dying. Pulse 192; breathing very rapid; temperature (in axilla) 103·2°. An injection was given towards midnight, which brought away some soft fæcal matter. After this there were scarcely any spasms (no anæsthetic being given), but the patient sank gradually, and died at 4.15 A.M. on Nov. 6th.

The extracts given above will probably suffice to convey an idea of the exact impressions left on our minds at the time; but no words can adequately express the vivid convictions arising from the use of artificial anæsthesia in this case, both as to its almost unlimited power of controlling the spasm, and as to its want of power, amounting to absolute failure, in reaching the root of the whole morbid condition—viz., that which was responsible for the fever, the accelerated respiration, and the asthenia increasing and terminating fatally even when the spasms were kept completely in abeyance. It may, of course, occur to someone to say that the remedies were in part responsible for this; to which my answer must simply be, that all this was most carefully considered at the time, and that my experience (though small) of similar cases scattered over many years warrants the statement that chorea of this particular type, and with these febrile concomitants, is a most formidable disease, however treated, and ends fatally just as this case ended, the only difference being that the spasms are not controlled, but continue until they end in the weakness of the moribund state. The association with pregnancy, moreover, probably adds very greatly to the dangers of such chorea in the female adult. I have distinctly in my mind a somewhat similar case in the Edinburgh Royal Infirmary, about thirty-five years ago, where the patient, after making a fairly good convalescence from Asiatic cholera, was seized with severe febrile chorea, and died. In the present case (Mrs. D——) a post-mortem examination could not be obtained. In that case (the Edinburgh one) the aortic valves were found minutely fringed with recent warty vegetations, which we associated with rheumatic symptoms distinctly occurring with or preceding the chorea. I do not now remember that any other lesions were definitely made out either in the brain or elsewhere, but the embolic pathology of chorea was probably not strongly present to our minds at that time.

Glasgow.

THE ROYAL WEDDING.—The following members of the medical profession received special invitations to be present at the ceremony of the marriage of H.R.H. the Princess Louise of Wales with the Duke of Fife:—Sir William Jenner, Bart.; Sir James Paget, Bart.; Sir Prescott Hewett, Bart.; Sir William Gull, Bart.; Sir Henry Acland, K.C.B.; Sir Oscar Clayton, C.M.G.; Dr. Laking, Dr. Quain, Dr. Reid, Mr. A. Profeit, and Dr. Evans.

ON THE TREATMENT OF CHRONIC URÆMIA BY MORPHINE.[1]

BY STEPHEN MACKENZIE, M.D., F.R.C.P.,
PHYSICIAN TO, AND LECTURER ON MEDICINE AT, THE LONDON HOSPITAL, ETC.

WE are often compelled to witness the sufferings of patients in the last stages of Bright's disease of the kidneys. The disorder proceeds from a variety of causes, some of which are probably not remediable. Nothing is more distressing than to witness agony we are powerless to relieve, and any suggestion of treatment for the alleviation of the grievous suffering of such cases will be sure to receive careful consideration and discussion, even if it runs counter to current teaching. For the notes of the two cases I am about to relate, which form the basis on which this paper is founded, I am indebted to Dr. Galloway, my house physician at the time when they were in the hospital. To the same gentleman I am also indebted for carrying out with great care and judgment the treatment I suggested.

CASE 1.—E. W——, aged thirty-eight, was admitted into the London Hospital under my care on June 9th, 1888. The patient had had five children. During the last two pregnancies she had complained of swelling in the legs, which disappeared after the birth of the fourth child, but which had gradually increased since the birth of the last, seven months previously to admission. There was no history obtained of any previous attack of acute nephritis or of blood in the urine. On admission there was great œdema of the lower extremities, ascites, and breathlessness. The heart was hypertrophied, and there was no murmur. There was well-marked albuminuric neuro-retinitis. At this period she passed about fifty-five ounces of urine daily of a specific gravity varying from 1012 to 1018, and containing from one-half to two-thirds of albumen as measured by the ordinary precipitation test. The deposit on standing contained numerous granular casts. The treatment adopted was rest in bed, a non-nitrogenous diet, and the promotion of the functions of the bowels and skin. She was much troubled by headache, the frequent attacks of which were relieved by antipyrin. Under this plan of treatment she greatly improved, and about the end of July was allowed to sit up. On July 30th she exerted herself more than usual, it being visiting day. In the evening she had a severe attack of dyspnœa. It came on rapidly, and she had to sit up in bed gasping for breath. The respirations increased up to 50 in the minute, and were extremely shallow and laboured. The heart's action was weak and very rapid—150 to 200 per minute; she was much cyanosed, and covered from head to foot with a cold sweat. She was in great terror of dying, and was in a condition of mental excitement. Nitrite of amyl, alcohol, ammonia, and ether were all used, with no effect. At length, after watching and treating the patient for an hour and a half, the attack showing no sign of abating; one-sixth of a grain of hydrochlorate of morphine was injected hypodermically. In a few minutes the dyspnœa became less urgent, the patient easier, and the heart's action slower and stronger. In twenty minutes the patient was able to lie down, and by the morning was in her usual condition. During the following week she had two slight attacks of dyspnœa, which were kept in check by ten minims of liquor morphinæ hydrochloratis by the mouth. During the month of August, during which appropriate treatment for the kidney disease was pushed, she improved greatly, and was better than at any other period of her residence in the hospital. On Sept. 1st two severe attacks of dyspnœa occurred. Two doses of fifteen grains of chloral hydrate in half an ounce of diluted brandy were given at 5 and 10 P.M. The first dose relieved the attack considerably; the second had little effect. At 1.30 A.M. one-sixth of a grain of hydrochlorate of morphine was injected, and the attack passed off in a few minutes. After the first dose of chloral, 240 ounces of serum were withdrawn from the abdominal cavity, but, as seen from the above, this did not relieve the dyspnœa. During these attacks of dyspnœa the patient sweated profusely; she sweated freely at other times when perfectly easy. The patient next remained comparatively well till Sept. 30th, when she again began to suffer from urgent paroxysms of

[1] Read at the Medical Society of London, April 8th, 1889.

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dyspnœa. These were at first relieved by the use of chloral and whisky, but on the 23rd they became so severe that one-sixth of a grain of hydrochlorate of morphine was used hypodermically with the best effect. The liquor morphinæ bimeconatis was then used on several occasions in doses of from ten to fifteen minims, according to the severity of the attack, and was found to answer in slight attacks, but was not nearly so powerful, nor so rapid in action as the hypodermic injection of one-sixth of a grain of the hydrochlorate. During the month of October the patient was fairly well. Towards the end of the month she became gradually weaker, was very restless, took little nourishment, and was very sleepless. She had no further attack of urgent dyspnœa, however, and died on Nov. 10th. There was never a sufficient quantity of fluid in the pleural cavities to warrant aspiration. Towards the end the lungs became very œdematous. It is interesting in this connexion to note that, when the dyspnœa was so distressing, the lungs were comparatively free, and that later, when the lungs were dropsical, there was no great dyspnœa. No necropsy was permitted, but there could be no doubt as to the diagnosis of chronic diffuse nephritis. The patient always passed over twenty ounces of urine per diem. To recapitulate the treatment, it was found that chloral hydrate in doses of from ten to twenty grains, along with half an ounce to an ounce of brandy or whisky, was useful in checking the attacks of dyspnœa at their commencement or if slight; but none of the attacks, however severe, resisted the injection of one-sixth of a grain of hydrochlorate of morphine hypodermically. This was used three times with the best effects. Liquor morphinæ hydrochloratis and liquor morphinæ bimeconatis were administered eight or nine times by the mouth. On no occasion were any toxic effects of morphine observed.

CASE 2.—Emma M——, aged twenty-eight, was admitted into the London Hospital, under my care, on April 5th, 1888. The patient came for breathlessness and anasarca, and had been in the hospital twice previously for symptoms of chronic Bright's disease. The nephritis began four years before admission with swelling of the face, hands, and feet. There was no history of hæmaturia. On the present occasion there was considerable anasarca. She passed about four ounces of urine per diem, of specific gravity 1010, and containing about one-third of albumen. There was a systolic mitral murmur, and the heart was hypertrophied; the ophthalmoscope showed double neuro-retinitis. She suffered much from breathlessness and headache. For some time under general treatment for the kidney disease she improved, many of the symptoms being alleviated. About May 16th she began to suffer from great sleeplessness, with much headache, nausea, breathlessness, and irregular action of the heart. Chloral, bromidia, nitro-glycerine, and inhalations of oil of juniper were used, with little effect. These symptoms increasing, on May 22nd ten minims of the liquor morphinæ hydrochloratis were given and repeated in three hours. There followed rapid alleviation of the symptoms, and the patient had a good night's rest, the first for a considerable period. At this time the patient was passing from twenty-eight to thirty-two ounces of urine, of specific gravity 1008, and containing about one-quarter of albumen. On May 26th the note was made: "It (the liquor morphinæ hydrochloratis) is given to her in ten-minim doses and rapidly relieves distress, palpitation, and dyspnœa, after which it is discontinued." This method of treatment was repeated on several occasions during the next week, and nothing except the best results were noted. The patient then improved considerably, and on June 7th she remarked she had nothing whatever to complain of. About June 15th, however, the above-mentioned symptoms recurred, and after some other remedies had been used, with no avail, the liquor morphinæ hydrochloratis was again used in ten-minim doses, a single dose in an attack. Each dose had a most beneficial effect. The treatment was repeated almost every night and day for the next fortnight. Occasionally, five-minim doses were given, but these doses were not sufficient, whilst ten-minim doses never failed at this period to have the desired effect. The urine remained of the same character as noted above. About June 29th the patient developed a carbuncle in the back of the neck, and from the combined effects of this and the Bright's disease she died on July 9th. In spite of the pain caused by the carbuncle, she required morphine to be administered only twice in the above-mentioned doses during the last ten days of her life. At the necropsy, the kidneys were found to be very small, much cirrhosed, the surfaces markedly granular, and the cortices atrophied.

It is evident from these cases that morphine may be administered in some cases of Bright's disease with safety. The doses given in these cases were moderate ones, but efficient for the purpose. Much larger doses have been given in uræmia, as will be subsequently mentioned. This fact—the safety of administration of morphine in Bright's disease—is of great importance, as there is a deeply-rooted belief in the danger of administering opium and its alkaloids to patients suffering from renal disease. It is quite possible there is just ground for this belief, but it is equally clear that it does not express the whole truth.[2] It is obvious that further inquiry is necessary to explain how it is that, as commonly asserted, even small doses of opium and morphine are followed by symptoms of fatal narcosis in some cases of kidney disease, whilst in other cases the same doses, or doses three or four or six times as great, are borne with impunity even when pressing symptoms of blood contamination are actually present. The facts, though at first sight contradictory, are not irreconcilable. It is possible that morphine may induce narcosis more readily in patients suffering from Bright's disease than in those whose kidneys are healthy, and that at the same time, in some cases of Bright's disease, a poison may be present in the blood that is antagonised by morphine. For it is a fact that in the above cases and others morphine has been given not only without danger in some cases of Bright's disease, but, what is of greater importance still, with positive advantage, removing distressing and dangerous symptoms. I may state that what led me to employ morphine in these cases was the reported good effects of injections of this drug in cases of uræmic convulsions, and it occurred to me that, as it removed some of the most severe symptoms of uræmia, it would probably be of service in the treatment of other phenomena dependent on the same cause. The treatment was successful, but experimental. In therapeutics we are guided by one of two principles—the results of experience or the empirical method, or the rational or scientific method. On discovering that a remedy is successful, we are not satisfied until we have found, or tried to find, a reason for its success, for we all like to have a reason for the faith that is in us. Having found, as others have previously done, that morphine is useful in uræmia, I will next proceed to discuss its probable *modus operandi*.

(To be concluded.)

THE

ETIOLOGY AND TREATMENT OF CHRONIC SUPPURATIVE CATARRH OF THE EAR.

BY H. MACNAUGHTON JONES, M.D., M.CH., &c.

(Concluded from page 161.)

I NOW turn to the second portion of my subject—the treatment of chronic suppurative catarrh. I shall be as brief as I possibly can, recognising the fact that what I wish to discuss is not what *might* be done, but what *ought* to be done.

Naturally, from the etiology of this affection, whether in the outer or middle ear, we should consider, in the first place, the prophylactic measures which should under varying circumstances be taken in order to prevent the occurrence of suppurative catarrh in the ear, or when threatening to arrest its progress. We have seen that in the outer and middle ear certain general or systemic diseases tend to produce catarrhal inflammation of the meatus, the cavity of the tympanum, and the Eustachian tube in two principal ways. First, invasion of the local structures with blood charged with the *materies morbi* of these diseases, and the carrying into their lymph and blood channels infective germs. Take, for example, tubercle. syphilis, fevers, diphtheria, and erysipelas. In the case of diabetes, we have a saccharine blood, which, as Löwenberg has pointed out in the instance of aural furuncle, and Immermann, Rutimeyer, Merkel, and Riegel[1] have shown in the case of pulmonic

[2] See a very instructive case narrated by Sir William Roberts—"On Urinary and Renal Disease," fourth edition, p. 478.

[1] Centralblat f. Klin. Medicin, Nos. 8, 12, 13, 1883.

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tubercle, renders easier, through its saccharine character, the cultivation of the microbes in the tissues it bathes. Secondly, extension of the pathogenic process along mucous surfaces, whether from the side of the external meatus or the Eustachian tube, as occurs in scarlet fever, measles, whooping-cough, diphtheria, tonsillitis, angina Ludovici, &c. Prophylaxis, in the first group, must take the shape of such modifying therapeutic measures as may control the actions of the morbid elements in the blood and lymph: anti-scrofulous remedies, both special and hygienic, in the case of tubercle; specific in the instance of syphilis; quinine and the coal-tar series of antipyretics in fevers and intermittent pyrexial states; perchloride of iron in diphtheria and erysipelas; antilithic agents in gout. In the second class we have to control, locally, the extension of the pathological process and the entrance of pathogenic germs into the middle ear, taking measures for their destruction, and the prevention of their invasion into the underlying tissues. Towards this end we employ early in such diseases strong local antiseptics, paying close attention to the throat, nose, and naso-pharyngeal space by means of brush, gargle, and douche. How important this attention is in the case of scarlet fever, diphtheria, phlegmonous erysipelas of the throat, tonsillitis, and aphthous states of the mouth and fauces, all can appreciate who reflect on the etiological facts I have before enumerated. I may record here a matter of clinical importance—viz., that during my eleven years' connexion with the Cork Fever Hospital, and the passage through my hands of some 2500 cases of various continued fevers, aural complications of a catarrhal suppurative nature arising out of the fever were exceedingly rare. The deafness of a fever was, as a rule, a transitory deafness. I believe, also, that with a more active sense of this responsibility in regard to the prevention of aural complications in scarlet fever and diphtheria or other infective throat diseases by early antiseptic treatment of the nasal passages and the naso-pharyngeal region (not to speak of direct measures, such as paracentesis of the membrane when indicated), practitioners would save many an ear the hearing of which would otherwise be lost.

The mere enumeration of those causes of suppurative catarrh, whether of the external or middle ear, that I have grouped under the head of "climatic and hygienic" is almost sufficient to indicate the prophylactic measures we must adopt when a patient is subject to such influence. Here attention to soil, habits of life, domestic sanitary surroundings, place of residence, and an endeavour to convey to the patient an intelligent appreciation of the relation of deafness and ear trouble generally to such common incitors as neglected nasal catarrh, cold skin and feet, damp clothes, repeated attacks of sore-throat, are our best prophylactic measures. I do not attach much value to statistical grouping of patients' occupations. They are too general, and each tabulated class embraces so many subdivisions of occupation that it is almost impossible to obtain a critically accurate analysis; yet there is a coincidence in the connexion between chronic catarrhal states of the ear and certain occupations which has often struck me—viz., the comparatively large number of persons who have to follow in-door and sedentary lives that suffer. In the table of 5700 cases of ear disease presented by Dr. Bishop of Chicago to the Congress of 1887 this was well shown in the large proportion of clerks affected with chronic catarrhal affections. But of greater importance than occupation is age. The influence of occupation and station of life here tells. The young of the enfeebled and impoverished classes are specially liable to catarrhal conditions of the tympanum, which are prone to suppurative termination. Of the 4101 cases classified in Dr. Bishop's table, we find that 1638 were children under fifteen, and 519 were under sixteen. Of the 1638, I find that 801 suffered from chronic suppurative catarrh, and 541 from the non-suppurative affection. How far hereditary syphilitic taint is concerned in predisposing to such suppurative conditions it is difficult to say. I can only give it as my experience that such hereditary taint does most decidedly tend to cause catarrh of the tympanum, especially in early life, and that the passage of the non-suppurative into the suppurative form is the result of other accidental circumstances, such as the condition of the patient and the general vigour of the constitution.

Finally, so far as *prevention* is concerned, we come to deal with those direct local causes of catarrh, such as (in the external ear) dirt, cerumen, polypus of the meatus, abscess (in the middle ear), post-nasal adenoid, ozæna, tonsillitis, and Ludwig's affection. Some of these causes would require separate notice of themselves. I may only content myself here by pressing home these few facts of ascertained clinical certainty: 1. The frequent association of impacted cerumen in the meatus, or epithelium and mucus, with serious pathological changes in the middle ear; the same may be said of polypus. 2. The occasional occurrence of ozæna and catarrhal conditions of the tympanum. 3. The intimate relation existing between cause, in the shape of naso-pharyngeal affections, and catarrhal, adenoid, and hypertrophic conditions, leading to obstructed nasal respiration, and effect, in the form of chronic catarrhal states of the tympanum; the same may be said of bronchitis and hypertrophic tonsil. The inference so far as treatment is concerned is obvious. 4. As regards abscess and furuncle, it appears to me safest to accept Löwenberg's proposition: that in abscess and recurrent furuncle we have two distinct diseases, the latter being due to the special staphylococci which he has demonstrated. We should treat the latter by early and free incision under cocaine; asepticise the emptied follicular sac with such agents as boric acid, salicylic acid, or mercuric perchloride; and continue antiseptic local treatment for some time after the evacuation of the pus. The collateral treatment will take cognisance of the hygienic surroundings of the patient, and deal with these.

In conclusion, I would draw attention to the treatment of chronic suppurative catarrh, when we have a purulent secretion present. We may thus classify these chronic suppurative conditions:—

(1) *External Meatus.*—With or without perforation of the membrana tympani. With or without new growths, granulations, polypi, &c. With fungus present. With or without destruction of the ossicula.
(2) *Middle Ear.*—With new growths in the cavity of the tympanum. With fungus present. With the involvement of the labyrinth. With extension to the mastoid. With cerebral complications.

As I have already said, I am dealing with chronic suppurative catarrh itself, and not with its remote consequences. These on some future occasion I may discuss. Therefore I shall proceed straightway to the consideration of the treatment of the catarrhal state itself. I shall first ask you to glance over this list of remedies classified according to their mode of application, whether in solution, in powder, or in vapour.

REMEDIES USEFUL IN CHRONIC SUPPURATIVE DISCHARGES.

In Solution.

Acid (carbolic).	Potash (permanganate of).
,, (boric).	Arsenic.
,, (salicylic).	Lead (acetate of).
,, (chromic).	Saccharin.
,, (lactic).	Quinine (sulphate of).
,, (chloro-acetic).	Ammonia (hydrochlorate of).
Zinc (sulphate of).	Alum.
,, (chloride of).	Chloral (hydrate of).
,, (sulphocarbolate of).	Glycerine.
Silver (nitrate of).	Alcohol.
Mercury (perchloride of).	Aldehyd.
Soda (bicarbonate of).	Iron (perchloride of).
,, (hyposulphite of).	Copper (sulphate of).
,, (biborate of).	

In Powder.

Acid (boric).	Talc.
,, (salicylic).	Bismuth (nitrate of).
,, (tannic).	Calomel.
Soda (biborate of).	Magnesia and salicylic acid.
Alum.	Chinoline (salicylate of).
Iodol.	Phenacetine.
Iodoform.	Salol.

In Vapour.

Iodine.	Iodoform.
Oil of turpentine.	Muriate of ammonia.

Exceptional.

Lime (hypochlorite of).	Resorcin.

Looking at the table of Jalan de la Croix and that of Duclaux, given by Cornil and Ranvier,[2] we find that we

[2] Cornil et Ranvier: Les Bactéries, 1886, p. 46.

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may place somewhat in their relative order of utility amongst aural antiseptic agents in common use the following: corrosive sublimate, iodine (especially on spores), salicylic acid, carbolic acid, boric acid, permanganate of potash, chloroform, and alcohol. It has to be remembered that certain antiseptics act specially on spores of bacteria, such as iodine, bromine, and oil of mint, provided the vapours remain a sufficient time in contact with them (Cornil and Ranvier). Some do not kill the spores, as sulphurous acid and alcohol; the former of these does not penetrate into the tissues, while the latter seems only to arrest the development of bacteria. In fact, it would appear that, with the further increase of our knowledge of bacterial life, a special agent more particularly fatal to particular classes of microbes, as is the oil of mustard to the cholera comma bacillus, will be found and utilised.

Suppurative catarrh, with new growths.—When we remove the discharge from the meatus and cavity of the tympanum and find a vascular growth in the former or in the latter, the first duty is to clear away the new formation, destroy any granulations, and adopt means to prevent re-growth. With either the ordinary (Fig. 2) or the crocodile lever ring forceps (Fig. 1, p. 161, *ante*) and the aural probe (Weiss), which I first devised in 1875, this is readily achieved in the majority of cases. After the ear has been cleansed out and the passage dried with the absorbent wool rolled as in Fig. 3, A, on the probe end, the situation of the growth is carefully made out, and with the forceps it is grasped and withdrawn. Any bleeding is arrested by hot syringing and pressure with the cotton-wool holder. It may be necessary to repeat the operation in some cases a few times. To the raw surface left I prefer to apply chloro-acetic acid on the point of the wool holder, in the manner shown in Fig. 3, B, taking care that there is no excess on the fine point of wool for the first few dressings. Or we may use a solution of chromic acid (one drachm to the ounce) in the same careful manner. Some surgeons prefer to use this fine galvano-cautery. This removal is to be followed up by the plan of treatment I am about to describe for chronic discharge either from the meatus or tympanum. For the treatment of aspergillus, when it complicates chronic suppurative discharge, the plan I adopt, and which I find most successful, is as follows. Having carefully removed with the aural probe and lever crocodile forceps all casts and coatings of the meatus and membrane, and anything within view in the tympanic cavity, if this latter be open, I dip the cotton-wool holder into a solution of boric acid in glycerine, to the point of saturation, 6 parts; salicylic acid, 1 part; absolute alcohol or aldehyde, 2 parts; and carbolic acid, 1 part. This I carry well into the meatus, and with it mop carefully out the exposed surfaces. I have used with benefit hypochlorite of lime in some cases, as advised by Burnett. I then place in the ear a light roll of cotton wool, moistened with a little weaker solution of boric acid. I find a few repetitions of this plan is, as a rule, quite sufficient to destroy the fungus. I use no powders by means of insufflation. The patient syringes the ear out at night with a weak lotion of perchloride of mercury and rectified spirit (1 in 10,000).

FIG. 2.



FIG. 3.

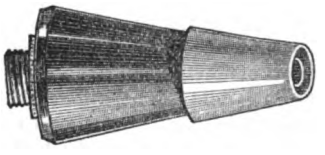


I now come to the point I am anxious to put forward more particularly in this communication. Of late years, associated with the name especially of Bezold of Munich, a method of treatment of chronic suppurative catarrh of the tympanum or "otorrhœa" has become the fashion, and which is slightly varied by different otologists so far as the exact strength and nature of the antiseptic used. This method has had advocates in such distinguished authorities as Politzer, Burnett, and Sexton of New York. It is known as the dry method, and consists in the insufflation of such powders as boric acid, boric and salicylic acids, boric acid or biborate of soda, with salicylate of chinoline (1 part to 70), salicylic acid and magnesia, iodoform and boracic acid, iodol (disguised with vanilline), bismuth and iodoform, or bismuth and biborate of soda.

Sixteen years since I used a tube and quill for the purpose of auto-inflation of the ear with powders, and at that time frequently employed talc powder for drying purposes. Bezold's method consists in first cleansing and drying the ear, and then blowing about two grains of the selected powder on to the membrane so as to cover the latter. Then the ear is cleansed with boric acid and iodised wool, and left until the following day, when the ear is washed out and the powder is reapplied. Some surgeons go further and pack the meatus with the powder. While I have frequently insufflated the ear in the manner above described, and with various powders, I must confess that of late I have rather fallen back on the plan which, with some slight modifications, I have employed for several years, and which, with some little difference in method, is that followed by many distinguished otologists.

I long since came to the conclusion that excessive syringing with various antiseptics or astringents was bad treatment in theory and practice, and that the most a patient should be permitted to do, or to get done by friends, was to have the meatus or tympanum gently douched out with the antiseptic lotion. For the same reason I do not myself employ as frequently as I did in years past the nozzle (Fig. 4) for preventing reflux of the fluid from the

FIG. 4.



meatus, and generally used for the purpose of syringing out the tympanum through the Eustachian tube. Still, I have to say that I never had any bad effects from its employment beyond a transient giddiness. Therefore, in this method syringing on the part of the patients' friends is reduced to the minimum amount. Next, all drops are avoided. I never use drops of any kind in my aural practice, and never have used them. The ear is cleansed and dried in the manner before described, and if the particles of dried mucus or pus or epithelium are tenacious I fall back on a little warm soda solution, to which I add some glycerine. Generally on the second day, even in obstinate cases, I can clear all the exposed parts with the cotton holder or forceps. Then the ear is thoroughly dried with absorbent wool, the antiseptic solution is freely applied, and the external meatus is lightly packed with iodised or salicylic wool. This process is repeated daily, without any interference on the part of the patient, until the exposed mucous surface puts on a healthy appearance, and the discharge is considerably lessened or ceases. At the end of a week or ten days I permit the patient to have the ear washed out once daily before going to bed with an antiseptic wash of sulpho-carbolate or chloride of zinc, or boric acid and biborate of soda, or perchloride of mercury with alcohol. After he does so, he places a piece of wool covered with iodoform ointment (deodorised with coffee) into the meatus. I teach the patient himself to use the aural probe, to dry the ear, and to apply a weaker boric acid and alcohol solution; or, if not the patient, some friend. This dressing is carried out each morning. In due course I try an artificial membrane, but never while a suppurative discharge remains. Let me say what I never do. Not under any circumstances do I apply a strong solution of nitrate of silver to the tympanum (according to Schwartze's plan) other than by the cotton-wool holder. I never give a patient a powder to have blown into the ear at home, soluble or insoluble. I never direct patients to practise frequent Valsalva, but teach them to inflate the tympanum by Politzer's

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method with my auto-inflating bag.[3] (Fig. 5.) Frequent practice of Valsalva is apt to produce congestion of the tympanic and labyrinthic vessels, and should be avoided. I do not touch on the question of removal of the tympanic

FIG. 5.



membrane and ossicles, as proposed by Schwartze and performed by Sexton of New York and others; nor do I refer to mastoid complications: this discussion was not contemplated in the preparation of the present communication.

TWO CASES OF CHOLECYSTOTOMY.

BY HERBERT W. PAGE, M.A., M.C. CANTAB.,
SURGEON TO ST. MARY'S HOSPITAL.

CASE 1.—Alice J——, aged thirty-seven, a married woman, with good family and personal history, was admitted into St. Mary's Hospital under Dr. Cheadle's care on May 10th, 1888. She had been jaundiced for the previous four months, and gave an account of having had repeated attacks during that period of severe pain in the hepatic region and between the shoulders. A fortnight before coming to the hospital, after an attack of pain so bad that she had had to have injections of morphine, the medical man then attending her found gall-stones in the fæces. The motions had all along been very pale. On admission she seemed in a very exhausted condition, and was intensely jaundiced. The motions were white, and the urine contained large quantities of bile. There was much general tenderness or fear of being touched over the whole abdomen, but the tenderness over the liver and region of the gall-bladder was real and acute. The abdomen was rigid, and respiration was distinctly thoracic. No tumour of any kind was to be felt. With the exception of undoubted increase in the severity of all her symptoms, there was no new feature in her condition during the next few weeks. The thing most noticeable was her surely increasing prostration, with an occasional rise of temperature to 100° or 101°, and it was felt that some operation was imperatively called for to save her life. The diagnosis of complete obstruction in the common duct seemed certain, and she was therefore transferred to my wards on June 13th, with a view to operation. Having opened the abdomen by a three-inch incision to the right of the right rectus muscle, immediately over the gall-bladder, this viscus was found lying very deeply in the abdomen, and contracted to a size not larger than that of a walnut. The gall-bladder was then incised, and exit given to a teaspoonful of clear glycerine-like fluid. Two very small gall-stones were taken out with a scoop. Now began the chief difficulties of the operation. Lying still deeper than the gall-bladder, the common duct, or a cyst representing it, could just be felt with the tip of the finger, and in it a number of small stones which could be moved freely about. By no force, however, that I was able to apply to them, either from the outside of the duct or from within, by finger, scoop, probe, or catheter, could they be moved away from their position. The depth of all the parts from the surface rendered it quite impossible to open the duct, at any rate without much more formidable operative measures than had been contemplated, and I therefore determined very freely to manipulate these stones in the hope that in the future, if not at that moment, they might deem it well to move on into the bowel; and there seemed encouragement to this course in the fact that two small stones had been found in the fæces before the woman came to St. Mary's. No impression, however, was made upon them. The gall-bladder was sutured to the abdominal wall in the usual way, and the operation was finished with a sense of disappointment at its want of success. The patient bore the operation well and quickly rallied from it. Already on June 18th she felt a good deal better, and when the wound was dressed for the first time on the 19th we were pleased to see that the discharge was very distinctly bile-stained. Now, at any rate, there was hope that, even if a passage could not be made along the ductus communis, the bile would be prevented from passing into the blood and so imperilling her life by steadily increasing cholæmia. She would certainly be in a better position to await events. The biliary discharge increased very much in quantity, so that on June 28th the dressings had to be changed twice daily. In herself she was very much better; the temperature had never been above the normal range; her jaundice was fading away; she was free from pain; and the fæces, which had been examined as if in search for gold, occasionally were noted to be distinctly less white; no gall-stones were ever discovered in them. At the end of the third week of July the discharge much lessened and the wound showed every sign of rapid closure. Once only, on July 31st, it was noted that she was again rather yellow, and this although the biliary discharge had not ceased and the fæces unquestionably contained bile. She left the hospital on Aug 4th. She returned early in October in great alarm at what she had thought to be a return of her old pain. We came, however, to the conclusion that she was really suffering from an attack of ordinary colic—a conclusion supported by its early disappearance, and by the absence of any return of her other symptoms. True, there was much hyperæsthetic or nervous tenderness about the site of the wound, now soundly healed, but there was no rise of temperature, and the fæces were much more obviously bile-stained than when she left the hospital in August. She was accordingly discharged in a few days. I saw her next on Nov. 10th, when she looked and said she was perfectly well, although on one day in the previous week her conjunctivæ had been yellow and her urine was high-coloured. There was then no trace of jaundice, nor has there been on the several occasions when I have seen her since. I sent for her and examined the abdomen on March 9th, 1889, and found it natural in every respect. The motions were then of a much better colour, but she was sure that she was occasionally rather yellow. Of this case, therefore, I think it may be said that the operation was of signal use: first of all, in rescuing the woman from the dangers of cholæmia; and, secondly, in bringing about a return of patency in the common duct, whereby the natural channel has been restored, partially if not entirely, for the passage of bile into the alimentary canal—results which at one time seemed almost hopeless.

CASE 2.—Here, also, unforeseen difficulties, although of quite a different kind, presented themselves at the operation. A lady aged sixty-two, a patient of Dr. Morton of Kilburn, who had been seen in consultation by Dr. Broadbent, had in most respects enjoyed good health, but for years had been subject to attacks of pain in the region of the gall-bladder. Once only had she had a slight attack of jaundice, the motions had never been pale, and no tumour had ever been discovered until three or four months before I first saw her with Dr. Morton in November, 1888. Since its first discovery this tumour had invariably occupied the region of the gall-bladder, and had varied in size, being decidedly larger whenever there were attacks of pain. The swelling was the size of a large orange, reached as low as the umbilicus, and extended across the middle line. The abdominal wall was, like the rest of her body, very thin; and the tumour, which could therefore be easily defined, seemed to be freely movable. There was no great amount of tenderness. The history and symptoms thus alike pointing to the lodgment of gall-stones in the cystic duct and bladder,

[3] In this auto-inflating bag there are two ball-valves connecting the tubes A and B with the bag. The tube B is for the purpose of filling the bag with the patient's respired air or with any vapour he chooses to aspirate with. It is not necessary in general use to employ this. Then the nasal tube alone is used. The slightest touch on the soft rubber bag, if properly applied during the swallowing of a little saliva, will inflate the tympanum.

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and the necessity for giving her relief being no less obvious, for she was being worn out with increasing pain, the operation of cholecystotomy was undertaken on Nov. 29th, 1888. A three-inch vertical incision was made over the centre of the tumour, a little nearer the middle line than the linea semilunaris. And now arose the difficulties in the operation, for the parts had lost all precise anatomical differentiation from being firmly matted and adherent together, and it was practically impossible at any moment to say where the scalpel was cutting. Presently a small cavity was opened which gave exit to two or three drops of pus-like matter. This only served to confirm the existence of inflammatory adhesions, which, from the free mobility of the tumour, had not been previously suspected. No track could be made out from this small abscess to the gall-bladder itself, and a fine aspirator needle was therefore passed into the centre of the swelling which now remained, and which, freed from the covering of the abdominal wall, already felt much smaller than before the operation was begun. There flowed at once through the cannula a small quantity of clear fluid, and I therefore passed first of all a director, then a pair of forceps, and lastly my finger, into the cavity which had been so luckily tapped. Minute facetted gall-stones were immediately felt, and to the number of twelve were removed with the finger or scoop. Finally, one stone, the size of a large marble, and somewhat firmly fixed in a remote corner of the cavity, was got out. Almost immediately there was evidence of escape of bile, the very best sign that the obstruction had been removed. All this had clearly been accomplished without opening the peritoneum; but the operation had not been easier on that account; nay, for the reasons named, it had been decidedly more difficult. Surgeons would invariably prefer, one would think, to have in such a case to cut through tissues which have a known relation to each other, rather than into parts which have been deprived of all such relationship by inflammatory and destructive adhesions. There were no bad symptoms of any kind after the operation. There was the usual copious flow of bile, and the wound steadily healed. The drainage-tube was taken out on Dec. 11th, and on the 15th the patient was able to be moved on to the sofa. A week after this the wound was healed. I have not seen her myself since, but Dr. Morton reported on Feb. 24th that she had made an uninterrupted recovery. She then expressed herself as quite well and comfortable. She has since been out of doors.

The opportunity may here be taken, in conclusion, of saying that the patient whose case was recorded in THE LANCET (Mirror, June 25th, 1887) by my then house surgeon, Mr. Lloyd, has enjoyed good health, without any return of her former symptoms, up to the present time. That also was a case of gall-stones blocking the cystic duct, but presented no difficulties or special features. A fourth case, still in the hospital, and even more satisfactory in its result than these three, will be published shortly.

THE INDUCTION OF PREMATURE LABOUR BY MEANS OF HEGAR'S DILATORS OF SPECIALLY LARGE SIZE.

WITH NOTES OF THREE CASES.

BY ARTHUR H. N. LEWERS, M.D., M.R.C.P. LOND.,
ASSISTANT OBSTETRIC PHYSICIAN TO THE LONDON HOSPITAL.

THE method most in favour at present for the induction of premature labour is the passing of a bougie several inches into the uterus, between the membranes and the uterine wall, and leaving it there till labour pains come on. Hot vaginal douches are usually given as an adjuvant from time to time while the bougie is in place. Now, it not rarely happens that there is a considerable interval between the time of insertion of the bougie and the setting-in of labour. This interval has been as much as a week in some cases that have come under my observation, both in my own practice and in that of others. It cannot be foretold with any certainty how long it will be before labour will come on after the insertion of the bougie. The practical inconveniences of this to everybody concerned are, of course, obvious. Another plan occasionally employed is to dilate the cervix with tents. Here there is the risk of septicæmia, and this is especially so if more than one set of tents has to be used.

Looking at the satisfactory results of dilating the cervix with Hegar's dilators in gynæcological practice, it seemed to me that a similar method was worth trying for dilating the cervix in order to induce labour. The ordinary dilators used in gynæcology are not, however, of sufficient size for this purpose, and therefore Messrs. Kröhne and Sesemann have supplied me with a larger series running up to No. 40, which is 1¾ in. in diameter. It will be remembered that the ordinary series stops at No. 26. The details of the method are as follows. The patient is given a copious vaginal douche of hot iodine water; she then lies in the ordinary obstetric position, and the os uteri is brought into view with Sims' speculum. Hegar's dilators are then passed one after the other till a size is reached which seems to be the largest that will for the time being pass into the cervix. The dilators lie ready for use in a porcelain tray covered with 1 in 40 carbolic lotion, and as each one is wanted it is dipped in terebene oil (1 in 5). In a few minutes the dilator will be found to be fitting less tightly, and then it may be withdrawn and the next size introduced. As the larger sizes are reached, more time should, if necessary, be allowed between the introduction of the dilators; but it may happen, as in my first case, that the whole series as far as No. 34 (which was then the largest I had) may be passed one after the other without any difficulty being met with. During the process the vagina is from time to time irrigated with 1 in 40 carbolic lotion. When the largest bougie of the series has been passed, it is left in the cervix, the lower end of the bougie resting against the posterior vaginal wall. The presence of the dilator, *plus* the degree of dilatation already present, may be sufficient to start strong pains, and when this is so, the dilator is withdrawn and labour allowed to proceed in the usual way. If only slight pains, or no pains, result—say, four hours after the insertion of the largest size—the membranes may be ruptured. Considering that the os is dilated to the size of a circle 1¾ in. in diameter, this proceeding is not open to the objections that apply to rupturing the membranes in the first instance, when the os is undilated. In the following cases the method just described was adopted, and the results, both as regards mother and child in each case, were satisfactory.

CASE 1. *Induction on account of children at term being of unusually large size; failure of ordinary method; success of method above described.*—J. D——, aged twenty-three, had been married three years and a half, and had had two children, the last fourteen months before admission into the London Hospital. She was admitted on June 11th, 1888, for the purpose of having labour induced. She said that both confinements had been very difficult, and that delivery had been accomplished by destroying both children with instruments. It was not clear, from her account, whether forceps only had been used, or whether craniotomy had been performed. Both children were very big; the last one was 23 in. long. The woman was below the average as to height, but there was little if any contraction of the pelvis, the measurements of which were as follows: between anterior superior iliac spines, 9½ in.; maximum measurement between iliac crests, 10¾ in.; external conjugate, 7⅛ in.; diagonal conjugate 4½ in., or a trifle less. At the date of admission the woman was estimated to be thirty-five weeks pregnant. On June 12th, at 3.15 P.M., a vaginal douche of iodine water was given, and a cellulold bougie with a stylet was introduced into the uterus. The total length of the bougie was 12½ in., and it was passed into the uterus so that the lower end was well within the vagina, and resting against the posterior vaginal wall. On the 14th hot douches were given every three hours after the bougie was inserted, but she had had no pains. The bougie was taken out and reinserted, the douches being continued as before. On the 18th, at 5.30 P.M., the patient had remained *in statu quo*. The bougie was therefore taken out, and Hegar's dilators were used to dilate the cervix in the manner already described. Nos. 16 to 26 of the ordinary series passed easily, and so did Nos. 28, 30, 32, and 34 of the special series. No tenaculum was used to steady the cervix, and all the dilators mentioned passed without any difficulty. At that time No. 34, which is 1½ in. in diameter, was the largest I had. It was left in the cervix till 8.30 the same evening, when, as the patient was having labour pains regularly, it was removed by Dr. Wright, the resident accoucheur. The labour then

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went on satisfactorily, and the child was born at 3.45 A.M., less than twelve hours from the time when the artificial dilatation of the cervix had been commenced. The child, a boy, weighed 8 lb., and was 20½ in. long; its biparietal diameter was 3⅜ in., and its bitemporal 3¼ in. The patient and her child did quite well, and went home on July 1st.

CASE 2.—E. W——, aged forty-six, was admitted into the London Hospital on Jan. 9th, 1889, for the purpose of having labour induced. She had had seven children; all her labours were difficult, and in her last confinement the child had to be destroyed and delivered with instruments. She reckoned that she would be at her full time on Feb. 9th. On Jan. 10th, at 4 P.M., the cervix was dilated with Hegar's dilators up to No. 32 without difficulty; this size was left in the cervix till 10 P.M., when No. 34, the largest we then had, was introduced. Copious hot douches were given frequently; and on the 12th, at 1 P.M., the largest-sized Barnes's bag was substituted for the Hegar's dilator by Dr. Lys, the resident accoucheur. On the 13th, at 2 A.M., as no pains had come on, the Barnes's bag was removed, and at 2.30 P.M. the membranes were artificially ruptured. Shortly afterwards labour pains came on, and the child, a girl, was born naturally at 8.45 P.M. It weighed 5 lb. 1 oz., and was 20 in. long. Both mother and child subsequently did well.

I may remark that it was in consequence of this case that I had several larger sizes of the dilators made, with the object that, if pains did not come on soon after the largest size had been passed, the membranes might be ruptured without disadvantage. In the next case this course was adopted with a perfectly satisfactory result.

CASE 3.—E. C——, age twenty-one, was admitted into the London Hospital on April 4th, 1889, for the purpose of having labour induced. She was last poorly some time in September, 1888. She was married on Oct. 7th, and had "seen nothing" since. (It was not quite certain whether she was actually married or not.) She has never been able to walk since she was a little child. When about two years of age she had strumous disease of both knee-joints, and some years afterwards was in the hospital with hip disease. At the present time both knee-joints and both hip-joints are fixed in a position of extreme flexion. The left knee and hip-joints are less absolutely fixed than the right. The whole right lower extremity is smaller than the left. There is a marked dorsal kyphosis and lumbar lordosis. The patient is very active and gets about on her hands and knees, though for obvious reasons she does not care to go out in the streets. When raising herself to her full height the top of her head is only 2 ft. 10 in. from the ground. To estimate what her height would be if her knee-joints and hip-joints were not flexed, the trunk, thigh, and leg were measured separately, and these measurements added together; this gave 4 ft. 10¼ in. as her height. The measurements of the pelvis were as follows: between the anterior superior iliac spines, 9¼ in.; maximum measurement between the iliac crests, 9½ in.; external conjugate, 6½ in. (or, taken a spine lower, 6 in.). On April 11th a careful examination of the pelvis was made under ether, the whole hand being passed into the vagina. The diagonal conjugate was 3⅞ in. The left hand, with the proximal phalangeal joints of the fingers flexed, was passed up so as to occupy the true conjugate. The points corresponding to the true conjugate were the proximal phalangeal joint of the little finger (lying against the sacral promontory) and the metacarpo-phalangeal joint of the index finger (lying against the pubes). This measurement was between 2¾ in. and 3⅛ in. An ordinary watch-spring ring pessary was also used to estimate the conjugate. One 3¼ in. in diameter was too large to fit into the conjugate; one 3 in. in diameter fitted exactly without being pressed out of shape. Owing to the marked lumbar lordosis, it seemed likely that there might be some obstruction higher than the anatomical conjugate of the brim. On May 13th I judged the patient to be thirty-two weeks pregnant. Hot douches of iodine water were given during the morning, and at 2 30 P.M. the cervix was dilated with Hegar's dilators. No. 9 was the first size used, and ultimately, in less than two hours the whole series up to No. 40 had been passed; this was left in the cervix. The patient was seen again about 9 P.M. She had then been having pains for about an hour. The dilator was then removed, and the membranes were ruptured. As this was being done a loop of the cord came down, but after raising the hips well by means of pillows, and keeping the head low, I was able to push up the cord with Braun's repositor (without the noose). The child, a girl, was born alive about an hour after midnight, the forceps being applied by Dr. Taylor, the resident accoucheur, when the head was low down. The child weighed 3 lb. 14 oz.; its biparietal diameter was 3 in.; bizygomatic, 2¾ in.; occipito-frontal, 4 in. The child was kept in the incubator (except when the mother was suckling it) for about three weeks. Both mother and child did well.

Wimpole-street, W.

ADDISON'S DISEASE ASSOCIATED WITH SYPHILIS AND LEPROSY IN A HINDU.

BY BEAVEN RAKE, M.D. LOND.,
MEDICAL SUPERINTENDENT OF THE TRINIDAD LEPER ASYLUM

As far as I have examined the literature of the subject, I have found no record of Addison's disease in dark-skinned races. Vandyke Carter[1] says that all the supra-renal capsules examined by him in lepers were healthy.

P——, aged fifty, a Hindu, was admitted to the Trinidad Leper Asylum on June 7th, 1884, with tuberculated leprosy of five years' duration. His skin was very dark, but not more so than many other East Indians, and the pigmentation was evenly distributed. The skin was very rough and dry, and he complained of a constant itching, to relieve which he used to scrape himself with an old razor. The nose was sunken from former destruction of bones. The right eye had been lost in Calcutta from injury. During his stay in the asylum he suffered on one occasion from violent pain in the back, which soon passed off. He gradually became blind from leprous invasion of the left cornea. He became extremely weak, sordes formed on the tongue and lips, and he died, without definite symptoms, on April 1st, 1889.

A necropsy was made the next day, sixteen hours after death, with the following result. Body rather wasted. Nose sunken. Skin dark and rough. No extra pigment in axillæ or groins. Fingers thickened; commencing ulceration at tips. Leprous thickening of skin of face. Scars on prepuce, with contraction of orifice and resulting phimosis; much pigment on inner surface of foreskin and on glans. Dark line along inner surface of lips and on gums; but gangrene and ulceration were beginning in the mouth. Median nerves thickened above wrists. Epiglottis ulcerated, and tip destroyed. Darkening of mucous membrane above epiglottis. Uvula nearly sloughed away. Ulceration and commencing gangrene of fauces. Thickening and ulceration of larynx. Both pleuræ somewhat adherent; several ounces of fluid in the left pleura. Lungs rather œdematous at bases. Weight of spleen, 8 oz.; simple hypertrophy. Weight of kidneys, 8 oz.; cystic. Old gumma on upper surface of liver, with some puckering. Supra-renal bodies converted into sacs about two inches long, and lined with brown débris and small yellow grains looking like minute tubercles. No trace of medullary portion. Capsules lying in much fat. Ganglia of aortic plexus about three-quarters of an inch long, and dark red in colour. The microscope failed to show bacilli in the supra-renals or ganglion. Stomach and intestines healthy. Weight of brain, 38 oz.; normal; much dark-brown pigment in pia mater over medulla and upper part of cord; some pigment in dura mater above superior longitudinal sinus. Weight of heart, 10 oz.; post-mortem staining. Femoral gland enlarged. No scars in groins. The capsules were sent to the Pathological Society.

Besides being a leper, this patient was the subject of well-marked syphilis, as shown by the destruction of the nasal bones, the ulceration and loss of substance in the fauces and epiglottis, and the gumma in the liver. Two of the three chief factors in Addison's disease were also present—viz., destruction of supra-renal bodies and progressive asthenia. So remarkable was the sac-like condition of the capsules that, when I first cut into them as they lay surrounded by fat in the abdomen, I thought I was opening bile-stained intestine. The gradual dissolution without marked symptoms was also very characteristic; during the last few days, however, the patient sank more rapidly. As regards the pigment I cannot speak so positively. The

[1] Leprosy and Elephantiasis, p. 79.

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darkening about the mouth and fauces was not worth much, for gangrene was beginning, and, moreover, pigment in these situations is not uncommon in negroes. Spirit also almost destroyed the dark colour. But on the glands and inner surface of the prepuce, and in the pia mater over the medulla and upper part of the cord, the pigment certainly seemed increased. There was also a little on the cerebral dura mater. As regards the skin, when one considers the very different shades presented by Hindoos, the pigment could not be called abnormal. Whether the changes in the capsules could be attributed in this case to leprous, syphilitic, or tubercular lesions is a difficult question. No leprosy or tubercle bacilli were found in the supra-renals or in the abdominal sympathethic, nor were there any tubercles in the lungs or elsewhere. Whatever changes had been going on in the capsules seemed to have reached the last stage, for the medullary substance was quite destroyed, and there was only a trace of cortex in each capsule. Judging from the loss of substance which had followed syphilitic lesions in other parts of this patient's body, it is at any rate possible that the destruction of the supra-renal bodies may have been caused by the breaking down of gummatous deposit. Barlow[2] has described a case of atrophy of the supra-renal capsules associated with gumma of kidney, and refers to fibroid and other changes in the supra-renals noted by Charlewood Turner, and others in the subjects of acquired syphilis. The condition of the capsules in the case described by Dr. Barlow is very similar to that now recorded.

Trinidad.

DEDUCTIVE EVIDENCE OF A UTERINE NERVE CENTRE, AND OF THE LOCATION OF SUCH IN THE MEDULLA OBLONGATA.

BY JAMES OLIVER, M.D., F.R.S. EDIN.

AT no time does Nature furnish us with any proof of bodies existing in a state of absolute rest. The whole molecular world, organic as well as inorganic, is, so far as we can ascertain, in constant motion. In consequence of this well-established principle, every function of the body may rightly be considered as resulting from a change in the molecular state of the organ manifesting such, and as being the expression of a correlative variation occurring in its representative nerve centre. Through the agency of long continuance the visceral disturbances are now carried on in a somewhat automatic manner, and fail to excite any feeling of their existence, although they may, at one time in the evolution of higher organisation, have produced a conscious sensation. In no organ do we find these revelations so well depicted as in the uterus. In every typically healthy woman, this organ, so long as it is free from the influences of gestation and lactation, is periodically for a greater or less length of time the seat of a regularly recurring functional variation in its molecular state, evidenced by the emission of a more or less marked hæmorrhagic discharge, and which to all intents is its sole manifestation. The disturbance is evolved quite independently of the will, and apart altogether from any definable excitation. It appears to be induced spontaneously through the agency of an automatic nerve centre, and fails in consequence to produce any conscious sensation. When, however, the uterus becomes the habitat of a developing ovum, or prior to this occurrence, and whilst segmentation is as yet progressing in the Fallopian tube, the waves of motion radiated by and from the germinal mass affect in a very decided manner the molecular state of the uterus, and determine a cessation of its routine function, and consequently of its regularly recurring manifestation of activity. Impregnation having resulted, other well-defined symptoms, in addition to those of the cessation of menstruation, are engendered, and help not only to guide the woman in arriving at a definite conclusion regarding her state, but aid us very materially in approximately estimating the duration of pregnancy.

The symptoms associated with pregnancy to which I wish more especially to draw attention as evidence of the existence of a generative centre and of its location in the medulla oblongata are two—sickness and cough. It has been alleged through the agency of experiments that the sexual centre is located in the lumbar region of the cord. This opinion, however, appears to me to be founded on no very substantial basis. The mere fact that all, or nearly all, the sexual phenomena may be witnessed in animals after the lumbar portion of the cord has as far as possible been isolated by section is of no very special criterion. The respiratory centre is located in the medulla, yet under particular circumstances all the movements associated with respiration may be carried on after the medulla has been entirely removed. From the earliest period of existence every organism has been endowed with two distinct qualifications: (1) that of maintaining self; (2) that of perpetuating the species. At first, in the most primitive state, the double function was performed by a uniform mass free from any semblance of structural differentiation. Habitual localisation of function, however, produces eventually a specialisation of structure, and with it the evolution of a nerve tract whereby interdependence is maintained. It is therefore feasible to suppose that the nerve centre which regulates the process of assimilation (the pneumogastric nerve centre) is either in close apposition, or at least in more or less direct communication, with that centre which presides over the organs of generation. All the visceral functions are now performed automatically, and appear to be regulated by nerve centres located in the medulla oblongata. It may, therefore, be naturally surmised that the uterine functions are governed by an automatic centre—a centre which, because of some innate quality, is thrown into a state of trepidation, and produces thereby evidence of associated disturbance in the uterus itself. When the uterus becomes the nidus for a developing germinal mass, the molecular state of the organ is altered and certain new impulses are generated. The waves of motion resulting from segmentation of the ovum and further evolution of the chick are radiated through the agency of the uterus and its afferent nerve fibres to the uterine or reproductive centre. These disturbances occurring in the uterus are in excess of those commonly generated; so, too, the disturbances correlatively produced in the uterine centre are greatly in excess of those usually developed. The extra amount of motion must discharge itself in some other direction until time has accustomed the uterine centre to the augmentation. The direction the overflow of energy shall take is determined according to existing nerve communications, and that centre is likely to be first affected by such radiations which is in closest proximity. Considering, therefore, the intimate relationship that exists through our life between the process of assimilation and the process of generation, it is not astonishing that the excess of molecular motion transmitted to the uterine centre should be radiated to, and expend itself upon, that governing the nutritive processes generally. In consequence of this there occurs early in pregnancy, and for a greater or less length of time, sickness, and in some women cough, At present we know but little of the nervous mechanism of vomiting; the respiratory centre seems, however, to participate in the act. Both phenomena (sickness and cough) in the pregnant woman may, with some amount of assurance, be referred to molecular radiations from the uterine to the pneumogastric centre. Usually, however, in the course of a few months, through the agency of labour, the pneumogastric centre becomes tolerant, and the symptoms evidencing disturbance in this centre coetaneously disappear. It is difficult to understand why the sickness should be experienced more especially, although not solely, in the morning. It is quite possible that the change from the recumbent to the erect position may after sleep render the whole nervous system more liable to explosive disturbances. The state of the stomach, too, may also aid in determining this somewhat anomalous phenomenon. Frequently we find epileptic patients who suffer only from these disturbances on assuming the erect position after sleep. The anomalous phenomenon, therefore, as it occurs in the pregnant woman, is not without a parallel. The more highly unstable the nervous system is generally, the more likely is a woman, when she becomes pregnant, to suffer markedly and for a lengthened time from sickness, whether matutinal simply or more or less constant. It is well, however, to remember that the inherent tone of the uterus itself will affect materially the molecular radiations engendered by the developing germinal mass and transmitted through the agency of the uterine tissue to the nerve centre. The resulting disturbances will be correlatively augmented or diminished according as the tone of the uterus is high or low.

Gordon-square, W.C.

[2] Path. Soc. Trans., vol. xxxvi., p. 433.

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Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

PULSATILLA IN THE TREATMENT OF EPIDIDYMITIS.

By ROBT. J. CARTER, M.B. LOND., M.R.C.S.,
HOUSE SURGEON, MALE LOCK HOSPITAL.

ACTING upon a suggestion made by Mr. Berkeley Hill, to whose kindness I am indebted for permission to publish the following results, for some time past patients at the Male Lock Hospital with gonorrhœal epididymitis have been treated by the internal administration of pulsatilla. The drug was exhibited in the form of the tincture, the doses given varying from five to thirty minims every four hours. One patient only complained of nausea after taking the drug. In the case of patients taking the larger dose the pulse-rate was perceptibly lowered, although in one case in which observations were made no diminution of temperature took place. Without going into the details of the cases, I find from a comparison with others treated by the usual methods that in no instance was the duration of the pain and tenderness less than the average; and, in fact, in several cases treated by pulsatilla alone, without local applications, the pain lasted rather longer than usual. The severity of the inflammatory process, as evidenced by the amount of plastic exudation thrown out, does not appear to be influenced at all by this drug. In fact, cases treated by it pursued the same course as when treated by simple rest in bed, attention to the emunctories, &c.; and, according to my experience of the drug, it is not even a useful adjunct to the treatment of epididymitis.

Dean-street, Soho, W.

TWO CASES OF ACUTE PNEUMONIA (BROTHERS).

By E. H. HARE, F.R.C.S.

W——, a boy aged seven, was seized with severe vomiting on Jan. 23rd, and on the following day signs of acute pneumonia in the right lung declared themselves. He was treated by an expectorant mixture, and three grains of compound ipecacuanha powder at night to give him a little rest. A grain of calomel was given to clear the bowels at first, and subsequently enemata as required. As the boy was a member of a somewhat delicate family, and as the prolonged high fever was trying him severely, after consultation with Dr. Dingley, three grains of antifebrin were given him at noon on Jan. 30th. Two hours afterwards he appeared to his friends to be much better, and, as they said, sat up and took food eagerly, "just as if there was nothing the matter with him." This, I presume, was at a period when the antifebrin had reduced the temperature to the normal, and no lower. In a short time, however, the continued action of the drug reduced the temperature still more, his extremities became cold, and his respiration of a somewhat gasping character. In this state my friend Mr. French of Hornsey was kind enough to see him in my absence, who, knowing the boy had pneumonia, but being ignorant of the administration of the antifebrin, concluded that he was witnessing phenomena immediately following the crisis of the disease. The crisis, however, though closely simulated by the action of the antifebrin, had not yet arrived; for the temperature that evening went up to 102° again, and continued high till the following afternoon, when it went down by rapid strides to the normal, and the disease was at an end. Feeding was very difficult in this case; but the food taken when under the influence of the antipyretic must have gone to the patient's credit in combating the fever, and herein lies one justification for its employment.

F——, aged ten, a brother of the above, living in the same house and subjected to the same conditions, fell ill on Jan. 24th, and underwent an attack of a similar nature and in the same lung, but the disease was much less extensive in area and of shorter duration. It is only to an initial symptom—namely, that of stercoraceous vomiting—to which I desire to draw attention in this case. When at the beginning of this boy's illness the mother showed me in a vessel a cylindrical mass about three inches long, having the shape, colour, consistence, and odour of fæces, which she told me the boy had vomited, I thought I had to do with a case of intestinal obstruction, and immediately explored the rectum with my finger and carefully examined the abdomen. I could find nothing abnormal, however. In the course of a few hours the vomiting ceased, and the bowels acted naturally. Signs of inflammation declared themselves in the right lung. This fæcal vomiting was therefore only an initial symptom of the pneumonia—and a very remarkable one, I imagine, as I can find no mention of such a thing in the ordinary text-books. I should like to ask from what part of the intestinal tract such a mass as above described can be supposed to have come. The contents of the end of the ileum are said to be as fluid as those of the duodenum under ordinary circumstances. Only two possible explanations occur to me—either that in consequence of the combined effects of the pressure of the abdominal muscles and the abstraction of water by the antecedent severe vomiting the contents of the small intestine had been so acted on as to become semi-solid, or that the mass actually came from below the ileo-cæcal valve, which is admitted as a possibility in the case of intestinal obstruction (See Fagge and Pye-Smith's "Medicine," second edition, vol. ii., p. 423.)

Crouch End, N.

CASE OF ACUTE ORCHITIS WITH ALARMING CONSTITUTIONAL SYMPTOMS; RAPID RECOVERY.

By GERARD J. PIERSE, M.D., B.CH., B.A.O.

J. B——, a healthy country lad, aged fifteen, just recovered from an attack of whooping-cough, complained on June 26th of headache, loss of appetite, feverishness, general feeling of malaise, and pain and tenderness in the right testicle, which he observed to be somewhat swollen. The constitutional symptoms increased in severity, and became so alarming that I was sent for in haste early the following morning. I found him delirious, taking no notice of anything except when roughly shaken, and then quickly relapsing into unconsciousness. His face had a dull, stupid look; tongue furred; pulse 120, full and bounding; temperature 103·2°; chest sounds normal; enlargement of testicle uniform, and of but moderate extent. There was no history of a cause. I gave him a mixture containing sulphate of magnesia, tartrate of antimony, and tincture of hyoscyamus, a dose to be taken every four hours; the testicle to be supported on a pillow, fomented every couple of hours with hot water, and afterwards smeared with a lotion containing equal parts of glycerine and extract of belladonna. The testicular inflammation being moderate, I did not deem local bloodletting necessary. A marked improvement had taken place in the evening. He was quite conscious; his temperature had fallen to 101·6°, and the pulse to 104. As his bowels had not moved, I ordered a dose of castor oil. On the morning of the 28th, having slept well during the night, he seemed to be quite convalescent. His face had a bright, healthy look, his appetite had returned, all feverishness had disappeared, and his temperature and pulse were normal. From this date the enlargement of the testicle rapidly diminished, until on July 5th no trace of it remained.

Tralee.

TWO MIDWIFERY CASES.

By T. J. HUDSON, M.D., L.R.C.P.LOND.

CASE 1. *Fœtal deformity.*—The first case is one of fœtal cranial tumour occupying the vertex, compressing greatly the two parietal and frontal bones, and giving a rather typical Chinese facial appearance, with slit-shaped orbits. The tumour arose from the scalp, was formed of vascular connective tissue, and had no communication within the cranium. At birth it consisted of three sessile lobes, each the size of a walnut, greatly engorged, and with a central depression between them. The mother (aged thirty-five) had had five healthy normal children, and there was no

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history of tumour on her side or on that of the father. The labour was extremely slow and severe, and before the secundines were ruptured nothing abnormal was felt. After this what appeared to be a small piece of placenta was felt, but it could not be pushed to one side. There being no hæmorrhage, I waited until the os was fully dilated, when three soft projections presented, and no foramen or definite bone could be made out, but a central depression between the lobes. The case being very lingering, I could only surmise it was a face presentation, with the cheeks and chin much enlarged and swollen, as usually occurs in lingering face presentations. I therefore waited, unwilling to use the forceps and perhaps injure the face; and the brim being not impacted, apparently the vectis seemed uncalled for. After five hours' strong uterine contractions, the posterior lobes next to the symphysis were born and soon followed by the rest of the head. The cause of the dystocia could not have been manually diagnosed beforehand, as it was not required or justifiable to insert the hand and then turn before the head was finally engaged in the pelvis, nor yet to perforate if unsuccessful. A few slight gasps were the only signs of life in the child. Cases of hydro-encephalocele have presented rather similar signs to the above.

CASE 2. *Variola at the seventh month of pregnancy followed by parturition.*—This case, though not uncommon, shows the need of attention to all symptoms complained of in or before labour, apart from their apparent connexion with pregnancy. Mrs. L——, a secundipara, aged twenty-seven, sent for me on Thursday, April 12th. She was then seven months pregnant, and there was no known cause for premature labour coming on. Great pain in the back was complained of, but no other symptom of labour presented. At intervals of two or three hours from the time I was called to attend her till Saturday, when the os began to dilate, and no remedy had had any effect on the severe back pain complained of. Her temperature was only two degrees above normal. On Saturday night a seven months' child was born alive. On removing the placenta the vagina felt unusually hot and dry. Next day the temperature registered 102° and she was generally ill. On Monday what most resembled a bromide rash appeared on the face and arms. The same afternoon it was a clear case of severe confluent variola with epileptiform convulsions. She was removed to the fever hospital, and, though very ill, recovered after over three months' stay there. The child died on the third day without any rash appearing. This same patient nearly died in a third attack of scarlatina three years ago. Of course the severe back pain before labour set in was entirely due to the variolous poison, but this could not have been suspected, for there were no cases of it in the district, nor had the patient knowingly been exposed to its contagion.

Leeds.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON TEMPERANCE HOSPITAL.

TWO CASES OF "POINTING" EMPYEMA; OPERATION; RECOVERY; REMARKS.

(Under the care of Dr. WM. J. COLLINS.)

THE surgical treatment of diseases of the lungs and pleura is of constant interest to the profession, and the publication of cases bearing on the subject is still of importance. Although in many respects the principles underlying the treatment of these affections are the same as obtained centuries ago, more exact pathological knowledge, and the employment of antiseptic dressings, enable us to give a much more definite prognosis, both as regards the duration of the treatment and the probable result of it. In the two cases which we publish below, the purulent collection had already extended outside the chest wall, and there was a fluctuating swelling presenting when the patients were admitted, associated in the case of the man with a carious condition of a rib, as found at the operation. An empyema may burrow in almost any direction, and the appearance of an abscess in the chest wall may be the first evidence of the disease. In both these cases incision was practised with free drainage; the child rapidly recovered, but the man only recovered after the removal of a portion of the rib already diseased. There is no doubt as to the propriety of the procedure employed in these two cases. Sometimes the surgeon is asked to treat these purulent collections by aspiration, and this is frequently done, especially if the patient is young or timid, if the empyema is small or multiple, and in adults also if the collection is a large one and of sudden formation.[1] But few surgeons care to continue this treatment unless the patient is healthy, and the cavity refills slowly. Steel of Chicago[2] says there is no question that in a certain minority of cases in children, simple aspiration in once or twice repeated will effect a permanent and satisfactory cure, and he gives the result of 121 cases. Of these, 19 per cent. were cured, six died, and the remainder required other treatment—usually, incision. Immerman wrote strongly in favour of syphon drainage in 1887. He permitted his patients to go about soon after the operation, carrying a bottle containing antiseptic fluid, to receive the discharge conveyed to it by the rubber tube inserted at the operation. Others have successfully treated cases in this way. With regard to the question of free incision and drainage, Bouilly of Paris gives the following indications and contra-indications for its employment: 1. Large cavities in which the lung is permanently collapsed and bound down; in these the operation is dangerous and useless. 2. Large cavities in which the lung, though condensed, still preserves a slight vesicular murmur. Intervention is then sometimes useful, particularly in young patients, and when the cavity does not extend beyond the third rib. 3. Cavities from eight to twelve centimetres are most favourable for treatment. 4. When fistulous tracks are present, the prognosis is less favourable if they are long and tortuous. 5. Cases in which there are moderate-sized cavities with fistulous tracks communicating with them; in these the prognosis is favourable. For the following account we are indebted to Dr. Leonard Wilde, house surgeon.

CASE 1. *Abscess over chest wall communicating with a pyo-pneumothorax in a child aged six months; free incision and drainage; complete recovery.*—G. C——, aged six months, was admitted on March 21st, 1889. The child is one of a family of six, one of whom died when twelve days old, the cause of death not being stated. One of her brothers suffers from a constant discharge from the ear after measles. Mother healthy. No history of phthisis. The child was born with a nævus on the left side of the back, which two months before admission began to grow rapidly, and was then treated with nitric acid. The mother stated that the child had had a cough for the last month, which had been short and hacking. The skin felt very dry, and the child had been very hot and fretful at night, and was wasting away. About a week before admission a small lump was noticed on the dorsal aspect of the left side of the chest, which rapidly increased, and became larger when the child cried or strained. She had never had any diarrhœa.

State on admission.—A wizened, pallid infant, crying when handled. She was brought to the hospital on account of a lump in the back. Just below the angle of the scapula on the left side was a fluctuating swelling about the size of a hen's egg, pressure upon which made the child cry. There was dulness over the swelling, but in no other situation. The breath sounds were audible above and below it, apparently normal, somewhat distant directly over the swelling. The latter was superficial to the ribs, and blue veins were seen coursing over the surface. Right lung healthy. Heart not displaced, and feeble in action. Liver and spleen not enlarged. Temperature 99 8°. Urine acid; no albumen.

A diagnosis of empyema having been made, Dr. Collins made an incision over the longest diameter of the fluctuating swelling, the child being under chloroform. A large quantity of pus was evacuated, with the escape of a considerable amount of air. The finger entered a cavity as large as an orange. On the application of a stethoscope loud bubbling râles were heard. A ¼-inch drainage-tube three inches long

[1] See Jacobson: Operative Surgery. [2] Sajous, 1889, vol. iii., No. 2.

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was inserted, and the wound dressed with iodoform gauze. The infant was put to bed under a tent and steam-kettle, made to lie continuously on the affected side, and fed on half a pint of cream daily, in addition to the bottle. From this time she made an uninterrupted recovery, the temperature never rising above 100°. The dressings were changed on the third day and daily afterwards; the tube was gradually shortened. The cavity was never syringed out at all. Cough was absent throughout.

The child left the hospital on April 6th, cured, much improved in appearance, and increased in weight.

CASE 2. *Abscess over chest wall communicating with loculated empyema, with caries of twelfth rib; resection of carious rib; free drainage of empyema; recovery.*—C. H——, a gasfitter, aged twenty-three, was admitted on Jan. 30th, 1889. The patient had rheumatic fever two years ago; since then he has been occasionally troubled with dyspnœa and palpitation. He stated that he was quite well up to about six weeks before admission, when he thinks he ricked his back. The following week he took to his bed on account of pain and stiffness. He went to work again in a few days, but was forced to resume his bed because of increasing languor and a swelling in the middle of the left side of his chest, and pain which he described as severe aching and throbbing. Previously to this swelling he had suffered from pain in his left side, worse on coughing or on taking a deep breath. He had since suffered from slight dyspnœa, and had night sweats.

State on admission.—A pallid-looking man, complaining of a swelling over the lower ribs of the left side. The chest moved well in respiration, both sides apparently equally. Situated over the lower part of the left side of the chest, below the angle of the scapula corresponding to the tenth and twelfth ribs, was a fluctuating tumour, the same colour as the surrounding skin, about three inches in the longitudinal and two inches in the vertical diameter. Over this swelling the breath sounds were diminished in intensity. When the patient coughed there was a slight impulse. Over the ninth rib there was marked tenderness; lungs otherwise healthy. Heart not displaced; sounds somewhat feebly heard. Abdomen normal. Temperature elevated at night-time. Urine acid; sp. gr. 1010; no albumen.

On Feb. 1st he was placed under ether, and the swelling freely incised, a small quantity of thick pus, with masses of caseous matter, being evacuated. The abscess extended to beneath the lower border of the ninth rib, a small portion of which was felt to be bare. After this time the temperature became irregular, rising to 102° in the evening. He remained *in statu quo* until March 14th, when he was again put under ether, and Dr. Collins enlarged the former incision to four inches, and found the twelfth rib to be bare and carious. Just above the rib the finger could be inserted into a small cavity. About one inch of the rib was removed, the cavity washed out with boracic acid, and a large drainage-tube inserted to the extent of about two inches and a half.

March 16th.—Very restless at night. Temperature 103°. Wound dressed. Very free discharge.

18th.—Brighter in appearance, and more cheerful. Tongue clean; appetite good. Temperature 100°. Discharge much less and sweet.

26th.—Dulness on left side below angle of scapula, extending to axillary line in front. Diminution of breath sounds as compared with right side. Vocal resonance diminished.

April 8th.—There is considerable lateral curvature concave to the left, the right side being an inch and a half in excess of the left.

11th.—Got up for four hours. Very little discharge. Wound dressed every other day. Temperature normal night and morning.

On the 22nd the patient left the hospital, his condition being as follows. The old sinus had nearly healed, the tube having been discontinued. Right lung healthy. Left lung: There was a patch of dulness about two inches in circumference around the sinus, over which the breath sounds were inaudible; in other respects the lung appeared healthy.

Remarks by Dr. COLLINS.—These two cases tend to bear out the opinion that empyema is far less serious, more readily and rapidly curable, and more tolerant of surgical interference in childhood than in adult life. In both cases pus in the pleura had occasioned subcutaneous abscess, pointing posteriorly; in the infant there had also been extension through the pulmonary pleura into the lung, yet the child was well in seventeen days, while the man was in the hospital several weeks. The costal caries in the latter case was, I apprehend, secondary to the empyema; the last rib being the one affected rendered Estlander's operation of resection rather more difficult and delicate of performance than it usually is. The dorsal abscess in the infant was not tympanitic, though there was some bulging thereof on crying; the communication with the lung was presumably recent and secondary, not due to pulmonary abscess or gangrene; there was great pulmonic collapse, and through the airless and compressed lung the cardiac pulsations could be felt with the finger.

BURTON-ON-TRENT INFIRMARY.

A CASE OF RUPTURED LIVER; DEATH; NECROPSY; REMARKS.

(Under the care of Mr. MASON.)

IN the department of abdominal surgery such increased activity has taken place during the last few years that cases which have been subjected to operation after the receipt of injury to any of the viscera should be recorded as fully as possible. Lacerations of the liver are not uncommon results of accidents, but the termination is not necessarily fatal. "It is always impossible to estimate the amount of injury in the most favourable cases, or to calculate the amount of blood extravasated."[1] And it is impossible to state the extent of laceration after which recovery may occur. A case is described by Mr. Athol Johnson,[2] in which there was an extensive rupture of the upper surface of the right lobe of the liver five inches in length, but not extending deeply into the substance; this had healed; the patient subsequently died from spinal injury. For the following notes we are indebted to Mr. W. Oldham, house surgeon.

J. S——, aged fourteen, was admitted on May 14th, at 6 P.M., in an extreme state of collapse, with a history of having been run over by a light milk-cart, but the exact direction taken by the wheel could not be ascertained. There was a scalp wound in the right temporal region four inches long going to the bone; also distension and tenderness of the abdomen, the tenderness being most marked in the right iliac region. No fracture could be found anywhere. Warmth was applied to the extremities, and a dose of opium and brandy administered.

May 15th.—Slept badly. Temperature 97·8°; pulse 120; respiration thoracic. Abdomen more distended and tympanitic in front and in left loin; dull on right side and iliac region. Complains of great pain on pressure. Lies on his back with legs and thighs flexed. Has passed urine twice; specific gravity 1020; contains urates, but no albumen or blood. He was ordered ten minims of tincture of opium every four hours, to be fed with nutrient enemata, and to take nothing by the mouth but ice.

16th.—Had about two hours' sleep. Abdominal pain very severe; dulness increased in the right iliac fossa; no bruising visible about abdomen, but right superficial epigastric vein distended. On examining per rectum, after emptying the bladder, a large fluctuating mass was easily felt in the pelvis, supposed to be blood from a torn artery or ruptured liver. Laparotomy was performed, and three or four pints of blood were found in the abdominal cavity, but no bleeding point was discovered. The peritoneal cavity was washed out with warm water till it came away quite clear. The incision was sutured up, and the wound dressed with iodoform gauze. The liver had not been exposed.

17th.—Slept better, and the pain has been much easier. Temperature 96·4°; pulse 130; respiration thoracic.

18th.—Temperature 98°; pulse 132. Very restless. Pain and abdominal distension increasing. Ordered one-third of a grain of opium and one grain of calomel every four hours.

19th.—The restlessness had continued, and he died suddenly at 2 A.M.

A post-mortem examination was made thirty-six hours after death. The scalp wound and abdominal incision had healed by primary union. The pelvis contained about a pint and a half of blood-stained fluid. Two coils of the small intestine were glued together with lymph, and the

[1] Holmes' System of Surgery, vol. i., p. 880.
[2] Medico-Chirurgical Transactions, vol. xxxiv.

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whole peritoneum was stained with bile pigment. There was a rent in the upper part of the right lobe of the liver six inches long and two inches deep, the greater part of which had healed. After death it was ascertained that the wheel went up the right thigh, side of the abdomen and chest, and over the shoulder on the same side.

Remarks by Mr. MASON. — The case is remarkable in two respects: firstly, in the severe injury inflicted without any external marks; secondly, in the physical signs, as the dulness was absolutely bounded by the umbilical line and did not extend beyond the middle line, the left flank being quite resonant. This was not due either to peritoneal adhesions or clotting of the blood, which was quite fluid. The intestines, on being withdrawn from the abdomen, were of a uniform bright-red colour, and quite free from lymph, but for two-thirds of their length were collapsed to such an extent that a careful examination was made for the existence of a stricture, but nothing was found to account for the condition. When the peritoneum had been emptied of its fluid contents, without finding any ruptured vessel in its lower part, I thought it better, as it was evident that no bleeding was going on then, and that the pulse was getting worse, not to examine the liver at the risk of breaking down any adhesions which had formed. The case also shows that it is possible for repair to take place after very serious injury to the liver, the rent being filled up with tenacious organising lymph. It was evident before the laparotomy that the boy could not live more than a few hours if left alone, so that I consider the removal of the great mass of blood gave him another chance of recovery. Shock from the accident, however, had been extreme.

VICTORIA HOSPITAL, RIVER GAMBIA, WEST COAST OF AFRICA.

CASE OF MENINGITIS COMPLICATED BY ABSCESS IN THE RIGHT CORPUS STRIATUM; DEATH; NECROPSY.

(Under the care of Dr. PERCY RENDALL.)

THIS case is one in which, on post-mortem examination, an abscess of the brain was found in the corpus striatum, the presence of which was unsuspected during life. Destruction of the corpus striatum is followed by paralysis of voluntary motion on the opposite side of the body, and imitation of it by spasmodic contraction of the muscles on that side. The account of this case, however, illustrates the fact mentioned by Gowers: "A small abscess in the corpus striatum or optic thalamus may cause no symptoms, but in some cases there is hemiplegia, doubtless from implication of the internal capsule." In the absence of history no cause is suggested for the presence of this collection, which, although of small size, might have been expected to cause symptoms, from the importance of the part in which it developed. There appears to have been no morbid process in other parts of the body by which septic material could have been produced and thus led to embolism, and this suggests some "local" causation.

C. B——, aged forty, a Joloff, was admitted on Nov. 30th, 1888, in a helpless and starving condition, being brought on a stretcher by the local police. No previous history was obtainable. A liberal and nourishing diet of a fluid character was prescribed for him, and in a few days he was able to feed himself. On examination, he was found to be an emaciated subject, with no external lesion except a superficial bedsore on the crest of the right ilium. His legs and thighs were kept flexed and rigid. Arcus senilis well marked. His mental condition appeared to be inferior to that of an animal (even through an interpreter who was cognisant of his language), for he never seemed to be roused except by the sight of food. His temperature was subnormal throughout. He passed his motions and urine involuntarily from first to last. He died somewhat suddenly on Dec. 10th, at 6.40 A.M.

A necropsy was held at 4 P.M. the same day. The thoracic and abdominal organs were, to all appearance, perfectly healthy and normal, excepting for the presence of a small accessory spleen. Upon removal of the skull-cap, however, the dura mater was found to be firmly adherent to the brain mass on each side of the superior longitudinal sinus; traces of old-standing meningitis were also seen reaching transversely across the surface of the cerebrum, just above the level of the torcular Herophili. As far as one was able to judge, the cerebro-spinal fluid seemed to be somewhat in excess. On vertical section of the right corpus striatum, a small collection of pus was found, surrounded by a localised area of degeneration (not exceeding in size an ordinary filbert), situated in the extra-ventricular nucleus, and strictly limited above by the internal capsule. With this exception the encephalon was healthy. No traces of atheromatous degeneration could be found in any of the vessels at the base of the brain or in the aorta, notwithstanding that a careful examination was made.

Medical Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Abdominal Section in Typhoid Fever—Case of Cholecystotomy.

A MEETING of the Medical Section was held on May 17th.

Dr. J. H. NICHOLAS read a paper on Abdominal Section in Typhoid Fever. The histories of two cases were communicated, and specimens shown for the purpose of inquiring as to whether the operation of opening the abdomen was justifiable in perforation of intestine in typhoid fever. It was assumed that the acute peritonitis, which was present in these cases, was set up by the presence of the fæcal matter in the abdomen; and, consequently, that the existence of this diffused form of acute peritonitis might be accepted as a diagnosis of perforation existing; and as recovery, with fæcal matter exuded into the cavity of the abdomen, was absolutely impossible, it was suggested that an operation might be performed early in the disease before collapse appeared—the operation consisting of opening the abdomen, washing out, and sewing the opening to the anterior wall of the abdomen. Among the many objections the following were mentioned: 1. Difficulty of diagnosis. 2. Condition of the patient. 3. Difficulty of finding the perforation. 4. Diseased condition of the wall of the gut. 5. Many cases of diagnosed perforation having recovered. The author endeavoured to answer these objections.—Dr. BALL said the treatment of perforating ulcers from typhoid fever by abdominal section had been adopted on several occasions with results uniformly fatal; and if not uniformly so, yet that such were to be expected was due to the fact that the union of intestinal wounds demanded not only a very accurate adjustment but a very rapid healing of the parts.—Mr. L. H. ORMSBY endorsed Dr. Ball's observations; and therefore if he performed abdominal section at all, he should select his case. Indeed, if called upon by a physician to perform the operation he would refuse rather than hold out any hope of success.—Dr. MYLES wished to know how an accurate diagnosis was made. The text writers pointed to the disappearance of the area of tympanitic dulness, but he knew of a boy who having been run over by a car, sustained severe injury to his abdominal wall and manifested all the symptoms associated with perforation of the intestine. Though urged to do an abdominal section, the surgeon in charge refused, and the boy next day got well. He did not think it possible to select cases, the operation being one of necessity rather than of selection. The question was whether the operation would shorten the patient's life. He had himself seen patients who had survived typhoid with deep ulceration.—Dr. NICHOLAS, replying, said, as regards diagnosis, collapse from ulceration in typhoid fever did not come on suddenly, but appeared gradually to increase from an unknown commencement, and was due to the fæcal poison, and was not the result of perforation. The whole theory stood or fell in respect of the acceptance of the condition of acute peritonitis as being a point of diagnosis. The peritonitis was set up by the presence of fæcal matter in the abdomen, and not by the extension of ulceration from the inflammation.

Drs. WALTER SMITH and C. B. BALL communicated a successful case of Cholecystotomy. The patient, a young married lady, was suddenly attacked with sharp pain in the upper part of the abdomen. Two days later a small tumour was detected by Dr. Keogh, with whom Dr. Smith saw the case. The tumour was diagnosed as the gall-bladder distended by obstruction of the cystic duct, probably by gall-stones. There was no jaundice; the stools were of normal appearance, and there was no pyrexia. An exploratory operation was proposed and agreed to, and the operation

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was performed on March 1st by Dr. Ball. The abdomen was opened in the middle line for about two inches above the umbilicus and the gall-bladder, which was deeply congested and adherent to the surrounding structures by recent lymph, was brought up to the wound. It was punctured, and exit given to fluid devoid of bile-colouring matter, but containing a quantity of whitish putty-like material (which was subsequently proved to be composed of crystals of phosphate of lime); the opening was dilated sufficiently to admit the entrance of a finger, and seven small gall-stones were removed. The cause of the obstruction could not be felt. The gall-bladder was stitched to the wound. Two days after operation a copious flow of bile came by the wound, and a mucous plug was removed from the gall-bladder with a scoop; this had probably been the cause of the obstruction. The wound healed rapidly without leaving a fistula, and the patient completely recovered.—Dr. KEOGH said he had the great happiness of diagnosing the mischief in the case under discussion. The tumour was plainly in the gall-bladder; and in that diagnosis Dr. Walter Smith agreed. As regards the progress of the recovery, the lady was apparently perfectly well. Dr. Ball having gone away, the lady again called his (Dr. Keogh's) attention to the seat of operation, and being alarmed at what seemed to be a recurrence, he opened the section and there exuded a couple of tablespoonfuls of limpid fluid. In a few days afterwards it was apparently filling again. On the second occasion the bile appeared for the first time coming from the gall-bladder itself. In the course of the last few days he received a letter from her stating that she was perfectly well.—Mr. FOY said the operation was performed in Venice in the year 1425.—Mr. KENDAL FRANKS said there were some points of great similarity between the case and one in which he operated, the details of which he recorded at the Surgical Section. When the gall-bladder was opened there did not seem to be a gall-stone blocking the duct or impacted in the canal. It was the same in his case. There was complete obstruction, however. When he opened the gall-bladder he got four large stones, larger than those exhibited in the present case. Washing the gall-bladder out subsequently, he met with a large clot of inspissated mucus. In the present case the inspissated mucus was the origin. In his case its removal had very little effect beyond the slight staining of bile on the fæces subsequently. His conclusion, beyond doubt, was that the case was one of obstruction due to stricture. That case made a complete recovery as far as relief from the origin of the symptoms went. An interesting fact was that the total discharge externally, without passing through the intestine, did not seem to affect the process of digestion. Indeed, her digestive power seemed to increase rather than diminish by loss of bile from the ordinary channel. As a criticism on Dr. Ball's objection to the fistula at the side giving rise to ulceration, in his own case he saw the patient eighteen months afterwards, and there was no ulceration or inconvenience. In another case of a foreigner passing through Dublin, a boxful of gall-stones had been removed, a fistula resulting, through which the bile flowed, but except the constant drenching, she suffered no ill effects, and there was no ulceration. With proper precautions and cleanliness, he did not think the dread of that need be a drawback where fistula resulted.—Dr. BALL briefly replied.

Dr. J. F. KNOTT read a communication on an old Venetian "Bleeding-glass" which he purchased in Venice; also a note on the Fatigue Fever of M. Peter.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE annual meeting of the Medico-Psychological Association, under the presidency of Dr. Hayes Newington, was held on Thursday, July 25th, at the rooms of the Medical Society of London, Chandos-street, W. The affairs of the Association are in a very flourishing condition, both numerically and financially, and an increasing number of candidates for the diploma of the Association are coming forward. This diploma can be obtained only after a stringent examination, theoretical and practical, and is a guarantee that the holder has a thorough knowledge of insanity and its treatment. The Association is doing good service in thus encouraging a more extended knowledge of this important branch of the profession. The attendance of members was fully up to the average of former years, and the able address of the president, which dealt chiefly with the question of instituting lunatic asylum hospitals for teaching purposes, was heartily applauded and followed by an animated discussion. In the evening the members dined together at the "Ship" at Greenwich.

The following are the office-bearers for the year:—President: Dr. Hayes Newington. President Elect: Dr. Yellowlees. Treasurer: Dr. Paul. Editors of Journal: Dr. Hack Tuke and Dr. Savage. Auditors: Dr. T. Outterson Wood and Dr. Ernest White. Honorary Secretaries: General—Dr. Fletcher Beach; for Scotland—Dr. Urquhart; for Ireland—Conolly Norman, F.R.C.S.I. Members of Council: Drs. Craddock, Schofield, Williams, Patton, Ireland, Clouston, Strahan, Cook, Courtenay, Greenlees, Macleod, Wiglesworth, Baker, Spence, and Nicholson, E. B. Whitcombe, M.R.C.S., S. H. Agar, L.K.Q.C.P.I., and W. R. Nicholson, M.R.C.S.

NORTH-WESTERN & YORKSHIRE BRANCHES OF THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

A COMBINED MEETING of this Society was held on the 26th ult., at Doncaster, to discuss the Notification of Diseases Bill and to hear a paper by Mr. F. Vacher of Birkenhead on the Sanitary Requirements of the Modern Dwelling-house. Dr. J. Mitchell-Wilson of Doncaster presided. After a short discussion a resolution was adopted approving the judgment of Sheriff Principal Berry in the tuberculosis award cases recently heard in Glasgow, the opinion expressed being that given signs of tuberculosis in an animal, the flesh itself not being visibly affected, it is desirable to hold the whole carcase as unfit for food. Next was discussed the Notification of Diseases Bill. The meeting approved of the method known as "dual notification," involving the notification by the medical practitioner and the householder. A resolution was also carried that the fee for the notification to medical men be uniform, and it was suggested that such fee be 2*s.* 6*d.* Mr. Vacher then read his paper, a discussion ensued, and the meeting was brought to a close.

Notices of Books.

Practicum der Pathologischen Histologie. Von Dr. OSKAR ISRAEL. Berlin: A. Hirschwald. 1889.—The author of this book is first assistant to Professor Virchow at the Pathological Institute, and he dedicates it to his illustrious master. The work is intended as a guide to practical pathological histology, and may be compared with the similar work of Woodhead. It opens with descriptions of the methods of section cutting, staining, and mounting, and this part of the subject is carefully kept within reasonable limits, the methods being described in clear language, and not complicated by reference to any but the most essential. The results of microscopic examination of diseased tissues and organs are then dealt with in a very systematic manner, commencing with the appearances of cadaveric changes, and dealing next with pigmentary changes, such as those due to chronic venous congestion, hæmorrhage, and icterus. Hypertrophy, atrophy, and the infiltrations and degenerations are next discussed. Then come sections devoted to "variations in number, kind, and arrangement of the tissue-elements"—viz., hyperplasia, metaplasia, and inflammation. This last subject is treated by first describing the products of inflammation, considerable attention being given to pus, its constituents and their changes, and admixtures with other products. Cohnheim's experiments are then alluded to, whence the reader is taken to the consideration of granulation tissue, the healing of wounds, and other cognate topics. Special forms of inflammation are next dealt with—e.g., tubercle and syphilis,—but strictly from the histological standpoint. The tumours are divided into: histioid (connective-tissue tumours)—as sarcomata and myomata; organoid—as carcinoma and adenoma; but it is singular how briefly they are dis-

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missed as compared with the extended treatment generally accorded them in works of this class. Far otherwise is the consideration given to the subject of parasites, for the bacterial pathogenic organisms and forms of animal parasites are described in fairly full detail. The remainder of the book is devoted to the description of the morbid characters of the various organs, and it is remarkably comprehensive. The text is illustrated by a large number of well-executed and original illustrations, and there is an excellent index. Although this work cannot compete with such a book as that of Prof. Ziegler, it is most likely to be largely used as a guide in laboratory work, and, so far as we can judge, it will be found to be both accurate and trustworthy.

The Treatment of Lateral Curvature of the Spine, with an Appendix on the Treatment of Flat-foot. By BERNARD ROTH, F.R.C.S. London: H. K. Lewis. 1889.—Mr. Roth's views on the pathology and treatment of lateral curvature of the spine are now well known to the profession from his article in Heath's "Dictionary of Practical Surgery," and from his papers at the clinical societies and in medical periodicals. The small volume before us will, however, be more convenient for study, and it will be specially welcome as giving a more detailed account of the plan of treatment he carries out than is to be found elsewhere. It is to be hoped, too, that the publication of this little book will do something to check the unscientific and often disastrous treatment of scoliosis by spinal supports and by prolonged rest. A careful study of this disease cannot but lead to the conclusion that muscular debility plays a most important part in its causation, and that therefore such means as the above, which tend to increase this debility, are largely answerable for the gradual increase of the deformity so often seen. There seems to us to be but one objection that can be raised to the treatment advocated in Mr. Roth's book, and that is the trouble and expense it entails. This is undoubted, and the fact will be of service if it helps to enforce the lesson that in the great majority of cases this deformity is self-induced, and ought to be prevented. It is certain that a tithe of the care and expense entailed by treatment of a lateral curve of the spine expended in the earlier management of the patient would prevent 90 per cent. of the cases of this deformity. With the widespread neglect of physical training in girls' schools and at home, the wonder is rather that any young girls have straight spines than that a few have curvatures.

Leitfaden für Operationsübungen am Cadaver und deren Verwerthung Beim Lebenden Menschen. Von Dr. E. GURLT, Geheimer Medicinalrath und Professor der Chirurgie an der Königlichen Friedrich-Wilhelms Universität zu Berlin. Siebente Verbesserte Auflage. Berlin: August Hirschwald. 1889.—It is nearly thirty years since Dr. Gurlt published the first edition of this guide to operations on the dead subject, and the facts that it is still largely read by German students, and that seven editions have been called for, are eloquent testimony to its worth. It is not an elaborate treatise, but a plain text-book for the students attending the author's course of operative surgery. Many operations, therefore, are not described at all, such as ovariotomy and the various operations for hernia. Nor do we find many alternative methods given to the one which Dr. Gurlt considers the best. The directions offered are plain and terse, and the anatomical details are carefully described. Altogether it is an excellent manual. There are no illustrations, and in this it markedly differs from English text-books on the same subject.

Papers on Dermatology. By E. D. MAPOTHER, M.D. London: J. & A. Churchill.—This is a work of 100 pages, containing a few rare cases, lectures and papers, not all of them on dermatology, and most of which, if not all, have been previously published, and are now only revised. The most interesting are—(1) An Anomalous form of Eczema, resembling Paget's disease of the nipple and affecting the right tragus and adjoining skin, in a woman aged forty; (2) a case of Ichthyosis acquired at the age of forty-three; (3) the Vascularity of the Skin, with the advantage of topical bloodletting in various affections; and (4) the Irish Sulphur Spas of Lisdoonvarna and Lucan. The Gowlaun spring of Lisdoonvarna contains five and a half cubic centimetres of sulphuretted hydrogen to the litre, and, as usual in this kind of Spa, there is a chalybeate spring, but of no great importance. The Lucan Spa is less used, and is slightly more aperient and diuretic. The articles are written in a gossipy style, which makes them easy reading.

THE BRITISH NURSES' ASSOCIATION.

AS we briefly announced in our issue of the 20th ult., a meeting in support of this Association was held at the Mansion House, the Lord Mayor presiding, on July 17th. There were also present on the platform: H.R.H. Princess Christian (attended by Mrs. Jeune), the Lady Mayoress, Mr. Savory, Sir J. Crichton Browne, Mr. Brudenell Carter, Professor Marshall, Sir Henry Acland, Sir Dyce Duckworth, Dr. Sturges, Dr. Pavy, Dr. Coupland, Mr. Herbert Page, Mr. Wakley, Dr. and Mrs. Bedford Fenwick, Dr. Priestley, Dr. Matthews Duncan, Sir Douglas Galton, Mr. Thomas Smith, and the matrons of St. Bartholomew's, the Middlesex, and many other large London and provincial hospitals.

The LORD MAYOR, in opening the proceedings, said he observed from the programme that had been laid before him that it was intended, if he said anything at all in regard to this subject, it should be at a later stage of the proceedings. He was very glad to see so large a gathering on that occasion, because it seemed to indicate that a very deep interest was taken in this subject. As he understood the matter, the object of this Association was to elevate the status of the best trained nurses, and to give a better guarantee to the public in regard to their qualification. He did not understand that the proposal of this Association was in any way to give a guarantee as to the personal character of the nurses; but if, by this Association or by any other means, the general character and qualifications of nurses might be so improved as to give a better guarantee to the general public than at present exists, he was sure there was no one present and no one outside who would not hail its exertions with acclamation.

Mr. SAVORY then addressed the meeting as follows: Your Royal Highness, my Lord Mayor, Ladies and Gentlemen,—the cause which we are met in this historic hall to promote is one that must, I think, commend itself to the judgment and the sympathy of all. Nursing may safely be described as the oldest of the services, and the fitness of woman for the work has been in every age a theme of which poets have loved to speak and painters to paint. But in no art—for let it never be forgotten nursing is an art, and at its best a very high one—has there been of late years more singular improvement and rapid progress. All in some measure recognise this, but it is perhaps only by those whose duty associates them closely with nurses and their work that it is and can be fully understood. Nursing of to-day, compared with that of former years, has been completely changed for the better; and our nurses now are no longer left to find their way to such comprehension of their duty as can be made out, but they are properly trained and educated for their office. To patience, gentleness, and sympathy, all that a woman naturally brings to the work, are now added knowledge and skill, and by this means, of course, the art of nursing itself has been raised in importance; and thus it has come to play, and must play, a far more conspicuous part than formerly in mitigating the suffering and promoting the recovery of the sick. So it has seemed to many, and amongst them most of those best qualified to judge, that the time has come when another important step should be taken: that those women who are fully taught should be enrolled in some way into a society—

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should be, in fact, registered in order that their position may be recognised, and that the public may be able to distinguish those who are duly qualified, and that a guarantee may be thus offered of competency for the performance of this responsible and necessary duty. This seems to me to be so reasonable and so largely needful that I venture to think to propose it is to recommend it to general acceptance. I have never heard, I do not know, of any valid objection to such a step. It seems to me to come now in its due place as the natural result of the progress that has been made. I cannot doubt that the Association, with such a Register of Nurses as it will be at once able to secure, will become the means of powerfully supporting the advance that has been already made, and, encouraged by such union and co-operation, I fully believe the progress will be greatly increased in the future. Happily the future of such a good and needful work is now assured. The kind of nursing that was once endured in our midst is no longer possible. The old "hospital nurse," as she was termed, and who has been so skilfully treated by the humourist, can no longer be found in our midst. These nurses have now been superseded by others, who assuredly will be offered their tribute in the pages which in the future will describe the manners and the customs and the life of our time. The advance that has been made is shown too in another way—viz., by the position and education of those who now so freely join the ranks of our nurses; in every sense gentlewomen are becoming nurses. And last, but assuredly not least, that the service is a worthy one is shown by the fact that Her Majesty looks with favour upon it. To-day, moreover, we rejoice in the presence of Her Royal Highness Princess Christian, who presides over our Association of Nurses, and who, I may be allowed to say, is pleased to take a deep interest in its work.

Sir J. CRICHTON BROWNE said: As Mr. Savory has told us, a skilled nurse is truly an artist. In the days in which art has flourished, artists of all kinds have been in the habit of uniting themselves into guilds and associations for their mutual encouragement and help; and the time has now arrived when those who are artists in nursing in this country have resolved that they shall have a guild of their own, which shall promote their usefulness, supply some wants which they have felt for a long time, and be of service to them in many ways. We are met to-day to give our countenance and support to the nurses in this undertaking. If this Association aimed simply at benefiting the nursing body, at improving their status, and relieving them of some of the anxieties which must now haunt them in their vigils, by providing for them a competency in old age, it would be worthy of our support, because we all owe some measure of gratitude to the nurses. But the Association has a higher and wider object, for it aims at raising the standard of nurses generally, and at offering to all who desire it a reasonable guarantee that those who minister at the bedside are possessed of adequate knowledge and skill. Surely that ought to come home to all of us, for there are few of us who can hope to avoid the sick-room. And we all ought to agree to do our utmost to ensure that the alleviation and the succour that skilled nursing can afford should be available when the hour of trial comes. We ought, moreover, to be able to know that those who profess to nurse are really capable of doing so. It is a truism to say that the issues of life and death often depend upon a skilled nurse, and it is, therefore, of the utmost consequence to the whole community that everything that is possible should be done to make nurses expert and efficient, and that means should be given for discriminating between nurses who have been properly educated and trained and those who are mere tyros. It seems to me this Association will tend to raise the standard of nursing by supplying an incentive to practical work to nurses who are young. It is certain, moreover, it will, by the register it proposes to establish, enable the public to select for employment trained nurses, if they desire the services of such women. No doubt there have been enormous advances in the training of nurses, and there are now larger numbers of thoroughly competent and skilled nurses; but there are, it cannot be denied, many who are very incompetent. The need of a check on nurses is already recognised in that department of public service with which I am connected, for the name of every nurse who is dismissed for any serious fault from any lunatic hospital has to be sent up to the Commissioners of Lunacy in London, who keep a black list which has to be consulted. Nurses often are permitted to resign to avoid dismissal because of faults, and then, of course, no record is kept. At present, general nurses may go on plying their vocation with impunity after they have been convicted of serious offences, and when they are entirely ignorant of the rudiments of their profession. We all know the futility and weakness of some testimonials, and yet at this moment there is not in this country any authoritative list that can be searched, and from which it can be ascertained whether any particular nurse has been properly trained, and whether she is expert in her calling. In the case of plumbers, who look after our domestic appliances, it has been found expedient to establish a system of registration, and I notice in the present session of Parliament a Bill has been introduced for the registration of architects and surveyors. Is it too much to ask, then, that nurses, whose duties are not less responsible than those of plumbers and architects, should have an opportunity of recording in a formal way whether they have been properly trained for their work, and that the public should have access to that record. Of the ultimate success of this Association I have felt tolerably certain since I heard its objects and proposed organisation explained by the Princess Christian. If I ever had a doubt upon the subject, that has now been dispelled by certain adverse criticisms of the Association that have been sent to me. No young association is absolutely safe until it is attacked. It is the storm that makes the sapling take root. I think all who are interested in this Association ought to feel much indebted to the pamphleteers and letter writers, for, in the attempt to curse the Association, they have blessed it altogether, and, by attributing to it fictitious and imaginary shortcomings, they have caused its real advantages to stand out conspicuously. If all that can be said against the Association is contained in these pamphlets and letters, then it may go on its way rejoicing. I desire to speak with the utmost respect of the authors of these pamphlets and letters. They write with authority and experience, and are, I have no doubt, actuated by the fairest motives; but they have fallen into some remarkable mistakes, and have exhausted themselves in taking objection to proceedings on the part of this Association which have never been contemplated. Dr. Sansom protests warmly against registration side by side with properly trained hospital nurses and those who have only been trained in private. He has altogether omitted to notice that the registration of privately trained nurses is only to take place during one year of grace, which in a new departure it is essential and fair to allow, and that after the expiration of the year every nurse who is placed upon the register will be required to give evidence of an efficient hospital training. Miss Lückes has expended her energies in denouncing a theoretical examination which has never been contemplated. I hope that the Association when it is in full swing will take care that every nurse, before she is placed on the register, has passed an examination both practical and theoretical. I have understood it is the object of the Association to leave the conduct of the examinations to the hospital and other authorities, and to exercise over the examinations exactly the sort of supervision which is exercised by the General Medical Council over examinations of medical licensing powers. This reminds me that the objections taken to this Association, or rather to the register of this Association, are exactly those which were taken to the Medical Register when it was under discussion in the year 1858. We are told that it will produce a dead level of mediocrity. This is what was predicted of the Medical Register; but did it have this effect? Nothing of the kind. After an expiration of thirty years we are able to declare it has been most beneficial to the profession, and that it has greatly increased the position of medical men. The same may be foretold of the register we propose to establish. Registration is to be voluntary. Nurses are not to be brought by a policeman to have their names inserted, and there will always be after the register is established great depths of nurses beneath the register and great heights of nurses superior to it. Those who prefer unqualified nurses will still be able to procure them. The spurious article will still exist; all we desire is that it should be properly labelled. We wish our register to secure that, when the British public desire to obtain a qualified and trained nurse, they may be quite sure they are getting the genuine article. Then, again, this register will not prevent nurses who are ambitious to improve their knowledge to any extent from studying as much as they desire. Moreover, it will not

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prevent hospitals from establishing badges or distinctions, or holding any examinations they may please, or creating a nurses' hierarchy, if that should seem expedient. Dr. Sansom has drawn a melancholy picture of the effects of the register in altering the relations between doctors and their patients. Hitherto, when a nurse has been required in a private house the doctor has been consulted, and he has selected a suitable person; but it is urged that when this register is established, the head of the family will consult it, and choose the nurse for himself. All I can say is, I pity the head of any family who has to search the register of six or seven thousand names and addresses, and, guided by them alone, to select the sort of nurse he requires. After the register is created the selection will, as a matter of fact, go on as before. The doctor will consult the register, but then the head of the household will have the satisfaction of knowing that the nurse brought into the house by the medical man is a thoroughly competent person, and not an ignorant tyro. Dr. Sansom adds—I can hardly think he is serious—that a registered nurse, endowed with a diploma, will become a competitor with medical men in their practice. But all who know anything concerning such matters are aware that it is the best trained nurses who presume the least. He ought to know, moreover, that a registered nurse, who would be liable to be struck off the register, would be much less likely to intrude on the functions of a doctor than an unregistered nurse in a state of irresponsible frivolity. I can assure my medical friends, whom Dr. Sansom writes to alarm, that they have much more to fear from the rivalry of the parson's wife, with her pills and potions, than from that of the registered nurse. I have detained you a long time, but I have given some idea of what I think the progress of the Association ought to be. I hope all present will unite in giving it their very hearty and cordial support. (Cheers.)

The LORD MAYOR said: One of the objects this Association contemplates is the founding and maintaining of a convalescent home and holiday homes or houses, and the carrying out of other philanthropic schemes for the benefit of nurses. On this point Mr. Brudenell Carter will address you.

Mr. BRUDENELL CARTER spoke as follows: We have heard, and truly heard, from Mr. Savory and Sir J. Crichton Browne that the skilled nurse is indeed an artist of the very highest order, and, moreover, that she is an artist who puts her life into her work. Few of us who know anything of nursing can have failed to notice instances in which the functions her position requires her to fill have entailed upon the nurse sometimes exhaustion, vital and mental, from loss of rest, sometimes the far greater danger of contracting some form of infectious disease. We feel that a profession which is beset by such peculiar risks as these requires that its members should be provided with especial safeguards against them. One of the first and primary objects of this Association is to establish a home in some suitable position to which the nurses may retire when convalescent after illness; or even in cases where they require nothing more than a period of rest to recuperate them, and to fit them to return once again to their duties. We have been told that something of this kind is furnished here and there by various institutions; but I am anxious that this establishment for which I plead should be not an institution but a home, and that its inmates should be free from tutelage, from unnecessary discipline, from irksome confinement, and from galling restrictions, and that they should be free to enjoy and employ their leisure in that manner which may seem best to them, and most likely to conduce to the end that we and they should have in view. It needs no argument of mine to show that the ordinary rates of payment which nurses receive do not enable them to establish, on a basis that would be satisfactory, such an institution as is desirable. The payments they receive would in all probability enable such an institution to be self-supporting when once it was established and fairly set on foot. But we do feel that the public who benefit so greatly by the services of members of this Association, who benefit by their services to the extent of the balance turning between life and death, and who benefit to the extent of giving the convalescent a more speedy restoration to health and a more speedy recovery of power to resume the duties of their profession and calling—we do feel that the public who benefit in this way may with propriety be invited to contribute what is required to set such a Home of Rest on foot. We feel that in this way, as in many other particulars, the conditions under which nurses are placed are no longer adequate to the changed condition of the members who follow that calling. We feel very strongly that this Association is needed in order to place the daily life of a nurse on a basis more suited to her present education and her present efficiency, and to change it, as all arrangements require to be changed from time to time, from conditions which were perhaps suitable enough to what the class was twenty-five years ago. The appeal we make for our Home of Rest is not a very large one. It is calculated that an endowment of £3000 would suffice to establish all that is at present required—to furnish and equip it, to afford an invested fund, which will provide for the land and the buildings, and, in fact, to place the institution in a position to accommodate all nurses who might desire to use it. This noble hall in which we are met to-day has witnessed the commencement of many great enterprises of benevolence; and surely it has never witnessed the inception of one more worthy than that which seeks to extend a helping hand in times of sickness and trouble to those who minister to our wants in our hour of need. I do trust this meeting will not separate to-day until some commencement has been made in the direction I have indicated.

Dr. PRIESTLEY said: To register midwives is no new proposal. It is calculated that in England and Wales there are more than ten thousand midwives following their occupation. I believe that in some of the manufacturing parts of England about sixty per cent., if not seventy per cent., and at the East-end of London some forty or fifty per cent. at least of the poor women are attended solely by midwives. At the West-end, on the other hand, not more than two per cent. of parturient women are attended by midwives. But, unhappily for the poor women, a great many of the women who exercise the art of the midwife are entirely uneducated in their responsible calling; and in many cases, too, they are quite unfit for the duties they exercise. Any woman who chooses may practise as a midwife without possessing any qualification and without any previous training. The result, as all medical men who are engaged in hospital work are able to tell you, is that evidences are constantly coming before them of ill-treatment of the poor women, many of whom lose their lives in consequence; in addition a great many children are sacrificed. Under these circumstances you can readily understand that the evil that exists is a very crying one, and that there is a very urgent need for reform in reference to the practice of midwifery. I may say that the attempt to register midwives is not new. The Obstetrical Society years ago made various attempts to get a Bill passed through Parliament for the education and registration of midwives. Great Britain, with the exception of America, is the only country that has not adopted registration for midwives. To show the importance of having well educated and trained midwives, I may mention a fact which, when it was published a few years since, struck me very forcibly. It is that mortality among poor mothers who do not employ skilled midwives has been computed at one in every two hundred; whereas at the Royal Maternity Charity, where they only engage duly qualified women, the mortality is only one in four hundred, a diminution of not less than one-half. The Obstetrical Society has done what it could in reference to this matter. Although it did not succeed in passing its Bill for registering midwives, it has instituted examinations for which a great many women have entered, and which they have passed successfully; now we have a nucleus of midwives who are competent to meet any emergency that may arise in the course of their practice. It seems to me that now, when nurses are to be registered, it is a proper time to attempt to get midwives registered. If we cannot get a Bill through Parliament, we may obtain a Royal Charter. The restrictions which we propose to place upon midwives are in no way more stringent than those that are applied to medical men themselves. What we propose is that there should be a register kept, so that the poor may judge who are competent and who are incompetent. I trust that this meeting will be the beginning of a movement in the right direction, and that the great blot in our social economy may be from this day wiped out.

Dr. MATTHEWS DUNCAN said: If anything were required to show the progress of this Nurses' Association beyond the great meeting that is here and the documents that the Association now publishes, it would be supplied by the gratifying knowledge that we have now arrived at the inevitable stage of opposition. That is a stage which is reached by every movement. The opposition lets us see ourselves as others see us, and that is an invaluable boon to us. It lets us see what faults may be discovered—or imagined, in the present case, because the faults that have

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been pointed out up to the present have been only imaginary ones. I wish to point out what I know is considered to be a great objection to this Association. It is supposed, by many men of importance, that we propose to establish a Central Board, before which nurses are to come to be examined very much as students are examined before the Boards of the Colleges of Physicians and Surgeons. Now, such an intention has never been harboured by those connected with this Association. I think nothing could be more injurious at present, and even in the future, than an attempt to establish a central board such as is established in connexion with physicians and surgeons. It is desirable that this great objection should be known to be non-existent. I should like this meeting to consider who are the people who will derive benefit from the proposed registration of midwives. For this purpose you must divide the community into the rich and the poor, who are both fortunately not very large classes. The poor, however, are a much larger class than the rich. The rich can very well provide for themselves, and they do not require the efforts of an Association such as this. This Association will be, nevertheless, of great value to the rich. It will be to the rich of the same value as it will be to all other classes. Then with regard to the poor; they are also provided for. The guardians of the poor will, however, find the register we propose to establish of infinite value to them, as it will enable them to judge who are fit nurses and who are fit midwifes for their establishments. Then you have the enormous middle class, and it is towards that class that our eyes should be directed if we are to properly frame an institution such as this. The great middle class range from above the pauper classes up to the moderately rich. Now I must confess I see great difficulty in the application of the benefits of this Association in the way of trained nurses to that class. At present trained nurses are too expensive. The middle class, the great mass of the community, cannot afford to pay trained nurses. If you look at the documents which Trained Nurses' Associations circulate, you will find that the charges are something like 15 guineas a month, which is of course completely exclusive. Were this the proper time and place, I might point out various ways in which this difficulty might be got over, and in which, moreover, trained nurses might be made available even to the humblest members of the community, who are above pauperism. I mention this because in the case of midwifery there is no such difficulty. As Dr. Priestley has told you, there are about ten thousand of these excellent women practising. The committee of the Association have only to see that the midwives are properly educated, and trained, and registered. The Obstetrical Society take a great deal of care in registering nurses, and I believe their certificate is valued very highly indeed. When this Association was first conceived, it was not intended to include midwives in its operations. From the very first day of its establishment I pointed out that I thought that reservation was a great mistake, and I am happy that it is now corrected, and that this Association embraces in its scope midwives as well as nurses. The fact is, a midwife is only a trained nurse. A trained nurse is a new idea, and the public have to learn it; it has yet to be discovered; the value of it has still to be brought home to the great mass of the community. I may point out what is rather interesting in this connexion—viz., that the Victoria Institute for Nurses, which was founded by Her Majesty with the money given her at Jubilee time, the same error was committed, so that this Association is by no means singular in this particular. In that institute they commenced by having only trained nurses, but they found very soon that the really popular nursing for the country was nursing of a monthly character, and by a midwife. The Victoria Institute has introduced as a great part, if not the chief part, of its operations the functions of the useful class of midwives. I am sure the Association, by immensely increasing its area by the introduction of midwives, will enormously increase its utility.

Sir THOMAS ACLAND proposed a resolution expressive of thanks to H.R.H. the Princess Christian for her invaluable aid in promoting the movement for the registration of nurses. Sir Thomas Acland said he did not look upon this proposal as being in any way an ordinary formal vote of thanks, concerning which nothing has to be said. Last year, at St. George's Hall, notwithstanding Her Royal Highness's express commands that he should not do so, he had enumerated the various steps by which the Princess had obtained the gratitude and affection of the English people in reference to this subject. In reference to the movement itself, he said it must have been known to many of his hearers that there is a very great and serious opposition to it, as evidenced by the "protest" published in the newspapers, with important signatures attached. It was a protest especially against the Association obtaining a Royal Charter. He felt quite confident that they had much better remain under the banner of Her Royal Highness.

Professor MARSHALL said: I feel on this occasion somewhat of an outsider, because, although I have been honoured by having been elected Vice-President of this Association, I must say I have never attended at one meeting, and have taken little or no part in the laborious transactions which must have been carried on in order to bring the movement to the successful position it now occupies. I think that my being selected to second this vote may be due to the fact that I have the honour of holding the office which was formerly occupied by my predecessor in this resolution, Sir Thomas Acland. There is certainly a point of contact between this movement and that which has been so long continued on behalf of the medical profession—viz., the registration of that great body of educated gentlemen whose duty it is to attend to the misfortunes in accident and disease of this great community. No nurses come exactly in that category, and although I was obliged to express unwillingness on the part of the General Medical Council to take charge of what seemed to be a great labour looming in the distance, it was simply because I saw the movement for the registration of nurses would be so exhausting, would require so much labour, that I felt compelled unwillingly to say, as President of the Council, that we could not very well undertake the additional work. My advice, therefore, was most urgent, that the registration of nurses should be a separate act. I calculated that there were upwards of 20,000 nurses, of whom you have only 2500, and many more midwives, who would desire registration, and I contemplated with a certain degree of horror the responsibility of registering all these persons at the Medical Council, and of being responsible for such disciplinary action as might be unhappily necessary in the future in the matter of expurgating that register. But I am happy to say that it is with the greatest satisfaction that I find that the register is to be established. Without a register it would be, I think, impossible to carry out the objects of this great undertaking. Coming to the special object concerning which I am called upon to speak, I have the pleasure of seconding the resolution that has been proposed. You have had extended to you by the previous speakers most valuable information respecting the objects, purposes, and aims of this movement. I shall not dilate upon these, but I am, nevertheless, called upon to second the first resolution. The resolution is that we return our thanks, in the form of words, to Her Royal Highness for the great assistance she has rendered us, not only to-day, but for a long time past, and for her invaluable aid in promoting the good of this movement with all her heart and soul. I beg most heartily to second this resolution.

Dr. PAVY said: I have much pleasure in rising to support the resolution that has been so ably proposed and seconded by Sir Thomas Acland and Professor Marshall. If we want good and efficient nurses, we must provide some means of obtaining them. It is true, in the large hospitals, knowledge is obtained of the nurses, and there is no difficulty in weeding out the efficient from the inefficient. But not so when we come to private families. A private family has not the opportunity of knowing whether the nurse has been efficiently trained or not. By means of this Association security will be given that nurses are efficiently educated and trained. I have the greatest possible pleasure in seconding the resolution.

The resolution was then put by the Lord Mayor, and carried *nem. con.*

Mr. PAGE, in the absence of Dr. Ord, proposed a vote of thanks to the Lord Mayor, which was seconded by Mr. WAKLEY, who remarked that his Lordship deserved thanks not only from those present but from the whole nursing community, for his kindness in granting them the use of the hall on that occasion.

The resolution was carried amid cheers.

The LORD MAYOR, in replying, said that, so far as that gathering was concerned, they were more indebted to the Lady Mayoress than to himself, inasmuch as what little idea he had in regard to the object and aim of the Association he had gathered from her.

The proceedings then terminated.

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THE LANCET.

LONDON: SATURDAY, AUGUST 3, 1889.

THE consideration of this Bill as amended by the Standing Committee occupied the attention of the House of Commons on Tuesday last. On the motion of the Home Secretary a new clause was agreed to providing that a County Court judge or magistrate should not be required to exert any powers under the Act which would interfere with the exercise of his ordinary jurisdiction. It is a little difficult to estimate what the practical outcome of this implied limitation of possible powers will amount to. On the surface it would seem to be an attempt to meet a very prevalent feeling against the exercise of powers too magisterial in connexion with the process of certification of lunatics. We have repeatedly pointed out that the tendency of the proposed new legislation on this point has been to unnecessarily promote magisterial *interference* in questions purely medical; and if the new clause tends in practice to give the operation of the Act the benefit of the "ministerial" (legal) influence and support of magistrates and justices, it is a clear gain, by at once safeguarding the rights of the alleged lunatic and protecting the medical authority in issuing his certificate of insanity.

The omission of Clause 20, on the motion of Mr. MATTHEWS, also points in the same direction. This clause was an inhibitory one on the provisions of the Lunatic Asylums Act, 1853, whereby a justice might in any case act upon his personal knowledge only for the purpose of making a reception order. By the omission of the clause, justices will retain their right to act on their personal knowledge in this matter.

Mr. JOHN ELLIS moved a new clause to provide that there should be exhibited in every asylum a printed notice setting forth the right of every private patient to have any letter written by him forwarded to its address, or within twenty-four hours submitted to a visiting Commissioner or Visitor, or else forwarded to the Commissioners or Masters in Lunacy; also the right to request a private interview with a visiting Commissioner or Visitor on the occasion of any visit made to the asylum. Dr. FARQUHARSON said the Grand Committee had rejected the clause after full discussion. According to the best medical testimony, he said, the exhibition of such notices would imperil the recovery of patients by unsettling their minds. Sir W. FOSTER said the effect of the clause would be to produce in the minds of the patients a continual irritation, leading to outbursts of excitement which would hinder their cure. Sir J. DORINGTON, Mr. A. O'CONNOR, Mr. H. DAVENPORT, and others spoke against the proposed clause. Mr. MATTHEWS said the clause was inserted by the Lord Chancellor to carry out the deliberate recommendation of the Committee of 1878, that printed notices should be affixed to the walls of the lunatic asylums setting forth the right on the part of the inmates to appeal by letter to the Commissioners. They desired to provide protection against abuse in those institutions, and they must run the risk of many unfounded complaints being made in order that an occasional case of real grievance might be brought to light and redressed. Mr. FOWLER supported the clause, as did other members. A majority of 134 members voted for the clause, the numbers being 180 for and 46 against it. The Bill very rightly makes provision in Clause 43 for the writing of letters by patients to lunacy officials, and for their transmission. But in the interests of the patients themselves and of their proper treatment, we think that the superintendent ought to have the right of perusing all letters written by inmates before he transmits them to their destination. This would give him the power of inquiring at once into alleged grievances, and of dealing with them, as well as of estimating the often more or less transitory phases of the patients' minds. A certain proportion of asylum inmates are afflicted with a terrible *cacoëthes scribendi*, and their letters usually bear within them the evidence of their insanity. Their complaints and grievances are largely composed of pure delusion, and their allegations of ill-treatment are often due to entire misconception, or to the misinterpretation of circumstances, or to their envy of other patients, who they think are better off than themselves. In some cases, doubtless, there may be more or less ground for their statements. The superintendent is best able to judge in what category to place their assertions, and to administer the proper amount of redress or explanation when circumstances render such a course necessary or advisable. The privilege and opportunity of writing have a beneficial influence upon patients. Letter-writing tends to keep down possible irritation among patients who have a fancy that way, and it absorbs energies that might otherwise be expended in less harmless ways. If patients are to possess this right of penning their grievances, real or fancied, we do not think it much matters whether they know of their right tacitly, as an understood thing, or whether their right is set forth publicly by a printed notice, or whether each patient on admission gets a printed slip with the information upon it. We do not see that the fact of being open and clear in the matter of giving notice should produce such an amount of irritation among patients as was alleged in the House of Commons, and we believe that, taken on the broadest grounds of policy and expediency, the clause providing for public notice on this point is not likely to be harmful in its results when put into practice. Several other amendments were carried, and the Bill was read a third time.

THE renewal of atrocious crime in Whitechapel naturally suggested the fear that the public were again to be deluged with a flood of ghastly and sickening details such as figured so largely in the public press not long ago. We are glad to observe that on this occasion a little more restraint has been shown by the purveyors of news, though it may be doubted whether this welcome improvement is due to any recognition of a higher duty towards the public, or is not simply a tacit admission that a sensation once thoroughly played out cannot within a short time be profitably renewed. We are sure our readers will not be averse to considering with us to what extent publicity in the matter of revolting crime or vice is wholesome and commendable, and how far such

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publicity ministers to the public weal or to mere prurient curiosity.

Public opinion and universal practice alike recognise that on this question there are limits both to secrecy and publicity. No one advocates that even the most flagrant and inhuman crimes should be ignored by the public press, or that the Divorce Court should always sit *in camera;* but there is little danger of error upon this side. Rather do we need to be reminded at the present time that sound sense and public decency, not to place the obligation on any higher plane, demand that some limit should be placed upon the dissemination of highly flavoured descriptions of occurrences that are a disgrace to our time and a blot upon our humanity. It is truly pitiable to think that there was ever a time when morning after morning the first paragraph to catch the eye in some even of our leading newspapers was a minute and detailed account of how a wretched outcast of the streets had been hacked in pieces, coupled with a great parade of ingenious theories regarding the identity and motives of her assailant. We recognise that total silence on such matters would be inconsistent with the public safety, and is out of the question at the present day; but surely a little more restraint, a little more reticence, some check upon the wholesale output of moral garbage, would be promotive of the general good without being inimical to the reasonable privileges and just influence of the press.

We base our objection to indiscriminate publicity on two grounds: first, that constant familiarising of the mind with vice and crime is apt to lower the whole moral tone of those whose characters are yet unfixed by age and education; and, secondly, that such descriptions as those we have referred to are liable to excite to the commission of similar deeds. On the former point nothing need be said, but on the latter the experience of the medical profession is of the utmost value. We know that where the will is weak and the passions and imagination are strong, an evil suggestion may be a most potent stimulus to evil conduct. It is a feature of our imperfect moral development that the most odious crime, if perpetrated with unusual boldness and ingenuity, somehow excites in many minds feelings in which reprobation is strangely mingled with admiration. Again, if a suicide be committed in some manner sufficiently eccentric to impress the public imagination, we may count with almost absolute certainty upon the repetition of a similar case of self-destruction. The weak will become infected with an overpowering morbid idea, which finally finds fruit in action.

These facts are so well known as to have become almost commonplaces to all who have given the question any attention, yet we hear but little protest against the practice of affording, as it were, abundant types on which criminal action may be readily modelled. In some of the States of the American Union there is a law against allowing placards, theatrical or otherwise, portraying the commission of crime, to be exhibited on the walls of the streets, the motive for the prohibition being a dread of the suggestiveness of such appeals to the eye. Such a law as we have before suggested is well worth the attention of our legislators, the danger being practically the same whether the eye be appealed to by the art of advertiser or paragraphist.

Happy as undoubtedly is the state of innocence of the existence and nature of the evil in the world, such innocence is incompatible with an extended acquaintance with life. Yet we might preserve some of its bloom and fragrance a little longer to the young if we insisted that the daily press shall not be made the means of tearing off all the coverings which the good sense and good feeling of mankind have placed over the sores and deformities of society. To look the truth fairly and fully in the face is sometimes the first of duties, but we no more require to be sickened by the most minute details of crime than we need to spend all our time in the cemetery or the charnel-house.

How far the blame for the evil fashion we are discussing rests with the press, and how far with the public, may be difficult of determination. The newspaper supplies what it is supposed the public desire, and the journalist no doubt silences his better nature by the reflection that if he does not furnish the savoury, if unwholesome, dish, some other purveyor will gladly do so, and perhaps even add something more pungent still. This is not, however, an adequate or admissible defence. The press is greatly honoured in this country, and its influence is in the main salutary and well deserved. The obligations to properly use that influence are all the greater. Our newspapers are not incapable of being thoroughly popular without levelling down to the tastes of the degraded amongst us. A free press is acknowledged to be one of our greatest national glories. Let the press itself take care not to suggest that the glory is purchased at a heavy price.

THE world is at last blessed with the "Dictionary of Medical Specialists: being a Classified List of London Practitioners who chiefly attend to Special Departments of Medicine and Surgery. With particulars of the Principal Special Hospitals and Special Departments in General Hospitals. Edited by W. P. W. PHILLIMORE, M.A., B.C.L., Queen's College, Oxford." The period of gestation of this work has been long in proportion to the length and breadth of the result. But such as the result is, it is before us. It is a strange coincidence that about the time that Sir ANDREW CLARK'S famous description of the Great-toe Specialty was reproduced in full in the Upper House by Lord SANDHURST, in exposing the evils of specialism and special hospitals, this wonderful book appeared, professing to give light and guidance to perplexed inquirers as to the special prophets of medicine and the peculiar temples where they are supposed to be endowed with special skill. The world generally has been much perplexed as to the value of specialism, and particularly of those who accentuate their "specialism," and write the label of their peculiar abilities very large. The profession also has been so, and is recurring with more and more confidence to men whose views and practice are based on a wide experience of disease. The very specialists most trusted are men whose specialism has a general basis, and who cannot be narrowed to suit Mr. PHILLIMORE'S convenience or that of his publisher. Special hospitals, with a few conspicuous exceptions, meet with general disfavour on the part of hospital reformers, lay and professional, at a time when Mr. PHILLIMORE benevolently tears himself away from his briefs to enlighten the metropolis on the special gifts of

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medical practitioners. It is a strange occupation for a man of another profession. Many of the practitioners whose names he has taken the liberty of introducing into what looks exceedingly like a trade list will feel annoyed to see their names so used. He informs us that a few names have been omitted at their own request. He does not inform us how many more are inserted without direct authority. We have reason to believe, and the book contains ample internal evidence, that the number of these is large—probably making up the majority of the names—to the great honour of the profession. The information given of most of the names is no more than can be gathered from a Medical Directory—the right place for such information, and where it can be easily obtained by medical men, for whose "convenience" Mr. PHILLIMORE professes to have undertaken this work. Any student of this curious book will be much struck with the different doses of information given of different practitioners. Concerning the most eminent persons the information is least. Concerning the less distinguished it is "special," and would almost suggest the profane thought that it has been self-supplied. Concerning some practitioners, we are told that they are "at home" at given hours. Some are made to appear so obliging as to be open to persuasion to be "at home at other times by 'special' appointment." Such men are evidently born "specialists." Some practitioners are disposed of in a few lines; others occupy a large part of a page; and one gentleman has more than a whole page to himself, ending with the most precise information as to when he may be consulted. What strikes us most about this book is the editor's own version of his motives—the accommodation and convenience of the medical profession. Can anything be more ridiculous than to suggest to medical men that they need a lawyer to tell them the persons to consult in a given case of difficulty? or can anything be more unjust than to take the name of a surgeon distinguished for his general accomplishments and varied resources, and label him, say, a "genito-urinary" surgeon? We shall not hurt the gentleman's feelings to whom this remark applies by naming him, though to do so would illustrate to the profession the nature of this objectionable volume. Viewed in another way, there is much in the book to excite amusement, in which those most immediately interested would join most heartily. Let us take the case of Sir ANDREW CLARK, who is too great to be belittled, and too general to be specialised, and too serene in his secured fame to be hurt by our publishing the representation of him by this Daniel come to tell the public and the medical profession whom they should consult. Sir ANDREW CLARK is exactly defined in this Dictionary. He is no longer the broad general physician refusing to be shut out of any corner or cavity of the body where he can find any disease to battle against; he is a specialist—or rather he is three specialists in one. He is a specialist for children, he is great on the eye, and he is to be consulted specially on midwifery and diseases of women and children. The profession must not expect to be able hereafter to consult him on general matters, but may take their cataract cases to him, or fly to him at night for assistance in cross-births. How convenient this book will be to the medical profession, and how helpful to the British public! Strange to say, we are not told the hours at which Sir ANDREW CLARK may be seen. Gratuitous advice is not in fashion just now, or we should advise the editor to leave the public and the profession to judge for themselves of the selection of the physicians and the surgeons whom they shall consult; and we should advise the public, in casting about for special opinions, studiously to avoid looking into the book. It is due, perhaps, to Mr. PHILLIMORE to say that his book is introduced in a very apologetic preface. His chief defence is that even in law practitioners devote themselves to special branches of practice, and are bracketed accordingly in "an official list." Mr. PHILLIMORE does not tell us whether, to make the analogy complete, it is edited by a medical man and got up in a trade-like style, with indications of business intentions.

IT is evident that, before the advent of the vacation, the various authorities immediately interested in the formation or non-formation of a Teaching University are showing an increased activity, so as to publicly demonstrate their respective positions on this question. The Royal Colleges of Physicians and Surgeons have appointed standing committees to watch and report on any further development of the movement, and committees of the Senate and of Convocation of the University of London have held several meetings to determine how far they can readjust the constitution of the University on the lines laid down for their guidance in the report of the Royal Commission. A deputation of members of the Councils of University and King's Colleges has waited on the Lord President of the Privy Council, to whom they have explained the position of those Colleges, with a view to obtain leave for the formation of a Teaching University, as suggested in the minority report, and have received from him a most important reply, as reported in our last issue. His Lordship is of opinion that a "reasonable time" should be allowed the University of London to consider the report of the Royal Commission, and to see whether that University intended to apply for a Charter. He further stated that he considered twelve months a reasonable time, and he evidently does not intend to be forced into taking any further steps until that period has elapsed. We may therefore expect that after the vacation the University of London will call its graduates together, and lay before them for their approval the alterations which they propose to make in their new Charter so as to combine the functions of a local Teaching University with those of an Imperial Examining Board. We have already expressed an opinion that the necessary changes in the constitution of the Senate, in the powers conferred on the metropolitan teachers, in the curricula, and in the standards for degrees must be far greater than those which were placed before the Commission in any of the schemes of reform promulgated either by the Senate or by Convocation, and which were mainly due to the recent agitation, whose importance was only recognised by the radical reforms first suggested by Lord Justice FRY'S committee in 1885. The alterations proposed by this committee and rejected by Convocation must even now be materially widened to suit, in any way, the new departure. The support of the petition of University and King's Colleges by the three experts in University teaching on the Royal Commission has altogether changed

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the position of the parties interested. The Royal Colleges can only expect an adequate representation on the Senate either of the old or of a new University, whichever may be determined on, and some sort of acknowledgment of the value of their examinations, and we question much whether preliminary education either in arts or science can be safely left in their hands. Hitherto these bodies have displayed no anxiety in these matters, which are justly considered by University reformers as the most important features in any new scheme of professional education. Nor is it likely that their final examinations, unless greatly modified in the directions pointed out by all outside critics and the inspectors of the General Medical Council, will be accepted as trustworthy substitutes for a University examination. In any case, the definition of a "reasonable time" above given by Lord CRANBROOK must bring the question at issue to a focus during the coming winter session and tend to its more speedy settlement. The medical schools, apart from University and King's Colleges, must take steps, as soon as the winter session commences, to make clear their wishes on this question, or they may find that they are too late.

THE speech of Lord SANDHURST in the House of Lords in support of an inquiry into the case of the hospitals of the metropolis, and the reply of Lord CRANBROOK, make a distinct advance in the prospects of this important question. Not, indeed, that Lord SANDHURST imported any novelty into the discussion. He confined himself with almost painful severity to his brief—that is, to the petition initiated by the Charity Organisation Society, and to the interesting facts, more or less accurately stated, on which it is based. Lord SANDHURST enumerated the number of hospitals with schools, and without schools, of general hospitals and special hospitals, of dispensaries free and provident, and of Poor-law infirmaries. It is a fortunate circumstance, perhaps, that the minister to whom he had to appeal was Lord CRANBROOK, whose chief work in political life has been the passing of the Metropolitan Poor Act of 1868, by which Poor-law infirmaries and dispensaries were created, to the enormous improvement of the Poor-law medical service in London, both as regards in-door and out-door patients, and of the accommodation for those great epidemic outbreaks of infectious disease which even the sanitary legislation of England has not yet been able to prevent. The answer of Lord CRANBROOK was none the worse for being cautious. He asked for time to consider the whole question, and promised that it should be considered between this and next session. Few ministers are more capable of judging of this question than Lord CRANBROOK, and we shall look forward with much interest to his answer to what is a very general demand for inquiry. He had no difficulty in putting his finger on the chief objection to such an inquiry—viz., that the support of our hospitals is voluntary, and that voluntaryism and anything like State interference are altogether incompatible. Undoubtedly this is a real difficulty. The support of hospitals is inadequate as it is; but if the State claimed a right of dictation without any contribution to expenses, it might confidently be predicted that subscriptions would be less still, and encouragement would be given to those who take the short cut out of all difficulties in working hospital charities by proposing to throw them on the rates. Lord CRANBROOK will perceive that the problem to be solved is a very different one from that which he had to solve in 1868. Then provision had to be made for supplying the medical wants of actual paupers. Now provision has to be made for the ordinary medical wants of those who presumably are not paupers, or for those occasional calamities of exceptional disease or disabling accident which have always hitherto in this country excited the hearty compassion of those capable of giving assistance. If this provision is made judiciously, no harm is done. The poor are helped by the rich, the sick by the well, and no feelings but those that are creditable are left behind. On the other hand, if it is made indiscriminately, much harm must accrue, primarily to those helped, who will be made paupers if that is done for them which they can, with a little self-respect, do for themselves, and secondly to the medical profession, which has already much reason to complain of the reckless relief given to the working classes by the wholesale way in which they are attracted to the out-patient department. This monstrous evil of the out-patient department was dwelt on by Lord SANDHURST, and cannot again be dismissed carelessly. We have never thought the exact figures describing its dimensions to be very reliable, but the evil is one of great proportions. Lord CRANBROOK will not be the less on his guard against sanctioning anything likely to aggravate this evil for knowing that the Metropolitan Asylum Board's Hospitals for Infectious Diseases treat gratuitously a large number of persons who can afford to pay. This is done in the interest of public health, and for special reasons which do not apply to ordinary disease among classes which are quite capable of taking care of themselves. As Lord KIMBERLEY said, the question is one of the most complex character. An inquiry is indispensable; but our own preference is, as we have already said, for inquiry by a Royal Commission as likely to command more respect, and to be less apt to be misconstrued than one composed of members of Parliament, or rather of one House of Parliament.

Annotations.

"Ne quid nimis."

THE COLLEGE OF PHYSICIANS AND THE FATHER DAMIEN MEMORIAL FUND COMMITTEE.

IT is gratifying to learn that the Royal College of Physicians has expressed its willingness to co-operate with the Father Damien Memorial Committee in promoting the good work which that committee hopes to undertake. The College may perhaps have felt that it had a sort of vested interest in the subject since the production of its memorable report of twenty-two years ago; but it would have been discourteous, as well as unnecessary, to have desired the nomination to studentships and to the proposed commission to rest solely with the College. Even now we must consider it a matter of reproach to England as a nation that it hands over the duty of appointing such a commission to a voluntary association rather than to the State. The College has, however, more than once appealed to the Government to undertake this duty, but has met with no encouragement

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from that quarter. We trust that the response to the appeal for contributions to the memorial fund will be warm enough to enable the entire proposals of the committee to be carried out. There are one or two minor points of difference between the proposals of that committee and the suggestions of the College, the most important perhaps being that the nominations made on behalf of the former should be made by its Executive Committee, and not by the General Committee; and that the proposed Leprosy Commission should not confine its work to India, and should be appointed for a term of two years instead of one.

HYDROPHOBIA v. MUZZLING.

THE record of an inquest at Paddington on July 25th upon a case of hydrophobia due to a bite from a rabid dog inflicted two months previously should bring home the lesson that the means for the prevention of this disease lie ready to hand. The recent order for the muzzling of dogs in the metropolis came into force this week, and, at the above inquest, the coroner, Dr. Danford Thomas, did well to remind the jury of the remarkable effect obtained by the same precautionary measure two or three years ago. At a recent meeting held to protest against the muzzling of dogs, it was gravely stated that, since the poison resided in the saliva, it was absurd to attempt to control the spread of the disease by such a measure as muzzling. The fact that the poison could not be communicated except through inoculation by a wound was curiously enough passed over. It has been proved as clearly as possible that the effect of general muzzling in those countries where the spread of disease is held to be a graver matter than the inconvenience or restraint of animals has been to practically banish hydrophobia. On July 22nd, Mr. W. H. Smith stated in the House of Commons that it was not contemplated at present to make such a general order for this country. Surely this is following a very timid policy, for, although the metropolis and its vicinity enjoy the unenviable distinction of furnishing the greater number of cases of rabies, it is useless to expect any permanent reduction in the mortality from hydrophobia unless some extensive application of muzzling be enforced. No doubt such an order would require great care in its enforcement, but the newly constituted County Councils have the power to see that it is properly carried out. The matter rests on the broad fact that it is only through general muzzling that hydrophobia can be prevented. It may be as well also to bear in mind that the disease may be communicated to man through other animals which have been bitten by rabid dogs; for example, there are authentic instances of hydrophobia being transmitted through the bite of a cat. Muzzling of dogs would, then, not only protect man from hydrophobia, but also other animals from rabies; and those who seem to have the interests of animals more at heart than those of their own kind may possibly be induced to reconsider the subject from this point of view.

"FALLING OUT" ON THE MARCH.

WE learn from our contemporary, the *Army and Navy Gazette*, that in connexion with the manœuvres of the field column at Aldershot there has been a growing tendency of the soldier to "fall out" on the march. As the result of an inquiry instituted by Sir Evelyn Wood, it is said that two marked causes have been ascertained: "first, sore feet caused by the want of the use of water; and, secondly, strong tobacco smoked in the early morning." If this be correct, the first of these causes is discreditable to the commanding officers of the corps to which it applies. Cleanliness is of the utmost importance in the soldier, and if a commanding officer either neglects to see that it is enforced or is incompetent to do so, the sooner he is relieved of his responsible position the better. Our contemporary regards it as one of the consequences of the unification system in the medical service. "Under a proper regimental system such matters would be attended to by the medical officers, and we trust that the day is not far distant when a medical officer will again be attached to regiments and placed in charge of the several departments which come under the head of health, diet, and personal cleanliness." This is to us a new reading of the duty of a medical officer. We have always understood that it was the duty of the captain of a company to see to the cleanliness of the men, through the medium of his subalterns and non-commissioned officers. If the health of the men were suffering from the neglect of this important duty, it would be incumbent on the medical officer to report it, but it would not devolve upon him to see the necessary measures carried out, nor, indeed, would he have any power to enforce them. The military authorities deny the medical officers the right to give even the slightest order outside their hospitals or their own special corps, and it would be too absurd to expect them to be responsible for a matter in which they had no means of enforcing compliance with their directions. The duty of seeing to the observance of cleanliness is clearly one which devolves upon the executive military officer. This, however, appears to be most inefficiently done, if our contemporary is correct in his statement of Sir Evelyn Wood's opinion. It is a matter to which the attention of Lord Wolseley might be advantageously directed, with a view to the issue of specific instructions for the performance of this important duty. With regard to the injurious influence of strong tobacco smoked in the early morning we have not the least doubt; in many cases it most seriously affects the action of the heart, and is the cause of much of the palpitation which gives rise to invaliding in the army. But we confess we are unable to suggest any likely method of getting rid of it.

THE SANITARY STATE OF LEEDS.

THE sanitary state of the borough of Leeds is a matter as to which there is at the present moment a feeling of much insecurity on the part of some of the leading inhabitants, both as to matters that have been left undone and as to the divisions which exist among those concerned with the administration of public health in the borough. This feeling has found utterance in a memorial addressed to the Corporation by a deputation of the Leeds Philosophical and Literary Society, the members of which brought under the notice of the Council a number of highly important matters. They, at the onset, expressed their misgivings as to the effective working of the sanitary organisation of the town, and urged a thorough review of the machinery for the protection of the public health. Having regard to the recent milk epidemic of enteric fever, they pressed for greater security and more efficient supervision of all sources whence milk is derived for sale in the borough, and they suggested that, if need be, legislative or combined action with the County Council should be resorted to for this purpose. Next came the question of the condition of the river Aire, which, taking its rise near Malham Tarn and Malham Cove, and receiving tributaries from a number of places, including Keighley and Bradford, on its way, becomes in Leeds one of the foulest of our river courses. The need for further and improved action as to the cleansing of ashpits was also prominently referred to. And lastly came a suggestion to the effect that unity of action of the bodies within the Town Council, who are charged with public health matters, should be secured, so as to avoid the conflict of views which now takes place between such bodies as the Building

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Clauses Committee, the Sewerage Committee, and the Sanitary Committee. The fact that such an appeal on behalf of the more scientific and educated members of the borough should be needed in itself speaks volumes; and it is to be hoped that the address delivered to the Town Council by Mr. Pridgin Teale, who acted as spokesman for the deputation, will not pass unheeded. We remember that in Mr. Netten Radcliffe's time some of the sanitary circumstances of Leeds were discussed, and we regret to find that points on which he then advised still stand so much in need of remedy. Referring, for example, to the question of the scavenging of middens, Mr. Radcliffe wrote in 1874 that even where the Corporation servants professed to do the work the system entirely failed to affect in any sensible degree the noxious influence of these structures upon the health of the inhabitants. And it would appear from the statement made by the deputation that to this day this elementary principle of cleanliness as to the refuse of populations has not been sufficiently learned and acted on in Leeds.

THE PREVENTION OF TUBERCLE.

THE Streets Committee of the Darlington Corporation have resolved to recommend to the Council a periodical inspection of all dairymen's cows within their jurisdiction, with a view to prevent or minimise the spread of tubercular consumption by means of milk from animals suffering from tuberculosis. This decision must be regarded as the outcome of a recognition, which is daily on the increase, of the risk that attaches to the use of milk from cows suffering from tuberculosis, and of the fact that a very large number of cows are affected by this disease. As such we are glad to record the decision come to, for we cannot lay too much stress on the need which exists for maintaining all our food-supplies under an efficient and systematic supervision. But whilst the danger attaching to milk-supplies needs vigilance on the part of sanitary authorities, we trust that, in this matter of phthisis, they will not forget that many other preventable causes are likewise in operation; and that where, as in matters of overcrowding, dampness of houses, and such like, they can effectually intervene, they should be as prompt as in dealing with the milk-sheds. The building of houses on damp soils without a superficial layer of concrete, failure to put proper damp-courses into walls, and the overcrowding and ill-ventilation of factories, workshops, and dwellings—these are all factors in the production of the disease. Attention should also be given to the value as a preventive which is supplied by regular boiling or cooking of all milk used as food.

THE SWIMMING-BATH IN LONDON.

THAT London is very inadequately provided with swimming-baths no one we imagine will deny, and it is not a little strange that no attempt should be made to supply a need so obvious and so pressing. This is not a question of hygiene alone. The swimming-bath affords, even as matters stand, a very popular form of recreation, and one capable of being made much more popular than it is, for, with a few exceptions, the swimming-baths of the metropolis, few as they are, are even more conspicuous for their bad equipment and condition than for their paucity in numbers. With many of them bad condition is an inevitable consequence of bad design. Limited space, deficient light, imperfect drainage, inadequate ventilation, and a squalid absence of decoration are the vices which beset the most of them. The would-be bather enters from the open air and sunlight, and passes usually by more or less devious passages to an apartment dimly lighted and redolent of human emanations, where he finds a fairly large tank filled with tolerable clean water. Along its edge runs a narrow causeway, probably of bare and slimy boards, possibly carpeted with sodden matting. Opening on the causeway is a row of narrow cubicles, of which the best that can be said is that they are as commodious as sentry-boxes and very nearly as sightly. A diving-board completes the equipment. Such is the dreary interior of an average London swimming-bath. When it is added that the thirty baths of this class which are distributed over the metropolitan area are located very much at haphazard, sometimes in the near neighbourhood of one another, it will be seen that large districts, making up in fact by far the greater part of the area, are in effect unprovided with this convenience. Some years ago the deficiencies of the suburban parts were very usefully supplied—in part, at least—by a floating swimming-bath upon the Thames, conveniently situated near Charing-cross. For some reason this bath has disappeared, nor has its place been taken by anything else of the same kind, although the amount of patronage which it received might have been expected to secure a better fate.

THE PREVENTION OF CRUELTY TO CHILDREN.

THE satisfactory progress which has thus far been made by the Bill for the Prevention of Cruelty to Children, or, to give it the new title adopted on the motion of the Earl of Kimberley, "An Act for the Better Protection of Children," justifies a hope that this useful and moderate measure will soon be in active exercise. Meanwhile it is satisfactory to learn that the Society from which it emanates continues to do good work with unabated vigour. A full statement of its proceedings is to be found in the *Child's Guardian*, this month's issue of which contains details of about a dozen cases of aggravated cruelty in which the interference of the Society's agents was both timely and beneficial. We are pleased to see that, in spite of considerable opposition, the subject of child insurance continues to engage the attention of the Society. Recent events have shown to how large an extent a system of thrift such as this, notwithstanding its benevolent intention, is liable to most serious abuse. A painful description of the life endured, rather than lived, by child acrobats should suffice to convince most readers that here, at least, is a sphere of labour which is for children one of the most harsh and rigorous that could be contrived. For further particulars as to the work of the Society we must refer our readers to the journal in question. In doing this we feel confident that its pages will repay a careful perusal.

THE HEALTH RESORTS OF THE BRITISH ISLES.

WE understand that the Royal Medical and Chirurgical Society has appointed a scientific committee to investigate matters connected with the climatology and balneology of Great Britain and Ireland. Dr. Ord is chairman and Dr. Archibald E. Garrod honorary secretary. It is proposed to obtain as far as possible precise and accurate information as to the medical value of the various health resorts, both inland and seaside, and to report fully upon the subject to the Society. By this means it is to be hoped that the profession generally may become more thoroughly acquainted with the importance and special uses of different baths and watering-places, which may sometimes, indeed, supply to many sufferers all that can be obtained by more expensive journeys to foreign spas. In furtherance of the work of the committee, it would be helpful if medical practitioners at the various baths and watering-places of Great Britain and Ireland would contribute information. Such information should be sent to Dr. Archibald E. Garrod, 9, Chandos-street, Cavendish-square, London, W.

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TESTIMONIAL TO DR. TATHAM.

THE Salford Corporation have taken their leave of Dr. Tatham in a manner which shows how highly the valuable services he has rendered to the borough during the sixteen years in which he has been medical officer of health have been appreciated. In the presence of all the officers of the Corporation, and of a number of ladies, the Mayor recently presented to Dr. Tatham a handsome silver centre-piece and stand, together with two side-pieces, the former being inscribed: "Presented to Dr. Tatham by the officers of the Corporation, on his appointment as medical officer of health for the city of Manchester, July, 1889." In making the presentation, the Mayor referred to Dr. Tatham's eminent and faithful services to the borough and to sanitary science; to the efficient manner in which all his public duties had been performed; to the great kindness which all had experienced at his hands, both in his public and in his private capacity; and, amid the hearty applause of his audience, to the earnest desire on the part of his old colleagues that he might be prosperous and happy in his new sphere of labour. Dr. Tatham, who was evidently affected by the unanimity of the kindly feeling entertained towards him, responded with admirable taste, and ended by urging that the Corporation should extend to his successor, Mr. C. E. Paget, the kindness and good-fellowship that had been lavished on himself. We heartily congratulate Dr. Tatham on so pleasant a termination of a term of labour which has made a permanent imprint on the sanitary history of Salford, and the medical profession will be united in their appreciation of the manner in which the Mayor and the officials of the Corporation of that borough have signified the esteem in which they hold their late medical officer of health.

THE EFFECTS OF TIGHT CLOTHING.

NOW that rational ideas as to dress have acquired a definite place in public esteem, it may be imagined that the practice of tight lacing and customs of a like nature, if known at all, are not what they used to be. A case of sudden death lately reported from Birmingham proves that it is still too early to indulge in such illusory ideas. The deceased, a servant girl of excitable temperament, died suddenly in an epileptoid fit, and the evidence given before the coroner respecting her death attributed the fatal issue to asphyxia, due in a great measure to the fact that both neck and waist were unnaturally constricted by her clothing, the former by a tight collar, the latter by a belt worn under the stays. We have here certainly those very conditions which would lead us to expect the worst possible consequences from a convulsive seizure. There is no organ of the body whose free movement is at such times more important than the heart. Yet here we find, on the one hand, its movement hampered by a tight girdle so placed that it could with difficulty be undone at a critical moment; on the other, a contrivance admirably adapted to allow the passage of blood to the brain, while impeding its return. This is no isolated case as regards its essential character, though, happily, somewhat singular in its termination. Minor degrees of asphyxiation, we fear, are still submitted to by a good many of the self-torturing children of vanity. The tight corset and the high heel still work mischief on the bodies of their devoted wearers. Taste and reason, indeed, combine to deprecate their injurious and vulgar bondage, and by no means unsuccessfully. Still, the evil maintains itself. Cases like that above mentioned ought to, if they do not, open the eyes of some self-worshippers of the other sex who heedlessly strive by such means to excel in a sickly grace. We would strongly impress on all of this class the fact that beauty is impossible without health, and would advise them, in the name of taste as well as comfort, to avoid those methods of contortion, one and all, by which elegance is only caricatured, and health may be painfully and permanently injured.

THE METROPOLITAN HOSPITAL SUNDAY FUND, 1889.

IT is gratifying to note that the Fund even now exceeds that of any former year, and that possibly a thousand pounds more may be expected. At its meeting on Monday, the Council proposed very cordial votes of thanks to Sir Andrew Clark, the Right Rev. the Bishop of Derry, to the press generally, and to the Editors of THE LANCET in particular for the special supplements and valuable statistics relating to the Fund; also very specially and most properly to the Right Honourable James Whitehead, for great personal interest and trouble in promoting the success of the Fund. In this connexion we may remark that the great services rendered to the Fund by its indefatigable secretary, Mr. Henry N. Custance, are deserving of wide recognition. The Lord Mayor expressed himself very strongly on the improved prospects of the Hospital Saturday Fund, which, by his scheme of collections in workshops, he expects to be doubled this year, and increased fivefold ere long. Dr. Glover raised the question of such an alteration in the rules of the Hospital Sunday Fund as would enable the Distribution Committee more quickly to reduce, or even withhold, the award to hospitals which, by reason of large legacies, have come practically into the security of endowed hospitals.

LEPROSY IN AUSTRALIA.

AT a meeting of the Victorian Branch of the British Medical Association, held on May 29th, Dr. Andrew Shields read a paper on Leprosy in Australia, in the course of which he traversed the conclusions as to the non-contagiousness of the disease arrived at by the committee of the Royal College of Physicians in 1867. In Australia the disease is almost confined to the Chinese; in only one case, in New South Wales, is it known to have infected a European. In Victoria there are only five lepers in the Leper Camp at Point Nepeau, whereas in 1867 thirteen cases were reported from Victoria. So far as is known, there is no leprosy in South Australia except in the northern territory, where probably a few cases exist among the Chinese. In New South Wales, however, the number of lepers has more than doubled during the last ten years—there being at present twelve cases known to the Board of Health. No reply had been received to inquiries respecting its prevalence in Western Australia.

BABY-FARMING IN HACKNEY.

A DEEPER deep of misery than is usual even in the wretched histories of nurse children appears to have been reached in the case of Maurice Frank Marriner, who lately died in Hackney. The illegitimate child of a widow, bred among the most filthy and unhealthy surroundings, in a small room tenanted by seven other persons, young and adult, covered only with a dirty rag, sleeping in a box, fed on three half-pints of condensed milk and water daily, and sometimes passing twenty-four hours without food, it was a mere matter of course that the infant should have died early of starvation. This is an undoubted case of baby-farming, but it is one which differs in certain particulars from others of its kind. The girl, aged nineteen, to whose hands the child was committed, can hardly have expected to gain materially by the transfer. She was promised 3s. a week, but this sum was not paid. She was not, indeed, a novice in such transactions, for another nurse-child had already died under her care, but it has not been shown that

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she had any interest in the death of her present charge. Her neglect, which was evident, was perhaps regulated less by purpose than by the circumstances of her position. The person chiefly to blame in the matter is clearly the child's mother, yet even in her case there appears to be no proof, or even strong suspicion, of criminal intention. Living an immoral and homeless life, and earning, as far as is known, but a few shillings weekly, she handed over her infant burden to a neighbour to take its chance of life. The wretched details of this case illustrate an almost inevitable consequence of the vice, poverty, and ignorance which prevail among a certain class. The remedy is to be sought not only in the needful exemplary punishment of defaulting parents, but also in accurate registration and supervision even of single nurse-children by the local authority. In the interest of the children more particularly, we would also claim the direct and ready charitable interference of parish guardians, and this ought to be easily attainable under the terms of the new Cruelty to Children Act.

CREOLIN INJECTIONS IN DYSENTERY.

DR. SOSOVSKI has found large enemata of dilute creolin very useful in dysentery. He employed a one-half per cent. solution injected into the bowel twice or sometimes three or four times daily, the quantity used for each enema being generally about five pints. The patients did not experience any burning sensation or abdominal pain. The treatment was employed in sixteen cases, not one of which proved fatal, although a considerable number of patients succumbed to the disease during the same epidemic. In two cases the disease was arrested after the second enema, in nine cases the bloody stools ceased on the third day, in two cases on the fifth day, in one on the sixth, and in one on the ninth. The remaining case, though more obstinate, ultimately recovered completely. In addition to these, two children under a year old were treated successfully by means of creolin enemata. Again, another Russian physician, Dr. Kolokoloff, has used a 1 per cent. solution in a number of cases of adults with complete success.

THE TENTH INTERNATIONAL CONGRESS, BERLIN, 1890.

WE have received official intimation from Professors von Bergmann, Virchow, and Waldeyer that the International Medical Congress, to be held next year at Berlin, will be opened on the 4th and closed on the 9th of August. Details respecting the order of proceedings will be furnished after the meeting of the German Medical Faculties and Medical Societies at Heidelberg on September 17th next. The circular concludes: "Meanwhile, we should feel sincerely obliged if you would kindly make this communication known among your medical circles, and add, at the same time, our cordial invitation to the Congress."

YELLOW FEVER IN BRAZIL.

THE Italian Government has prohibited the emigration offices from booking emigrants to Brazil on account of the deplorable sanitary conditions—notably the prevalence of yellow fever, commented on in a recent number of THE LANCET—under which the Brazilian settlements are allowed to remain. This wise measure has, for the present, completely arrested the flow of emigration from Italy to those regions. The *Nazione* says the Brazilian authorities want to people their waste lands as a fish cultivator peoples a lake. They take 100,000 Italian immigrants, disembark them on the shores in question, and say to them, "Sink or swim." The abolition of slavery has, in the meantime, caused a dearth of labour, which falls heavily on the European colonist unaccustomed to toil under a tropical sun. This, coupled with the [illegible]lous neglect of all sanitary provision, converts these settlements into living graves.

THE VALUE OF MEDICAL CHARITIES.

NO one knows better than those who have studied medicine the value of medical charities, but it is not often that they are able to leave behind them such evidence of their appreciation of the good these institutions do as that given by the late Mr. John Griffith, whose action deserves to be widely known. He was born on Oct. 31st, 1794, and was apprenticed to his father at the Apothecaries' Society. His grandfather and one or two of his uncles, as well as his two brothers, were all of the medical profession. He was therefore well acquainted with the various questions which affect medicine. He changed his choice of a profession as soon as his apprenticeship was ended and qualified as an architect. His sphere of action was the City of London, where he started about seventy years ago, and where he was well known until he retired from active work some years since. Mr. Griffith did a very large practice for many years, and became, for a professional man, very wealthy. He died on Sept. 21st, 1888, and left £20,000 for charitable purposes; £16,000 of this sum were equally divided between the London, Middlesex, Guy's, and St. Mary's Hospitals. During his life he had been a very large donor from time to time to hospitals, besides other charities; in fact, he spent annually a considerable income in this way. His executors were his nephews, Mr. Samuel Clewin and Dr. Daniel Clewin Griffith, who are also his trustees.

MUMMIFICATION OF THE UMBILICAL CORD.

IN the *Liverpool Medico-Chirurgical Journal* for July, 1889, there is an account of an interesting case of the above-mentioned condition by Mr. Frederick W. Lowndes, surgeon to the Liverpool police. At the end of 1885 the body of a fully developed, newly born male child was found in a cellar, with a scarf tied tightly round the neck. The lungs gave evidence that the child had respired. The point of chief importance, however, pertains to the state of the umbilical cord. "For about half an inch from the navel it was perfectly fresh; then came the usual line of demarcation; the remainder of the cord, about two inches and a half, was completely mummified, and there were no appearances of any ligature." We are quite in accord with the opinion of Mr. Lowndes that the state of the cord showed indisputably that the child had survived its birth for "at least twenty-four hours," since the change which had taken place was a vital one, and not the result of mere post-mortem desiccation. We are indebted to Mr. Lowndes for putting this practically unique case on record, if only for the fact that it shows that Casper's deductions from his observations on the value of mummification of the umbilical cord as a means of determining live birth are too general.

FLIES AS CARRIERS OF CONTAGION.

SINCE the recognition that in many diseases the infective principle is particulate, the possible means of conveyance of the virus from one to another individual have widened. Attention has lately been recalled to the part which may conceivably be played in this direction by the agency of the house-fly. Our contemporary the *Liverpool Mercury* (July 25th) reminds us that the granular ophthalmia of the shores of the Nile—a true plague of Egypt—has been shown to be propagated through this medium; and has further alluded to the discovery by Dr. Alessi that the bacillus tuberculosis may exist in the intestines of flies which have been feeding on phthisical sputa. In-

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deed, it would appear that there is hardly any direction, either in our mode of living, eating, or environment, whereby we can avert the possibility of the transference to ourselves of this ubiquitous bacillus, and life would become intolerable were it not for the well-grounded belief that phthisis is not dependent for its development upon this microbe solely, but upon the concurrence of many conditions of almost, if not quite, as much importance as its implantation in the body. *Apropos* of flies, however, it has been stated that the lamented Father Damien attributed his leprosy to the inoculation, through their agency, of an abrasion in the scalp.

ARTERIES FOR DRAINAGE-TUBES.

AT the late meeting of the American Surgical Association Dr. S. H. Weeks showed some specimens of a new variety of absorbable drainage-tubes he has prepared. They are made from the arteries of the ox. The vessels are separated from their sheaths, and cut into appropriate lengths. They are first boiled in water for five minutes, then passed over glass rods of proper size. Subsequently they are immersed for ten minutes in corrosive sublimate solution (1 per cent.), and finally stored in alcohol (95 per cent.). They are said to be entirely unirritating, to act as efficient drains, and to be absorbed in about a week.

THE NOTIFICATION OF INFECTIOUS DISEASES BILL.

OUR readers will notice that the Infectious Diseases Bill, after a pretty full discussion, has been read a second time. As we led our readers to expect, Sir Walter Foster, while fully approving the Bill in principle, stated the objections to requiring the medical man to notify. We trust that this point will be again raised in committee. It is unreasonable to throw such a duty on medical men, who may have twenty other urgent duties to discharge, and who are not so mercenary as Mr. Storey seems to think them.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Professor Engler of Breslau has been appointed to the chair of Botany.

Bologna.—Dr. Novi has been recognised as *privat-docent* in Physiology.

Cagliari.—Dr. A. Lustig has been selected by public competition Professor of General Pathology.

Moscow.—Dr. Makezheff has been promoted from Professor Extraordinary to Professor in Ordinary of Gynæcology and Midwifery.

Padua.—Dr. Massalongo has been recognised as *privat-docent* in Special Pathology. Dr. A. Breda has been promoted to the chair of Syphilology.

Rome.—Drs. Torre and Mattei have been recognised as *privat-docents* in Midwifery and Hygiene respectively.

Rio de Janeiro.—Dr. Carvalho has been appointed to the chair of Physiology.

St. Petersburg (Military Medical Academy).—Dr. Goluines has been recognised as *privat-docent* in Geographical and Statistical Medicine (Helena Clinical Institute). — Dr. Tiling has been appointed Lecturer on Surgery in place of the late Professor Monastyraki.

Turin.—Dr. E. Perroncito has been recognised as Extraordinary Professor of Microbiology.

Warsaw.—Dr. Lukjanow has been promoted to the chair of Therapeutics, and Dr. Tumas to that of Pharmacology.

THE death is announced of Surgeon-General Galbraith at Cairo on July 31st.

CONSIDERABLE uneasiness having been occasioned by the report that Vallombrosa—that favourite resort of English-speaking residents in Italy, who from business or other causes are prevented from going farther afield for change during the hot season—has been visited by small-pox, we are in a position to state that no such malady is prevalent there. The Forestal Institute, which is under Government supervision, has seen no reason to suspend its teaching and send the pupils home—a course it would unquestionably have taken had there been the slightest suspicion of a small-pox outbreak in its vicinity.

THE fourth session of the French Congress of Surgery will be held at Paris from the 14th to the 20th of October next, under the presidency of Baron Larrey. The principal questions to be presented for discussion on the occasion will be: (1) The immediate and remote results of operations for the removal of tuberculous growths; (2) the surgical treatment of peritonitis; (3) the treatment of aneurysms. Communications should be addressed to Mons. F. Alcan, 108, Boulevard St. Germain, Paris; or to Dr. S. Pozzi, Secretary-General, 10, Place Vendôme, Paris.

RESIDENCE in Odessa just now must be the reverse of pleasant, if the statements of certain correspondents are to be relied upon. The shade temperature is said to be as high occasionally as 130° Fahr.; there is a scarcity of water, and no breeze; whilst rabid dogs abound, and within a period of twenty days no fewer than thirty-eight cases of hydrophobia occurred within the city.

DR. HENEAGE GIBBES, who left London in January, 1888, to take the post of Professor of Pathology at the Ann Arbor University, Michigan, has been recently appointed to the chair of Histology in addition to the one he already holds. Dr. Gibbes' skill as a histologist was well known in London, and the University of Ann Arbor is to be congratulated in having secured the services of so able a man.

LEPROSY: NOTES ON NATIVE REMEDIES.[1]

BY F. J. MOUAT, M.D., F.R.C.S.,
BENGAL MEDICAL SERVICE.

NO. I.—THE CHAULMOOGRA.

SOME years since, when holding the office of Professor of Materia Medica in the Bengal Medical College, I turned my attention to the investigation of native remedies. I collected a large number of specimens of the Indian materia medica from all parts of Hindustan, and several examples of the indigenous drugs used in China and the Straits Settlements.[2] At that time I had no wards at my disposal in which to test the reputed virtues of the remedies used by the native practitioners; and the increase of official occupation afforded by the rapid spread of education in Bengal left me no leisure to accomplish my purpose. Recently the subject has again attracted my attention, and although I have as yet been unable to devote much time or consideration to it, I hope hereafter to be able to carry out a systematic series of observations in a direction of which all acknowledge the interest and importance.

It is with considerable reluctance that I venture to submit for the consideration of the profession in India a few remarks upon the Chaulmoogra, as the opportunities which I have hitherto had of employing it are too few and restricted to enable me to recommend it with the confidence that I could wish. Its success was, however, so remarkable and indisputable in one well-marked case of the worst kind of

[1] Taken from the Indian Annals of Medical Science, vol. i. 1854, p. 646.
[2] These are now, I believe, in Berlin. I presented them, at his request, to Prince Waldemar.

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leprosy, that I venture to hope an extended application of it to that most loathsome and intractable of diseases, may prove so successful as to secure the general introduction of the remedy.

It appears first to have been described by Roxburgh, in the "Flora of India," under the name of Chaulmoogra odorata. The following is the account of it given by that excellent and accurate observer: "Chaulmoogra and Petakura are the names of this tree, and of the drug, hereafter mentioned, which it furnishes. It is indigenous in the Sylhet district, and grows to a large size, equalling the largest mango trees, and when full grown may be compared to the great maple or sycamore—Acer pseudo-platanus. It blossoms in April and May, and the seed ripens about the close of the year; when the fruit is gathered, the seed is carefully taken out, dried, and sold to the native dealers in drugs at about five rupees the maund of eighty-four pounds. The seeds are employed by the natives in the cure of cutaneous diseases. When freed from the integuments, they are beaten up with clarified butter into a soft mass, and in this state applied thrice a day to the parts affected."

In the last edition (3rd, 1853, pp. 323-24) of Lindley's Vegetable Kingdom, it is placed in the Order CIX., Pangiaceæ, which are thus described:—"Trees: Leaves alternate, stalked, entire, or somewhat lobed. Flowers axillary, solitary or fascicled, or in a few flowered racemes, ♂ ♀. Sepals 5, rarely 2, 3, or 4. Petals 5, rarely 6. Scales as many, opposite the petals, ♂. Stamens 5 or ∞; not a rudiment of ♀. ♀ sterile, stamens equal in number to the petals, rarely more. Ovary free, 1-celled; ovules ∞, attached to 2-6, parietal placentæ. Capsules succulent, indehiscent, 1-celled. Seeds ∞, large; albumen abundant, oily; embryo nearly as large as the albumen; radicle prorudded; cotyledons generally leafy and veined. (Bennett.) What the distinction is between these plants and Papayads, except that the last are monopetalous, and have no faucial scales in the ♀ flowers, it is hard to say. Mr. Bennett throws no light upon the matter, and I am unable to supply any. The species are found in the hotter parts of India. All are poisonous plants. The seeds of Gynocardia odorata are employed extensively by the natives of India in the cure of cutaneous disorders."

The seeds yield by expression a bland fixed oil, with a peculiar and slightly unpleasant smell and taste, with the faintest possible after-flavour of the bitter almond. The oil procured from the bazaars is invariably impure, but I have not ascertained with what other matters it is adulterated. It appears to me to have been long known to and prized by the natives in the treatment of leprosy, and few of the fakirs travelling about the country are unacquainted with its properties. I was first informed of its value by Mr. Jones, the head master of the Hindoo College, a gentleman of eminent acquirements, who brought it to the notice of other practitioners in this city, and at whose recommendation it was tried in the Leper Asylum, with a favourable result.

CASE OF LEPROSY.—On July 6th last an unfortunate Creole of Bourbon, who had long been an inmate of the Leper Asylum, was picked up in the streets in a state of insensibility, and brought by the police to the Medical College Hospital. Upon admission to my wards he was found to be labouring under the effects of alcohol. Signs of delirium tremens soon set in, and for some days he suffered from an aggravated attack of that disease. The irritability of the stomach was so great as to be overcome with the greatest difficulty, and his violence was at times so uncontrollable as to need the restraint of the strait-waistcoat. All this yielded to the usual treatment, when the man was found to be a loathsome leper. His feet were bound up with filthy rags, his body exhaled an extremely offensive odour, and he was nearly reduced to a skeleton, so great was his emaciation. His body was covered with livid patches; the toes of the left foot were without nails, and swollen at the extremities. Upon the sole of this foot there were large ragged excavated ulcers, with hardened livid edges, and an offensive sanio-purulent discharge. One of them, near the heel, and of the size of a rupee, had destroyed the skin, fascia, and muscles, and exposed the bones beneath them. There was a similar ulcer on the sole of the right foot, and on the dorsum of both feet were excoriations of a leprous character. He was labouring under diarrhœa and great general debility. After cleansing the surface of the ulcers, I dressed them every day with the oil of chaulmoogra, and gave him internally a pill of the seed beaten into a pulp, six grains three times daily. For nearly a fortnight there was no perceptible amendment, but after this the progress of the cure was rapid. The ulcers healed by healthy granulation, the livid spots gradually disappeared, the general health of the patient improved, and he declared he was better than he had been for some years previously. He left the hospital clandestinely on Sept. 10th, 1853, and I have not since heard of him.[3] Upon inquiring into his history, I found that he had been for nearly eighteen months an inmate of the leper asylum.

It is manifestly impossible to attempt to generalise from a single case, or to ascertain in the instance above recorded how much of the improvement was due to the regularity and nourishing diet of the hospital, and what proportion of the cure may fairly be assigned to the remedy. The result is, I venture to believe, sufficiently encouraging to justify a further trial of the chaulmoogra in leprosy.

Kensington, W.

THE HEALTH OF THE ARMY IN 1887.

No. II.

THE strength of the troops in Bermuda was 1183, the admissions were 809, the deaths 12·68, the constantly sick 42·13, and the discharged by invaliding 22·82 per 1000 of strength—all higher than in 1886 and above the decennial average. Diseases of the digestive system gave rise to the highest ratios of admissions, one-third of them being returned under the head of dyspepsia. The most fatal disease was enteric fever, which was the cause of 8 out of a total of 15 deaths. There were 50 cases of it returned, being in the ratio of 42·2 per 1000 of strength; of these, 41 with 7 deaths were at Prospect, 7 with 1 death at St. George's, and 2 at Watford. The medical officer at Prospect states that "the cases could, in a large measure, be traced to the drinking of water from the 'officers' mess tank,' which had a reputation among the men for purity. This tank had not been cleaned out for a long time, and its surroundings are bad. It has a stable within a few yards, and on a higher level, and the officers' latrine is also within a few yards. Percolation into it of drainage from these two sources, with a porous coral soil, and perhaps a flaw in the cement of the tank, may have possibly taken place. The water was analysed and found to be of a suspicious nature, unfit to be used for drinking purposes (at least without previous boiling) on account of the large amount of oxidisable matter in it. The tank was closed at the end of October, after which date, it is worthy of note, gastro-intestinal affections almost ceased, and there has been an entire absence of enteric fever." At St. George's the disease was believed to be connected with the state of the water-tank in the Artillery Barracks, which "appeared to be in a bad state of repair, and possibly allowed leakage into it." As at Prospect, when this tank was locked up the cases of enteric fever and diarrhœa ceased. None of the other diseases seem to call for special remark. Those of the circulatory system were the most frequent cause of invaliding. It is stated that, apparently in consequence of the outbreaks of enteric fever, "samples of water are being constantly submitted for analysis, and, where the least suspicion exists, the tanks are immediately emptied, cleaned, and repaired." One death only occurred among the officers. While bathing, one of them attempted some gymnastic feat and dislocated his spine, with fracture.

In the West Indies the average strength of the white troops was 1121; the admissions amounted to 1117, the deaths to 11·60, the mean sick to 52·78, and the discharges by invaliding to 11·60 per 1000. These ratios are all lower than in 1886, but the admissions and mean sick are above the decennial average. Venereal diseases gave rise to the highest ratio of admissions, amounting to upwards of one-fifth of the whole, and injuries and fevers were next in frequency. Enteric fever was the cause of upwards of one-half of the deaths; the admissions by it were 12·5 and the deaths 6·25 per 1000 of the strength. Eleven cases and 6 deaths occurred in Jamaica, and 3 with 1 death in Barbadoes. Of those in Jamaica, 10 cases and 5 deaths were

[3] Since the above was written, I am informed by Dr. Stewart that the man had returned to the Leper Asylum, that his general health is good, and that the disease has not advanced.

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at Newcastle and the other fatal case at Up Park Camp. With regard to the cases at Newcastle, it is stated that "one probable cause of the disease was that the men frequented two rum-shops half-way down the hill, where it was ascertained that some cases of enteric fever had existed amongst the natives; and another probable cause was the contamination of the water in the mess tank." There was an increase in the amount of venereal disease, the ratio of admissions, including all forms, having been 256 per 1000, and the proportion constantly non-effective from it 17 per 1000. The admissions from alcoholism were 13·4 per 1000. "All the cases occurred at Barbadoes, where it is said that every facility exists for the production of this condition, rum being bad, cheap, and obtainable everywhere."

The strength of the black troops was 1205; the admissions were 1333, the deaths 11·62, the mean sick 74·29, and the discharging by invaliding 66·39 per 1000—all of them except the deaths considerably above the average, and also higher than among the white troops in the same command. Venereal diseases were much the most frequent cause of admissions, the cases, including all forms, having amounted to 483 per 1000, or considerably above one-third of the total. Tubercular diseases and those of the respiratory system were the most fatal, the deaths from these two classes having been in the ratio of 4·98 per 1000. There were no cases of enteric fever.

On the West Coast of Africa the strength of the black troops was 570, of whom 387 were stationed at Sierra Leone and 183 at Cape Coast Castle. The admissions were 1146, the deaths 24·56, and the mean sick 62·44 per 1000, showing a decrease in the cases and mean sick, but an increase in the deaths. Malarial fevers were the most prevalent and fatal diseases, but there was a very marked reduction in them upon the results of the preceding year. Venereal diseases rank next in frequency; the admissions, including all forms of these, were 203 per 1000, and the constantly non-effective from them 19 per 1000. The water-supply at Sierra Leone is stated to be abundant and good, but at Cape Coast Castle indifferent; but "it is probable that at no distant date a system will be provided which will ensure an adequate purity of drinking water on the Gold Coast."

The force employed in South Africa and St. Helena was 3490 strong. The admissions into hospital were 887, the deaths 8·02, the mean sick 58·94, and the discharges by invaliding 13·75 per 1000 of strength—all higher than in 1886. Although measles was very prevalent among the civil population at the Cape, only two cases occurred among the troops. There were only 5 admissions and 2 deaths by enteric fever, 2 with 1 death at Cape Town, and 3 with 1 death at Pietermaritzburg. By far the most prevalent disease was venereal; including all the forms of it, the admissions amounted to 365 per 1000, and the number constantly non-effective from it to 26·94 per 1000. It is stated to have increased also among the civil population. Among the admissions for injuries were 6 under the head of lightning-stroke; during a severe thunderstorm at Fort Napier a guard-tent was struck, one man being killed and 6 injured, "all being stunned, and, in the majority, more or less injury to clothing occurred." During the year the regiment stationed in Cape Town was moved to Wynberg, a very healthy suburb. We observe, with some surprise, that at this new camp "the drainage arrangements were not completed, but were under consideration. A good supply of water is to be obtained from the Wynberg Waterworks, and it is in contemplation to lay it on to all parts of the camp." Surely the drainage should have been completed, and the water supply laid on, before the troops were moved into the camp. It is impossible to say what may happen to the health of the troops during the period the military authorities are indulging in contemplation on these points.

At Mauritius, in a force of 400, the admissions were in the ratio of 1592, the deaths of 20·0, the mean sick of 82·87, and the discharges by invaliding of 37·50 per 1000; except the deaths, these are higher than in 1886. Fevers, particularly malarial, were by far the most prevalent and fatal diseases, the admissions by them amounting to 667 and the deaths to 12·50 per 1000. There was only 1 case of enteric fever. The greater number of cases of malarial fever were admitted from Port Louis, and of those which occurred at Curepipe it is said "that it is most probable that these cases were either relapses or first attacks in men who had been exposed to malaria in Port Louis or elsewhere, and were not due to the climate of Curepipe, as up to the present the place has been supposed to be above the limit of malarial miasma." The Report does not state the number of men quartered at these stations respectively. By venereal disease, in all its forms, the admissions were 350 and the constantly non-effective 23·12 per 1000 of strength. There were 4 cases of hæmaturia admitted, in the urine of 3 of which the ova of bilharzia hæmatobia, and in 1 specimens of the worm itself, were found.

The average strength of the white troops in Ceylon was 1077; among whom the admissions were in the ratio of 1139, the deaths of 14·86, the mean sick of 66·89, and the discharges by invaliding of 9·29 per 1000—results not greatly differing from the decennial average. The deaths and mean sick were rather higher than in 1886. The increase in the mean sick is probably due to a change in the mode of sending home invalids; instead of, as formerly, being sent by contract steamer, as occasion requires, they are detained for the opportunity of a troop ship. This is probably done from motives of economy, but the saving must in many instances cause an injury to the unfortunate invalid by his longer detention in a tropical climate. There were 10 cases of enteric fever, with 7 deaths; of these, 4 with 3 deaths occurred at Colombo, and 6 with 4 deaths at Galle. The cause of the former could not be traced, but the latter were supposed to be connected with the opening up and clearing of a drain close to the barrack-room. The disease, however, was at the time unusually prevalent among the civil population. Both Colombo and Galle are stated to be "riddled with cesspits." Venereal disease was the cause of 414 admissions per 1000 (greatly above the average), and the non-effective from it amounted to 24·72 per 1000. The old moat of the fort at Colombo has been filled up, and thus at last an alleged cause of disease among the troops has been got rid of. The drainage of the barracks there and at Galle has been improved. The black troops, averaging 121, were healthy, and there was no death or invaliding among them.

The strength of the troops in Hong Kong and the Straits Settlements was 2266. Of these 1217 were at Hong Kong and 1049 in the Straits Settlements. Among the former the admissions were 1169, the deaths 8·21, and the mean sick 47·28 per 1000; among the latter, 792, 2·86, and 38·64. The discharges by invaliding from the whole force were 6·18 per 1000. At Hong Kong there were 9 cases of enteric fever, with 2 deaths; the cause of these could not be discovered, "but at the time of the occurrence there were cases of enteric fever in the city, where the drainage is very defective." Malarial fevers were very prevalent, the admissions amounting to 499 per 1000. This was due to the disturbance of the soil in preparing the sites for the new forts. In the Straits Settlements there were 6 cases of enteric fever with 1 death, 3 at Tanglin, and 3 including the fatal case at Penang; 5 of them were in men recently arrived, and who were believed to have brought the disease with them. The admissions by malarial fever were only 63·8 as against 409 8 per 1000 in the preceding year. This great improvement has been attributed partly to the drainage of the rifle range at Tanglin, and partly to an exceptionally dry year; the troops also were composed of seasoned men who had just arrived from South Africa. The admissions by all forms of venereal disease in the command were 189 and the non-effectives 13·38 per 1000; they were slightly more prevalent in the Straits Settlements than in Hong Kong. The water at Hong Kong requires to be boiled and filtered; but "it is hoped that in a few months the supply will be furnished from the new waterworks at Tytain." The Asiatic troops, 220 strong, had 1532 admissions, 22·72 deaths, 31·50 mean sick, and 9 09 invalided per 1000 of strength. The principal cause of admission was malarial fever.

The average strength of the British troops in Egypt was 5272, of whom 4827 were in Lower Egypt, and 445 formed the frontier force at Assouan. From the former the admissions were 1129, the deaths 14·09, and the mean sick 71·56 per 1000; from the latter they were 831, 26 96, and 44·45. The invalids discharged the service were 17·27 per 1000 from the whole force. These ratios are all considerably under those of the preceding year. There were 26 cases and 4 deaths of small-pox, which is stated to be very prevalent among the civil population. There were 157 admissions and 37 deaths from enteric fever, being in the ratio of 29·8 and 7·02 per 1000 of strength. The death-rate by it was only one-third as high as in 1886. The admissions were chiefly at the citadel, Cairo, amounting to 122 with 30 deaths; there were 20 cases with 5 deaths at Assouan.

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The greater prevalence at Cairo was attributed to "the local insanitary conditions, the unusually high Nile and its rapid fall." The cases at Assouan occurred in the first five months; the immunity afterwards "was probably due to the men sent to Assouan being specially selected, over twenty-two years of age, and relieved frequently." The decrease at the other stations is attributed to the bulk of the force consisting of seasoned troops, quartered in good barracks, more settled, and better fed. Of 119 cases of ague, 104 occurred at Alexandria; there were 7 cases of remittent fever, all at Assouan. The admissions from all forms of venereal disease were 134, and the constantly non-effective from it 11·24 per 1000—a slight increase upon the preceding year. The drinking water at Assouan was always boiled and filtered, and during the period of high Nile was also treated with alum to clear it.

METROPOLITAN HOSPITAL SUNDAY FUND.

A MEETING of the Council of the Metropolitan Hospital Sunday Fund was held at the Mansion House on Monday to consider the annual general report of the Committee of Distribution. The Right Hon. the Lord Mayor, president and treasurer, occupied the chair, and Sir S. H. Waterlow acted as vice-chairman.

Mr. HENRY N. CUSTANCE, the secretary, having read the notice convening the meeting and minutes of the preceding meeting, the committee's report was taken as read. It recommended the payment of awards to 161 institutions, being three more than last year, and an increase of fifty-six since the first awards were made in 1873. The total amount available for distribution, after allowing sufficient for liabilities and the usual current expenses, was £40,746. Of this total, £31,481 5*s.* was now recommended to 111 hospitals and 50 dispensaries. Five per cent. of the total collected—viz., £2000—was set apart to purchase surgical appliances in monthly proportions during the ensuing year. The committee recommended that all payments to the fund after this date be carried to the credit of next year's fund. In compliance with an order of the Council, and for the special use of its members, tables of statistics had been prepared as usual, showing an analysis of the number of beds in hospitals, the cost of patients both at hospitals and dispensaries, the proportionate expense of management, &c., and copies were sent to every member of the Council. The number of deputations, representing committees of various hospitals, invited to confer with the committee, and to offer explanations on matters of apparently unsatisfactory character, was only nine this year as compared with eleven in 1888. Four of these deputations attended, and in two cases the committee regretted to report that, after these interviews, they were unable to recommend any award. Five institutions sent replies, but did not attend. The application from one dispensary was withdrawn. Two institutions which had been less than three years established, and hence could not comply with Law IV. by furnishing balance-sheets for three years, had to be refused. One application from a nursing institution, being neither hospital nor dispensary, could not be entertained; and two from other institutions came too late.

Particulars of the awards were given in an appendix to the report. The awards to the twenty-two hospitals described as "general" were as follows:—Charing-cross, £989 11*s.* 8*d.*; French, £208 6*s.* 8*d.*; German, £677 1*s.* 8*d.*; Great Northern Central, £312 10*s.*; Guy's, £208 6*s.* 8*d.*; Italian, £72 18*s.* 4*d.*; King's College, £1406 5*s.*; London, £3333 6*s.* 8*d.*; Middlesex, £2031 5*s.*; University College, £1302 1*s.* 8*d.*; Westminster, £1093 15*s.*; Metropolitan, £260 8*s.* 4*d.*; Miller Hospital and Royal Kent Dispensary, £281 5*s.*; North-West London, £322 18*s.* 4*d.*; Poplar, £218 15*s.*; Royal Free, £958 6*s.* 8*d.*; St. George's, £1614 11*s.* 8*d*; St. Mary's, £1875; Seamen's, £677 1*s.* 8*d.*; Tottenham Training Hospital, £281 5*s.*; West London, £520 16*s.* 8*d.*; and SS. John and Elizabeth, £125. The remainder was distributed amongst 5 chest hospitals, 12 children's hospitals, 3 lying-in hospitals, 6 hospitals for women, 27 other special hospitals, 20 convalescent hospitals, 11 cottage hospitals, 7 institutions, and 50 dispensaries.

Sir SYDNEY WATERLOW, in moving that the report of the Committee of Distribution for 1889 be approved, and that the several awards recommended be paid, congratulated the Lord Mayor and everyone present on the fact that the Sunday collection this year had been larger than in any preceding year. The sum received up to the present time was £41,107, being considerably more than the total received last year; and, as three months had yet to intervene before the subscription-list for this year was closed, there could scarcely be a doubt that they would receive £700 or £800 more. Practically, there had been no dissatisfaction expressed on the part of those who had made application for help out of this fund. He congratulated the Council and the public generally on the fact that the accounts of the various hospitals were kept in a much better and more uniform manner than heretofore. He believed that the testing of one set of accounts by comparison with others had been of almost as great a benefit to the hospitals and dispensaries of the metropolis as the moneys which were contributed from the Sunday Fund. They had been much more carefully and economically administered. The Council had not this year received any large legacies, but he hoped the time was not far distant when persons of abundant wealth would come to the conclusion that they could not do better than assist the Hospital Sunday Fund, the Council of which had the fullest means of discriminating between the merits and needs of the hospitals and cognate institutions, and were the best almoners of the fund.

Mr. H. COSMO BONSOR, M.P., seconded the motion, and remarked that as regarded the way in which the awards had been made the committee were practically unanimous. The motion was agreed to.

The cordial thanks of the Council were voted to the Chairman and the other members of the committee for the labour and care they had bestowed in the preparation of the awards, and for the efficient report of their proceedings; to Sir Andrew Clark, Bart., M.D., LL.D., for the very able address delivered by him at the Mansion House meeting of June 19th, and also to the Right Rev. the Lord Bishop of Derry, and to other speakers; to the editors of newspapers who had pleaded the needs of hospitals and advocated the cause of this fund with a view to increasing this year's collection, and specially to Mr. Thomas Wakley, the Editor of THE LANCET, who had gratuitously prepared and issued to clergymen and ministers of religion special Supplements giving valuable statistics and general information; and to the Right Hon. James Whitehead, who, as president and treasurer of this fund, had lost no opportunity in devoting his attention and valuable time to raise the present year's fund above the record of past years, and the Council desired to congratulate his lordship upon his success. The movers and seconders of the foregoing votes of thanks were Dr. J. G. Glover, Rev. C. J. Ridgway, Sir Risdon Bennett, Dr. Charles J. Hare, Mr. C. Macnamara, Rev. R. R. Bristow, Mr. A. L. Cohen, and Dr. Morison.

The LORD MAYOR thanked the Council for the cordiality with which they had received the resolution in his favour. It was, he said, a great pleasure to him to be associated with this fund. It was well known that he was taking a very deep interest in all that was connected with the welfare of hospitals within the metropolitan area; and it might be known to some of them that he had initiated a new scheme in connexion with the Hospital Saturday Fund, which would not in any way interfere—he had been careful to observe that—with the action or the usefulness of the Hospital Sunday Fund. That movement had so far had the greatest success, and there was every probability that through his initiation the Saturday Fund would be more than doubled in the first year, and he thought he should not be going too far if he were to prognosticate that within the next three years it would be increased by at least fivefold. The system of penny-a-week collections in workshops, factories, and warehouses would work automatically. As the population increased there would be an increased demand upon the hospitals, but there would also be an increase in the number of those who by this scheme would be able to contribute towards their support. It was highly gratifying to him that during his year of office as Lord Mayor the record had this year been beaten so far as the contributions towards the hospital funds were concerned. It was rather a singular fact that this year there was not a single movement of any kind with which the Mansion House was connected, having for its object and aim the collection of funds, where the record had not been beaten. In every instance where he had had the honour of presiding at any public dinner, or at

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any gathering where there was a collection on behalf of the institution, the amount received had exceeded the highest ever previously collected. He attributed that to a great extent to what he hoped and believed was a great improvement in the mercantile prosperity of the country.

The proceedings then terminated.

THE ROYAL COLLEGE OF PHYSICIANS.

THE adjourned meeting of the Comitia was held on the 30th ult., Sir Andrew Clark, Bart., President, in the chair. Dr. C. Meymott Tidy was elected an Examiner in Chemistry.

Considerable discussion arose over the report of the Leprosy Committee with reference to the recommendations of the Father Damien Committee, based on the proposals of H.R.H. the Prince of Wales. These recommendations were in effect: 1. To erect a memorial statue of Father Damien in Kalawao. 2. To form a fund to be devoted to the medical care and treatment of indigent British lepers in the United Kingdom; the application of the fund to be in the hands of three trustees, to be appointed by the Royal College of Physicians, the Royal College of Surgeons, and the General Committee of the "Father Damien Memorial Fund" respectively. Also to endow two studentships tenable for three years; one student to make the United Kingdom and the remainder of Europe his field of investigation, and the other to go abroad to study the disease in China, the colonies, and elsewhere. 3. To beg the Prince of Wales to invite the Viceroy of India to appoint an auxiliary committee with regard to the investigation into and treatment of leprosy in India; and that a Commission be appointed for not less than one year, consisting of three members, one to be named by the Royal College of Physicians, one by the Royal College of Surgeons, and one by the General Committee of the "Father Damien Memorial Fund," to go out to India for investigation, and that the Indian Committee be requested to add two members to this Commission. It was also, *inter alia*, recommended that a standing committee of not less than six persons, nominated by the bodies above named, should prepare memoranda for the guidance of the above-mentioned students and the Indian Commission. The report of the Leprosy Committee of the College, stating that it was undesirable to set apart a special ward for lepers in any hospital of the United Kingdom, and approving of the foundation of studentships and the appointment of a Commission (for a period of not less than two years, and with authority to visit any country or district of the British Empire), was, after considerable discussion and some modification of the original draft, adopted in preference to an amendment moved by Sir H. Pitman, which simply stated the readiness of the College to co-operate with the Father Damien Memorial Committee. It was suggested by the College that the various nominations made on behalf of the Father Damien Memorial Committee should be in the hands of the executive committee of that body.

The report of the University for London Committee was then received. It referred to the report of the Royal Commission, especially in regard to its recommendations for the reconstitution of a Medical Faculty in the University of London, and, in conclusion, pointed out the following as the chief points to be considered by the College:—1. The retention of the present power of the College to grant qualifications to practise. 2. The adequate representation of the Royal Colleges upon the governing bodies of any reconstituted university. 3. The conditions upon which the curricula and examinations for the qualifications of the Royal Colleges shall be accepted for the pass degree of a future London University. 4. Extension or modification of the present curricula of the Royal Colleges. After some discussion the committee was reappointed, with the addition of the names of Dr. N. Moore and Dr. Coupland, to consider the subject, especially in reference to the position of the College in the matter.

The quarterly report of the Finance Committee was received, as were also the annual reports of the Library Committee and of the Curators of the Museum.

A report of the Committee on the Extension of the Examination Hall Buildings was received. It stated that, in consequence of the injunction obtained at the instance of Messrs. Greenfield and Cracknall, it had been agreed not to carry the east wing of the building above the top of the second floor. The total amount of the costs incurred in the late action was £731 3*s.* 5*d.*, whilst the reduction in the builders' contracts, in consequence of the modifications in plans, amounted to £943 1*s.* 3*d.* The amended estimates for the erection of the building were £24,899 8*s.* 9*d.* In accordance with the suggestion of its members, the committee was reappointed to supervise the building operations.

THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

The Forthcoming International Congress of Hygiene.—The Congress on the Help of the Wounded in War.

ON Sunday, Aug. 4th, at the Grand Amphitheatre of the Faculty of Medicine, and under the presidency of the Minister of the Interior, the International Congress of Hygiene and Demography will, with due solemnity, hold its inaugural sitting. It will be remembered that, though at the last Congress, held two years ago at Vienna, it was decided that the next should take place in London in 1891, that distant date was selected especially so as to permit an intermediary gathering at Paris during the Universal Exhibition. Though the present Congress does not partake of the same official character as the great Congress of Vienna and the future Congress of London, nevertheless several Governments will be officially represented. These are the Governments of Belgium, Brazil, Bolivia, Denmark, Egypt, Luxembourg, Monaco, Salvador, Spain, Roumania, Mexico, Turkey, the Argentine Republic, Paraguay, and Hawai. All the French sanitary societies, administrations, central and provincial, and many foreign administrations, send representatives. There will not be far short of 600 members, representing about twenty-five nationalities. The Congress is to meet at 9 A.M. and 2 P.M. each day, excepting Wednesday, Aug. 7th, when, by special train, the members will be conveyed to Rheims, a distance of 172 kilometres from Paris. At Rheims carriages will take the excursionists to the sewage farms, and after visiting the works the members will be entertained at lunch in the Château des Maretz. On returning to Rheims, the celebrated cathedral and equally celebrated champaign caves will be visited. Then the Congress is to be entertained by the Municipality at the Town Hall, and finally a special train is to bring the entire company back to Paris by 10 P.M. On the Monday evening the Congress will be received at the Ministry of Public Instruction, and on Tuesday by Dr. Brouardel, President of the Congress and Dean of the Faculty of Medicine. On Thursday evening the Congress will be entertained by the Paris Municipality at the Hôtel de Ville. On Friday evening the Congress will hold a banquet on the platform of the Eiffel tower. On the Saturday there is to be a reception given by the Minister of the Interior, and on Sunday, Aug. 11th, a visit to the Paris sewers and an excursion to the sewage farm of Gennevillier, conducted by M. Bechmann, chief engineer of the town of Paris. Ladies accompanying members of the Congress are especially invited to all these excursions and entertainments, and it will be seen that the programme is very complete. It is only to be regretted that in Paris, as in Vienna, there are not likely to be many English representatives. Professor Corfield, Mr. Shirley Murphy, Dr. Alfred Carpenter, Dr. C. Drysdale, and Mr. Adolphe Smith are among the English members of the Congress, and it is to be hoped that at the last moment many more will put in an appearance so as to participate in the great work of sanitary propaganda achieved by these Congresses. The Congress will divide into eight sections, to treat the following subjects:—Section 1: The hygiene of childhood, milk-supply, overwork in schools, &c. Section 2: Town and rural sanitation, construction of dwellings, ventilation, overcrowding, &c. Section 3: The germ theory applied to hygiene, infectious fevers, &c. Section 4: Industrial and professional hygiene, work of children in factories, unwholesome industries, &c. Section 5: International hygiene and sanitary police. Section 6: Food adulteration; water-supply; filtering processes. Section 7: Demography; sanitary statistics. Section 8: Cremation. This latter section

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will in a measure constitute a separate congress of itself, and will be presided over by the President of the International Commission on Cremation. On each of the eight subjects printed reports are to be placed in the hands of the members of the Congress to serve as a basis of discussion. The reports for Section 3 and Section 7 are already in circulation. Such are the principal details concerning this important international meeting. It will be seen that the French authorities have spared no pains to provide agreeable and instructive entertainment for those who respond to their invitation, that the subjects to be discussed are most important, that the Governments of newer civilisations (such as the South American Republics) are anxious to gain every possible information, and that therefore the English sanitary reformers who have so often led in the van of progress, should be present in large numbers on this occasion. It is not too late to give notice of an intention to take part in the proceedings of the Congress. The entrance fee is twenty francs, and communications should be sent at once to the secretary of the International Congress of Hygiene at the Faculté de Médecine, Paris. All who are concerned in hygiene, as medical men, engineers, architects, inspectors, administrators, municipal councillors, &c., will be welcomed.

It is unfortunate that space does not admit of the full descriptions of all the Congresses that are now meeting in Paris. The International Congress for the Assistance of the Wounded in Time of War, for instance, gave rise to some very important debates. The question of antiseptic dressing, the mobilisation of the ambulance services, and the best means of teaching quickly how to tender the first necessary help on the field of battle were all fully investigated. M. le Dr. Riaut naturally took the lead in many of these discussions, but he was ably supported by MM. Romberg, Felix, John Furley, &c. The latter insisted on the care taken in England to educate women in ambulance work. Dr. Schneider read an important paper on the salubrity of the battlefield, how best to bury the dead without infecting the neighbouring residents, and without running the risk of burying those who were still alive. Among other suggestions, he urged that soldiers should wear round their necks or about their clothing a medal by which they could be identified. This would save much time. Burying parties need only remove the medal, and thus avoid all the trouble of identification. The promptness of burials contributed very materially to the salubrity of the battlefield. The Congress spent a considerable time visiting the exhibits on the Esplanade of the Invalides, notably the Tollet ambulances and the installations of the Société des Femmes de France. Dr. Renault also rendered good service by insisting on the absolute necessity of maintaining in the ambulance service the strictest neutrality during active warfare. The necessity of such neutrality, though very emphatically laid down by the Geneva Convention of 1863, was not sufficiently understood.

MALCOLM MORRIS INDEMNITY FUND.

THE following additional subscriptions to the above fund have been received :—

	£	s.	d.
Amount previously acknowledged	381	2	0
E. R. Bickersteth, Esq. (Liverpool)	5	5	0
E. W. Hulse, Esq., M.P.	5	5	0
Dr. Felix Semon	2	2	0
Dr. Clement Godson	2	2	0
Rev. W. Venn	2	2	0
Edward Newton, Esq.	2	2	0
Dr. Heron	1	1	0
Lennox Browne, Esq.	1	1	0
Dr. Pye-Smith	1	1	0
Dr. William Keen	1	1	0
Waren Tay, Esq.	1	1	0
W. Knight Treves, Esq. (Margate)	1	1	0
Frank, M. S., Esq.	1	1	0
F. Carter Braine, Esq.	1	1	0
Dr. Dolan (Halifax)	1	1	0
Charles Lewis, Esq. (Folkestone)	1	1	0
Dr. W. E. Porter (Wood Green)	1	1	0
Messrs. Curtis and Co.	1	1	0
Dr. Owen Daly (Hull)	1	1	0
Dr. E. Markham Skerritt	1	1	0
Dr. H. Charlton Bastian, F.R.S.	1	1	0
Dr. F. T. Roberts	1	1	0
Edward East, Esq.	1	1	0
Surg.-General Gordon, C.B.	1	1	0
Dr. Beevor	1	1	0
Dr. Brandt (Royat)	1	1	0
Thomas A. White, Esq.	1	1	0
F. Augustus Cox, Esq.	1	1	0
Dr. Armand Routh	1	1	0
John Mould, Esq.	1	1	0
Dr. Greville Macdonald	1	1	0
C. W. Chaldecott, Esq. (Dorking)	0	10	6
F. B. Hallowes, Esq. (Redhill)	0	10	6
Dr. Whitcombe	0	10	6
G. K. Thorpe, Esq. Sheffield)	0	10	6

The costs amount to £480. Subscriptions may be sent to Mr. G. P. Field, 34, Wimpole-street; or to Dr. Sidney Phillips, 21, Upper Berkeley-street.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5471 births and 3850 deaths were registered during the week ending July 27th. The annual rate of mortality in these towns, which had been 21·5 and 21·0 per 1000 in the preceding two weeks, was again 21·0 last week. During the first four weeks of the current quarter the death-rate in these towns averaged 20·3 per 1000, and was 0·2 above the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 10·7 in Huddersfield, 12·2 in Derby, 14 6 in Brighton, 16·4 in Bristol, and 16·5 in Oldham. The rates in the other towns ranged upwards to 26·3 in Liverpool, 27·2 in Sunderland, 28·0 in Plymouth, and 48·6 in Preston. The deaths referred to the principal zymotic diseases in these towns, which had steadily increased in the previous five weeks from 400 to 1018, declined again last week to 999; they included 682 from diarrhœa, 91 from measles, 71 from whooping-cough, 67 from diphtheria, 57 from scarlet fever, 31 from "fever" (principally enteric), and not one from small-pox. These zymotic diseases caused the lowest death-rates last week in Wolverhampton and Huddersfield, and the highest rates in Salford, Plymouth, and Preston. The greatest mortality from diarrhœa occurred in Sheffield, Salford, Birmingham, Sunderland, Derby, Leeds, Leicester, and Preston; from measles in Halifax, Leeds, Hull, and Preston; from whooping-cough in Oldham, Preston, Bradford, and Birkenhead; from scarlet fever in Liverpool, Oldham, Huddersfield, Blackburn, and Plymouth; and from "fever" in Preston. The deaths from diphtheria included 44 in London, 7 in Bradford, 5 in Salford, 3 in Plymouth, and 2 in Liverpool. Small-pox caused no death in any of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and London Fever Hospitals at the end of last week was 660, against numbers increasing in the preceding four weeks from 559 to 623; 108 cases were admitted to these hospitals during the week, against numbers increasing from 33 to 92 in the previous five weeks. The deaths referred to diseases of the respiratory organs in London, which had been 158 and 141 in the preceding two weeks, rose again last week to 160, but were 29 below the corrected average. The causes of 79, or 2·2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leicester, Portsmouth, Brighton, and in three other smaller towns. The largest proportions of uncertified deaths were registered in Liverpool, Salford, and Sunderland.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18 6 and 19·6 per 1000 in the preceding two weeks, declined to 17·9 in the week ending July 27th; this rate was 3·1 below the mean rate during the same week in the twenty-eight large English towns. The rates in these Scotch towns ranged last week from 10 8 and 15·0 in Dundee and Edinburgh, to 20 0 in Glasgow and 28·3 in Paisley. The 459 deaths in the eight towns showed a decrease of 41 from the number in the previous week, and included 41 which were referred to diarrhœa, 21 to whooping-cough, 20 to measles, 6 to diphtheria, 4 to "fever" (principally enteric), 3 to scarlet fever, and not one to small-pox; in all, 95 deaths resulted from these principal zymotic diseases, against 81, 91, and 94 in the preceding three weeks. These 95 deaths were equal to an annual rate of 3·7 per 1000, which was 1·8 below the mean rate from the same diseases in the twenty-eight English towns. The deaths attributed to diarrhœa, which had increased in the preceding four weeks from 17 to 38, further rose last week to 41, and exceeded by 20 the number in the corresponding week of last year. The 21 fatal cases of whooping-cough exceeded the number in the previous week by 1, and included 13 in Glasgow, 3 in Paisley, and 2 in Greenock. The deaths from measles, which had been 19 and 18 in the previous two weeks, rose last week to 20, of which 7 occurred in Leith, 6 in Aberdeen, 4 in Glasgow, and 3 in Edinburgh. The 4 deaths from "fever," including

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3in Glasgow, showed a decline from recent weekly numbers; and of the 6 fatal cases of diphtheria, 4 occurred in Glasgow. The deaths referred to the principal diseases of the respiratory organs, which had been 56 and 69 in the preceding two weeks, declined last week to 55, but exceeded the number in the corresponding week of last year by 6. The causes of 69, or 15 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 16·3 and 22·8 per 1000 in the preceding two weeks, further rose to 24·8 in the week ending July 27th. During the first four weeks of the current quarter the death-rate in the city averaged 21·7, the mean rate during the same period being 18·2 in London and 16·2 in Edinburgh. The 168 deaths in Dublin showed a further increase of 14 upon the numbers in the preceding two weeks; they included 12 which were referred to diarrhœa, 4 to "fever," 4 to measles, 3 to whooping-cough, and not one either to small-pox, scarlet fever, or diphtheria. Thus the deaths from these principal zymotic diseases, which had been 11 and 25 in the previous two weeks, were 23 last week; they were equal to an annual rate of 3·4 per 1000, the rates from the same diseases being 4·4 in London and 2·3 in Edinburgh. The deaths referred to diarrhœa, measles, and whooping-cough were fewer than those returned in the previous week, while those of "fever" showed an increase. The deaths of infants were fewer, and those of elderly persons more numerous, than those in the previous week. Five inquest cases and 1 death from violence were registered; and 54, or nearly a third, of the deaths occurred in public institutions. The causes of 11, or more than 6 per cent., of the deaths in the city were not certified.

Correspondence.

"Audi alteram partem."

THE HYDERABAD COMMISSION ON CHLOROFORM.

To the Editors of THE LANCET.

SIRS,—I have referred with interest to the annotations in your issues of Feb. 23rd and March 2nd, and notice with surprise in the report of 128 dogs poisoned with chloroform that, "no matter in what way it was given, in no case did the heart become dangerously affected by chloroform until after the breathing had stopped." The fewer number of experiments performed by myself with the view of finding the best means of procuring resuscitation in cases of chloroform poisoning, and which were published in THE LANCET in 1885, showed conclusively that in some instances the pulse stops before the respiration, but in others the respiration before the pulse. Reference to the detailed reports of my observations[1] also shows that if any impediment to the respiration exists, death results from asphyxia, the respiration ordinarily stopping before the circulation. On the other hand, if all impediment to respiration be removed by drawing forwards both the tongue and epiglottis during the administration of the anæsthetic, when poisoning occurs, it is from cardiac syncope, the circulation stopping before the respiration; although these rules are not invariable. The danger of cardiac syncope may also be reduced by the exhibition of atropine and ammonia prior to the administration of chloroform. In illustration of the fact that respiration sometimes ceases before circulation, and *vice versâ*, allow me to quote the following extracts from some of my experiments already referred to.

Exp. 5.—Weight of dog, 11 lb. At 3.5 P.M. chloroform was freely administered on a towel, with a small supply of air. At 4.1 the respiration ceased entirely. At 4.2 20 sec. the femoral pulses, which Dr. van Duyse and myself had been carefully feeling, ceased.

Exp. 6.—Weight of dog, 16·5 lb. The administration of chloroform was commenced at 6.15 P.M. The pulse became intermittent at about 6.34, and ceased entirely at 6.34 30 sec. The respiration ceased at the same time as the pulse, and could not be restored by artificial respiration, the tongue having been drawn out.

[1] On Transfusion of Blood and Saline Fluid (3rd edition). Baillière, Tindall, and Cox.

Exp. 7.—Weight of dog, 18 lb. Chloroform administered at 11.30 A.M. The pulse became irregular at 11.36, and ceased just before the respiration, at 11.40.

Exp. 8.—Weight of dog, 14·38 lb. Administration of chloroform commenced at 3.34 P.M. Respiration stopped at 3.46. The pulse stopped at 3 51.

Exp. 10.—Weight of dog, 15·2 lb. Chloroform administered at 4.10 P.M. The respiration stopped at 4 24, and the pulse at 4·32.

Exp. 11.—Weight of dog, 11·12 lb. Administration of chloroform at 10.21 A.M. At 10.30 the pulse became intermittent. At 10.34 the pulse stopped entirely, and the respiration directly afterwards.

Exp. 12.—Weight of dog, 7·05 lb. At 11.58 A.M. chloroform was administered. At 12.3 P.M. the pulse became intermittent. At 12.5 the pulse and respiration stopped, but returned after the performance of artificial respiration. Chloroform was exhibited again. At 12.8 P.M. the pulse and respiration ceased, and did not return after the renewal of artificial respiration.

Exp. 13.—Weight of dog, 9·8 lb. At 3.49 P.M. chloroform was administered. The pulse became intermittent at 3.54 P.M.; it stopped completely once or twice, but was restored by artificial respiration. Finally the pulse and respiration ceased at 4.2 P.M.

Exp. 14.—Weight of dog, 16 21 lb. At 10.39 A.M. chloroform was administered. At 10.46 there was irregularity of the pulse, and at 10.47 it stopped. At 10.47 30 sec. the respiration stopped.

Exp. 15.—Weight of dog, 27·09 lb. At 11.49 A.M. chloroform was administered. At 11.53 the pulse became intermittent, and at 11.56 it stopped. At 11.58 the respiration ceased.

Exp. 16.—Weight of dog, 26·32 lb. At 10.40 A.M. chloroform was administered. At 10.50 the pulse became intermittent. The respiration ceased at 10.50 36 sec. The tongue and epiglottis had fallen back, and were both drawn forwards. Artificial respiration was performed till 10.58, the pulse having stopped at 10.55 A.M.

Exp. 17.—Weight of dog, 21·8 lb. At 12.9 chloroform was administered At 12.13 the respiration stopped, and at 12.14 15 sec. the pulse also.

Here are twelve experiments in which the relationship of the cessation of respiration to circulation was noted, and it was found that in four of them (Nos. 7, 11, 14, and 15) the pulse stopped before the respiration; in five of them (Nos. 5, 8, 10, 16, and 17) the respiration stopped before the pulse; and in three (Nos. 6, 12, and 13) the pulse and respiration ceased simultaneously. Of the twelve dogs employed in these experiments, five of them (Nos. 5, 11, 12, 14, and 15) were successfully resuscitated after apparent death by infusing saline fluid into the external jugular vein, with simultaneous depletion and artificial respiration, thus removing a portion of the poisoned blood and stimulating the respiration and circulation. In Experiment 15 six minims of liquor ammoniæ in water were injected hypodermically into the dog twelve minutes before the administration of chloroform, in order to retard coagulation of the blood after cessation of the circulation. Infusion of saline fluid was not commenced till eight minutes after the cessation of the pulse and six minutes after the cessation of respiration, and yet the animal recovered.

I am, Sirs, yours faithfully,

CHARLES E. JENNINGS, F.R.C.S., M.S.

Upper Brook-street, W., July 13th, 1889.

DEPRESSED NIPPLES.

To the Editors of THE LANCET.

SIRS,—I note on page 12 of your issue of July 6th a paper by Dr. Herman on "Professor Kehrer's Operation for a Depressed Nipple." Prevention is better than cure. In my hospital practice, both in and out, my attention has long been given to the great negligence shown by young women and their mothers (who ought to know better) to this small but important organ, and I lose no opportunity, when examining a young female patient, of ascertaining that the nipples are properly developed, and, if not, of pointing out the probable consequences of neglect, with advice as to the future.

When we consider what a pleasure it is to a woman to nurse her baby, we must regard a woman with an undeveloped nipple as an incomplete human being deprived of much lawful enjoyment, to say nothing of the probability

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of future milk abscess and the possible death of her baby. I have noticed three classes of nipples other than the healthy raspberry-shaped normal form.

1. On a fairly well-developed breast a pimple about an eighth of an inch in diameter and the same in elevation represents the nipple; this will, I believe, in the pregnant and parturient female, enlarge sufficiently for nursing to be effected. I therefore content myself in these cases with directing the patient's attention to her nipples as small and undeveloped, and pointing out their future use, advise her to be careful that they do not become flattened under pressure, or undergo further atrophy. Gentle manual friction by the patient herself night and morning is advisable.

2. In this class we find a fairly well developed mamma and nipple, the former generally flabby, often large. Here from pressure by stays the nipple is flattened and depressed, so as no longer to stand out erect like a raspberry. By drawing attention to the nipple and pointing out the danger of further pressure, by slight friction, and drawing the skin back around the organ, the nipple generally springs out into a correct form; the patient is then told to use the means night and morning herself, and in many cases this slight manipulation effects a cure. In some cases of in-patients I have found it necessary to use the breast-pump.

3. Extreme cases of depressed or inverted nipples, as shown in Fig. 1, page 12, or even more inverted than in that figure. In these cases the breasts are usually small and firm. Here I have often coaxed the right nipple, which seems easier to manage than the left, by the manipulation practised in Class 2, into a normal or semi-normal shape; but the left generally requires something more. Pressing with the left finger and thumb on each side of the nipple I evert it as much as possible; with the other finger and thumb I then seize the nipple as low down as possible and forcibly pull it forwards, stretching its connexions and ducts. When this is repeated regularly, which the patient or her mother can do for her, the nipple by degrees assumes a more normal form. This must be continued to avoid the tendency to revert to the original defect.

I have now under my care a woman who owing to her retracted nipples lost her first baby. While under my notice the nipples were everted by the manipulation described. I have requested her when next pregnant to come to me, and I feel confident that on the next occasion nursing will be properly performed.

I think the duty of advising young girls as to the uses of their nipples and the importance of these organs to them in married life is one generally lost sight of by mothers and medical men. But when I note that surgical operations are performed for depressed nipples, and remember the mothers I have seen deprived of their natural enjoyment of nursing their children, together with histories of severe mammary abscess and babies at death's door from imperfect nipples, I feel that much might be done by early attention to these little but important organs to obviate such calamities.

I am, Sirs, yours faithfully,

ALEXANDER WALLACE, M.D., M.R.C.P.L.,
Physician to the Essex and Colchester Hospital.

July 9th, 1889.

THE CASE OF REGINA *v.* KERR.

To the Editors of THE LANCET.

SIRS,—In your excellent summary of the above trial there are some inaccuracies which it may be as well to correct. The bruise on the head was above the right ear, and not the left, as stated. The cause of death was suffocation due to the presence of food in the windpipe, and not congestion of lungs. There is an important omission with regard to the condition of the heart. Its structure was healthy, but there were disease of the valves (incompetence of aortic and contraction of mitral valves) and remains of a "former attack of pericarditis." I am, Sirs, yours truly,

Carlisle, July 26th, 1889. HENRY BARNES, M.D.

VOTING PAPERS AT THE COLLEGE ELECTION.

To the Editors of THE LANCET.

SIRS,—Mr. Lawson Tait's suggestion seems to me to be an excellent one. The only requisite stipulation which is necessary being that every Fellow who votes in person shall bring his proxy paper with him.

I am, Sirs, yours truly,

Clifton, July 30th, 1889 CHARLES STEELE.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Cumberland and Westmoreland Lunatic Asylum.

THE Cumberland and Westmoreland Asylum at Garlands, near Carlisle, appears to stand high in the estimation of the Lunacy Commissioners. It is declared by them "to maintain its reputation for careful management"; "the absence of serious casualties is creditable"; "it is noteworthy that in this asylum every death has, with one exception, during twenty years been followed by an autopsy; and yet, on the 31st of December last year, there were fifty-nine Irish patients here, and it is often alleged elsewhere that the relatives of such patients have an insuperable objection to the post-mortem examination of their next of kin." The Commissioners further say: "We are glad to learn that it is the practice here, and has long been so, for a medical man to examine the workmen ere they commence their daily work on the land or in the shops."

Hexham.

A short time ago the Hexham rural sanitary authority proposed to reduce the salary of their medical officer from £300 per annum without private practice, to £108 with private practice. This their present medical officer declined to accept, and the Local Government Board has written to the authority stating that they could not, under the circumstances, approve of the reduction, and if the sanitary authority desired to receive repayment from the county fund they must reconsider the matter.—Dr. Maclagan, whose serious accident I noted in a previous letter, is, I am happy to say, doing well

Sunderland.

It is reported that there are at present four cases of small-pox under treatment at the Infectious Diseases Hospital, Sunderland. A sailor who came to the town from Middlesbrough, having previously come from Bilbao, developed the disease. The woman and her two daughters at the house where he stayed have since had the disease, and are under treatment.—The Hartley wing of the Sunderland Infirmary is now finished, but nearly £2000 are required to furnish and free it from debt. With praiseworthy determination the gentlemen who signed the contract refused to allow the wall that temporarily separates the wing from the other portion of the building to be removed until the wing is out of debt. The most urgent representations as to the immediate want of more beds are altogether unheeded, and the blockaded doorway must remain as it is until the money still lacking is raised; but it will be a surprise if the blockade is not raised before the year is out.

Carriage Vibration.

Messrs. Atkinson and Philipson of this city have introduced an improvement in carriage-springs which gives great relief from vibration. This arrangement, which has been fully tested, will prove a boon to medical men and their patients. The whole of the carriage is borne on indiarubber, and the relief to the passenger is surprising, as paved crossings or tram lines are imperceptible as they are passed over, there being an entire absence of the jarring sensation which is so objectionable. The patent, I understand, is about nine months old, and has been used successfully by a local gentleman ever since.

Ingham Infirmary, South Shields.

The annual report of the Ingham Infirmary, South Shields, has been issued, and the record of the year is very satisfactory. There has been an important increase in the workmen's subscriptions, and also in the church collections. The number treated at the dispensary had been 7209; the number of deaths 64. Total number of in-patients 205; number of deaths 15. Dr. Berwick, who had served as junior house surgeon, was appointed by the committee to the post of senior house surgeon, vacated last February by Dr. Fletcher, and the committee trust this appointment may be confirmed by the governors.

Newcastle-on-Tyne, July 31st.

THE EMPRESS OF JAPAN AND HOSPITAL WORK.—The Empress of Japan, wishing to assist the Tokio Female Hospital, has, it is said, been diligently saving out of her "pin-money." In a year this has amounted to about £1500, which has all gone to assist her suffering subjects.

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EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

Action by Lady Medical Students.

THIS case has again been brought into court before Lord Kyllachy, the two lady medical students craving an order to readmit them to the Edinburgh school or for £500 as damages. From the evidence brought forward on both sides, the whole case appears to have arisen out of a quarrel about the obeying of a bye-law; but disagreement upon disagreement, none of them about very important or even edifying matters, followed so closely upon one another that eventually relations became very strained between the students and the principal, and it became absolutely necessary that stringent measures should be taken if the dignity of those in authority was to be properly maintained. Pursuers say they were induced to enter upon the course of study upon the faith that defenders would provide them with the whole course necessary to qualify them for practice. The defenders, on the other hand, claim the right to alter or discontinue the whole or any of the courses of lectures. They say also that a new prospectus had been issued before the action was raised, in which was a clause reserving the right to the committee to judge of the progress and general conduct of any student, and declining to readmit a student if they thought it expedient. As to the quarrel, it appears that there was a regulation that students were all to leave the hospital by 5 o'clock in the afternoon. In June last an accident case was admitted to the wards at 5 o'clock, and the students went round to see it. The house-surgeon began to explain the case, and whilst this was being done the lady superintendent appeared and asked, "What is the meaning of you students being here after 5 o'clock?" The students left the hospital about 5.15 P.M. For this they were suspended for a week. Then came a quarrel about some certificate in regard to which the students were asked to express an opinion, and then those who held certain views were evidently stamped as black sheep. The lady superintendent at Leith Hospital, giving evidence, said that the 5 o'clock rule was not a popular one with the students, as they did not care to be hurried away if there was anything interesting going on in the wards at the time. Apart from that incident she never had occasion to find fault; the pursuers were kind to the patients, attentive to their work in the hospital, and they were liked by the other girls and nurses. Evidence was also given to the effect that the pursuers had not caused disorder in the school, and that one of them especially had an influence for good among some of the students. It came out, further, that the school was falling off in popularity with some of the students, and that there was a good deal of discontent as to the manner in which they were treated, it being thought that they were dealt with too much as if they were children. This appears to be the case, as one of the regulations appears to be that the students shall not stop to converse with, or ask questions from, their lecturers at the end of the lecture hours. The Principal of the school said that she considered it insubordination if a friend of a student accused of dishonourable conduct took the student's part. She further stated that she did not think it was a serious thing for ladies to be refused readmission if they could go to London or Dublin. The whole affair really appears to border on the ridiculous. The relations between students and teachers appear to have been most cordial, except on certain points which might have been better discussed *in camerâ*. A too slavish adherence to petty, and, from what one knows of the working of teaching hospitals, almost "impossible" rules and regulations, has led to the present state of matters. Such is evidently Lord Kyllachy's opinion, for, after hearing the evidence on both sides, he expressed the hope that before the case came up next session the parties would try to bring the matter to an end.

Imbeciles in Private Lodgings.

Kennoway, in Fife, is perhaps one of the most depressing spots of earth on which a visitor could alight. It appears to be populated principally by imbeciles. Commenting on a case of indecent assault on an imbecile woman, in Kennoway, the Sheriff in the Dundee Sheriff's Court said that the offence was a most disgusting one and an outrage upon human nature. The woman who had been assaulted was boarded out by the Edinburgh authorities, and he expressed the opinion that the boarding out of large numbers of insane women was subversive, to a great extent, of the morality of the district. Anyone who knows the district referred to will fully corroborate the above opinion, and it is to be hoped that the question thus raised may have the earnest attention of those responsible for the welfare of these poor imbeciles. A little extra expense might have to be incurred by placing them in regular and well-appointed institutions for the insane, but the results would be well worth the extra expenditure.

The Triple Qualification.

The following are the results of the quarterly examinations held in Edinburgh during the month. At the first examination, of 65 candidates 45 passed; at the second, only 19 out of 44 candidates were successful; and at the final, 40 out of 79 were successful. During the half-year ending June 30th, 11 candidates were, after examination, elected as Fellows of the College of Surgeons, and 2 were elected without examination; 7, having passed the required examination, were admitted as Licentiates of the College.

Edinburgh, July 30th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

DUBLIN.

Annual Report of the Local Government Board for Ireland.

FROM the seventeenth annual report which has been lately issued it appears that there has been a further decline in the average daily number of persons relieved in the workhouses, while there has also been a considerable decrease in the average daily number of persons who received out-door relief. The average daily number in the workhouses was 44,729, and on out-door relief 63,680, or a total of 108,409, which was less than the average daily number relieved in and out of the workhouses in the previous year by 2655. During the year ended January 14th last, the total number of deaths in the various workhouses was 9892, showing a decrease of 295 deaths as compared with the number for the previous year. Of these, fever caused 356, against 383; lung disease 1717, against 1754; and small-pox 1, against 3 in the year preceding. There were for the twelve months ending September 29th, 53,074 admitted into workhouses for sickness, being an increase of 1830 as compared with the previous year; an increase of 6965 in the number admitted who were not sick, and of 415 in the number suffering from fever or other contagious disease. In the various dispensary districts, the medical officers during the year attended 408,554 new cases at the dispensaries, and 186,106 patients at their own homes, or a total of 594,660; and vaccinated 92,498 persons. The vaccination returns show a decrease of 3991 as compared with the year preceding; of the 92,498 persons vaccinated, 76,910 were under one year old when vaccinated, 12,717 above one year, and 2871 were revaccinations. Small-pox during the year caused one death in workhouses, the same as the year previous; and the number of cases of this disease treated in dispensary districts under the Medical Charities Act was 30, or an increase of 12 as compared with the previous return. As regards fever, there were 4357 cases attended by dispensary medical officers, being a decrease of 735; also a decrease of 19 in the number of cases of scarlatina, the numbers being 4357 and 5092 respectively. The medical charities expenditure amounted to £158,996 7*s.* 10*d.*, under which heading is included the cost of medicines and medical appliances, salaries of medical officers and apothecaries, vaccination fees, and other expenses, showing an increase of £620 over that of the previous year. The Commissioners sanctioned loans amounting to £182,182 5*s.* 1*d.* to various towns in Ireland, principally for sewerage and water-supply, which, added to previous sums allocated, constitute a total of £1,896,479 11*s.* 3*d.* for the past fourteen years.

King's Professor of Midwifery, Trinity College, Dublin.

On Friday last the Fellows of the College of Physicians, in whose hands the appointment lay, elected Dr. A. V. Macan King's Professor of Midwifery, in the vacancy created by the death of Dr. Kirkpatrick, a result which was generally expected. Dr. Macan is Master of the Rotunda Lying-in Hospital, and was elected, I understand, by a large majority of votes. The emoluments of the post consist of

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£100 per annum, the fees for clinical lectures in Sir Patrick Dun's Hospital, and such proportion of the class fees as may be arranged by the President and Fellows.

Payment of Medical Officers' Substitutes.

The guardians of the North Dublin Union last week adopted a resolution to the effect that the locum tenens of each of their medical officers be paid by the board for attendance during the month's leave of absence. It was carried by 17 to 15, but one of the guardians has given notice that he will move to have the resolution rescinded.

British Dental Association.

The sixth annual meeting of the Irish branch of this Association was held at the Royal College of Surgeons on Saturday, and was presided over by Mr. Robert H. Moore. Some interesting inventions and new dental instruments were exhibited at the meeting.

Dublin, July 30th.

BELFAST.

The Ulster Medical Society.

The annual meeting of the Ulster Medical Society was held in the Museum, Belfast, on July 24th, when the report of the Council, giving an account of the work done in the past year, and the treasurer's statement were submitted. There is a balance in favour of the Society of £112 5*s.* 1*d.* Mr. McConnell was elected president for the coming year, Dr. McCaw secretary, and Dr. O'Neill treasurer. At the meeting a discussion took place as to the desirability of forming a medical club in Belfast, where the various societies could hold their meetings. It was thought the time had come when such an undertaking might prove successful, and a committee was formed to consider the matter and to draw up a report. It was also the feeling of those present that a good medical library could be incorporated with the club.

North of Ireland Branch of the British Medical Association.

The eleventh annual meeting of the North of Ireland Branch of the British Medical Association was held in the Royal Hospital, Belfast, on July 18th. Dr. Gray, J.P., Castlewellan, was elected president for the ensuing twelve months, and Dr. Byers secretary. Dr. Dill delivered the presidential address on "Forensic Medicine and Medical Evidence." Dr. Thompson (Omagh), Dr. Dempsey, Professor Sinclair, and Dr. O'Neill brought forward communications. In the evening the annual dinner was held, when Dr. Dill presided, thirty-three members being present.

The Royal Hospital.

About two weeks ago arrangements had been made to give the public of Belfast and the north of Ireland an opportunity of visiting the new steamer *Teutonic*, the largest vessel afloat. The various steamboat companies had promised to take passengers free down the Belfast Lough to the vessel, and each visitor was to pay a charge of two shillings on boarding the steamer, all the proceeds to be handed over to the hospital. Unfortunately, it was found impossible to have the vessel ready in time owing to the July holidays, and on Saturday last a communication was read at a meeting of the Board of Management of the hospital regretting this, and enclosing a cheque for £200 from Messrs. Harland and Wolff, the builders of the *Teutonic*.

Election of Coroner in Mid-Antrim.

A very active canvass is being carried on by the two gentlemen who are in the field for this office. One of the candidates is a lawyer; the other a medical man, Mr. J. Dysart McCaw of Portglenone. From what I hear, it is probable that the latter will be appointed. He is well known and popular in the district, and a very strong committee is energetically working for him.

Belfast, July 30th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Inheritance of Syphilis.

IN a recent communication on this subject I gave a *résumé* of one part of the important contribution to the study of heredity in syphilis given by that distinguished syphilographer, Professor Fournier, in the form of the remarkable lecture at the delivery of which, on a recent occasion at St. Louis, it was my privilege to be present. In the concluding portion of this eloquent address he discussed the question, Whence comes the hereditary poison of syphilis? Does it descend through the father or mother, or both? On this point, he said, the most opposite opinions were held; indeed, hereditary syphilis was a veritable apple of discord cast into the camp of observers. He did not pretend to reconcile these various views; he would rather endeavour to place before his hearers first the points generally admitted, and then those surrounded by certain obscurities which time alone would clear up. And to begin with, it might be asked whether true hereditary syphilis followed when both parents were in a state of syphilisation. Now this, by way of exception, was a point not disputed. All were agreed that it could and did follow; indeed, examples illustrating this were to be found in the wards at present. Moreover, the influence of the poison did not cease with one pregnancy only, but might be manifest in several subsequent pregnancies, numerous instances of which the speaker cited, and which were sufficiently conclusive. He next took the case of each of the parents separately affected, commencing with maternal heredity. On this score he remarked that affirmative accord was pretty unanimous, although he insisted at considerable length that the demonstration was by no means so simple a matter as it might appear at first sight. He pointed out the many pitfalls to be avoided in tracing out logically the infection from the maternal side alone, and showed that false deduction was as easy as it was common. Indeed, he added, after twenty-eight years of study and practice, he knew of thirteen examples only amongst women whose cases fulfilled all the conditions necessary for a perfect demonstration. In the result, however, he made it clear that maternal syphilitic heredity certainly existed, as *a priori* one might suppose. Moreover, there was, added to other proofs, an anatomical demonstration of this transmissibility which the recent researches of MM. Mathias Duval and Van Beneden on the anatomy of blood-circulation in the placenta had established. These gentlemen showed that the circulation in this organ was not, as was formerly believed, a mere bringing into close juxtaposition of the maternal and fœtal blood only while each was independent of the other, but that the placenta was rather a sort of maternal hæmorrhage encysted by fœtal structures, in which the fœtal elements were bathed in the blood of the mother. Was it possible, then, that under such conditions the transmission of the malady should not take place? And, further, it was easy to cite certain morbid analogies in favour of this thesis; for the placenta, which had hitherto been looked upon as an impassable barrier, was in reality now known to be permeable, not only to liquids, but to microbes, bacilli, &c., as was proved by the experiments of MM. Straus and Chamberland, which showed that the bacteria in charbon filtered through the placenta, and were consequently transmitted from mother to fœtus. Again, the same thing had been proved as regarded the bacillus of enteric fever, which had been found in the blood of a fœtus, the mother being dead of typhoid. Why, then, should not a like transmission take place in syphilis, the microbe of which was so attenuated that hitherto it had escaped detection? Theoretically and clinically, therefore, maternal hereditary syphilis was demonstrable. Taking up, next, the question of the inheritance of syphilis through the father, Professor Fournier remarked that this was the most debated point in the problem, and one of the most important, especially as to the fitness or not of a man for marriage. In former times paternal hereditary syphilis was allowed to be almost a thing without question. Cazenove held the opinion that syphilis was more often transmitted through the father than the mother. Since 1851, however, views directly opposite had been largely advanced, representing paternal heredity as a fact more or less rare and exceptional; it had even been held that the paternal influence was *nil* in that which concerned the transmission of syphilis to the fœtus. This doctrine, M. Fournier emphatically maintained, was false. It was furthermore dangerous, for it exonerated syphilis from a great number of the hereditary perils which were inherent in it, and opened imprudently the gates of marriage to individuals whom a legitimate apprehension for their possible offspring now deterred. The advocates of this view pinned their faith mainly on the manifest disproportion between the number of syphilitic fathers and that of the syphilitic children born to them, and on the undoubted fact that not infrequently one saw

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examples of perfectly healthy infants the issue of obviously syphilitic fathers. But these were negative facts, and proved at the most that the disease did not invariably exercise its hereditary influence. They were, in brief, the exceptions which support rather than gainsay the statement that inheritance was the rule. Another interesting point which the upholders of this theory make turned upon the well-grounded assertion that syphilis could not be conveyed by inoculation with the semen of a syphilitic person, and they argued from this that the spermatozoa of such a person could not contaminate the ovule, and that, therefore, paternal heredity did not exist. But there was surely no parallel to be established between the negative results of inoculation by seminal fluid, and the effects of this fluid on the ovule. To the ovule, by phenomena at once special and mysterious it gave life, and transmitted at the same time the physiological and pathological peculiarities, the characteristics of race and individual, which became manifest later on in the physical, moral, and morbid resemblances between father and child. It was consequently not astonishing that the semen should be able to transmit syphilis, as it did any other morbid trait, while at the same time it failed to communicate it by ordinary inoculation. But, over and above all this, the clinical evidence in favour of paternal heredity placed its existence beyond cavil. In the first place, one had time out of number seen infants the issue of a syphilitic father and of a mother healthy at least in appearance to be the subjects of undoubted hereditary symptoms. To this fact witness was borne by such eminent observers as Ricord, Trousseau, Hardy, Hutchinson, and others. Again, the predisposition to abort in the mother, brought about by the syphilitic state in the father, was another powerful argument in support of the paternal influence. Of 103 pregnancies in perfectly healthy women allied to syphilitic husbands, forty-one, or 30 per cent., were known to the learned Professor to have terminated in abortion or premature labour. These statistics were culled by him, not from amongst poor and uncertain hospital patients, but from his better class of private patients, women who were young and healthy, living under the most favourable social, and surrounded by the best hygienic, conditions. Then as a corollary there was the further evidence to be derived from the effects of treatment on the tainted parent, who before being treated had begotten nothing but abortions, so to speak, ended, after being subjected to a beneficial regime, by becoming the father of healthy offspring. Finally, the hereditary paternal influence was illustrated by what he termed the conceptional syphilis of the mother. By this he meant those cases of previously healthy women pregnant by a syphilitic father, who developed syphilis in the course of their pregnancy without the male parent betraying the least lesion capable of communicating contagion directly. It was clear that the infection here, which had quite a distinct clinical sequence, could not be attributed directly to the father, but, on the contrary, to the fœtus, which in its turn had only the father to look to for its morbid inheritance. From all this testimony, added M. Fournier, there could be no doubt that the existence of hereditary syphilis traceable exclusively to paternal sources was a clinical truth. He concluded by enunciating the causes which had led to misconception and doubt on this point. These arose largely from the fact that in a considerable number of instances the taint was not passed down. Numerous examples were at hand of syphilitic fathers begetting perfectly healthy children. And, also, they had their origin in another indisputable fact which was less recognised and remembered—viz., that hereditary syphilis manifested itself much less frequently by the birth of children who lived to develop the various sequelæ of their inheritance as commonly understood, than by other phenomena ending in their destruction. In other terms, paternal syphilis killed the infant more often than it limited itself to transmitting syphilis. Amongst this class of manifestations must be placed abortions, premature labours, death of infants from "consumption" without cause, convulsions, hydrocephalus, &c. In the 103 pregnancies which he before referred to, 17 resulted in the birth of children with early and 2 with late development of hereditary symptoms; whereas 41 were abortions and 43 were the cases of early death of the infant, so that the transmission of the hereditary taint occurred in 18 per cent., and the causation of the death of the offspring in 81 per cent. He concluded his address, which was listened to attentively by a large audience, by saying he would deal with the more practical phases of the subject in his next lecture.

M. Chevreul's Library.

The heirs of the late M. Chevreul have presented to the Museum of Natural History his library, amounting to 10,000 volumes, as well as several manuscripts on chemistry, alchemy, &c. A pupil of M. Chevreul is engaged in preparing, for communication to the Academy of Sciences, a chart of colours derived from coal-tar, which are now so much employed in commerce according to the remarkable theory of the illustrious chemist.

A Bonus on Fecundity.

With the view of encouraging the multiplication of the French nation, the Chamber of Deputies have adopted a proposition made by Dr. Javal to the effect that fathers or mothers of seven children should be exempt from personal or house taxes.

Hydrophobia and the Pasteur Method.

The *Petit Moniteur* of July 18th reports that about fifty days ago a lad of thirteen named Louis Trottet, living with his parents in the Rue Duméril, was severely bitten on the leg by a rabid dog. The wound was cauterised almost immediately after the accident, and the patient was taken to the Pasteur Institute, where he was submitted to the usual treatment. On the 15th, the patient having till then felt quite well, was suddenly seized with symptoms of hydrophobia. The doctor who saw the patient in the first instance was again called in, and he sent the patient to the Pitié Hospital, where he died in a few hours. This report is confirmed by the *Semaine Médicale* of July 24th.

M. Joffrin.

M. Joffrin, Vice-President of the Municipal Council of Paris, who was operated on some two or three years ago for an epithelial cancer of the lip, has had a return of the malady, and has entered the Hôpital Bichât for treatment. The surgeons are doubtful whether another operation can be usefully performed.

Paris, July 30th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The New Professor of Botany in Berlin.

PROFESSOR ENGLER of Breslau has, after many difficulties, been appointed to the chair of Botany in Berlin University, which has been vacant since Eichler's death three years ago. Adolf Engler laid the foundation of his fame as a botanist by his minute study of a single species of plants, the stone-breaks, the final results of which he published in 1872. From this special study he passed to one of more general interest, and published in 1879–82 his "Versuch einer Entwickelungs-geschichte der Pflanzenwelt" (Attempt at a History of the Development of the Vegetable World), taking up the subject where Darwin dropped it. The book excited unusual attention among botanists. Of Engler's other writings, two deserve special mention—viz, his contributions to the Flora Brasiliensis (a great work begun by Martins, carried on by Eichler, and now by Urban), and his notes on the Flora of the Baltic, written for the Scientific Commission for the Investigation of the German Seas. As a university teacher Engler has taught in Munich, Kiel, and Breslau. At Munich he was also keeper of the Botanical Garden. He was called to Kiel in 1878 and to Breslau in 1884. His predecessors in the Berlin chair since the founding of the University in the beginning of this century were Wildenow, Link, Braun, and Eichler.

The History of Medicine.

Dr. von Gossler, Prussian Minister of Religion, Education, and Medicine, desires to revive the study of the History of Medicine in the Prussian Universities. Of all the German and Austrian universities only Berlin and Vienna have chairs of Medical History; there used to be one in Breslau, but it has remained vacant since the death of its last occupant, Heinrich Haeser. In several other universities medical professors are entrusted with the teaching of this subject along with their special ones, but they seldom do so. A noteworthy proposal, with a view to the reanimation of this branch of study, was made by Dr. Max

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Salomon in 1871, and publicly repeated by him three years ago. It is that one of the librarianships in each university be given to a man versed in the history of medicine, and that he be at the same time appointed professor of that subject. This arrangement, he thinks, would not only fill the above indicated gap in the medical curriculum, but also secure greater attention to the wants of medical men in the libraries, the want of which is severely felt. At present, for instance, there is not a single medical man in the service of the Royal Library in Berlin. Dr. von Gossler is well aware of Dr. Salomon's idea, and it is not unlikely that he will realise it.

Professor Virchow as Anthropologist.

In the forenoon of the 23rd inst. the natives of Central Africa of the Djanghani tribe, at present on show in the Charlottenburg Flora, were carefully measured by Professor Virchow, in the presence of his assistant, Dr. Hansemann, and several members of the Anthropological Society. Professor Virchow was surprised by the deep blackness of the skin, relieved in only two of the negroes by a faint red on the cheek bones. In the giant Abdallah not even this trace of redness is visible, and his skin is the blackest that has ever been seen here. The ears, hands, and feet of these negroes are surprisingly small, whereas their arms are remarkably long. Their foreheads are tattooed ringwise, with singularly shaped cuttings in the skin. Professor Virchow spent six hours in measuring them, &c., and, when he left them to lecture in the Pathological Institute, the measurements were continued by Dr. Hansemann. With the help of an interpreter, whom Professor Virchow had taken with him, the native names of the Africans were ascertained. The giant's name is Kueck, that of his partner in the fighting scenes Schur, that of the musician Hadyak, and that of the woman Adjull. Their Mohammedan names were given them in Egypt. Professor Virchow took several photographs of them with his own hands. They repeatedly gave comical expression to their surprise at the many manipulations to which they were subjected, the purpose of which was unintelligible to them.

The Emperor Frederick Fund for Convalescents.

More than a year ago a benevolent person, who wishes to be anonymous, entrusted the sum of 40,000 marks to the head of one of the great Berlin hospitals, with the request that the interest should be spent for the benefit of poor convalescents. In April, 1888, the Emperor Frederick gave permission that the fund should bear the name "The Emperor Frederick Fund for Convalescents," and expressed his deep sympathy with the purpose of the founder. The statutes, however, have not yet been sanctioned by the authorities, and so the purpose of the founder has not yet been realised in full measure.

An Anthropological Congress.

A congress of Austrian and German anthropologists will meet in Vienna from the 5th till the 10th of August, with Professor Virchow as president. After the Congress the members will make a three days' excursion together to Buda-Pesth.

Dr. Rudolf Schelske.

Twenty-five years ago last Monday the oculist, Dr. Rudolf Schelske, established himself as a private lecturer in the University of Berlin. Like Professors Schweigger and Hirschberg, his fellow-teachers of ophthalmology here, he was an assistant and fellow-labourer of Albrecht von Graefe. The most important of his contributions to the literature of his department are his investigations of the membrana limitans of the human retina, of the perception of colour, of red-blindness, and of the curvature of the cornea. His largest work is his "Manual of Ophthalmology," in which he adheres to Graefe's classification and faithfully reproduces his views.

Medical Publications.

The following are amongst the more recent publications:—"The Tending of the Sick," by Army Surgeon Dr. Riebel, is intended for the use of the school for sick attendants in the Charité in Berlin. It is very intelligibly written. "Massage and Cognate Methods," by Dr. Preller. "The Application and Effect of Electricity in Medicine," by Dr. Wichmann. "Diet and Guide for Heart Patients," by Dr. A. Lange. "Hints for Sufferers from Diabetes," by Baron von Lühdorf. "The Normal Child," by Frau Anna Woas, which aims at teaching mothers how to bring children up healthy, good, and comely. "The High Importance of the Milk Teeth for the Development of the Permanent Teeth" (a word of warning to parents and teachers), by Constantine von Koziczkowski, dentist. "Croup and Diphtheria," by Dr. Leonhardi. "The Hot-Air Treatment of Tuberculosis of the Lungs," by Dr. Louis Weigert. "Modern Cremation," by Sir H. Thompson, translated by Dr. Paul Cohn.

The Central Help Fund for German Physicians.

The members of the Central Help Fund for the Physicians of Germany have chosen Professor Leyden as their president, in place of the late Geheimerath Abarbanell. The sum bequeathed to the fund by Dr. Emil Müller amounts, as far as is yet ascertained, to about 750,000 marks (£37,500). A widows' and orphans' fund is to be established next year.

A recent number of the *Vossische Zeitung* contained a minute description by a New York correspondent of the newest American method of preserving corpses by desiccation in enormous mausoleums built of concrete.

Dr. Stahl, Professor of Botany at Jena, will go to Java next October, and spend some time in botanical researches there.

Berlin, July 28th.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

American Surgical Association.

THE annual session of this body has just closed. The number of members is limited to 100; there are now eighty-nine, and fifteen honorary members. The session was occupied with the discussion of the more prominent subjects which now interest surgeons. "Sarcoma of the Tonsil" was the title of a paper by Dr. Cheever. He gave a full description of the case and the methods of excision, with charts as to feeding and closing the larynx. Hernia was considered in detail, both as to its radical cure and when gangrenous. The early diagnosis of Morbid Growths was discussed by a number of members, and this was followed by a paper on the Free Division of the Capsule of the Kidney for the Relief of Nephralgia. A successful case of Digital Dilatation of the Pylorus was reported and discussed. Gunshot wounds of the intestines were considered at length. The Association is in a very satisfactory condition, and annually issues a volume of Transactions of great merit.

American Medical Association

This Association has just held its fortieth annual session at Newport. The attendance was not as large as usual, but the meeting was full of interest to the members present. Upwards of 700 physicians registered; the attendance has numbered 1200 members in other years, when the place of meeting was more central. At the general meetings discourses were delivered on Surgery, Medicine, and State Medicine, but the chief interest centred in the meetings of the sections, where papers on current medical and surgical topics were read and freely discussed.

Dangers from Electric Wires.

The frequent accidents from the breaking of electric wires is exciting much public interest. In several instances horses have been instantly killed by the sudden parting of these wires, the ends of which have fallen upon the animals while passing under. Recently a wire fell, broken, in front of a team. The driver seized the wire to throw it aside, when he was convulsed by the electric current, but could not release his grasp. A gentleman seized him by the arm to pull him away, and was himself instantly prostrated. A second man attempted to push the wire aside with his cane, and was paralysed. A dog approached, and, touching the wire with his nose, instantly fell insensible. At length a workman cut the wire with the stroke of a hatchet or axe, and thus released the first victim, who is slowly recovering. The city authorities will now compel all electric companies to bury their wires in properly enclosed and protected subways.

Monument to Dr. Rush.

The Committee of the American Medical Association engaged in securing the funds for a statue of Dr. Benjamin Rush report that, after five years' labour, they have obtained but $1000 of the $40,000 required. The original basis of subscription was one dollar from each physician,

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and, as there are 100,000 physicians in the United States, it was believed that the fund would be readily secured, as at least one-half the number would be only too anxious to subscribe. The total failure of this calculation greatly surprised the committee, and embarrasses their future action. The committee will, however, continue their efforts; but the chairman facetiously remarked that the members would long be dead when the desired sum was raised.

Tenement House Mortality.

A recent report by the City Registrar shows that the mortality in the tenement houses, in which half of the population live, is less than that in private residences. This is owing to the constant work of the Board of Health in these dwellings. Ventilation, cleansing, and careful supervision of foods have been the chief factors in these improvements. A summer corps of physicians has been appointed to visit the tenement houses daily, and, besides improving their sanitary conditions, these physicians treat promptly the incipient diarrhœal affections, and thus greatly diminish the summer mortality.

New York, July 15th.

THE SERVICES.

ARMY MEDICAL STAFF.—Surgeon-Major William Venour has been granted retired pay (dated July 14th, 1889); Surgeon Richard Ernest Foot, M.D., resigns his commission (dated July 31st, 1889).

MEDICAL STAFF CORPS. — Colonel William Gordon, Bengal, has been transferred to the Unemployed Supernumerary List (dated July 15th, 1889).

MILITIA (Infantry).—3rd and 4th Battalions, the Manchester Regiment: John Brunt, Esq., late Surgeon Royal Navy, to be Captain (dated July 12th, 1889).

VOLUNTEER CORPS.—*Artillery:* 5th Lancashire: Surgeon R. Clark resigns his commission (dated July 27th, 1889).—9th Lancashire: Surgeon R. Patrick, M.D., to be Surgeon-Major, ranking as Major (dated July 27th, 1889).—1st Inverness-shire: The undermentioned Acting Surgeons to be Surgeons:—O. Grant, M.B. (dated July 27th, 1889); J. M. Chapman, M.B. (dated July 27th, 1889).—*Engineers* (Fortress and Railway Forces): 2nd West Riding of Yorkshire (Leeds): Acting Surgeon F. Robinson, M.B., resigns his appointment (dated July 27th, 1889). — *Rifle:* The Queen's Rifle Volunteer Brigade, the Royal Scots (Lothian Regiment): Surgeon-Major (ranking as Lieutenant-Colonel) A. G. Miller resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Regiment on his retirement (dated July 27th, 1889).—2nd Volunteer Battalion, the Suffolk Regiment: Surgeon J. S. Holden, M.D., to be Surgeon-Major, ranking as Major (dated July 27th, 1889).—5th (Deeside Highland) Volunteer Battalion, the Gordon Highlanders: Acting Surgeon R. Cran, M.B., resigns his appointment (dated July 27th, 1889).

ROYAL COLLEGE OF SURGEONS.

AN ordinary meeting of the Council was held on Aug. 1st.

The minutes of the Quarterly Council having been read and confirmed, the President reported that Mr. Thomas Bryant had been chosen as Bradshawe Lecturer for the present year.

On the report of the President and Vice-Presidents, the Council appointed Sir James Paget (as trustee), Mr. Jonathan Hutchinson (president), and Sir Wm. MacCormac as members of the standing committee of the "Father Damien" Memorial Fund, the nomination of the members of the proposed commission being reserved till the scheme shall have been further developed.

The President stated that, in order to give effect to the new bye-laws relating to the new Dental diploma, it would be necessary to elect, at the quarterly Council, two new members of the Dental Board, one from amongst the members of the Court of Examiners, and the other a registered Dental Licentiate, on a report from the Nomination Committee.

It was resolved that the quarterly Council should be held on the third Thursday in October (Oct. 17th), instead of the second. On a motion by Mr. Durham, it was resolved that a copy of the bye-laws should be given to each candidate before his admission to the membership at such time as may be judged convenient.

Obituary.

COUNT PIETRO LORETA.

AT Bologna on the 23rd ult., this great surgeon and estimable man was borne to the grave amid every demonstration of reverence and sorrow—reverence for the good he had done to the profession and to mankind, sorrow for the tragic fate that had closed a career still bright with promise though already full of achievement. Three days before he died by his own hand, in circumstances peculiarly appalling. In the spring of the present year there was held at Bologna the Medico-Chirurgical Congress, a special feature of which was the progress made in abdominal surgery, chiefly by Prof. Loreta and his pupils. We summarised at the time the interesting monographs and discussions on the two operations which will always be associated with the name of Loreta—"resection of the liver," and "digital divulsion of the pyloric and œsophageal orifices of the stomach." So proud were his students and his Italian brethren of the bold, assured skill and the success with which, for the first time in the annals of surgery, he had performed these operations that they erected in his honour two tablets commemorating the fact—one in the clinical wards of the Bologna Infirmary, another in the anatomical theatre of the University. Distinctions, indeed, of every kind had come to him from European and transatlantic schools, and it was known that other honours awaited him. Beloved by his pupils and colleagues, admired and respected by compatriots and foreigners alike, Loreta seemed to the outside world one of fortune's favourites, when, but a few weeks ago, a shadow overclouded his intellectual and moral powers, deepening apparently from day to day. Previously one of the most vivacious and cheery of men, he gradually betrayed symptoms of melancholia, and incidents like the following aroused the suspicions of his friends. He used to visit the Casa di Salute, directed by Dr. Benedetti, having several patients under treatment there; but one morning he found it shut, with the announcement at the doorway "Furnished apartments to let." On asking Benedetti, with a dejected look, what it all meant, he was told the Sanitary Commission had just ordered the house to be suppressed, whereupon he said, "And this is progress! See how they persecute me! To get rid of this *camorra* it would be well to try the revolver!" Benedetti marvelled at the words, but as Loreta went about his work as usual he did not divulge his fears. On Thursday, the 18th ult., the professor had gone, on consultant business, to the neighbourhood of Rovigo, whence he returned in the early morning of Friday, about 4.30 A.M. He went to bed for a few hours, and rose at 10 A.M., when his servants remarked he looked particularly downcast. Having breakfasted about mid-day, he took a turn in the garden, then retired to his room, giving strict orders not to be disturbed. Telegrams, messages, visits—all the engagements of his extensive practice had to wait for him, till about 3 P.M. he told his servant to take a letter for him to the Advocate Cenni, the answer to which, however, was not to be brought to him till after 4 o'clock. Immediately on perusing it Cenni was filled with the gravest fears, Loreta having intimated that he was weary of life and of the war waged with him by his persecutors, that he meant to destroy himself, and that his will would be found in a certain place. Cenni hastened to the Questura, and, accompanied by the police and civic authorities, drove at once to Loreta's house. At the professor's door no answer was given to repeated summonses; an entrance was forced, and then the worst suspicions were more than realised. The unhappy man was found lying on a double bed, quite dead from deep wounds inflicted by a razor in the inguinal region. The jet of blood from the severed arteries had stained a Crucifixion of Guido Reni's above the bed, which was itself saturated, while within reach of his hand lay a six-chambered revolver still undischarged. The face wore a

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tranquil, even smiling expression, as if of relief from a burden too grievous to be borne.

The consternation that overspread Bologna when the tragedy became known was indescribable. Count Loreta, a man of birth and fortune, a representative of the first division of the city in the Parliament of Italy, the working patron of many charities public and professional, the glory of the medical school, the ornament and support of the University, seemed the last among her citizens whom such a miserable end could have overtaken. From Bologna the sad impression speedily diffused itself over Italy and wherever the name of the most distinguished of Italian surgeons has penetrated. There were, indeed, few professional societies on the Continent of which Pietro Loreta was not a corresponding member, while his numerous papers and monographs, including the two already referred to, had made him known to the chief medical schools of both hemispheres.

His funeral was one of the most imposing ever witnessed in Bologna. Every shop was closed and every house was draped in mourning, as the long procession, in which all the professional and academic life of Italy was represented, wound slowly through the crowded, silent streets to the Porta Sant' Isaia, where the customary *oraisons funèbres* were pronounced over the bier.

Count Pietro Loreta was but fifty-eight years of age, a native of Ravenna, but a Bolognese since 1865, when, after having graduated at the University with distinction, he became professor of surgery, theoretical and clinical, and entered on the brilliant career which has been so tragically cut short.

Medical News.

VICTORIA UNIVERSITY: FACULTY OF MEDICINE.—The following gentlemen have passed the respective Examinations mentioned:—

Preliminary Examination in Science.—First Division: H. Ainsworth, Owens College; W. M. Brown, University College; E. Harrison, A. W. Lilley, and A. MacDougall, Owens College; E. E. D. Minshall and H. T. Nixon, University College; D. Seaton, Yorkshire College; and P. Thompson, Owens College.—Second Division: R. E. Bickerton, University College; J. C. Buckley, W. J. S. Bythell, D. H. Cheetham, E. L. Compston, and E. A. Goulden, Owens College; W. D. Hayward, University College; H. C. Heathcote, Owens College; S. H. House, University College; J. Howe, M. B. James, and A. Leigh, Owens College; E. H. L. Lindon, University College; F. S. Mathwin, Owens College; T. U. Mercer and A. H. Quinby, University College; M. R. Rhodes, Owens College; H. A. Robinson, University College; L. E. Scanlon, Owens College; B. Stahlknecht, University College; F. A. Storr and C. F. Thompson, Yorkshire College; and J. D. Whitaker, Owens College.

Intermediate M.B. and Ch.B. Examination.—First Division: *J. W. Crawshaw and J. H. Taylor, Owens College.—Second Division: W. E. Barker, Owens College; J. C. Bawden, A. Bicknell, and S. R. Knight, University College; C. H. G. Ramsbottom, H. K. Ramsden, W. C. Rigby, G. Stowell, and W. H. Waddington, Owens College.

Final M.B. and Ch.B. Examination (Part I.)—A. E. Brindley and T. F. Daniels, Owens College; J. Gould, University College; W. Griffith, Owens College; J. M. H. Martin, University College; A. H. Poole and F. Robinson, Owens College; J. Teare, University College; and L. Youatt, Owens College.

Final M.B. and Ch.B. Examination (Part II.)—First Division: †A. E. Brindley, ‡T. N. Kelynack, R. E. Lord, and J. S. McGowan, Owens College.—Second Division: R. Alcock, A. Ashton, J. Dunlop, and C. F. Marshall, Owens College; E. Molyneux, University College; T. Porter, J. Simcock, F. W. Stansfield, J. N. Unsworth, and A. B. Watson, Owens College.

The following gentlemen have satisfied the Examiners in the examination for diplomas in Sanitary Science:—

W. B. Barclay, J. Brown, A. Chadwick, W. Dearden, W. Dick, F. W. Jordan, and W. Sellars, Jun.

* Distinguished in Anatomy.
† Distinguished in Obstetrics.
‡ Distinguished in Medicine, Surgery, Forensic Medicine and Toxicology, and Morbid Anatomy.

UNIVERSITY OF EDINBURGH.—The following is the official list of candidates who passed the Second Professional Examination in Medicine:—

John Anderson, *R. J. Ashton, Hugh Bennett, R. J. A. Berry, *J. W. Bone, H. J. M. Buist, W. M. Cairns, K. M. Cameron, J. J. W. Campbell, Charles Cochrane, R. P. Cockburn, D. B. Crerar, G. D. Darlington, Arthur Dennison, H. R. L. Davis, *C. J. W. Dixon, D. P. M. Farquharson, F. T. Foster, E. J. Fox, R. A. Fryer, E. B. Garland, P. F. Grant, Henry Goudie, Frederick Gourlay, G. C. Greaves, F. T. Griffin, T. A. Green, R. E. Harrold, H. H. Hearsey, G. E. Helme, H. M. Hewer, A. G. Horden, J. V. Hulme, John Joakim, J. M. M. Kay, C. B. Ker, Robert Lamb, M.A.; E. P. T. von Landsberg, H. E. Lee, R. E. Little, John Livingstone, R. M. Lyon, James MacBride, J. G. Macdonald, James Maclarlane, H. M. MacGill, Wakefield MacGill, T. G. M'Kellar, H. J. Mackenzie, H. V. M'Kenzie, John Maclaren, J. D. Maclean, W. B. Macleod, Charles Macmaster, C. B. Martin, H. F. Malabre, George Melville, J. Adie Menzies, A. S. Miller, Alexander Mitchell, T. W. Mitchell, E. C. Moore, C. A. Morgan, Robert Muir, J. A. Murison, John Newington, P. A. Nightingale, N. G. Noble, C. M. Ormsby, John Panton, Wm. Paul, E. R. Parry, R. L. Price, *Harry Rainy, J. L. Reed, E. H. Ridley, J. H. Roberts, J. C. Robertson, David Rorie, Robert Rosie, Wm. Sanders, Walter Sansom, P. W. Schmidt, John Sharp, William Simmers, F. M. T. Skae, Thomas Stodart, Archibald Stodart-Walker, Robert Strachan, Charles Stuart, *David Stuart, William Thyne, J. C. Tosswell, A. K. Thomson, L. J. Weatherbe, J. C. Whyte, George Wilson, O. R. M. Wood, James Younan, R. J. E. Young.

* With distinction.

CONJOINT SCHEME OF THE COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND.—The following gentlemen have passed the Third Professional Examination:—

N. George Cookman, E. Cosgrove, Henry M. Cullinan, R. D'Alton, S. W. Dawson, H. W. Devlin, T. G. Dillon, B. G. Elliott, E. G. Fenton, P. Flanagan, M. J. Hannan, A. R. Hudson, A. H. Jacob, G. W. Joyce, A. Ernest Keeble, S. Keogh, A. J. M'Munn, J. M'Kenzie, W. A. Murphy, A. W. M'Comiskey, L. T. Wheelan, G. F. Woodroffe, R. W. Wright, and R. S. Young.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following have been admitted Licentiates in Dental Surgery of the College:—

F. E. Garner, T. M. Howkins, E. Mawer, W. D. Quinn, F. Sheppard, and C. H. J. Williams.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—The library will be closed from August 1st to an early date in October.

NOTIFICATION.—The Camberwell Vestry has, it appears, followed St. Olave's Board of Works in expressing approval of the Compulsory Notification of Infectious Diseases Bill now before Parliament.

THE VACCINATION COMMISSION.—At the sitting of the Commission on Wednesday, there being a full attendance of members, Dr. Rauch, of Chicago, was examined.

CAVENDISH COLLEGE, CAMBRIDGE.—The Cloth-workers' Company has offered a scholarship of £30 a year, tenable at Cavendish College; and the Fishmongers' Company has made a grant of £50 to the same College.

PRACTICAL RECOGNITION OF POOR-LAW MEDICAL SERVICE.—The guardians of the Hoxne Union have granted Mr. C. G. Read, M.R.C.S., medical officer of the Stradbroke district, on his application, a superannuation allowance of £145 per annum. Mr. Read had served the union, in his capacity as medical officer, for upwards of forty years.

BENEVOLENT MEDICAL SOCIETY, KENT.—Mr. P. Purvis, M.R.C.S., of Blackheath, presided at the annual general meeting of this Society, held on July 10th, at Maidstone. The object of the Society is the assistance of medical men (being members) when in distress, and their widows and daughters, if required, and in other exceptional circumstances. The financial statement was satisfactory, and it was resolved that £330 should be appropriated for distribution amongst the several applicants for relief.

NATIONAL VETERINARY ASSOCIATION. — This Association held its seventh general meeting, on the 24th of July, in the Rooms of the Society of Arts. Professor W. Pritchard, the President, delivered his opening address, which chiefly dealt with the growth and great strides of the veterinary profession in recent years, of the causes assigned for which he referred to the example it had received from the sister profession. Professor E. Crookshank read a paper on Cowpox. A discussion then took place, and subsequently Mr. A. E. Macgillivray read a paper.

JUBILEE NURSES' INSTITUTE FOR WALES. — A meeting was recently held in the Council Chamber, Cardiff, with a view to forming a centre in Cardiff for Wales in connexion with the Queen Victoria Jubilee Institute for Nurses. It will be remembered that the Queen decided to devote £70,000 of the women's Jubilee offering to the promotion of district gratuitous nursing of the poor in their own homes. Accordingly this preliminary conference was held in order that the objects of the grant might be explained and the necessary steps taken to carry out the purposes of the grant. A provisional committee of six, with power to add to their number, was appointed, it being explained that the nurses would only visit the houses, not stay in them. This would in no way interfere with but rather help the infirmaries, for when the nurses saw cases becoming serious they would recommend patients to go to the infirmary.

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CLAYTON HOSPITAL, WAKEFIELD.—At the annual meeting of the supporters of this institution, held recently, the report, which was adopted, showed that whilst the number of patients in each department had increased, there had been a considerable falling off in the revenue. The chairman referred to the distribution of recommendations, and said that more discernment ought to be used in giving them away.

COTTAGE HOSPITALS.—On July 27th a cottage hospital was opened at Falkirk. The cost of the premises has been about £1600. Mr. Joseph Peake, L.F.P.S.Glas., is medical officer.—A new hospital of the same class is being erected at Longton, Staffs., with thirty-eight beds.—The annual meeting of the Carnarvon Cottage Hospital was held a few days ago, at which the satisfactory announcement was made that the debt of £1302 had been almost cleared off.—An attempt is about to be made to establish a cottage hospital in Ashton-on-Mersey.

BRITISH DENTAL ASSOCIATION. — The annual general meeting of this Association will be held at the Royal Pavilion, Brighton, on Aug. 22nd, 23rd, and 24th. We understand tickets of admission may be obtained by any medical practitioner interested in the subjects which will come before the meeting. A discussion on Anæsthetics is on the programme, a subject which is likely to awaken considerable interest, as representatives from other countries will be present to describe the different methods adopted to produce anæsthesia.

ROYAL INFIRMARY, MANCHESTER.—The recently issued annual report for the past year records that 43,985 persons received assistance at this infirmary and its allied institutions at Cheadle and Monsall, of whom 4504 were in-patients, 1378 were sent to the Convalescent Hospital at Cheadle, 1960 were admitted at the Fever Hospital at Monsall, and 36,143 treated as out and home patients. The report remarks that a large proportion of the patients who presented themselves were well able to pay a part of the cost of their medicines, and should be required to contribute in this, or some other form, to the funds of the institution. The income had been £22,331, and the expenditure amounted to £30,387. The combined institutions provide 1000 beds.

SOCIETY FOR THE STUDY OF INEBRIETY.—On the invitation of the President and Council, Mr. Clark Bell, President of the Medico-Legal Society of New York, was entertained at a largely attended reception, on July 26th, in the rooms of the Medical Society of London. After refreshments, the President (Dr. Norman Kerr) moved a congratulatory resolution. Mr. Bell, in his reply, commented on the great advance in America in the scientific treatment of the insane and the inebriate, and dwelt on the urgent necessity for a reconstruction of our present unwise criminal treatment of inebriates, who should be dealt with as subjects of disease, instead of being punished as willing offenders. Short addresses were given by Dr. Walter Dickson, R.N., and others.

PROFICIENCY EXAMINATION FOR VOLUNTEER MEDICAL OFFICERS.—The following medical officers who have attended the lectures of the Volunteer Ambulance School of Instruction, given by Surgeon Walter Pearce, M.D., 20th Middlesex (Artists) Rifle Volunteers, on the subjects of the above examination, have obtained the Proficiency Certificate; under the new regulations this has to be obtained by all acting surgeons of the Volunteer force:—Surgeon-Majors Pocklington, 2nd V.B. East Surrey Regt.; T. Joyce, 2nd V.B. (the Buffs) East Kent Regt.; Culver James, H.A.C.; S. P. Smith, 1st V.B. Royal Fusiliers. Surgeons T. L. Gentles, 1st V.B. Derbyshire Regt.; O. M. White, 1st Tower Hamlets R.B.; W. D. Waterhouse and J. W. Jackson, 1st Tower Hamlets R.B.; L. Ogilvie, M.B., and G. Ogilvie, M.B., London Scottish R.V.; H. A. Desvœux, M.D., Queen's Westminster R.V.; H. F. Stokes, London Rifle Brigade; S. M. Moore, 2nd (South) Middlesex R.V.; E. J. Hunter, 3rd V.B. Hampshire Regt.; E. Stewart, M.D., Middlesex Yeomanry Cavalry; R. M. P. Low, 1st Middlesex E.V.; H. W. Roberts, 2nd V.B. (The Queen's Own) Royal West Kent Regt.; J. H. Walters, 1st V.B. the Royal Berkshire Regt.; C. Anol, 3rd V. (Kent) Brigade, Cinque Ports Division R.A.; W. Gandy, 2nd V.B. East Surrey Regt.; D. Playfair, M.B., 2nd (the Queen's Own), Royal West Kent Regt.; J F. Porter, 2nd V.B. East Yorkshire Regt.; R. H. Hodgson, Tower Hamlets E.V.; J. W. Davies, M.D., 3rd V.B., the South Wales Borderers. A new course of lectures for this examination will commence on Monday, Sept. 30th, at 4.30 P.M., at the headquarters of the Queen's Westminster R. V., Buckingham-gate. The details of army medical administration, equipment, and hygiene will be fully explained and illustrated, and arrangements will be made to suit the convenience of officers residing at a distance from London. Medical officers joining this class can also attend the lectures and drills for regimental stretcher bearers, which will be held at the headquarters of the Queen's Westminster R. V. and the London Scottish R. V., Buckingham-gate, and the 4th V. B., the Queen's Royal West Surrey Regiment, New-street, Kennington-park. The hon. sec. is R. Reginald Sleman, 7, St. Benet's-place, Gracechurch-street.

DERBY AND DERBYSHIRE NURSING AND SANITARY ASSOCIATION.—The twenty-fourth annual meeting of this Association was recently held, under the presidency of the Mayor. The report, which was carried unanimously, stated that during the year 419 nurses had been supplied to private families, as against 276 in the previous year, representing 1651 weeks of nursing, as against 1472. Air-pillows, bed-rests, and other sick-room appliances had been lent to 450 patients, and Bath chairs to 160. The work of the nurses had never been more satisfactory and reliable than during the past year. The financial position of the Association was also favourable.

THE DUFFERIN MATERNITY HOSPITAL, BURMA.—A large and influentially attended meeting was held at Government House on June 14th in support of this institution. Sir Charles Crosthwaite (Chief Commissioner of Burma) presided. The chairman stated that the hospital and training institution so far had been successful. During the first year 142 passed through the hospital, in the second year 228, and up to date 405 women had been treated in the hospital, and there had been 209 births. Twenty women had this year passed as nurses, and fourteen of these as midwives. The experimental stage of the work was passed, and it had become absolutely necessary that a suitable building should be provided. The present structure is a temporary one, and may have to be vacated at any time. The Central Committee of India had contributed 5000 rupees towards the Building Fund, and they themselves had set aside 5000 rupees for the same purpose.

PROVINCIAL HOSPITAL SATURDAY COLLECTIONS.—The West Bromwich District Hospital Saturday collection amounted this year to £1260 9*s.* 1*d.* The recent Saturday collection at Reading, on behalf of the Royal Berkshire Hospital, realised £361, an increase of £120 upon last year. The Maidenhead Saturday collection, on behalf of the Cottage Hospital, amounted to £60 7*s.* 5*d.*, or about £15 more than last year. The amount collected this year for the Birmingham Hospital Saturday Fund was £8658 19*s.* 1*d.*, of which £8300 has been divided amongst the local medical charities. The Liverpool Hospital Saturday collection this year amounted to £3206, showing an increase of about £302 on 1888. The annual demonstration at Stockton on behalf of the Stockton Hospital, held on the 21st ult., produced £54 5*s.* 4*d.* The total Hospital Saturday collections at Bolton for this year amount to £1482 11*s.* 11*d.*, an addition of £248 8*s.* 7*d.* on the previous year.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—The summer meeting of this Society will be held at Leeds on Thursday, August 15th, at 4.30 P.M., in the theatre of the medical school. The following papers will be read: "Notes on the Arrangement of the Lumbar and Sacral Nerves in a subject with six Lumbar Vertebræ," by Dr. Ambrose Birmingham; "Photography as an aid in Anatomical, Histological, and Embryological work," "On Nerve Terminations in the Thyroid Gland," and "On the Pyramidal Tracts of certain Rodents," by Dr. Alex. Fraser; "On the Cutaneous Nerves of the Trunk, with special reference to Herpes Zoster," by Drs. T. Wardrop Griffith and M. J. Oliver. Also various specimens will be exhibited. Members may, if they wish, send their specimens to Dr. T. Wardrop Griffith, secretary of the Anatomical Section of the British Medical Association Museum, Chemical Laboratory, Mechanics' Institute, Cookridge-street, Leeds, between August 1st and August 7th, and if the member is not present at the meeting the secretary will take charge of them.

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THE INFIRMARY, ARBROATH. — The forty-fifth annual report of this infirmary shows that 176 patients were treated during the past year, of whom 120 had been cured, 25 relieved, 15 had died, and 10 still remained under treatment. The financial position was not satisfactory. The revenue had been less than the previous year by £141 8*s.* 5*d.*, and there was a slight increase in the expenditure The endowment fund now amounts to £9856 9*s.* 10*d.* During the year a convalescent house had been purchased near Colliston, for which contributions amounting to £1500 had been received.

MEDICAL NOTES IN PARLIAMENT.

An Annual Census.

IN the House of Lords, on Friday, July 26th, Earl Fortescue called the attention of their lordships to the desirability of having a cheap and simple annual census of the population in addition to the ordinary decennial one.—Lord Balfour of Burleigh did not view the proposition with favour. An annual census, he said, must necessarily be costly, as the process adopted in the decennial census would have to be followed in an annual one. So frequent, however, had been the applications to the Local Government Board on the subject that he (Lord Balfour) had resolved to appoint a departmental committee to consider the desirability of entertaining the idea.

The Hospitals of London.

On Monday, July 29th, Lord Sandhurst presented a petition, signed by members of the medical profession and by others, also on behalf of various medical charitable institutions, praying for inquiry in regard to the financial and general management and the common organisation of medical institutions, endowed and voluntary, and in regard to the administration of Poor-law institutions for the aid of the sick in the metropolis; and moved that the prayer of such petition should be agreed to. His lordship said this was not the first time that the subject had been considered. Various medical committees had considered the whole or portions of the subject. No action, however, had been taken by the hospitals. Failing these, the information had been amassed by the Charity Organisation Society. The medical relief in the metropolis might be classed under two heads—charity and Poor-law charities. There were 11 general hospitals with schools, and 8 general hospitals without schools; 67 special hospitals; 26 free dispensaries; 35 provident dispensaries; 13 part pay dispensaries; and five surgical appliance societies. The number of in-patients was 76,898, and out-patients 1,470,398. The total income was £696,258, and the total expenditure was £723,021. The beds unoccupied were about 2000 in number. To these must be added 27 Poor-law infirmaries, with 11,900 beds, and £336,200 expenditure; 44 Poor-law dispensaries, with 114,980 out-patients, and £19,980 expenditure; 8 infectious hospitals, with 2760 beds, and £129,313 expenditure. The total was as follows:—239 institutions—in-patients, 122,047; out-patients, 1,585,353; total expenditure, £1,208,523; total income, £1,197,477, in the year 1887. Having described the position of the endowed hospitals and the function of those having schools attached, the speaker referred to special hospitals. He said, of the special hospitals, some were special in treatment, but nearly all for special diseases. He was anxious to be moderate, but he must and would say what he thought, and what those who were with him thought. The origin and management of some of the special hospitals had been such as to cause suspicion, where suspicions existed, as to the conduct of hospitals as a whole. They were not unfrequently started for private advantage by those who wished to make themselves consulting physicians to them, some for speculative purposes, and in neither case considering the public welfare nor the advance of science. They were generally started, as to funds, more or less by some philanthropist, and on that support failing they were thrown on the public. There were no schools, no advance of science, and the management left much to be desired. Owing to the small number of beds the administration must be costly. He then quoted the opinion of Sir Andrew Clark on the character of these institutions, as expressed in a speech he delivered at the Mansion House in June last in aid of the Hospital Sunday Fund, and concluded with a reference to a paper by Mr. Michelli on hospital extravagance.—Viscount Cranbrook followed, and promised on the part of the Cabinet that the case for inquiry should be considered, and that next session he might be able to announce to his noble friend what course the Government proposed to take. He could assure his noble friend that the matter would receive the attention of the Government.—The Earl of Kimberley said that the committee on which he sat last session expressed a desire that the Government should consider the whole matter. An attempt had been made at amalgamation, but had failed owing to the difficulties in the way. Poor-law infirmaries had become so important as to occupy a very great place in the treatment of the sick. The whole subject was a very large and complicated one, and at the present time he could only say that he was glad to hear that the Government were directing their attention to it.

Muzzling of Dogs.

In the House of Commons, on Friday, July 26th, Mr. Lawson asked the Home Secretary if the London County Council had taken any action with regard to the muzzling order, and, if not, whether the police authorities would act on their own authority.—Mr. Matthews replied to the first question in the negative. In answer to the second question, he said the Commissioner of Police would act only on the terms prescribed by the Act.

Royal Barracks, Dublin.

In answer to Mr. Hanbury, Mr. Stanhope said he did not think his information warranted him in believing that fever at the Royal Barracks was daily increasing. Nevertheless there had been a new outbreak of enteric fever there, and orders had been given that the building should be temporarily vacated and the troops placed under canvas.

Merchant Shipping Acts Amendment Bill.

The amendments to this Bill were agreed to, and the Bill was read a third time.

Lunacy.

On Monday, July 29th, in answer to Mr. Corbet, the Home Secretary said that the provisions of the Lunacy Acts had been fully carried out in the case of Mr. Miers. Mr. Matthews also, in answer to the same questioner, said: I am informed by the Commissioners in Lunacy that in their opinion the annual increase in the number of registered lunatics, idiots, and persons of unsound mind, as shown in the returns, appears to be mainly due to the accumulation of chronic pauper cases. It has not been established that there is any material annual increase of fresh cases of insanity out of proportion to the increase of population. With regard to cases of illegal detention, it is the practice of the Commissioners to investigate all clues, and to take proceedings against persons found to be infringing the law. Prosecutions have usually been followed by the discovery of fresh cases previously unreported.

Passenger Ships and Hospital Accommodation.

In reply to Mr. O'Keefe, Sir M. Hicks-Beach said the ships of the Royal Mail Steampacket Company carrying passengers to the West Indies and South America from this country do not carry from the United Kingdom more than fifty passengers as defined by the Passenger Acts. They are therefore not passenger ships under those Acts, and no other ships are required by law to provide hospital accommodation. Space is always provided on board the ships of the Royal Mail Steampacket Company, which can be turned into hospitals in the event of an epidemic breaking out. The cabin where an infectious patient is lying is always surrounded by blankets steeped in a solution of carbolic acid or other powerful disinfectant. The Board of Trade has no power to enforce regulations for securing health on board passenger steamers unless they are also passenger ships under the Passenger Acts.

Lunacy Acts Amendment Bill.

On the order of the day for the consideration of this Bill as amended by the Standing Committee, Mr. Mac Innes rose to move that the Bill be recommitted in respect of a new clause as to the removal of pauper lunatics to their places of settlement. This amendment was, however, by leave withdrawn, and the motion to consider the Bill as amended was agreed to.—On the motion of Mr. Matthews, a new clause was agreed to providing that a county court judge or magistrate should not be required to exercise any powers under the Act which would interfere with the exercise of his ordinary jurisdiction.—Mr. John Ellis moved a new clause to provide that there should be exhibited in every asylum a printed notice setting forth the right of every private patient to have any letter written by him forwarded to its address, or within twenty-four hours submitted to a visiting Commissioner or Visitor or else forwarded to the Commissioners or the Masters in Lunacy; also the right to request a private interview with a visiting Commissioner or Visitor on the occasion of any visit made to the asylum. Dr. Farquharson said that the Grand Committee had rejected the clause after full discussion. According to the best medical testimony the exhibition of such notices would imperil the recovery of patients by unsettling their minds. After remarks by several members, Sir W. Foster expressed his objections to the clause mainly on medical grounds. Its effect would be to produce on the minds of the patients a continual irritation leading to outbursts of excitement, which would hinder their cure. The clause had first originated at a time when there was a "scare" in the public mind, it being supposed that persons were wrongfully shut up in those asylums. That scare had been shown to be groundless. Ultimately the clause, with some verbal amendments, was added to the Bill The 20th Clause was omitted, and, on the motion of Mr. Matthews, a subsection was added to Clause 21 making it sufficient if a certificate of lunacy in a workhouse under the section is signed within three months of the passing of the Act, and enabling one certificate to cover more than one patient, and another to Clause 34, enabling persons in charge of a single patient to add others in the same home under special circumstances. Amendments in Clause 40 were also agreed to providing for reports of the condition of pauper lunatics taken charge of by relatives, and the remuneration of medical officers making such reports, as were likewise a series of amendments in Clause 52, extending the powers of management in the case of lunatics so found by inquisition in England to their estates in Scotland or Ireland without further inquisition.—After some further amendments, the report was agreed to; and, on the motion of Mr. Matthews, the Bill was read a third time.

Universities (Scotland) Bill.

On Wednesday, the 31st ult., on the motion for the third reading of this Bill, Mr. Wallace took occasion to express his belief that the sum of £42,000, which the Bill appropriated to university educational purposes, was altogether insufficient to carry out the reforms which were expected. Mr. Goschen, in reply, maintained that Parliament had dealt very liberally with the Scotch universities, and he thought that considerable economy might be effected by a revision of the scale of payment to professors. The Bill was read a third time.

Infectious Diseases Notification Bill.

Mr. Ritchie moved the second reading of this Bill, and explained that its object was to prevent the spread of infectious diseases by insuring that on their outbreak the medical officer of health and the inspector of nuisances should visit the premises affected and have power to isolate the patient or require his removal to a hospital. The diseases which it was proposed to include in the Bill were small-pox, cholera, diphtheria, erysipelas, scarlatina, typhoid, and relapsing fever. The Bill also contained provision for the inclusion, on an emergency, of some diseases other than those mentioned. The Government proposed that the Bill should be compulsory for London, but outside it should be optional for the local authorities to adopt the Act by resolution. If it were found, however, that the local authorities were slow to adopt the Act, it might be necessary for Parliament to consider whether it should not be made compulsory.—Sir W. Foster objected to medical men being asked to notify the existence of disease, on the ground that it would weaken the confidential relations between medical men and their patients. Anything that came to the knowledge of a medical man in the practice of his profession was practically an inviolable secret. He feared that the result of the present proposal might be to induce people to treat infectious cases at home without the intervention of a medical man. He thought the notification should be made by the householder or guardian, and not by the medical man.—Mr. Ritchie, in reply to Mr. Sexton, said there would be no objection to extending the Bill to Ireland. — Several speakers followed and expressed general approval of the Bill, whilst criticising some of its details. The Bill was read a second time without division

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METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on July 30th, 1889.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever	Other diseases.	Total.	
Eastern Hospital	191	49	..	22	..	262	400
North-Western Hospital*	107	11	..	..	..	118	435
Western ,,	116	11	..	2	..	129	262
South-Western ,,	..	..	..	..	..	..	402
South-Eastern ,,	240	11	..	14	1	266	462
Northern ,,	..	..	..	..	..	..	480
Totals	654	82	..	38	1	775	2441

* Infant with mother.

BOOKS ETC. RECEIVED.

ALLEN, W. H., Waterloo-place, London, S.W.
The Canaries for Consumptives. By E. Paget Thurstan, M.D., M.R.C.S.E. 1889. pp. 98.

CASSELL & COMPANY, London.
Medical Handbook of Life Assurance, for the use of Medical and other Officers of Companies. By James E. Pollock, M.D., F.R.C.P., and James Chisholm, F.I.A. Lond. 1889. pp. 216.

CHURCHILL, J. & A., New Burlington-street, London, W.
The Human Foot, its Form and Structure, Functions and Clothing. By Thomas S. Ellis. 1889. pp. 120.

HAMILTON, ADAMS, & Co., Paternoster-row, London.
The Clinical Use of Prisms; and the Decentering of Lenses. By Ernest E. Maddox, M.B. 1889. pp. 113.
Health Troubles of City Life. By Geo. Herschell, M.D. Lond. 1889. pp. 71.

LEWIS, H. K., 156, Gower-street, London, W.C.
Inebriety; its Etiology, Pathology, Treatment, and Jurisprudence. By Norman Kerr, M.D., F.L.S. 2nd Edition. 1889. pp. 471.

MACLACHLAN & STEWART, Edinburgh.
Memoir on the Anatomy of the Humpback Whale (Megaptera Longimana). By John Struthers, M.D. 1889.

MACMILLAN & CO., London.
Father Damien: a Journey from Cashmere to his home in Hawaii. By Edward Clifford. 1889. pp. 176.
A Text-book of General Therapeutics. By W. Hale White, M.D., F.R.C.P. With Illustrations. 1889. pp 371.

MASSON, G., 120, Boulevard St. Germain, Paris.
Congrès pour l'Étude de la Tuberculose chez l'Homme et chez les Animaux. 1re Session, 1888. Comptes rendus et Mémoires, publiés sous la Direction de M. le Dr. L. H. Petit, Secrétaire Général. Avec figures dans le texte. 1889. pp. 760.

NEW SYDENHAM SOCIETY, London.
Clinical Lectures on Diseases of the Nervous System, delivered at the Infirmary of La Salpétrière. By Professor J. M. Charcot, Vol. III. 86 Woodcuts. Translated by Thomas Savill, M.D. Lond., M.R.C.P.L. 1889.
Lectures on General Pathology; a Handbook for Practitioners and Students. By Julius Cohnheim. Translated from the Second German Edition. By A. B. McKee, M.B. Dub. With Memoir by the Translator. Section I. The Pathology of the Circulation. 1889. pp. 528.
An Atlas of Illustrations of Pathology, compiled (chiefly from original sources) for the New Sydenham Society. Fasciculus 7. Plates 32 to 35, with descriptive letterpress. 1889.

SIMPKIN, MARSHALL & Co., London.
Manual of Musical Drill and System of Physical Training for the use of Teachers in Schools. By Geo. Cruden, A.M. 1889. pp. 231.

WATT, A. P., Paternoster-square, London.
On the Respiratory Functions of the Nose, and their relation to certain Pathological Conditions. By Greville MacDonald, M.D. Lond. 1889. pp. 72.

WOOD, WM., & COMPANY, Lafayette-place, New York.
Diphtheria: its Nature and Treatment. By C. E. Billington, M.D.; and Intubation in Croup and other Acute and Chronic Forms of Stenosis of the Larynx. By Joseph O'Dwyer, M.D. 1889. pp. 326.

YOUNG J. PENTLAND, Edinburgh.
A System of Obstetrics. By American Authors. Edited by B. C. Hirst, M.D. Vol. II. Illustrated with 221 Wood Engravings. 1889. pp. 854.
Diseases and Injuries of the Ear; their Prevention and Cure. By C. H. Burnett, A.M., M.D. 1889. pp. 154.

Rabies: Its Course and Symptoms (Preventive and Curative Measures) by Alfred Cawdle, M.R.C.V.S. Lond. (W. Ridgway, London, 1889), price 6*d*.—Murray's Penny Pocket Guide to London, illustrated (J. P. Murray, London).—Die Nordseeinsel Helgoland in topographischer, geschichtlicher, sanitärer Beziehung. Von Dr. Emil Lindemann. Mit 2 lithographirten Tafeln, 3 Karten, 9 Tabellen (August Hirschwald, Berlin, 1889).—Index Medicus: Authors and Subjects, Vol. II., No. 6, June, 1889 (Trübner & Co., and Lewis, London).—Wilson's Legal Handy Books: The law of Water and Gas: A Practical Handbook for Consumers; by C. E. Stewart, Barrister-at-Law (Effingham Wilson & Co., London), price 1*s*. 6*d*.—Anatomie Topographique du Duodénum et Hernies Duodénales; par M. Jonnesco; avec 13 planches (21 figures) hors texte (Lecrosnier et Babé, Paris, 1889).—Recherches Cliniques et Thérapeutiques sur l'Epilepsie, l'Hystérie, et l'Idiotie. Compte rendu du service des Enfants idiots, épileptiques et arriérés de Bicêtre pendant l'année 1888; par Bourneville, Courbarien, Raoult, Sollier, internes du Service, Vol. IX., avec 25 figures dans le texte (Lecrosnier et Babé, Paris, 1889).—Proceedings of the Society for Psychical Research, Part 14, June, 1889 (Trübner & Co., London), price 3*s*.—The Verulam Review, July to September, 1889 (Elliot Stock, London), price 1*s*.—Medical and Surgical Reports of the City Hospital of the City of Boston. Edited by D. W. Cheever, M.D., Oliver F. Wadsworth, M.D., and Geo. B. Shattuck, M.D. (published by the Trustees, Boston, 1889).—A Modern Superstition in Disease: the Germ Theory reconsidered; by Lewis Sanders, Temple-court, New York.—References to papers in Anatomy, Human and Comparative; by John Struthers, M.D. (Maclachlan and Stewart, Edinburgh, 1889).—Fiebertheorie und Behandlung von Fieber im allgemeinen; von J. A. Staehely (von H. Hohmann, Darmstadt).—The Medico-legal Journal, Vol. VI., No. 4, March, 1889; $3 per annum (published by the Medico-legal Journal Association, Broadway, New York).—Where to go for a Healthy Holiday, 1889. The Holiday Number of the London Medical Recorder (W. H. Allen & Co., London, 1889), price 1*s*.—Blindness and the Blind; by Webster Fox, M.D., Philadelphia, 1889 (reprinted from the Journal of the Franklin Institute, June, 1889).—Festschrift zur Eröffnung des neuen allgemeinen Krankenhauses zu Hamburg-Eppendorf; redigirt von Dr. C. Eisenlohr (Mauke Söhne, Hamburg).—Magazines, &c., received for August: Sunday Magazine, Good Words, Leisure Hour, Sunday at Home, Scribner's, Boy's Own Paper, Girl's Own Paper.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BRETTINGHAM, C. E. SEPPINGS, L.F.P.S. Glas., L.A.H. Dub., Medical Officer and Public Vaccinator to the Stogumber Division of the Williton Union, has been appointed Medical Officer of Health for the Eastern Division of the Williton Union.

CHAMBERS, A. B., M.D., M.Ch., L.M. Irel., has been appointed Medical Officer of the Stapleford District, Shardlow Union.

COPE, ALBERT E., M.B., B.S. Durh., has been appointed House Surgeon to the Royal Infirmary, Newcastle-on-Tyne.

CRIBB, C. H., has been reappointed Public Analyst for the Strand Board of Works.

GREENWOOD, E. C., L.R.C.P. Lond., M.R.C.S., has been appointed Public Vaccinator for the Parish of St. Marylebone.

GRIFFITH, P. S., L.R.C.P. & S.Ed., has been appointed Medical Officer of the Pelham District of the Bishop Stortford Union, and of the No. 4 District, Saffron Walden Union.

HOPKINS, J. W., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of the First District, Leeds Union.

LEIGH, RANDLE, B.Sc. Lond., M.R.C.S., has been appointed Demonstrator of Physiology in University College, Liverpool, vice F. C. Larkin, appointed Assistant Lecturer.

MANTON, JOHN ALBERT, M.R.C.S., L.R.C.P. Lond., has been appointed Demonstrator of Anatomy to the Sheffield School of Medicine, and also Medical Officer to the S.E. District of the Sheffield Union.

PIESSE, CHAS. H., M.R.C.S., L.S.A., has been reappointed Public Analyst for Fulham.

PIETERSEN, JAMES F. G., M.R.C.S., L.R.C.P.L., of Bannatyne, Etchingham-park, Finchley, has been appointed Divisional Surgeon to the S Division of the Metropolitan Police, vice Dr. Hunter Barron, deceased.

POGSON, J. W. B., M.B., B.S., M.R.C.S., has been appointed House Surgeon at the Durham County Hospital.

QUEELY, ST. GEORGE J. E., L.S.A. Lond. & Dub., Government Medical Officer, Maytown District, has been reappointed Surgeon to the Palmer Hospital, Queensland.

ROBB, J. TAYLOR, M.D., C.M., has been appointed Third Attending Medical Officer to the Pimlico-road Free Dispensary.

SLOMAN, FREDK., M.R.C.S., L.S.A., has been appointed Assistant Medical Officer of the Infirmary, parish of St. Leonard, Shoreditch.

STEPHENSON, S. H. A., M.B., C.M. Edin., L.S.A. Lond., has been appointed Medical Officer in charge of Ophthalmic cases at the Central London District Schools, Hanwell.

ERRATUM.—The announcement last week of the appointment of Mr. S. P. Hosegood as Assistant Medical Officer to the Hamlet of Mile-end Old Town Infirmary was inserted in error

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Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

CHELMSFORD AND MALDON RURAL SANITARY AUTHORITIES.—To the Clerk of the Joint Committee, 90, High-street, Chelmsford.—Medical Officer of Health for the Combined Rural Sanitary Districts of Chelmsford and Maldon, Essex. Salary £600 per annum.

CORNWALL COUNTY ASYLUM, Bodmin.—Junior Assistant Medical Officer. Salary £100 the first year, £110 the second year, and afterwards £120 a year, with board, lodging, washing, and attendance.

COVENTRY AND WARWICKSHIRE HOSPITAL, Hay-lane, Coventry.—House Surgeon. Salary £100 per annum, with board (exclusive of beer, wine, and spirits), lodging, and attendance.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Registrar and Chloroformist. Salary 50 guineas per annum, non-resident.

NORFOLK AND NORWICH HOSPITAL, Norwich.—Dental Surgeon (Honorary).

NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—Physician or Medical Officer.

QUEEN'S HOSPITAL, Birmingham.—Physician to Out-patients. For three years. Annual honorarium £50.

RIPON DISPENSARY AND COTTAGE HOSPITAL, Ripon.—Resident House Surgeon and Dispenser. Salary £70 per annum, with board and lodging.

ROYAL MASONIC INSTITUTION, Wood-green, N.—Medical Officer. Salary £80 per annum. Surgical and medical appliances (drugs included) are provided by the institution.

SALISBURY INFIRMARY.—House Surgeon. Salary £100 per annum, with board, lodging, and washing.

Births, Marriages, and Deaths.

BIRTHS.

ASHWORTH.—On July 27th, at Halstead, Essex, the wife of J. Henry Ashworth, M.R.C.P.Ed., of a daughter.

KENYON.—On July 25th, at Hooton Pagnell, near Doncaster, the wife of G. Herbert Kenyon, M.D., of a son.

TIMS.—On July 26th, at Lupus-street, St. George's Square, S.W., the wife of H. W. Marett Tims, M.B., of a daughter.

WHEELER.—On July 22nd, at Pembridge-gardens, W., the wife of John Wheeler, M.D., M.Ch., M.A.O., of a daughter.

WILLIAMSON.—On July 26th, at Eldon-square, Newcastle-on-Tyne, the wife of G. E. Williamson, M.A., F.R.C.S., of a son.

MARRIAGES.

BLACK—SMIRTHWAITE.—On July 30th, at St. James' Church, Burnley, by the Rev. J. M. Dorset Owen, M.A., Vicar of Holy Trinity, assisted by the Rev. Ben Winfield, B.A., J. Lyell Black, M.B., to Nell, widow of the late Dr. Smirthwaite, of Burnley.

BOYD—TOMS.—On July 25th, at Acton, Stanley Boyd, M.B., F.R.C.S., of Harley-street, to Florence Nightingale Toms, M.D., third daughter of the late William Tucker Toms, of Chard, Somerset.

HORDER—STUBBS.—On July 24th, at St. James's, Pentonville, Edward George Horder, M.D., of Pakhoi, China, C.M.S., to Eliza Caroline Stubbs, of Mecklenburgh-square.

ROBERTS—KETT.—On Aug. 1st, at St. Paul's, Cambridge, by the Rev. R. J. Roberts, father of the bridegroom, assisted by the Rev. H. B. Budham, the Rev. F. J. Dickinson, and the Rev. E. F. Plume, Reginald John Roberts, B.A., M.B., B.C. (Cantab.), of Haselrig, Lowestoft, to Catharine Sarah, daughter of George Kett, Esq., of Wymondham House, Cambridge.

SCOTT—ANDERSON.—On July 25th, at St. Stephen's Church, C.-on-M., Manchester, by the Rev. J. Hill Banham, M.A., Vicar of Keysoe, assisted by the Rev. T. Edelston, William E. Sawers Scott, M.D., Fallowfield, Manchester, younger son of A. D. Scott, Victoria Park, to Margaret Euphemia, eldest daughter of John T. Anderson, Swinton-avenue, Manchester.

STEVENS—GACE.—On July 31st, at St. Catharine's Church, Southbourne-on-Sea, by the Rev. L. R. Whigham, Vicar, Arthur Blundell Stevens, M.A., M.B., B.Ch. Oxon, son of the late William Stevens, of Springfield, Tulse-hill, London, to Ada Mary, second daughter of Joseph Gace, of Southbourne-on-Sea.

DEATHS.

BEVISS.—On June 30th, at Pinetown, Natal, Charles Beviss, M.D., M.R.C.S., aged 49.

DESSÉ.—On June 18th, 1889, in the Island of Barbadoes, West Indies, Ethelrid Dessé, F.R.C.S., M.B., M.D.Lond., &c., also M.D.Utrecht, son of the late Anthony Dessé, of Surinam, Dutch Guiana, aged 46 years and 9 months.

EWING.—On July 27th, at Alderney-street, S.W., John Ewing, Deputy Surgeon-General, aged 73.

POLLARD.—On July 28th, at his residence, 123, Lavender-hill, Wandsworth, Clement Pollard, M.R.C.P., L.R.C.S. Edin., aged 40.

THOMPSON.—On June 22nd, at Pensarn, Thomas Thompson, M.R.C.S., L.S.A., Surgeon-Major of the 1st Volunteer Battalion Royal Warwickshire Regiment.

WISE.—On July 23rd, at Thornton, Beulah-hill, Upper Norwood, Thomas Alexander Wise, M.D., late of the Bengal Medical Service, in his 88th year.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, August 1st, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
July 26	29·67	N.	59	55	112	70	55	·03	Overcast
,, 27	29 87	N.	59	56	93	62	56	·09	Overcast
,, 28	30 09	N.W.	64	59	109	74	54	·32	Cloudy
,, 29	30·10	N.	64	60	112	76	59	..	Overcast
,, 30	30·10	W.	66	62	95	77	60	..	Hazy
,, 31	30·13	S.E.	70	63	120	81	59	..	Hazy
Aug. 1	29·96	S.E.	70	65	117	84	61	..	Hazy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE MORALITY OF THE COLLEGE OF SURGEONS WITHDRAWING THE MEMBERSHIP FOR ADVERTISING, &c.

Fairplay, in a letter too long for publication, raises the question of the right of the Council to withdraw the diploma of one of its Members for advertising and the adoption of such methods of obtaining practice as the pressure of the times seems to suggest. He argues that the membership of the College is a personal property, duly worked for and paid for, and unwithdrawable. The simple answer to this is that it is granted on conditions of professional conduct, the violation of which subjects the owner to the jurisdiction of the Council. We cannot admit that any pressure of the times justifies unprofessional practices, or that, in the long run, the public would benefit by allowing such practices to be followed with impunity.

Shenfield.—Without a full report of the evidence of the coroner we are unable to form a final opinion upon the point raised in our correspondent's letter. As at present informed, we are at a loss to understand how the disease in question would be a legal or moral excuse for the offence. Of course it may be alleged that the renal mischief had led to deterioration of brain tissue, and so to mental power. If this were the case, we opine there would have been strong collateral testimony to support the contention in the shape of other symptoms of cerebral aberration.

Mr. Biddle.—We regret that we are unable to comply with the suggestion, as the type of the article is distributed.

THE VACCINE VESICLE.

To the Editors of THE LANCET.

SIRS,—I was public vaccinator at Brighton for twenty years, during which time I vaccinated upon an average 500 a year. My two colleagues vaccinated more than I yearly. We all agreed that in propagating the vaccine vesicle you could produce nothing else. The same opinion has been expressed to me by public vaccinators whom I have questioned on the subject. This was triumphantly confirmed by the late Mr. Badcock's experiments, for, after forty years, Mr. Badcock produced the very same thing that Jenner discovered, the vesicle having passed through the human constitution more than 2000 times and remained unaltered. Only let a medical man take his vaccine according to Jenner's directions from a plump vaccine vesicle, and not drain the vesicle too much, and I defy him to introduce any other disease. This vaccine, which is the germ of a very mild small-pox, can produce itself and nothing else. An acorn cannot produce a beech tree, neither can a beech nut produce an oak; but convince a man against his will, he's of the same opinion still. To the anti-vaccinationist I would say, "Neither would he be convinced, though one rose from the dead."

I am, Sirs, your obedient servant,

Sidney Cottage, Newhaven, Sussex. D. RICHARDSON.

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THE BACILLUS ANTHRACIS.

THAT the germs of charbon pass from the mother to the fœtus is a pathological fact of which the French investigators, MM. Chamberland and Straus, claim to be the original discoverers. The communication in which they announced their discovery was made on Dec. 16th, 1882, to the Biological Society of Paris, and it was published on the 23rd of the same month. Professor Perroncito, however, the well-known Piedmontese pathologist, asserts that it is he to whom priority in the discovery is due—his paper announcing the fact having been read before the Accademia di Medicina di Torino on Dec. 15th, 1882, and published in the *Gazzetta Piemontese* of the day following. Like many similar discoveries, that of the transmission of the bacillus anthracis from mother to fœtus may well have been made independently and simultaneously, coincidences of the kind becoming every day more probable as workers in the same field, under the same conditions, become more and more numerous.

C. W. S. S.—Roscoe: Lessons in Elementary Chemistry, Inorganic and Organic (London, Macmillan and Co., *4s. 6d.*).

"THE INTER-RELATIONS OF SPECIFIC MORBID POISONS."

To the Editors of THE LANCET.

SIRS,—The question of the affinities and antagonisms between different specific diseases and their power of modifying each other either favourably or otherwise, which formed the subject of discussion recently in your columns, is one which no doubt is worthy of considerable attention. It is a satisfaction to know that we have advanced a stage since Hunter's day, and that the majority of us no longer doubt that two specific fevers may coexist in the same person. On reference to my notes of cases of contagious and infectious diseases I observe instances of scarlet fever or small-pox, the former disease and rubeola, pertussis, and scarlet fever coexisting in the same patient, and no evidence that the condition increased the patient's risk, in fact rather the opposite. The very interesting question as to whether or not the phthisical condition predisposes to or confers an immunity against other specific diseases is most difficult to answer, but there is some reason for thinking that it is so in the case of certain members of the class. With reference to the other point mentioned in your article, it appears not improbable that just as in the case of the specific fevers coexisting, similarly the poisons of syphilis and phthisis may do so. It is thought by some that the victims of phthisis do not contract enteric fever. It would be interesting to know if they possess a like immunity from typhus. I fancy those who have had an extended experience would be inclined to take a contrary view. Our knowledge of the inter-relations of specific diseases is so very limited that any facts bearing on the question are of value in the etiology and prognosis of disease.—I am, Sirs, yours faithfully,

Barking, March, 27th, 1889. SAMUEL LEE.

GUTSCH'S FIELD LAZARETTO AND OPERATION-ROOM.

THE gold medal given by the Empress Augusta for the best field lazaretto and operation-room has been gained by Dr. B. Gutsch of Karlsruhe, and the mechanism in question is now exhibited in the private sanatorium of the inventor. The problem of meeting all requirements of a clinical and operative ambulance on the field of battle has been solved by it, with a minimum of weight and bulk Twenty beds, provided with every requisite, and an operation-room, including a dispensary, make up the whole, which can be transported by a three-horse waggon to the most distant points. An ordinary goods truck, indeed, can convey three of the Gutsch lazarettos—i.e., sixty beds. Economy of space is effected by the contrivance that almost every article of furniture can be made to fulfil a double function, while the concentrated form of the medicaments admits of their being contained in a chest of very moderate dimensions.

L.R.C.P.Ed., &c., Registered.—Our correspondent is well entitled to his fee, and, we should think, would have his claim allowed in a court of law.

A LITERARY HERBALIST.

To the Editors of THE LANCET.

SIRS,—The enclosed letter may be of interest to some of your readers. It was brought to me by a patient, a fisherman, on his return from Grimsby. The absence of a diagnosis and of any information as to the treatment adopted are perhaps the most noteworthy points. I may add that the patient was fully under the impression that he had been under the care of a legally qualified medical man.—Yours obediently,

W. J. ERNELY SUMPTER, M.R.C.S., &c.

Sheringham, Norfolk, July 30th, 1889.

"—— Herb Store, —— Street, ——, Grimsby.

"GENTLEMEN,—DEAR SIR,—I thought it fit for me to write you a line as to the case of (H—— M——) as to give you satisfaction poor man I must add he was suffering from extreme pain and by my being so well known in the neighbourhood he was advised to consult me which he did so and by my treatment of him obtained relief for a short period and then came on again when he really felt obliged to return homewards, for he knew by not being able to fulfil his duties he would not be required with his fellow workmen. I saw him first on June 18th and last time on 25th and thought really it would be best for him to come and see you to attend him thought you would really do your best for him hoping you will succeed in doing the same

"I remain yours Respbly

"—— ——."

WELL-INSPIRED PHILANTHROPY.

A CITIZEN OF LEIPSIC, possessed of ample means, and of the still rarer gift of knowing how to make them useful to his fellow-man, has just presented to the medical relief fund of that city and its neighbourhood two extensive estates in the Saxon Erzgebirge, specially purchased by him as places to which the poor labourer or artisan, recovering from illness, may be sent for the completion of his cure. Both estates—the one near the Schneeberg, the other near the Schwarzenberg—are finely situated in a healthful, well-wooded, well-watered region, and have been pronounced, on the highest medical authority, to be admirably adapted for their purpose. The donor has made it a condition of his gift that his name be kept undivulged.

Epileptic is referred to the Charities Register and Digest (published by Longmans) and our advertising columns for the information he seeks.

"MEDICAL ADVICE FREE: MEDICINE 2D. PER BOTTLE!"

To the Editors of THE LANCET.

SIRS,—Evidently "Pro bono Publico" made a slip of his pen when, in your last issue, he wrote: "What we object to solely is, not the formation of 'non-pauperising dispensaries,' but the gross and shameless advertising," &c. Now, as one of the forty complainants to the Irish College of Physicians of the "shameless advertising" of the "Clapham Dispensary"—*2d.* per bottle—proprietors, permit me to say, on behalf of myself and others who have signed the complaint, that we have an uncompromising objection to all dispensaries not "formed" in the usual orthodox way. The so-called "dispensaries" of private individuals we consider to have been at the root of the most disreputable form of advertising known to the profession; and even those of the Metropolitan Provident Medical Association have been advertised in a manner deserving the keenest censure of every respectable practitioner. Such "dispensaries" are but "cheap-jack" drug shops, and their evils to the profession and to the public have been exposed in your columns, and especially in those of some of your contemporaries, over and over again.

I am, Sirs, faithfully yours,

Stockwell-road, July 29th, 1889. R. H. S. CARPENTER.

To the Editors of THE LANCET.

SIRS,—Will you kindly insert this statement in your next issue? I spent ten weeks in the house of the doctor whose conduct has been recently criticised in your columns, and left there April 30th. To my certain knowledge, the handbills alluded to were not, and are not, placed under every knocker and into every letter-box in the whole district," as "Pro bono Publico" states in your issue of to-day. The dispensary in question is supported by the doctor who instituted it and her private friends. It is distinctly a charity, and is not "made to pay." Twopence per bottle does not even cover the cost of the actual drugs, much less defray the expenses of the house where the dispensary is carried on, or remunerate the women physicians who give their services. This is self-evident.

I ask you to be so courteous as to publish my letter, because I dislike the so-called "handbills" as much as any medical man in the neighbourhood; but in justice their distribution cannot be called "touting." I enclose my card, not for publication, but as a guarantee of good faith.

I am, Sirs, yours faithfully,

July 27th, 1889. M. L. S.

PUBLIC SPEAKING.

Beta asks for the names of any books which would afford help in the art of public speaking. Mr. Bright in one of his speeches mentions such a book.

HOW MANY TEETH TO MAKE A BITE?

To the Editors of THE LANCET.

SIRS,—I shall feel obliged for your opinion on the following case.

In a scuffle A was bitten by B on the arm. A asked me to examine his arm. I found four teeth marks of one jaw over the deltoid muscle, but no mark over the other jaw. I was followed into the witness box by another practitioner, who swore that it was a physical impossibility for B to bite, as he had no upper teeth. I saw B's mouth afterwards, and found that he had a full set of teeth in the lower jaw, with the exception of one of the lateral incisors gone, the others coming together to partly fill up the vacancy, and so causing the teeth to be rather widely separated, which corresponded exactly with the marks on A's arm. There was only one tooth in the upper jaw in front—viz., a lateral incisor, which had been loose for years. My opinion is that the loose tooth would give, and the jaw would impinge against the arm, while the lower teeth would cause the marks described. Is it a physical impossibility for B to bite? A had his coat on when the affair occurred.

I am, Sirs, yours faithfully,

July, 1889. A SUBSCRIBER.

*** Where all the teeth are lost in the upper jaw the lower teeth almost invariably bite against the gum, and this may from use in mastication become hard and dense, just like the upper gum of ruminants, in whom the upper incisors are normally absent. There is nothing strange therefore in severe injury resulting from the bite of such a person. The presence of the one incisor would make but little difference, but would be rather in the way than otherwise.—ED. L.

Dr. Geo. B. Beale.—Medical Institute, Edmund-street, Birmingham.

Astonished has forgotten to enclose his card.

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CLINICAL ESTIMATION OF THE SPECIFIC GRAVITY OF THE BLOOD.

DR. LLOYD JONES reminds us that the ingenious method of estimating the specific gravity of blood in small quantities referred to in our last issue (p. 183) was introduced by Prof. Roy of Cambridge, and that he (Dr. Lloyd Jones) employed a modification of Prof. Roy's plan.

Dr. Mott.—We shall be pleased to receive the paper.

THE THERAPEUTIC ACTION OF SENNA PODS.

To the Editors of THE LANCET.

SIRS,—If Dr. Macfarlane will turn to page 448 of Woodville's Medical Botany he will find an interesting account of the uses of senna pods. I quote a few words: "Mesue likewise seems to prefer the pod to the leaves, as being a more efficacious cathartic; but the fact is the contrary, for it purges less powerfully than the leaf, though it has the advantage of seldom griping the bowels, and of being without that nauseous bitterness which the leaves are known to possess."—Yours truly,

July 27th, 1889. A. ST. CLAIR BUXTON.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Gairdner, Glasgow; Dr. G. Johnson, London; Dr. Hare, London; Sir Dyce Duckworth; Dr. Mott, London; Mr. Edwards, Comvil; Dr. Thurstan, Scarborough; Dr. De H. Hall, London; Dr. Hayes; Lord Sandhurst, London; Mr. G. A. Wright, Manchester; Mr. Holder; Mr. Corke, Baschurch; Mr. Hamer, London; Major-General Wardell; Dr. Percy Smith, London; Mr. A. St. Clair Buxton, London; Dr. H. Macdonald, Dundalk; Messrs. Quibell and Co., Newark; Messrs. Burroughs and Wellcome, London; Dr. Barnes, Carlisle; Mr. Tritton; Mr. Duncan, Glasgow; Dr. Fountain; Mr. F. W. D. Long, London; Mr. Bishop, London; Herr Staehely, Darmstadt; Mr. Warner, Sheffield; Dr. F. Taylor, London; Mr. Seymour, Coventry; Drs. W. S. Colman and J. Taylor, London; Dr. G. B. Beale, Tottenham; Messrs. Wright and Co., Bristol; Mr. J. H. Rutherford, Newcastle-on-Tyne; Dr. Fletcher Beach, Dartford; Mr. Beattie-Campbell, London; Dr. Macnaughton Jones, London; Mr. Steer, Plymouth; Mrs. Allen, Ilminster; Mr. F. Johnson, London; Mr. R. H. S. Carpenter, London; Dr. Somerville Smith, Sittingbourne; Professor Mackintosh, Dublin; Dr. Braxton Hicks, London; Mr. J. A. Dow, London; Mr. W. Carnie, Aberdeen; Mr. E. H. Hare, London; Dr. Thorburn, Rusholme; Mr. Morton Smale, London; Dr. Pozzi, Paris; Mr. T. Cook, London; Mr. Dudley Hardy, London; Mr. Field, London; Dr. Tylecote, Staffs.; Dr. Lloyd Jones, London; Mr. Bailey, Leamington; Mr. Sumpter, Sheringham; Dr. Herschell, London; Mr. Wingrave, London; Mr. G. H. King, London; Mr. M. Sheild, London; Dr. A. Duke, Dublin; Mr. Newman, London; Dr. A. Bowie, London; Mr. J. Waldy, Catterick; Dr. W. Ewart, London; Mr. Rangoon, St. Leonards; Dr. Thurmann, Highgate; Mr. Hather, Cambridge; Mr. C. Steele, Clifton; Mr. Biddle, Kingston; A Subscriber for Thirty Years; Cornwall County Asylum; No. 814; Beta; M. L. S.; J. G.; Picturesque, London; Glasgow Sick Poor Association; Medicus, London; M. O. H.; Newport and County Infirmary; Schott and Pulsford M'F'G Co.; Norfolk and Norwich Hospital; Monsall Fever Hospital; the Infirmary, North Staffs.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Smith, Worcestershire; Mr. Street, Lancashire; Messrs. Oliver and Boyd, Edinburgh; Mr. Martindale, London; Messrs. Robbins and Co., London; Mr. Arnison, Hemel Hempstead; Messrs. Allen and Hanburys, London; Mr. Johnson, London; Messrs. Roberts and Co., London; Mr. Goss, Hayes; Mr. Hogg, Leeds; Dr. Adam, West Malling; Mr. Hughes, Halstead; Miss Pudney, Essex; Mr. Riddle, London; Mr. Fernandez, Paignton; Mr. Skinner, Rye; Mr. Godfrey, Northampton; Mr. Christmas, Watford; Mr. Brown, Westgate-on-Sea; Mr. Black, Burnley; Mr. Jones, Barmouth; Messrs. Smith and Botwright, London; Rev. Dr. James, Winslow; Messrs. Moore and Co., London; Mr. Eswege, London; Mr. Smith, Eccles; Mr. Queely, Queensland; Mr. Crickmay, Suffolk; Mr. Gray, Bristol; Mr. Dean, Edenbridge; Mr. Braxandall, Shipley; Mr. Hughes, Birmingham; Mr. Skarp, Manchester; Mr. Taylor, Leominster; Mr. Schofield, Wisbech; Mr. Thompson, Surrey; Mr. James, Glam.; Major Pead, Dulwich; Mr. White, Manchester; Mr. Potter, Bradford; Mr. Boehm, London; Dr. Popham, Dulwich; Mr. Dukes, Rugby; Messrs. Rankin and Borland, Kilmarnock; Mr. Sunderland, Bolton; Messrs. Keay and Co., Eastbourne; Mr. Coulson, Birmingham; Messrs. Kilner Bros., London; Mr. Heywood, Manchester; Messrs. McFarlan and Co., London; Mr. Hutchson, Alford; Dr. Adams, London; Mr. Steed, Plymouth; Mr. Earle, Brighton; X. Y., London; W. J. W., London; Dunlo, London; F. W., Birmingham; H. I. H., Highgate; Dewsbury and District General Infirmary; Doctor, London; Royal Southern Hospital, Liverpool; Florence, Yorks; Rej, London; West Kent General Hospital; Lisbon; Neoplasm, London; M. N., London; Lady Superintendent, Glasgow; Xema, London; Surgeon, Bath; Edina, Halifax; Anatomy, Liverpool; Gentian, London; Nil Desperandum, London; Permanent, London; F., Birmingham; Medical Pupil, Bridport; Ecraseur, London; Delta, London; Medicus, London; A. B. C., London; Miss L., London; M. J. R., Stroud; X. L., London; F. P., Birkenhead; Medicus, Lancashire; Scapula, London; L.R.C.P.Lond., London; T. N. G., Worthing; Æsculap, London; Omega, London; Medicus, Leamington; U. C. H., London.

Glasgow Herald, Surrey Advertiser, Reading Mercury, Weekly Free Press and Aberdeen Herald, East London Observer, Industries, The Architect, Mining Journal, Hertfordshire Mercury, Poet-Lore, &c., received.

Medical Diary for the ensuing Week.

Monday, August 5.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M. and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations P.M., and each day in the week at the same hour.

Tuesday, August 6

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

Wednesday, August 7.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, August 8.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Friday, August 9.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, August 10.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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Agent for the Advertisement Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

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Valedictory Address,

DELIVERED AT THE

PRESENTATION OF PRIZES AT THE ARMY MEDICAL SCHOOL AT NETLEY,

On August 2nd, 1889,

BY SIR DYCE DUCKWORTH, M.D.,

PHYSICIAN TO ST. BARTHOLOMEW'S HOSPITAL, FELLOW AND TREASURER OF THE ROYAL COLLEGE OF PHYSICIANS.

GENTLEMEN,—It affords me much gratification to come amongst you and to bear a part in the ceremonial of to-day, and my thanks are due to the courtesy of my good friend the Director-General of your department, and the Senate of the Army Medical School, for the honour they do me in inviting me on this occasion. This is not my first visit to Netley. In 1866 I and a small party of friends had a narrow escape from a watery grave in front of this Royal Hospital, being all but capsized in a small sailing-boat. We landed here in a very drenched condition, and were at once taken care of by that great and good man whose name is, and ever will be, a talisman in this place, Dr. Edmund Parkes. I here and then first made his acquaintance, and I am proud to remember that I knew him in the flesh. About two years ago I had the honour of being present at a prize-giving ceremonial in this theatre, when my friend Sir Thomas Crawford directed your department. From my earliest student days I have always had a high regard for Netley, and for the excellent work done here both by its professors and pupils. I say without hesitation that this school has been one of the most valuable centres of medical, surgical, and hygienic training in the empire, and its benefits have radiated hence to all quarters of the globe, and been fruitful in numberless instances, as well to the civil as to the military communities they have reached. This is surely a strong assertion to make on behalf of any institution, but it cannot, I believe, be denied in respect of Netley. This school has been a model for others, and has excited admiration on the part of all who have appreciated its merits. When, therefore, I learned some time ago that it was in contemplation to curtail the advantages of this school, I confess that I was astonished. I could only account for such a proposal as the outcome of a spirit which is too prevalent in the present day—a spirit which is satisfied with nothing as it is, and which seeks to uproot and disturb everything for the mere sake of change, and in response to a restless phase of unphilosophical and purely experimental radicalism. I had thought that this school was rather undermanned, and needed, if anything, further development of its powers for usefulness. And now, I understand, the proposal is that those who would naturally come here to be trained for service in India should receive their training in that country. I know a good deal about students of medicine, having had to do with them for nearly thirty years. I have been in India, and know something of the conditions of life in that great dependency; and I form the opinion that such a plan as is proposed will prove little less than a failure. India is not a country in which Europeans can readily pursue with zeal and profit any line of study. I am well aware that this assertion can be instantly challenged, and the fruitful labours of men like Norman Chevers, Fayrer, Vandyke Carter, Lewis, Ewart, Cunningham, with many others in your department alone, be adduced in contradiction to it. While accepting this, I yet hold that the conditions under which the average young candidate would receive his training in India would be unfavourable, and the results distinctly less satisfactory than those which can be attained in this school.

Lest I should appear to be unmindful of the excellent work done in the universities and medical colleges of India, I would add that I fully appreciate this, and often wonder how so many of my countrymen can toil so untiringly and successfully under tropical conditions. I could better understand the necessity for the change proposed were it shown, which it has not been, that the training given here is inadequate, or that it could be conducted by better teachers, and with more complete equipment in any part of India. I can only express the hope, therefore, that your successors may long frequent these walls and find higher advantages, if possible, than you have done.

Since I was last here you have suffered two great losses in the persons of Dr. de Chaumont and Dr. David Boyes Smith. They were both friends and fellow-graduates of mine. It is not for me, here and now, to try to gauge the full measure of the loss to this school of two such men. I may add my humble testimony to the worth of each of them, and recall the solid scientific attainments of the one, recognised the world over wherever the subject of public health is studied; and remind you of the modesty, high-mindedness, and heroism of the other, whose merits were best known to those who knew him best, but whose noble spirit will long inspire his pupils and his brother officers. The examples and influence of men of such parts as these constitute enduring traditions for the school they served, and I would bid you to emulate their conduct and moral loftiness.

I must now offer you my congratulations on having completed your term of study here, and in particular add my commendation to those who have won honours in the school. Netley honours are not easy to secure; they can only testify to solid and good work, and I cannot doubt that here, as elsewhere, the officers who gain prizes will probably be amongst the best at a later period of their career. I say, advisedly, *amongst* the best, for nowhere is "the race always to the swift"; and I confess to some degree of shyness coming over me when I find myself in the presence of the man who carries off too many honours. I am rather afraid of that man. He is not always quite human, and in my experience he is not always the biggest man of his batch twenty years afterwards. In these terrible days of competition, a man must strike out vigorously, and put his back into any work he wishes to excel in; no harm comes of that. But there is a grasping spirit abroad which sets itself to gain everything, and goes so straightly to the goal that it loses a great deal of humanity and sweetness in the process. The professional prize-taker picks up his medals and books, and sits down again; but he is often rather alone with himself in his own little world, and may perchance have failed to cultivate and cement friendships, to develop his muscles and his agility, and in short to be quite the good "all-round" fellow he ought to be. This is a shocking heresy to utter at such a time, and in such a place, but I believe you would like me to say to you what I really think of these matters.

I have certain knowledge of the fact that competition, as such, has done much to injure the *camaraderie* in all the services it has been introduced into, and I am old-fashioned enough to believe in the *invincible* power of *camaraderie*, especially in our fighting departments. Hence, I have no doubt that some of the "passmen" of to-day will in the future do good and true service, and I suppose it is not beyond the bounds of probability that even in the person of one of them now before me I may be addressing a director-general of the future.

I congratulate you on taking service under the Crown. Most of you, I believe, will shortly proceed to India. Some of you are what I may term "seasoned" officers, and as you are the seniors, my remarks are for you in the first instance. The fact that you are here is itself much to your credit, and also shows wisdom on the part of the heads of the department. I can well understand your position. I had the honour to be an assistant surgeon in H.M. Navy at an early period of my career. I therefore know something of the delights of discipline, and of being in a position to do what one is told, and not what one likes. In the first few years of your service it is hardly possible for you to see much practice or to bear much responsibility. With increasing rank these come. But you naturally wish to furbish up your knowledge, and to know more and more of your professional business, to learn the newest methods of treatment, and to take part in carrying them out. Here you have every means for this at your disposal. Your presence here is also valuable for your juniors; but it has also, I hope, entailed upon you the responsibility of setting them high examples, and of attracting them to their duties and to the service they have chosen.

To those of you who will soon begin work in India I may well bid God speed. Your sphere will be full of novelty and interest in that great country. You will see the British soldier at his best, and take your respective parts in

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that most marvellous accomplishment, the holding of the vast dependency of India, with its teeming millions, in the hands of a comparatively few thousands of trained troops. You, as part of that army, begin well, for you go out at an age when it is proper for an European to begin life in the tropics. It is a very different matter, as I fear you will soon learn, for an immature man to begin a man's work in India. I have had to do with five of the great railways in India for twenty-three years, and have, therefore, had some experience of the climatic and other influences of that country on Europeans of all ages. That experience compels me to affirm—and I do so in all seriousness, for it is a grave matter—that it is wrong to send a young man to do hard work in India until he is twenty-three years of age. My hospital experience has long since taught me that a large number of the recruits for the Queen's regiments enlist at the ages of sixteen and seventeen, and I have known lads of seventeen landed in India and reckoned as efficient soldiers. I have also known them come back again within eighteen months, used up and ruined in health. My experience, on the other hand, goes to show that after the age of twenty-three a man can do man's work in the tropics, and commonly ceases to be as vulnerable as he would have been in the six previous years. Those are very critical years in any young man's life. You will remember, for one thing, that the epiphyses of the bones are not firmly ossified till the age of twenty-two, and if development is not completed in the osseous system, we may fairly assume that it is still imperfect in other systems. In any case, the power of resisting endemic fever, solar influence, and enteric fever is greatly increased in the critical years I have mentioned, while at the same time there is often an attainment of greater moral stability. I say nothing as to the way in which such a waste of military power should be met. I know there are difficulties in securing and retaining matured soldiers, but your business and duty as guardians of the health of our troops compel you to make these mistakes known, and to persist in pointing out faults which come officially under your cognisance. Do you suppose that if these facts were known and appreciated by the tax-paying public, that the present wasteful system of sending to many immature soldiers to the tropics would be continued? You must never cry Peace when there is no peace.

India is the best country wherein to learn many things that you will require to know in military medical practice. All is real and "work-a-day," and you will find fewer "make-believes" there than at home. I suppose it is not too much to assert that but for our Indian military experience, our fighting capacity as a nation would be vastly inferior to that now possessed by us; and in using the expression fighting capacity of an army, I distinctly include the Medical Department, which always has formed, and will continue to form, one of the most important units of any aggressive or defensive force. Your department is probably not less perplexed with grievances than any other administrative one. I forbear to strike any notes to-day which may jar on the harmony which should prevail on such an occasion as brings us together, but I know that one *quæstio vexata* which much concerns you has lately been discussed before a Commission, and with the results of its deliberation we are not yet familiar. The points immediately concerned in this important question of rank relate, as I believe, exclusively to military matters, and hence the mass of the civilian profession is hardly qualified to form an opinion that should carry weight with it on such a subject. (Your brethren in civil life, however, are quite competent to appreciate such an indignity as had lately to be submitted to by some of your seniors in India, when the *insignia* of their position as members of the Viceroy's medical staff were taken from them. I trust to hear that this matter will soon be rectified.) The question I take to be important, because it concerns not only the comfort and peace of mind of the individual officers concerned, but also the harmonious working of our military forces, and, what is of greater moment, the sanitary welfare of the army. You have always sought and found, in any legitimate efforts, support from the profession at large, and this will assuredly not fail you now, if it should be needed. But I would utter a warning against agitations, and any but constitutional means of remedying grievances, if they exist. When I remind you that you are soldiers, I have in view the especial virtues of such men—viz., discipline and loyalty,—and, above all, their happy freedom from the petty thraldom of politics.

What the country has to look for in medico-military matters is perfect efficiency, and the endeavour to secure that knows, and shall know, no end. The question arises here whether the modern conditions of your department secure the best medical attendance for the officers, rank and file, and all persons belonging to an individual regiment. I understand that your arrangements are adapted with a view to war time, and not to meet the wants of a state of peace. As, happily, our troops are more engaged in keeping the peace than in making war, it is a fair question to ask whether the old system of regimental surgeons is rightly done away with. I have been led to form the opinion that it was a mistake to detach medical officers from, at all events, some continuity of service with regiments, and I venture to state that I think it would be well if one or two surgeons were definitely attached for a term of years to each regiment. The advantages of this plan are at once obvious, and I conceive that it might be carried out without any violent dislocation of existing arrangements. In war time surgeons are attached to regiments, but they then do not know the men, and the men do not know the surgeon. It is impossible to work both in quarters and in the field on a Procrustean system, and we must not look for guidance in this matter to the military services of other countries, inasmuch as no other army is called on for such varied duties and experiences as our own.

I regret to find that the military authorities are beginning to call on civilian members of the profession to do military medical work for them. I fail to see the necessity of such a proceeding. There can be, and there ought to be, no difficulty in finding trained officers to do this work, and if such are ready to act, I consider it unfair to pass them by.

I believe that young men who now enter either the Army Medical Department or the Indian branch of it are to be congratulated on the careers they have selected. The "plums" of private practice in civil life are now none too many. Our profession is, in fact, overstocked, and the strife to gain a living in it is very great. Competition is now so keen that some of our humbler brethren are compelled to undertake duties entailing anxiety and serious responsibility for the most miserable remuneration. In times of commercial depression young men are wont to resort to our profession, and so, of late years, our ranks have been preternaturally filled. Happily, this source of supply has now ceased to run. In my opinion, the most wholesome checks on over-admission to our ranks will be found in the institution of higher entrance examinations, and in the prolongation of the curriculum of study from four to a minimum of five years, the last year being mainly devoted to clinical work. Amongst the peculiar advantages of your position are, that you see much of the world, and may thus become in the best sense men of the world; that you have leisure for higher mental cultivation if you will avail yourselves of it; and that after twenty years' service you can retire with a pension, still young men, and take up your profession in civil life, with excellent chances of advancement. Not many men at the age of forty-two can make a fresh start in life with an equipment so solid in all respects as yours may be at that time. I maintain that with such prospects the career you have chosen is a very desirable one, and should attract some of the choicest men from every great school of medicine.

Of your teachers here it would ill become me to speak. The names of many of them, past and present, are household words in our profession. I know that your department as a whole venerates them, and you best of all know the worth of those who have so lately guided your studies. For myself, I can only say that I should count myself happy to sit at the feet of Maclean, of Longmore, and of Aitken, and to imbibe not only the lore they could infuse into me, but also some of the sterling qualities and graces that they bear aloft so well. It is for you to run with, and carry on to others, the torches of knowledge which they have put into your hands.

I take this opportunity, which seldom comes to one in my position, of making a few remarks before military surgeons on the subject of the abolition of the Contagious Diseases Acts. I regret to think that you will soon have sad experience of the unwisdom of that measure. You and I are young enough to hope to see those Acts restored to their place on the statute book. That they were ever repealed testifies to a degree the ignorance and folly that we, as a people, should be ashamed of. We can but regret and pity the want of resolution and firmness in those who control the affairs of the nation, and who find themselves charged with the

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power to govern, but unable to fulfil the office of a government, yielding to sensational clamour, and letting loose again a plague that we had in great measure controlled. Many hard words have been uttered in this noisome controversy; but remember that "hard words break no bones." You who agree with me, and who have the best right to your opinions, know, or soon will know, too well how grievous is the havoc wrought by the undoing of this legislation. We care not for any amount of obloquy that may be uttered against us for denouncing this folly, and we must not cease to declaim vigorously against it. It is almost grotesque to watch the undulations and inconsistencies of public opinion in respect of contagious diseases. A few days since the inhabitants of London were scared by the discovery of a solitary, and practically harmless, leper in the community; but the five millions of the metropolis are quite unconcerned in the presence of perhaps twenty thousand or more persons suffering from all forms of distinctly contagious syphilis. That is of no consequence, I suppose. Not only for the navy and the army, but for every city, town, and community, should a Contagious Diseases Act be passed. That is the logical claim forced on us as physicians and guardians of the public health, and we urge it no less in our capacity both as Christian men and loyal citizens. It is very satisfactory to learn that the new local governing body in Malta have at once restored these Acts, and are enforcing them with much benefit to the garrison and the town of Valetta.

Gentlemen, it is one of the penalties of venturing to think and act for yourself that you are often alone and exposed to obloquy and misapprehension. It is not a popular course to follow, but popularity is, after all, a very poor thing. Our duty in all the concerns of life is to do what we believe to be right, and to submit to any consequences. I have detained you too long. In conclusion I have only to express my best wishes for the career of each one of you. Your position is already a very enviable one. You have a splendid sphere of duty. You will go out to see England beyond the seas. You will come in contact with some of the best men who are doing their best work. You will aid your country in maintaining in vigour her right to govern other nations; you will, I feel sure, carry everywhere with you the traditions, not only of this great school, but of your respective universities and medical colleges; you will dispense to others the blessings you have learned to value in our common mother country; you will always think and act as educated British gentlemen; and you will, I hope, earn fresh laurels for medicine, and especially for that branch of it you are now so well-fitted to represent. Let me urge you in particular to cultivate firmness and dependability of character, qualities which are quite consistent with the graces of modesty, tact, and good temper. Success in any calling is as much, if not more, a matter of personality as of great accomplishments. In your profession, above all, duty has the first claim, and all else must bend before it. "He who serves best afterwards rules best." And you will, I hope, not learn to ignore or despise sentiment. I have been speaking of sentiment already, but I then alluded to mawkish and hysterical sentiment. None of that, if you please. But in matters military, medical, and otherwise, there are, and ever will be, true and noble sentiments. Yes, gentlemen, there is a sentiment in a button, in a badge, in a monogram, and in a facing; there is a sentiment in a reminiscence; you know it already, you will soon know it better; and any one of these, or of a hundred other like things, may come in a moment to nerve you to face an ugly duty, to shun an evil course, to set a bold example, or, if need be, even to meet the death-stroke of a hero. *Vale!* And to each one of you I add, "*quod felix, faustumque sit!*"

EPSOM COLLEGE. — Mr. France has presented another Female Scholarship at St. Anne's School to the Council of Epsom College. This is the sixth scholarship he has purchased. Mr. France is doing good with both hands. With the one he gives a large sum of money to a most deserving institution, with the other he enables the members of the council of the College to give in perpetuity a first-rate education, free of all charge, to six girls, the orphan daughters of medical men.—Lucas, Mair, Norman, Barron, Griffiths, and Hardcastle, pupils of Epsom College, have all passed in the first Division at the Matriculation examination of the University of London.

Remarks
ON
PROFESSOR BURDON SANDERSON'S THEORY OF ASPHYXIA.

BY GEORGE JOHNSON, M.D., F.R.S.

IN my recently published Essay on Asphyxia I have suggested as a probable explanation of Dr. Burdon Sanderson's statement that both sides of the heart are equally distended immediately after death from apnœa, that such a result might be brought about by a dose of curara sufficiently in excess to paralyse the vaso-motor nerves and the arterioles.

Since the publication of the essay in question I have read Dr. Sanderson's Croonian lecture on the "Influence exerted by the Movements of Respiration on the Circulation of the Blood,"[1] and also the abstract of the same lecture in the Proceedings of the Royal Society, 1867. In the lecture, at p. 586, the results of experiments with woorara[2] upon four dogs are described, and it is stated that "in the two last experiments the quantity used corresponded to one-tenth of a gramme of solid woorara."

Dr. Rutherford, in his lecture on the Circulation,[3] says that "the dose of curara should be just sufficient to paralyse the voluntary muscles; if the dose be excessive, the vaso-motor nerves are also paralysed. The amount given should be six milligrammes for a rabbit in winter and three milligrammes in summer; twelve milligrammes for a small dog and eighteen milligrammes for a large one."

Dr. Sanderson's dose of one-tenth of a gramme, which is, in other words, one hundred milligrammes, was more than five times the amount which Dr. Rutherford employs for a large dog. It is not, therefore, surprising that the results obtained by these two experimenters should be contradictory.

Dr. Sanderson attributes the increased systemic arterial pressure which occurs during the first stage of apnœa to the violent respiratory efforts. He says:[4] "It may be concluded that the extraordinary elevation of arterial pressure which has been long known to occur during the second minute in death from apnœa is not due, as was supposed by Dr. Alison and Dr. John Ried, to obstruction of the capillary vessels, either pulmonary or systemic, but to the violence of the respiratory efforts. The cavity of the chest being closed, the force exercised by the respiratory muscles expresses itself in variations of tension of the enclosed air, which are communicated through the intra-thoracic arteries to those outside of the chest, producing those violent oscillations of the dynamometer which have been referred to. In support of this inference, it was shown that in an animal under the influence of woorara (when all respiratory movement ceases while those of the heart are unaffected), the process of apnœa is not only of greater duration, but is not attended with any of those greater disturbances of the circulation which have been hitherto attributed to capillary obstruction. The gradual extinction of the force of the contraction of the heart is indicated by a slow and uninterrupted subsidence of the arterial pressure."

Now, in justice to Dr. Reid, I maintain that no one can have carefully read his most interesting and instructive paper on the "Order of Succession in which the Vital Actions are arrested in Asphyxia" without perceiving that he clearly distinguished between the steady increase of arterial pressure resulting from the impeded transit of unaerated blood through the minute systemic vessels and the greater paroxysmal increase which he correctly attributed to the violent respiratory movements and struggles of the animal.[5]

If Dr. Reid's experiments left any doubt as to the existence of increased arterial pressure easily distinguishable from that caused by the struggles of the animal, Mr. Erichsen's[6] carefully conducted experiments upon animals in which muscular movements were annihilated by pithing should suffice to convince the most sceptical. In

[1] Philosophical Transactions, 1867. [2] Another name for curara.
[3] THE LANCET, Feb. 17th, 1872, p. 213. [4] Abstract, p. 393.
[5] See pp. 39 to 41 of his Physiological, Anatomical, and Pathological Researches. [6] Edinburgh Medical and Surgical Journal, 1845.

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one experiment, after artificial respiration had been suspended, Mr. Erichsen found that the mercury in the dynamometer, which had stood at from 3½ in. to 4 in., rose to from 5¾ in. to 6½ in., at which it stood for about two minutes. In another experiment the mercury rose from between 3½ in. and 4½ in. to 6½ in. and 6¾ in. In a third experiment the mercury rose 2 in. or 2½ in. above the level at which it stood when inflation of the lungs was suspended.

These experiments should have sufficed to place beyond all controversy the accuracy of Dr. Reid's original statement, that, contrary to his own preconceived idea, there is, for a period of about two minutes after respiration has ceased, an increase of systemic arterial tension and pressure, the result of an impediment to the passage of unaerated blood through the terminal systemic vessels.

Dr. Rutherford's experiments upon a dog paralysed by a moderate dose of curara and with the chest and pericardium opened, have shown that with the increased systemic arterial tension during the first stage of apnœa, the pressure within the left cavities of the heart is so great as to distend them to an inordinate degree. Now that we have proof of the excessive dose of curara employed by Dr. Sanderson, we can understand the discrepancy between his results and those of other observers. The vaso-motor nerves, both pulmonary and systemic, being paralysed, the regulating and controlling power of the arterioles is annihilated, there is no increase of pressure in the systemic arterioles, therefore no distension of the left cavities of the heart. "The process of apnœa is of greater duration," for the reason that the pulmonary arterioles being paralysed, have lost the power of arresting the flow of blood through the lungs. The apnœal process is therefore prolonged, as it is in newly born animals with a patulous foramen ovale, which allows the blood to pass directly from the right to the left side of the heart, and thus to evade the controlling influence of the pulmonary arterioles. The amount of blood on the two sides of the heart after death is therefore equal, or nearly so; and, as Dr. Sanderson says, "the gradual extinction of the force of the contraction of the heart is indicated by a slow and uninterrupted subsidence of the arterial pressure."

The vaso-motor paralysis resulting from an over-dose of curara is so far instructive that it affords confirmatory evidence that the early systemic and the later pulmonic obstruction during the progress of apnœa are results of contraction of the arterioles. For this indirect proof of the influence which the unparalysed arterioles exert upon the circulation during the successive stages of apnœa we are indebted to Dr. Sanderson's experiments with excessive doses of curara; but, unfortunately, the entirely exceptional condition thus induced has led Dr. Sanderson to contradict the statements of Dr. Alison, Dr. John Reid, and many other accurate observers, and to attempt the revival of the antiquated theory of Bichat, which assumes that the immediate cause of death from apnœa (asphyxia) is not the arrest of the pulmonary circulation, but cardiac paralysis, consequent on the circulation of venous blood through the coronary vessels—a theory which, in my essay on asphyxia, I have proved to be inconsistent with indisputable facts. Before the publication of my essay, I had carefully studied Dr. Sanderson's chapter on Respiration in the "Handbook for the Physiological Laboratory," but I had not read his Croonian lecture at the Royal Society, and therefore, not knowing what dose of curara he had employed, I could only surmise that his exceptional results were due to vaso-motor paralysis caused by excessive doses of the poison. That this is the true and complete explanation of the facts has now, I think, been conclusively proved.

SYMPATHY WITH A FALSELY-ACCUSED SURGEON.—On the 30th ult., a dinner was given at Edmonton, attended by fifty gentlemen (many of whom were professional friends), to Mr. W. Jones, L.R.C.P., L.R.C.S.Edin., of Upper Edmonton, as an expression of sympathy on the trying circumstances to which he had been subjected by a recent prosecution on a cruel and grave charge preferred against him, and tried at the Central Criminal Court, of which he was completely acquitted, and left the court without a stain upon his character. A fund is being raised to defray the legal expenses incurred by Mr. Jones in meeting the groundless charge, and the present result of the effort is given in another column (page 300).

A CASE OF

PAROXYSMAL HÆMOGLOBINURIA WITH EXPERIMENTAL OBSERVATIONS AND REMARKS.[1]

BY JOHN S. BRISTOWE, M.D.,
AND
S. MONCKTON COPEMAN, M.A., M.B.

[*Note.*—The following paper has been written by myself and in the first person, mainly because I found it more convenient to write it in that form. It is essentially, however, the joint production of Dr. Copeman and myself. I was anxious that an experimental investigation of the case should be made, and asked Dr. Copeman to carry out my views. The nature of the experiments to be performed, and the object for which they were performed, were matters of constant discussion between us. But the actual experiments (the account of which forms the great bulk of the paper, and nearly all that is interesting in it) were performed by Dr. Copeman alone. The concluding remarks represent our joint opinions.—J. S. B.]

James G——, an omnibus conductor, aged forty-one, was admitted under my care on Jan. 3rd. He had had syphilis twenty years previously, followed by a secondary eruption, but otherwise had had good health down to January, 1886. He had never had rheumatism or ague. He is a native of London. In the winter of 1885-86 he began to suffer from coldness of the extremities and from occasional "dying" of the fingers; and in January he was attacked with what was supposed to be frost-bite of the middle three toes of the right foot and all the toes of the left. He was treated for this affection in the London Hospital, where he remained about six weeks. During this time he lost the nails of the affected toes. He remained fairly well during the following summer; but during the winter months of 1886-87 he suffered, whenever he was exposed to cold, from coldness of the extremities, often attended with "dying" of the fingers, shivering, and headache, and followed by the discharge of thick, porter-like urine. He complained also of pain or difficulty in swallowing, and was often told that he was becoming jaundiced. In each succeeding summer he enjoyed good health; in each succeeding winter his malady recurred. Dr. Acland sent him into the hospital just as an attack was passing off.

The patient was a fairly well-nourished man, with a pale sallow complexion, but some rosiness of cheeks, due to persistent capillary enlargement. The sclerotics were slightly yellow. There was no evidence of disease either in the thoracic or in the abdominal organs. His tongue was clean; his appetite good; his bowels confined; his pulse 60, regular; his temperature normal. His urine had a specific gravity of 1018, was dark-coloured, clear, acid, contained a little albumen, and gave a blue colour with guaiacum and ozonised ether. The next day it was normal.

Excepting that the man remained somewhat anæmic and sallow, that when washing in cold water his fingers (mainly the second, third, and fourth) were apt to "die," and that he occasionally suffered from uneasiness after food and from nausea, he continued for the next ten days in good health. The equable temperature of the ward evidently agreed with him. Instead, however, of discharging him, and thus ensuring for him the frequent recurrence of his attacks, I determined, with his sanction, to keep him in the hospital for some time, and to perform a few experiments upon him, with the object of investigating the nature of his malady. As his clinical history in the hospital is practically only a record of these experiments, conducted by my friend Dr. Copeman, I will limit my notes of his case to them almost exclusively.

EXP. 1 (Jan. 14th).—He went, well wrapped up, between 10 and 11 A.M., for a three-quarters of an hour's walk on the hospital terrace. The morning was not very cold, but on his return he was cold and bluish, and shivered for about an hour, even though he sat over a warm fire. His hands generally were livid, and seemed somewhat swollen, and the second, third, and fourth fingers were cold and white. His feet also were very cold, but to the eye presented nothing

[1] Read before the Medical Society of London, April 29th, 1889.

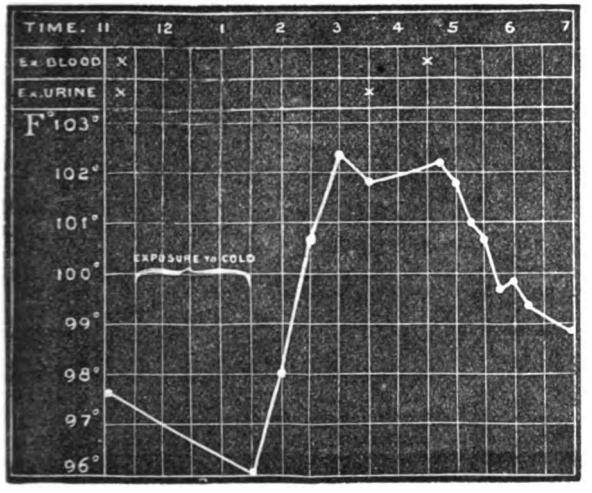
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remarkable. His throat felt swollen, and it was painful to swallow; and he had a feeling of "pins and needles" in the tip of his tongue. He lost his appetite during the day, and consequently took no dinner. At 12 his temperature had risen to 101°, at 4 it was 100·2°, and at 8 in the evening 98°. The urine passed before his exposure had a specific gravity of 1013, was pale, clear, and free from albumen; that passed two hours after his exposure had a specific gravity of 1020, was of a dark reddish-brown colour, depositing an abundant sediment, highly albuminous and acid, and presented all the usual chemical and microscopic characters observed in cases of hæmoglobinuria. The evening's urine was the same in quality, but contained considerably less hæmoglobin; and that passed in the course of the night still presented slight traces of blood-colouring matter. The next day he was in his usual health; but his blood, examined with the microscope, showed little tendency in the corpuscles to form rouleaux, and these bodies to be generally crenated or otherwise misshapen.

EXP. 2 (Jan. 17th).—The patient went out on to the terrace at 9.30 A.M., and remained out until 11.30. The morning was not cold, and, although on his return to the ward he looked chilly, he did not shiver or feel ill. Nevertheless, the temperature had risen to 100° by 2.30 P.M., and he had a marked attack of hæmoglobinuria. The sample of urine passed two hours and a half after his return was acid, had a specific gravity of 1024, and contained a large quantity of hæmoglobin; that passed in the evening had a specific gravity of 1010, was acid, contained albumen, had a distinct red tinge, and gave the guaiacum reaction. A drop of blood was removed from the finger late in the evening and gave the following results: "Examination with the hæmocytometer showed that, although the colour of the blood did not appear to be greatly lessened, the number of corpuscles was very small, there being only about 2,760,000 in the cubic millimetre, instead of about 5,000,000, the normal number. The colour of the individual corpuscles was quite up to the normal, but there was much variety in shape and size, some having almost twice the diameter of others, and there was only a slight attempt at the formation of rouleaux. The blood-platelets were increased in number, and here and there, floating in the liquor sanguinis, were irregular granular masses of pigment, probably hæmatin. The specific gravity of the blood was rather low, being 1047."

EXP. 3 (Jan. 23rd).—The patient went out for a walk at 11.30 A.M. and remained out till 1.30 P.M. The day was

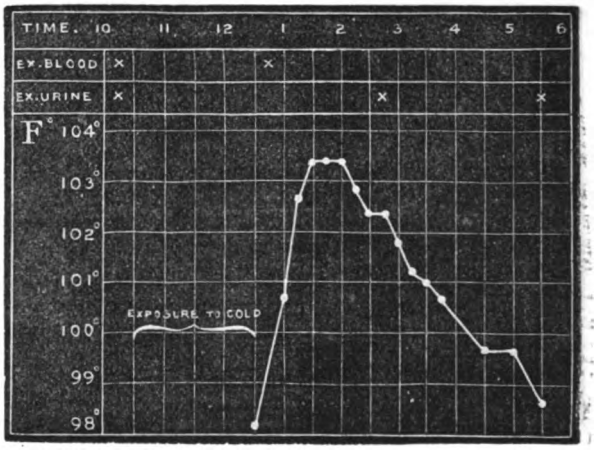
CHART 1.



mild and rather foggy, and, so far as his feelings were concerned, the exposure had no injurious influence over him. He did not shiver. His temperature before going out and on his return was subnormal. At 2 P.M. it was still only 98°. At 2.30 P.M., however, it was 100·6°; at 3 P.M. 102·4°; and at 4.45 P.M. still 102·4°. After this it gradually fell, being at 7 P.M. 98·8°, and at 8 P.M. 98·2°. The patient's urine before going out had a specific gravity of 1029, was acid, and free from albumen and blood. The next specimen, passed at 3.30 P.M., was of specific gravity 1024, acid, of the colour of dark-brown sherry, and contained hæmoglobin. A specimen passed at 10 P.M. was perfectly normal, and had a specific gravity of 1013. The blood was examined both before and after the walk, and the following is the report concerning it: "Before exercise it was noticed that the patient did not seem nearly so anæmic as he was at the time of the last observation, and this was borne out by the fact that the corpuscles, as estimated by the hæmocytometer, amounted to 3,665,000 in the cubic millimetre. The corpuscles did not form perfect rouleaux, and varied somewhat in size; but their colour appeared to be normal. At 4.30 P.M. the blood was again examined. The number of corpuscles in a cubic millimetre had fallen to 2,970,000. There was no attempt at the formation of rouleaux, and many of the corpuscles no longer retained their circular form. Floating in the plasma were seen masses of amorphous hæmatin, and here and there small colourless crystals, with pointed ends, resembling the proteid crystals described by Charcot. The specific gravity of the blood had fallen about 5 degrees. (See Chart 1.)

EXP. 4 (Feb. 5th).—The patient took a walk on the terrace from 10.30 A.M. till 12.20. The morning was cold. A specimen of urine passed before exposure was normal. The blood also was examined, and found to contain 3,612,500 red corpuscles in the cubic millimetre. Before going out his temperature was subnormal. Immediately on his return it was 98·2°, and he had a rigor. The temperature then rapidly rose, and by 1.30 P.M. attained its maximum of 103·4°, at which it stood for the next half-hour. It then slowly fell, and had reached the normal at 5 30 P.M. At 2 45 P.M. the first specimen of urine after his exposure was passed, and at 5.30 P.M. another. Both of these were of a dark reddish-brown colour and typical specimens of the urine of hæmoglobinuria. When diluted and examined with the spectroscope, they showed the bands characteristic of acid hæmatin. The next specimen passed was unfortunately lost; while a yet later one gave no bands when examined spectroscopically. The blood examined after exposure contained only 2,930,000 red corpuscles per cubic millimetre. The hæmoglobin power of its individual corpuscles, which before exposure seemed normal, appeared afterwards to be somewhat, though very slightly, lessened. The plasma was slightly tinted, and granular masses of hæmatin were seen floating in it. After the lapse of some hours minute crystals of hæmoglobin appeared in the blood, which had been mounted for microscopic observation. On the 11th (six days later) the blood was again examined, when the red corpuscles were found

CHART 2.



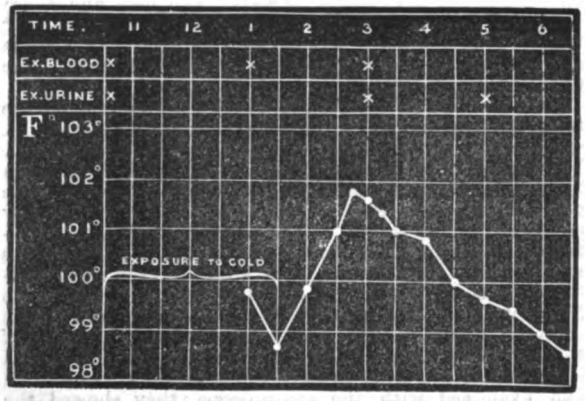
to have risen to 3,540,000 per cubic millimetre. (See Chart 2.)

EXP. 5 (Feb. 15th).—The patient went out for a walk from 10.30 A.M. until nearly 1 P.M. The day was not cold, and the results were less marked than usual. The temperature and the urine were normal before the experiment, and the blood had a specific gravity of 1051⅞ and 3,270,000 corpuscles in the cubic centimetre, which bodies had their natural colour and shape, though varying much in size, some having twice the diameter of others. At 12.55 he was somewhat chilly, and his temperature 99·7°; the blood had a specific gravity of 1050⅜; the number of red corpuscles had fallen to 2,970,000 per cubic millimetre; their consistency had become impaired, as was shown by the abnormal shapes.

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of many; and here and there were reddish-brown granular masses of hæmatin. At 3 P.M., at which time his temperature was 101·6°, the corpuscles had further fallen to 2,890,000. Specimens of urine passed at 3 and 5 P.M. respectively presented the usual character, and, as on former occasions, gave evidence of the presence of acid hæmatin in addition to hæmoglobin A third specimen passed at 9 P.M., when his temperature had fallen to 97 6°, presented a slight reddish-yellow tinge and no deposit; but it gave the guaiacum reaction; and, on spectroscopic examination of a layer half an inch in thickness, revealed no bands; but on similar examination of a layer two inches thick, two faint

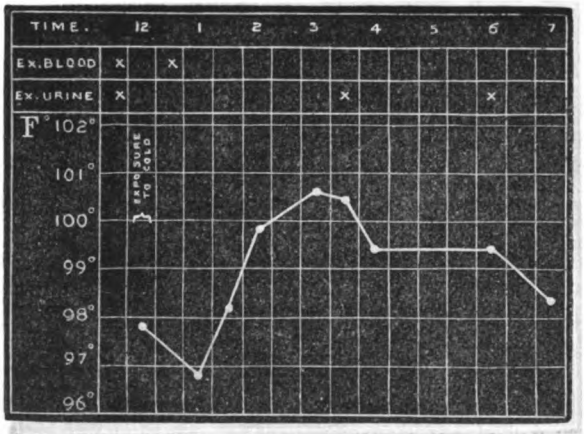
CHART 3.



bands, apparently of oxy-hæmoglobin, were seen. The temperature on this occasion began to rise a little before 2 P.M.; it attained its highest point, 101·8°, by 2.45 P.M., and had fallen to 99° by 6 P.M. On Feb. 19th (four days later) the blood-corpuscles had risen to 3,450,000 in the cubic millimetre, and the hæmoglobin power was nearly normal. (See Chart 3.)

EXP. 6 (March 2nd).—At noon the patient placed his hands in iced water, and kept them there for about ten minutes. The hands became white, "dead," and he had a slight rigor. At 12.30 they were mottled, white and red, and still felt cold to the touch. His temperature before immersion of the hands was 97·8°. At 1 o'clock it had sunk to 96·8°. From 3 P.M. to 3 30 P.M. it lay between

CHART 4.

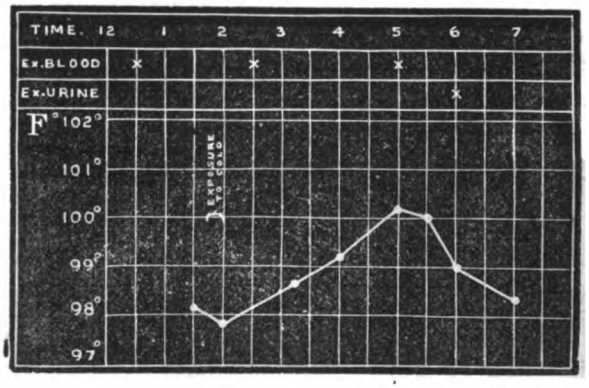


100° and 101°; and by 7 P.M it had become normal. The blood, examined before the experiment, contained 3,765,000 red corpuscles in the cubic millimetre, and its hæmoglobin power was 39 per cent. of normal. A little after 12.30, the corpuscles had fallen to 3,636 000, the percentage of hæmoglobin remaining unaltered. The specimens of urine passed during the day were examined the following morning. Specimen 1, passed at 3 30 P.M., when his temperature was 100·4°, had a specific gravity of 1014, was acid, of a fairly deep reddish-brown hue, and presented a very slight deposit, which showed under the microscope a large quantity of amorphous pigment and a few white corpuscles, but no red corpuscles or oxalates. It contained one-sixth of albumen. The spectroscope showed the bands of acid hæmatin. Specimen 2, passed at 6 P.M., when his temperature was 99·4°, had a specific gravity of 1012, was acid, of a clear straw colour, with a rather darkly-coloured deposit of mucus, in which were found a few granules and leucocytes. The guaiacum test gave a faint blue colour, but no bands were seen on spectroscopic examination. The third specimen, passed at 7.30 P.M., was clear, acid, sp. gr. 1010, and was without deposit, but gave the guaiacum reaction. Specimen 6, passed at 9 P.M., was clear, almost colourless, sp. gr. 1007, acid, and without reaction to guaiacum. (See Chart 4.)

EXP. 7 (March 2nd) —In the evening of the same day, at 7.30 P.M., an elastic band was fastened round the base of one finger, which was then immersed in iced water for a quarter of an hour, after which a drop of blood was removed from the finger and examined under the microscope. There was no attempt at the formation of rouleaux by the red corpuscles, which had nearly all lost their normal shape. Here and there three or four appeared to have become fused together; and some were almost completely colourless from loss of their hæmoglobin, while the surrounding plasma was deeply tinged with pink. The blood taken at the same time from one of his other fingers was in what, for him, may be termed the normal condition. A similar experiment performed on a healthy person caused no obvious change in the blood of the ligatured and cooled finger.[2]

EXP. 8 (March 7th) —It was objected to the last experiment but one—that in which the patient's hands were immersed in cold water—that the hæmoglobinuria might have been due not so much to the experiment as to the fact that (the day being cold) he was exposed to the general influence of cold in going from the ward to the physiological laboratory. It was determined, therefore, that the experiment should be repeated, the patient remaining all the time in the ward. At 12.30 P.M. the blood was examined, when it was found that the red corpuscles numbered 3,433,300 in the cubic millimetre, and the hæmoglobin power was 36 per cent. Fair rouleaux were formed, and the corpuscles were well shaped, though of various sizes. At 1.45 he again placed his hands in iced water. They were not kept immersed quite so long as on the former

CHART 5.



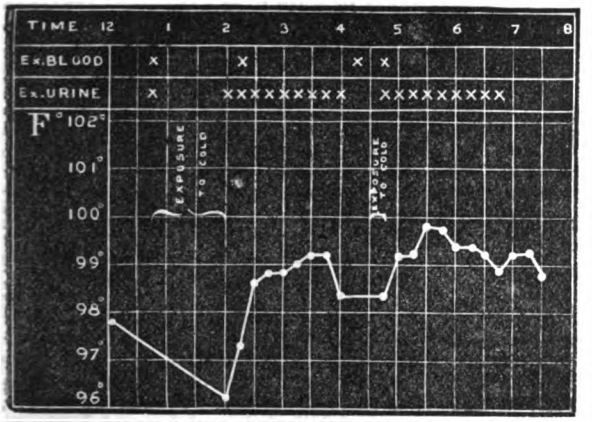
occasion. The day was warm. On being taken out of the water the hands were mottled and felt very cold. His temperature was normal at the time of the experiment. At 2 P.M. it was 97 8°, from which time it slowly rose, until at 5 P.M. it had attained its maximum, 100·2°. It had become normal by 7 P.M. At 2.30 the blood was re-examined. The red corpuscles had then fallen to 2,984,000, while the hæmoglobin power had only fallen by 1°, or at most 2°. No rouleaux were formed, but some abnormally shaped and decolourised corpuscles were seen. At this time the patient complained of pain across the loins, and later in the afternoon of difficulty in swallowing. Laryngeal inspection revealed nothing amiss, with the exception that the epiglottis was very anæmic. At 5 P.M. the blood was once more examined. The red corpuscles had been to a great extent replaced, and now numbered 3,366,000 in the cubic millimetre, but amorphous pigment was still seen in the plasma. The first urine after the experiment was passed at 6 P.M. It was of a brown-red colour, without sediment, and gave with the spectroscope the bands of acid hæmatin. A second specimen, passed a few hours later, presented no bands, but gave a faint guaiacum reaction. The third specimen was normal. (See Chart 5.)

[2] Ehrlich and Boas have both performed similar experiments, tending to show that the injurious action of cold is purely local.

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EXP. 9 (March 18th).—On this day the experiment was made with the special object of determining the condition of the urine at short intervals. At 12.45, at which time his temperature was 97·8° and his urine normal, he went for a walk on the terrace, and was out until 2 P.M. The day was warm, the temperature in the shade being 52·5°. On his return to the ward, his temperature, pulse-rate, and respiration-rate were taken every quarter of an hour, and the urine was passed and examined at the same intervals. The temperature rose only very slightly, and the urine at no time presented any trace of blood-colouring matter, but in place of it contained a small quantity of albumen. His blood before he went out displayed 3,710,000 red corpuscles per cubic millimetre, hæmoglobin power 45 per cent., and

CHART 6.



specific gravity 1051; the red corpuscles formed poor rouleaux, and were of various sizes, but well-shaped. The blood on his return from his walk presented 3,440,000 corpuscles in the cubic millimetre, its hæmoglobin capacity was 42 per cent., and its specific gravity 1050½. The corpuscles presented abnormal shapes, and there was obvious escape of hæmoglobin into the plasma. (See Chart 6.)

Temperature.	Pulse.	Resp.	Urine. Albumen.	Urine. Blood-colouring matter.
Bef. expos. 97·8°	—	—	None.	No guaiacum reaction, and no absorption bands.
2 P.M. .. 96·2	76	14	None.	
2.15 .. .. 97·3	82	18	None.	
2.30 .. .. 98·6	73	17	Trace.	
2.45 .. .. 98·8	85	13	Larger trace.	
3 .. .. 98·8	85	15	Larger trace.	
3.15 .. .. 99·0	80	14	One-tenth.	
3.30 .. .. 99·2	87	16	Fair trace.	
3.45 .. .. 99·2	82	15	Trace.	
4 .. .. 98·4	82	14	None.	

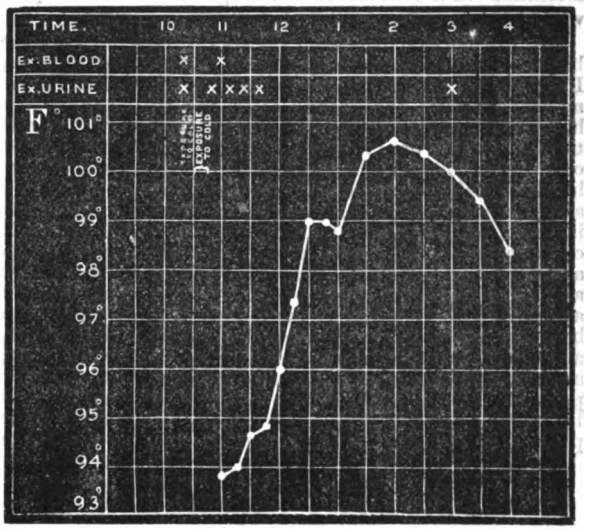
EXP. 10 (March 18th).—At 4.15 P.M. the blood was re-examined; and, excepting that there appeared to be an increase of 40,000 red corpuscles per cubic millimetre, it was in exactly the same state as at the last examination. At 4.30 P.M. he placed his hands in water which had been reduced by ice to a temperature of 40°, and kept them in it for a quarter of an hour, at the end of which time a series of similar observations to those made earlier in the day was conducted. The results are given in the following table:—

Temperature.	Pulse.	Resp.	Urine. Albumen.	Urine. Blood-colouring matter.
4.45 P.M. .. 98·4°	84	17	None.	None.
5 .. .. 99·2	87	17	Trace.	Guaiacum reaction.
5.15 .. .. 99·2	76	16	Much.	Hæmoglobin (spectroscope).
5.30 .. .. 99·8	84	16	1-4.	Ditto.
5.45 .. .. 99·7	78	17	Less.	Ditto.
6 .. .. 99·4	73	15	Trace.	Ditto.
6.15 .. .. 99·4	72	16	Trace.	Ditto.
6.30 .. .. 99·2	74	16	Trace.	Trace.
6.45 .. .. 98·9	74	16	None.	None.

It will be observed that hæmoglobin appeared in the urine half an hour after the removal of his hands from the water. The urine throughout was clear and transparent, of a port-wine colour, and entirely free from deposit, and, under the microscope, from blood-corpuscles. The blood in every instance was in the form of hæmoglobin, and no traces of acid hæmatin were detected. A specimen of blood examined at 4.45 P.M. presented only 2,950,000 corpuscles per cubic millimetre. The hæmoglobin in the specimen of urine passed at 5.45 P.M. was converted into acid hæmatin by a two hours' sojourn in the incubator at body temperature.

EXP. 11 (April 13th).—The patient had remained well and quite free from hæmaturia since the last experiment. At 10.30 A.M. he had a cold bath containing forty-eight gallons of water at a temperature of 51°, in which he

CHART 7.



remained for ten minutes. The blood examined previously to the bath presented 3,999,000 red corpuscles in a cubic millimetre, while the hæmoglobin power was 53 per cent. That examined fifteen minutes after the bath contained 3,175,000 corpuscles, and presented a hæmaglobin power of 49 per cent. The urine examined before the bath was normal. After the bath the patient had one or two slight rigors, and complained of "pins-and-needles" in his hands, which were white and cold. At 11 A.M. his temperature was 93·8°, and by 12 it had only risen to 96°. By 2 P.M. it had reached 100·6°, after which it gradually fell, until at 4 P.M. it was 98·4°. The urine passed at 10.50 A.M. (ten minutes after taking the bath) contained neither albumen nor blood pigment; that passed at 11.5 presented hæmoglobin; that passed at 11.20 presented hæmoglobin in large quantity; and that passed at 11.35 also presented hæmoglobin. A specimen passed at 3 P.M. contained a small quantity of acid hæmatin. (See Chart 7.)

The patient, who is still in St. Thomas's, has remained perfectly free from the attacks since the last experiment, on the 13th inst. He looks better now than he has looked for a long time, and but for occasional lumbar uneasiness or pain, which he has suffered from more or less during his illness, seems quite well. Before dismissing the case I may mention one or two phenomena connected with it, which I have not hitherto mentioned or have only incidentally alluded to. In the first place, he has (while under observation) always had a sallow hue; but this at the times of the greatest anæmia has amounted to definite, though slight, jaundice, such as one not uncommonly sees in cases of pernicious anæmia. In the second place, when he has been specially anæmic we have been able to observe capillary pulsation in the lips, such as is often observable in other cases of extreme anæmia, and is usual in aortic regurgitation. In the third place, at the commencement of his attacks, even if there has been no shivering, he has almost without exception complained of a sense of uneasiness and swelling in the throat, which has been so great as to prevent him from swallowing. But nothing in the condition of the throat has been detected sufficient to explain it.

(To be concluded.)

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ON SUTURE OF THE BLADDER WOUND AFTER SUPRA-PUBIC LITHOTOMY,

AND ON SUPRA-PUBIC CYSTOTOMY WITH PERINEAL DRAINAGE FOR RETENTION FROM STRICTURE, AND RUPTURE OF THE NECK OF THE BLADDER FROM FRACTURED PELVIS.

BY C. J. BOND, F.R.C.S.,
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THE following remarks are the result of observation of some cases of supra-pubic cystotomy operated on for various causes during the last two years, in which one or two alterations in the usual method of procedure were adopted with, I think, a certain degree of advantage.

Supra-pubic lithotomy.—Of the six cases operated on, the bladder wound was carefully sutured in four. All of these, I am glad to say, healed by primary union, and there was no leakage from the wound after the first twenty-four hours. Two of these cases were boys under twelve, and two were adults over forty. A few words as to the method of the operation may be useful. The bladder is distended in the usual way with boracic lotion until it rises well above the pubes, and in the adult this may require the injection of from twenty to thirty ounces; latterly in children and in adults I have not distended the rectum at all. The coats of the bladder are then cut down upon and exposed without any dissection, the peritoneal fat and areolar tissue in front of it being drawn upwards from below by the forefinger of the left hand; this is, I think, a point of some importance, as it prevents hæmorrhage, and the bladder can be reached when not so distended or prominent as usual. A fine No. 0 silk suture is then passed by means of the doubly curved needle with eye at the point (Fig. 2), through the muscular coats at the upper

FIG. 1. FIG. 2.

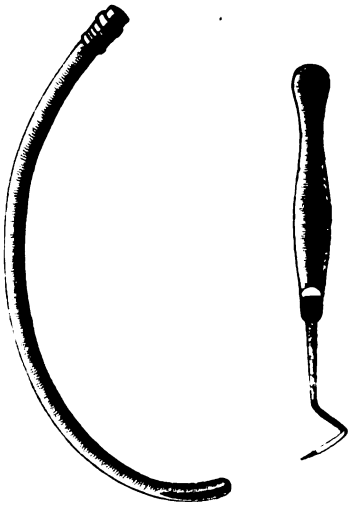


FIG. 1.—Curved staff for passing through urethra from within the bladder.
FIG. 2.—Needle with double curve and eye at point.

end of the wound, and as near the peritoneal reflexion as possible. This marks the upper limit of the incision, and serves to hold up the bladder. It is very important to make the incision as near the top of the bladder as possible, as the ease with which the subsequent sutures are introduced depends on this point. After the incision and extraction of the stone the bladder is thoroughly irrigated with antiseptic lotion, and the sutures are introduced. These are of very fine No. 0 silk, and are passed through the muscular coat on either side of the incision by means of the doubly curved needle mentioned above. They are very close together, and are inserted while the wound is held on the stretch by the upper suture. They thus tend to approximate even more closely as the bladder contracts. Especial care is taken to pass the lower suture below the level of the actual incision. The abdominal incision is then sutured and dressed with dry dressings, a drainage-tube being left at the lower angle. No catheter is left in the bladder.

It is noteworthy that in three out of the four cases some urine escaped between the bladder stitches on the first occasions of passing urine within twelve hours after operation, and this occurred whether a catheter was used or not. In none of the cases was a catheter necessary after the first twenty-four hours, and in the last case, an adult, the urine was drawn off six hours after operation, and none escaped from the wound. In none of the cases did this escape of urine between the stitches delay the union, which appeared to be complete in thirty-six hours, all the urine being then passed naturally.

In stout men the difficulty in suturing the bladder, though considerable, is by no means insurmountable, and the points of greatest importance in order to ensure success appear to be: First, to produce a healthy acid condition of the urine before operation by means of rest in bed and the administration of boracic acid internally in from five- to ten-grain doses thrice daily for some days before operation; the effect of this drug in clearing up the foul alkaline urine and relieving the cystitis caused by calculus is very marked even in from twelve to twenty-four hours after administration. Secondly, care must be taken to avoid bruising, either by handling or by dissection, of the coats of the bladder. Thirdly, the suturing must be done very closely and with very fine silk, care being taken to close both angles of the wound. Fourthly, no catheter should be left in the bladder, and the instrument should be used as little as possible after operation. Finally, the escape of acid normal urine between the stitches during the first twelve hours after operation does not in any way prevent primary union of the wound.

Of the two cases in which no attempt was made to suture the bladder incision, the first was an old man, aged sixty-three, in whom the urine was persistently foul and alkaline, and the patient much debilitated, and I regret I was at that time unaware of the value of boracic acid given internally; he, however, made a good recovery. In the second case one of the calculi was encysted, and this case requires a further description. The patient was a fairly healthy man, aged sixty-one. Three months previously he had been operated on for stone by the lateral method, and had fourteen small stones removed. Recovery was rapid, and he left the hospital on Oct. 30th, 1888. Within a fortnight, however, he began to suffer again from frequent micturition, and was sounded, but with a negative result. On Feb. 8th, 1889, he came to the infirmary with complete retention, and a stone was felt while drawing off the urine; the latter was alkaline and purulent, but soon cleared up under boracic acid given internally. The bladder was opened after distension in the usual way, and a small stone resembling the other fourteen removed. On passing the finger over the base of the bladder a small, hard, spicule or projection was felt behind the prostate, fixed in the mucous membrane, which closely surrounded it. This proved to be the projecting part of an imbedded calculus, which was only removed after considerable difficulty. The base of the bladder and encysted stone were first pushed up and fixed by the finger of an assistant in the rectum, then by means of the finger nail and edge of a scoop the mouth of the sac was enlarged and the calculus turned out of its bed, which when empty admitted the first joint of the forefinger, and was only separated from the rectum by a thin layer of tissue. It was situated about an inch behind the prostate and a little to the right of the middle line. The bleeding was slight, but owing to the prolonged manipulation no attempt was made to suture the bladder wound, but it was drained through the perineum by the following method. The round-lipped vesical opening of the urethra was felt by the forefinger introduced into the bladder, and the sound or staff having the one large special curve (Fig. 1) was passed along the finger and through the urethra until it passed through the membranous portion and bulged in the perineum just below the situation of the bulb. It was now held by an assistant, the legs were raised, and the point of the instrument, which was felt through the skin, was cut down upon, and the urethra opened on the groove which occupied the under surface of the end of the staff, which in this position more or less faced the operator; the sound now projected, and was drawn through, and with it a full-sized indiarubber tube, with two openings on its convex side, attached to the other end of the instrument; this was left in the bladder, and kept it well drained;

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through it also the bladder could be frequently flushed after compressing the portion of the tube outside the perineum, and again drained by releasing the tube. The tube in this case was withdrawn, so that the upper end lay inside the bladder on the fourth day, and removed entirely on the sixth day. The perineal wound healed three days later, but urine escaped from the upper opening for eight days longer.

This case illustrates a point of considerable interest in reference to the connexion between an encysted calculus and other calculi felt in the bladder. On careful examination each of the fourteen small calculi will be found to be for the most part of the same size and shape, and there is on each a little roughened projection on one surface. It seemed to me at first probable that this was owing to the fact that each of the fourteen calculi had commenced as a deposit on the projecting portion of the encysted one, and had subsequently been broken off and freed by contractions of the bladder wall. On section, however, it was shown that this little roughened process did not extend to the uric acid nucleus, and stopped short at the phosphatic outer coating; hence they arose, probably, as independent renal nuclei, and the roughened projecting spots on each may be probably due to deposit while in contact, and perhaps temporary adhesion to the encysted calculus at these places.

In comparing the after-condition of those patients in whom after supra-pubic lithotomy the wound has been closed and unites by primary union with the condition of those in whom the wound is left open and unites by granulation, I am inclined to think that the granulating process, accompanied as it is by the formation of cicatricial tissue binding the bladder to the abdominal wall, leads occasionally to some inconvenience; for in the first of the two cases in which the wound was allowed to heal by granulation the patient complained for some months after the wound was healed of a painful dragging sensation above the pubes when he emptied his bladder, as though it was anchored at this spot and did not readily slide beneath the peritoneum into the pelvis when emptied. This fact and the great shortening of the period of convalescence when the bladder wound is closed by suture all point to the strong desirability of attempting this in suitable cases; for if unfortunately primary union does not occur, yet even then no harm has been done.

Supra-pubic cystotomy for retention from stricture.—We now pass to the consideration of the second class of cases in which the distended bladder was opened above the pubes, when no instrument could be passed by the natural channel. The first case was that of a man, aged fifty-five, in whom the cause of the retention was stricture of long standing (thirty years), accompanied with perineal fistulæ. As no instrument could be passed, and as it was necessary to drain the bladder, and not merely to draw off the urine by aspiration, I first made a prolonged and careful attempt to open the urethra beyond the stricture, but failed. The distended bladder was then incised above the pubes in the ordinary way; and feeling for the urethral orifice with the forefinger, the curved staff (Fig. 1) mentioned above, with the attached drainage-tube, was readily passed out through the perineal wound, and the bladder thus drained effectually. The relief in this case was very marked. The upper wound closed around the drainage-tube, and all the urine soon flowed by the lower opening. The tube was drawn into the bladder on the tenth day, and the upper opening allowed to close, and the tube eventually withdrawn entirely, a catheter being passed occasionally through the perineal opening. From the beneficial result experienced in this and other cases, I think it probable that in cases of retention from bad stricture, in which the bladder requires free drainage, the supra-pubic incision with perineal counter-opening, in the way above described, will be found to be the easiest and most effectual method of treatment.

Supra-pubic cystotomy for retention from laceration of the neck of the bladder from fracture of the pelvis.—In this case the conditions were somewhat different. A man, aged twenty-four, was crushed by a fall of earth. He was admitted two days later with swelling of the scrotum and lower part of the abdomen. A full-sized silver catheter was passed with some slight difficulty into a cavity, and blood-stained urine was withdrawn, but the impression conveyed to the touch was not that of having entered the bladder. No urine had been passed naturally since the accident; the diagnosis was fracture of the pelvis with rupture of the bladder either of the intra- or extra-peritoneal variety. I first, through a short median incision, opened the peritoneal cavity and ascertained by the finger that there was no intra-peritoneal rupture; the bladder could be felt somewhat distended, and there was no escape or smell of urine. The peritoneum was therefore carefully stitched with catgut, and the incision in the abdominal wall prolonged downwards, and the bladder exposed on its extra-peritoneal aspect. Blood-stained urine now began to well up from a cavity just behind and below the symphysis, and the finger here detected fractured and projecting bone, and the end of the catheter lying not in the bladder, but in the cavity containing urine which surrounded its neck. The bladder was opened, and the curved staff (Fig. 1) with a drainage-tube passed through the urethral orifice and into the perineum, where it was cut down upon and drawn through, and the bladder thus drained. Now, although in this individual case the patient died afterwards from the effects of the extravasation of urine into the areolar tissue of the pelvis, which occurred during the two days that elapsed before his admission and relief by operation, yet the actual result of the operation as shown at the post-mortem examination is, I think, encouraging. It was found that the bladder had been completely separated by the injury at its neck from the urethra, and pushed up into the pelvis, away from the triangular ligament, by the fractured ramus of the ischium; and as distension came on urine escaped into the pelvis. Now the drainage tube had completely drained the ruptured and displaced bladder, and also the cavity around the ruptured neck, and the distended scrotum and perineum had subsided; in fact, there was little or no urine in the pelvis, or about the seat of fracture. Moreover, in this case it would have been almost impossible to have reached the bladder from the perineum, or for the extravasation in the pelvis to have been drained in any other way. The peritoneum was found securely closed, and no trace of peritonitis in the abdominal cavity existed. These cases point, as it seems to me, to the advantages of a combined supra- and infra-pubic exploration and drainage of the bladder for the conditions described above, and may, I hope, lead others to adopt this method of treatment in suitable cases.

Leicester.

CANCER OF THE MALE BREAST, BASED ON THE RECORDS OF ONE HUNDRED CASES; WITH REMARKS.

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IN most treatises on diseases of the breast this subject is dismissed in a few lines. Considering the large amount of material available, such a state of things is extremely unsatisfactory. That fuller information about cancer of the male breast is desirable, both on its own account and because of the value of such knowledge as a factor in the solution of many problems relating to cancerous disease in general, I have not the slightest doubt. Therefore I have undertaken the present investigation, which is based on the record of 100 cases collected from various sources, and on information otherwise derived. I will now proceed without further remark to lay before the reader the results at which I have arrived, arranged under their various headings.

Relative frequency.—Of 15,481 neoplasms consecutively under treatment at Middlesex, St. Bartholomew's, St. Thomas's, and University College Hospitals during the last sixteen to twenty-one years, 2422 originated in the breast—males 25, females 2397. These were distributed thus:—

Kind of neoplasm.	Males.	Females.	Total.
Cancer	16	1863	1879
Sarcoma	3	92	95
Myxoma	2	2	4
Adenoma	1	372	373
Lipoma	1	1	2
Papilloma	..	3	3
Chondroma	..	1	1
Angioma	1	..	1
Cystoma	1	63	64
Total	25	2397	2422

Whence it follows that 15 per cent. of all neoplasms originate in the breast; and of these only about 1 per cent. originate

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in the male breast. This is a good illustration of the law that *obsolete structures have but little tendency to take on the neoplastic process.*

Variety.—Cancer of the male breast, as of that of the female, may originate either from the acini, the ducts, or the skin. Thus there were of my 100 cases :—

Acinous, 91—scirrhus, 88 (melanotic, 2), encephaloid, 3.
Tubular (cylinder-celled duct cancer), 6.
Cutaneous squamous-celled epithelioma, 3 (melanotic, 1).

In 26 of these cases a microscopical examination had been made: 17 were fibrous alveolar cancers (melanotic 2), 6 cylinder-celled duct cancers, and 3 squamous-celled cutaneous epitheliomas (melanotic 1). Whence it appears that the male breast is relatively more liable to the tubular variety of cancer, originating in the excretory ducts, than the female; this one might have expected *a priori*, because in the normal condition of the male breast ducts predominate and acini are but imperfectly developed.

Squamous-celled epithelioma of the skin of the nipple, areola, or mammary region is an exceedingly rare affection in both sexes. Among my 2422 cases of mammary neoplasms there is not a single example of it. Billroth has gone so far as to deny its occurrence in the female breast, but Czerny has since described a case—the only one of the kind on record. We see, then, in accordance with the rule for epithelioma of the skin in general, that males are much more liable to this variety of breast cancer than females. Another fact to be noted is the relatively frequent occurrence of melanotic cancer in the male breast (3 per cent.). We may perhaps find an explanation for this if we recall the fact that we here have to do with an obsolete structure which has lost most of its special characters, and is gradually reverting to the primordial cutaneous condition out of which it formerly evolved. With regard to the 3 cases of so-called encephaloid cancer I have little to remark, since in all the histological examination is wanting. I will only mention that of 306 cases of cancer of the female breast under treatment at the Middlesex Hospital during the last seven years there was not a single example of encephaloid cancer; all the supposed cases of this kind on microscopical examination proved to be sarcomas.

Leaving the cutaneous epitheliomas for separate treatment, I will now give an analytical summary of the remaining 91 cases; for I have ascertained, by working out the histories of the tubular and acinous cases separately, that they differ in no essential particular.

Age.—The earliest age at which the disease was first noticed (in 90 cases) was 20 years; the latest 82 years; the mean age 50 years. In the subjoined table the numbers for each quinquennial period are given, calculated on the percentage basis, and for comparison I have appended the corresponding numbers in cancer of the female breast:—

Sex.	Total number of cases.	20 to 25 yrs.	25 to 30 yrs.	30 to 35 yrs.	35 to 40 yrs.	40 to 45 yrs.	45 to 50 yrs.	50 to 55 yrs.	55 to 60 yrs.	60 to 65 yrs.	65 to 70 yrs.	Over 70 yrs.	Mean age.	Earliest age.	Latest age.
Males	90	2	2	9	12	11	17	15	12	7	3	10	50	20	82
Females	500	0·6	4	6	14	16	20	15	10	9	3·2	2·2	48	22	84

It will be seen from this table that the average age at which the disease originates in males is 2 years later than in females. It is further noticeable that a relatively large number of the male cases begin over 70. In most other respects there is remarkable similarity as to the age distribution in the two sexes. Not a single case originated in either sex under the age of 20.

Total duration of life.—In 18 fatal cases the total duration of life, dating from the time when the disease was first noticed, averaged 61 months, which is about 8 months longer than the average duration of the disease in the opposite sex.[1] Of the above cases, 5 had undergone amputation of the breast &c.; in these the duration of life averaged about 124 months; or 20·5, 27, 117, 182, and 273 months each. In the other 13 cases no operation had ever been performed: in these the duration of life averaged 38 months—the shortest period 11 months, the longest 85 months.

Duration of life subsequent to amputation for the primary disease.—This was noted in 6 cases; it averaged nearly 60 months. The exact duration in each case was as follows: 26 days, 1 month, 5, 13, 78, and 260 months. In 25 similar cases of the female breast I found the average period was about 40 months, the longest 259 months.[2]

Interval between first operation and first obvious recurrence. In 14 cases this averaged 9·7 months, the maximum 32·5, the minimum 1·5 months. In females, according to my observations, the average interval is 26 months. In further illustration of this subject I append the following:—

3 months and under in 3 cases.	13·0 months in 1 case.
3 to 4 months in 5 cases.	19·5 ,, 1 ,,
8 months in 1 case.	26·0 ,, 1 ,,
10 ,, 1 ,,	32·5 ,, 1 ,,

Civil state.—Of 12 cases, 7 were married, 2 widowers, and 3 single. Particulars with regard to offspring are given in 3 cases: one was the father of 6 and another of 15 children; the other had no offspring. In 38 cases the occupation had been as follows: butcher, gentleman, and carpenter each in 3 cases; sailor, compositor, merchant, teacher and clerk, each in 2 cases; soldier, brass-finisher, 'bus conductor, piano factory, chimney-sweep, clergyman, blacksmith, locksmith, publican, labourer, waggoner, hospital attendant, plasterer, peasant, bootmaker, carrier, coachman, stone sawyer, and hall porter, each in 1 case.

The side affected.—Right side in 38 cases, or 53 per cent.; left in 33 cases, or 47 per cent. In females the left breast is always the more frequently affected. Of 151 cases, I found: left, 84 (56 per cent.); right, 67 (44 per cent.). In 4 of the above 71 cancers of the male breast, both breasts were affected on admission, but in no instance were both breasts primarily affected. Similarly of 151 cases in females, in 7 both breasts were involved on admission.

Seat of initial lesion.—This was noted in 14 cases: in 8 the disease was central, being situated underneath the nipple; in 3 it was near the nipple; in 1 below the nipple and to its axillary side; in 1 below and to its sternal side; and in 1 above the nipple and to its axillary side.

Character of initial lesion.—In 42 cases this was as follows: small nodule or lump (varying in size from a pea to a hazel-nut) in 30 cases; enlargement and induration of gland in 5; and redness, soreness, or induration of nipple or areola (Paget's disease 1) in 7. In the female breast Gross found that the development of cancer commenced as Paget's disease in 1·31 per cent. of all cases.

Discharge from the nipple.—This was noticed during the course of the disease in 7 out of 91 cases: it was sanious in 4, puriform in 2, and lactiform in 1. According to Gross, females are liable to similar discharges in 15 out of 207 cases.

Previous injury or disease of breast.—Of 30 cases there was a history of previous injury or disease in 16, or 53 per cent., as compared with 43 per cent. in females. The injuries are described as contusions in 10 cases, recurrent pressure at work in 2, and strain in 2. The only previous disease noted were two cases of long-standing eczema of the nipple and areola.

Previous health.—This was stated in 13 cases. It had been good in 11 (with no serious illness since youth in 3) and bad in 2 cases. The following previous diseases are noted as having occurred since childhood: pneumonia and migraine each in 2 cases; tubercular arthritis of knee, hæmorrhoids, eczema, erysipelas of face, herpes zoster, chancre, gonorrhœa, epilepsy, and dyspepsia each in 1 case. With regard to the patients' habits, 3 are said to have been temperate and 3 intemperate. As to syphilis, inquiries were made in 7 cases, but there was evidence of this disease only in 1.

Family history.—Of 29 cases in which inquiries were made, there was history of cancer in 7 families, or in 24 per cent. This is almost exactly the same result as I obtained in females, there being a history of cancer in 33 out of 136

[1] Vide Middlesex Hospital Surgical Report for 1885, p. 87.

[2] Ibid.

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cases. The relatives thus affected and the seats of the disease may be shown as follows:—

Father's mother (one family) ...	Locality not stated.
Father's sister (one family)	Breast.
Fathers (four families)	Neck. Liver. Breast. Locality not stated.
Mothers (three families)	Tongue. Lip. Locality not stated.
Patient's sisters (two families) ...	Breast. Locality not stated.

Thus of the 7 cases in which the seats of hereditary disease are stated the breast was affected in 3. In 3 cases there was history of cancer in more than a single relative—thus: (1) father died of cancer of neck, and mother died of cancer of tongue; (2) father died of cancer (locality not stated) and 2 of patient's sisters (1 of breast, the other locality not stated); (3) father's mother and patient's mother both died of cancer (locality not stated).

Duration of the disease from the time it was first noticed until the patient came under observation.—In 86 primary cases this averaged 29·5 months; in 119 primary cancers of the female breast the average was 26·5 months, the minimum period 3 months. The following statement further illustrates this subject:—

Under 6 months in	7 cases.	36 to 42 months in	11 cases.
6 to 12 months in	15 ,,	42 to 48 ,,	1 case.
12 to 18 ,,	14 ,,	48 to 54 ,,	10 cases.
18 to 24 ,,	7 ,,	60 to 66 ,,	2 ,,
24 to 30 ,,	12 ,,	78 to 84 ,,	3 ,,

104 months in 4 cases.

In 10 recurrent cases the duration of the disease on admission had averaged 62 months, as compared with 75 months in 39 cases of recurrent cancer of female breast. In 2 cases the duration of the disease had exceeded 102 months—viz., 129 and 130 months respectively.

State on admission.—Of 26 primary cases, 20 were well nourished (obese 4, sallow 1); of these, 9 were ulcerated and 11 non-ulcerated. The other 6 cases were weak and emaciated (sallow 2); of these, 5 were ulcerated and 1 non-ulcerated. In 14 of the above cases retraction of the nipple was noted. In 2 cases the primary disease had assumed the atrophic form, in 2 cases the diffuse discrete form, and in 1 case the *en cuirasse* form; in the others it presented a more or less circumscribed mass. Of 3 recurrent cases, 2 were non-ulcerated (1 well nourished, 1 weak and emaciated); 1 was ulcerated, the patient being weak, emaciated, and sallow.

The axillary glands &c.—Of 68 primary cases, there was obvious enlargement of the axillary glands in 43, or in 63 per cent. In 118 primary cases of the female breast I found the axillary glands affected in 86 or in 73 per cent. In 2 cases the glands near the clavicle were affected as well; both of these were ulcerated. Of the 43 cases in which the axillary glands were affected, 26 were non-ulcerated and 17 ulcerated. Of 25 cases in which there was no obvious affection of the axillary glands, 20 were non-ulcerated and 5 ulcerated. Of 12 recurrent cases, there was obvious enlargement of the axillary glands in 4 (clavicular glands as well in 1 non-ulcerated case); of the latter, 2 were ulcerated and 2 non-ulcerated. The other 8 cases, in which there was no glandular affection, were all non-ulcerated.

(To be concluded.)

BURIALS IN THE METROPOLIS.—A return has been published giving the numbers of bodies at present interred in the principal burial places in the metropolis as follows:—Abney-park, Stoke Newington, 82,570; Brompton Cemetery, 155,064; St. Mary's, Battersea, 24,648; Camberwell Cemetery, 80,790; St. Paul's, Deptford, 50,459; St. James', Highgate, 76,220; All Soul's, Kensal-green, 80,265; St. Mary's Kensal-green, 56,246; Lambeth Cemeterry, 109,010; South Metropolitan Cemetery, 73,750; All Saints', Nunhead, 65,550; Paddington Cemetery, 82,536; City of London and Tower Hamlets Cemetery, Mile-end, 247,000; and Woolwich Cemetery, 27,687. The total numbers of bodies registered as buried in metropolitan cemeteries is 1,276,875.

ON THE TREATMENT OF CHRONIC URÆMIA BY MORPHINE.

BY STEPHEN MACKENZIE, M.D., F.R.C.P.,
PHYSICIAN TO, AND LECTURER ON MEDICINE AT, THE LONDON HOSPITAL, ETC.

(Concluded from page 209.)

IT is not the purport of this paper to discuss at length the pathology of what, for want of a term, we call "uræmia." By this term we understand the various symptoms that arise from the retention in the blood of the various excrementitious substances naturally excreted by the kidneys, whether this arises from disease of these organs or from some impediment to the escape of urine. The subject is one of extreme complexity, which has gone through many phases reflecting the waves in the tide of physiological and pathological advances. It was very fully and ably dealt with by Dr. Carter in his Bradshawe lecture last year.[1] I propose to deal with it only in so far as it enables us to understand the *rôle* played by morphine in its treatment.

It is now generally agreed that (1) uræmia is a poisoning of the nervous system—a toxæmia; (2) the poison is developed within the body of the sufferer—auto-toxæmia. All recent researches go to prove that the poison is not simply urea, though urea is certainly poisonous. The conclusion has long been reached by all workers at the subject—Grainger Stewart, Dickinson, Bartels, and others—that the poison is not one, but several. Bouchard claims to have been able to determine the existence of seven distinct toxic substances combined together in the most variable proportions under different circumstances, of which two were convulsivant, one of the two being the colouring matter or contained in it; one (probably urea) diuretic, one narcotic, one sialogogue, one pupil-contracting, and one temperature-reducing. He traces the toxicity of the urine to the four following sources: 1. Aliments, and more especially their potassium compounds. 2. The absorbed products of intestinal decompositions. 3. Secretions, such as the bile, saliva, &c. 4. Tissue degenerations. He further finds that the toxicity of the urine varies both in kind and degree at different hours of the day and night. Researches such as those conducted by Bouchard, Feltz, and Ritter, and others, whilst they require repeated confirmation, are very suggestive in serving to explain both the varying symptoms of uræmia in the same patient or in different patients in a way not hitherto possible.

Uræmia, then, is a poisoning of the nervous system, and the poisons are formed within the body of the patient. How is it to be treated? There are three principles: (1) To eliminate from the system the poisons already present; (2) to counteract the poisons; (3) to prevent the further formation of poisons. Treatment to be of permanent good must always be directed to the first and last aims. The first we attempt by promoting the action of the skin by hot-air baths, packing, &c., and by the use of diaphoretics, especially jaborandi or pilocarpine; by carrying off waste products and their decompositions from the bowels by means of hydrogogue cathartics; and by increasing the flow of urine by vegetable and saline diuretics. The last aim, the prevention of the formation and the absorption of further poisons, by greatly limiting the nitrogenous diet, as by placing the patient on an exclusively milk diet, and by controlling intestinal decomposition by certain drugs. But whilst we are endeavouring, as should be done in every case, to get rid of the poisons and prevent further formation, our patient may succumb to the effects of those present. Here comes in the second principle of treatment—namely, the attempt to counteract the poisons. Every bane has its antidote. The counteraction of the poisons is not only of service in minimising the effects of the poisons, but is of further help in enabling us to gain time to carry out the other indications already discussed. Thus in uræmic convulsions experience has taught that the damaging and often fatal results are held in check by inhalations of chloroform and by the internal or rectal administration of chloral. Morphine has been used, more especially by American

[1] THE LANCET, vol. ii. 1888, p. 355.

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physicians, for the same purpose in these cases, and it is claimed with better results.

It will have been noticed that the most prominent symptom in the first case, and a distressing symptom also in the second, was difficulty of breathing—uræmic dyspnœa, or so-called renal asthma. This, in its typical form, is not a very common symptom of uræmia, though I should not, from my own experience, have thought it was so rare as it appears to have been in that of Sir William Roberts.[2] This uræmic dyspnœa merits some consideration. It generally comes on, often suddenly or rapidly, in the evening or early night, is often very intense, lasts for some hours, and gradually passes off in the morning. It returns night after night, and the patient may be quite free from dyspnœa in the daytime. I have known such cases diagnosed as ordinary asthma, the renal origin being unsuspected. I have long been in the habit of teaching that, when such a case is examined at an early stage of the attack—that is, during the first few nights—it is remarkable how little is to be heard, differing altogether in this respect from the noisy cooing rhonchi heard in bronchial asthma. I am interested to notice that Dr. Carter makes the same observation. Dr. Sutton is the only other physician whom I have heard direct attention to this point. Later in the attack, bubbling râles and crepitations are heard, indicating the occurrence of œdema of the lungs. It was for this uræmic dyspnœa especially that the morphine was prescribed. I have for some years been accustomed to treat such cases, in addition to the measures indicated under principles 1 and 2, by means of amyl nitrite, nitro-glycerine, chloral with and without alcohol, ammonia and ether, inhalations of oil of juniper, Himrod's cure, chloroform, &c. One of the worst cases of uræmic dyspnœa I have ever observed I saw recently with Dr. W. J. Mackenzie, of Liverpool-road, Islington. I prescribed small doses of nitro-glycerine, frequently repeated, and, if it failed, morphine. The dyspnœa was greatly relieved, I subsequently learned, by the nitro-glycerine. It will be observed that morphine was not prescribed in the cases I have narrated until several of the remedies above mentioned had been ineffectually tried. The relief afforded by the morphine was extremely prompt, and equally successful in each recurrence of the attack. I think all the facts of uræmic dyspnœa, its periodicity, sudden onset, and relief by antispasmodics, point to a spasmodic neurosis due to poisoning of the nerve centres. Dr. Carter, with, I think, great probability in his favour, suggests that the spasm is of the bloodvessels rather than of the bronchial tubes. This accounts for the absence of auscultatory signs in the early stage, and I think the subsequent pulmonary œdema is another point in favour of Dr. Carter's contention. The high arterial tension, on which Traube and Dr. Broadbent[3] have deservedly laid so much stress in uræmia, due to spasm of the arterioles and capillaries, the great rapidity of the heart's action, the cyanosis and clammy sweat noticed in Case 1, all support this view. Dr. Carter suggests the analogy between uræmic dyspnœa and muscarine poisoning, which Dr. Lauder Brunton has shown produces intense dyspnœa, by causing spasm of the pulmonary and other arteries. He further hints the possibility of neurine and choline—which have been separated from the human body by Brieger—structurally and morphologically allied to muscarine, or some closely similar substance, being proved to be the toxic element, which poisons the nervous system and gives rise to the dyspnœa in Bright's disease when not eliminated from the blood. If this be the case, then, as Dr. Carter writes, we may anticipate the time when a physiological antagonist shall be discovered capable of unlocking the spasm and relieving the distress as promptly as atropine does in muscarine poisoning. I venture to suggest that this is how morphine acts in relieving the dyspnœa of Bright's disease. It counteracts the poison, whatever it may be, that causes the spasm of the pulmonary arterioles (or bronchioles).

Headache and convulsions are very common symptoms of uræmia. The former was present in both my cases. The immediate cause of both headache and convulsions, apart from or in connexion with Bright's disease, has been much discussed. There is a good deal of evidence in favour of arterial spasm being the immediate exciting cause of each. This does not of course explain the pathogeny of headache or epilepsy, because we have to look further back for the cause of the spasm of the arterioles. In uræmia we have this to hand. We know we have a poison or poisons in the blood, and we have evidence of spasm of the bloodvessels, so that we are able to connect the cause with its effect. I think we are justified in referring the relief of the headache as well as the dyspnœa to the influence of morphine in antagonising the poison.

Uræmic convulsions were not present in my cases, but I shall immediately refer to their treatment by morphine. The success of morphine in the treatment of uræmic convulsions I should also refer to counteraction of the poison that excites spasm of the arterioles in the cerebral cortex, which is the anatomical substratum of the motor phenomena. As I have already stated, at the time I used morphine in the narrated cases I had only read brief references to the experience of Dr. Loomis and others in the treatment of uræmic convulsions. I have since consulted the original paper of Dr. Loomis, which appeared in the *New York Medical Record*, 1873, p. 365. Here will be found some very striking cases, illustrating not only the safety, but the advantage of the employment of morphine in the treatment of both uræmic convulsions and of other uræmic symptoms, some of which were present in my own cases. Dr. Loomis, writing on the employment of morphine when "premonitory symptoms of acute uræmia were present, as well as during the active manifestations of uræmic intoxication," says:—"So far as I am able to judge its administration has been uniformly followed by good results. In no instance am I aware that I have caused a fatal narcotism." Loomis certainly has shown the courage of his convictions, for he has given half a grain of morphine in a single dose to a patient in complete coma; and what is more remarkable and important, with relief to the condition. Scanzoni appears to have been the first to use morphine for uræmic convulsions, and Loomis mentions that he first gave morphine at the suggestion of Dr. Metcalf. Loomis and his followers have administered morphine in doses of from half a grain to one whole grain by hypodermic injection. Quite recently Mr. Alfred Grace[4] has reported two cases of puerperal convulsions treated by morphine. In the first he gave a hypodermic injection of one grain at a single dose, and later another injection of nearly a grain. In the second case a single injection of a full grain of morphine was administered. Both cases made a perfect recovery. Purdy[5] advises beginning with one-sixth to one-fourth of a grain, and writes, "The range of utility and safety of morphine in uræmia is strictly confined to the convulsive seizures. Its employment is improper in the state of pure coma or chronic uræmia unassociated with convulsions." The cases chronicled by Dr. Loomis and those I now bring forward directly negative this latter qualification. After the statements I have quoted, I shall hardly be accused of bold or venturesome efforts. My friend and colleague Dr. Ralfe, in the Year-book of Treatment, 1889, mentions that in a patient of his suffering from granular kidney, with dropsy and ascites, the subcutaneous injection of one-sixth of a grain of morphia speedily relieved a persistent and distressing attack of renal dyspnœa which all other means had failed to control, and the relief was continued for some days following, without further recourse to the drug. But Loomis claims for morphine not only the relief of dangerous and distressing symptoms, but more decided benefit still. Writing of the hypodermic injection of morphine in such cases, he says: "The almost uniform effect of morphine so administered is (1) to arrest muscular spasm by counteracting the effects of the uræmic poison on the nerve centres; (2) to establish profuse diaphoresis; (3) to facilitate the action of cathartics and diuretics, more especially the diuretic action of digitalis.

Enough has, I hope, been said to justify the further trial of morphine in uræmia. I am not advocating its employment to the exclusion of other remedies of ascertained utility in the treatment of Bright's disease and the uræmia arising therefrom. The evidence I have adduced shows that in spite of the asserted danger of opium and its alkaloid morphine in patients suffering from renal disease, it may in suitable cases be safely employed, and afford relief in the very distressing conditions we often witness in Bright's disease. I do not recommend its indiscriminate use; and in the light of the asserted susceptibility of patients with disease of the kidneys to the toxic effect of opium, it will be given with eyes open to its danger. It certainly afforded striking relief to the cases I have narrated; and though in these I

[2] Op. cit., p. 480.

[3] THE LANCET, vol. i. 1887, p. 711.

[4] British Medical Journal, March 16th, 1888.

[5] Bright's Disease, 1886, p. 83.

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can only claim a palliative and not a curative influence, they were cases which, from their nature and degree, no other result could be expected. In less advanced cases, where the kidneys are capable of recovery, better results may be hoped for, and, indeed, have been obtained.

Cavendish-square, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

REMARKABLE SUICIDE.

By JOHN GRANT, M.B., C.M. EDIN.

AT 8 A.M. on June 2nd I was called to see F. B——, a blacksmith, aged forty-eight. He was lying on his back in bed, dressed in a cotton shirt and flannel under-shirt, dead. He had come home the preceding evening at 6 P.M. partially intoxicated, having been drinking for two days. Of late he had been addicted to drink. He went to bed at once, but left his room in half an hour, coming downstairs. He was quarrelsome, but on persuasion returned to bed. At 11 P.M. his wife tried to rouse him, but, getting no answer, thought it best to let him alone. At 6 A.M. next morning she again tried, but failed. At 8 A.M. her son broke open the door, and found his father in a sitting posture with his back against it, preventing entrance. He did not go in, but ran for a police officer and medical man. The constable arrived first and forced open the door, finding the deceased as described. Round his neck was a common red cotton handkerchief twisted and tied to the door handle. He immediately cut him down and placed him in bed. On examination I found the body cold and rigid. Post-mortem lividity was well marked on the lower part of the back and legs. The pupils were equal, and moderately dilated. The jaws were firmly clenched and the lips blue, but the face as a whole was little altered, and there was no protrusion of the tongue or eyeballs. Round the front part of the neck immediately below the chin, extending upwards and backwards obliquely over the occiput, was a mark produced by the handkerchief; it was about an inch and a half broad, the skin being quite natural and pale; the texture of the cloth was clearly impressed, but there was no roughening or excoriation; at about an inch on either side of the middle line posteriorly the mark ceased. Turning the man on his face, I noticed the buttocks were flattened and white.

Remarks.—It is perhaps worthy of note that the post-mortem external appearances afforded some indication of the position in which death occurred. The presence of the lividity on the lower part of the back and legs, the flattened pale nates showed that the body had assumed a more or less vertical position, and the minute impress of the cloth on the anterior aspect of the throat pointed to its inclination forwards—in fact, indicated that the man had, so to speak, sat down and hanged himself. The handle of the door was only two feet nine inches from the floor. It is probable the deceased made a loop of his handkerchief, hitched it over the door handle, twisted it to fix it there, but leaving space to admit his head. He then sat down on the floor with his back to the door, put his head through the loop, and bent forward. The forward inclination of the body and the drooping of the head probably induced suffocation by pressure of the glottis against the back of the throat. One has only to try the position for a few seconds to become convinced of the congestion it causes in the head. The entire facts showed considerable method and determination on the part of the deceased.

Maidstone.

INSANITY FOLLOWING MUMPS.

By R. PERCY SMITH, M.D., M.R.C.P.

INSANITY is well known to be associated with several of the infectious fevers as a complication or sequela, but I am not aware that cases following mumps have ever been recorded. Mumps is not mentioned in the ordinary text-books on insanity under the heading of "Post-febrile Insanity," and therefore the following cases have appeared to me to be worth recording.

CASE 1.—G. R. R. T——, a clerk, aged nineteen, was admitted to Bethlem Hospital on June 19th, 1888. He had enjoyed good health previously to this illness and had never suffered from insanity before, and there was no neurotic inheritance. A fortnight before admission he had suffered from mumps, there being other cases in the family and in the same village. His attack was associated with diarrhœa so severe as to be called "English cholera" by the doctor attending him. The patient was said to have been extremely exhausted and almost pulseless afterwards, and was described by his friends to have been "nearly gone." On recovering from this about five days before admission he became excited, sleepless, and rambling, and passed into a condition of acute mania, in which state he was admitted to hospital. There was no special feature about his insanity while in the hospital; he rather rapidly improved, and was discharged recovered in October last.

CASE 2.—This case occurred in a young medical man who had an attack of mumps complicated with severe orchitis, for which he was admitted to a general hospital, and as a result of which he became depressed and suspicious, thought he was guilty of imaginary crimes for which he dreaded punishment, and was suicidally inclined. He had a short attack of melancholia, which passed off with improvement in his physical health, and eventually he recovered perfectly without the necessity of being sent to an asylum.

It is worthy of note that in both cases there was a severe complication associated with the mumps, so that there was considerable physical exhaustion, this seeming to have more to do with the attack of insanity than and severe febrile process or metastasis.

Bethlem Royal Hospital.

NODULAR PERIOSTITIS IN CHILDREN'S RHEUMATISM AND HEART DISEASE.

By ANGEL MONEY, M.D., F.R.C.P.

OF the occurrence of subcutaneous nodules we have hay records enough and to spare. It is not so generally known that nodules are rheumatic manifestations in other tissues. Nodular pericarditis, pericarditis with fibrous nodules, nodular pleurisy, and nodular periostitis are, however, undoubted facts. I have notes of a few cases in which subcutaneous nodules were associated with nodules growing from the bone—exostoses—resembling subcutaneous nodules in every respect except that they are firmly fixed to the bone and cannot be dislodged. One case, a boy aged ten, died, and then I was able to prove post mortem that his olecranon had nodular exostoses growing therefrom. He had many nodules in the valves of the heart, chiefly the mitral valve. Rheumatism is a frequent producer of fibrous nodules, limited localised lumps of connective tissue; a nodular sclerosis, different from the nodules of tuberculosis and from the limited fibroid formations of syphilis, but nodules or limited fibrous formations all the same.

Harley-street, W.

CASE OF SUPRA-PUBIC OPERATION OF OPENING THE BLADDER FOR STONE.

By CECIL A. CORKE, F.F.P.S., L.R.C.P., L.S.A.

W. B——, aged sixty-eight, consulted me about four years ago, when he suffered from chronic bronchitis, pain on micturition, and was passing gravel. About twelve months ago he passed some bloody urine, but this symptom has only appeared twice since. I sounded him for the first time in June, and discovered the presence of a stone; but from the symptoms then and in subsequent soundings I concluded that the stone was encysted, and from its position not easy to reach by the ordinary operation of lithotomy, so determined upon the supra-pubic operation.

On Wednesday, July 3rd, chloroform being administered by my coadjutor, Dr. Freeman, R.N., and in the presence of Dr. Sankey of Boreatton and Dr. Sandford of Baschurch, who kindly assisted me, I performed the operation, having first distended the rectum with an indiarubber ball of 10 oz. capacity. I injected ten to twelve ounces of boracic solution into the bladder, carefully dissecting and scratching my way

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through the tissues. The knife was only used three times. I had no difficulty in reaching the bladder and in extracting the stone, which was, as I had supposed, encysted, and not to be easily discovered; in fact, I at first thought there was no stone, as only a very small surface could be felt, and requiring some little manipulation to free it from its cyst walls. A drainage-tube was passed from the external wound through the urethra, and left *in situ* about five days. The patient has made an uninterrupted recovery, and is now (July 26th) passing all his urine by the urethra, and the wound is nearly healed. The operation was attended by very little hæmorrhage, all veins being held aside, and was much easier to perform than the perineal operation. The stone is about an inch long, half an inch broad, and weighs one drachm five grains.

I place this case upon record as the high operation is only recommended for large calculi; but in all cases of encysted calculi I strongly advise it, and believe it the best resource.

Baschurch.

LARGE BURNS.

By T. SOMERVILLE SMITH, M.D.

ON February 25th C. W——, aged three years and six months, being left alone in the kitchen, played with the fire, burning himself in a dreadful manner. I saw him half an hour after the accident, and found him in a state of collapse, suffering from shock. The extent of the burns, subsequently ascertained, was as follows:—

All over the abdomen, width five inches, length seven; down the left thigh, width three inches, length four; on the back, nine inches long and four wide; round each arm, three inches long and four wide; round the neck, three inches long and three wide. The true skin was burnt through over the whole of the abdomen and a portion of the back. Linen rags steeped in linseed oil and lime water were applied to the burnt surfaces. Purgatives, at first administered, were discontinued, as peritonitis set in, accompanied for nearly a whole day with suppression of urine. The child lay on its back with its legs drawn up, the bowels not being relieved for eight days. There was delirium at night for the first five or six days. The treatment was as follows: Brandy during collapse, with bark and ammonia; bromide of potash for rest at night. Linseed oil and lime water were continued for about a week, at the end of which linseed poultices, with plenty of linseed oil in them, were applied to the abdomen and part of the back to remove the eschars. When the wounds were perfectly clean the whole of the raw surfaces were smeared with an ointment composed of lard, zinc, and glycerine, under which they slowly but surely healed. The child's strength was kept up by tonics. There is a very slight contraction in the left groin, where the thigh and abdomen wounds meet; in all other respects the child is now convalescent.

Sittingbourne.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

CASES OF ORBITAL CELLULITIS AND ORBITAL ABSCESS; REMARKS.

(Under the care of Mr. J. B. LAWFORD, Assistant Ophthalmic Surgeon.)

THESE cases, which are examples of inflammation of the cellular tissue of the orbit, some of which terminated in abscess, illustrate the difficulty often met with in tracing a disease to a definite cause, as well as the successful treatment of a serious condition. In no case was any history of injury obtained, and in only one was disease of the bony wall of the orbit found, making it probable that the suppuration in the orbit was secondary to a localised periostitis. There had been no recent attack of fever or erysipelas, but in Case 4 renal disease was present, the patients were apparently free from evidence of visceral disease. Mr. Lawson[1] speaks of an acute inflammatory exudation into the orbit of a syphilitic nature presenting the characters of a cancerous growth, and considers that some of the firm orbital tumours which had gradually subsided under treatment may have been of this nature. To show the remarkable resemblance, he cites a case in which he was himself misled by this close resemblance to malignant disease. When unable to account satisfactorily for the onset of an inflammation, it is not infrequent to find it ascribed to a chill, and this observation applies equally to orbital cellulitis as to inflammations in other parts of the body. Day[2] described a case of acute exophthalmos. After exposure to cold rain the eye protruded nearly three-quarters of an inch, the pupil being dilated. The protrusion of the eye subsided only after two months, without suppuration in the orbit, and vision continued unimpaired. The fundus was not examined. He ascribed the condition to congestion of the vessels, and perhaps infiltration of serum or blood in the post-orbital tissues. There was apparently nothing to cause the disease excepting the exposure to cold. The subjects of orbital cellulitis and abscess are so frequently depressed and feeble that it is quite possible sudden changes of temperature may lead to a localised venous thrombosis, with a secondary inflammation of the tissues around. The disease may be part of a pyæmic infection of the system, and is occasionally found accompanying the puerperal state. It may be secondary to abscess of the lacrymal gland. The disease may prove fatal by extension of the inflammation backwards to the cerebral membranes, but this is not a frequent sequence. Much more commonly the result of the disease is shown in more or less complete loss of vision in the eye of the affected side, by stretching of, or pressure on, the optic nerve; ulceration of the cornea may also occur from damage to the ciliary nerves behind the globe.[3] As regards prognosis, much will depend upon the period in the course of the disease at which treatment is commenced and the way in which it is carried out, as well as upon the causation of the disease.

CASE 1. (From notes by Mr. Hinnell.)—Charles D——, aged thirteen, a schoolboy, was admitted on Aug. 25th, 1886. The illness began on the 15th, when the boy awoke at night with severe pain in and about the right eye. The lids were then noticed to be swollen. The pain has continued since, and there has been frequent vomiting. There is no history of injury, or of recent illness. Family history unimportant.

On admission, there was marked proptosis of the right eye, the globe being protruded to the outer side of the middle line; almost fixed, but a little outward movement retained. There was slight bluish discolouration of the lids, with very little swelling. The cornea were clear, the pupil equalled the left in size and reaction. V = J.1. Under ophthalmoscopic examination the retinal veins were engorged; the margins of the disc hazy. On palpation there was a sense of resistance beneath the upper orbital margin, with doubtful deep fluctuation. There were no enlarged glands. The child was in pain, looked ill and thin, and was said to have lost flesh rapidly. The tongue was furred. Temperature 97·8°; pulse 66; urine 1032, acid, no albumen or sugar.

Aug. 27th.—The condition of the eye has scarcely altered, but there is more pain. No sickness since admission. The temperature has slowly risen, and remains about 100°. There is now a solid resistance to be felt at the lower and inner part of the orbit. Ether having been administered, an incision was made close to the lower orbital margin towards the nasal side. At a depth of an inch to an inch and a quarter thick fetid pus was discovered, and two to three drachms let out; a small area of rough bone was felt. A drainage-tube was inserted, and an iodoform dressing applied. Pus continued to drain away in small quantities for the next two days. The boy was much more comfortable. The temperature continued above normal.

30th.—More proptosis; discharge of pus continues.

Sept. 3rd.—Considerable chemosis of conjunctiva; eyeball greatly protruded. Ether again administered, and the

[1] Diseases and Injuries of the Eye. [2] Medical News, April, 1888. [3] Nettleship.

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incision in the lower lid enlarged outwards. No further collection of pus discovered. Steady decrease in the protrusion of the eye ensued; pus continued to escape in small quanti ies. The pain soon ceased, the temperature became normal, and the boy improved in every way.

16th.—Slight recovery of voluntary movement of the eyeball upwards, inwards, and outwards.

21st.—L. V. = J. 1 (slowly). No ophthalmoscopic changes.

28th.—Movements of right eye rapidly increasing in extent. Still considerable proptosis.

29th.—Patient discharged. He was not seen again.

CASE 2. (From notes by Mr. Hinnell.)—William F——, aged two years, was admitted on Nov. 15th, 1886. The history given by the mother was that the child's left eye had been inflamed for a week, and that two days previously the lids had become swollen. The child had refused food, and was feverish and vomited. There was no evidence of injury.

On admission the left eyeball was considerably displaced forwards and slightly downwards. The lids were swollen, tense, and dusky. There was puffiness over the bridge of the nose, and in the left temporal region. Chemosed conjunctiva protruding between the lids at the inner canthus; cornea clear; left pre-auricular gland enlarged. There was swelling of the tonsils and uvula; no suppuration in the former; no membrane seen. Temperature 101·6°.

Nov. 16th.—Ether having been administered, an incision was made through the upper lid below the outer part of the upper orbital margin. Pus was found deep in the orbit. No exposed bone detected. A drainage-tube was inserted and a small poultice applied.

17th.—The swelling is rather less tense. Scanty discharge from the tube. No vomiting. Takes milk well. Morning temperature 100·6°. Warm-water dressing ordered.

23rd.—The swelling is considerably less, and the lids are now quite soft, excepting over a small area around the tube. There is still scanty purulent discharge. The child is much better. Temperature generally normal, occasionally rising to 99° and 100°.

28th.—Drainage-tube removed. Still much displacement of eyeball, but swelling of lids is nearly gone. Chemosis of conjunctiva persists.

Dec. 12th.—The child was discharged from the ward to-day. Steady improvement has taken place since last note. The patient was not seen again.

CASE 3.—Dorothy M——, aged seven months, was sent to Mr. Lawford at the hospital by Dr. M. Read, on Sept. 26th, 1887. One week previously the child had had a fit; beyond this there was no history bearing on the case. So far as was known the child had received no injury. No evident disease of nose or mouth. The left eyelids, especially the upper, were swollen and tense; indistinct deep fluctuation could be felt; eyeball considerably protruded and movements limited; cornea clear; pupil much larger than that of the right eye, remaining so under chloroform. An incision was made through the upper lid in its outer half, and a probe passed deeply into the orbit, but no pus or diseased bone was found. Warm lead lotion dressings were applied. The incision rapidly healed. Two days later the lids were less swollen and tense, but the proptosis was no less, and there was noticeable downward displacement of the eyeball. The left pupil was still larger than the right. The child seemed well, ate and slept well, and suffered apparently very little pain. On Oct. 3rd the swelling of the lids and proptosis had increased; the child appeared to have very little discomfort. The next day Dr. Read made an incision through the upper lid, and let out about half a drachm of pus. On Oct. 5th, when Mr. Lawford saw the child, this incision had closed. On reopening it a small quantity of dark thin pus escaped. No bare bone could be felt with the probe. The displacement and loss of movement of the eyeball was the same as two days previously. Ophthalmoscopic examination revealed nothing abnormal. Mr. Lawford did not see the child again till Oct. 19th. There was then slight displacement of the eye downwards, but it moved freely in all directions; there was still some thickening beneath the upper orbital rim, and the lid could only be raised half way. The optic disc and vessels were normal. On Nov. 2nd there was very slight downward displacement. Some thickening could be felt about the scar of incision. The child then appeared perfectly well. In April, 1889, Dr. Read wrote that the child had had no recurrence, and had been in good health since the above attack. The left eye and eyelids looked quite normal.

CASE 4. (From notes by Mr. Laws.)—James S——, aged twenty-one, a railway porter, was admitted on March 13th, 1889. On March 8th he had throbbing pain in the right eye, and noticed that it was bloodshot, and soon became swollen. Pain continued till the 11th, then decreased in severity, but the swelling became more noticeable. There was no history of injury; no bad teeth; no discharge from the nostrils. Three weeks previously he had a sore-throat, but it had left no trace in the fauces. He has not had syphilis or gonorrhœa, nor any of the specific fevers. He stated that three years ago his right eye was similarly affected, but recovered in a fortnight.

On admisson, there was considerable swelling of the right eyelid, with marked proptosis; the ocular movements were almost abolished; conjunctiva protruded between the lids; the cornea was clear, pupil dilated (probably by atropine used before admission); media clear; optic disc slightly blurred at the inner edge, and the veins tortuous; vision unaffected. Very little pain or tenderness. There was a doubtful sense of fluctuation above the eyeball. The temperature was normal; pulse 80. Heart sounds clear, but apex beat displaced upwards and to the left. Tongue furred. Urine 1035, acid; high coloured; good trace of albumen; no sugar; no casts; large quantity of crystalline phosphates. The patient was kept in bed and given a purgative of the citrate of potash mixture. Warm lead-lotion dressings were applied to the swollen lids. There was no appreciable change during the next two days. The urine became slightly alkaline; albumen still present. There was no urethritis or cystitis. The temperature was normal.

March 16th.—This morning slight serous chemosis of the *left* conjunctiva, and slight tenderness to pressure on the eyeball. No limitation of movement. Condition of right eye about the same. Proptosis decreasing.

20th.—Proptosis of right eye no less, but there is slight return of movements of the eyeball. Pupil active. Cornea clear. Chemosis of left eye almost disappeared. Urine: alkaline, deposit of amorphous phosphates, no albumen to-day, but a few granular casts.

24th.—Right eye improved in every way. Less proptosis, more movement. Left eyelids slightly swollen. Conjunctiva chemosed.

25th.—Left eye: increased swelling and some evident proptosis; movements of eyeball limited, especially upwards and outwards, but there is no pain. No ophthalmoscopic changes in either eye. On the afternoon of this day the patient's temperature rose to 100·8°, and he complained of pain in the left orbit; nausea, but had no shivering.

26th.—Better. Temperature normal. Pain much less. Left eye now more prominent than right. From this date steady improvement took place. Both eyeballs resumed their normal position and regained perfect movement, and sight in each eye = $\frac{6}{6}$. No ophthalmoscopic changes were visible. Albumen was not found again in the urine. The patient left the hospital on April 15th.

June 25th.—He has been quite well since his discharge.

Remarks by Mr. LAWFORD.—Perhaps the most noticeable feature of these cases is the apparent absence of adequate cause for the cellulitis. In not one was there a history of local injury, and in none could I obtain evidence of disease of neighbouring parts from which inflammation might have extended to the orbital tissues. Case 4 is in many respects the most interesting. Here, in an apparently healthy man, cellulitis of the right orbit appeared without ascertainable cause, and extension to the left orbit took place, though the inflammation was less severe in the second orbit. The occurrence in this patient of albuminuria was remarkable and unexpected, and its disappearance concomitantly with the improvement in the local and general symptoms lends support to the hypothesis that it was in some way connected with the inflammatory processes. It is to be noted also that in this patient there was a history of a somewhat similar attack of orbital inflammation previously. The recovery of all four cases without any extension of the inflammation beyond the orbits, and without, so far as can be judged, permanent damage to the optic nerves is matter for congratulation.

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CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK.

TUBERCULAR ABSCESS OF LIVER; MILIARY TUBERCLES IN LUNGS; NECROPSY.

(Under the care of Dr. THOROWGOOD.)

THIS case is chiefly interesting from the comparative rarity of tubercle of the liver, some of the abscesses from which attained to unusual size in this patient. The German pathologists describe tubercle as not unfrequent in the liver in the general tuberculosis of children, and specimens illustrating the condition have been shown at the Pathological Society.[1] Tubercle of the liver as a primary deposit is almost unknown. "Miliary tubercles are most frequently met with, and are often present in considerable numbers. Occasionally tubercles of the average size of a pea or a bean are observed. They always present a central cavity full of broken-down tissue and biliary colouring matter, with a capsule of yellowish or greyish tubercular growth."[2]

Francis S——, a labourer, aged twenty-one years, was admitted to hospital on Dec. 27th, 1888. The family history was good. He dates his present illness from a cold, caught ten weeks since. Lately he has become short breathed, has night sweats, and is losing flesh. In general appearance he is fair-haired, not emaciated. Appetite good; tongue rather coated; bowels not open; mucous expectoration with cough. Temperature 101°; pulse 100 (feeble); respiration 20. Urine acid, sp. gr. 1020; no albumen; no sugar.

Physical signs. — Chest fairly well covered. Heart's impulse feeble in the fourth and fifth interspaces in the nipple line. A short systolic murmur is heard over the apex. The hepatic dulness commences slightly above the fifth rib. The liver extends downwards about three inches below the costal margin, it feels fairly smooth, and is very tender. The rectus muscle is not markedly tense. Under the right clavicle much crepitant râles with sibilus can be heard, and under the left clavicle the breathing is fair, a few crepitations being audible. Below the right scapula resonance is impaired, breath sounds are very feeble, and faint friction sounds are audible. The spleen seems slightly enlarged.

The temperature during his stay in the hospital was irregular and wide in its range; usually from 101° to 102°, sometimes 103° to 104°. He had no rigors, and was very dull and apathetic in manner. The skin was sallow, but the conjunctivæ were not yellow, and the urine was free from bile. There had been slight œdema of the feet before admission, but never any ascites. He never had coughed or vomited blood. The question was as to the nature of the hepatic enlargement. The persistent febrile condition and the tenderness over the liver, with smoothness of surface, made Dr. Thorowgood suspect abscess, though there had been no rigors, and the patient had never been in a tropical climate. The absence of marked jaundice, blood-vomiting, ascites, and the very slight enlargement of the spleen were against cirrhosis. The evident disease in the right lung pointed to tubercular mischief, and possibly fatty liver. No remedies had any beneficial effect, though five-grain doses of quinine seemed to reduce the temperature from 103° to 101°. On Feb. 27th, 1889, he died, and from the ample record of the necropsy by Dr. Wetherhed, pathologist to the hospital, the following summary is made.

Necropsy, held on Feb. 28th.—The liver weighed 58 oz., was somewhat enlarged, colour pale, congested in patches, substance firm. The upper surface was adherent to the diaphragm, and the lower surface to the duodenum and parts around. Capsule much thickened. The liver was studded throughout with small nodules, varying in size from a pin's head to a large pea. The larger ones were breaking down in the centre, and stained a light green. Some of the cavities thus formed were as large as a chestnut. The contents examined microscopically showed caseous débris and crystals of fatty acids, but no tubercle bacilli could be found. Sections of the nodules showed typical tubercular structure, and in some bacilli were found. There was also a considerable amount of cirrhosis. The glands near the liver were enlarged, and many were breaking down in the centre. The bile-ducts were patent, and no communication could be found between them and the tubercular abscess. There was well-marked peritonitis on the right side, where a small hæmorrhage had taken place. No sign of tubercle in the intestines. Both lungs were full of grey miliary tubercles, and there were no old lesions at the apices.

Remarks by Dr. THOROWGOOD.—The case is of interest as one of tuberculosis of the liver. The disease does not appear common, for Frerichs states that only twice in necropsies of 120 phthisical patients did Louis observe tuberculosis of the liver. In children it is a more common affection than with adults. Dr. Murchison[3] has recorded a case where the liver was enlarged to 77 oz. from miliary tubercles scattered through the glandular tissue; the surface generally was smooth. Cirrhosis, or interstitial hepatitis, is known to be a complication of tuberculosis, but according to Frerichs[4] there is no symptom during life indicative of tuberculosis of the liver. A section of the liver in this case was shown by Dr. Wetherhed as a card specimen in May last at the Pathological Society.

[1] Dr. Hale White: Trans. Path. Soc., vol. xxxv., p. 220. Dr. Norman Moore: vol. xxxiv., p. 133. Dr. N. Dalton: vol. xxxvi., p. 235. Dr. Goodhart: vol. xxvii., p. 196.

[2] Bristowe: Theory and Practice of Medicine.

[3] Lectures on Diseases of the Liver, p. 140.

[4] Diseases of the Liver, vol. ii., p. 221.

Reviews and Notices of Books.

The Treatment of Epilepsy. By WILLIAM ALEXANDER, M.D., F.R.C.S. Edinburgh and London: Young J. Pentland. 1889.

SOME years ago the author of this work, influenced by the vascular theory of epilepsy, proposed and practised ligation of the vertebral artery as a means of cure of this most incurable of diseases. He has abandoned this treatment, of which the results were not so satisfactory as he had anticipated. He now comes forward with another, and even more formidable, surgical procedure which in his hands seems to bear greater promise. Nor has he hastily arrived at this conclusion, since some of his operations were performed as long as six years ago—a sufficiently long lapse of time to note the good effect, if any, of the operation. This consists in the removal of the superior cervical ganglion with the theoretical object of altering the nutrition of the brain through its vascular supply, and is applicable therefore to whatever view of the nature of epilepsy may be accepted, whether, that is, the primary seat of the disturbance be considered in the medulla (Van der Kolk) or in the cerebral cortex (H. Jackson). Dr. Alexander frankly admits that the procedure is based upon theoretical reasonings; and for some time he naturally hesitated to perform an operation which, according to experimental physiology, should lead to very marked disturbance in circulation and nutrition. However, he set to work to practise its details on the cadaver. His first case—one of facial tic and spasm, which he found to be relieved by pressure on the carotid—proved to be successful, and unattended by deformity or inconvenience beyond slight drooping of the eyelid and contraction of the pupil on the side of the operation. The general description of the operation is best given in the author's own words (pp. 22 and 23):—

"The patient should be anæsthetised with chloroform instead of ether, to avoid congestion of the veins of the neck. The head is placed on one side, and the part to be operated on exposed to a good light. An incision is then made three inches in length, from half an inch in front of the mastoid process, just below the ear, straight down the middle of the sterno-mastoid muscle, until we are stopped by the fear of wounding the external jugular vein. The fibres of the muscle are separated until the sheath and fascia beneath are reached. The sheath is cut through, and the inner side of the wound is drawn well inwards and lifted up. The fascia now seen at the bottom of the wound is also cut through, care being taken not to wound the internal jugular vein. This vein is pulled well inwards with a retractor, when the internal carotid artery will come into view, and the superior cervical ganglion will be

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seen lying behind it. The ganglion will be easily recognised by its greyish colour and its large size, which rapidly diminishes into a thin cord as we follow it downwards. This cord should be cut below, the lower end of the upper fragment seized by the forceps, and the ganglion freed from its connexion as high up as possible, by snipping with fine blunt-pointed scissors that cut well out to the end. When the ganglion is freed as far as possible, its upper connexion may be most safely and readily severed by traction. Some carbolic lotion is now used to wash out the wound, the inner side of the incision, which has been retracted, is allowed to fall outwards in apposition with the opposite side, after a drainage-tube has been introduced, and the wound dressed with gauze, sublimate wool, or any other antiseptic dressing."

It is needless to remark how much care is required by the operator to avoid injuring the important vessels and nerves which he will encounter in the course of his dissection. Dr. Alexander does not minimise these dangers, and gives many practical directions for their avoidance. He gives details of twenty-four cases of epilepsy thus treated, and after an interval of from four to six years reports of them that six were cured, that ten were improved (especially in their mental condition), and five unimproved. None were made perceptibly worse by the operation; but two died shortly after its performance (not, however, from its direct effects), whilst of one case no further information was obtained. He claims, therefore, that a percentage of recoveries amounting to 25 is an advance on the ordinarily admitted "cures" of epilepsy (7 per cent.) by medical treatment, whilst he avers that they were actually the cases most unfavourable for the latter treatment which recovered under his plan.

Extirpation of the cervical sympathetic ganglia in the human subject might be expected to prove of great physiological importance, since, as is well known, so many striking effects have been observed to follow this operation in the case of animals. It is, however, remarkable how slight were the phenomena observed in Dr. Alexander's cases, and how few of those noted by the experimental physiologist were present. As regards ocular phenomena, a contracted pupil and drooping eyelid were noticeable (but to a very slight extent, as the numerous photographs inserted in the volume show) only when one ganglion was excised. When both ganglia were removed the eyes seemed almost normal, and in neither case was the contractility of the pupil affected; no lacrymation, no evidence of impaired nutrition of the eyeball in any part resulted; whilst as to graver effects, no glycosuria and no cardiac phenomena were ever observed. Nor even was there any notable flushing of the face or rise in temperature, and yet it is remarked that in the cases where opportunity was given by a post-mortem examination an increased vascularity of the pia mater on the side of the operation was apparent. Physiologically, then, this operation has not added much to our knowledge of the function of the cervical sympathetic, except in the way of diminishing its importance in the human subject; whilst from the point of view of the surgeon it is satisfactory that so slight disturbance is occasioned by what *primâ facie* would be considered a very serious interference with the normal mechanism.

Dr. Alexander adds chapters upon Trephining for Epilepsy, and on the medicinal and dietetic treatment of the disease. He points out how detrimental to the general health is the continued and excessive use of bromides, and how few other remedies have any control over epilepsy. "Routine," he says, "is the curse of this disease, and routine generally means bromide." His new method of treatment is certainly calculated to startle us out of such routine. He has found that percussion of the spine (with a mallet over a rubber pad) from the lumbar to the cervical region will afford temporary relief in arresting the fits, and that this procedure may be employed together with galvanism, but that it has no curative power. An interesting chapter upon the General Management of Epileptics contains a description of the home at Maghull. Lastly, there is a chapter on Morbid Anatomy, consisting of details of many cases of tumour, and many of true epilepsy, but in only two, it is remarked, could "brain surgery" have had any reasonable chance of success.

OUR LIBRARY TABLE.

Lectures on the Errors of Refraction and their Correction with Glasses. Delivered at the New York Post-graduate School by FRANCIS VALK, M.D., Ophthalmologist to the New York Dispensary. Pp. 241. New York and London: G. P. Putnam's Sons. 1889.—These lectures are written in an easy and intelligible manner, and contain all, or more than all, the well-educated student need know, unless he is intending to make ophthalmology his special branch of practice. The author remarks very justly that, whilst many things may be learnt from writers, to obtain perfection in the correct detection of the errors of refraction the eye and hand must become accustomed to do their work, just as the skill of the artisan is shown by his manual dexterity in the work that he performs. He adds dryly that he has known some of our best ophthalmologists to differ very essentially on the degree of refraction when they estimate it with the ophthalmoscope. He commences with a description of the orbit, which is correct enough except that the cart is put before the horse in regard to the floor, which is said to be "formed partly by the bones from the inner wall, except in front by a portion of the malar bone, and near the apex by a part of the palatal and superior maxillary bone." The last-named bone should have been named first as constituting the major part of the floor, then the malar and palate bones, and last, as least important, the slight participation of the inner wall. The optic nerve is described as having only one nerve-sheath, a continuation of the pia mater. Why is the dural sheath omitted? The principal properties of lenses are then given, and the following chapters are devoted to Emmetropia, Hypermetropia, and Myopia, and to Ophthalmoscopy. The accounts of these states are of course accurately given, in some cases in a rather colloquial style, but in a way that will render the book useful to all ophthalmological students.

Archiv für Pathologische Anatomie und Physiologie und für Klinische Medicin. Herausgegeben von RUDOLF VIRCHOW. Band cxvi., Heft. 1 and 2. Berlin: G. Reimer. 1889.—The contents of these two parts of "Virchow's Archiv" consist of the following papers:—1. Elasticity of Arteries (healthy and diseased), by Professor Thoma and N. Kaefer (stud. med.). 2. Blood-plates (Blutscheibchen) are Constant Elements of Normal Mammalian Blood, by Dr. C. Laker. 3. Experimental Researches on the state of Intestinal Movements in Lowered Temperature of the Body, by Dr. C. Ludovitz. 4. On Hyaline Changes of the Skin produced by Freezing, by Dr. H. Kriege. 5. On Xanthoma Multiplex, Planum, Tuberosum, Molluscifórme: I. Clinical, by Dr. G. Lehren; II. Anatomical, by Dr. K. Krauss. 6. On Tuberculosis in Vertebrates, by W. K. Sibley. 7. On the Theory of Suppuration, by Dr. P. Grawitz. 8. The Origin of Stenosis of the Air-passages in Tracheotomised Children, by Dr. W. Fleiner. 9. On Nerve Lesion and Loss of Hair with respect to Alopecia Areata, by Dr. G. Behrend. 10. A Historical Sketch of Early Medicine in Rome, by Dr. Saalfeld. 11. Spontaneous Pulmonary Hernia in Adults, by Dr. Strubing. 12. The Action of Astringents, by Dr. Heinz. 13. Relation of Motor Ganglion Cells of the Spinal Cord to the Peripheral Nerves, by Dr. von Sass. 14. On Defective Skulls, by J. Fridolin. 15. Bacteriological Reports on Green Sputum, by A. Frick. 16 On Mycosis Fungoides, by W. Dönitz and O. Lassar. 17. Fibrous Tubercle caused by Ova of Parasites, by Dr. Miura. 18. Notes on the Pathology of

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the Blood, by Professor Neumann, and a few minor contributions.

Medical Bookkeeping.—We have received for review a prospectus of Mr. P. B. Ferdinand's system of "medical bookkeeping," which describes an attempt to combine an account book and a case book in one set of documents. Strictly speaking, Mr. Ferdinand's invention is not a system of bookkeeping in the business sense, but a particular form of that very useful object, a nest of "pigeon holes" for the orderly preservation of papers. It is designed to receive a number of dockets, in which the memoranda for case book and account book may be noted down and preserved for easy reference. The dockets, being sorted out into distinct compartments arranged in alphabetical order, can be easily found when wanted and carried on his rounds by the medical practitioner in his pocket-book, a suitable form of book being supplied with the apparatus. Thus the medical man has the great advantage of having so much of his case-book as he wants to refer to always at hand, and the want which a busy man always feels of facilities for refreshing his memory as to the history and details of a case is very successfully supplied. The system, the apparatus connected with which may be obtained of the firm of Thompson, Walters & Co., Curtain-road, E.C., seems to be capable of being worked without very much trouble, and we cannot doubt that it will prove to be of great utility.

Dictionary of National Biography. Vol. XIX., Finch—Forman. Edited by LESLIE STEPHEN. London: Smith, Elder, and Co.—The nineteenth volume of this important work contains 474 biographical sketches, commencing with Anne Finch, Countess of Winchilsea (d. 1720), poetess, and ending with Simon Forman (1552–1611), astrologer and quack doctor. The College of Physicians summoned him in May, 1593, for practising without a licence, maintaining that he was laughably ignorant of both medicine and astrology. Forman, who declared that celestial signs and aspects gave him all the information about diseases that he required, was fined £5, and interdicted from the practice of medicine. Forman was several times afterwards imprisoned and fined for the illegal practice of medicine. Amongst the medical biographies in this volume, we notice William Webster Fisher (1798–1874), William Henry Fitton (1780–1861), Alexander Fleming (1824–1875), Malcolm Flemyng (d. 1764), John Fletcher (1792–1836), Valentine Flood (d. 1847), Sir Charles Fergusson Forbes (1779–1852), James Forbes (1779–1837), and John Forbes (1799–1823).

New Invention.

A NEW SPONGE ELECTRODE FOR GENERAL FARADISATION.

THE annexed woodcut represents an electrode which I have devised for applying general faradisation. It consists of three parts: a knob (A), containing a female screw, a metal plate from the centre of which rises a male screw (F), terminating in the binding screw (B). A wooden disc (C), on whose lower surface is cut a groove to receive the turned up edge of the plate (G). This disc is cut at its centre in a hole large enough to allow the male screw (F) to travel easily within it. To insert the sponge spread it out flat upon the table, and place the electrode upon its centre, the knob (A) having been unscrewed as far as it will go, and the male screw pushed down, thus leaving a gap between the plate (G) and the wooden disc (C). The relative positions of the electrode and sponge are shown in Fig. 1, which exhibits a side elevation. The edge of the sponge is now tucked in all round with a paper knife into the gap between the edge of the plate and the wooden disc, or body of the electrode, and the knob (A) is screwed well home. To remove the sponge the process is reversed. Fig. 2 shows a section of the electrode with the sponge in position, the edge of the sponge being firmly held between the turned up edge of the plate (G) and the rebate on the under surface of the wooden disc. The sponge must be circular and trimmed to the thickness of about an inch and a half in the centre, thinning to about half an inch at the extreme edge. The advantages of this electrode are: 1. Its size is

Fig. 1.

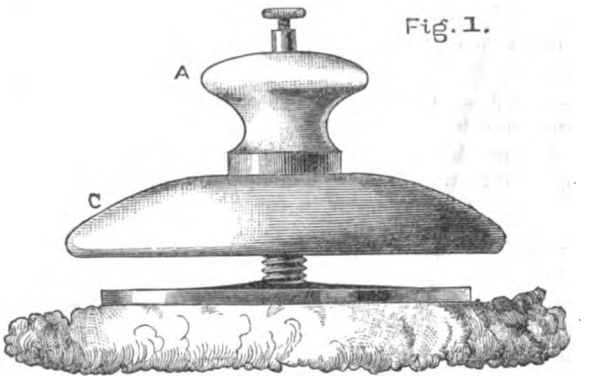
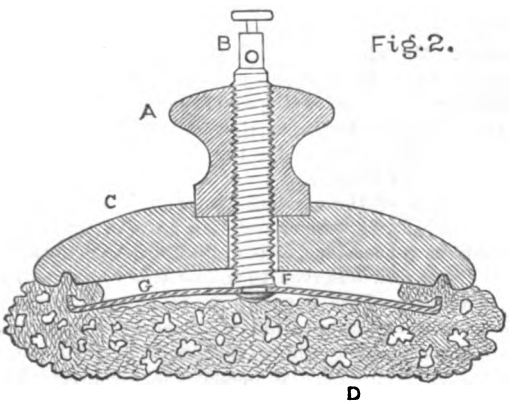


Fig. 2.



large (4½ in. to 5 in. in diameter). 2. The ease with which the sponge can be removed and replaced. 3. Its firmness, which enables a considerable amount of massage to be performed with it. In using it the palm of the hand is placed flat upon the upper surface of the wooden disc, the knob being grasped between the roots of the thumb and forefinger. It is made by Schall, of 55, Wigmore-street, W.

GEORGE HERSCHELL, M.D. Lond.
West-street, Finsbury-circus, E.C.

LECTURES ON CHEST DISEASES FOR ADVANCED STUDENTS.

To the Editors of THE LANCET.

SIRS,—May I be allowed to draw the attention of the profession to the fact that the Committee of Management of the City of London Hospital for Diseases of the Chest, Victoria-park, have recently consented, at the urgent request of the medical staff, to allow the practice of the hospital to be made available to practitioners and students, on the payment of a small fee, for systematic instruction in the diagnosis and treatment of chest diseases? The practice is extensive; it comprises a service of 164 beds, and an out-patient department attended by about 14,000 cases a year. There appears to be a considerable demand for post-graduate instruction in the chief subjects connected with clinical medicine, but as the material at our disposal at this hospital is unsurpassed, as far as the subject of chest diseases is concerned, there should be no difficulty in meeting it. For senior students, too, the opportunity thus given of studying a large number of cases of chest diseases must be of great value.—I am, Sirs, yours very truly,

VINCENT D. HARRIS, M.D., F.R.C.P.,
Physician to the Hospital.
Wimpole-street, W., Aug. 5th, 1889.

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THE LANCET.

LONDON: SATURDAY, AUGUST 10, 1889.

THE conception of tuberculosis gained by the memorable discovery of the bacillus by KOCH in 1881 is being rapidly pushed to its extreme logical conclusion. For it is remarkable how widespread is the acceptance of the belief, based on that discovery, that this morbid state, which manifests itself in so varied a manner, according to the tissue or organ that is primarily attacked, depends upon the introduction of this parasite into the body. The disease thereby takes a definite position amongst the infective class, since, so far as present knowledge goes, all diseases owning an ultimate cause in an organised virus are communicable. It does not matter for the argument whether—as undoubtedly would appear to be the case with regard to tuberculous affections, and as is probably true of the whole group of specific infective disorders—the victims selected have been already predisposed by heredity, environment, or otherwise to become a favourable soil for the growth of the parasite. This is a question which ought not to enter into the consideration of the preventive measures to be adopted, except in so far as it is necessary to secure that individuals so predisposed are placed under conditions the most favourable for the maintenance of general health. For it is conceivable that under certain transitory conditions an individual not predisposed may yield to the attack of this ubiquitous parasite. No better illustration could be given of the manner in which the bacillary doctrine of tuberculosis now dominates the scientific world than the fact that in Berlin, Paris, New York, and Glasgow there have been recently published declarations, police regulations, reports and judicial decisions, all of which turn upon the acceptance of this doctrine as an assured fact, with the corollary affirmation of the transmissibility of the disease from man to man, and from animals to man. The result is, and can only be, on the admission of this teaching as a proved scientific truth, the enforcement of prophylactic measures of the most stringent kind, such for example as have been widely promulgated during the past week by the Committee of the Paris Congress on Tuberculosis, constituted by many eminent men, an enumeration of which will be found in another column. The policy adopted is "thorough" enough to satisfy the most ardent hygienist; but he indeed would be sanguine who could hope to see even a tithe of these recommendations carried out in practice. For, owing to the complex conditions of civilisation, to the sentiment of humanity, as well as to the affections of the family circle, it is obviously impossible to obey these harsh, if wholesome, dictates of science. In the abstract, doubtless, such recommendations are logical and reasonable; in their application to the prevalent conditions of human existence they will fail by their own impracticability. We talk of the segregation of lepers as the one efficient method for restricting the spread of that scourge of subtropical lands, and perhaps we could realise what that implies if we applied the same measure to subdue the ravages of a disease which in its extent and its fatality ranks far above leprosy. Yet, to be logical, to the one disease should be meted out the same measure as to the other, or the millennium of hygiene will never arrive.

We have stated the matter thus broadly, not because we either mistrust the evidence upon which the conclusions of the Paris Congress were based, or question the validity of these conclusions, but merely in order to point out the practical impossibility of acting upon them. Nevertheless there are directions in which it may be possible to carry out with fair prospect of success the most rigid requirements of the Congress, provided of course that there is good ground for the execution of such measures. It may, indeed, be impossible to protect mankind from tuberculous infection through individuals in the same way as is done in the case of contagious disease generally; but if it be true that much of human tuberculosis is derived from the lower animals, it is at least comparatively easy to close this avenue of contamination. Not long ago it was maintained that bovine and avian tuberculosis were diseases of a nature distinct from human tuberculosis. Even since KOCH'S discovery this contention has been upheld, based now not merely upon gross anatomical differences, but on the infinitely more minute differences in the morphology of the bacilli that are met with in various kinds of animals. However, this view has now been practically abandoned; and, in his recent report to the Agricultural Department, Professor CROOKSHANK dealt it the *coup de grâce*. It appears incontestable that the morbid condition known as tuberculosis is of the same kind in man as in those animals which are specially prone to it, some of which, such as cattle and poultry, form in many ways staple articles of human food. It has been abundantly proved that any portion of tubercular products administered to animals (prone to tubercle) in food or by inoculation will reproduce the disease in the latter; so that it would, with our present knowledge, be an act amounting to a crime to give an infant milk from a cow suffering from tubercular mammitis. Yet who knows how often this has been done in the past, or how much of infantile mortality from tabes mesenterica may be attributable to the direct introduction into the alimentary canal of the parasite—a result which would have its analogy in the induction of an attack of typhoid fever from the ingestion of water contaminated with the typhoid virus or of trichinosis from the ingestion of a piece of raw, measly pork.

The Paris Congress of 1888, of which the Transactions[1] have just appeared, advanced this question a stage further, supporting it by many and forcible arguments, as may be judged by the following resolutions passed at the meeting: "It is imperative that every possible means should be adopted, comprising compensation to parties interested, for the general application of the principle of seizure and general destruction in totality of all flesh belonging to tuberculous animals, no matter how slight the specific lesions found in such animals." (Page 156.) And again: "The Congress expresses the wish that tuberculosis be included in the sanitary laws of all countries in

[1] Congrès pour l'Étude de la Tuberculose chez l'Homme et chez les Animaux. 1re session, 1888. Comptes Rendus et Mémoires. Paris: G. Masson. 1889.

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the world amongst contagious diseases requiring special prophylactic measures" (p. 716); whilst the French Government, at the very time of the session of the Congress, promulgated a decree enjoining the destruction of carcases in which the tubercular lesions were limited to parts of the body. This is the question which recently excited so much interest in Glasgow, where a judicial inquiry, lasting over many days, was made for the purpose of enforcing the order of the local authority for the destruction of two animals condemned as unfit for human food on account of the presence in them of such limited evidence of tubercular disease. The questions of scientific investigation were submitted to the close analysis of legal advocates, and expert witnesses were called to give evidence on both sides. The views of the Paris Congress prevailed, and KOCH'S bacillary theory, with all its consequences, has received judicial sanction at the hands of Sheriff BERRY, who upheld the local authority, and declared that the flesh (in itself having the appearance of health) of a tuberculous animal is unfit for human consumption. The inquiry was one of great interest and importance, and the evidence given deserves to be widely studied.[2] As it is impossible in the space at our disposal to lay the matter fully before our readers, we propose to return to the subject next week. Meanwhile, it is needless to point out the influence that this decision may have, since tubercular disease in one form or another is perhaps the commonest affection from which cattle suffer; and the general application of the principle therein laid down may necessitate a considerable change in arrangements connected with food supply as well as in sanitation generally.

WE hope that our readers have carefully weighed the facts and arguments so well stated by Mr. HOWARD MARSH in his lectures at the College of Surgeons, an abstract of which we published in our issue of July 27th. There are few, if any, subjects of greater importance to a British surgeon than that of tubercular disease of bones, joints, and glands, and this importance does not arise solely from the number of patients affected, but quite as much from the destructive nature of the disease in many cases, and also from the wide range of variety in course and consequences that it exhibits. The progress of pathological discovery has largely affected the prevalent practice in this branch of surgery. So long as tubercle was regarded as a constitutional affection with local manifestations, treatment was directed mainly to the constitution, and it was regarded as useless to remove a mere local manifestation if the essential disease or morbid condition were left behind. Then came the discovery of the infective nature of tubercle, and the danger of a limited caseous deposit becoming a source of fatal infection for distant organs or for the whole body was impressed upon surgeons, and the expediency of operations for the removal of tubercular deposits was discussed. And when, in 1882, KOCH announced that he had demonstrated the existence of a specific bacillus in connexion with tubercle, a powerful impetus was given to the local treatment of all tubercular diseases. It is, unfortunately, only too true that scientific men, like ordinary mortals, are largely swayed by "fashion." The prevailing "fashion" in modern medicine is a belief in micro-organisms as a potent factor in disease. And so, advancing far beyond what has been demonstrated with proper precision, there are many among us who speak as if micro-organisms were the sole factors in disease and the undoubted cause of all infective maladies. They would also disregard all clinical experience which is opposed to the prevailing pathological dictum. Many recent statements as regards the treatment of surgical tuberculosis show the tendency there is to be influenced by one phase only of pathological truth, and the danger of making a partial view of the nature of a disease a guide in its treatment.

Mr. HOWARD MARSH has done excellent service in calling attention to this matter as regards tubercular disease of the hip, and his lectures ought to have a powerful influence in modifying what may be called the most modern practice in this department of surgery. Mr. CROFT has now for some years been an earnest advocate for early excision of the hip, and has formulated the simple rule that the presence of pus in connexion with morbus coxæ should be taken as a sufficient indication for this operation. Mr. BARKER goes even further than this, and, adopting an explanation for the non-success sometimes attending this practice, which is very common in surgical writings, he states that if evidence of suppuration is waited for the surgeon will often operate only late in the disease, and too late for a full measure of success to attend his efforts. He urges that as soon as the surgeon suspects caseation of the inflammatory products he should proceed to excision of the joint. Mr. HOWARD MARSH, on the other hand, would limit operative interference to the opening of abscesses, and trusts to prolonged rest, with extension and fixation, and general hygienic precautions. He gives statistics to show that the danger of general or distal tubercular infection from bone and joint disease has been exaggerated, and that it is known to occur in only about 5 per cent. of all cases of hip disease. He is strongly of opinion that the tubercular process in bone has a great tendency to be self-limited and to undergo recovery, and that in some cases suppuration is but nature's method of throwing off dead tubercular matters—sequestra he calls them,—and must not be regarded as a destructive process at all. But his case becomes stronger still when from pathological evidence he appeals to actual clinical experience. Against a mortality of 20 per cent. he has to set one of 5 per cent., and while the advocates of early excision have to record a large number of partial successes and shortened enfeebled and distorted limbs, Mr. MARSH is able to show a much higher percentage than they do of strong, firm, fully movable limbs of proper length.

Mr. MARSH might have supported his views by much collateral evidence, particularly perhaps from cases of caries of the spine. He does not in his lectures deal with one argument that is sometimes urged by the advocates of early incision—that of time. They point out that for the wealthy and for the few poor who can obtain admission to institutions such as the Alexandra Hospital, where patients are allowed to stay as long as they require treatment by rest, this rest treatment is all very well. But how about the number of poor who crowd our general hospitals, where a time limit

[2] *Tuberculous Meat.*—Proceedings at trial under petitions, at the instance of the Glasgow Local Authority, against Hugh Couper and Charles Moore, before Sheriff Berry. Glasgow: W. Hodge. 1889.

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is enforced? Is it not far better to take their cases in hand early and excise the joint and send them home in a month or two than expose them to the perils and disappointments of an imperfectly carried out rest-treatment? This is, of course, an important point, but we cannot admit that it is a satisfactory reply to Mr. MARSH. If the final result of early excision both as to life and to utility of limb were as good as that obtained by prolonged rest, then a treatment demanding only weeks or a few months might be preferred to one involving years, even although a serious operation had to be performed. But the case is not so. The mortality attending early excision at present is four times greater than that following the opposite practice, whilst the mutilation resulting in those who survive is often severe. Of course Mr. MARSH'S vigorous attack will be followed by an equally vigorous defence; and we cannot doubt that the result of discussions of the subject by men so able, so painstaking, and so conscientious, will be of great benefit to the suffering children of our crowded towns.

IN the current number of the *Nineteenth Century*, Dr. BURNEY YEO discusses the well-worn but never uninteresting topic of change of air. There is something suggestive in the mere phrase itself. We do not so commonly speak of change of place or change of scene as of change of air, implying, correctly enough, that it is to an altered atmospheric condition that we look mainly for physical benefit. The German phrases "Luftkur" and "Luftkurort" carry the same implication; and if our faculty for adapting our own language to express new scientific ideas equalled that of our Teutonic neighbours, we, too, might speak of "Air-cure" and "Air-cure-place." Air and food are the materials out of which the organism is built up and maintained, and change of air has a necessity and a utility comparable to variety in diet.

The first kind of change that naturally suggests itself is change from town to country. While Dr. YEO quotes almost with approval the saying of a well-known physician, that he knew "no place so good as London to live in for ten months of the year, and no better place for the other two"; yet we are all practically agreed that a change from the smoky and germ-laden atmosphere of large cities to the pure air of moor, mountain, or seaside is for most persons as necessary as it is undoubtedly pleasurable. Without going the length of the witty philosopher, who opines that

> "All that's great and good in men
> Has its source in oxygen,"

we must admit that without a more abundant supply of oxygen than is afforded by the exhausted atmosphere of our great towns we cannot hope to preserve permanently full vigour of brain and muscle. The delight with which the child hails the departure for the summer resort by mountain or sea, the immense tide of excursionists which flows on each public holiday along the various channels of exit from London and other great centres, the yearly increasing facilities afforded for travel, all tell the same tale of a great need and of the pleasure that attends its satisfaction.

Of the tonic and restorative qualities of sea air, Dr. YEO says truly that nothing new remains to be noted. He goes on to point out the less favourable effects which sometimes follow recourse to the seaside: "Disturbances of the functions of the stomach and liver may frequently be observed in some nervous sensitive subjects when they are dwelling on the seashore, and a seaside dyspepsia accompanied by great nervous depression is not a very rare affection. These disturbances may, however, often be avoided by those who are sensitive to them, by the selection of a coast resort where they can conveniently live at a little distance from or above the sea. It is in those resorts where the visitors have to live on a level with and literally by the sea that these unpleasant consequences are especially observed."

In common with all other authorities, Dr. YEO regards a sea voyage as affording one of the most perfect and healthful types of change of air. He recommends sea voyages "in those cases of anomalous nervous affections, unconnected with organic disease, that are induced by overwork, worry, and anxiety, and often associated with disorder of the digestive organs." Again, "instances of slow, protracted, and incomplete convalescence from acute disease, from surgical operations, &c., are occasionally greatly helped towards complete recovery by a sea voyage, more especially if the persons concerned have a natural fondness for the sea, and do not contemplate the life on board with dread and distaste. To young persons approaching adult age and suffering from debility, the consequences of over-growth, or over-educational strain, or dependent on other depressing influences, a condition which often appears to threaten to terminate in serious disease—to such a long sea voyage is often of essential service."

On these points there will, we conceive, be general agreement. Much more disputable is Dr. YEO'S low opinion of the utility of sea voyages in phthisis. He believes their repute in this affection is almost solely due to the good results which commonly attend a voyage in cases of the debility of adolescence alluded to above, where "incipient consumption" is often erroneously believed to exist. Subtracting such cases, he believes that the residue—i.e., of cases of phthisis decidedly benefited by a sea voyage—is "surprisingly small." This is an opinion so opposed to general experience, and concerns a matter of such vital importance, that it may be worth while to formulate some of the evidence upon which sea voyages are relied upon as a valuable remedial agent in phthisis. Dr. WILLIAMS reports as the outcome of his experience that "the results of sea voyages were that 89 per cent. of the patients improved, 5½ per cent. remained stationary, and 5½ per cent. became worse." He adds the very important remark that "this is the most favourable of all our climatic experiments." Dr. WALSH, after stating that he regards a long voyage as "a remedial measure of real value," goes on to say that "in not a few instances he has known the Australian voyage followed by practical recovery." Dr. DOUGLAS POWELL writes: "The sea voyage is unquestionably a most successful means of climatic treatment in suitable cases." This evidence might easily be multiplied tenfold, so we can hardly follow Dr. YEO in his unfavourable estimate of the sea voyage. We need hardly say that we agree heartily in what he writes regarding "the impropriety, unwisdom, and in some instances the positive cruelty of sending feeble persons, the subjects of advanced consumption, to encounter all the

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vicissitudes, risks, and occasional hardships of a long sea voyage." This warning is no doubt still necessary.

Dr. YEO concludes with some remarks on the winter resorts, such as Madeira, Las Palmas, Orotava, and the Mediterranean sanatoria. We are quite in accord with all he says about the necessity of being on our guard against the defective hygiene of so many foreign resorts. Happily there is reason to hope that a steady change for the better is in progress in many places.

IT was hoped by the Government that the Notification Bill would come on in Committee on Monday night, when Sir WALTER FOSTER would have had the opportunity of bringing forward his amendment for restricting the duty of the medical practitioner in attendance on an infectious disease to certifying its nature. We cannot regret the delay which will secure attention to the amendment; it should be utilised by all practitioners in urging on their representatives to give it their support. The Government, of course, is master of the situation, and has a very obedient majority at its back. But we still hope that Mr. RITCHIE will consider the great reasonableness of the position taken up by the medical profession. According to Mr. STOREY, the profession cares more for half-crowns than for the merits of this question, and the unfitness of the duties which the Bill as it stands will impose on them. We will not credit Mr. RITCHIE with such an erroneous estimate of the feelings of medical men. We prefer to urge on him the advantage of conciliating them and preserving their hearty interest in the great measure of which he has charge, and which, like others, will redound to the honour of his name. We will enumerate the points which constitute the strength of Sir WALTER FOSTER'S position. The duty sought to be imposed on medical practitioners is an inconvenient and incongruous one. They are a busy class of men, and in attending to one case may have a dozen more needing their prompt attention. In such circumstances it is unreasonable to expect them to notify—that is, forthwith to send a communication to the sanitary authorities with particulars of the case, the patient, his situation, and his responsible relatives. No such duty is required of the medical man in the case of death. He is required to certify the facts. But the transmission of the certificate—in other words, the notification—is left, and with perfect success, to the householder or parent. It is said, of course, that there are not the same guarantees as in the case of death, where interment cannot take place until registration is certified. And there is something no doubt in this difference. But there is not enough to justify, at any rate as a first experiment, the plan of requiring notification from the medical man as well as from the householder. It will be easy enough to add the dual notification if the single fails. But the latter should have a fair trial. And we can promise Mr. RITCHIE that the system shall have every assistance and encouragement from the medical profession, who have never been backward in subordinating their own interests as a profession in the cause of public health. Much is to be gained in this matter by conciliation. The invasion of the privacy of the household and of personal and domestic liberty is a matter on which hot haste and iron compulsion would be unreasonable. Time will in any case be necessary to educate the people to a knowledge of the law and to acquiescence in it; it cannot be borne all at once. Mr. RITCHIE shows his own sense of this in a way that we do not approve. He stops short of making the Act applicable at once to all places. He temporises, and leaves it to the local authorities to accept or reject it as they please. This is scarcely fair; as all the care of one place to secure notification may be frustrated by the carelessness of an adjoining place that refuses to "adopt" the Act. There is too much of this sort of legislation nowadays, as if the House of Commons were timid and distrustful of its own authority. The really wise course is to make the Bill universal in its application, and to secure that the machinery of its working shall be such as to cause least friction. We appeal to Mr. RITCHIE to try single notification first, which is believed by Mr. BIDDLE and others to have been proved to operate most effectively. This concession would secure the passing of the Bill this session, which otherwise might be doubtful.

Annotations.

"Ne quid nimis."

VACCINATION AND SMALL-POX MEMORANDA.

AT the present time, when the value of vaccination as a prophylactic against small-pox is under the consideration of a Royal Commission, a few memoranda, although dealing with well-known facts, may from time to time be conveniently recorded. In the first place, we note that Dr. B. A. Whitelegge gives, in his annual report for the borough of Nottingham, an account of recent small-pox outbreaks which may well shake the faith of those modern enthusiasts who want to rely on irksome and as yet illegal systems of quarantine and isolation, and to abandon vaccination. The first occurrence of small-pox referred to was in December, 1887, in which case nothing was heard of the malady, even under a system of compulsory notification, until a number of people in Nottingham had been infected and the disease had been conveyed to Ilkeston in a fatal form, to Stoke-upon-Trent, as well as to other places. Fortunately, by the aid of vaccination, in addition to measures of isolation, the spread of the infection was stayed. In all, 61 cases are reported on, and the greater comparative incidence of the disease upon unvaccinated persons, and the excessive mortality among that class, were manifested, to use Dr. Whitelegge's words, "in the usual startling way." In the first place, revaccinated persons were entirely exempt from attack. There were 41 attacks amongst those who had been vaccinated in infancy, all but 2 being over ten years of age; of these, 6 died, including a man aged thirty-eight, who bore no characteristic marks of vaccination. Amongst the unvaccinated, 14 were attacked, 9 of the attacks being under ten years of age, and of these 6 died. Six of the patients had been vaccinated after infection, but none of them died. No death of a primarily vaccinated person took place under twenty years of age, whereas half the fatal unvaccinated cases were under five years of age. This question of age-incidence of the disease should altogether dispose of the contention that sanitary improvements lie at the root of the diminution of small-pox in this country, for sanitary influences have, as regards other diseases, been at least as much marked in their influence for good amongst children as in any other class. From Bristol Dr. D. S. Davies supplies information as to 327 cases of small-pox which occurred between August, 1887, and July, 1888. With regard to the incidence of death

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according to quality of vaccination, the attacks are divided into two groups according as the patients were under or over fifteen years of age. First, as to those under fifteen. In 20 attacks amongst the unvaccinated or doubtful there occurred 11 deaths, this being at the rate of 55 per cent. of the attacks; whereas amongst those having vaccination marks, whether one or more, only one fatal attack occurred, and this was in the case of an infant ten weeks old who had only been vaccinated one week before admission—namely, after contracting the disease. Above fifteen years of age the deaths to attack were as follows:—Amongst 33 unvaccinated or doubtful, 14 deaths; amongst 49 with one or more bad marks, 7 deaths; amongst 18 with one good vaccination mark, no deaths; amongst 78 with two good vaccination marks, 1 death; amongst 39 with three good marks, no death; amongst 22 with four good marks, 2 deaths, one being associated with premature confinement, which is almost invariably a fatal complication; and, lastly, amongst 2 with more than four good marks, 1 death occurred. Thus, whereas out of 82 who were unvaccinated, doubtful, or who had only one or more bad marks, 21 died; there were only 4 deaths out of 159 cases at all ages with one or more good primary marks. Dealing next with the character of the disease as affected by age, it appears that 5 unvaccinated cases were met with under twelve years of age, and all these had the "severe" form of the disease—that is to say, a confluent or semi-confluent attack,—no vaccinated child under twelve years having anything but a "mild" or discrete attack. Above twelve years there were 54 cases of "severe" small-pox, 46 of them being amongst either the unvaccinated or those not possessing more than two vaccination marks. There were 6 cases of hæmorrhagic small-pox; 3 were amongst the unvaccinated, and the other 3 amongst the "badly vaccinated."

"SPONDYLALGIA."

DR. MAX BUCH describes in a preliminary communication to the *St. Petersburger Medicinische Wochenschrift* a nervous cardialgia, the pain in which he discovered to be strictly confined to the anterior surface of the vertebral column, and to be caused by pressure. The pain is so exclusively due to pressure upon the bone that in those of his forty cases in which it was referred to the epigastrium the result of pressure over this region was not merely absence of pain, but rather a feeling of comfort, while pressure on the vertebral column in the umbilical region caused not only local pain, but a neuralgia also, radiating into the epigastrium, and exactly corresponding with the spontaneous pain. Spondylalgia may, according to Dr. Buch, reach as far down as the sacral promontory; in which case, however, some parts of the vertebral column are usually more sensitive to pain than others, or special localities alone are sensitive to pressure. Spontaneous pain also may affect the whole column, and patients often complain during attacks of gastralgia of a pain affecting both sides of the sternum, extending to the clavicle, or over the middle of the chest and the lower half of the sternum. In most of these cases Dr. Buch succeeded in producing the same pain by exerting pressure on certain points of the abdominal part of the vertebral column. Spondylalgia is, indeed, like true neuralgia, apt to radiate from any point over which pressure is made towards some distant points, the pain being not only local but also remote. Dr. Buch believes that he has made out a correspondence between certain points: pressure, for instance, about an inch above the umbilicus generally causes pain in the region of the sacro-iliac synchondrosis, or a little above the sacrum; pressure about an inch below the umbilicus causes pain, radiating into the epigastrium, and especially into the pit of the stomach. In one patient, a woman of forty, pressure in the umbilical region caused a pain like compression in the middle of the vertex, exactly similar to clavus hystericus. Pressure on the spinous process was rarely painful. Other symptoms of spondylalgia are malaise, eructations (often sour), ravenous appetite, or a feeling like that of hunger. The bowels are normal or a little constipated; diarrhœa is rare. In some cases painful pulsation of the abdominal aorta was observed. All the symptoms of spondylalgia most frequently denote general neurasthenia. They also occur in chlorosis and diseases of the uterus. The affection is, pathologically, a neuralgia of the vertebral plexus of the abdominal sympathetic, to which the name "spondylalgia" has been given by Dr. Buch as being short and graphic. His treatment consists in a subcutaneous injection of a 50 per cent. solution of antipyrin into the abdominal region, or, in cases of neuralgia, at the seat of pain. The injection is rather painful, and the puncture if left to itself remains so for many days. If, however, massage is practised immediately after the injection, first lightly and then with some amount of energy, to disperse the liquid, the sensitiveness disappears in about ten minutes. Dr. Buch used the antipyrin injection, according to circumstances, daily or every two or three days. A complete cure occasionally took place after one or two injections, but sometimes only after ten or more. Improvement was generally observed after the first injection. The original affection must, of course, never be neglected, and in chlorosis the spondylalgia has been known to disappear under the administration of iron. He mentions as particularly interesting from the therapeutic point of view cases in which the spondylalgia disappeared under long-continued palpation, so that massage of the abdomen may in some cases be an excellent method of treatment. In conclusion, the author states it as his opinion that the affection is very common, and that every case of cardialgia and dyspepsia ought to be examined for traces of it.

THE MELBOURNE OPERATING THEATRE.

WE learn from the *Speculum*, a journal of the Melbourne medical students, that there are serious defects in the operating theatre of the Melbourne Hospital. It is referred to as "the operating theatre (so-called) of the Melbourne Hospital, which for antiquity and inconvenience stands almost unrivalled as a monumental mausoleum of modern apathy." It is said to be situated on the ground floor, an isolated building with one large room and two small antechambers—one used as an instrument room, the other as a consulting room, and occasionally for the administration of chloroform, the patients having to be deposited on the floor, whilst the doctor in a humble attitude gives the anæsthetic. The entrance doors face the north, and are convenient to receive any stray dust storms; and until lately anyone could see the patients carried across to the room. Patients during transit from any part of the hospital are exposed to the air and wet. "The ventilation of the large room consists mainly of fourteen sets of fixed louvres round the skylight, and conveniently placed to catch the dust, and also soot, from some eight or nine surrounding chimneys. Here it lodges during a calm, to be gently wafted down on the spotless covering of the operating table and patient when on it, much to the astonishment of visitors and annoyance of the operator, should the slightest wind outside dislodge it from its resting place. To complete the ventilation, ordinary ventilators, and four fanlights beneath, which are four grimy ledges sloping downwards into the room, likewise contribute their unwelcome offering when the fanlight is opened." "Night? Two gas circlets of six burners each, o'ershadowed by large reflectors, upon which the dust lies thick; and beneath these the operating table, 'fitted with all appliances, which will not work when required' (a remark by one of the leading surgeons during an operation), receives

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the patient, who lies unconscious amidst hosts of antiseptic precautions, but happily unaware of the Nemesis above. This is called Listerism in the Melbourne Hospital. The illuminators above being fixed at a definite height, and the gas characteristic of a metropolitan monopoly, the unlucky operator by night has to resort to the dim flicker of a candle to complete a most difficult operation—an actual occurrence." After a description of the present theatre, one is suggested as it should be built, and it will be well if the governors of the hospital take this or some similar plan in hand, and remove what is a discredit to them, replacing it by one in which the skill of the operator is less likely to be baffled by "accidental" complications. We have no report of the result of operations at this hospital, but if the surgeons consider that the mortality is higher than it should be from preventable causes after operations, a united protest would probably effect the desired reform. We cannot think that a wealthy town like Melbourne will long rest under the imputation that it is careless about the welfare of the suffering poor.

THE TREATMENT OF HYDATID DISEASE OF THE LIVER.

DR. DAVIES THOMAS, whose contributions to the study of hydatid disease have been numerous and important, sums up the results of his researches (*Australian Medical Journal*, June 15th) as follows. That there is reason to believe that tapping operations fail to cure the patient in fully 40 per cent. (or more) of the cases in which they have been tried; and that, taking aspiratory puncture and ordinary tapping operations together, the deaths amounted to nearly 18 per cent., but the mortality following aspiratory puncture was only about half that of punctures with an ordinary fine trocar. Speaking generally, the greater the number of punctures required in a given case, the smaller is the probability of cure by tapping alone. Simple puncture, though generally devoid of risk, has been known to cause sudden death, sometimes from shock, sometimes, in the case of pulmonary hydatids, from suffocation by the fluid contents of the bladder-worm. As to parasiticide injections and the use of electrolysis, there is no evidence in their favour that does not apply to simple puncture, whilst each has drawbacks of its own. The mortality of the various forms of radical operation is given as follows: Caustics, 33·68 per cent.; canule-à-demeure, 26·66 per cent.; Simon's method, 48·0 per cent.; Volkmann's method, 19·05 per cent.; Lindeman n's method (abdominal section), 10·29 per cent., and ditto (thoracic incisions) 29·41 per cent. From which it appears that abdominal section yields an even lower mortality than puncture of the cyst.

COUNT PIETRO LORETA.

A FEW hours before he made away with himself, Prof. Loreta sent his annual donation of 500 lire (£20) to the "Society of the 8th August, 1848,"—a day on which a memorable stand was made for Italian freedom and unity, on which, too, Loreta, when a mere youth, had borne his part nobly. In the letter accompanying the donation he said: "Ti mando 500 lire da distribuire ai nostri compagni-poveri. Domani non potrò essere con voi. Ne saprete la causa. Addio!" (I send you 500 fr. for distribution among our poor companions in arms. To-morrow I will be unable to be with you. You will know the cause of this. Farewell!) Although president of the society, his annual gift was, characteristically, anonymous; and the secretary on receiving it, little knew that it was to be the last from the same source. He thought it was the first. A similar experience, say the Italian papers, is in store for the secretaries of countless other charities, of which Loreta was the anonymous benefactor. To the last he was an enthusiastic Liberal in politics, and, though a man of birth and fortune, he was from his youth upwards on the side of the Revolution. When still a student he fought in his country's cause as one of the "Battalion of Hope," and, after risking his life many times in the cholera visitation of 1865 (when, if ever man earned monumental honours, Loreta did), he joined in the year following Garibaldi's army in the Tyrol, and was frequently under fire, when relieving the wounded, in conflicts with the Austrians. His nature was in an exceptional degree ardent, aspiring, and impulsively philanthropic. He was genial, even jovial, to a fault. So highly emotional an organism was not without hereditary neuroses of a specially formidable kind; indeed, his father himself committed suicide, and his brother died an inmate of a lunatic asylum; a family history which points too plainly to the causes that led to his tragical end.

FEMALE MEDICAL AID IN INDIA.

IN the East, thanks to the engrained exclusiveness of social habit, the treatment of women's diseases is to the male physician or surgeon a practical impossibility. Access to such cases is open only to female practitioners. There is consequently a distinct necessity for the employment of medically trained women, and that in a kind of work for which their energies, if not in all points equal to those of men, are as a rule not insufficient. We would be slow indeed to admit the wisdom of employing women in medical duty under all and any conditions. On the other hand, it would be idle to dispute their manifest utility for the purpose in question. Attention has lately been directed to this subject by Sir William Hunter in an article in the *Contemporary Review* on the demand for female medical attendance in India. From the facts here stated it is evident that the aid rendered in sickness by lady practitioners has been much valued by the natives of our eastern dependency. The National Association for Supplying Female Medical Aid, founded in 1885 by Lady Dufferin, has been liberally supported by public subscriptions. The medical tuition which it affords to native women through the medium of the Indian medical schools has attracted a good number of students. Native princes, gentlemen, and the public generally have interested themselves in its growth. Dispensaries and small hospitals have arisen under its auspices and have, during the short period of their existence, done much to relieve the sufferings of the poorer population. The movement therefore is prospering in spite of considerable difficulties. Not the least of these is the want of a vernacular medical literature. This is in course of gradual formation.

A CASE OF SPINAL RESECTION.

IN the *New York Medical Journal* for June 29th Dr. Dawbarn records a case of traumatic paraplegia for which he performed resection of part of the spine. The patient was a man twenty-nine years of age, who fell from a height, striking his lower dorsal spines. On recovering consciousness he was found to be totally paraplegic below the umbilicus, and to have considerable displacement of his eleventh and twelfth dorsal spinous processes. These were replaced as far as possible, and a plaster-of-Paris jacket was accurately moulded on. Some months later he came under Dr. Dawbarn's treatment, the paraplegia not having at all improved. Electrical treatment was tried without permanent benefit, and then, as there was some deformity of the spines, it was decided to cut down on to the spinal cord, and, if possible, remove any portions of bone found to be pressing upon it. An H-incision was made over the seat of mischief, the longitudinal incisions being carried obliquely

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down and inwards through the muscles on to the laminæ. These were then carefully sawn through, and the intervening mass divided into two by the transverse cut carried down between the two spinous processes. The cord was found to be compressed between the body and laminæ of the eleventh dorsal vertebra, and the laminæ and spines of the tenth, eleventh, and twelfth dorsal vertebræ were entirely removed. The patient made a good recovery from the operation. Ten weeks afterwards he is reported to have been "none the worse for his operation, but, on the contrary, is in many ways somewhat improved, so that he expresses himself as very glad that it was performed." The improvement consisted in restoration of muscular sense, recovery of sensation in the rectum and bladder, freedom from pain in movements of the head and trunk, and improved circulation and temperature in the lower limbs. Before the operation there had been an absence of sweating in the left leg and of all growth in the toenails of the left foot. After the operation the left leg sweated as much as the right, and the toenails grew vigorously. The operation might have been more successful if performed much earlier than after an interval of six months from the primary injury.

THE INTERMARRYING OF CONVICTS.

WITH an optimism certainly not justified by the medico-psychological literature of England, Germany, and Italy, or even of France herself, the French Government has set itself to encourage the intermarriage of life convicts in New Caledonia with life convicts imported from the prisons of the motherland. In official reports published in vindication of these matrimonial arrangements, it is said that "the Government of the Republic is animated in this policy by views of an exalted kind. The constitution of the family in our penitentiaries," the Government apologist continues, "is the best aid to morality. Some of these marriages between two persons whom society has rejected from its midst are prosperous, and such examples, although they are rare, are yet of a nature to warrant the Government in promoting them. The painful exceptions, the number of which has been exaggerated, will tend to become fewer, and the marriages in question will in the long run be better assorted." More than a quarter of a century ago the late eminent Commissioner in Lunacy for Scotland, Sir James Coxe, in an annual report of unusual interest, insisted on the necessity of breaking up and isolating the criminal class as the only way to check the multiplication of crime in our great cities. Forty years' experience in connexion with the Perth Penitentiary had brought Dr. Bruce Thomson to the same conclusion, the soundness of which has derived confirmation from the testimony of numerous Continental alienists, of whom the Italian Lombroso may be adduced as at once the most recent and the most authoritative. "*Simile simili gaudet*," he demonstrates, is nowhere more strikingly illustrated than in the transmission from parents to progeny of depraved habits and felonious proclivities; and his remedy is practically the one recommended by Sir James Coxe, that of separating the individual members of the criminal community as widely and effectively as possible, and of giving them a chance, under saner conditions of association and intercourse, of rehabilitating themselves physically and morally. Vice itself, and, still more, vicious tendency, can be lived down, but only by entire removal from the social atmosphere in which they have been generated, and by steady application of a morally reinvigorating regimen, tested by opportunity and modified by circumstances. With such facts and conclusions *en évidence*, the French Government has surely allowed a sentimental optimism to sway it unduly when it encourages such a system as that recorded by impartial eye-witnesses. "Girls, whether thieves or prostitutes," says M. Moncelon, "on arriving from the prisons of France and landing in New Caledonia are received in a religious asylum, superintended by the sisters of S. Joseph. The rule of this establishment resembles that of a *pension* where the girls draw lots for husbands. On the arrival of a convoy of such young women the bachelors imprisoned in the penitentiaries are in great excitement, and if they ascertain that there are any good-looking ones in the number they demand interviews or introductions. On a fixed day the convict-bachelor is brought into a parlour divided into two by an iron grating. There the sister introduces him to the girl whom he has fancied, and charges herself with the preliminaries, which, beginning with conversation, lead up to a matrimonial engagement." From this not very promising experience the marriage is contracted, with results, according to M. Louis Barron, another eye-witness, the reverse of encouraging. His gleanings, in fact, from the journals of New Caledonia form an instructive commentary on the *lex hæreditaria*, as evolved by Darwin, and are sufficiently adverse to the continuance of an experiment hardly creditable to the countrymen of Esquirol and Pinel, of Paul Broca and Legrand du Saulle.

THE FUNCTIONS OF THE CEREBELLUM.

IS the cerebellum an organ for the storage of cerebral events which have become automatic? Do we first of all receive with the cerebral cortex and then practise with the same brain-bark, and afterwards relegate to the cerebellum, as to a limbo, those things of which we are so tired of being conscious? Are all performances of the cerebral cortex conscious acts, and those of the cortex of the cerebellum unconscious? And so might questions, more or less unanswerable, be postulated without end. The functions of the little brain are scarcely known at all; even the dependence of the equilibrium on its existence may be called in question on the data supplied by pathology. It is perfectly certain that no obvious signs of nervous disease need exist when the lateral lobes are the seat of even extensive mischief. Some regard the cerebellum as the terminal organ of all visceral sensation, and on this assumption it has been thought that the curious perturbations in visceral epilepsy are to be ascribed to perversions of the vitality of the grey matter of the little brain. Anything is possible for the cerebellum. The most gifted imagination might guess strange things, yet pathology could perhaps find exact counterparts.

PUBLIC CONVENIENCES.

THE public conveniences at Piccadilly-circus, which were opened on Wednesday last, the 7th inst., were constructed by the Vestry of the Parish of St. James, Westminster, at a cost of about £3500. The circumstances under which these conveniences were constructed reflect considerable credit upon the Vestry in question, as it was only after a prolonged struggle with, and finally in spite of, the now defunct Metropolitan Board of Works that the Vestry were enabled to provide this much-needed accommodation. The conveniences, which are underground, are divided into two sections, each having a separate entrance from the street, the larger being designed for the use of gentlemen and the smaller for ladies. Both sections are approached from the street by a stone staircase, there being two flights of stairs for the men, one for entrance and one for exit, and a single staircase for the ladies. The accommodation provided in each section appears ample and complete, and the means of ensuring cleanliness in every respect satisfactory. Due attention has also been paid to suitable ornamentation. Ventilation is obtained through fresh-air inlet gratings at the street level and by the entrance staircases. The superstructure consists of a group of ornamental lamps,

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designed in the free Renaissance style, and raised on a base and dome of polished Aberdeen granite, the lamp acting as a ventilating shaft, and the dome forming a reservoir for the heated or foul air, the upward current being formed in the shaft of the central lamp by means of a small sunlight, which is kept burning at its base. We again congratulate the Vestry of St. James upon the intelligence and enterprise displayed by it in this work, particularly in providing accommodation for ladies—accommodation the absence of which in this great city has long been felt as a crying evil. We may hope that the example thus set will be followed by other vestries.

"PHYSIOLOGICAL ALBUMINURIA."

DR. HANS MALFATTI, of the Laboratory for Applied Medical Chemistry at Innsbrück, controverts the belief that albumen or serum albumen is one of the normal constituents of urine in healthy subjects. He mentions the case of a healthy man in whom the ordinary tests apparently proved the presence of albumen, while Heller's test gave negative results. There was also a singular want of correspondence between the various reactions, as either the test by boiling seemed very satisfactory and acetic acid and ferrocyanide of potassium gave no reaction, or *vice versâ*. Filtration after the test by boiling did not always remove the apparent albumen, which was still discoverable in the filtered urine by ferrocyanide of potassium, especially when chloride or acetate of sodium had been added before boiling. The addition of ferrocyanide of potassium after boiling and adding acetic acid increased the turbidity considerably. When the urine mixed with acetic acid had been allowed to stand, and was then filtered, acetic acid and ferrocyanide of potassium did not make it so turbid, and had sometimes no effect at all, when the same filter was used repeatedly, especially with the addition of acid phosphate of soda, which sometimes prevented the occurrence of turbidity even after a single filtration. After the urine had been treated by reagents which throw down mucin, but not albumen, no albumen could be found, though many tests were tried. The author concludes from his experiments that in the case reported by him albumen was either entirely absent or present in an extremely small quantity only (1 in from 2 to 4 million parts). He considers that the body which has given rise to the supposition that albumen occurs in physiological urine is not an albumen, but a kind of mucin, which is easily broken up into typical mucin and a peptone-like body, and he believes that the presence of albumen in the urine of apparently healthy persons is really indicative of a morbid process, though not necessarily of one of at all a serious character.

HOLDING TO BAIL.

IT often is an exceedingly difficult question whether a person accused of a serious offence should or should not be allowed to give bail, but the ground upon which Mr. Marsham appears to have decided it recently at the Greenwich police court seems very strange indeed to the non-legal mind. The charge was one of murder and came up upon adjournment. Inspector Langrish thereupon asked for a further remand without going into evidence, which the magistrate granted. Thereupon Mr. Besley, who appeared for the accused, asked very naturally to be allowed to give bail. The magistrate objected that the charge was too serious, and that objection we can perfectly understand. Mr. Besley appears, however, to have been able to meet it by citing an instance in which an accused person, who was subsequently convicted of murder, was admitted to bail. Then the magistrate delivered what seems to us a very strange ruling. He is reported to have said that "he had not heard the evidence, and that being so he certainly should not take bail. He would not say that he would be of the same opinion if he had heard the evidence." The report is very meagre, and it may be that the magistrate only meant that he had not heard the evidence given at the original examination. If so, it seems to indicate that the arrangements at the Greenwich police court stand sadly in need of improvement. Surely when the personal liberty of a man who is still entitled at least to the presumption of innocence is in question there ought to be some means of making the depositions taken available for the use of the magistrate who has to adjudicate on that important question, or otherwise of referring the whole matter to the magistrate who is already in possession of the requisite information. If, on the other hand, the meaning is that because no evidence had been adduced that day against the prisoner, the worst ought to be presumed, then surely the rule is repugnant to all the traditions of British justice. In this case the person who is in the unhappy position of being accused is a medical man, and it is easy to see that, even if he should eventually vindicate his character, his present enforced seclusion must do him irreparable harm. Such harm may any day befall the most innocent of men, and, although it would be unreasonable to demand that the administration of the criminal law should be wholly unattended with inconvenience, and even serious inconvenience, to innocent people, it is surely not too much to ask that these inevitable inconveniences should be minimised by an even scrupulous regard for the rights of the individual, rather than aggravated by a perfunctory and reckless watchfulness over the public interest.

THE STRENGTH OF BRAIN FUNCTIONS.

THAT different functions of the brain have different strengths is not always recognised. A violent poison may paralyse the whole of the functions, and the rate at which they become extinguished is so great that it is impossible to say which goes first. In anæsthesia by means of ether the auditory perceptive centres seem to endure longer than the other perceptive centres; indeed, an expansive change appears to occur in them prior to their final closure. What we want to know is something more of the differing strengths of brain functions. This would be a great aid in the study of symptoms. At present the variations in the clinical course and progress of disease are as inexplicable as they are remarkable. That some further experimental researches on the relative strengths of the various nervous functions of the body would bring out facts of importance cannot be doubted.

PRELIMINARY MEDICAL EDUCATION IN THE UNITED STATES.

THE *Medical Record* notices with pleasure the fact that the New York State Legislature recently enacted a law requiring of medical students compliance with a certain standard of preliminary education. The requirements are not very stringent, as our contemporary says, but it is something to see so important a State Legislature legislate on the subject at all, and having put its hand to the plough it will not stop short, let us hope, of doing the work still more effectually. The law requires that "before the regents of the University of the State of New York, or the trustees of any medical school or college within the State, shall confer the degree of doctor of medicine on any person who has not received a baccalaureate degree in course from a duly authorised college or university, they shall require proof that he has passed an examination, under their authority, in arithmetic, grammar, geography, orthography, American history, English composition, and the elements of natural philosophy." It is obvious that unless such requirements

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are made to apply also to graduates from outside the State, little good will be done. What is wanted is for all the States to agree upon some common legislation that will secure an indispensable amount of general culture and education in the medical profession.

THE TYPHOID GERM.

AT the recent meeting of the American Medical Association, a paper on the Etiology of Typhoid Fever was read by Dr. V. C. Vaughan (*Boston Med. and Surg. Journ.*, July 18th), who alluded to Eberth's discovery of a bacillus, which, although it had been found in most cases of the disease and had been isolated, had not been successfully inoculated in animals. To Koch's four rules for determining the causal relationship of a micro-organism to any disease in which it is found, Dr. Vaughan would add a fifth—viz., that it must be shown that the chemical products of the microbe are capable of producing the characteristic symptoms and lesions of that disease in an acute form. Eberth's bacillus did not respond to any test except that of its frequent concurrence with typhoid fever, and this it was claimed might be explained by its being a result, quite as well as its being the cause of typhoid. Dr. Vaughan had extracted a crystalline ptomaine from this bacillus, and found its injection into the abdominal cavity to produce fever and purging. Dr. Welch, however, thought that the evidence in support of Eberth's bacillus being the cause of typhoid was conclusive, and considered that further evidence was required to establish the belief that the ptomaines obtained from typhoid stools had anything to do with the production of the symptoms.

THE PATRICROFT GUARDIANS AND THEIR MEDICAL OFFICER.

A VERY small dispute between Mr. E. H. Roe, of Patricroft, medical officer of the Workhouse Hospital, on the one hand, and the guardians on the other, has led to his resignation at the request of the guardians, upheld by the Local Government Board after an inquiry by Mr. Henley, held, we are sorry to say, with closed doors. The *Eccles and Patricroft Journal* publishes a letter by Mr. Roe, giving his version of the quarrel, and a leading article on the subject. The dispute between Mr. Roe and the guardians arose in a very simple way. According to his contract with the guardians, he was to find "medicines internal," and they to find castor oil, cod-liver oil, and external applications and appliances. This was a very curious contract, and, as we think, a very unsatisfactory one, very different from the system in vogue in London, where medicines are supplied by the guardians. But small as the undertaking of the guardians was, they quarrelled over it with Mr. Roe. When he required substances for external application, however urgently, he had to wait till the next meeting of the board before they could be supplied. The guardians denied his right to order what external applications he thought fit, and only recognised his right to order such as his predecessor used to order. This is obviously a most absurd limitation. The crisis came in this manner. Mr. Roe told the chemist to have certain things he wanted ready when he should receive the order of the board. Instead of waiting for this the goods were at once despatched. But Mr. Roe did not use them. No less than five weeks elapsed before he could get from the clerk any information as to the board sanctioning the order of the drugs. Mr. Roe pressed the clerk, and pencilled a line to him saying that "a patient's death had been accelerated for the want of the medicines." This note was shown to the guardians, and was taken as a reflection on them, though it was meant only to stimulate the clerk, who said "he had forgotten" to bring the list of drugs wanted before the board. Mr. Henley defended Mr. Roe in regard to most of the points on which he was charged, but held that he had disobeyed a legal and reasonable direction of the guardians in "ordering" the drugs before the meeting of the board, though Mr. Roe had not ordered them, but only told the chemist to have them ready. We think that after such delays he should have ordered and used the drugs absolutely, and that the guardians should have indemnified him. If the saving of a patient's life or the mitigation of his sufferings in dying were involved, it was not a case for delay. We never heard of a medical officer being dismissed on so slight and doubtful a ground, and we earnestly hope that the guardians of their own motion will reconsider their attitude towards Mr. Roe. We have only one qualification to make. We are writing on Mr. Roe's version of the facts. But thi comes of the inquiry being with closed doors.

TREATMENT OF PNEUMONIA BY APPLICATION OF ICE.

DR. FIEANDT, writing in *Duodecim*, a Finnish medical journal, states that he has now treated no less than 106 cases of pneumonia with ice, and with the best results. Though ten of the cases were of double pneumonia only three out of the whole number succumbed, notwithstanding that the epidemic was by no means a slight one. The method adopted was to apply over the affected lung an india-rubber bag containing ice continuously for from twelve to twenty-four hours after the crisis. In addition to the local treatment the patients were given such medicines as are usually employed, that is to say, opium, ipecacuanha, digitalis, brandy, &c. The method has, we may remark, received of late some attention in this country.

PERSONALITIES IN JOURNALISM.

AN evening contemporary has lately had a very strong pronouncement on the "virtues of the greatest surgeon in the world in operations pertaining to certain diseases of women." He has a singularly sweet and pleasant expression, &c. Best of all, "he has now made a fortune," in spite of many cases where he is too generous to take a fee. It is difficult to say whether his fame is greatest in England, Germany, or the United States. The point of all this laudation — which is extended also to a favourite pupil, described as having a fine face and quiet, gentle manner, &c.—seems to be reached in an expression of the hope that the "greatest surgeon," in consideration of his fortune, will be able at the next election to offer himself to a constituency in which the political views held by our contemporary prevail.

ŒDEMA OF THE BRAIN.

ACCORDING to Dr. Hugenin of Zurich inflammatory œdema of the brain or diffused encephalitis occurs after perforating wounds of the skull with injury to the brain, also in tumours of the brain where the centre breaks down and softening is going on towards the periphery, also in abscess and infectious diseases of the brain, and more rarely in cases where there is hæmorrhage or a hæmorrhagic infarct. It is, however, to the non-inflammatory variety of cerebral œdema that Dr. Hugenin has devoted his attention specially. Having made a large number of post-mortem examinations in cases of this kind, he has come to the conclusion that so long as the vessels within the cranial cavity maintain their normal condition, there is no fear of any fatal œdema resulting from circulatory disturbance in cerebral disease; but when there exist such morbid conditions as obliteration of the lymphatics or increased intra-cranial pressure, due to diminution of the cranium or more par-

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ticularly to an arrest of its ordinary growth, fatal œdema of the brain may be induced. He found that in children who had died from hyperæmia or œdema of the brain or slight hydrocephalus there was commencing meningitis, usually of an infectious character—that is to say, due to the presence of streptococci. Fatal congestive œdema in children was found to occur only when there was obliteration of the channels leading from the space beneath the pia mater or obliteration of the Pacchionian bodies, such as is set up in the course of chronic meningitis.

LARYNGEAL ULCERS IN TYPHOID FEVER.

DR. ANTONOFF publishes in the *Ejenedêlnaya Klinicheskaya Gazeta* the result of a series of histological examinations of laryngeal ulcer occurring in typhoid fever. The earliest change, he says, is a hyaline degeneration of the membrana propria of the capillaries and smaller arteries, and in places of the connective tissue of the mucous membrane. The epithelium dies from coagulative necrosis. The reticulum formed becomes the seat of micrococci. There is no inflammatory infiltration in the broken-down tissue, but the process takes place on the border between healthy and morbid tissue. If the ulceration goes deeper perichondritis with formation of pus, phlegmonous inflammation of the soft parts, and loosening of the fibres of the cartilage take place.

THE LIVERPOOL POISONING CASE.

AFTER a protracted trial, and evidence of a full and minute character, Florence Maybrick was found guilty at the Liverpool Assizes last Wednesday of the wilful murder of her husband, by administering arsenic, and sentence of death was passed in the usual form. Owing to the unusual circumstances surrounding it the case has excited widespread interest, an interest perhaps not equalled since the hearing of the curiously similar Madeleine Smith case, which was tried in Edinburgh in July, 1857, but which ended in a happier manner for the accused than did that of the unfortunate woman condemned to death on Wednesday. The case turned largely upon the medical evidence, and it is that with which we are mainly concerned. This evidence, as our readers will be aware, was conflicting and contradictory, and in view of the extreme gravity of the case, we shall have to reserve our analysis of the medical evidence until our next issue.

PATHOLOGY OF EXTENSIVE BURNS.

OSCAR SILBERMANN of Breslau finds that in extensive burns the red corpuscles alter their form, and are able to exert less than their normal resistance to heat, drying, compression, and staining. In consequence of these changes thrombosis and stasis in different organs are very frequent, especially in the lungs, kidneys, stomach, bowels, spleen, liver, skin, and brain, and most of all in the smaller branches of the pulmonary artery. The stasis in the lungs produces a very considerable impediment to the emptying of the right ventricle, with enormous venous congestion and dangerous arterial anæmia. This again leads to apoplexies and parenchymatous alterations in the above-mentioned organs, also to dyspnœa, cyanosis, coma, a small pulse, angina pectoris, eclampsia, anuria, and to a diminution of the surface temperature.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. Rosenheim has been recognised as *privat-docent* in Medicine.

Buda-Pesth.—The nominations of the Professorial Senate to several of the professorships vacant have not been accepted by the Minister of Education. It is, however, stated that the chair of Special Pathology and Therapeutics has been definitely filled by the appointment of Dr. Karl Kétli.

Naples.—Dr. Romano has been recognised as *privat-docent* in Operative Medicine.

Padua.—Dr. Canalis has been recognised as *privat-docent* in Hygiene.

Pavia.—Dr. Zambianchi has been recognised as *privat-docent* in Operative Medicine.

Rio de Janeiro.—Dr. João Paulo de Carvalho has been appointed Professor of Physiology.

Turin.—Dr. Gradenigo has been recognised as *privat-docent* in Midwifery.

Zurich.—Dr. Felix of Würzburg has been appointed Prosector of the Anatomical Institute.

THE report on the composition and quality of the metropolitan water-supply during the month of June by Messrs. Crookes, Odling, and Meymott Tidy shows that of the 168 samples examined 6 were recorded as "very slightly turbid." The remaining 162 samples were found to be clear, bright, and well filtered. During the month of June the progressive increase in degree of freedom from organic matter, manifested by the water-supply during the first five months of the year successively, was not found to be sustained; but there was, on the contrary, a retrogression to about the degree recorded as prevailing a month or two back. Dr. Frankland, in his analysis, states that, taking the average amount of organic impurity contained in a given volume of the Kent Company's water during the nine years ending December, 1876, as unity, the proportional amount contained in an equal volume of water supplied by each of the Metropolitan Water Companies and by the Tottenham Local Board of Health was:—Kent, 0·8; Tottenham, 1·0; Colne Valley, 1·2; Grand Junction, 1·5; New River, 1·6; Lambeth, 2·0; West Middlesex, 2·6; East London, 2·7; Southwark, 3·4; and Chelsea, 3·8.

AT the Edinburgh University, on capping day, as will be seen by the list, published in another column, of successful candidates for degrees and of prizes and scholarships awarded to distinguished graduates, the Cameron Prize in Therapeutics was conferred on M. Pasteur in recognition of the high importance and great value to practical therapeutics of the treatment of hydrophobia discovered by him.

ACCORDING to telegraphic advices from Zanzibar, fever is very prevalent among the fleet, the English apparently suffering most. On the *Agamemnon* alone, out of a total complement of 400 men there are eighty sick, including seven officers. The deck had been turned into a hospital, and hammocks were slung everywhere.

IN reply to a deputation to urge the Australian Government to assist in an attempt to remedy the defective hospital accommodation in Melbourne, Mr. Gillies has agreed to ask Parliament to give a grant of £10,000 towards the foundation of a hospital, and to consider the question of a contribution towards its maintenance.

THE Italian Medico-Psychological Congress (Congresso Freniatrico) will this year be held at Novara, within easy distance of Turin and Milan, from Sept. 8th to the 14th. These Congresses are triennial, and there have already been five of them.

AT Rome the great Hospital of the Santo Spirito is about to open a *succursale* (branch) near the Bocca della Verità for the accommodation and treatment of chronic cases.

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THE HEALTH OF THE ARMY IN 1887.

No. III.

THE average strength of the European troops in India (exclusive of the force in Upper Burma) was 63,942; the admissions were 1351, the deaths 14·68, the mean sick 70·45, and the invalids sent home 22·60 per 1000—all except the invaliding lower than in 1886, and except the mean sick considerably under the decennial average.

In Bengal, a force of 40,921 had 1404 admissions, 15·00 deaths, 69 65 mean sick, and 10·90 invalids discharged per 1000, all, except the invaliding, lower than in the preceding year. Malarial fevers were the most frequent cause of admissions (amounting to upwards of one-fourth of the whole), and enteric fevers of death, cholera being the next. The admissions at the various stations ranged from 723 at Solon to 2623 per 1000 at Saugor, where the great excess was due to malarial fevers. The deaths, omitting stations where the force was under 150, and the hill depôt at Naini Tal, where the results were affected by the number of men arriving from Burma, ranged between 4·02 per 1000 at Solon and 34·14 at Nowgong, the latter due chiefly to cholera. Enteric fever gave rise to 13·1 admissions and 4·06 deaths per 1000 of strength. Lucknow was the station which furnished the greatest number of cases and deaths, amounting to 79 and 16, but there were few stations entirely free from it. As usual, the great prevalence of the disease was among the younger soldiers. The admissions were highest in the second and the deaths in the third quarter of the year. The deaths were in the proportion of 1 in 3·24 cases. Cholera prevailed to a considerable extent, the admissions amounting to 3·3 and the deaths to 2·25 per 1000, chiefly in the third quarter of the year. The stations most affected were Peshawar, Meerut, Rhaniket, Lucknow, and Allahabad, and also troops on the march. Two of every three cases terminated fatally. Venereal diseases, including all forms, caused 324 admissions, and the constantly non-effective from these amounted to 22·32 per 1000. Three cases of hydrophobia occurred, all of which died, one at Saugor, one at Naini Tal, and the third at Dalhousie. The most frequent cause of invaliding to England was the group of diseases of the circulatory system, amounting to 2·98 per 1000 of strength. Of 122 cases, 37 were returned as palpitation. In the Bengal command, the cavalry had the highest ratio of admissions and mean sick and the artillery of deaths. The sickness was greatest among the men at the ages of twenty to twenty-four, and also the death-rate, with the exception of those from thirty-five to forty. Among the officers the cases of sickness amounted to 684, the deaths to 10·24, and the invaliding to 29·86 per 1000, considerably lower than among the men, except the invaliding, which was one-half higher. Among the women the admissions were 783, and the deaths 16·96 per 1000, and among the children 562 and 52·62 per 1000.

In the Madras Command the admissions from an average force of 11,738 were 1242, the deaths 13·80, the mean sick 77·26, and the discharges by invaliding 13·37 per 1000, being considerably lower than in 1886. Venereal diseases were the most prevalent, and those of the digestive system the most fatal in the Command, the latter causing nearly one-fourth of the deaths. Omitting the depôts, the highest ratio of admissions was at Thayetmyo, and, at stations having a force over 150, of deaths at Madras and Pallaveram, but it is stated that both these results were considerably affected by the arrival of sick from the troops on field service in Burma. The admissions by enteric fever were 12·3 and the deaths 2·98 per 1000, the disease being most prevalent and fatal in the third quarter of the year. Secunderabad furnished much the largest number of cases and deaths, and next to it Bangalore. The prevalence of the disease at Secunderabad was attributed to the 7th Hussars having recently arrived from England, and having a large proportion of young men in it; "the barrack and latrine accommodation was also reported to be defective." At Bangalore the cause could not be definitely traced, but was believed to be attributable to the bad sanitary conditions of the bazaars, where the men "drink bad water, mixed or otherwise. There were only 8 cases of cholera and 7 deaths; 4 of them occurred at Secunderabad. The admissions by all forms of venereal disease were 350 and the constantly non-effective 27·39 per 1000. The high death-rate by diseases of the digestive system was due to hepatitis and abscess of liver, the admissions by which were 27·26 and the deaths 3·15 per 1000. By arms of the service the infantry had the highest ratio of admissions and mean sick and the lowest of deaths, while the deaths were highest and admissions lowest in the cavalry. In the invaliding to England, 2·90 per 1000 were sent home on account of the circulatory system—a ratio almost identical with that from Bengal. Among the officers the cases were 834, the deaths 10·16, and the invalided 98·30 per 1000; the last, though very high, was slightly lower than in 1886. Of 29 thus sent home, 12 were on account of fevers, 7 debility, and 5 hepatic affections. The women had 1002 cases and 17·52 deaths per 1000; and the children 856 and 54·09 per 1000.

The water-supply of Fort St. George is reported as unsatisfactory, and the latrines and drains require improvement. The water at Bangalore is also unsatisfactory, requiring to be boiled and filtered a second time before use by the troops. At most of the other stations it is reported as abundant and good.

The average strength of British troops in Bombay was 11,283; the admissions were 1274, the deaths 14·45, the mean sick 66·30, and the discharges by invaliding 12·32 per 1000 of strength. The admissions and mean sick were considerably under, but the deaths and invaliding slightly above the proportion in 1886. The admissions ranged between 2058 per 1000 at Ahmedabad and 775 at Deolali; and the deaths between 59·52 at Neemuch and 4·27 per 1000 at Hyderabad. The excessive mortality at Neemuch was due to an outbreak of cholera. The admissions by enteric fever were 11·3 and the deaths 3·37 per 1000 of strength. Mhow furnished much the largest numbers of cases and deaths, the former having been 56 and the latter 13 out of a total of 127 and 38, but no specific cause for this could be ascertained. The disease also prevailed to a considerable extent at Nasirabad, Karachi, and Ahmednagar. Cholera was the cause of an admission-rate of 3·5 and a death-rate of 2·48 per 1000. Of 39 cases and 28 deaths, 23 and 17 occurred at Neemuch in the third quarter of the year, and 8 cases with 5 deaths at Mhow. No cause is assigned for the outbreak, nor is any information given respecting the measures adopted to check it, or the removal of the troops into camp, if that were done. The admissions for venereal diseases, including all forms, were 287 per 1000, and the constantly non-effective from it 20·59, both lower than in the other two Presidencies. The highest ratio of admissions and mean sick was in the cavalry, and of deaths in the artillery; the infantry had the lowest of admissions and deaths. Among the officers the cases amounted to 612, the deaths to 8·42, and the invaliding to 61·80 per 1000. The women furnished 717 cases and 16·01 deaths, and the children 576 and 53·40 per 1000.

The number of recruits medically examined during the year was 60,976, or about 14,000 less than in 1886. The number rejected was 27,571, or 452 per 1000 examined, being 19 per 1000 higher than in 1886. There were 51,884 primarily inspected by army medical officers, with a ratio of 458 per 1000 rejected, and 9092 by civilian medical practitioners, with only 210 per 1000 rejected; but of those passed by the latter, 1919, or 267 per 1000, were subsequently rejected, giving a ratio of 421 rejected of the number primarily inspected. In addition to the total rejected at inspection there were 249, or 4·08 per 1000, discharged as unfit within three months after enlistment. But as we have frequently pointed out, some of the causes of rejection were not medical but military, such as under-height and over-height, under chest measurement, and apparent age not in accordance with General Orders. If these be deducted from the numbers inspected and rejected the proportion found unfit on medical grounds would be 318, as against 312, per 1000 in the preceding year. Of the recruits finally passed into the service, 763 per 1000 were natives of England and Wales, 96 of Scotland, 129 of Ireland, and 12 of British colonies and foreign countries. From the tables in the report, "it has been calculated that, excluding boys under seventeen years of age, the average age of recruits finally approved during the year was 19·6 years, the average height 5 ft. 5·8 in., the average weight 126·2 lb., and the average chest measurements 33·8 in. These all show an improvement upon the results for 1886. As regards education, the returns show an increase in the "well educated," but attended with a reduction in those able to read only, while the "unable to read" remains exactly the same as in the preceding year.

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In the appendix to the report we observe with much satisfaction that Surgeon-Major Notter, the Professor of Military Hygiene at Netley, has resumed the annual review of the progress of hygiene introduced originally by Professor Parkes, but which has been in abeyance since 1882. To these reviews we always attached much importance, and Dr. Notter has done well to inaugurate his professorial career by re-establishing them. In addition to notices of works bearing on hygiene, he has given a full detail of the work done under his superintendence at the laboratory at Netley. Among other things this included an analysis of 89 samples of water, of which 36 were found "fit for use," 26 usable or requiring filtration before use, and 27 unfit for use on account of organic impurity, and of excessive hardness and chlorides. The details of these are given in a tabular form. There is also a report of bacterial cultivations from these samples of drinking water by the assistant professor, Surgeon A. M. Davies. The conclusion at which he arrived was that "no opinion apparently can be expressed as to the character of a drinking water from the rough bacterial testing as here recorded." But the number of observations is small, and Mr. Davies is continuing them in the hope of obtaining some definite result. In addition to these, a course of experiments was made on the filtration of water, and a considerable number of analyses of different samples of concentrated and preserved foods, milk, and wine, the results of which are given in some detail. The amount of work done and the careful manner in which the results are reported are very creditable to this branch of the Netley School, and if properly utilised by those in authority, ought to prove very beneficial.

The usual list of operations performed at the hospital during the year, with short abstracts of the most important cases, has been furnished by the assistant professor, Brigade surgeon Goodwin. The same officer gives a very good report of the transactions of the French Congress of Surgery at Paris in March, 1888, which he attended officially as the representative of the British Army Surgeons. The appendix also contains an abstract of a topographical report on the Pichin valley by Surgeon-Major Burry, M.D., and several cases by Army medical officers. But for these we must refer our readers to the volume itself, the whole appendix to which is deserving of study.

THE PROPHYLAXIS OF TUBERCULOSIS.

WE have been requested by the Standing Committee to publish the following "Instructions to the Public, to enable it to know and be capable of protecting itself against Tuberculosis."[1] The document was communicated to the Academy of Medicine on July 30th. When it came on for discussion at the meeting of the Academy on Aug. 6th, the document was submitted to severe criticism, especially by Drs. G. Sée and Dujardin Beaumetz, the latter declaring there was no evidence that tuberculosis was propagated through meat. Other speakers also criticised the recommendations in Clause 6, and eventually the debate was adjourned to the 13th inst.

I. Tuberculosis claims more victims in towns and even in certain rural districts than any other disease. Thus, in 1884, for example, of 56,970 deaths in Paris about 15,000, or more than one-fourth, were due to tuberculosis. The tuberculous are so numerous because pulmonary phthisis is not the sole manifestation of tuberculosis, as has been erroneously believed by the public. Physicians have good ground for considering as tuberculous many other diseases besides pulmonary phthisis. In fact, a number of cases of bronchitis, catarrhs, pleurisies, croup (gourmes), scrofula, meningitis, peritonitis, enteritis, white swellings (osseous and articular), and cold abscesses are tuberculous diseases as formidable as pulmonary phthisis.

II. Tuberculosis is a parasitic disease, virulent, contagious, transmissible, caused by a microbe—the bacillus of Koch. This microbe penetrates into the organism by the digestive canal with food, by the air-passages with inspired air, by the skin and mucous membranes following sores, punctures, wounds, and various kinds of ulceration. Certain diseases—measles, small-pox, chronic bronchitis, pneumonia; certain constitutional states due to diabetes, alcoholism, syphilis, &c.,—greatly predispose the individual to contract tuberculosis. The cause of tuberculosis being known, the precautions taken against its germs are capable of preventing its propagation. We have an encouraging example in the results obtained in respect to typhoid fever, the epidemics of which diminish in all towns where steps have been taken to prevent the typhoid germ mingling with drinking water.

III. The parasite of tuberculosis may be met with in the milk, muscles, and blood of animals serving for the food of man (ox, cow especially, rabbit, poultry). Raw or underdone meat and blood, being capable of containing the living germ of tuberculosis, should be prohibited. Milk, for the same reason, should only be consumed after being boiled.

IV. Owing to the dangers arising from milk, the protection of young children, who are so readily attacked by tuberculosis in all its forms (since there die annually in Paris more than 2000 tuberculous children below the age of two years), should especially engage the attention of mothers and nurses. The ideal is of course lactation by the healthy woman. A tuberculous mother should not nourish her child. She should entrust it to the care of a healthy nurse living in the country, where, under the best hygienic conditions, the risks of tuberculous contagion are much less than in the towns. The child thus brought up will have a great chance of escaping tuberculosis. If suckling at the breast be impossible, and it has to be replaced by feeding on cow's milk, this milk, given to the infant by the bottle or spoon, should always be boiled. The unboiled milk of asses and goats is far less dangerous.

V. Owing to the dangers arising from butcher's meat, which may preserve all the characters of health even when the animals are tuberculous, the public is largely interested in being assured that the inspection of meat, required by law, is properly and generally practised. The only absolutely certain means of avoiding the dangers of meat coming from tuberculous animals is to cook it to such an extent that the deep parts are as well done as the surface; only thoroughly roasted, boiled, or fried meat is devoid of danger.

VI. On the other hand, the germ of tuberculosis, being capable of transmission from the tuberculous to the healthy subject by sputa, pus, dried mucous discharges, and all objects laden with tuberculous dust, it ought, to ensure security from the transmission of tuberculosis, to: 1. Be known that the sputa of the phthisical being the most formidable agents for the transmission of tuberculosis, there is a public danger in distributing them on the soil, carpet, hangings, curtains, napkins, handkerchiefs, cloths, and coverings. 2. Be well understood, in consequence, that the use of spittoons should be imposed everywhere and upon everybody. These should always be emptied into the fire and cleansed with boiling water; they ought never to be emptied on dust-heaps, or in gardens, where they may tuberculise the poultry, nor into the latrines. 3. Not to sleep in the bed of a tuberculous subject; to dwell in his room as little as possible, and especially not to suffer young children to sleep there. 4. To remove from places, inhabited by the phthisical, individuals regarded as predisposed to contract tuberculosis, subjects born of tuberculous parents, or having had measles, small-pox, pneumonia, repeated attacks of bronchitis, or suffering from diabetes, &c. 5. Not to use objects which may have been contaminated by the phthisical (linen, bedding, clothing, objects of toilet, hangings, furniture, toys) except after previous disinfection (high pressure steam, boiling, sulphur vapour, lime-washing). 6. To ensure that the rooms of hotels, lodging-houses, châlets, or villas occupied by the phthisical in watering-places or winter resorts are furnished and carpeted in such a way that disinfection may be readily and completely effected after the departure of each patient; the best plan would be that these rooms should have neither curtains, carpets, nor hangings; that they should be painted with lime, and the floor be covered with linoleum.

The public is mainly interested in preferring hotels in which such indispensable hygienic precautions and measures of disinfection are carried out.

[1] These instructions have been drawn up by the Standing Committee of the Congress for the study of Tuberculosis, consisting of MM. Chauveau (President), Butel, Cornil, Grancher, Landouzy, Lannelongue, Legroux, Leblanc, Nocard, Rossignol, Verneuil, Villemin, L. H. Petit (Sec. Gen.). They have been seen and approved by MM. Bouchard, Brouardel, Potain, and Proust.

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THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

The International Congress of Hygiene.

THERE are so many congresses now sitting in Paris that it is physically impossible to follow them all. Last week we had the congresses on Alcohol, on Poor Relief, and on Therapeutics. This week we have the congresses on Mental Medicine, on the Amelioration of the Condition of the Blind, on Zoology, and on Hygiene and Demography. The last-named is undoubtedly the most important of all these gatherings. Its labours were inaugurated on Aug. 4th, and there were at that time 662 members, of whom 134 were foreigners, and represented 28 different nationalities. Among the latter there were 10 English, 10 Italians, 14 Russians, 6 Roumanians, 8 Spaniards, 4 Swiss, and 22 delegates from the North and South American continents. Further, it is to be noted as a gratifying symptom that the various municipalities, almost all the municipalities of the large towns of France, have sent special delegates. The opening ceremony took place in the large Amphitheatre of the Ecole de Médecine, which was gracefully decorated with drapery and flowers for the occasion. The Congress is held under the honorary presidency of the Minister of the Interior, and Dr. Brouardel occupied the chair. Dr. Chantemps, president of the Paris Municipal Council, and Sir Douglas Galton sat on either side of the chairman. The platform was crowded with the representatives of different nationalities, and the large amphitheatre was completely filled by the members of the Congress. A considerable number of ladies, many of them members of the Congress, also assisted. Dr. Brouardel, who was warmly greeted when he rose to speak, related how within thirteen years French hygienists had been received abroad five times, at Brussels, Turin, Geneva, the Hague, and Vienna. All had retained an ineffaceable souvenir of these great meetings, and he hoped that at our present Congress and on the pacific field of hygienic study fresh victories would be achieved. Alluding to the Faculty of Medicine, where the Congress met, he spoke on the immense changes that had been brought about. Here it was that medical men had struggled against barber-surgeons, and had sought to maintain the exclusiveness of their profession. Yet here it was to-day that medical men welcomed engineers, chemists, architects, public administrators, and not only welcomed them, but were even anxious to consult them and to follow their advice. Not only was this a mighty change, but it was precisely this that constituted their principal force. It was because hygiene united so many different professions that it had acquired so much strength and popularity. Hygiene had swept away the old ramparts that had kept various professions apart, and it would also help to unite different nationalities. The discussions, which were formerly restricted to the academies, had now invaded the Parliaments, and "the President of the French Republic, justly inspired by the interests of the Democracy, of which he was the highest and the most respected representative, had inscribed reform in the sanitary services among these reforms which must receive the first attention of the Legislature." This announcement was received with loud applause. Dr. Brouardel then proceeded to describe the difficulties of the Legislature when sanitary measures were proposed, as they almost invariably interfered with some vested interests. These interests soon organised resistance against the proposed reform. The expense and difficulty of reform was a certainty, while the danger to be avoided was often unrecognised or doubtful in the mind of the public. Then there was always some doctor or other who supported the old ideas, and thus strengthened the reaction. The Governments were often sorely perplexed. But such congresses as the present armed the sanitary reformers with an expression of competent opinion which no administration could afford to discard. Dr. Brouardel then described some of the progress already achieved, and concluded by rendering homage to Dr. Napias and Dr. Martin, who had so ably organised the Congress, and the younger secretaries who had assisted. Paraphrasing the "Marseillaise," he said, "Vous entrez dans la carrière lorsque vos ainées y sont encore." Our generation has forged the arms; it is for the next generation to use them.

Sir Douglas Galton was then called upon to speak, and, in the name of Professor Corfield, Mr. Shirley Murphy, and the other English delegates, thanked the Congress for the reception given them, and for the honourable position he (Sir Douglas Galton) occupied at the presidential table. He regretted deeply the absence of his eminent colleague, Sir Edwin Chadwick. Dr. Alfred Carpenter had once remarked that the influence of a sanitary inspector in preserving the health of a community depended on the degree of education of that community concerning the laws of hygiene. The mission of the English sanitary societies represented at this Congress was to spread the knowledge of hygiene at home and abroad. In Paris especially they were called upon to admire the progress made, and envy the intelligent manner in which the principles of hygiene were applied to daily life. The next Congress, it had been decided, would be held in London. They would do their best to show their foreign visitors how in England sanitary principles were practically applied. He hoped the French hygienists would attend in large numbers, and promised them a hearty welcome in London.

Senator Dr. Pacchiotti, on behalf of Italy, delivered an eloquent oration. He dwelt on the delight of the foreign delegates when invited to visit the country which had done so much for humanity, and which to-day had organised a universal exhibition that was the marvel of the world. He described how Italy, enlightened by the example of France, had created at the Ministry of the Interior a service of hygiene. This consisted of a director of hygiene, a medical man, and a committee of hygiene, organised under the Minister of the Interior at Rome. These watch over the public health of the entire kingdom, while at each provincial prefecture there was a similar director of hygiene aided by a committee to watch over local interests, and to communicate with the central bureau at Rome. Dr. Pacchiotti then, in warm, glowing language, showed how Italy and France, as two sisters, had progressed hand in hand, how the works of M. Pasteur, of Emile Trélat, and of Durand Claye had been appreciated in Italy, and how many Italian municipalities had imitated the example of Paris in creating a municipal laboratory for the prevention of the adulteration of food. In the future, as in the past, France and Italy would continue to struggle for freedom, for civilisation, home, country, and humanity. This speech, which was ornamented by many flowers of rhetoric, was very enthusiastically applauded.

Senator Dr. Crocq, official delegate of the Belgian Government, related what had been done in Belgium to organise the sanitary services, and maintained that it was the duty of every Government, whatever its origin and form, to forward the interests of the people, and the first of these interests was the preservation of their health. For this purpose private interest, if necessary, must be sacrificed. A healthy people cost less and produced more. The question was an international one, for with the modern and rapid means of communication and exchange one nation was sure to suffer from the neglect of sanitary matters by a neighbouring nation. He therefore congratulated the Congress on its international character and on having met in France, the land of freedom, and in Paris, the capital of progress.

Dr. W. Dextererv, delegate of the Russian Society of Public Hygiene, briefly but warmly expressed the sympathy of Russian sanitary reformers with the French nation and the efforts of French hygienists. He was greeted with applause of a very special and marked character.

Dr. Felix of Bucharest rendered homage to the great sanitary reformers whom he had met in Paris at the Congress of 1878, and who were now dead; mentioning the names of Bouchardat, Gübler, Fauvel, Durand Claye, Lionville, Paul Bert, Würtz, and Tardieu. He closed by a graceful compliment to the President of the Republic, M. Carnot, and the President of the Congress, Dr. Brouardel.

Señor M. Belmas, on behalf of the Spanish Delegation, described the progress achieved in Spain and the decrease of the death-rate in that country. He showed that a system of sanitary administration was being organised on the French model, and that those countries, late in reform, might ultimately become the healthiest, through the adoption of the most recent and perfected methods.

Dr. Chantemps insisted that a reduction in mortality always followed on the rigorous application of sanitary measures. As administrators, they had come to the Congress to learn. In the study of hygiene, a sentiment of generous

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solidarity united the representatives of every nation, and nowhere were words of international fraternity more welcome than at an international sanitary congress.

Dr. Napias, as secretary of the Congress, read a lengthy report on its organisation, containing the facts and statistics as to the Congress already given. He concluded by expressing his thanks for the active support the cause and the Congress had received at the hands of the press, and especially the representatives of foreign scientific journals.

Dr. Chantemps having felicitated the Congress on the presence of so many ladies, Dr. Roth urged that the Ladies' Sanitary Association was the first society of the sort that had been formed, and then the Congress adjourned to other apartments, where refreshments were served, and many friendly acquaintances renewed.

On Monday morning the various sections of the Congress met, and several resolutions were adopted. In the first section there was an important discussion on measures that should be taken in schools to prevent the spread of phthisis by the sputa of youths suffering from tuberculosis. Dr. Jablonski, a Russian delegate, would exclude every pupil who might be suspected of tuberculosis, but this proposal found no support whatsoever from the members of the Congress. Dr. Felix of Bucharest energetically urged that when there was abundant expectoration and no doubts entertained as to the nature of the malady, then the young person—for this would rarely apply to little children—should be excluded from school. There could be no doubt that the sputa were a cause of infection; and therefore the education of one child had better be sacrificed instead of endangering the health of a whole school. Dr. C. Drysdale urged that the question was too wide in its bearings to justify the Congress in jumping at a conclusion. Personally, he had twenty years' experience of hospital treatment of phthisis, and had failed to remark that the nurses and other attendants contracted tuberculosis; and they were far more exposed to the contagion than school children, even if one or two among the latter were in an advanced stage of consumption. Other speakers protested against the danger of spreading unnecessary alarm, urging that cases where "suspicion" only existed should be subject to confidential communications between the school and the family doctor. Suggestions were also thrown out as to the necessity of providing spittoons, and preventing children soiling the floors of schools; but these were very generally considered impracticable. Finally, the section adopted the following resolution: "That children who undoubtedly are suffering from pulmonary tuberculosis may render the adoption of measures prescribed by the authorised medical attendant necessary for the preservation of the health of the school." Practically the question is left to the discretion of the school doctor, who may take measures, such as the exclusion of the pupil, when he thinks there is a real risk of contagion.

In the afternoon an important discussion took place in Section 5 on the report presented by Dr. Proust, inspector-general of the sanitary services, on Sanitary Works in Seaport Towns. The report concluded: "(1) That it was the strict duty of Governments and municipalities to render ports healthy; (2) that sanitary works for seaport towns were more necessary than for other towns; (3) that it was only when such sanitary works had been accomplished that any notable reduction in the death-rate and zymotic death-rate would take place; (4) that it was only when the ports presented a soil unsuitable for the penetration of morbid exotic germs that the last quarantine checks could be abolished." The discussion was limited to the first two clauses. No speaker made any allusion whatsoever to the question of quarantine. A very mild discussion was held as to whether the State, the municipality, or the chambers of commerce could best secure the application of the necessary sanitary measures, and then the vote was taken, and a favourable decision unanimously given. The chairman now rose to vacate the chair, but Mr. Adolphe Smith protested that, in common with many others, he had only voted in favour of the first two or three clauses of the resolution, and did not understand that the question of quarantines had yet come before the section. Most of the delegates had, however, already risen to leave. A confused conversation followed, and it was understood that the question would be re-opened on another occasion. The last clause of the resolution practically means that quarantines should be imposed everywhere, for what port is there in the world where it is possible to declare that the soil is absolutely incapable of harbouring the germ of an imported disease? This is evidently a subject which the Congress must more carefully discuss.

In the afternoon Section 1 debated the able and interesting report of Dr. Landouzy and Dr. H. Napias on the Best Means of Protecting the Health of Children. Dr. Desmoulin of Ghent said that whereas the mortality among rich children ranged from 10 to 20 per cent. that of the poor varied from 30 to 60 per cent. At Ghent the children working in factories, from the age of eleven, showed terrible signs of physical degeneration. He urged that mothers should receive such help as would enable them to leave the mill at the period of childbirth. Many of the speakers denounced poverty as the principal cause of a high rate of mortality, but several delegates were afraid that by restricting the work of children this poverty would be increased. Mr. Adolphe Smith, on the contrary, pointed out that it was precisely the competition of the work of women and children that reduced the scale of wages. The British coal miner was better paid than the Belgian miner; but in Belgium the women and children worked below ground in the coal mine. The discussion was ultimately adjourned.

On Tuesday morning the report of the French Government Commission on Unwholesome Dwellings was discussed at great length. The conclusions of M. Hudelo, the reporter, were combated in a report drawn up by M. Jourdan. The principle at stake was whether the Commission on Unwholesome Dwellings could deal with the question, or whether, as proposed by M. Jourdan, special salaried inspectors should be appointed to inspect houses and insist on sanitary improvements. The Commissions of Insalubrious Dwellings had rendered great service. At Bordeaux, for instance, they had visited 1800 houses in one year. Would a paid agent have the same moral influence? The commissions were composed of doctors, architects, and engineers, who received no remuneration, and whose opinion was therefore respected. Householders would be more likely to contest the decisions of a mere paid inspector. M. Jourdan insisted that the Commissions which had done good work existed only in large towns, and could not be created in smaller districts. Dr. Pacchiotti remarked that as two sanitary laws were now before the French Parliament, it would be better to wait till their fate was decided. An American delegate related that paid sanitary inspectors in America did their work well, while Mr. Adolphe Smith also alluded to the work done by the sanitary inspectors in England acting under the medical officers of health. The difficulty in France was not to discover insanitary houses, but to find a wholesome dwelling. According to the admirable charts shown at the Exhibition by M. Masson, there were not 2000 sanitary houses in Paris, but about 96,000 insanitary houses. A large handsome room did not make a healthy house. Every house with soil pipes untrapped was unhealthy. It was first necessary to decide what constituted a healthy house. This had been done in Brussels but not in France.

Dr. Janssens, Chief of the Brussels Sanitary Bureau, then explained how, by applying the French law of 1789 and 1790, immense progress had been achieved, and the death-rate reduced from 30 to 22 per 1000. Any complaint led to an inspection, and on report of inspectors the mayor ordered the necessary improvements. If these were not at once executed, the house was declared unfit for human habitation, emptied, and closed. The tenants then prosecuted the landlord and claimed damages for disturbance; consequently the landlords now always and promptly carried out the improvements ordered by the mayor at the suggestion of the sanitary inspectors and bureau. The Congress ultimately unanimously decided that the French law of April 13th, 1850, on unwholesome districts, should be revised. This revision was in the sense of rendering the appointment of commissions on insalubrious districts obligatory throughout France. Some delegates preferring M. Jourdan's proposal, voted against this, but it was carried. Another resolution was adopted unanimously, raising the cubic space per inhabitant from fourteen to sixteen cubic metres, and a final resolution in favour of establishing sanitary bureaux in all towns was approved.

In the afternoon of Tuesday Section 5 discussed the treatment and removal of domestic refuse, what in England is familiarly known as the dust-bin nuisance, but in France is called *la boite à Poubelle*. The discussion in the main was very French in character. Thus it was shown that, in Paris,

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where there was little or no cinder, but, on the contrary, a larger quantity of vegetable refuse, the town refuse was worth from 3f. 50c. to 4f. the cubic metre. The reporter on the question, M. Dumesnil, insisted principally on the method for the removal of the refuse, and the resolution carried was to the effect, "That domestic or kitchen refuse should be placed in a metal box or case, which was to be kept clean and disinfected; that it was desirable that the box or case destined to receive the refuse of the entire house should be placed at the disposal of all the tenants in the evening; should be kept in a part of the building where there was a plentiful supply of air; should be provided with a lid easily removed, and kept in a cellar or other place where there is a ventilating shaft." It will be seen that this latter part of the clause only applies to certain towns and houses. Another resolution, to the effect that all refuse should be put outside the dwellings before night and removed daily, was a more sensible proposal to make at an international congress, for it involved principles rather than details of execution, and was carried unanimously and without discussion. In the course of the afternoon it was remarked that in England the contractors were paid to remove the refuse, while in France profits were made. Mr. Shirley Murphy pointed out that the practice in different districts varied, and that it was impossible, without knowing every detail, to compare the one with the other; but where the cost of collection from the houses had to be borne by the contractor, he was paid in London large sums of money for this service. The principal new point raised was the question often put but never satisfactorily answered, whether house refuse could be partially dried and then packed under strong hydraulic or other pressure. Thus reduced in bulk, partially dried (that is, lessened in weight), it would cost much less to transport to distant agricultural districts, where a more ready market would be found.

To-morrow, at 7 A.M., the whole Congress proceeds to Reims, and the next sitting will be held on Thursday.

Paris, Aug. 6th.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE annual meeting took place at the rooms of the Medical Society of London on Thursday, July 25th, when the President, Dr. Hayes Newington, delivered an address on Lunatic Asylum Hospitals, of which the following is an abstract.

Dr. NEWINGTON gave credit to Dr. Batty Tuke and Mr. Brudenell Carter for having re-started the discussion, and referred to the article in *The Times* of April 30th, 1889. He showed that the original idea was embodied in sec. 27 of 8 and 9 Vic., c. 126, but it was not followed up and has since been repealed. He vigorously contested the depreciatory account that had been given of the progress in the study of insanity during past years. From the point of view of the efficacy of treatment he showed that 40 per cent. of admissions were cured, and that the balance of admissions contained an enormous proportion of hopeless cases. Eighteen per cent. of all admissions are general paralytics or epileptics; 21·8 are aged fifty-five or over; 22 per cent. are admitted after a year's duration of the disease; and a further 13 per cent. after three months' duration. Looking to the number of such cases, either dead or dying in intellect, the accumulation of chronic cases in asylums could no more be charged with a failure to overcome "brain death" than could the accumulation of a cemetery be laid to the door of general medicine. He uttered a warning that highly coloured statements would procure a refusal on the part of the public to provide hospitals, which are undoubtedly wanted not only for the purpose of gradually increasing our recovery rate if possible, but for teaching insanity to students, as well as for the more elaborate and leisurely study of the disease by professed alienists. The danger is that the public would either take as true all the hard things said, and would refuse to entrust medical men with further and expensive institutions, since they cannot properly use those already under their charge; or the public would, on finding out the real facts, consider that it had been needlessly alarmed by exaggeration, and would be disposed to sleep over the matter. He deprecated any idea that his arguments should be taken as signs of ultra-conservatism on the part of alienists. Alienists, like other scientific persons, looked for improvement; but justice had to be done both to present and past workers in the field of insanity, and the public itself had interests which would be imperilled if it were led to form erroneous opinions as to the present condition of psychiatry. He advocated the establishment of two classes of hospitals; the first to form part of the machinery of county and borough asylums, into which all curable cases should be taken and kept for a certain time, unless, of course, recovery took place; the second to be erected near large towns supporting medical schools. Both are to be under the responsible charge of alienists, but both are to have the advantage of the services of general physicians. In the latter class of hospitals ample provision is to be made for systematic and clinical teaching, much on the lines of a general hospital. He gave considerable details as to the arrangements, the selection of cases, and the duties and relations of the staff.—A discussion followed, in which Drs. Clouston, Savage, Hack Tuke, Yellowlees, Rayner, Whitcombe, Urquhart, Mr. Clark Bell, and others took part.

THE BRITISH NURSES' ASSOCIATION.

THE annual meeting of members was held in the Guildhall, Cambridge, on Wednesday, July 31st, Professor Humphry, F.R.S., in the chair. The hon. secretary, Dr. Bedford Fenwick, read the first annual report, which spoke of an amount of success achieved by the Association which at the inception of the scheme was hardly hoped for. Founded only upon Dec. 7th, 1887, there were already 2537 members enrolled in addition to the branches forming in the Australasian colonies and South Africa, which would add several hundreds to the numbers of the Association, whilst financially the Association was in a most prosperous condition. The subject of registration had been most carefully and thoroughly considered, and the best advice had been taken. In the interests alike of the public and of qualified nurses, and for the protection of both, the General Council had decided to act upon its own initiative, and to open without delay registers of nurses and midwives, and to place on these at once without payment the names of members of the Association. For a few months to come all who had been engaged in nursing for three years and possessed unexceptionable testimonials of knowledge and character would be eligible for registration. But after that brief period of grace and thenceforward only those women who produced certificates of training from a recognised nursing school or diplomas from an obstetrical body would be entered on the registers. When a sufficient number had been enrolled, the General Council proposed to present the petition for a Royal Charter to Her Majesty the Queen in Council. It might be added that the Royal Charter had now been drafted, and, except for some verbal alterations which might hereafter be made, was practically already prepared. Amongst other schemes to be undertaken by the Association was the establishment of a benevolent fund to assist members standing in need of temporary pecuniary assistance. A number of resolutions in accordance with the objects of the meeting, and making requisite alterations in the bye-laws &c., were put and carried, and the proceedings, which were marked throughout by considerable enthusiasm and entire unanimity, came to a close, the members dining in the hall of St. John's College, the vice-chancellor of the University being in the chair.

ARMY MEDICAL SCHOOL.

THE summer session of the Army Medical School was brought to a close on the 2nd instant at Netley. Ten candidates for commissions in H.M.'s Indian Medical Service had passed through the courses of practical instruction at the school. No candidates for commissions in the British service attended during the session, but twenty-four surgeons of the medical staff had gone through a post-graduate course. Sir Dyce Duckworth, M.D., F.R.C.P., accompanied by Director-General W. A. Mackinnon, M.S., C.B., and Surgeon-General Sir Joseph Fayrer, K.C.S.I., F.R.S., arrived from London to distribute the

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prizes, which were delivered to the successful competitors, as usual, in the lecture theatre in the presence of the medical and military staff of the Royal Victoria Hospital, professors of the school, and a number of visitors. After handing the prizes with a few appropriate remarks to each recipient, Sir Dyce Duckworth delivered an address, which is printed in full on another page. At the close of the address the Director-General spoke, referring to the time when he was himself among the number of the professorial staff of the school, and he was followed by Sir J. Fayrer, who gave the young surgeons about to proceed to India some valuable counsel derived from his own long experience in that country, and heartily congratulated them on having selected service in India for their future professional career. At the conclusion of the proceedings in the lecture theatre, the meeting adjourned to the officers' mess-room, where luncheon was served.

We publish in another column the list of successful candidates for commissions in the Indian Medical Service, and the number of marks gained by them, together with the names of the surgeons to whom prizes were awarded.

MALCOLM MORRIS INDEMNITY FUND.

THE following additional subscriptions to the above fund have been received:—

	£	s.	d.
Amount previously acknowledged	428	7	0
Sir William Gull	5	0	0
D. J. Woodman, Esq. ..	5	5	0
Dr. Corfield	2	2	0
Dr. M. Barnes	1	1	0
Dr. T. Morton	1	1	0
Dr. Allchin	1	1	0
W. J. Walsham, Esq. ..	1	1	0
Dr. Macnaughton Jones	1	1	0
E. Nettleship, Esq. ..	1	1	0
Herbert W. Allingham, Esq.	1	1	0
Dr. Henry C. Martin ..	1	1	0
Dr. H. Cooper Rose ..	1	1	0
Dr. Riding	1	1	0
Dr. T. Britton (Harrogate)	1	1	0
Bruce Clarke, Esq.	0	10	0

The costs amount to £480. Subscriptions may be sent to Mr. G. P. Field, 34, Wimpole-street, or to Dr. Sidney Phillips, 21, Upper Berkeley-street, who will be glad to receive subscriptions which have been promised but not yet sent.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Fatal "Croup" &c. in the Horwich Registration District, by Mr. J. SPEAR.—Another of those prevalences of diphtheria, of a more or less marked type, masked under such names as "croup" &c. has occurred in the Horwich registration district. The term diphtheria having been more freely used towards the end of 1887 and the beginning of 1888 than during the earlier part of the prevalence, the matter at last came under the notice of the Local Government Board, and Mr. Spear was instructed to inquire into the occurrence. It now appears that between the beginning of 1884 and the end of the first quarter of 1889 an outbreak causing no less than 57 deaths took place in this registration district, all but 3 of the deaths being registered in the Horwich and in the Westhoughton urban districts, having together an estimated population of some 214,000 persons. Of 26 fatal attacks up to the end of 1887, only one was registered as diphtheria, the remainder being described under such terms as croup, tracheitis, cynanche trachealis, and laryngitis. And of 27 deaths in 1888 only 4 were put down to diphtheria. The subjects were nearly all young children, and in 3 of the "croup" cases membrane is said to have been visible either on the pharynx or as the result of expectoration. In dealing with the cases that came within review Mr. Spear says that in the more obvious general symptomatology little differentiation was found possible between the fatal affections, whether described as croup, tracheitis, or laryngitis; and speaking again of non-fatal attacks, he says that on the whole the testimony available suggested that under such names diseases of a different etiology had been included, and that although in some half-dozen cases the history was that of diphtheria, yet the non-fatal attacks were rarely in the same neighbourhood, or apparently associated with the fatal attacks. It is next pointed out that the 38 fatalities ascribed to "croup, tracheitis, and laryngitis" occurred in 35 different households, in 26 of which no other similar attack, or, indeed any of diphtheria or noticeable sore-throat, occurred, although they contained some 78 other children or young people; and we rather infer from this that Mr. Spear inclines to the view that these cases were in some respects different from diphtheria. But the exceptional cases show that what is termed "laryngitis" led to multiple attacks in the same households, whether of the same complaint or of what is termed either sore-throat or croup; that when diphtheria of a typical type took place this was followed by so-called croup; that croup cases were followed by other croup cases; and that diphtheria in one case attacked an adult who had been nursing a croup patient. The truth is, that there is nothing so very exceptional in genuine diphtheria being limited to single attacks in households; its power for spread being at times very different from that which obtains at others. Indeed, of six fatal attacks from "diphtheria" reported by Mr. Spear, three were single ones, whereas two occurred in houses where fatal attacks of croup had taken place, the remaining one being associated with two mild attacks in the family invaded, and probably with two or three elsewhere. Mr. Spear next adverts to the coexistence of measles and scarlatina with some of the fatal attacks registered as croup or laryngitis, a coincidence which he is inclined not to regard as accidental. Looking to the whole of this statement about throat illness, fatal and non-fatal, forming apparently an epidemic, we cannot help thinking that an almost artificial attempt is made to differentiate between the several diseases. Whilst we would by no means deny the possibility of occurrences of laryngitis or of croup, merely because a diphtheria prevalence was in progress, yet we cannot help thinking that the knowledge we have recently acquired as to the natural history of diphtheria goes to show that all which occurred during the prevalence under consideration is entirely consistent with the view that throughout the disease met with was diphtheria, in so far as that term can be regarded as covering a single specific disease, the affection merely manifesting certain of those modifications, alike as to local symptoms, power of spread, and otherwise, which are known to have marked its course in outbreaks where no question whatever has arisen that it was diphtheria and no other disease, that was met with.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5770 births and 3763 deaths were registered during the week ending Aug. 3rd. The annual rate of mortality in these towns, which had been 21·0 per 1000 in each of the preceding two weeks, declined to 20·5 last week. During the first five weeks of the current quarter the death-rate in these towns averaged 20·3 per 1000, and was 0·1 above the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 14·1 in Brighton, 14·8 in Birkenhead, and 15·7 in Bristol and in Huddersfield. The rates in the other towns ranged upwards to 25·9 in Newcastle-upon-Tyne, 27·0 in Manchester, 28·8 in Sunderland, and 42·6 in Preston. The deaths referred to the principal zymotic diseases in these towns, which had been 1018 and 998 in the preceding two weeks, further declined last week to 891; they included 578 from diarrhœa, 79 from measles, 69 from whooping-cough, 65 from diphtheria, 59 from scarlet fever, 41 from "fever" (principally enteric), and not one from small-pox. These zymotic diseases caused the lowest death-rates last week in Wolverhampton, Derby, and Huddersfield, and the highest rates in Salford, Sunderland, Plymouth, and Preston. The greatest mortality from diarrhœa occurred in Salford, Sunderland, Birmingham, Leicester, and Preston; from measles in Plymouth, Newcastle-upon-Tyne, Leeds, Halifax, and Preston; from scarlet fever in Huddersfield, Bolton, and Plymouth; from whooping-cough in Portsmouth and Sunderland; and from "fever" in Preston. The deaths from diphtheria included 45 in London, 5 in Manchester, 3 in Salford, and 3 in Sunderland. Small-pox caused no death in any of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week either

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in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and London Fever Hospitals at the end of last week was 727, against numbers increasing in the preceding five weeks from 559 to 660; 124 cases were admitted to these hospitals during the week, against numbers increasing from 33 to 110 in the previous seven weeks. The deaths referred to diseases of the respiratory organs in London, which had been 141 and 160 in the preceding two weeks, further rose last week to 182, but were 11 below the corrected average. The causes of 76, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Norwich, Plymouth, Wolverhampton, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Birmingham, Halifax, and Liverpool.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·6 and 17·9 per 1000 in the preceding two weeks, rose again to 18·3 in the week ending August 3rd; this rate was 2·2 below the mean rate during the same week in the twenty-eight large English towns. The rates in these Scotch towns ranged last week from 12·4 and 12·7 in Dundee and Perth to 25·2 in Leith and 27·4 in Paisley. The 468 deaths in the eight towns showed an increase of 9 upon the number in the previous week, and included 39 which were referred to diarrhœa, 15 to whooping-cough, 8 to measles, 7 to "fever" (principally enteric), 4 to scarlet fever, 4 to diphtheria, and not one to small-pox; in all, 77 deaths resulted from these principal zymotic diseases, against numbers increasing from 81 to 95 in the preceding four weeks. These 77 deaths were equal to an annual rate of 3·0 per 1000, which was 1·9 below the mean rate from the same diseases in the twenty-eight English towns. The deaths referred to diarrhœa, which had risen in the preceding five weeks from 17 to 41, declined to 39 last week, but exceeded by 17 the number in the corresponding week of last year. The 15 fatal cases of whooping-cough showed a decline of 6 from the number recorded in the previous week, and included 6 in Glasgow and 3 in Edinburgh. The deaths from measles, which had been 18 and 20 in the preceding two weeks, declined to 8 last week, of which 3 occurred in Edinburgh and 2 in Aberdeen. The 7 fatal cases of "fever" exceeded by 3 the number in the previous week, and included 5 in Glasgow. Of the 4 deaths attributed to diphtheria, 2 occurred in Leith, and of the 4 fatal cases of scarlet fever, 2 were returned in Glasgow. The deaths referred to the principal diseases of the respiratory organs, which had been 66 and 59 in the preceding two weeks, were 60 last week, and slightly exceeded the number in the corresponding week of last year. The causes of 54, or nearly 12 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased from 16·3 to 24·8 per 1000 in the preceding three weeks, declined again to 20·7 in the week ending Aug. 3rd. During the first five weeks of the current quarter the death-rate in the city averaged 21·5, the mean rate during the same period being 18·2 in London and 16·4 in Edinburgh. The 140 deaths in Dublin showed a decline of 28 from the number in the preceding week; they included 8 which were referred to diarrhœa, 4 to measles, 2 to "fever," 1 to whooping-cough, and not one either to small-pox, scarlet fever, or diphtheria. Thus the deaths from these principal zymotic diseases, which had been 25 and 23 in the previous two weeks, further declined to 15 last week; they were equal to an annual rate of 2·2 per 1000, the rate from the same diseases being 3·7 in London and 2·3 in Edinburgh. The deaths referred to diarrhœa showed a further decline from those recorded in recent weeks; the fatal cases of "fever" and of whooping-cough were also fewer than those registered in the preceding week. The deaths of infants showed a marked increase, while those of elderly persons were below those recorded in the previous week. One inquest case and 1 death from violence were registered; and 47, or more than a third, of the deaths occurred in public institutions. The causes of 16, or more than 11 per cent., of the deaths in the city were not certified.

INFANT AND CHILD MORTALITY IN MOSCOW.

The city of Moscow now issues a monthly return of mortality statistics, which is a sign, at any rate, that its inhabitants are supplied with the means of testing its sanitary condition by its death-rate. It appears from these returns that the population of the city in 1882 was 753,469, and not far short of that of St. Petersburg. Estimating the present population of the city at 800,000, the annual birth-rate during the first five months of this year was equal to 41·3 and the death-rate to 37·2 per 1000; these rates are probably understated by an over-estimate of the present population. The official return not only gives the deaths at different age periods, but also the ages of the population at the same groups of ages. From this it appears that the proportion of children in the population was remarkably small. The proportion of children aged under five years of age is stated to have been in 1882 only 60 per 1000, whereas in London the proportion living in 1881 at these ages was 130 per 1000. This small proportion of living children in Moscow may be partly due to the remarkably high rate of infant mortality that appears to prevail there. During the first five months of this year the deaths of infants aged under one year in Moscow were equal to 389 per 1000 registered births, whereas in London this proportion of infant mortality did not exceed 124, or less than a third of the rate in Moscow. The death-rate among children aged between one and five years does not show so large an excess as does that of infants under one year; but, based upon the ages of the Moscow population given in the return, the annual death-rate of children aged under five years in that city, in the five months under notice, was equal to 138·6 per 1000, and was more than double the recent death-rate at these ages in London. As throwing some light upon this startlingly high death-rate of children in Moscow, we may point out that the returns before us show death-rates from "fever," diphtheria, scarlet fever, measles, and diarrhœa enormously exceeding those recorded in English towns. We must content ourselves with noticing that the annual death-rates from diphtheria and diarrhœa in Moscow during the five months ending May last were equal to 1·01 and 6·12 per 1000, whereas the rates from those diseases in London during the same period did not exceed 0·31 and 0·20 per 1000 respectively. Thus diphtheria was more than three times and diarrhœa more than thirty times as fatal in Moscow as in London. With reference to the mortality from diphtheria in Moscow, it should, moreover, be stated that the deaths referred in the five months to croup and to "pneumonia crouposa," both headings classed among the principal zymotic diseases, considerably exceeded those returned under the heading "diphtheritis."

HEALTH OF MEXICO.

Dr. Daniel Kuiz, of Vera Cruz, has recently drawn up a report on the mortality in the canton of Vera Cruz, from which we learn that the most prevalent diseases are those affecting the lungs. Miasmatic diseases account for only 164 deaths out of 1101 last year in the city itself, but they were responsible for an immense amount of sickness, which did not prove fatal, but which considerably lowered the general standard of health. Lung diseases and paludal fevers are so general that one has only to pass down a crowded street to see their effects in the contracted chests, anæmic complexions, and thin limbs of the passers by. Even the police, who are a picked body of men, are characterised, though in a somewhat less degree perhaps, by the same evidences of the effects of the treacherous climate. The cargadors (porters) are, physically speaking, the finest class, possessing broader chests and better developed limbs than the great majority of the population. The reasons of this physical superiority are threefold: (*a*) the cargador's work, while it lasts, is severe, and weak persons are not admitted into the brotherhood; (*b*) the cargador is well paid and well fed; (*c*) he takes sufficient physical exercise in the open air, which with the other classes is, in consequence of the climate being so hot, damp, and enervating, the exception rather than the rule. Another cause of the weak chests and the anæmia which are so prevalent may be found in the custom which obtains of very early marriages. The climate is again at fault, for it develops both sexes very early, and girls are sometimes wives at fourteen and mothers at fifteen, whilst marriages at sixteen are not at all unfrequent. These early marriages are not unprolific, but the children of them are, as a rule, weakly, the mortality amongst them is great, and the survivors help to lower the general standard of health.

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Correspondence.

"Audi alteram partem."

VACCINATION AND INFANTILE SYPHILIS.

To the Editors of THE LANCET.

SIRS,—With your kind permission I wish, albeit somewhat late in the day, to make one or two remarks on a matter which press of work prevented me from taking up at the proper time, but which has again cropped up in your leading article of July 27th. I refer to the argument derivable from Scotch registration statistics regarding the relationship between vaccination and infantile syphilis, and to Dr. Creighton's connexion therewith.

The argument, as I have put it in "Vaccination Vindicated," pp. 136–38, is, in three parts, briefly as follows:—1. Opponents of vaccination hold that because deaths from syphilis have largely increased in the first year of life, "the year of vaccination," the increment is to a great extent due to that operation. Regarding this, the question at once arises, Have the deaths taken place mainly before or after the performance of "the rite"? The answer is to be found in the tables of the Scotch Registrar-General, in which the first year of life is divided into three periods: 0–3 months, 3–6 months, and 6–12 months. Here are the figures for three recent years:—

Deaths from Syphilis in Scotland at certain Ages.

Year.	0 to 3 months.	3 to 6 months.	6 to 12 months.	1 to 2 years.	All ages.
1882	109	44	39	16	244
1883	107	51	23	16	240
1884	117	57	26	14	276
Totals	333	152	88	46	760
Per cent. ..	43·8	21·3	11·6	6	100

But in Scotland vaccination is not compulsory until six months, so that of deaths from syphilis at all ages this table shows that no less than 65 per cent., or about two out of every three, take place before the age of vaccination; and in the second half year of life, when vaccinal syphilis ought to be rampant, the deaths fall to 11·6 per cent., or less than one-fifth of those in the prevaccination half year. 2. If vaccination were responsible for any considerable part of the infantile syphilitic mortality, then, as the operation is compulsory three months earlier in England than in Scotland, the former country should, in the first half year of life, have a correspondingly higher share of the deaths But in the same three years the percentages were, under six months, 64·5; from six to twelve months, 11·3; and from one to two years, 6·1. The remarkable similarity of these figures to those given above, shows that vaccination has nothing whatever to do with the comparative syphilitic mortality of the two countries. 3. The powerlessness of vaccination to propagate syphilis may be shown even more clearly. Anti-vaccinationists have pointed out that the mortality has risen more rapidly under one year than at all ages combined. The question again is, In what part of the first year has the increase occurred? The Scotch registrar once more gives the answer. (The Vaccination Act of Scotland was passed in 1863.)

Deaths from Syphilis in Scotland, 1855–9 and 1880–4.

Five years.		Under one year of age. 0 to 3 months.	3 to 6 months.	6 to 12 months	All other ages.	All ages.
1855–9.	Deaths ..	142	81	42	116	381
	Per cent. ..	37·3	21·3	11·0	30·4	100
1880–4.	Deaths ..	540	242	147	284	1213
	Per cent. ..	44·5	20·0	12·1	23·4	100

Thus the deaths from syphilis have grown from 381 to 1213, an increase much more rapid than that of the population. Further, the population under one year formerly contributed only 70 per cent. of the total, and now it contributes 77 per cent. Seven per cent. has thus been transferred to "the year of vaccination." But, on looking at the figures it will be seen that *the whole 7 per cent. is accounted for by infants under three months old—the three months of non-vaccination*, so that of course vaccination is not a factor in the case.

Such, in brief, is the argument from the Scotch statistics. Your issue of Dec. 1st last contained a letter from Dr. Creighton, occasioned by a valuable criticism in your columns of the previous week. In it Dr. Creighton said, "I showed also, by reference to the registration figures for Scotland, that most of the deaths from infantile syphilis happened in the first three months of infancy, whereas the statutory limit of vaccination in that country is six months. Dr. McVail used that argument, doubtless independently, in his book published two months after mine, and he has been duly commended in your own columns and elsewhere for establishing a fact so well calculated to meet the alarmist charges against vaccination. But the argument from the Scottish statistics was first established by myself."

Passing by the fact that I have not been commended, either duly or unduly, in your columns for establishing the point in question, I now turn to the reference given by Dr. Creighton, and find that on p. 153 of "Cow-pox and Vaccinal Syphilis," he says that "probably" it is the case that "a great part" of the increased syphilitic mortality under one year "will have to be looked for" elsewhere "before we go to vaccination as a last resort." Then he goes on: "This is made all the more likely by an examination of the more recent registration returns for Scotland, which give the mortality in separate columns for the first three months of life, the second three months, and the next six months; if these returns may be taken as showing forth the incidence upon the several quarters of the first year for England also, we should have the significant fact that considerably more than half the deaths from syphilis under the age of one belong to the first three months of infancy." He adds, however, that "that fact certainly does not make absolutely against the hypothesis of an increase being due to vaccinal infection." This is positively the only reference to Scotch statistics that Dr. Creighton's book contains, and on this slender basis he rests his claim to have "established the argument." The point is in itself a trifling one, but it is a valuable indication as to the amount of proof which Dr. Creighton thinks sufficient in forming a conclusion. He is of opinion that he has "established" a number of new points. He has proved, he believes, that the milkers' tradition of the anti-variolous power of cow-pox was "an old wife's fable,"[1] that the variolous test, as practised by the early vaccinators, was a sham, that cow-pox has its analogue not in small-pox but in syphilis, that vaccination is nothing but a "grotesque superstition," and that its author, Jenner, "went blundering into visionary nonsense in the first place, and at length into systematic mystification and chicane." Let any reader of Dr. Creighton's books, who has not the opportunity of consulting the evidence at first hand, recollect in regard to such assertions how little in the way of demonstration it takes to satisfy the doctor that he has "established" his argument.

Questions of priority in such matters are as a rule of merely personal interest, and in regard to that incidentally mentioned by Dr. Creighton, I will only remark that, as he courteously suggests, my reference to the Scotch argument was quite independent of his, though his book was published two months before mine. The necessary figures had been obtained by me from the English Registrar-General many months before, and indeed even after the manuscript was in the printer's hands, its publication was, owing mainly to illness, delayed for about half a year.

I am, Sirs, yours sincerely,

Aug. 5th, 1889. JOHN C. MCVAIL.

THE SANITARY ASPECT OF BOVINE TUBERCULOSIS.

To the Editors of THE LANCET.

SIRS,—In connexion with the above subject, it has afforded me unfeigned pleasure—and I think I may say that it will have given equal pleasure to all veterinarians interested in the question—to observe that, according to an

[1] In a review of Dr. Creighton's writings on vaccination, of which the first part appears in the current number of the Edinburgh Medical Journal, I have discussed this question somewhat fully.

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announcement at p. 220 of your last issue, the decision of Sheriff Principal Berry in the tuberculosis case recently tried at Glasgow has met with such marked acceptance at the hands of so important a body as the combination of Medical Officers of Health of the North-western and Yorkshire branches of the Society of Medical Officers. Coming so closely upon the combination which was escheloned in Glasgow, with the view of assisting the Association of Butchers in its object of perpetuating the pernicious system previously so largely in vogue in Glasgow of passing the carcasses of tuberculous cattle for human food, it is very refreshing. To me the spectacle of a phalanx of medical officers of health arrayed on the side of those who wished to perpetuate the sale of the flesh of animals that had suffered from "*the scourge of the human and animal race alike*" was truly melancholy; and there was, it seemed to me, a certain tinge of irony in the circumstance, seeing that, in addition to the fact that so long ago as 1872 this matter was exhaustively discussed at a meeting of the West of Scotland Veterinary Medical Association held at Glasgow, the subject was brought before the Sanitary Association of Scotland and the British Medical Association in the Western City so recently as last year. In whatever way the action of the medical officers of health just referred to may be interpreted, there can only be one interpretation of the action of the medical officers of health of the North-Western and Yorkshire Combination; and I promise (or I think I may safely do so) all such combinations or associations that in this matter they will have the energetic and earnest support of the veterinary associations throughout the kingdom. In your issue of the 3rd inst. I also notice a recommendation of the Streets Committee of the Darlington Corporation to the Council (of that town I presume) in connexion with the use of milk from tuberculous cows. Personally, I shall watch with more than ordinary interest the outcome of this recommendation, especially as, so far as I know, there is no law at present in existence which enables the Darlington or any other Corporation to deal with animals (found in byres) suffering from tuberculosis, or with the milk from such animals. I am, Sirs, your obedient servant,

Royal Veterinary Col. Edin., Aug. 6th, 1889. THOS. WALLEY.

PHTHISIS IN THE BRITISH ARMY.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of July 4th you noticed a statement of Dr. R. Schmidt of Munich, that the cases of phthisis in the English army were 11·8 and the deaths 6·2 per 1000, but you very properly observed he neither indicated the source of his information, nor the period it embraced, nor, I would add, the countries they occupied. In THE LANCET for July 27th you offer some comments on Dr. Schmidt's ratios, derived from Dr. Parkes's "Manual of Hygiene" (fourth edition), on the frequency of phthisis up to 1871, and add to these from recent Reports on the Health of the Army up to 1885. Dr. Parkes pointed out that the deaths from phthisis in the service did not show the full effect of the influences giving rise to that disease among soldiers, and that the mortality among those discharged on account of it had to be taken into consideration, but he made no estimate of the amount of this correction. In like manner, the numbers you have taken from the medical reports deal with the deaths in the service only, and do not include any of those among the invalids after leaving it.

In January, 1887, I read a paper at the Royal Statistical Society "On the Mortality among the Troops serving in the United Kingdom from Consumption," in which the deaths of invalids from this disease were included, and the reasons for their diminution in recent years fully gone into. It had been found that about half of those so discharged died within two years, and, as all of them had active pulmonary disease with considerable destruction of pulmonary tissue on leaving the service, the mortality among them would at least equal that in a similar number of persons in civil life in whom the disease was equally advanced; it was considered the early death of half their number would not deviate materially from the truth. In estimating the mortality from consumption due to military service, half the number discharged for this disease were therefore added to the deaths from it in the service, which gives a much closer approximation to the loss of life caused by the disease in the army than is generally adopted.

The following table taken from the paper in the Journal of the Royal Statistical Society (vol. l., p. 470), shows, in the first column, what the deaths from consumption among the troops would have been in the United Kingdom, with their peculiar age distribution, and at the rates observed among the male population of England and Wales at the corresponding ages. The second column shows the deaths which actually occurred in the service; the third gives the half of the discharges for phthisis; and the last the sums of these two, or the total deaths due to military service in the United Kingdom at each period. The total deaths have

Periods.	Phthisis in army at civil rates, per 1000.	Phthisis observed, per 1000.		
		Deaths.	Half of discharges.	Total deaths.
1837–46	5·09	8·53	0·85	9·38
1860–64	3·63	3·07	2·70	5·77
1865–69	3·81	2·57	2·26	4·83
1870–74	3·39	2·43	2·21	4·64
1875–79	3·21	2·45	2·22	4·67
1880–84	2·70	1·92	1·71	3·63

diminished nearly two-thirds of their amount from 1837–46 to 1880–84, but in every period they have considerably exceeded what would have occurred among the same body of men in civil life. It would occupy too much of your space to go into detailed explanations of these changes here, and I have accordingly to refer such of your readers as wish for further information on these points to the original paper.

The following statement of deaths per 1000 from phthisis in the different groups of foreign stations, including those of invalids from them on passage home, and until disposed

Stations.	1859–73.	1879–84.
Mediterranean	3·29	2·18
American	3·20	2·78
West Indian	3·42	2·14
Cape of Good Hope and Natal	3·09	1·35
Mauritius and Ceylon	3·80	3·20

of, and half the number of men discharged for it, for 1859–73 and 1879–84, shows there has been a manifest reduction of that disease abroad as well as at home.

I am, Sirs, your obedient servant,

ROBERT LAWSON.

London, Aug. 2nd, 1889. Inspector-General of Hospitals.

*** In our annotation of July 27th we gave the death-rate from phthisis *in* the service, not that caused *by* the service. Our remarks were made with reference to Dr. Schmidt's comparison of the number of cases and deaths in different armies. As there was nothing stated regarding the amount of invaliding for phthisis from each of these, we could not make the correction necessary to show the probable number of deaths among men after their removal from the effective strength on this account. Our remarks therefore applied only to the relative prevalence and mortality among soldiers while serving.—ED. L.

THE NOTIFICATION OF INFECTIOUS DISEASES BILL.

To the Editors of THE LANCET.

SIRS,—General practitioners throughout the country are greatly indebted to you for the able articles which you have rceently published on this subject, especially for that of July 20th, which has been of the greatest service. There cannot be a doubt that the majority of the profession are in favour of notification as a means of checking the spread of infectious diseases. Our objection is not to notification, but to the mode in which Mr. Ritchie's Bill seeks to have it carried out. We agree that it should be the duty of the householder or person in charge of the patient to notify, but we regard it as a departure from strict right, and also inexpedient, to require direct notification on the part of the medical

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attendant, when the latter is called in at the discretion and expense of the householder. By throwing the duty on the medical man, the promoters of the Bill confess that they do not expect the householder to do his part; and, indeed, where the dual system is in force under local Acts, the householder's report is generally dispensed with, two accounts of the same case being only embarrassing to the authorities. Similarly, there have been about a score of prosecutions of medical men, but of householders barely a fourth of that number (I cannot recall more than three). Surely this is not the way in which to teach the people, that "England expects every man to do his duty." It would be far preferable to insist on notification by the person primarily liable, and not to let ignorance be any excuse, except from inability to obtain a medical certificate.

The party of private practitioners to which I belong is quite willing to be under compulsion to certify in a case of infectious disease just as we do to the cause of death and to vaccination. But we regard it as unprofessional and un-English to send the information to the authorities direct, except at the householder's request. It is repugnant to our nature to bring the healing balm in one hand and the hangman's rope in the other.

We are therefore persuaded that the dual system of notification is wrong in principle. It has also been proved to be worse than useless in practice; for, in the year 1887, when the death-rate from zymotic diseases was high throughout the country, and when consequently there was an excellent opportunity for showing the superiority of that system, it lamentably failed—so much so that the large towns under the dual system lost 206 per million more persons from *notifiable* diseases than died of the same diseases in the large towns under no system. The same thing holds when a series of years is taken: the dual system is worse than useless. And no wonder; for it leads the public to regard the doctor as their natural enemy, as one who will turn upon them for a paltry half-crown. Accordingly, they put off sending for him as long as they possibly can, and until the mischief is done which he could have prevented.

The single, or householder, system has no such ill effects, and in proof of this I can confidently appeal to the Registrar-General's returns for Bradford and Norwich.

If Mr. Ritchie will only transform his Bill so as to embody the single system of notification (as carried out in Bradford), instead of the dual system, and then make its acceptance unconditional throughout the country, we shall all be pleased. It will then be a good and strong measure (which it certainly is not at present), and he will find it perfectly efficient.—I am, Sirs, yours faithfully,

Kingston-on-Thames, Aug. 7th, 1889. D. BIDDLE.

TREATMENT OF HIP-JOINT DISEASE.

To the Editors of THE LANCET.

SIRS,—In his recent interesting lectures at the Royal College of Surgeons, Mr. Howard Marsh refers at some length to my experience on the question of hip disease. I should like to take the opportunity of thanking him for his kindly reference to me, and he will not, I am sure, take it amiss if I venture to point out certain, as I think, fallacies in his statistics, and in the conclusions he draws therefrom. I am the more anxious to do this because a similar mode of reasoning is being constantly brought forward by those who, lacking Mr. Marsh's moderation, seek to discredit all operations of the nature of excisions in the treatment of joint disease.

Mr. Marsh first refers to the results of treatment other than excision in the case of the hip-joint. He gives the results of 76 cases, of which 37 had abscesses and the rest had not suppurated. Mr. Marsh then analyses the results in these cases, comparing them with the results of excision, naturally to the disadvantage of the operation. But it is not, I think, unreasonable to say that the comparison is not valid, and that no such conclusion can be drawn from these figures. For in the first place more than half Mr. Marsh's cases were those of disease in which no suppuration had taken place—i.e., of early disease in which a good result would naturally be expected without operation. Secondly, the figures are taken from a comparatively small proportion (76 out of 160 written to) of those selected. To make out the case against operation, we ought to know what became of the 84 who did not appear. Is it not possible that death, or what one of my patients graphically called "permanent cripplehood," may have had something to do with the absence of the others? This would, of course, invalidate the conclusions altogether, since only the recoveries would come. My conclusions, on the other hand, were based on the results of the whole of the cases (except one) treated by a certain method.

Mr. Marsh next takes 614 cases treated since 1880 at the Alexandra Hip Hospital, with a mortality of 6 per cent., or including incurables, 8·4 per cent. These are compared with my cases of excision, with a mortality of 20 per cent. But is there not a clear fallacy here? Were Mr. Marsh's 614 all cases in which suppuration had occurred, or the disease was as far advanced as in my excision cases? If any of these 614 were cases of early slight disease, the comparison of course falls to the ground. To compare two different modes of treatment, must we not require that they be employed in similar cases?

Consideration for your space prevents my commenting upon much that is valuable and interesting in Mr. Marsh's lectures. Two points, however, I must ask you to allow me to mention. First, that I do not think that the evidence of the Alexandra Hip Hospital is conclusive on the subject of the frequency of necrosis. My own experience, and I think Mr. R. W. Parker would agree with me, is that I have frequently found necrosis, and I think I can give an explanation that is probable of the difference in our views. In the Alexandra Hospital patients are kept in for an indefinite time, and therefore are not under the unfavourable conditions of liability to frequent exacerbations of disease from periods of neglect that ordinary hospital patients are. Hence I can well imagine not only that Mr. Marsh's results are better than those of other hospital surgeons, but that he sees less of necrosis.

May I lastly point out that many writers on the subject of operation in joint disease (among whom I should not class Mr. Marsh) write as if those who advocate excision never employ any treatment short of operation? They do not seem to realise, what everyone surely admits, that the number of joints requiring operation is small compared with those that recover without, *provided suitable treatment can be carried out.* What those who condemn excision *in toto* require to make out their case is to produce a large series of consecutive cases of the same degree of disease in the same class of patient as those which have been published by operators, and to show a better result without operation. I am fully aware of the difficulty of compiling such a report accurately, but it is, I think, the only way in which a valid conclusion can be arrived at.

I am, Sirs, yours faithfully,

Manchester, July 30th, 1889. G. A. WRIGHT.

PROFESSIONAL TATTLE.

To the Editors of THE LANCET.

SIRS,—Your remarks in a leader in a recent issue of THE LANCET condemning certain articles which have appeared in non-medical public journals on the death-bed scenes and sayings of celebrated men were much needed and timely. What objects the writers of these articles have set before them it is not easy to discover. To themselves we scarcely think there can accrue either honour or profit, if we except the brief popularity they may obtain, and in the surviving relatives, whose sacred feelings they thus violate, they can only create pain and disgust. During a fairly long professional life I have seen many things to deplore in medical practice, but hitherto, wherever I have lived and whatever grade of professional life has presented itself to me, I have ever felt that the secrets of the time of sickness and its frailty and weaknesses were held inviolate by the family medical man. Of late, however, all is changed, and we seem to have become on these matters as garrulous as the Barber of Seville, and if this evil is not sternly and speedily checked amongst us, we must not wonder if the public should lose all confidence in us and all their wonted respect for us and our profession. I am personally gratified that you have taken up this important matter.

I remain, Sirs, yours obediently,

King's Lynn, Aug. 5th, 1889. WM. DALE, M.D. Lond., &c.

DR. DETTWEILER'S POCKET-FLASK FOR THE DISPOSAL OF THE SPUTA IN PHTHISIS.

To the Editors of THE LANCET.

SIRS,—Dr. Arthur Hill Hassall has given most sensible advice in his paper "On the Disposal of the Sputa in Phthisis," printed in THE LANCET of July 27th. He

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justly dwells on the danger of infection arising from the dried sputa when inhaled as dust, and he shows that the practice of spitting on the floor of rooms, or on the pavement of streets, or into handkerchiefs, is very injudicious. Dr. Hassall recommends the introduction of spittoons into all the rooms where consumptive people dwell, and the regular disinfecting and removal of the contents. As, however, spittoons are not to be found in the streets and in railway carriages and other vehicles, I venture to direct attention to the suggestion of Dr. Dettweiler of Falkenstein, that every consumptive person should carry a small flask and always expectorate into it. He has constructed such a flask, which he calls "Taschenfläschchen für Hestunde"—"pocket-flask for coughers." Dr. Dettweiler read a paper on this subject in April last, at the meeting of the Congress for Clinical Medicine at Wiesbaden. There would probably be no difficulty in obtaining the flask through surgical instrument makers. The contents of this flask can easily be disinfected once or twice a day by a solution of perchloride of mercury or other disinfectant; one part of perchloride to 200 of water, when thoroughly rubbed up with the sputa would, I should think, render the sputa perfectly innocuous.

To many persons such a suggestion may seem a very small matter, but the hygienic importance is very great.

I am, Sirs, yours faithfully,

Grosvenor-street, W., Aug. 1st, 1889. HERMANN WEBER.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Cremation of Dogs.

A WISE REGULATION is now in force here, which gives a sense of public security with regard to stray dogs. It is this: Certain members of the police force are told off to dispose of ownerless dogs which may be found straying about the town. Armed with a lasso, they seize their unsuspecting victims and lead them off to the place of execution. The killing process is effected by a dose of prussic acid, and the bodies are cast into a furnace used for burning the refuse from the interception of the sewage. Numbers of mongrels and curs of low degree are thus got rid of, to the relief of timid pedestrians.

Alleged Bad Meat Prosecution.

In the endeavour to secure a conviction in this important direction it is necessary to be careful that the arrangements are complete from a legal point of view. A butcher was summoned for exposing for sale a quantity of meat alleged to be bad, the number of pieces being specified. The prosecution wished to amend the summons by adding to the list of pieces exposed eighteen calves' hearts. This was objected to, and the proposed method of dealing with the case was characterised as very slipshod. The summons was withdrawn, and the bench ordered the corporation to pay all the witnesses 2*s.* 6*d.* expenses, and the defendant's solicitor a guinea.

The Pains of Childbirth

are usually stated to be extreme in comparison with other pains, yet occasionally it would seem not to be a difficult process. A young single woman retired to an outhouse, and shortly afterwards a full-grown child weighing 8 lb. was heard crying in the midden. Unfortunately, it could not be rescued before it was suffocated. The mother did not appear to be much the worse for passing through an ordeal which at times tries the nerves of the strongest women. She now awaits her trial for infanticide.

Bank Holiday.

The desire for change and excitement of various kinds is associated with the mode of life in large towns, and yearly increases. The scenes at the railway-stations this year have been unprecedented, and crowds have been unable to gratify their pleasurable instincts by distant journeys out of town. The woes of excursionists have been depicted in the local press, and remarkable instances given of the endurance and long-suffering gone through in the pursuit of pleasure. The followers of Epicurus would have hesitated to accept the conditions imposed in many instances for the prospects afforded—prospects more often never realised, and the precursors of many an aching head and weary limbs for days following. How far this excitement tends to the well-being of the community it is not difficult to estimate; such an artificial struggle cannot tend to health, though it may lead to sacrifice of the better impulses which promote true enjoyment and real recreation.

Birmingham, Aug. 7th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle Royal Infirmary.

AT the quarterly meeting of the Newcastle Royal Infirmary, held last week, it was stated that the subscriptions from the working men during the quarter had been £1669, being an increase of £229. So that the experiment, if it may be so called, of admitting working men to the governorships has been a complete success, and might perhaps be followed with advantage elsewhere when similar institutions are languishing from want of funds, and complaining that the working classes do not take a more active part in their support.

Sunderland.

The annual report of the Sunderland Infirmary is a satisfactory one. The *employés* connected with the various industries of the town have subscribed to the amount of £3783, being an increase of nearly £1000 over their contributions of last year. The medical report again shows a considerable advance in the number of patients treated in the infirmary over last year, the number being 4833, an increase of 933. The number of in-patients was 1770, an increase of 63. There had also been an increase in the out-patients and surgical accidents. The infirmary is nursed by sisters from the Tottenham Training Institution at a very small cost; and it is recommended by the governors that a fund should be established to make some provision for such sisters as are unable to continue their beneficent work from sickness, old age, or any infirmity. This fund will be commenced by a deduction of £100 from the infirmary receipts for the year ending June, 1890. I hear that Mr. A. E. Harris, who has been medical officer of health in Sunderland for nearly eight years, is a candidate for the same office now vacant at Leeds. Mr. Harris is well known as a scientific and hard-working sanitarian in the north, and has the satisfaction of knowing that many suggestions of his as to the health of Sunderland, have been carried out during his office, to the immense improvement of the health of the town. I regret to hear that Mr. Mordey Douglas, a well known surgeon in Sunderland, has returned from a sojourn at the Canaries in very indifferent health.

Alnwick.

In reference to the high death-rate prevalent at Alnwick the Local Board have consulted Sir Robert Rawlinson, who is well acquainted with the town and its sewerage system. He makes some valuable suggestions to the board, but tells them very plainly that ventilation will not very much improve bad houses, and that to his knowledge there are many of this sort in Alnwick, some towards the Castle entrance—dens, frequently used by vagrants and tramps. "Mend these," he says, "by new labourers' dwellings."

Darlington.

There was a strange scare in Darlington last week, so prevalent that the Mayor in Council found it necessary to allude to and contradict it. It was reported that the town crier had gone round with his bell warning the people not to eat any vegetables. Several loads of vegetables were unsold in the market owing to this scare. The Mayor very properly said that there was more danger to health in abstaining from fresh and clean washed vegetables than from their use.

Whitby.

Much sympathy is felt with Dr. E. P. Mead, an old and respected practitioner in Whitby, who has had the misfortune to lose his son under very sad circumstances. Mr. Mead was one of the chief officers of a Newcastle steamer, and while on an outward voyage in mid ocean was seized with rheumatic fever, and during the temporary absence of his attendant he got out of bed, went on deck, and leaped into the sea. Mr. Mead was not seen again.

Morpeth.

On the invitation of Dr. M'Dowall, the resident medical officer of the Northumberland County Lunatic Asylum, a

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large muster of northern practitioners took place in the grounds of the asylum last Tuesday. Dr. McDowall invited no less than 240 guests, and spared no pains to entertain and instruct all who attended.

Newcastle-on-Tyne, Aug. 7th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

EDINBURGH.

University Graduation Ceremonial.

THE annual medical graduation ceremonial took place on Aug. 1st in the United Presbyterian Synod Hall. Sir William Muir, principal and vice-chancellor of the University, presided, and was accompanied by most of the members of the Senatus Academicus. Only one honorary graduate was made this year—the Rev. Archibald Henry Sayce, M.A., of Oxford,—on whom the degree of Doctor of Divinity was conferred. The candidates accepted for the degree of Doctor of Medicine—fifty-nine in number—appear to have sent in exceptionally able theses, as no fewer than eight gained gold medals; seven others were deemed worthy of competing for the dissertation gold medals, and twenty others received commendation. At the same time the degree of M.B. and C.M. was conferred on 164 candidates, of whom eleven had passed the necessary examinations with first class honours, and eight had passed with second class honours. These honour lists are larger than usual, as, however, is the list as a whole. After the numerous prizes had been awarded, Professor Crum Brown addressed the budding practitioners, and gave them some good, sound practical advice. He was exceedingly well received by the graduates, whom he welcomed amongst the members of the university of a higher grade. He pointed out that all the changes through which they had passed were not so much in medicine as in themselves. Ways of thought at one time untrodden had been converted into intellectual highways; and forms of thought at one time unfamiliar had now become habitual. Advising them on many points, he drew special attention to the fact that no one so much as a doctor needed to have the *mentem sanam in corpore sano*, and no one ought to know better how to keep both body and mind in good order. He referred, however, not to pampering, but to neglect. They knew that it was best that they should have their meals at approximately regular intervals, and that they should sleep in bed at night for a time varying with different persons from six to eight hours. Medical men could not always secure that—the door bell and the dinner bell often ringing at the same time. They might be called in the middle of the night, and they must go. They must accustom themselves to get their meals and their sleep when they could. They might do much—they ought to do what was possible by arrangement and forethought to keep the unavoidable irregularity within reasonable limits. If the worst came to the worst they could take a sandwich in their pocket and sleep in a patient's house. By the neglect of such precautions many valuable lives had been cut short, and it was the best men who were most likely to forget themselves; they did not notice or think of their own health until it was too late. He further remarked that a man was unfit to practise their profession if he was not in the true sense a gentleman, and his professional training, even the post-practical and technical parts of it, tended to make him one. Some of them might call to mind very skilful and successful physicians whose manners were not exactly what they would have liked. They must take care in such cases not to judge of their neighbours from a purely society point of view. At the same time, he might remind them that they themselves should conform in all lawful matters to the usages of polite society. Their education, they must remember, had not yet come to an end; it must be continued as long as they lived, but it would henceforth be carried on under new conditions. They would now be directly and individually responsible for what they did. They would often have to make up their minds without help and without appeal. Their teachers and their examiners that day declared that, in their opinion, they as graduates were fit to undertake the solemn duty of relieving suffering humanity. He urged them not to set about their work with a light heart, but to remember that a very precious thing had been entrusted to their care.

The 2nd Division of the Volunteer Medical Staff Corps.

On Friday, Aug. 2nd, fifty all told of the 2nd Division V.M.S.C., under Surgeon Hepburn, left the Waverley station for London *en route* for Aldershot, where they are now encamped for a week's training along with the other divisions of the Volunteer Medical Staff Corps. The men were apparently highly delighted at the prospect of another camp sojourn, and everyone was in the best of spirits. Should the weather be at all favourable there can be little doubt that an enjoyable and profitable time will be spent. A number of admiring friends went down to the station to see the division set out.

Edinburgh, Aug. 6th.

GLASGOW.

Public Health.

For the fortnight ending July 27th there were 427 deaths registered, a death-rate of 21 per 1000 living, as against 24 in the previous fortnight. The epidemic of whooping-cough and measles is falling off, the combined death-rate from these two diseases being 1·8 per 1000 in place of 2·6. In both affections the mortality is the lowest since the first fortnight in January. Already 583 deaths from measles have been registered this year, which will be distinguished as the year of the severest epidemic of measles since 1871.

University Graduation Ceremony.

At the recent graduation ceremony Professor George Buchanan delivered an address which has given rise to not a little discussion and newspaper controversy. His first topic, the overcrowded state of the profession, must have been profoundly interesting to the ninety-one graduates who listened to him. He had very little comfort to give, however, save what could be expected from the statement that we have the same cry of overcrowding from all professions and businesses at present. He quoted statistics to show that the number of medical men a district will support was not to be measured by population alone. In Glasgow, in 1850, we had 255,000 people in the postal area, with 231 medical practitioners; at the present date we have 750,000 in the same area, with only 375 practitioners; and yet there is no place from which more complaints come as to superabundance of medical men. In discussing the needs of the University he deprecated the foundation of any more bursaries, but said that the great want was a larger number of fellowships, teaching fellowships, of from £150 to £200 a year. He discussed also the Universities Bill, the subjects of examinations and teaching, advocating a system of less lecturing and a freer use of text-books.

Medical Statistics.

Professor Buchanan's favourite anomaly, that we should have the feeling of professional overcrowding in Glasgow, when we have relatively far fewer medical practitioners than we had forty years ago, becomes less puzzling in the light of some statistics which have been published in connexion with the newspaper correspondence to which Dr. Buchanan's speech gave rise. It seems that there are 40 medical institutions connected with the city, including 2 large infirmaries and a third in course of erection, 3 parochial hospitals, 4 asylums, 3 fever hospitals, 9 special hospitals, 6 convalescent homes, 2 homes for incurables, 2 nursing institutions, 4 general dispensaries, and 5 special dispensaries. There are also out-door departments connected with all the large infirmaries, 2 of the parochial hospitals, 8 of the special hospitals, and 1 of the nursing institutions. Only one of these institutions, the Royal Infirmary, was in existence before the end of last century, 6 were established in the first half of the present century, 9 were started between 1850 and 1870, and 21 have arisen since the latter year. The number of medical officers attached to these 40 institutions amounts to 258; 125 of these are paid, 45 are resident. Some medical officers hold more than one appointment; 36 men connected with 4 of the principal institutions hold 82 appointments. In the 40 institutions we have 5171 beds; average number occupied, 3519. If the population of Glasgow (including "Greater" Glasgow) be taken as 750,000, we have one bed for every 145 people. The number of in-door patients during the past year in these 40 establishments was 31,603, equal to 1 in 23 of the population; out-door patients, 97,144, or 1 in every 8 people; total, 128,747, or 1 in rather less than every 6 of the population. These refer to separate patients; the number of consultations or attendances reaches 350,950.

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There are upwards of 370 medical practitioners in Glasgow and neighbourhood. With regard to medical students, there were 784 enrolled last year at the University; 53 enrolled in medicine and arts; total, 837. During the same period there were 119 at Anderson's College Medical School, and about a similar number at the Royal Infirmary School. This gives a total of over 1000 students at our medical schools.

Glasgow, Aug. 6th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

DUBLIN.

Royal University of Ireland.

THE number of candidates who entered for the several examinations, which were concluded July 23rd, amounted to 1867, but the actual number who presented themselves for examination was 1751. Of these, 29 retired before the close of the examination, 644 were rejected, and 1078 passed, the number of passes being a little over 61 per cent., and of rejections a trifle over 36 per cent. The receipts of the University for the year ending March 31st last, including last year's balance of £10,691, amounted to £33,891, and the expenditure to £24,976. The general expenditure for examinations amounted to £11,854, as against £11,819 for the preceding year. During the year the sum of £1326 was spent on the equipment of the laboratories. J. Johnstone Shaw and Edward Cuming have been elected representatives on the Senate, in place of the Rev. Dr. Porter, deceased, and of Mr. Shaw, whose term of office had expired. There were three candidates for the two vacancies.

Royal Barracks, Dublin.

Although the number of typhoid fever cases which occurred in these barracks was considerable, yet the deaths were comparatively few, being not more than six. The Royal Lancaster Regiment, which recently occupied the barracks, will encamp under canvas during August and September in the Phœnix Park, and the Palatine-square and the Richmond Barracks will during that time undergo a thorough overhauling. The Royal Square (the most insanitary portion of the Royal Barracks) will be used as ordnance stores), and when the new cavalry barracks are finished the cavalry square will be occupied by the Army Service Corps. Only one battalion of infantry will in the future be quartered in the Royal Barracks, and that will be in the Palatine-square, the battalion which occupied the Royal Square being located in the Wellington Barracks.

Queen's College, Galway.

As an explanation of the comparatively small number of students who attended this college for the past session, it is well to bear in mind that the institution is situated in the poorest and most backward part of Ireland, at a distance from other centres of education. It follows from this that its function is to awaken and foster a desire for higher education, rather than to supply a pressing demand, and it is gratifying to learn that the college can justly claim to have given an impulse to educational progress, and to have conferred substantial benefits on the youth of a remote province. During the session 1888-89 there were 107 students on the books of the college, of whom forty-two were in the Faculty of Medicine. The rapid development of medical science, especially in the department of biology, has called for an enlargement and improvement of scientific apparatus, so as to keep pace with the progress of discovery. The department of physiology affords a remarkable instance of the method of teaching the natural sciences that has been introduced in recent years. Until recently instruction in physiology consisted in a course of lectures illustrated by experiments performed by the lecturers and by histological specimens shown to the students. Now, however, in addition to attendance on lectures, the student must himself make the various analyses, preparations, and experiments that were previously only shown to him. Important additions have been made to the museum of natural history, which may now be said to be in a state of perfect efficiency for teaching purposes, while the chemical laboratory also affords ample accommodation for students.

Health of Dublin for June Quarter.

The births numbered 2540, and the deaths 2082, the latter being equal to 23·6 per 1000 as compared with 28·7, the average for the second quarter of the past ten years. Zymotic diseases caused only 202 deaths, being 136 under the average number for the June quarter of the last ten years. Measles caused 37 deaths, scarlatina 5, typhus 5, whooping-cough 30, and erysipelas 2. No death from small-pox has been registered in the Dublin Registration District since the week ending March 3rd, 1888, and in hospital there has not been a case of the disease since July of last year.

Mr. Thomas Collins has been re-elected a representative on the General Medical Council for the Apothecaries' Hall for the ensuing year.

Mr. P. J. Finegan has been elected medical officer to Carlingford Dispensary, Dundalk Union.

Dublin, Aug. 6th.

BELFAST.

Fatal Sewer Accident in Belfast.

On June 29th four *employés* of the Belfast Town Council descended one of the main sewers for the purpose of having it cleaned, when they were partially suffocated, and were with difficulty rescued and taken to the Royal Hospital. One died soon after admission, apparently as much from submersion as from sewer gas; a second died in a day from acute pneumonia; the other two recovered. A very full inquiry was made into the circumstances, and Dr. Letts, Professor of Chemistry in Queen's College, Belfast, who was retained by the Town Council to investigate the matter, has just presented his report, which is very thorough and exhaustive. Dr. Letts' conclusions are: 1. The air ordinarily in the sewer, even with closed ventilators, was never bad enough to cause any sudden accident. 2. When the man-holes are opened the sewer is rapidly and thoroughly ventilated. 3. On the day of the accident ample time was given for proper ventilation. 4. The accident was primarily caused by a sudden outburst of foul gas through a disused privy-pipe opening into the top of the sewer at a distance of six feet from the place where the accident occurred. In investigating the matter, Dr. Letts had the sewer opened from the outside. A short distance beyond where the accident occurred a brick structure was encountered on the roof of the sewer. When this was opened a curious smell was at once detected of a tarry odour, and on Dr. Letts applying a light, a pale blue flame shot out and then retreated downwards, burning for perhaps a minute. This air contained a great deal of marsh gas. Further excavation showed that a nine-inch earthenware pipe branched off from the brick shaft, which had a circular hole in the bottom opening into the sewer. In this earthenware pipe was a quantity of mud, apparently old soil from a closet or privy. The upper end of the earthenware pipe was found plugged. Letheby's experiments have shown that London sewage, when shut in a vessel not exposed to the air, gives off gas rapidly. He found this consisted of marsh gas, CO_2, N, and H_2S. Dr. Letts believes the gas he found was similar, but had more CO_2. Dr. Letts thinks the tube containing the soil, which was disengaging the gas, may have got choked for a time, and consequently a considerable volume of gas may have been imprisoned beyond the obstruction. After a time, in the hot June weather, this would cause so much pressure as to force the obstruction and to issue in a gust into the sewer. The two men in the sewer, in the neighbourhood of the pipe, are prostrated from the effects of the gas; they fall in the water; a panic arises as the men recover from the effects of the gas; some endeavour to pass one way, some another, to escape, and there can be little doubt that the men who are dead lost their lives not through gas poisoning, but by submersion in the sewage matter and its subsequent effect on the lungs. 5. The noxious constituent of the gas was probably CO_2, which prostrated the men in the sewage water. 6. All the men seriously affected or killed by the accident either swallowed sewage matter or it got into their lungs. 7. It is probable that none of the men would have been injured but for the dips in the sewers and the consequent accummulation of sewage water. As a result of his very careful examination, Professor Letts recommends for the prevention of accidents in the future: 1. A reconstruction of that part of the sewer where the accident occurred. 2. The sewers should not be cleaned except in dry weather, nor should men be sent into them then. 3. Before cleaning any sewer two men at least should walk the whole distance, each provided with a lamp, and then return and report to the ganger. 4. When cleaning a sewer the men should have two lamps alight

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with them. 5. The men should be directed to search for openings in the sewers, and to report immediately if any sewer is in a bad condition, either as regards depth of water, foulness of air, or defects in brickwork.

Queen's College, Belfast: The President's Report.

From the report of the President (Dr. Hamilton), just printed, I learn that the total number of students attending the College during the session 1888–89 was: in arts, 174; in medicine, 222; in law, 22; in engineering, 11. As seven students attended in more than one faculty, the entire number in attendance was 422. The average number of students in attendance during each session of the first ten years of the history of the College was 189·1; during each session of the second decade, 368·2; in the third, 400·3; in the fourth decade now ended it is found to have risen to 473·4. During the forty years of its existence, 4681 students altogether have entered the College. At the examinations of the Royal University, held during the last academic year, 393 students of the Belfast College passed in the various grades. Of these 20 passed the first University examination in medicine, 30 the second, 47 the third, and 30 medical degrees were obtained. After giving details of the successes of Queen's College students at other universities, a special tribute is paid to the memory of Dr. Porter, the late President, whose death in March last was such a serious blow to the cause of education in the north of Ireland. The report concludes by calling attention to the great want of an additional grant of money for providing increased accommodation in the chemical and biological laboratories. The required sum would be about £8000.

Presentation of a Park to Belfast.

On Aug. 1st a letter was read at the monthly meeting of the Town Council from Mr. R. G. Dunville, D.L., offering to present to the city, free, a piece of ground containing five or six acres of land, worth, it is said, £7000, for a public park. The ground is situated in a district which is rapidly increasing in population. A hearty vote of thanks was passed to Mr. Dunville for his generous gift.

Hospital Saturday.

Notwithstanding that Hospital Saturday (Aug. 3rd) was anything but a favourable day, the morning being very wet, a larger sum was realised than in either of the two previous years. The total amount raised was about £300. This includes, however, £38 contributed by the members of the Queen's College Musical Society, as the result of an afternoon performance of "Maritana," given by them in the Theatre Royal on Saturday in aid of the funds of the hospital.

Hydrophobia.

On March 14th a man, while walking along College-square, one of the leading thoroughfares of Belfast, was bitten by a dog snapping at his hand. The wound, which was at the root of the thumb, healed in ten days, and nothing further developed until July 28th, when he was taken ill, and Dr. N. J. McDonnell pronounced the disease to be hydrophobia. He was brought to the Royal Hospital the next day (July 29th), when it was noticed that he had difficulty in swallowing fluids, convulsive attacks, and pain and loss of power in the right arm. On the third day after admission he became delirious and violent, and this continued until 2 A.M. on Friday, Aug. 2nd, when he died. Pneumonia set in previously to death. After hearing the medical evidence at the inquest, the jury returned a verdict that he died from hydrophobia.

Belfast, Aug. 6th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Cases of Poisoning at Hyères and Havre.

PROFESSOR BROUARDEL read his report at the Academy of Medicine, giving the result of his investigations on the cases of the wholesale poisoning that took place a few months ago at Hyères and at Havre. He observed that between the most acute forms of poisoning, those in which death takes place in a few hours and those which determine accidents the evolution of which is accomplished in some weeks and even months, there is a great analogy with the cases of poisoning at Hyères, where, it will be remembered, the medical men at first supposed that it was an epidemic of enteric fever, then they thought it was an epidemic of influenza, finally an epidemic recalling acrodynia, but when symptoms of paralysis showed themselves, all hypotheses disappeared, and the truth was discovered. According to Dr. Brouardel there are four distinct periods in arsenical poisoning: the first is marked by digestive troubles, the second presents eruptions and a laryngo-bronchial catarrh, the third is characterised by sensory troubles, and the fourth period by paralysis; but until this becomes manifest, one may be led to believe that he has to do with some gastric disorder, influenza, or with acrodynia. But the most remarkable part of Dr. Brouardel's communication was the discovery of arsenic in the osseous tissue, while there was no trace of this substance in the viscera where it is habitually found. M. Pouchet, who took up the chemical part of the researches with Dr. Brouardel, observed that arsenic may be found not only in the principal viscera, the skin, and the hair, but also in the bones, and principally in the spongy tissue, where it is to be found even when no trace is left in the viscera. Dr. Brouardel then indicated the means by which poisoning by arsenic may be discovered. He said that the linen which may be soiled by the dejections should be secured; the urine, which should be drawn off by the medical man himself, should be analysed; and search should be made in the hair for arsenic.

Heredity of Myopia.

Dr. Motais of Angers read a note on the Heredity of Myopia. The author had examined the families of 330 young myopic subjects, and arrived at the following conclusions: 1. The hereditary influence of myopia is manifest. 2. It exists in 216 out of 330 families. 3. Hereditary myopia is characterised by its early appearance, its comparatively rapid development, and the high average of its degree. 4. Myopia is transmitted by the father to the daughter 86 times out of 100, and by the mother to the son 79 times out of 100. Heredity is crossed.

Spectacles and Eye-glasses.

Dr. G. J. Bull, M.D., of the Faculty of McGill's University (Montreal), has lately taken his degree in Paris, and chose for the subject of his inaugural thesis, "Spectacles and Eye-glasses." After having practised about twenty years in America, the greater part of which time Dr. Bull practised ophthalmology in New York, he came over to Paris, and perfected himself in this branch under the guidance of Dr. Javal, the celebrated ophthalmologist, with whom he worked at the laboratory of the Sorbonne. Those who wish to learn how to wear spectacles and eye-glasses should read Dr. Bull's newly published work, which is the reproduction of his thesis, containing, in addition, an introduction by Dr. Javal. The work is most interesting, and of great theoretical and practical value, particularly to those affected with astigmatism. According to the author, for some years a more precise knowledge of astigmatism has produced a complete revolution in the science of ophthalmology. He says it is important to draw the attention of the public to the existence of this optical defect, which is more frequent than myopia and than presbyopia, and which is corrected by means of special glasses, cut to measure, after the indications of the oculist. As regards myopia, Dr. Bull states that infants are not born myopes; with very rare exception they become so with age, and more frequently because they acquire the habit of reading and writing at too short a distance. The eye, therefore, becomes developed in a defective manner. It is often said that myopia and presbyopia are two affections opposed and incompatible; but the author affirms that this is not the case, the real state opposed to myopia being hypermetropia. Dr. Bull is the inventor of a new optometer, a full description of which will be found in his work, where other useful hints are given for the preservation of the eyesight.

Tuberculosis.

The second Congress for the Study of Tuberculosis will be held at the end of the month of July, 1890, under the presidency of Professor Villemin, when the following questions will be submitted for discussion: — 1. The identity of tuberculosis in man and that of the bovines, gallinaceæ, and other animals. 2. The bacterian and morbid associations of tuberculosis. 3. The hospitalisation of tuberculous subjects. 4. Agents capable of destroying the bacillus of Koch, non-injurious to the organism, as regards the prophylaxy and the therapeutics of human and

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animal tuberculosis. Intimation of intention to be present and subscriptions (20 francs) should be forwarded to M. G. Masson, Treasurer, 120, Boulevard Saint Germain, and that communications which concern papers should be addressed to Dr. L. H. Petit, General Secretary, 11, Rue Monge, Paris.

Death of M. Armand Hayem.

A case of suicide, under most painful circumstances, occurred on Saturday last, in the person of M. Armand Hayem, brother of our esteemed *confrère* Professor Hayem. The deceased gentleman had only recently been elected a member of the Academy of Sciences. He had been for some time labouring under great mental depression, which was accompanied by symptoms of dyspepsia, for which he was treated by some of the leading members of the faculty. He, however, fell into a melancholic condition, and being, as he said, afraid of dying of inanition, he put an end to his life by shooting himself, the bullet passing through his right temple.

Dr. Sydney Ringer of London has been elected Corresponding Member of the Academy of Medicine.

Paris, Aug. 6th.

THE SERVICES.

ARMY MEDICAL STAFF.—The Commission of Honorary Brigade Surgeon Benjamin Lane as Assistant Surgeon is antedated to May 8th, 1852, such antedate not to carry back pay or allowances prior to June 5th, 1882; Sergeant-Major David James Gillman, Medical Staff Corps, to be Quartermaster, with the honorary rank of Lieutenant, vice Honorary Lieutenant W. Murray, retired (dated Aug. 7th, 1889).

VOLUNTEER CORPS.—*Artillery:* 3rd Volunteer (Kent) Brigade, Cinque Ports Division, Royal Artillery: The undermentioned Acting Surgeons to be Surgeons: C. Arrol (dated Aug. 3rd, 1889); R. J. Bryden (dated Aug. 3rd, 1889). 1st Midlothian: Surgeon P. A. Young, M.D., to be Surgeon-Major, ranking as Major (dated Aug. 3rd, 1889).—*Rifle:* 2nd Volunteer Battalion, the Queen's Own (Royal West Kent Regiment): Acting Surgeon D. T. Playfair to be Surgeon (dated Aug. 3rd, 1889).—2nd Volunteer Battalion, the Prince of Wales's (North Staffordshire Regiment): Surgeon W. G. Lowe, M.D., to be Surgeon-Major, ranking as Major (dated Aug. 3rd, 1889).

Obituary.

CHARLES SAMUEL WEBBER, F.R.C.S.

AMONGST the many men in our profession full of quiet and unobtrusive goodness and kindness, few, if any, have possessed these qualities in a higher degree than did Charles Samuel Webber, who died on the 20th ult. Of late years, owing to a very painful affection, he had been compelled to retire absolutely into private life, and he was therefore known but little to the medical men of the present day; but those who did know and see him found him, in the midst of his sufferings, always full of patience and kindness, desirous to work for others as far as his strength allowed, and always intelligently interested in all that concerned his profession. He was born at Hopton, Suffolk, on Aug. 7th, 1809, and was the only son of Samuel Webber, surgeon, of that place, who was Colonel Commandant of the Blackwater Regiment of Volunteers, and deceased in 1822. Mr. Webber entered at Guy's and St. Thomas's Hospitals and subsequently studied in Paris. He joined the Society of Apothecaries as long ago as 1831, and became M.R.C.S. in 1836, and a Fellow of the College in 1864. In the earlier part of his career he assisted Mr. Samuel Randall of Orford, Suffolk, but subsequently obtained an appointment, then much sought after — namely, that of Surgeon-Superintendent under H.M. Colonial Lands and Emigration Commission. It is almost needless to say that he was a great favourite and very popular with the emigrants; and that he well utilised his time is proved by the fact that the results of his experience were published under the title of "A Journal of a Surgeon Superintendent" by the Commissioners. He had previously published in THE LANCET an interesting and instructive "Case of Strangulated Hernia successfully treated by the Exhausting Syringe attached to an O'Beirne's Rectal Tube." He was a member, and formerly Vice-President, of the Harveian Society.

In 1849 Mr. Webber married Elizabeth, daughter of Mr. M. J. Raynes, of Norwich, and he at that time resided in Connaught-square. Some years afterwards he took into partnership Dr. John Easton, and, in doing so, the scrupulous and punctilious honour and truthfulness which pervaded his character were conspicuously shown, for in the negotiations which took place he was especially careful to under-state and to under-estimate the value of his practice rather than to exaggerate its worth; and, as a matter of fact, the result of the first year's partnership proved that the assets were very notably beyond the amount at which Mr. Webber had stated them. Thus he partially retired from practice, and after a while felt obliged, owing to the state of his health, to altogether relinquish it; and he subsequently changed his residence to 23, Abbey-road, N.W., where he died. His long malady, dating so far back as almost twenty years, was a very peculiar one, and greatly exercised the diagnostic skill of many of his medical brethren. His friend and neighbour, Dr. Richard Neale, with his son, Dr. William Henry Neale, were always ready to assist him in any and every difficulty, and he was not unfrequently seen by Dr. Hare, who alike valued the friendship of the patient and felt a deep interest in the case. He suffered from severe pain, which always appeared to have its centre at the left nipple line, about two inches below the costal cartilages, and from thence it seemed to pervade almost the whole of the left upper abdomen. The pains were almost always worst in the forenoon, and gradually got better after the bowels had been relieved, so that he was comparatively easy in the latter part of the day; but the regulation of his bowels was a matter of great difficulty, and he was obliged almost always to have recourse to enemata. Though he was a very uncomplaining man and possessed of much endurance, the pain—always more or less of the same character and in about the same position—was so severe that he was obliged to have recourse to opium and ultimately took very considerable doses of it. But this great remedy made his life endurable and at times comparatively comfortable, so that he was able in the latter part of most days to occupy himself in some useful (often charitable) work; and it without doubt prolonged his life by some years. The most rational diagnosis, and that which best covered and explained his many symptoms, was that he had some constriction—possibly from a former ulcer, but certainly non-malignant—of the large intestine some distance above the sigmoid flexure, and one very able medical man even advised that colotomy should be performed. Repeated and very careful examinations of the abdomen always failed to find any mass or tumour or, indeed, anything abnormal in the region of the pain, so that the physical signs were of an absolutely negative character. A post-mortem examination of the abdomen was made, and the writer is assured that nothing whatever was found in the intestines or elsewhere to explain physically those many years of terrible suffering.

But though Mr. Webber was compelled by his health to retire early from practice, he by no mean retired, so long as moderate strength remained to him, from work. He especially devoted himself to that remarkable medical charity, the British Medical Benevolent Fund, which, doing an immense amount of good, is conducted with such a minimum of expense that it may be considered in this respect a model to all the charities of the country. It ought to receive the support of every medical man in the country who can afford to give anything to charities; and it ought also to be supported by many outside the profession, as some mark of their gratitude towards those who, devoting themselves to the welfare of others, are often so ill-remunerated that they cannot lay up in store for their families or even for themselves if they attain old age. Mr. Webber was Honorary Financial Secretary to the Fund for several years up to 1877. The offices are entirely honorary, and it had been found that attention to the cases and to the money management of the Fund involved such an immense amount of work and time that no medical man ought to be asked to take the whole on his shoulders. The work was therefore divided, and Mr. Webber undertook the duties of "Financial Secretary." By his business habits, his thought and his hard work (notwithstanding that this was often done in the midst of much pain), it is not too much to say that he revolutionised, and yet wonderfully simplified, the mode of

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keeping the accounts of the Fund, and so perfect was the plan which he inaugurated that it has been continued by his successors, with scarcely an alteration, down to this day. And so his influence in this and in many other ways remains, while he has passed away—loved, honoured, and regretted. "He being dead yet speaketh."—C. J. H.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the necessary examinations, were at the ordinary meeting of the Council on the 1st inst. admitted Members of the College:—

*Aaron, David Jacob, L.R.C.P.Lond., King's College Hospital.
Aylward, Walter Charles, L.R.C.P.Lond., 76, Fore-street, Ipswich.
Barber, Sidney Frederick, L.R.C.P.Lond., Sheffield.
Barkworth, Henry Smith, L.R.C.P.Lond., Balham.
*Basu, Bámun Dás, L.S.A., Trinity-square, S.E.
Beauchamp, Sydney, L.R.C.P.Lond., Battersea.
Bennett, Christopher H. Wentworth, L.R.C.P.Lond., Nantwich.
Bennett, Colin Edward Wilmot, L.R.C.P.Lond., Plymouth.
Berryman, Henry A., L.R.C.P.Lond., Fairholme-rd., West Kensington.
*Best, William Jenner, L.S.A., Louth.
Bishop, Reginald W. Snowden, L.R.C.P.Lond., Porchester-gardens, W.
Bokenham, Thomas Jessopp, L.R.C.P.Lond., Cheshunt.
*Bowlby, George Herbert, L.R.C.P.Lond., Torrington-square.
Bowman, Henry Moore, L.R.C.P.Lond., New Southgate.
Brown, David L.R.C.P.Lond., Stoke Newington.
Carpenter, Edgar Godfrey, L.R.C.P.Lond., Chiswick.
Challis, Henry Thornton, L.R.C.P.Lond., Hackney.
Charles, William Henry, L.R.C.P.Lond., Merthyr Tydvil.
*Clarke, John Kempe, L.R.C.P.Lond., Cardiff.
Clarke, John Tertius, L.R.C.P.Lond., Richmond-terrace, S.W.
*Clarke, Thomas Henry, L.S.A., Poplar.
Clemson, Thomas Fletcher, L.R.C.P.Lond., Botton-le-Moors.
Colyer, James Frank, L.R.C.P.Lond., Dulwich.
*Cooper-Pattin, William Harry, L.R.C.P.Lond., Cambridge.
*Coryn, Herbert Alfred William, L.S.A., Brixton.
Creswell, John Edwards, L.R.C.P.Lond., Douro-place, W.
*Crompton, Ernest, L.R.C.P.Lond., Exeter.
Crook, Arthur, L.R.C.P.Lond., Arbour-square, E.
Crosse, Reginald Edward, L.R.C.P.Lond., Norwich.
Crump, Thomas Greenwood, L.R.C.P.Lond., Kidderminster.
Curwen, Eliot, L.R.C.P.Lond., Hampstead.
Dallas, Stuart Alex. Charles, L.R.C.P.Lond., St. James-street, W.C.
Daniel, Herbert, L.R.C.P.Lond., Wymondham.
*Dawson, Ernest, L.R.C.P.Lond., Hampstead.
De Jersey, Walter Brock, L.R.C.P.Lond., Lambeth Palace-road, S.E.
*Dennison, Tom Stephenson, L.R.C.P.Lond., Hull.
Dodwell, Philip Rashleigh, L.R.C.P.Lond., Stanhope-street.
Eaves, Wilberforce Vaughan, L.R.C.P.Lond., Hornsey.
Farington, John, L.R.C.P.Lond., Manchester.
*Farquharson, George Sinclair, L.S.A., Canonbury.
Fazan, Charles Herbert, L.R.C.P.Lond., St. Helen's-gardens, W.
Fitz-Gerald, Edward Desmond, L.R.C.P.Lond.
Folker, Herbert Henry, L.R.C.P.Lond., Hanley.
Forward, Francis Edward, L.R.C.P.Lond., Chard.
Foster, Alfred, L.R.C.P.Lond., Delamere-street, W.
Frossard, Emilien Edward, L.R.C.P.Lond., St. John's, S.E.
*Gilchrist, Alexander William, Middlesex Hospital.
Gravely, Ronald Thomas, L.R.C.P.Lond., Cowfold, Sussex.
Griffith, John, L.R.C.P.Lond., Acton.
Habbijam, Ernest Thomas, L.R.C.P.Lond., Uxbridge-road, W.
*Hale, Edward, L.R.C.P.Lond., Liverpool.
Hall, Walter, L.R.C.P.Lond., Southampton.
Hamilton, Henry, L.R.C.P.Lond., Church End, Finchley.
*Harrison, James Herbert Hugh, L.R.C.P.Lond., Univ. Coll. Hospital.
Haslett, William John, L.R.C.P.Lond., Donegal
*Heberden, William Stanley, L.R.C.P.Lond., Weybridge.
Henniker, John Granville, L.R.C.P.Lond., Albert-gate Mansion.
Hicks, Edward James, L.R.C.P.Lond., Amhurst-road, N.E.
Hill, Leonard Erskine, L.R.C.P.Lond., Hampstead.
Hinds, Thomas Walter, L.R.C.P.Lond., Goudhurst.
Hitchon, Henry Hardacre Irving, L.R.C.P.Lond., Heywood.
*Holman, Henry James, L.R.C.P.Lond., North Dulwich.
*Holmes, James Willie, L.R.C.P.Lond., Sheffield.
Horden, Herbert Henry, L.R.C.P.Lond., University College Hospital.
Hore, Ernest Wickham, L.R.C.P.Lond., University College Hospital.
*Howse, Arthur Edward, L.S.A., Kingswood-rd., Clapham-park.
*Hunt, Arthur Henry Wm., L.R.C.P.Lond., Westminster Hospital.
Hutchinson, Roger Jackson, L.R.C.P.Lond., Cavendish-square, W.
Jackson, Basil Fred. F., L.R.C.P.Lond., Cornwall-road, Brixton.
Jacobsen, Geo. Oscar, L.R.C.P.Lond., Gordon-street, W.C.
*Jessop, John William, L.R.C.P.Lond., Crediton.
Johnson, Henry Percival, L.R.C.P.Lond., Sloane-street.
Johnstone, John Lloyd, L.R.C.P.Lond., Orreh, Wigan.
Jones, Arthur Wentworth, L.R.C.P.Lond., Bicester.
Jordan, Henry Martyn, L.R.C.P.Lond., Trinity-square, S.E.
Kent, Chas. Arthur, L.R.C.P.Lond., Craven-hill-gardens, W.
*Kent, Robert Thomas, L.R.C.P.Lond., Mornington-crescent, N.W.
Kerr, Geo. Douglas, L.R.C.P.Lond., Weeck-road, West Hampstead.
Lambert, Thomas Wilson, L.R.C.P.Lond., Lambeth-palace-road.
Lange, André Philip, L.R.C.P.Lond., Claverton-street, S.W.
Lea, Arnold Wm. Warrington, L.R.C.P.Lond., Sandbach.
Lemon, Edward Henry, L.R.C.P.Lond., Anerley.
*Light, Edwin Mellor, L.R.C.P.Lond., Lambeth-palace-road.
Lloyd, John Wesley, L.R.C.P.Lond., Liverpool.
Lodwidge, William Charrott, L.R.C.P.Lond., Basingstoke.

* Candidates who have not presented themselves under the regulations of the Examining Board.

Long, Edward Chas., L.R.C.P.Lond., Dewetsdorp, Orange Free State.
Mack, Cyril Gordon, L.R.C.P.Lond., St. Paul's-road, Canonbury.
*Masser, Edward Charles, L.S.A., Oakengates.
Morgan, Samuel Wolfastan, L.R.C.P.Lond., Clifton.
Munday, Richard Cleveland, L.R.C.P.Lond., Plymouth.
*Murray, George, L.R.C.P.Lond., Green-street, W.
Oakeshott, Walter Field, L.R.C.P.Lond., Highgate.
Offord, James Albert, L.R.C.P.Lond., Norwich.
Oldham, George Frederick, L.R.C.P.Lond., Dalston.
*Osborne, Frank, L.S.A., Bath.
Osburn, Harold Burgess, L.R.C.P.Lond., Clapham.
Parham, Hetman Charles Harris, L.R.C.P.Lond., Streatham.
Paton, Edward Percy, L.R.C.P.Lond., Highbury Quadrant, N.
Pearce, Frederick William, L.R.C.P.Lond., Canonbury.
*Plummer, Richard Henry, M.D. California, Gower-street, W.C.
*Ramsden, Herbert, L.R.C.P.Lond., Saddleworth.
Robinson, Edward Herbert, L.R.C.P.Lond., Salford.
*Russell, William Alfred, L.R.C.P.Lond., Aldersgate-street, E.C.
Saul, Victor Salmon, L.R.C.P.Lond., Hampstead.
*Scott, Sack Noy, L.R.C.P.Lond., St. Austell.
*Seccombe, Samuel Hubert, L.S.A., Whitechapel-road, E.
Sellers, Arthur Edward, L.R.C.P.Lond., Dalton, Huddersfield.
*Shadwell, Henry Eugene, L.R.C.P.Edin., Putney.
Sharpin, Archdale Lloyd, L.R.C.P.Lond., Bedford.
Smith, Richard Arthur, L.R.C.P.Lond., South Hampstead.
Spratly, Ernest Richard Woody, L.R.C.P.Lond., Rock Ferry.
Stocken, Leslie Maury, L.R.C.P.Lond., Ealing.
Stocker, Walter W., L.R.C.P.Lond., St. James's-square, Notting-hill.
Swallow, Allan James, L.R.C.P.Lond., Clapham-road.
Swift, Sidney Sampson, L.R.C.P.Lond., Liverpool.
Sykes, John Herbert, L.R.C.P.Lond., Southport.
*Talent, John William, M.B.Edin., Dist. Infirm., Ashton-under-Lyne.
Tibbles, William, L.R.C.P.Edin., Radford-road, Nottingham.
*Verano, Louis Lawrence, L.S.A., Torrington-square.
Vise, Arthur Blithe, L.R.C.P.Lond., Holbeach.
*Wakeham, Charles Henry, L.R.C.P.Lond., Hackney.
Walker, George, L.R.C.P.Lond., Lordship-lane, S.E.
Wallace, Richard Teale, L.R.C.P.Lond., Stamford-hill.
*Ware, Ernest Edwin, L.R.C.P.Lond., Lambeth-palace-road.
Wickham, Gilbert Henry, L.R.C.P.Lond., Lambeth-palace-road.
Wilkinson, James Howard, L.R.C.P.Lond., Dudley.
*Winn, Thomas Cromwell, L.S.A., Well-street, South Hackney.
Worboys, Thomas Saunders, L.R.C.P.Lond., Brixton.
*Yeld, Walter Harry, L.R.C.P.Lond., Stockport.

* Candidates who have not presented themselves under the regulations of the Examining Board.

UNIVERSITY OF EDINBURGH.—The following is the official list of candidates recommended to receive the degree of Doctor of Medicine, and the degrees of Bachelor of Medicine and Master in Surgery, on Aug. 1st:—

Doctor of Medicine.

*Ashdown, H. H., England.
*Ballantyne, J. W., Scotland.
†Bannerman, W. B., Scotland.
*Bentley, A. J. M'D., England.
Brodie, W. Haig, Scotland.
Brown, Harbit, England.
Calvert, Wm. H., Scotland.
Capper, Edmund, England.
‡Caw, J. M., Scotland.
†Combe, Fred. O., England.
†Davidson, R., Scotland.
‡Dickson, G. C., Scotland.
*Douglas, K. M., Scotland.
Field, Oliver, England.
Fiske, Thos. H., England.
‡Forbes, D., Scotland.
†Fraser, Peter, Wales.
Geyzel, C. W. Van, Ceylon.
‡Gordon, Thos., Scotland,
‡Haldane, J. S., Scotland.
‡Harrison, James, England.
‡Haultain, F. W. N., Ceylon.
‡Hayward, C. W., England.
*Helme, Thos. A., England.
Inkster, R. W., Shetland.
‡Jardine, Robt., New Brunswick.
Johnson, O., Sierra Leone.
‡Kellgren, A. L., Sweden.
Kennard, C. P., England.
Lawson, David J., Scotland.
‡Mackay, Wm. A., Scotland.
†Mackness, G. O. C., England.
‡M'Lean, Allan, Australia.
‡Maddox, E. E., England.
Mann, Alfred, England.
‡Miller, Ralph S., Scotland.
Montgomerie, H. M., England.
†Nasmyth, T. Goodall, Scotland.
‡Nisbet, J. Tawse, Scotland.
‡Partridge, Sydney, England.
†Purvis, Geo. C., India.
Rand, Richd. F., England.
Rhodes, Thomas, England.
Roberts, E. T., England.
‡Robinson, Thos. H., England.
‡Scott, W. E. S., England.
‡Scougal, E. F., England.
Smith, Otto Wein, Scotland.
Stephenson, Geo. S., England.
Stirling, Robert, Scotland.
Sykes-Ward, Alfred, England.
‡Sym, Wm. Geo., Scotland.
Thomas, W. Jas., Wales.
*Thomson, H. A., Scotland.
*Tillie, Joseph, Scotland.
Warnock, John, Australia.
*Waterhouse, H. F., England.
Williams, Charles L., England.
†Wood, Geo. E. C., Scotland.

* Those who have obtained Gold Medals for their Dissertations.
† Deemed worthy of competing for the Dissertation Gold Medals.
‡ Commended for their Dissertations.

Bachelor of Medicine and Master in Surgery.

*Adamson, R. O., M.A., Scotland.
†Allison, R. D. R., Scotland.
Anderson, C. A., Scotland.
Anderson, C. M., India.
Aytoun, J. H., Scotland.
Becker, J. E. A. G., England.
Bibby, J. R., England.
Bowes, A. S., England.
Branch, E. W. R., B.A., West India.
Bremner, F. P., Canada.
Bruce, L. C., Scotland.
Brunton, J., Scotland.
Bryson, L. Horner, Scotland.
Buchanan, R. D., Scotland.
Bunting, T. L., England.
Burger, B., Cape Colony.
Burton, T. J., Scotland.
Cadman, E. S. R., England.
Campbell, A. W., Australia.
Carruthers, D. A., England.
Carruthers, S. W., England.
Carr-White, Percy, England.
Carter, A. W., Cape Colony.
Cattley, Robert, England.
Christian, L. de B., England.
Clark, E. Shaw, England.
Clarkson, A., England.
Connor, S. G., Ireland.
Conyers, J. H., Demerara.
Cox, A. Edward, Australia.
*Crerar, John Wm., Scotland.
Critchley, H. G., M.A., England.
Cullen, G. M., Scotland.
Cunningham, James, Scotland.
Dardenne, Henri, Mauritius.

* Passed the examinations with First-class Honours.
† Passed the examinations with Second-class Honours.

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Davidson, D. Geo., Scotland.
Day, Fredk. Arthur, Australia.
Dickson, J. R., Trinidad.
Dobie, Herbert, England.
Douglas, John J., Scotland.
Dow, A. G., M.A., Scotland.
Duncan, E. H., M.A., Scotland.
Edwards, John W., Wales.
Elder, Matthew, Scotland.
†Everett, William, England.
*Farquharson, W. Fdk., Scotland.
Fawcett, Edward, England.
Fergusson, Samuel, Scotland.
Frankish, Thomas, England.
Fulton, R. V., New Zealand.
†George, Alfred W., England.
Gibson, C. G., Scotland.
Gibson, J. A., Scotland.
Gibson, W. S., Scotland.
†Gordon, Colin, England.
Gordon, H. Laing, England.
Govan, George, Scotland.
Grindlay, Guy, England.
Haig, P. B., Scotland.
Hardie, John, Scotland.
Hislop, P. Wood, Scotland.
Holmden, F. A. A., England.
Houston, Alex. C., Scotland.
Howell, R. Edw., England.
Hudson, H. C., Cape Colony.
Hughes, Wm. H., England.
Huskie, James, South America.
Iddon, Thos. W., England.
Inglis, H. M'C., B.A., New Zealand. *In absentia.*
Jones, Peter, Wales.
Kunz, H. de D., M.A., Scotland.
*Lackie, James, Scotland.
*Laing, James H. W., M.A., B.Sc., Scotland.
*Langwill, H. C., Scotland.
Lawson, Charles B., Scotland.
Leask, William, Scotland.
Leitch, J. W., B.A., Australia.
Leschen, H. A., Australia.
Lewis, O. Richd., England.
Littlejohn, T. H., Scotland.
Luke, James, Scotland.
Lumsden, John S. S., India.
M'Allum, S. G., India.
Macdonald, John, Scotland.
M'Dougall, Wm. S., Scotland.
M'Gill, J. M., M.A., Scotland.
Mackenzie, R. P., Scotland.
M'Laren, John, Scotland.
*Maclean, Alex., Scotland.
†Maclean, E. John, Wales.
MacLeod, C. G., M.A., Scotland.
MacTier, Wm. B., Scotland.
Mann, F. William, India.
Mansel, Charles J. L., England.
Manuel, W., Scotland.
Maynard, Edw. F., England.
Meek, Wm. O., England.
Milner, E. Arthur, England.
†Monteith, James, Scotland.
Morgan, Thos. L., Wales.
Mortlock, A. Wm., England.
Mursell, Henry T., England.
Nasmyth, Alexander, Scotland.
Nicoll, F. James, New Zealand.
Oliver, Wm., Scotland.
O'Neill, Wm. H. B., Australia.
O'Rourke, William, Ireland.
Owen, Robert G., Wales.
Parham, Wm. M., England.
Parry, Chas. Paton, Wales.
Peddie, Wm. James, Scotland.
*Pilgrim, E. G., Barbadoes.
Polson, William, Scotland.
Poole, Samuel, England.
Prentice, Alex. J., Scotland.
Pretorius, P. G., South Africa.
Purchas, Fredk. A. G., Jamaica.
Reid, P. Macpherson, Australia.
Reitz, F. Wm., Cape Colony.
Richardson, M. Jas., England.
Ritchie, Alex. B., Scotland.
Ritchie, T. M., B.Sc., Scotland.
Robson-Scott, C. G., Scotland.
Ross, F. Wm. F., Jamaica.
Rudolf, Robt. D., Canada.
*Sanders. W. G. W., Scotland.
Scott, J. Alex., England.
Simpson, Wm. Allan, Scotland.
Smith, J. L., M.A., Scotland.
Stalkartt, H. A , India.
Stanley, John D., Ireland.
Starkie, E. G. B., Burmah.
Stechan, Edward, Scotland.
Steven, John Wm., Scotland.
Stevenson, Frank, England.
Stewart, Fk. N., Scotland.
Stewart, Geo. Neil, M.A., D.Sc., Scotland.
Stewart, K. T., Scotland.
Stewart, T. P., M.A., Scotland.
†Sweeten, Benj., Scotland.
Taylor, E. Edm., England.
Thom, Jas. M., Scotland.
Thomas, Evan C., Wales.
Thomson, Alex., Scotland.
Thomson, William E. F., M.A., Scotland.
*Thyne, J. A., Scotland.
Turner, A. Logan, Scotland.
Vandewall, Gilles, Orange Free State.
Vernon, J. J., England.
Wallace, A. John, England.
Watthews, Herbert, England.
Westwood, David, Scotland.
Wheeler, A., Australia.
Whiting, A. John, England.
Wilde, H. Henry, England.
*Wilkinson, George, England.
Wilson, A. F., Scotland.
Wilson, Arthur, Scotland.
Wilson, Geo. R., Scotland.
Wilson, John, M.A., Scotland.
Wilson, J. J., Scotland.
†Wimberley, C. N. C., Scotland.
Wyse, Richard, M.A., Scotland.

* Passed the examinations with First-class Honours.
† Passed the examinations with Second-class Honours.

Prizes and Scholarships. — Ettles Scholarship, Eustace Graham Pilgrim, M.B., C.M.; Beaney Prize, Eustace Graham Pilgrim, M.B., C.M.; Syme Surgical Fellowship, Alexander Eddington, M.B., C.M.; Goodsir Memorial Prize, Herbert F. Waterhouse, M.D.; Murchison Scholarship in Clinical Medicine, Arthur J. Whiting, M.B., C.M.; Buchanan Scholarship in Gynæcology, George Wilkinson, M.B., C.M.; James Scott Scholarship in Midwifery, James Lackie, M.B., C.M.; Gunning Victoria Jubilee Edward Forkes Prize in Zoology, Philip J. White, M.B., C.M.; Gunning Victoria Jubilee Christison Prize in Materia Medica, Joseph Tillie, M.D.; Gunning Victoria Jubilee John Thomson Prize in Pathology, Robert Muir, M.B.; Gunning Victoria Jubilee Alison Prize in Public Health and Medical Jurisprudence, James A. Blair, M.B., C.M.; Gunning Victoria Jubilee Simpson Prize in Obstetrics, John Wm. Ballantyne, M.D.; Dobbie-Smith Gold Medal in Botany, Gustav Mann; Cameron Prize in Therapeutics, Monsieur Pasteur, LL.D.Edin.

UNIVERSITY OF ABERDEEN.—The following candidates received degrees in Medicine and Surgery:—

Degree of M.D.

Beattie, James Walker, M.B., C.M., Sunderland.
Bryce, James, M.B., C.M., Herts.
Carmichael, Jas. Chas. Gordon, M.B., C.M., Surg.-Major, Bengal.
Collie, Frank Lang, M.B., C.M., Aberdeen.
Gordon, Henry Charles, M.B., C.M., Army Medical Service.
Lamb, John Marshall, M.A., M.B., C.M., North Borneo.
Masson, John, M.B., C.M., Lancashire.
Middleton, James Gowing, M.B., C.M., Nice.
Poonen, Eapen, M.B., C.M., B.A. (Madras), India.
Swaine, Charles Lethbridge, M.B., C.M., Army Medical Service.
Wills, Reginald Graham, M.B., C.M., Bath.

Degrees of M.B. and C.M.

Aymer, Chas., Laurencekirk.
Black, George, Auchmill.
Black, R. S., M.A., Inverness.
Counter, F. Wm., Australia.
Cox, E. T., Alton, Hampshire.
Croucher, Francis B., London.
*‡§Cushny, A. R., M.A., Speymouth.
Dale, W. C., M.A., Aberdeen.
†Dean, Geo., M.A., Aberdeen.
Fearnside, C. F., M.A., Aberd.
Fernandez, Harry E., Herts.
Forbes, F. C. F., India.
Fraser, James Beauly.
Gammack, A. P. F., Aberdeen.
†Geddie, D. W., M.A., Banff.
Glennie, J. A. R., Aberdeen.
Goodwin, W., St. Albans.
Grant, James, Tomintoul.
Jones, John E. D., Cawnpore.
Kelly, Francis, Aberdeen.
Kinnear, J. C. M., Montrose.
Lang, Gordon A., Inverness.
Little, Andrew, Kinneff.
Ludlow, Fred. Wm., Germany.
†M'Gillivray, Angus, Inverness.
M'Gowan, W. S., M.A., Aberlour.
M'Hardie, Thos., Morayshire.
M'Rae, Jas., M.A., Mintlaw.
Macdonald, Donald J., Lewis.
Mackay, A. W., M.A., Aberd.
Mackinnon, Nicol, Skye.
Mackinnon, Andrew R., Aberd.
MacFarlane, Neil M., Stanley.
MacRitchie, David, Inverness.
Mann, Chas. F. G., Grantown.
Munro, Wm. E., Dornoch.
Noble, Frederick, Aberdeen.
Philip, Alex. A., Aberdeen.
Philip, James P., New Deer.
Reid, James, Rothiemay.
Reid, Duncan, M.A., Aberdeen.
Reith, Wm. R., M.A., Aberdeen.
Rennet, David, Aberdeen.
*Rose, Alexander, Nairn.
Ross, Henry, Ross-shire.
Saram, Allan M. de, Ceylon.
Scott, Lindley M., M.A., Aberd.
Seneviratne, Henry C., L.M.S., Madras University, Ceylon.
Sheard, Wm. C., Yorkshire.
Silver, George J., Crieff.
Smith, Daniel M., M.A., Aberd.
Souter, John F., Orange, N.S.W.
Stevenson, Edgar, Birkenhead.
Sutherland, W. G., Newcastle-on-Tyne.
Taylor, William C., Aberdeen.
Thomson, William, Montrose.
Thomson, Robert, Nairn.
Trail, John M., Aberdeen.
Troup, James, Aberdeen.
Valentine, John, Montrose.
Watt, J. L., M.A., Stonehaven.

Alexander G. Johnston, Aberdeen, has passed the examinations for the degree of M.B. and C.M., but will not graduate until he has attained the necessary age.

The diploma in Public Health has been conferred on the following candidates:—

Black, R. S., M.A., M.B., C.M.
Duke, A. L., M.B., C.M.
Mason, John W., M.B., C.M.
M'Donald, D. Jas., M.B., C. M.
Stephenson, R. B. T., M.B., C.M.
Webb, E. W., M.D., Surg.-Major.

* Highest academical honours. † Honourable distinction.
‡ The John Murray Medal and Scholarship (awarded to the most distinguished Graduate of the year), Alexander Rose (being *proxime accessit*.)
§ The George Thompson Fellowship, Wm. Leslie Mackenzie, M.A. (being *proxime accessit*).

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The quarterly examinations in Glasgow for the triple qualification took place in July, with the following results:—

First Examination.—Of 62 candidates, the following 38 passed—S. E. Jones, Flintshire; R. Owen, Carnarvonshire; R. Foster, Hartlepool; H. J. Cosgrove, Dumfries; G. Crawford, Co. Antrim; A. W. Forrester, Co. Antrim; Mary C. Murdoch, Elgin; Kate E. Pepper, London; Susanna R. Beck, Dorking, Surrey; R. T. Davies, Cerrig of Druidion; A. R. Huxley, Groombridge, Kent; Rosa E. Bale, Westacott, Banstable; J. M. Macmillan, Glenbarr, Argyllshire; Janet M. C. Gray, Bathgate; C. A. Foyl, Liverpool; B. Wiggins, Glengarnock, Ayrshire; J. Devon, Glasgow; J. P. T. Burke, Co. Tipperary; Lucille D. Leslie, Margate; Edith L. Nicholas, Dalston; Emily G. Kent, Rochdale; W. P. Willis, St. Louis, U.S.A.; I. Baldwin, Yorks; Janette F. A. Wallace, Inverness-shire; W. Dill, Cork; Alex. Cumming, Hull; E. Walsh, Limerick; E. R. Pollard, Burnley; R. A. Potterton, Co. Meath; R. Murdoch, Old Cumnock; E. W. F. Kirkman, Dublin; S. J. C. Soloman, Calcutta; W. Bratton, Omagh; D. Riordan, Co. Cork; J. T. Jameson, Ponteland; W. R. Abernethy, Londonderry; D. Donnelly, Kerry; A. P. Stinson, Armagh.

Second Examination.—Of 68 candidates, the following 32 passed:—T. B. Kelly, Galway; D. Doherty, Donegal; P. W. M'Gregor, Glasgow; James Hamilton, Lanark; D. M'Crorie, Kilwinning; Charlotte M. Wheeler, Coppenhall, Crewe; Elizabeth M. Harris, Calne; J. W. Wilkinson, Queen's County; Fred Hall, Bury, Lancashire; A. C. Burrows, Waterford; J. C. Sturdy, Ruswarp; T. E. Hughes, Rhyl; H. M. Bayer, Kilmalleck, County Limerick; Anne E. Wilson, Baltimore, U.S.A.; Harriet M. M. Hughes, London; T. L. Lynch, County Kerry; J. Craig, Glasgow; P. T. James, Glamorgan; S. Martyn, Bombay; C. F. Britto, Goa; R. M. Stokes, South Africa; Frank Nuttall, Bury, Lancashire; A. J. Clark, Forfarshire; G. Macdonald, Kirkintilloch; A. F. Walker, Liverpool; John Lane, County Cork; T. Davies, B.A., Victoria; J. Hodgson, Calne; R. Smith, South Australia; E. Hartley, Blackpool; A. G. Merson, Banffshire; H. C. Darbey, Cradley, Staffordshire.

Final Examination.—Of 49 candidates, the following 24 passed, and were admitted L.R.C.P.E., L.R.C.S.E., and L.F.P. and S.G.:—J. Round, Dudley; J. A. Hamilton, Brighton; Edith E. Ward, London; J. P. Granger, Glasgow; A. M. Ford, Glasgow; R. A. Robinson, county Derry; R. T. Williams, Glamorganshire; F. G. Phillippo, Jamaica; E. R. P. Watkins, Abergavenny; D. H. Stephens, North Shields; R. Steel, Kilbride, Ayrshire; W. C. Lancaster, Dublin; W. P. Lonergan, Glasgow; F. Castle, London; H. F. W. de Montmorency, county Carlow; H. W. Fisher, Liverpool; T. Meiring, Worcester, Cape of Good Hope; P. Campbell, Perthshire; D. Thomson, Newcastle-on-Tyne; F. J. Woods, Banbridge; A. Ross, Edinburgh; J. R. Jones, Festiniog, North Wales; M. R. Callender, South Shields; W. A. P. Ternan, Dundee.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At the recent sitting of the Board of Examiners for the Fellowship, the following gentleman passed the necessary examination, and was admitted at the August meeting of the Faculty:—

D. C. G. Bourns, L.R.C.P. Ed., L.R.C.S.I., Surgeon-Major, Army Medical Staff.

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At the July sittings of the Examiners for the Licence, the following gentlemen were admitted Licentiates:—

Leonard P. Banks, L.K.Q.C.P.I., Sharnbrook, Bedford; George J. M'Coull, L.R.C.P.Edin., Ovington-on-Tyne.

At the July sittings of the Board of Examiners in Public Health, the following were admitted Diplomates in Public Health:—

Wm. Theodore Hodge, M.K.C.S., Esh, Durham; John S. Rosser, M.B., Morriston, Glamorgan.

At the July sittings of the Dental Board, the following candidates were admitted Licentiates in Dental Surgery:—

Wm. J. Royal, Weymouth; Frank P. Nattruss, Nottingham; William Wallace, M.A., M.B., C.M., Glasgow; Augustus Berkley, Brighton; John G. Biggs, Glasgow; William Geekie, Oxford.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following have been admitted Fellows of the College:

Charles B. Gaffney; William G. Hume Henderson, Surgeon-Major, Bombay Army; F. Johnson, Surgeon-Major, Medical Staff; Ignatius O'Farrell, Surgeon-Major, Medical Staff; W. B. Stokes, Surgeon, Medical Staff.

The undermentioned has received the Diploma in Public Health:—

John Henry Griffin.

CONJOINT SCHEME OF THE COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND.—The following gentlemen have passed the Final Examination:—

Arthur James Carey, Thomas J. Connolly, Samuel A. D'Arcy, William Stephen Dodd, Richard Henry Dreaper, Berkeley F. Falkner, Alfred Aubrey Ferguson, Samuel James McWatty Gilmore, Ernest Sydney Hawthorne, Charles O'Connor Hodgens, Edward Kennedy, James Kearney, George MacKey Laing, John Robert Meeke, Stanley Moore, William Scott McBride, Arthur Saul McCorniskey, Edward Morris O'Connor, Pierce James O'Connor, Eugene Paul Pentony, Daniel Power, Matthew Burke Savage, Daniel Davis Shanahan, Frederick Smith, George Jackson Smith, Robert Millner Smyth, Arthur Edward Sproulle, Frederick William Smith Stone, Ralph Storey, George Langley Tuthill, David Turner.

APOTHECARIES' HALL OF IRELAND.—The following gentlemen have been elected office bearers for the following year:—

Governor.—Charles F. Moore.
Deputy Governor.—Richard G. O'Flaherty.
Council.—P. C. Baxter, E. H. Bolland, Thomas Collins, John Evans, Robert Montgomery, Robert Montgomery Jun., Henry P. Nolan, Edward J. O'Neill, Sir J. B. Owens, Michael J. Moore, John Ryan, James Shaw, George Wyse. Representative on the General Medical Council, Thomas Collins.

INDIAN MEDICAL SERVICE.—The following is a list or Surgeons on probation in Her Majesty's Indian Medical Service who were successful at both the London and Netley Examinations on Aug. 2nd. The final positions of these gentlemen are determined by the marks gained in London added to those gained at Netley, and the combined numbers are accordingly shown in the list which follows:—

	Marks.		Marks.
*Ozzard, F. R.	6265	Jennings, Edgar	5620
†Anderson, A. R. S. ..	6020	Stiles, T. M.	5473
‡Calvert, J. T.	5705	Hendley, A. G.	5445
Ricketts, W. S. P.	5680	Jenney, G. W...	5441
Moore, C. M.	5655	Hudson, C. T...	5285

* Gained the Herbert Prize of £20, with the Martin Memorial Gold Medal and the Parkes Memorial Bronze Medal, and also the prize in Pathology presented by Sir William Aitken, M.D., F.R.S.
† Gained the Montefiore Medal and prize of 20 guineas.
‡ Gained the Montefiore second prize and the prize in Clinical Medicine presented by Surgeon-General W. C. Maclean, C.B.

MR. C. MEYMOTT TIDY, M.B., Medical Officer of Health for Islington, and Mr. A. Wynter Blyth, Medical Officer of Health for St. Marylebone, both of Lincoln's-inn, have been called to the Bar.

THE DOG MUZZLE.—A special meeting was held recently at the Animals' Institute, to offer the society medal and £10 10*s.*, given by Dr. Gale, the blind electrician, for the best humane muzzle to prevent suffering to dogs. Entries close on Aug. 21st

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.—Dr. Hyslop, assistant medical officer at Bethlem Hospital, has, as a result of the honours examination in Psychological Medicine, gained the Gaskell Prize, given annually by the Medico-Psychological Association.

CAVENDISH COLLEGE, CAMBRIDGE: OPEN SCHOLARSHIPS AND EXHIBITIONS.—Recommended for Clothworkers' Company's Scholarship: W. Abbit, Beaumaris Grammar School. Elected to Scholarships: E. Bland, Devon County School; J. G. Bourne, Merchant Taylors' School. Exhibitions awarded to P. Umney, Merchant Taylors' School; A. Barraclough, North-Eastern County School.

OBSTETRICAL SOCIETY.—The library will be closed from Aug. 19th to Sept. 19th.

PRESENTATION. — Mr. P. G. Philps, M.R.C.S., L.S.A., recently of the Queen's-road, Peckham, has been presented by his patients and friends, on his leaving that neighbourhood, with a handsome chime clock, also two large bronze figures of Mercury and Iris, and a marble clock for his consulting-room.

SMALL-POX IN JUTLAND.—A serious epidemic of small-pox is reported to have broken out at Aalborg, in Jutland, a number of fresh cases having been recorded every day for some time past. The police authorities have in consequence prohibited all public meetings and concerts in the town until further notice.

RABIES.—According to the *London Gazette*, the number of dogs in England reported, during the week ending July 27th, as afflicted with rabies, was seven, six of which were killed, whilst one died. Of the seven diseased animals, two belonged to London, two to Surrey (excluding London), and one to Middlesex (excluding London).

HOSPITAL SATURDAY FUND.—The total net product of the sixteenth annual street collection in the metropolis and the suburbs, which was made under the auspices of the Hospital Saturday Fund on the 13th ult., is now ascertained to be £5080, or £130 more than was realised on Hospital Saturday last year. This is the largest result yet attained, the least being in 1874, when the fund was first formed.

THE SWEATING COMMITTEE'S REPORT.—We understand that at a private sitting recently of the Sweating Committee of the House of Lords, a report was presented by the Earl of Dunraven, the chairman, for the consideration of the Committee. Their lorships were of opinion that the report had been prepared with great promptitude; but having regard to its voluminous and important character, it was resolved to postpone its further consideration until next session.

HYDROPHOBIA.—Three more patients who had been bitten by rabid dogs were sent last week for treatment at the Pasteur Institute in Paris, their expenses being defrayed, either in whole or in part, out of the Mansion House Fund. The patients come respectively from Shepherd's-bush, Portland Island, and Berkshire. Arrangements have been made with an hotel close to the Institute for their accommodation. The Duke of Portland has forwarded a cheque for £25 to the Lord Mayor's Fund.

THE SANITARY INSTITUTE.—The preliminary programme has been issued of the Eleventh Congress, to be held at Worcester from the 24th to the 28th of September, 1889. Congress tickets and all information can be obtained by application to the secretary, E. White Wallis, Esq., F.S.S., Parkes Museum, 74A, Margaret-street, W. The Council invite papers on all subjects relating to health and sanitary science, reserving the right, of course, to refuse unsuitable papers. A short abstract should accompany each paper, the reading of which, if accepted, will be limited to twenty minutes.

THE LATE DR. JOSEPH ROGERS by his will bequeaths £500, free of legacy duty, to trustees, to be set apart as a charitable fund and invested in consols; the dividends to be accumulated during every distinct and successive period of ten years, and at the end of each successive period applied in the payment of the same as a prize to be called the "Rogers' Prize," to the writer of the best essay on the Treatment of the Sick Poor of this Country and the Preservation of the Health of the Poor or either of such subjects. The judges of the merits of such essays to be the President for the time being of the College of Physicians and the Master for the time being of the Apothecaries' Company, or such two or one of them as shall consent to act, and if none of them shall act then the Vice-Chancellor for the time being of the University of London. And Dr. Rogers directs that if at the end of any such period of ten years no such essay should have been written in respect of such period or if, in the opinion of the judges, none of the essays shall merit a prize, then the trustees shall apply the dividends and accumulations for such ten years for the benefit of the Medical Benevolent College or some kindred institution to be selected by the trustees.

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BEQUEST.—St. Mark's Ophthalmic Hospital has received £104 6s. 8d., under the will of the late Mrs. Selina Miller.

NEW INFECTIOUS DISEASES HOSPITAL.—A special meeting of the Darwen Health Committee was held last week for the purpose of considering what accommodation should be provided for the treatment and isolation of infectious diseases. This subject first received the attention of the committee some months ago, and then they decided to approach the Board of Management of the Blackburn and East Lancashire Infirmary, with a view of seeing if that body were able to allow the Corporation to fit up one of the wards for infectious cases. The Board of Management did not entertain the idea, and consequently the committee decided to erect a substantial infectious diseases hospital, and selected a piece of land as near the town as possible for the purpose.

BEQUESTS AND DONATIONS TO HOSPITALS.—The Warden of King's College Hospital, has received a grant of fifty guineas from the Drapers' Livery Company.—The Secretary of the Glamorganshire and Monmouthshire Infirmary has received a donation of £23 2s. 2d. from Mr. McCall, of Eastcheap, London.—The recent Cookery Food Exhibition, London, has resulted in a profit of £314 15s. 6d., of which the following donations have been apportioned—Great Northern Hospital, Holloway, £100; the French Hospital, Leicester-square, £100; the Hospital for Sick Children, Great Ormond-street, 10 guineas; the Evelina Hospital for Children, Southwark-bridge-road, 10 guineas; and the French Benevolent Society, Poland-street, £37 7s.—The Committee of the Hospital for Sick Children, Great Ormond-street, have received towards the Building Fund £1000 from Mr. Junius J. Morgan, and £500 from Sir Savile Crossley, M.P.—By the will of the late Mr. Henry Matthew Clarke, of 25, Mount-street, Grosvenor-square, £1000 is bequeathed to the General Hospital, Bristol.—The Court of Common Council, London, on the 1st inst., made grants to the following hospitals—namely, 200 guineas to the Royal London Ophthalmic Hospital, Moorfields, in aid of the fund for the erection of a new hospital, 100 guineas to the Convalescent Home of the Victoria Hospital for Sick Children, Margate, and 200 guineas to King's College Hospital.—The Treasurer of the Newcastle Infirmary has received from an unknown friend 100 guineas as a thank-offering.—The recent Stanley Gala and Bazaar in aid of the Liverpool Stanley Hospital, yielded, net, the sum of £5168 4s.—The late Earl of Malmesbury has bequeathed by his will £100 to the Hants Royal Hospital.

MEDICAL NOTES IN PARLIAMENT.

Poor Law Bill.

IN the House of Lords, on Friday, the 2nd inst., Lord Balfour of Burleigh moved the second reading of this Bill, Clause 1 of which extended the legal protection of the guardians in the case of children deserted by their parents to sixteen years of age in the case of boys, and eighteen in that of girls. Clauses 3 and 4 entitled the Metropolitan Asylums Board to receive into their asylums patients suffering from diphtheria, and enabled them to let their ambulances out for hire for the conveyance of fever patients from one place to another.

Cruelty to Children (Prevention) Bill.

On Monday, the 5th, the House went into Committee on this Bill. Lord Dunraven argued against the sub-section prohibiting the employment of children under ten years in theatres and other places of amusement, and denied that there was any cruelty in such employment. He moved, by way of a compromise, a proviso enacting that where it was shown to the satisfaction of a court of summary jurisdiction that proper provision had been made to secure the health and kind treatment of the children, such court might make an order of permission for their employment in such places.—Lord Herschell moved, in addition, that such permission should only extend to children exceeding seven years of age.—On a division, Lord Dunraven's proviso, with Lord Herschell's addition, was adopted by 31 against 24, and the Bill passed through Committee.

Local Government (Scotland) Bill.

On Tuesday, the 6th, this Bill, with a number of additions and amendments, passed through Committee, and the

Universities (Scotland) Bill

was read a second time. The Marquis of Lothian said that he would make a statement in reference to the Bill on going into Committee.

Royal Commission on Army and Navy Administration.

In the House of Commons, on Thursday, the 1st inst., Mr. W. H. Smith, in reply to Sir W. Bartlelot, stated that the Royal Commission had already agreed upon a preliminary report on part of the subjects submitted for their consideration. He was unable to hold out any hopes of being able to make any communication on the subject to the House so late in the session. The Commissioners hoped to conclude their final report during the autumn.

Whitewashed Cells and the Eyesight.

Mr. Macneill drew attention to the complaints of several political prisoners in Ireland that their eyes were weakened and influenced by the glare of the whitewash on the walls of their cells, and asked whether the cells of these prisoners could not be covered with a wash of blue or pink instead of the ordinary whitewash. Mr. Balfour, in reply, stated that the prisoners referred to had not complained, nor was there any evidence that their eyesight had become impaired. Replying to further questions, Mr. Balfour said he could hardly believe that the eyesight of gentlemen in prison under the Criminal Law Procedure Act was more delicate than that of persons imprisoned under other Acts, and he had heard of no complaints in the latter class of cases.

The River Lea.

On Friday, the 2nd, Mr. Ritchie, in reply to Sir J. Colomb, stated that the Local Government Board had received a letter from the Poplar Board of Works as to the foul condition of the river Lea, and mentioning the fact that the death of a boy from typhoid fever was attributed to bathing in that river. The letter also stated that the West Ham Corporation allowed their sewage to flow into the river at all states of the tide. He (Mr. Ritchie) would cause inquiries to be made as to that.

Colour Blindness.

In reply to Dr. Farquharson, Sir Michael Hicks-Beach said that the Board of Trade had referred the subject of colour-blindness among seamen to a Departmental Committee which would have scientific assistance in its inquiries. It would not be possible to present the report of the Committee before the end of the session.

Council of India Bill.

The debate on the second reading of this Bill, which was adjourned on July 25th, was resumed. Sir G. Campbell objected to any change being made in the Indian Council without full inquiry into its constitution and working, and moved the rejection of the Bill. Sir Guyer Hunter, in supporting the motion for the rejection of the Bill, urged that the Council ought to be strengthened by the addition of a medical officer of Indian experience. Important statistics affecting the health of 250 millions of people were received from India every year by the India Office, and yet there was not an officer on the Council of India who was able to deal with those statistics. Sir Roper Lethbridge concurred in the suggestion made by Sir G. Hunter, and thought it most desirable that the Council should be strengthened by the addition of a member of the Indian Medical Service. The amendment was negatived, and the Bill read a second time.

Irish Lunacy Service.

On Tuesday, the 6th, Mr. Balfour, replying to Dr. Kenny, stated that one of the inspectors of lunatics in Ireland had retired on superannuation. The question as to the necessity of filling the vacancy is under consideration. There was no foundation for the rumour that it was in contemplation to appoint one of the Scotch assistant Commissioners of Lunacy to an administrative position in the Irish lunacy service.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on August 6th, 1889.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever	Other diseases.	Total.	
Eastern Hospital	222	52	..	24	3	301	400
North-Western Hospital*	111	14	..	..	..	125	435
Western ,,	134	10	..	4	..	148	262
South-Western ,,	..	..	..	..	..	..	402
South-Eastern ,,	255	12	..	15	1	283	462
Northern ,,	..	..	..	..	..	..	480
Totals	722	88	..	43	4	857	2441

* One infant with mother.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ANDERSON, A. R., F.R.C.S., has been appointed Honorary Surgeon to the Nottingham General Hospital, vice James Beddard, F.R.C.S., deceased.

CRAIK, R., M.B. & C.M. Glas., has been appointed Deputy to the Public Vaccinator of the Norton District of the Leek Union.

EAMES, H. MARTYN, L.R.C.P.Edin., L.R.C.S.Edin., S.F.P.S.Glas., has been appointed Clinical Assistant at the Rubery-hill Asylum, near Bromsgrove.

GREENWOOD, E. CLIMSON, L.R.C.P.Lond., M.R.C.S., has been appointed Public Vaccinator for the Parish of Marylebone, vice W. A. Sumner, deceased.

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LITTLE, JOHN FLETCHER, M.B.Cantab., M.R.C.P.Lond., has been appointed Honorary Physician to the St. Marylebone General Dispensary.

MACGREGOR, G. R., M.D.Aberd., M.B., has been appointed Medical Officer of Health, Bingley and Keighley Union Districts, vice Roberts, resigned.

SIBLEY, WALTER K., M.B., B.C.Cam., &c., has been appointed House Physician to the Hospital for Consumpton, Brompton, vice Dr. Wilkie, resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

CANCER HOSPITAL (FREE), Fulham.—Two Resident House Surgeons for six months. An honorarium at the rate of £50 per annum each, with board and residence.

CHELMSFORD AND MALDON RURAL SANITARY AUTHORITIES.—To the Clerk of the Joint Committee, 96, High-street, Chelmsford.—Medical Officer of Health for the Combined Rural Sanitary Districts of Chelmsford and Maldon, Essex. Salary £600 per annum.

CORNWALL COUNTY ASYLUM, Bodmin.—Junior Assistant Medical Officer. Salary £100 the first year, £110 the second year, and afterwards £120 a year, with board, lodging, washing, and attendance.

SALISBURY INFIRMARY.—House Surgeon. Salary £100 per annum, with board, lodging, and washing.

SWANSEA HOSPITAL.—Resident Medical Officer. Salary £100 per annum, with board, furnished apartments, coals, gas, laundress, and attendance.

THE RURAL SANITARY DISTRICTS OF KENDAL, EAST WARD, AND WEST WARD UNIONS, AND THE URBAN SANITARY DISTRICTS OF KENDAL, AMBLESIDE, APPLEBY, BOWNESS, GRASMERE, AND WINDERMERE, all in the county of Westmoreland, in combination.—Medical Officer of Health. Salary at the rate of £375 per annum, to include travelling and other expenses and disbursements.

VICTORIA INFIRMARY, Glasgow.—Superintendent and Resident Medical Officer. Salary £125 per annum, with apartments and Board.

WEST BROMWICH DISTRICT HOSPITAL, near Birmingham.—Locum Tenens for the House Surgeon for a month or five weeks. Remuneration 5 guineas.

WEST-END HOSPITAL, 73, Welbeck-street, W.—Dispenser. Salary £100 per annum, with increase of £10 per annum for the next two years.

Births, Marriages, and Deaths.

BIRTHS.

GREATHEAD.—On July 6th, at Graham's Town, S. Africa, the wife of J. B. Greathead, M.B.Edin., M.R.C.S. London, of a son.

READ.—On July 5th, at 63, Battersea-rise, Clapham-common, the wife of Mabyn Read, M.D., of a daughter.

STIELL.—On Aug. 1st, at Elms-road, Clapham-common, S.W., the wife of Gavin Stiell, M.B., of a son.

MARRIAGES.

BOYD—TOMS.—On July 25th, at Acton, Stanley Boyd, M.B., F.R.C.S.Eng., Assistant Surgeon to the Charing-cross Hospital, &c., to Florence Nightingale Toms, M.D.

LOWE—RAWSON.—On the 1st inst., at St. Mark's, North Audley-street, W., John Lowe, M.D., of Green-street, Park-lane, to Isabel Mary, youngest daughter of the late George Rawson, of Lanesfield, Clifton, Bristol.

STRUTHERS—ALLEN.—On the 31st ult., at St. Saviour's Church, South Hampstead, James Struthers, jun., M.D., of Leith, to Charlotte Allen, daughter of Joseph Allen, Esq., London.

YOUNG—HAND.—On the 16th ult., on board H.M.S. *Urgent*, William Robert Minchin Young, Surgeon, Royal Navy, eldest son of Colonel W. Young, late 49th and 14th Regiments, to Anna Ethel, eldest daughter of Commodore Henry Hand, of H.M.S. *Urgent* and H.M.'s Dockyard, Port Royal, Jamaica.

DEATHS.

CLUBBE.—On Aug. 4th, at Lowestoft, William Henchman Clubbe, M.R.C.S., aged 63.

FLEMING.—On Aug. 2nd, at Holbrook, Albert Fleming, M.R.C.S.E., M.D., aged 61.

HANBURY.—On Aug. 1st, suddenly, at the residence of D. Macnee, Esq., Ladbroke-square, Notting-hill, George Bobart Hanbury, Surgeon, of Castle-street, Hereford, aged 63.

SILVERLOCK.—On Aug. 5th, suddenly, at Greaves-street, Sheffield, Richard Greenhill Silverlock, M.R.C.S., L.S.A.

STEELE.—On July 18th, at Glyntorr, Somers-road, Reigate, John Sisson Steele, M.R.C.S., L.S.A., in his 80th year.

WINDER.—On July 16th, at Amityville, Long Island, New York, William Guthrie Winder, M.D., a native of Wimbish-cum-Thunderly, Saffron Walden, Essex, and formerly of H.M. 12th Royal Lancers, in his 67th year.

WRIGHT.—On July 29th, at Norfolk House, Norfolk-street, Southsea, Joseph Brampton Wright, M.D., aged 48.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, August 8th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Aug. 2	29·96	W.	66	60	123	79	60	..	Cloudy
,, 3	29·86	W.	63	61	89	69	61	·09	Raining
,, 4	30·09	W.	65	60	107	76	58	·18	Bright
,, 5	29·79	S.	62	59	117	72	59	·06	Cloudy
,, 6	29·73	W.	62	56	118	70	55	·23	Cloudy
,, 7	29·96	W.	62	57	119	75	54	·06	Cloudy
,, 8	30·11	W.	60	56	116	73	53	..	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THEORY OF FEVER.

Dr. Staehely (Darmstadt) is thanked for his *brochure*, which we are unable to find space to reproduce. His views upon the nature of fever and the treatment of the febrile state are mainly based upon the assumed bacterial cause of the process; for he considers that all the phenomena of the febrile condition are referable to changes induced in the blood by the presence of micro-organisms. The occurrence of the phenomena of fever apart from the presence of microbes would, according to him, be apparently attributable to blood changes similar to those they induce. His views lead him to suggest the early mercurial treatment as germicidal in its effect, followed by mild aperients; the supply of acid to aid the digestive process; the external application of cold, and the use of restorative and stimulant remedies. Apart perhaps from the advocacy of germicides (and not even in that respect is he singular), there is no novelty in his suggestions.

J. W. C.—A good treatise on responsibility in its medico-legal aspects is that of Dr. Napoleone Colajanni, entitled "La Sociologia Criminale," and published at Catania in the present year by Tropea.

M. O. H.—Sanitary leaflets are issued by the National Health Society, 44, Berners-street, London, W.

HEISCH'S TEST FOR SEWAGE.

To the Editors of THE LANCET.

SIRS,—Will you kindly tell me through your columns the particulars of Heisch's test for sewage in water? Also Kjeldahl's nitrogen process? Being such an exile is my excuse for troubling you.

I am, Sirs, yours faithfully,

Jullundur, Punjab, July 12th, 1889. R. H. FIRTH, Surgeon, M.S.

*** Heisch's test is described in Dr. Cornelius Fox's "Sanitary Examinations of Water, Air, and Food" (J. and A. Churchill, 1886), page 24. We do not remember to have seen the Kjeldahl process in a text-book; but full details are given in various recent volumes of "The Analyst." It is simple and, with proper care, very satisfactory.—ED. L.

THE JONES FUND.

THE following additional sums have been received for the appeal made in our issue of July 20th to raise a sum to meet the legal expenses (over £60) of Mr. Jones of Edmonton:—

Sums already acknowledged	£21 18 0	G. Borlase Hicks, Esq. ..	£1 1 0
Lennox Browne, Esq. ..	1 1 0	E. Hooper May, M.D. ..	0 10 6
		H. G. Sworn, Esq... ..	0 5 0

Further subscriptions will be gladly received by Dr. J. W. Hunt, 101, Queen's-road, Dalston, N.E.

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DARWINISM AND PHYSIOLOGY.

THE Darwinian theory has exercised the most marked influence on morphology among the biological sciences, while physiology, as one of the same group, bears the fewest and slightest traces of that influence. Dr. J. Steiner, Professor of Physiology in the University of Heidelberg, has set himself to apply to his special subject the Darwinian methods and processes which have borne such striking fruits in morphology. He begins with the nervous system, and his treatise, of which the first and second parts are published, is entitled "Die Functionen des Centralnervensystems und ihre Phylogenese, von Dr. J. Steiner, a.o. Professor der Physiologie an der Universität, Heidelberg. Braunschweig: Friedrich Vieweg und Sohn." His book is hailed by many of his fellow-workers in Germany as a new departure in physiological science, fraught with important results for medicine, theoretical and practical.

J. E. E.—We cannot find room for the letters. But our correspondent seems justified in his complaints against Mr. P—— for seeing his patient independently and without waiting for the consultation which had been arranged. Mr. P—— may have had some excuse for haste and not waiting. But even so, an explanation should have been vouchsafed without delay.

"MEDICAL ADVICE FREE: MEDICINE 2D. PER BOTTLE!"

To the Editors of THE LANCET.

SIRS,—In answer to "M. L. S." in your last issue, allow me to point out that if the distribution of handbills is not touting, I should like to know for what purpose these bills are printed and distributed? That they have been widely distributed is well known to myself and other medical men for some time past. I myself have collected at least twenty amongst my own patients, and I have also observed them under the street knockers. To call this not touting is perfectly ludicrous, and a mere quibble. Your correspondent informs us that this is a dispensary instituted and supported by the lady doctor herself and her private friends; but on turning to the Medical Directory, I find that this "twopenny private dispensary" is placed amongst our public hospitals, and that the lady doctor in question terms herself the "Senior Medical Officer to the Fentiman-road Dispensary, and Resident Medical Officer and Lecturer on Midwifery, Clapham School of Midwifery." *O tempora, O mores!* I wonder what next! If lady practitioners are to be permitted to establish schools of midwifery, and have the privilege of advertising the same at ridiculous fees, the sooner the fact is known and put a stop to the better.

I assure you, this correspondence has not been begun and carried on with a feeling of spite against lady practitioners; but we expect that when they set up practice amongst us they will not entirely set at defiance a little of the honour and dignity of the profession.

I remain, Sirs, yours faithfully,

Aug. 4th, 1889. PRO BONO PUBLICO.

MEDICAL ADVERTISEMENT BY A GRADUATE OF THE LONDON UNIVERSITY.

THE following is contained in a handbill:—

"Jalap in Jam: or Whimsical Wisdom. Mens & Corpus, Limited, or 'No Premium Required': A quaint and humorous 'Guide to Health,' pleasant to read, and useful to ponder. The cheapest 'Life Insurance Policy' ever yet introduced. By F. J. Money, M.D. (Lond.), &c. Published by the Author, at 10½, Ironmonger-lane, Cheapside, E.C., daily (except Saturday), from 12.30 to 4. Post Free Six Stamps. Order of all Booksellers. Consultation and Medicine, 2*s.* 6*d.*"

LIFE IN TASMANIA.

To the Editors of THE LANCET.

SIRS,—I should be obliged if any of your correspondents could inform me of the conditions of life in Tasmania, and if there is an opening for practice in any part of the island.—I am, Sirs, yours faithfully,

Aug. 7th, 1889. EMIGRANT.

ANOTHER MEDICAL ELECTRICIAN SUPPORTED BY A QUALIFIED MEDICAL MAN.

ONE Edward Moross, who advertises his miraculous cures as a medical electrician in the *Daily Telegraph*, finding Manchester too narrow for him, has come to London. Electricity is his sheet-anchor. But even that agent has its limits; and for the greater success of catering for those who believe in a properly qualified medical man he has "associated himself with Dr. Swyer, and they practise together as

Edward Moross and Dr. Swyer, 17, Euston-square
(near Euston Station), London."

It would be satisfactory if the bodies whose diploma is held by Dr. Swyer, or the Medical Council, would inform him that this use of medical qualifications is inconsistent equally with public advantage and professional dignity. For a qualified medical man to be advertised with, and play second fiddle to, and support an electrical quack is worse than giving the care of a branch practice to an unqualified man.

Dr. Allwright.—If possible, next week. The article, however, has extended to a greater length than we anticipated.

TREATMENT OF HYDROCELE BY SOLUTION OF CORROSIVE SUBLIMATE.

LETTERS having been received from correspondents inquiring the meaning of "a 1500 per cent. solution," mentioned in Mr. Barnard's letter inserted in our impression of the 20th ult., page 147, we referred the query to the writer, and the following is his reply:—

"SIRS,—By a 1500 solution I meant about ⅔ grain of corrosive sublimate in an ounce of water. Any chemist, if asked a 1500 solution of corrosive sublimate, will dispense the required injection.

"I remain, Sirs, yours truly,

"B. BARNARD, M.B., &c.

"Victoria-street, Alderney, July 31st, 1889."

H. L.—The best edition of the works of Dr. John Freind, the learned Court physician and historian of medicine, who flourished in the early years of last century, is that superintended by the medical scholar Wigan, well known for his labours on the text and interpretation of Aretaeus. Its full title is:—"Johannes Freind, M.D., Serenissimae Reginae Carolinae Archiatri, Opera Omnia Medica. Londini: Typis Johannis Wright. MDCCXXXIII." For this edition Wigan translated from English into flowing Latinity Dr. Freind's "History of Medicine," which is better known, particularly on the Continent, in this revised Latin version. The "Opera Omnia" fill one entire volume folio, of which there is a fine copy in the Library of Trinity College, Cambridge.

Cyclops.—Yes.

AN APPEAL.

To the Editors of THE LANCET.

SIRS,—Mr. George Couper Sanders, M.R.C.S., L.S.A., practised in the Island of Jamaica about seventeen years ago. About the year 1874 his wife died, and about two years later he left the island, and no one there has since heard of him. He left a daughter aged four years totally unprovided for. A gentleman on whom she had no claim has kept her until now, when he is no longer able to. An aunt (not in good circumstances) would take the girl, if we can get the necessary money to provide an outfit and pay her passage to England. Will you kindly lend your aid in trying to get the necessary £50 or so for the orphan of one of our professional brethren. I shall be glad to receive and acknowledge any contribution and answer any questions.

I am, Sirs, yours faithfully,

A. W. THORBURN STEER, M.R.C.S., L.R.C.P.,
Government Medical Officer, Jamaica.

Puslinch, Yealmpton, Plymouth, Aug. 2nd, 1889.

DOCTORS AND PHARMACISTS IN MEXICO.

La Voz de Hipocrates, a Mexican periodical, complains bitterly of a piece of legislation which has just been enacted by the important State of Yucatan. Henceforth doctors of medicine and surgery will be permitted to open pharmacies without giving them in charge to registered pharmacists—that is to say, medical men may keep chemists' shops with or without the help of unqualified assistants. Unfortunately, something like this is occasionally done in this country, where open surgeries are sometimes left in the charge of the proprietor's wife, or of some much less competent and more irresponsible person.

A CAUTION.

To the Editors of THE LANCET.

SIRS,—I have a son named James Henry Clark, a medical man of eminence at St. Elizabeth, Jamaica, who holds a Government appointment there, and has held the appointment for about twenty years. I have recently been informed that some man over here is using my son's name and referring to my son's medical education and qualifications, and thus endeavouring to obtain money from the benevolent public. I therefore ask you to allow me to state in the columns of your valuable journal that my son is at present in a good position, and has never required, and I trust never will require, to ask for pecuniary help, and that if any person should be applied to for assistance in the name of my son he will promptly hand over to the police the person so applying, or report the matter to my solicitor, Mr. Basil E. Greenfield, 31, Nicholas-lane, E.C. I am, Sirs, yours faithfully,

Vartry-road, Clapton, N. THOMAS HENRY CLARK.

MEDICAL EVIDENCE IN FINLAND.

A CASE of appeal has just been decided by the Appellate Court of Finland, which upheld the judgment of an inferior court where a medical man refused to give evidence in a case where the interested parties were his patients, considering that he was bound by the oath he took on receiving his licence to practise not to reveal circumstances which had been confided to him by those under his care. For this refusal he was fined. It seems therefore that the obligation to maintain professional secrecy is not recognised in Finnish courts of law any more than it is in this country. As to this matter the law varies in different countries, that of France, for example, recognising and enforcing secrecy under all circumstances.

M.R.C.S.'s (Dovercourt) letter has been mislaid. Will our correspondent kindly repeat his question?

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COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Hermann Weber, London; Dr. A. Chauveau, Paris; Dr. Fletcher Beach, Dartford; Sir Dyce Duckworth, London; Dr. Hare, London; Dr. Vincent Harris, London; Sir T. Longmore, Woolstone; Mr. Wharton Jones, Ventnor; Dr. Cullingworth, London; Surgeon-General Johnston, Northwich; Mr. T. B. Slade, London; Dr. Holman, London; Mr. H. Johnston; Prof. Walley, Edinburgh; Dr. Munro, Jarrow; Mr. E. Moore, Birmingham; Mr. Whittard, London; Mr. Sandell, London; Mr. Flather, Cambridge; Mr. Barnard, Alderney; Messrs. Ferris and Co., Bristol; Dr. E. May, Hanwell; Dr. Page, Paris; Mr. Baldwin Latham, London; Mr. T. H. Clark, Clapton; Dr. W. Dale, King's Lynn; Mr. Steed, Jamaica; Mr. W. B. Cosens, Taunton; Inspector-General Lawson; Dr. Begg, Hankow; Dr. Pedley, Rangoon; Dr. E. P. Manby, Brighton; Mr. Marsden, Bury; Mr. Wild, London; Dr. W. J. Collins, London; Mr. C. H. Leet, Seaforth; Dr. Allwright, Brighton; Mr. R. H. Frith, Jullundur; Mr. C. J. Bond, Leicester; Mr. Milne, Kendal; Dr. Lediard, Carlisle; Dr. F. F. Bond, Rastrick; Dr. John Stokes, Rotherham; Dr. J. Oliver, London; Mr. Holberton, Brierley Hill; Dr. J. C. McVail, Kilmarnock; Messrs. Tate and Son, North Shields; Dr. Humphreys, Northamptonshire; Dr. A. B. Johnson, New York; Lord Sandhurst, London; Mr. R. Banks, London; Messrs. Lee and Martin, Birmingham; Mr. T. C. Turner, London; Messrs. Rankin and Bonland, Kilmarnock; Dr. R. Savage, London; Dr. F. Ewens, Highgate; Dr. Lyle, Bromsgrove; Mr. Corke, Baschurch; Mr. Field, London; Mr. Morris, Swansea; Mr. Forsyth, Glasgow; Mr. Ryan, London; Mr. Inglis, Belfast; Dr. Buchanan, Glasgow; Mr. Bennett, Liverpool; Mr. Husband, Yorks; Mr. Bissett, Glasgow; Mr. Scott, Manchester; Mr. Clarke, Preston; Dr. Kuelm, Nicaragua; Mr. Bartlett, Cheltenham; Major L. W. Pead, Dulwich; A Subscriber; M. M. M.; Delta, London; M., London; Sabac, London; Sigma, London; Pro bono Publico; Sittaford, London; Pearson, London; West Herts Infirmary; A., London; Victoria, Suffolk; Cyclops; Cornwall County Asylum; An Englishwoman; Fever Hospital, Manchester; Lady Superintendent, School of Massage.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Hellier, Leeds; Mrs. Ernst, London; Mr. Stenhouse, Glasgow; Messrs. Cox Bros., West Somerset; Mr. Murchison, Stockton; Messrs. Bentley and Son, London; Mr. Tunmer, Harrogate; Messrs. Robinson and Sons, Chesterfield; Rev. T. C. Fry, Maidstone; Mr. Hyatt, Shepton Mallet; Mr. Jones, Oswestry; Mr. Furley, London; Messrs. Benson and Son, London; Mr. McLeagh, Bewdley; Messrs. Richards and Co., London; Mr. Hay, Hull; Mr. Walsh, Mallow; Messrs. Woolley and Sons, Manchester; Mr. Anderson, Glasgow; Messrs. Battley and Watts, London; Dr. Taylor, Nottingham; Messrs. Bullock and Co., London; Mr. Banff, London; Mr. Malone, Dublin; Dr. Pain, Isle of Wight; Mr. Richards, Strand; Mr. Baly, Staffs.; Messrs. Haigh and Son, Liverpool; Mr. Boyd, Bournemouth; Messrs. McKeever and Son, Cumberland; Mr. Sargent, Sussex; Mr. Heywood, Manchester; Mrs. Sheldon, London; Mr. Bryden, Yorks; Mr. Butcher, Birkenhead; Dr. McLean, Herts; Mr. Owen, Beaumaris; Mr. James, Carnarvon; Mr. Pearson, Germany; Mr. Laurence, Suffolk; Mr. Lalor, Sussex; Mr. Stone, Reigate; Dr. Murrell, London; Mr. Crowther, Birmingham; Mr. Hamar, Kent; Dr. Read, Clapham; Mrs. Hyde, Portsmouth; Mr. Hutchison, Oxon.; Mr. Wale, Devon; Mr. Andrew, London; Miss Tomlett, London; Rev. Tooth, Croydon; Mr. Croke, Beverley; Messrs. Hooper and Co., London; Physician, Kensington; S. W., London; Alpha, Kensington; X. Y. Z., London; University College, Bristol; B., Sittingbourne; M.B., Manchester; Burlington Carriage Co., London; A. B., London; Asylum, Staffs.; Hamilton Association, London; Hall, London; Omega, Brighton; Workman, London; Delta, Edinburgh; H., Brighton; Q.C., London; A. B. C., London; Licentiate, London; M. E. D., London; A. B., Westgate-on-Sea; Urgent, London; L.R.C.P., Wells; T., Oldham; Forceps, London; Galen, London; Valetudo, Bath; Kappa, London; Danby, Southampton; Clifford, Bath; Y. Z., London; X. L., London; Zylol, London; Doctor, London; Practice, Essex.

Sunderland Herald and Daily Post, Mining Journal, Surrey Advertiser, Eccles and Patricroft Journal, Darlington and Stockton Times, North Star (Darlington), Hertfordshire Mercury, Weekly Free Press and Aberdeen Herald, Reading Mercury, Liverpool Courier, Liverpool Mercury, Midland Observer, &c., have been received.

Medical Diary for the ensuing Week.

Monday, August 12.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, August 13.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

Wednesday, August 14.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, August 15.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Friday, August 16.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, August 17.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

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Agent for the Advertisement Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

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ABRIDGED REPORT OF THE

President's Address,

Delivered at the meeting of the British Medical Association, Leeds,

BY C. G. WHEELHOUSE, F.R.C.S.

THE PRESIDENT, in his opening remarks, gave a cursory review of the progress of medicine and of medical education, and described the medicine of the early ages, laying stress upon the comparative isolation of practitioners in former times. He drew a sketch of the general practitioner of the early part of the present century, explained the method of surgical operations in former times, and pointed out that a surgical operation in those days was an ordeal of fearfully different magnitude to anything known to us to-day, and, naturally enough, the patient had a large say in the matter. Courage and endurance, unfortunately, are not given alike to all, and many a life which would be saved to-day was at that time voluntarily laid down, not simply for want of faith in the capability of the surgeon, but from sheer inability to face the terrible ordeal of bodily suffering involved.

Referring to the apprenticeship system, Mr. Wheelhouse said the practitioner was not called upon, on entering the profession, to prove himself in any way specially adapted for it. It mattered not what his education or want of it had been, no test was required of him. In the majority of cases he was, as it were, in a manner born to the position, as well as to the particular practice in which he was destined to take part; and, under any circumstances, he was called upon to serve an apprenticeship so prolonged as to be almost the same thing. For the first five years of his professional life he was compelled to devote himself to what seemed, perhaps, at the time, the simplest and most abject drudgery; but at the same time he picked up, all unconsciously it may have been, but none the less certainly, knowledge destined to be of infinite value to him in after life—the knowledge of common diseases; and when, after his few short months of hospital experience, he entered on practice, he did so with a fair all-round idea of its ordinary requirements, and he trusted to extraneous help in emergencies and unusual difficulties. He next came to the medical science of the present day, and compared it with the medical education and medical examinations in the past.

Upon the subject of Medical Education in the Present, the President spoke as follows: "Year by year and little by little we have been accumulating a burden which, if not absolutely more than the shoulders of the student can bear, is yet heavier than he can possibly carry with credit; and, instead of increasing his opportunities to acquire the strength necessary to bear it, we have curtailed his time, have deprived him of material advantages, and, in accordance with the hurry of the age, have demanded results well-nigh impossible of attainment. The five years of apprenticeship have been swept away, and with them the opportunity to master the groundwork of medical education and to acquire a sound knowledge of the more common forms of ordinary illness has gone also; and in four years, instead of eight, we permit the whole work to be completed. We have determined to ignore the utility of that homely but infinitely useful form of preparation for the higher parts of medical education which apprenticeship or pupilage was pre-eminently calculated to afford; we have determined that from the day on which a boy has been able to pass a very ordinary and limited educational examination he shall be permitted to take his place in a medical school, and we have arranged a curriculum which, if by dint of slavish toil he can master, shall enable him at the early age of twenty-one to enter upon the full responsibilities and duties of practice. We demand of him that he shall pass *at least* four examinations. One in general education; then a preliminary one in his professional subjects at the end of his first year of professional study; a "primary" and a "pass" examination; and, to make this the more easy to him, we permit him, if he wishes to do so, to split up these four examinations into eight or even ten, and, by clearing them off in fragments, we give him the opportunity to dismiss study after study from his mind with a rapidity which leaves scarcely a trace of them behind, and enables him to forget them, one after another, with a facility which, if the mere capability to pass examinations were the only end and object aimed at, would be commendable enough; until at last there only remains the one final test, at which, by a supreme effort, he may show that he has attained a sufficient amount of theoretical knowledge to satisfy his examiners, and that he has acquired a fair comprehension of the principles which underlie his future work. That even this is impossible, or nearly so, is abundantly proved by the fact that in a large majority of cases men voluntarily, and in many more under the compulsion of failure in the earlier examinations, devote five years instead of four to their education, and find that even then the task has been almost more than their powers could endure. To make up for deficiencies which even to themselves are then only too apparent and too keenly felt, hospital appointments, whether paid or unpaid, are eagerly sought for and accepted; or, failing to obtain these, men seek for themselves assistantships in which they may obtain that practical knowledge which only work under the guidance of experience can give them, and for lack of which they feel and know that they are unfit to cope alone with the responsibilities of practice. In one thing the new system is unquestionably superior to the old. It takes its stand upon a higher grade of education, both general and professional; and of two men educated, one on the old and the other on the new plan, when they have been equally for a few years in practice the latter will probably be the better practitioner of the two. He will then have picked up what the other had already acquired to begin with, and will henceforward easily distance his competitor in the race. But I do not envy him the experience of those first five years. The General Medical Council, with a laudable desire to diminish the evils of unqualified practice, has determined as far as it is possible to put down the employment of unqualified assistants, and it thereby unquestionably aids the young and recently qualified practitioner in his attempt to complete an education which ought to be complete already. But there are two sides of this question, and it has to be regarded from the point of view of the employer also. He, when engaging an assistant, is presumably seeking the service of one who will be a help to him, and not of one who, though nominally an assistant, is in reality a pupil, and who, though he be very learned in all the highest wisdom of the schools, is startled by the appearance of so extraordinary a rash as that presented by 'sudamina,' for instance, and who, though he can tell an examiner glibly enough the number of days necessary for the incubation of varicella, rubeola, variola, or scarlatina, and all the theoretical details concerning the history, course, complications, development, and sequelæ of these various diseases, is 'not quite sure,' when he *sees* them, which is which, and would therefore like his principal to see them before he ventures upon their treament. ..... I know there are many men who feel strongly that this is the time when pupilage would be most advantageous, and in the discussions of the Education Committee of the General Medical Council, as well as elsewhere, I have heard it strenuously argued; but the view is one which does not commend itself to my judgment, and which a long course of observation has not tended to confirm. The most advantageous time for pupilage is when the mind is eager, inquiring, impressionable, and plastic; when mistakes and failures are of comparatively little moment, when a little wholesome ridicule may be borne with equanimity, and when lessons which are the outcome of inexperience leave well-defined impressions on the mind which serve as warnings and landmarks at a future and more important age without any bitterness or sting in their remembrance. ..... I would earnestly plead also for a radical change in our modern system of examinations That they are capable, as at present conducted, of great improvement will, I think, be very generally admitted. That they fail in their essential object—the discovery of those who are fit and of those who are unfit to enter upon the responsibilities of practice—is undeniable; and while I admit that the effort to do this is always conscientiously and most praiseworthily pursued, I

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am satisfied that they often—far too often—wholly fail in the attainment of their intention. During a long career as a teacher, systematic and practical alike, I have watched with the keenest interest the success or failure of those whom I have trained, and many and many a time my heart has failed me when I have seen those whom I have known to be conscientious, painstaking, and thoroughly well-informed men sent down, while others of whose records I should have been sorry to speak have passed with flying colours."

After referring to the great and unnecessary multiplication and costliness of the examinations, the hurry and worry under which they are conducted, and the ordeal to the examiner, the President continued: "Now can this, I would ask, be necessary? Is it a fair way to ascertain what a man truly knows? Can it be just either to candidate or examiner? To each one of these queries I give an emphatic No; and you may very reasonably ask me how I would propose to remedy the evil. Years ago I suggested to the Council of the College of Surgeons that much, at any rate, of this difficulty might be overcome by conducting the written portion of the several examinations at the seats of teaching as is done with the University local examinations. The question papers could be forwarded under the seal of the examining body to the official in charge of the local examination room. The seal could be there broken in the presence of the candidates, and the examination could be so safeguarded as to render collusion as impossible as in London or elsewhere. To the candidate such time as he felt that he honestly needed could be given, and the element of hurry, at any rate, so far as he is concerned, could be eliminated. The answers, when handed in, could be sent, again under seal, to the examiners with absolute safety, and all this at an almost nominal cost. The examiners, in their turn, could take reasonable time in which to form an accurate judgment of each set of papers; and last, and most important of all, those of the candidates who so entirely failed as to make all hope of their passing an impossibility, might be informed that that was so, and that their presence for further examination was not, on that occasion, necessary. By this plan time, labour, money, and heartburning would be saved, and a feeling of justice and fairness, unquestionably lacking under the present system, would be engendered; and, as with this, so the same proceeding could be carried out with all the other examinations. And yet, as examinations are at present conducted, one great thing would be lacking: they would lack any guarantee of the possession by the candidate of that *practical* knowledge which we some of us feel to be the great want in modern medical education. This I, if I could have my way, would thus supply. I would make the first step in the purely medical part of the curriculum a year, at any rate, of practical pupilage. So soon as the "preliminary" or educational examination had been passed, I would insist that the next step should be residence for one year either with a general practitioner, or as a pupil at a county hospital, or in connexion with a recognised public dispensary where, under the observation and guidance of the acting officers, the pupil might see, day by day, the general run of every-day practice, and would become familiarised with the common ailments of daily life as seen in the homes of the people; where he would become acquainted, and that practically, with all that he would be called upon to undertake, or would meet with in the early years of actual practice; where all the simple and minor operations of surgery would be seen and learned in the best, because most practical, manner. Then I would send him for at least four full years to a medical school and hospital, to learn the why and the wherefore of all that he had already picked up, and to learn all that is so admirably taught in those most admirable schools. I would not permit him to fritter away his examinations in scraps; but, at the end of the second year, I would institute one full one, to embrace all the preliminary studies which had occupied him so far, and, by delaying all else to the end of the curriculum, I would compel him to keep all his knowledge well in hand, and would then institute such a full and complete examination, both theoretical and practical, as should be an indisputable guarantee of his possession of the requisite knowledge to make him a safe and reliable practitioner. This is done now in Germany, and the example is one we should do well to follow. At that examination I would also have placed in the hands of the examiners a minute and careful analysis, drawn up by the teachers, of the character of every candidate; this should be accompanied by a certificate of his pupilage, and should declare, on the responsibility of those under whom it was served, that he had been made conversant with daily out-door practice, and had himself performed the common operations of minor surgery. At any rate, whatsoever may be the course that future examinations may take, I sincerely hope their number will be diminished, that they will become more and more practical in their character, and that they will be made to include a knowledge of every-day occurrences, rather than of such as are likely to come but rarely under observation. Further, I confess to being sufficiently old-fashioned to desire to return, in a greatly modified form, to some system of pupilage by which a true foundation may be laid, by an early acquirement of the knowledge of common things, for that vast superstructure which the medical practitioner of the future will be called upon to raise and carry. I have now endeavoured to recall to your memory the character, the achievements, and the capability of the practitioner of former times. I have shown you how infinitely greater is the knowledge and the utility of the practitioner of the present day. We know how he has brought every region of the body, even those which were formerly deemed wholly beyond the sphere of his influence, such as the contents of the cranium, the vital organs of the chest, of the abdomen, and of the pelvis, under the dominion of our science; that, by the institution of preventive medicine, he has swept away many of the opprobria and of the direst scourges of former times; and it only remains to indicate in very few words the still vast field of further utility that lies open for cultivation by the practitioners of the future. There is one plague spot, I fear, which even he will fail to conquer, which will remain to fester, to kill its thousands, to maim, disfigure, and to sap the health of millions, of deserving and of undeserving alike, and, as the great curse of humanity, to baffle all our efforts to arrest the progress of disease, and to render them futile and abortive. You know the curse to which I allude—the curse that steadily and vindictively pursues the track of licentiousness, of ungoverned passion, of hateful sensuality; and you will admit with me that so long as human nature remains what it is, and is left in unbridled possession of the means of gratification, no ray of either light or hope will fall on that dark track. Some day men may have become sufficiently enlightened to submit to necessary legislation and restrictions on this and cognate subjects; but until they do, the foul stream of syphilis will continue to meander hither and thither and whithersoever it will through the world of life, will poison its springs, will wither even its fairest blooms, and destroy its richest fruits without selection and without mercy. By the cultivation of bacteriology and cognate sciences, by a deeper and more profound acquaintance with natural phenomena and laws, I can foreshadow in my mind the time when the whole range of zymotic and exanthematous diseases will have been subdued and conquered; when the seeds of each will have been isolated and so studied that their individuality will be recognisable; the soils in which they will grow and those in which they will lie sterile will be known and appreciated, and be brought under cultivation by the hands of the medical men of the day; when the methods of dealing with them will be such that they may be reduced to harmless quantities; and when, by the spread of sanitary science, the whole human race may be protected from their evil influences. It will not be in our day that these mighty triumphs will be won, but our successors will undoubtedly achieve them; and the time will certainly come when the kingdom of disease will be so closely narrowed down that only the necessary accompaniments of the changes and vicissitudes of natural laws, the evils attendant upon the wilful disobedience of those laws, the innumerable accidents to which life and limb must be for ever liable, and the inherent defects and deficiencies in the harmonious working of the parts of a machine so exquisitely and delicately constructed as is the frail body which for a time we inhabit, will be the only kingdom in which the professors of medicine and surgery will be called upon to exercise their sway. Then will the victory of our science be complete, and the day will have come when the world will be called upon to acknowledge that the labours of the physician and the surgeon—patient, enduring, untiring as they have been through all time—have not been in vain, and have reached their final consummation."

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ABRIDGED REPORT OF THE

Address in Surgery.

Delivered at the meeting of the British Medical Association, Leeds,

BY T. PRIDGIN TEALE, M.A., F.R.C.S., F.R.S.

"DETAIL IN SURGERY" was the title selected for this address, in which Mr. Teale hoped to show how much some of the triumphs and shortcomings of modern surgery were made or marred by the carrying out of detail, detail which was essentially embodiment of principle, not the mere multiplication of points of practice such as might not materially further the end in view. In working out this line of thought, he hoped to be able profitably to employ the time at his disposal, and to give prominence to conclusions which had been formed during a surgical life of over thirty years, made up not of his own work alone, but very largely of the freest interchange of thought and experience with most friendly and active-minded colleagues, medical and surgical, with whom it had been his great happiness to be associated. In doing so, it had been his endeavour to be as little egotistical as was compatible with the attainment of the end in view.

Speaking of Ligature of Arteries, Mr. Teale said: "It happened not long ago that I had to deal with a wound of the brachial at the bend of the elbow. Esmarch's tourniquet enabled me to expose beautifully to the eye a longitudinal slit in the artery. Of course I was obliged to apply a ligature on both sides of the puncture. There were then clearly exposed to view the two ligatures and about half an inch of the artery containing the slit. It occurred to me to divide the artery between the ligatures, and so to relieve obvious tension. I then appreciated what I had never before fully realised in connexion with ligature of an artery, the immense elasticity of the arterial coats. The separated ends receded fully half an inch from one another. The question at once occurred to me, Can it be right ever to tie an artery by a single ligature, and to leave this powerful force of elasticity to work for ulceration of the coats and gaping of the ulcer, with the risk of final disturbance by retraction of the divided ends when ulceration has completed its work? May we not here find an explanation of the numerous failures of ligature of the great arteries of twenty and thirty years ago, and of the fatal secondary hæmorrhages, chiefly from the distal end? Some may say that antiseptics and the cutting short of the ligature have changed all that, have reduced the risk of ulceration of the coats of the artery and of secondary hæmorrhage. Well, antiseptics fail now and then; and if they should fail we may be thankful for the additional protection of a doubly tied divided artery. Secondary hæmorrhage and fatal result will be thereby rendered extremely improbable."

Referring next to the subject of Stricture, the speaker said there was a form of instrument for the treatment of stricture which had been but little written about, and, although at last slowly making its way into use, had not met with the attention which he felt sure it deserved. It was known to him by the name of "Lister's sound," and was invented by Sir Joseph Lister. From the very commencement of his professional life he had been familiar with and had been taught to use in the treatment of stricture "bulbed" steel sounds, and which seemed to have existed as traditional instruments in the Leeds Infirmary. The virtue of the bulb was that, the stem of the instrument being necessarily smaller than the bulb, as soon as the bulb passed through the stricture the instrument was free, and the touch of the surgeon was at liberty to perceive the character of the succeeding part of the urethra. Compared with the bulbed sound, the ordinary catheter, which as a student he frequently witnessed in use in the treatment of stricture, was clumsy and eminently unsatisfactory. The defect of the bulbed sound, in common with most other methods of treating stricture, was that as soon as one size had been passed through a stricture, the same process of difficulty had to be encountered in passing the size larger. The principle of the instrument was this. It was bulbed at the point, like our old bulbed sounds. Then, after the narrow neck, the stem gradually increased until it attained, at a point about four inches from the bulb, a calibre two sizes larger than the bulb. Thus: No. 1 at the bulb swelled to No. 3 or 4; No. 9 to 12; No. 11 to 14. It was clear then that if you could once pass No. 1 safely into the bladder, you had prepared the way by the thickness of the stem for the more easy introduction of a sound with a bulb of the size of No. 2, and so on, each number passed rendering the way more easy for its successor. As a matter of fact, the larger sizes were passed with constantly increasing facility. It obviated the need of catheters with the hollow eye capable of carrying concealed poison, of gum-elastic catheters, and catgut bougies with the possibility of septic material lurking in interstices and cracks, and reduced very greatly the need of perineal section or internal urethrotomy. Rigors were extremely rare after the use of Lister's sounds. This rarity of rigor he was inclined to attribute to the fact that in nearly every instance dilatation had been carried at the first sitting, up to 10, 11, or 12. In a small number of cases he had failed to introduce Lister's No. 1, but these were got over by the aid of Teevan's filiform guide, which in every case was successfully passed. The guide having been introduced through the stricture, its outer end was then screwed into the tip of a conical sound, like Lister's with the bulb cut off. The filiform bougie guides the solid instrument through the stricture, and thus dilatation up to 4 or 5 Lister is secured, with the usual easy sequence, up to 12 or 14.

Coming next to Effective Drainage, he said it might be defined as "such a provision for the escape of fluid from any cavity as shall secure that the discharges, which when secreted are sweet, shall escape from the cavity before they have time to putrefy, and shall be received into one of the aseptic absorbent materials with which surgery is now so abundantly provided." Formerly the idea of drainage was almost limited to "free incision and a dependent opening." This idea was true to a certain extent and in some cases, of which the following was a brilliant example. A man was received into the Leeds Infirmary suffering from pneumothorax on the left side, from broken rib. The air was rapidly absorbed, but shortly the pleural cavity became full of fluid. This was drawn off twice, and on the second occasion was purulent. For some reason or other, the patient being extremely ill, an opening was made into the chest in front. He continued to lose strength and flesh, became extremely emaciated and albuminuric. As a forlorn hope, an incision was made into the pleural cavity posteriorly, whereby a free, dependent, self-draining opening was secured. In three months the wounds had healed, the patient had gained three stones in weight, had lost his albuminuria, and was well. But a dependent opening was not always the most efficient or the best. He was requested by his colleague, Mr. Mayo Robson, to see with him a lady with pelvic suppuration discharging through the rectum—that is, by a dependent opening. It was the source of much pain and of occasional febrile attacks and ill-health. A tumour about the size of an orange, and supposed to be the source of the pus, was felt by rectum and vagina. Mr. Robson carried out the following treatment, agreed upon at their consultation: Having exposed the tumour by direct abdominal incision, he stitched the peritoneum of the edge of the incision to the upper surface of the tumour, leaving a small area of the tumour exposed, and rendered thereby extra-peritoneal. He then cut into the tumour until he reached a collection of offensive pus, and washed out and drained the cavity. Immediately pus ceased to appear by rectum—that is, by the downward drainage—and in four weeks the whole was healed and the patient was well.

Until recently surgery has been too much a slave to the principle of a dependent opening. A dependent opening may be for the moment efficient whilst the cavity is distended, and yet, after it is emptied and collapsed, may become valvular and inefficient. Moreover, when a large cavity has been emptied the walls may by their collapse shut off portions of the surface from satisfactory drainage. Drainage, therefore, is a detail which needs to be studied in reference to each individual case. The leading idea should be so to provide, whether by position of openings, by shape of opening, or by use of drainage-tube, that secretions shall escape from every part before they have time to become septic. This idea of drainage, combined with the principle of rendering a cavity extra-peritoneal, was the key to some of the recent masterly developments of abdominal surgery,

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whereby deeply seated cavities containing offensive and septic materials could be treated with comparative safety.

Another detail in surgery which he had only recently learned to appreciate was that of the independent stitching of the peritoneum. The looseness of the attachment of the peritoneum to the abdominal wall allowed it to be dealt with with great freedom. A few months ago, when he was about to stitch up the abdominal wall after ovariotomy, Mr. Hartley, who was assisting, asked, Why not stitch up the peritoneum alone, and then unite the rest of the abdominal wall by a separate set of stitches? The speaker at once acted on the suggestion, knowing that it had been practised by others. The effect was to make the closing of the abdominal wall much simpler, and not more tedious. The advantages appeared to be (*a*) absence of tension on the peritoneal union, (*b*) very little bleeding from the peritoneal stitches, and (*c*) greater facility in uniting the abdominal wall, from not having to provide for the accurate adaptation of the peritoneal edges. After the operation the patient seemed to be more free than usual from discomfort in the wound. It was possible that further advantages might accrue, such as diminished proneness to hernia of the scar, and less liability to suppuration in the track of the sutures.

There was a detail in operations on the rectum or anus which, rightly carried out, contributed very greatly to ease in operating, to the comfort of the patient after the operation, and to the permanency and perfection of the result. As a preliminary step, in every operation on the rectum or anus, there should be dilatation of the sphincter ani by the fingers. To some this might seem a truism, a self-evident proposition, which it were waste of time and breath to assert. The fact, however, was that it was far from self-evident to many surgical minds, and had not been acted upon as a general rule, and, until very recently, had been absolutely ignored by many rectal specialists, and by writers on general surgery. First and most conspicuous in this relation were bleeding internal piles. Some twenty-five years ago he was asked to operate for bleeding piles on a gentleman about thirty years of age. On mentioning the case to his father, he said, "Dilate the sphincter, and most likely you will never have to operate on the piles; they will be cured." His anticipation proved to be correct. The advice was acted upon, and the gentleman had remained well to the present time. He rarely now operated on internal hæmorrhoids without having previously tested the effect of simple stretching of the sphincter. In more severe cases, requiring the removal of hæmorrhoids, the stretching, as a preliminary to operation, at once displayed the piles to view, and placed them in a ready position for being seen, seized, and dealt with. Another advantage was that, after the operation, the parts remained at rest, and the wounded tissues were not liable to protrude and to be strangled by a resentful sphincter. Also, if there were bleeding, there would be great facility for the escape and discovery of the blood, and therefore less danger of concealed hæmorrhage, which might fill the rectum with a large clot, perhaps only to be suspected from the pallor and feeble pulse of the patient. A further advantage was that wounded and granulating surfaces within the rectum were not interfered with or kept in a painful or irritable state, after the fashion of fissure, by an over-active excitable sphincter.

Two cases had recently been under his care in which long-continued suffering after removal of piles, without stretching of sphincter, was at once cured by simple dilatation. Contrast with that the clumsy and unscientific plan until recently recommended in the text-books of requesting the patient to "bring down" the piles by sitting over hot water before operation, so as to afford the surgeon an opportunity of playing hide-and-seek with the elusive hæmorrhoids, aided by their confederate sphincter.

In operations for fistula in ano, dilatation of the sphincter was an essential preliminary. If the internal orifice were close to the anus, it would be at once displayed or brought within easy reach. If it were at some distance, and beyond the sphincter, this proceeding rendered it possible to cure the fistula without extending the incision up to the internal orifice, and so risking loss of control over the action of the bowel, by too free division of the sphincter ani. Such deeply burrowing fistulæ he had cured on several occasions in the following manner. The sphincter having been freely dilated, the external orifice of the fistula was enlarged laterally in such a way that the opening in the skin was the base of a triangle, with its apex at the other end of the fistula, where it communicated with the bowel. The track of the fistula was freely scraped, and a drainage-tube was inserted, so as to reach within half an inch of the opening into the bowel. Undoubtedly the key to a successful result in such a case was the "detail" of dilatation of the sphincter, which by its relaxation allowed the contents of the bowel to pass away easily, and without forcing secretions backwards into the fistula, until time had been given for the freshly scraped surface to unite and seal the offending track. Of late years, the question of dilatation of the os and cervix uteri, and of treatment of the cavity of the uterus for endometritis and other metritic troubles, had come very much to the front. Indeed, it was a selected subject of discussion at the present meeting in the Obstetric Section. In some of the discussions by gynæcologists he noticed that much was said of constipation as a factor in these cases, and as one that ought to be treated and remedied, of course, by medicines, as a preliminary to any special interference with the uterus. In some cases he knew, and in many others he suspected, that the cause of the constipation was a tight, or spasmodic, or irritable sphincter. In such a case stretch the sphincter, and you might "throw physic to the dogs." And there were instances in which the sphincter might cause constipation and its train of symptoms, without any evidence of fissure, or anal pain, or bleeding, or there might be what he had often observed, but had never seen described, a peculiar rigidity, a sort of inelastic ring, like a fibrous degeneration of the muscle, which did not resist the introduction of one finger, but barred the rectum as with a ring of iron to the introduction of two. In such cases only artificially softened evacuations could escape. Might they not consider dilatation of the sphincter to be a "detail" in surgery worth study no less by the physician than by the surgeon?

On the subject of Ether *versus* Chloroform he wished to speak with a sense of grave responsibility—the more so that he had to express views which were strongly opposed to those uttered at Glasgow last year by his predecessor in that chair, and his plea was as follows: "For the first fifteen years of my surgical life, which includes ten years as surgeon to the Leeds Infirmary, I knew little of any anæsthetic but chloroform. So far, probably, our experience runs parallel. During the last fifteen years ether has almost superseded chloroform in my practice. Here the parallel ceases. Sir George Macleod's second fifteen years are still devoted to chloroform. He cannot speak from fifteen years' experience of ether. As a result of the comparison of these two periods I unhesitatingly assert that ether is, for safety to the patient and for comfort and convenience to the operator, immeasurably the better anæsthetic of the two. Ether can be given '*tute, cito, et jucunde!*' I say can be; would that I could say *is* always so given." There were many hospitals in England, and still more, he believed, in Scotland, where the use of ether was practically unknown, or where, if ether was given, the obsolete towel or the grid, or the very inferior inhaler of Ormsby was used; or even should the hospital possess a Clover, it might not possess an etherist who knew how to use it to the best advantage. To administer ether badly was to bring it down nearly to a level with chloroform as to safety and to render it inferior to chloroform as to comfort to the patient. A bad etherist would cause fear, coughing, distressing sense of suffocation, excitement, struggling, blueness of lips, mucous rattling in the trachea and bronchi. He would take many minutes, five to ten, in getting his patient under the anæsthetic, would use twice or thrice as much ether as was needful, would keep his patient when unconscious overcharged with ether in a state of profound stertor, and would now and then set up a dangerous bronchitis. A good etherist would win the confidence of his patient, even of the most timid, by judicious encouragement and by first applying the mouthpiece alone. As confidence became established, he added the reservoir, and then the indiarubber bag, slowly turning on the ether as tolerance of the vapour became established, and unconsciousness began to steal on. Then he more rapidly increased the proportion of ether, and the patient quickly fell into complete anæsthesia. Such an administrator would, in nine cases out of ten, have his patient ready for operation in two or three minutes, and not infrequently in about a minute and a half, without a struggle, without coughing, often without even a transient sense of suffocation, and with the expenditure of about half an ounce of ether, and would but need about one ounce of ether for each quarter of an hour that the anæsthesia was kept up. In such a case they need fear no danger at the time, or

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subsequent bronchitis. But there was another side of the ether question which he had never seen adequately stated. The advantages to the operator of using ether instead of chloroform were very great. In the first place, his anxiety was less, his fear of a fatal issue was less, and when obliged to trust to an inexperienced administrator, as he must do at times in sudden emergencies, he could more efficiently keep an eye on the patient's condition, and superintend the administrator, than when chloroform was used. In the second place, there was a saving of time, a patient being brought under the influence of ether in two or three minutes, whereas chloroform, in his experience, needed eight or ten. Such a saving was of no slight moment in modern hospital practice now that the sphere of surgery had become so enormously extended. In the third place, under ether return of consciousness to pain generally lagged behind the return of mental perception, and thus anæsthesia could easily be re-established without interrupting the operation. So marked was this fact towards the end of a prolonged operation, that sometimes the surgeon might continue to operate for ten minutes or a quarter of an hour without reapplication of the inhaler, and even converse with his patient whilst stitching up a wound. This was hardly, or rarely, the case with chloroform. Let anyone who was not yet a convert to ether, or who, having used ether, was wavering in his allegiance to it, asked himself these questions, "Have I myself studied the details of successful etherisation? Am I using the best form of inhaler? Have I taken pains to have those who act for me properly taught and trained? If not, let him ask himself one more question: Have I done my duty?"

An essay on "Detail in Surgery" would hardly be complete without some words about "instruments." It was often difficult to get the best type of instrument, or to renew a lost form, so great was the tendency to degeneration, and departure from the original type. Take as an illustration one of the simplest and most frequently used, a "scalpel." How rare it was to meet with a scalpel of good form, and yet they had the pattern admirably drawn in the work on "Surgery," by that master hand in the selection, designing, and handling of instruments, Sir William Fergusson. Another simple, universally used instrument was the "director," which was rarely met with of good form, as generally offered for sale. A director should be capable of being held firmly, the handle being substantial, not thin, long enough and not stumpy, and horizontally roughened and not slippery. The metallic catheter or sound is, or was, an instrument used by nearly every medical man. As with the scalpel so with the catheter; the surgeon should be able to feel—that is, to be conscious where the point of the catheter or sound was, and without seeing it, as he could not have his eye upon the point when in use.

After referring to and explaining the uses and best forms of make of the "vulsellum forceps," the twitch tourniquet, and torsion clamp, Mr. Teale concluded as follows:—"Those of my hearers and readers—for an address to the British Medical Association is practically delivered *urbi et orbi*—those, I say, who have expected to hear a triumphant record of the astonishing progress of surgery, or a pæan on our local surgical achievements, may be disappointed at the humble theme which I have attempted to work out, and may think that I have failed to do justice to colleagues who have done much to leave a mark upon the progress of surgery. My aim has been not to sound the praise of individuals, much as they deserve it, but rather to leave an impression on the practice of surgery. If any of you shall have been induced to study afresh, and from the point of view put forward in this address, the question of division of an artery between two ligatures, the bearing of the sphincter ani upon the surgery of the rectum, and disturbed functions of the colon; the substitution of Lister's sounds for older methods in the treatment of stricture; the emancipation of "drainage" from red-tape rules; and, lastly, the proper method of administration of ether so as to raise it as an anæsthetic to a position of incontestable superiority to chloroform—if such should be the outcome of this address, your time in listening will, I trust, not have been wasted, and my labour in composing it may not have been in vain."

AT a meeting of the Glasgow Town Council last week, Dr. Russell, medical officer of health for the city, reported that already 583 deaths from measles had been registered this year, which will be known as the year of the severest epidemic of measles since 1871.

A CASE OF

PAROXYSMAL HÆMOGLOBINURIA WITH EXPERIMENTAL OBSERVATIONS AND REMARKS.

BY JOHN S. BRISTOWE, M.D.,
AND
S. MONCKTON COPEMAN, M.A., M.B.

(*Concluded from page 259.*)

HITHERTO I have given only a bare narrative of the case and of the experiments performed in relation with it. I now proceed to make a few remarks upon some of the more interesting or important matters comprised therein.

1. The relation of paroxysmal hæmoglobinuria to Raynaud's disease has of late often been observed and commented upon. The case I have brought forward is apparently a further illustration of the fact. For there can be little doubt that the so-called frost-bite of the toes which marked the beginning of the patient's malady was an example of Raynaud's "symmetrical gangrene"; and the frequent "dying" of his fingers, and their occasional mottling when exposed to cold, are further evidence of the tendency in his case to spasmodic contraction of the smaller arteries characteristic of that affection.

2. The experiments all go to confirm the view that the primary obvious phenomenon in paroxysmal hæmoglobinuria consists in a rapid and often apparently enormous destruction of the red corpuscles of the blood, and that this depends on the direct influence of cold. On the eight occasions on which determinations of the number of corpuscles before and after exposure to cold were made with the hæmocytometer, the results were so far identical that, without exception, a large diminution in the number was observed after exposure—the loss varying in the different experiments between 129,000 and 824,000 per cubic millimetre. The fact that the blood-corpuscles were injuriously affected is further shown by the loss of consistence and variability of size and shape of the survivors, by the presence in the blood-plasma of granular masses of hæmatin, and also by the tinting of the plasma by the escaped colouring matter of the corpuscles. The extreme rapidity with which the destruction of the corpuscles was effected was shown in some cases by the examination of the blood immediately after exposure of the patient to cold, and before any of the characteristic symptoms of the attack had revealed themselves. Indeed, the specimen of blood which showed an apparent loss of 824,000 corpuscles per cubic millimetre was taken a quarter of an hour only after the patient had come out of a cold bath, in which he had lain for no more than ten minutes. But there is reason to believe that the destruction went on at a diminished rate for some little time after exposure, for in the fifth experiment the blood examined just after exposure contained 2,970,000 red corpuscles per cubic millimetre, while that examined about two hours later contained only 2,890,000. That the destruction of the red corpuscles in the case under consideration was due directly to cold seems obvious. During the whole time the patient has been in the hospital he has had no attacks of his malady, excepting those brought on experimentally by such exposure; and these have all been, so far as we can judge, proportionate in their severity to the duration or intensity of the cold applied. This view of the causative influence of cold is confirmed by the effects of placing his hands only in cold water, and especially by those of the immersion in water of a ligatured finger.

3. The experiments show that the destruction of red corpuscles did not affect the condition of the urine until some little time (from half an hour to three hours) after the commencement of the exposure causing that destruction. In the majority of cases the morbid products found in the urine were hæmoglobin in an amorphous form, and albumen in about sufficient relative quantity to render it not improbable that this also was simply derived from the disintegrated corpuscles, and was not, or was only in a slight degree, the albumen of the plasma.[1] A certain amount of

[1] See in reference to this matter the note containing an account of further investigations by Dr. Copeman, appended to this paper; also Fagge's "Principles and Practice of Medicine," vol. ii., p. 589, second edition.

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acid hæmatin was found in many of the experiments associated with the hæmoglobin; but it was clearly demonstrated by those experiments, in which the urine was passed and examined every quarter of an hour, that the blood-colouring matter as excreted by the kidneys was hæmoglobin alone, and that the acid hæmatin was simply due to the decomposition of the hæmoglobin in the bladder, or subsequently to its escape from the bladder. Any doubt there might be on this point was removed by two experiments: one already referred to in connexion with the second experiment on March 18th; the other of which I reproduce in Dr. Copeman's words, as follows: "The persistent presence of acid hæmatin in the urine after an attack has been considered a difficulty, as physiologists are agreed that there is no free acid in the urine. The following experiment was therefore devised, with the object of seeing whether it was possible to obtain acid hæmatin artificially by the action of urine on blood. Some urine was passed into a small flask until it was nearly full, when it was covered with an indiarubber cap and placed in the incubator at a temperature of 98·6°. It was perfectly clear, of acid reaction, and sp. gr. 1015. A rabbit having been killed, its blood was removed, defibrinated, and rendered laky by alternately freezing and thawing it several times, thus avoiding the use of any drug. It was then slowly filtered through several thicknesses of paper and allowed to fall drop by drop into the urine. When the latter was fairly tinted, and the flask at the same time had become full, the cap was replaced, and the flask was left in the incubator for three hours, about the usual time at which, after exposure, the patient passes the first specimen of bloody urine. On then removing a small portion of the contents, the colour was seen to be quite different to that of the hæmoglobin which had been used; and, on examining it with the spectroscope, the bands of acid hæmatin were well seen, the wide absorption band in the blue being even better marked than usual." A very important fact was observed in the ninth experiment, in which exposure on a fairly warm day was followed by a comparatively slight but unmistakable destruction of corpuscles, with only moderate elevation of temperature—namely, that no hæmoglobin whatever appeared in the urine, but in its place albumen. The results of this experiment accord to some extent with the observations of Ponfik, who has shown that, whilst the injection of large quantities of hæmoglobin into the blood causes hæmoglobinuria, the injection of small quantities causes no such elimination. It seems, therefore, a legitimate inference that, when the unwonted destruction of red corpuscles in cases of so-called hæmoglobinuria is comparatively small, albumen alone appears temporarily in the urine, the hæmoglobin of the destroyed corpuscles being used up in the system, probably by being converted into biliary and urinary pigments, and that when the unwonted destruction is larger the discharge of hæmoglobin accompanies that of albumen.

4. In every experiment, exposure to cold was followed by rise of temperature. The highest point varied on different occasions from 99·2° to 103·4°, and was attained within from one to two hours after the exposure which produced it. There can be no reasonable doubt that this febrile temperature was due to the destruction of blood-corpuscles. It is an interesting fact that, excepting one or two cases in which the phenomena were exceptionally mild, the duration of the attack, counting from the end of exposure to the subsidence of the consequent fever, was almost exactly five hours. The abnormal condition of the urine was, however, apt to last a little longer.

5. It is noteworthy that not only, as has been shown, was the destruction of blood-corpuscles rapid and enormous, but that the restoration of blood-corpuscles was also remarkably rapid. Thus, in the course of the fourth experiment the corpuscles per cubic millimetre were reduced from 3,612,500 to 2,930,000; at the end of six days they had risen again to 3,540,000; and in the fifth experiment the corpuscles fell to 2,970,000; four days later they amounted to 3,450,000.

6. Lastly, I may venture to make a few remarks with respect to the nature of hæmoglobinuria. Its association with Raynaud's disease is, as I have before remarked, a fact of common observation. What is the connexion between them? I confess that, notwithstanding this frequent association, I doubt if there be any relation between them other than the fact that the paroxysms of both are apt to be induced by the same cause—namely, exposure to cold. In the one case, it is the nerves and walls of the bloodvessels which suffer; in the other, it is the blood, and possibly the blood-producing organs. The relation of hæmoglobinuria to pernicious anæmia has been well discussed by Dr. Hunter in his work on the pathology of the latter disease. He shows that in both diseases the essential factor is the undue destruction of the red corpuscles of the blood; that in pernicious anæmia this takes place within the portal system, and the hæmoglobin is almost wholly got rid of in and by means of the liver; while in hæmoglobinuria the destruction takes place in the systemic circulation, and the bulk of the products of this destruction escapes with the urine. It is perhaps needless to add that, although the bloodlessness of pernicious anæmia is more uniformly progressive and persistent, and as a rule becomes more intense than that in hæmoglobinuria, the phenomena of anæmia are for the most part the same in both. In hæmoglobinuria, not only does pallor supervene, but the patient may acquire an icteric tinge, there may be hæmic murmurs, capillary pulsation, &c., and, as Dr. Copeman has shown, hæmoglobin crystals may appear in the blood prepared for microscopic observation—a phenomenon which he has observed in the blood of pernicious anæmia and that of hæmoglobinuria, but never in healthy blood. I suppose it will be admitted that, although the destruction of red corpuscles is the primary obvious phenomenon of hæmoglobinuria, there must be some antecedent peculiarity of the blood which renders the blood-corpuscles unduly amenable to the deleterious influence of cold, otherwise we should all be sufferers. As to what this peculiarity is, and how it is induced in the first instance, I will not venture to speculate. But I cannot help suspecting that paroxysmal hæmoglobinuria is only an exaggeration of a natural tendency. The red corpuscles of the blood are constantly undergoing destruction; but the products of this destruction are used up in the system, and (at any rate in health) do not appear in the urine in the form either of hæmoglobin or of albumen. Dr. George Johnson, Dr. Mahomed, and others have called attention to the fact that temporary albuminuria is apt to occur in apparently healthy persons after cold bathing And Dr. Ralfe, in an exceedingly interesting paper, published in THE LANCET last November, discusses the subject of paroxysmal albuminuria, and shows, from his own experience, that this affection is apt to occur in persons otherwise apparently healthy, after exposure to cold, fatigue, or mental worry, and (excepting that he has rarely observed elevation of temperature) with symptoms practically identical with those characteristic of hæmoglobinuria. Indeed, he expressly states that in four of his cases the paroxysmal albuminuria occurred in persons who had suffered from hæmoglobinuria, and he considers that there is a definite relationship between the two affections. Is it not probable that, at any rate in those cases in which the paroxysmal albuminuria is due to cold, the albuminuria is specially related to the undue destruction of red corpuscles caused by the exposure, and is in fact (as was the case with my patient in the ninth experiment) an undeveloped form of hæmoglobinuria, the *petit mal*, so to speak, of that disease? I need scarcely add that there is no reason to suppose that either in paroxysmal hæmoglobinuria or in paroxysmal albuminuria the kidneys are the seat of disease, or that they act in any other capacity in relation to them than as simple organs of elimination.

[*Note.*—After the reading of the paper experiments (which had been contemplated) for the purpose of determining the source of the albumen in the urine were made by Dr. Copeman, who furnishes the following memorandum.]

May 12th.—An attack was induced with the object of determining, if possible, the nature of the albumen passed. The patient placed his hands in iced-water (temperature 40° F.) for ten minutes, having previously emptied his bladder. A specimen of urine was obtained immediately after exposure (No. 1), and again at intervals of fifteen minutes for an hour and a half. No. 1 was quite normal. Nos. 2, 3, 4, 5, and 6 contained albumen; No. 5 contained also a slight trace of blood pigment, as shown by the guaiacum reaction. The specimens containing albumen were then saturated with magnesium sulphate and left for the night, by which means the globulin present was precipitated. Next day the precipitate was filtered off and the fluid again saturated with the salt to ensure complete precipitation, and again filtered. The filtrate was then acidified with dilute acetic acid and gradually heated to 80° C., when

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a precipitate of serum-albumen appeared. This, on being allowed to settle, was found to be less than half of the amount of the globulin previously obtained, so that when the paroglobulin normally present in the serum (which is usually from 3 to 4 per cent.[2] as against 4 to 5 per cent. of serum-albumen) is allowed for, there was a considerable excess of globulin, the presence of which could only be accounted for on the supposition that it was derived from the splitting up of the hæmoglobin of the red corpuscles.

With regard to the form in which the pigment from the broken-down corpuscles is passed by the kidneys, the method of drawing off the urine at frequent intervals has shown that it then consists of oxy-hæmoglobin, while if this substance be allowed to remain in the bladder for some hours in contact with the acid urine it finally becomes converted into acid hæmatin. From an experiment made April 29th, however, it appears that it passes through a preliminary stage of met-hæmoglobin before becoming finally converted into acid hæmatin. A difficulty in determining this point was at first experienced, since the spectrum of met-hæmoglobin and that of acid-hæmatin are practically identical, each showing four absorption bands (Hoppe-Seyler), although in most text-books only three bands are shown in that of met-hæmoglobin. The two bodies can, however, be distinguished by the fact that met-hæmoglobin when treated with a reducing reagent such as ammonium sulphide becomes converted into reduced hæmoglobin, while with similar treatment acid hæmatin yields reduced alkaline hæmatin.

In the specimens of urine obtained from the patient in the earlier experiments the four absorption bands were always well marked; and this, together with the fact that a spectroscope showing a scale of wave-lengths was not at hand, led to the conclusion that acid hæmatin was always voided. Later observations show that this may not invariably have been the case, although undoubtedly it was so in many instances. In point of fact, the degree of change appeared to depend solely on the length of stay in the bladder; so that, according to the time which the urine had remained there, oxy-hæmoglobin, met-hæmoglobin, or acid-hæmatin was obtained.

ON THE

STATE OF THE CIRCULATION IN THE EXTREME VESSELS IN ATROPINE AND COCAINE POISONING.

A SUPPLEMENT TO THE ARTICLE IN "THE LANCET" OF JULY 18TH, 1885, ENTITLED "ON THE MECHANISM OF THE ESTABLISHMENT OF VASCULAR CONGESTION—AN EXPERIMENTAL RESEARCH, DEDICATED TO STUDENTS OF MEDICINE."

BY T. WHARTON JONES, F.R.C.S., F.R.S., &c.

IN the third edition of my "Ophthalmic Medicine and Surgery" (1865, page 141), it is recorded that in the course of researches on the state of the blood and the bloodvessels in inflammation[1] I found that the application to a frog's web, displayed under the microscope, of a solution of the sulphate of atropia (four grains to the ounce of water) was followed by *constriction* of the calibre of the arterioles of the part acted on, in about the same length of time that dilatation of the pupil supervenes on the dropping into the eye of the same solution. As constriction of the calibre of arteries is owing to contraction of the circularly disposed muscular fibres composing their middle coat, it follows that the *modus operandi* of the atropia in this case must consist in exciting contraction of the said fibres. If we watch the process under the microscope, we see the contraction gradually take place, as indicated by the thickening of the muscular wall *pari passu* with the resulting constriction of the calibre of the arteriole.[2] The circular muscular fibres of the middle coat of the arterial wall are under the control of the sympathetic nerve, as are also the radiating muscular fibres of the iris. The action of atropia in dilating the pupil is, as I long ago showed, by exciting through the sympathetic nerve contraction of the radiating muscular fibres of the iris, and is, therefore, of the same nature as its action in causing constriction of the calibre of arteries. Apparently from overlooking the difference in respect to arrangement of the *radiating* muscular fibres of the iris on the one hand, and of the circularly disposed muscular fibres of the arteries on the other, persons from whom a better judgment might have been expected have not scrupled to express themselves as unable to understand how, under the influence of one and the same therapeutic agent, the pupil should become *dilated* and the calibre of arterioles *constricted*.

The effect of constriction of the calibre of arterioles—or, as it is commonly designated, tension—is to impede the free flow of blood through those vessels into the capillaries and thence into the venous radicles, the result of which is that accumulation, aggregation, and stagnation of red corpuscles therein are permitted to take place. In the article in THE LANCET to which this paper is a supplement, I remarked that authors, professors, orators, and the young gentlemen misinstructed by them, assuming to know all about nature's works better than nature herself, have scouted the idea that the establishment of congestion of blood could take place except by a "primary active dilatation" of all the vessels found to have become distended in the affected part, produced by the operation of a supposed mechanism under the influence of imaginary vaso-dilator nerves. They seem to have observed so imperfectly the sequence of phenomena, and reasoned so illogically from what they saw, supposing them to have ever taken the pains to look to see at all, as to be unable to detect how the congestion becomes established by progressive retention, accumulation, and aggregation of red corpuscles in the capillary network and venous radicles in consequence of *primary constriction* of the arterioles (under the influence of *really existing* vaso-constrictor nerves) which lead thereto, whereby the force of the current is impeded; so that the blood not being duly driven onwards, *stasis* in the said vessels takes place by aggregation of the red corpuscles. The passive dilatation by distension of the vessels thereby occasioned is increased by the additional quantity of blood which is regurgitated into them from anastomosing capillaries and venous radicles to which collateral arterial channels, in which the flow of blood may be still going on, directly lead. The red corpuscles of this blood aggregating also, dilatation by distension with stagnant blood becomes complete in the implicated capillaries and venous radicles, as well as in the arterioles leading thereto.

We thus see that the mechanism of the establishment of vascular congestion from gradual accumulation and *stasis* of aggregated red blood-corpuscles in extreme vessels, when the arterioles leading to the affected part are *primarily constricted* under the influence of their vaso-constrictor nerves, is the opposite of the simple vascular fulness which immediately takes place when, in consequence of a relaxed state of their walls, however induced, the calibre of the vessels yields to *passive dilatation by distension* with full and rapid streams of blood in them and in the capillaries and venous radicles to which they lead.

In atropism or belladonna poisoning the pupils are dilated, the pulse small, the face pale, the surface of the body cold, and the fauces dry; symptoms which indicate:—the first, contraction of the radiating muscular fibres of the iris—the others, constriction of the arterioles (from contraction of the circular muscular fibres composing their middle coat) with impeded circulation in the extreme vessels. Supervening on these symptoms, a rash breaks out on the body owing to patches of congestion from accumulation of red blood-corpuscles in capillaries and venous radicles by the mechanism before described. The accompanying delirium and other general nervous disturbance, again, arise from congestions of similar mechanism in the brain and spinal cord. The influence of the belladonna passing off and return of the arterial walls to their normal state of tension thereby taking place, the circulation in the extreme vessels resumes its freedom, and so the congestions gradually become dispersed. The pupils at the same time recover their habitual width and mobility in consequence of the dilator muscular fibres ceasing to overpower the action of the sphincter pupillæ as well as the physical elasticity of the structural framework of the iris itself, which, when unopposed by muscular action, tends to bring the pupil to a middle width, as is seen in the eye shortly after death. Different from this, it is to be noted, the pupil is found widely dilated in the eye of a dead bird, as will be explained below.

[2] Foster's Physiology, fifth edition, 1888.
[1] See Guy's Hospital Reports for October, 1850.
[2] See the illustrative figure at page 141 of the work above cited.

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In cocaine poisoning Dr. Montalti found, as recently reported, the tongue, mouth, and fauces quite dry, the mucous membrane blanched, the body bedewed with a cold sweat, the pulse small and rapid, with symptoms of general nervous disturbance. In another case, in which death took place, the body was cold, the face pale, the lips livid, the pupils dilated, and the pulse imperceptible. On examination post mortem, intense congestion of the brain and spinal cord, as well as their membranes, was found. These symptoms, it will be observed, are similar to those in atropism or belladonna poisoning, and indicate constriction of arteries, with impediment to the free flow of blood, followed by congestion from retention and accumulation of blood-corpuscles in the extreme vessels, in the manner already explained. Had *vaso-motor paralysis* really been the effect of the action of the cocaine, as Dr. Montalti supposes, the calibre of the arteries would have become dilated by distension with full and rapid streams of blood in them, so that the increased activity of the circulation in the extreme vessels would have given rise to flushing and warmth of the surface of the body.[3]

In the eye of a dead bird the pupil is found, as before mentioned, very much dilated, whereas in the human eye, after death, it is found of middle width. This state of the pupil in the human eye depends, as I showed more than fifty years ago, on physical elasticity of the structural framework of the iris, which during life is in antagonism to the action of the sphincter pupillæ muscle on the one hand and the dilator pupillæ muscle on the other; and which, after death, when the contractile power of these two muscles is abolished, brings the pupil into the middle state of width. In the iris of the bird's eye there is no dilator muscle of the pupil, but there is a strong sphincter pupillæ, composed of transversely striped muscular fibres, which are most probably voluntary in their action. The completely dilated state in which the pupil is found in the bird's eye after death is owing to strong elasticity contracting the substance of the iris and retracting its pupillary edge towards its ciliary insertion. The fact that there is no dilator pupillæ muscle in the bird's eye explains how it is that atropia does not excite dilatation of the pupil in the living animal. It would have been otherwise if, as used to be erroneously supposed, atropia acted by paralysing the sphincter pupillæ, and thus giving scope to unrestrained action of a dilator.[4]

A good many years ago there appeared in the Proceedings of the Royal Society the abstract of a paper denying that the application of atropia solution to the frog's web is followed by constriction of the calibre of the arterioles of the part acted on, and denying also that an effect of constriction of arterioles could be congestion of blood in the capillaries and venous radicles to which they lead. Nay, more than this, the author of the paper, adopting the "*ignoratio elenchi*" argument, erroneously attributed to me the contention that congestion is owing to constriction of *all the vessels*—arteries, capillaries, and veins—*of the affected part*, and then proceeded to demolish the phantom he had thus conjured up. The paper, the author of which was a young graduate, was communicated to the Royal Society by Dr. Bastian, his professor of pathological anatomy. I do not know whether his professor of physiology was consulted in the matter; but on a different occasion Dr. Sharpey lent his assistance to an inquiry as to the action of belladonna on the pupil—whether it consists in exciting contraction of the radiating muscular fibres of the iris or paralysing the sphincter pupillæ. A report of this coming under my notice, I sent to one of the medical journals a reference to the exposition of the subject which had been before the profession many years in the successive editions of my "Ophthalmic Medicine and Surgery." Any further continuation of the "experimental research" referred to was thus superseded.

The question of the alleged escape of white blood-corpuscles from the interior of small vessels is always cropping up; thus at a late meeting of the Pathological Society the President, in his eulogistic obituary notice of the late Dr. C. J. B. Williams, claimed for him to have been one of the earliest investigators who traced out the migration of corpuscles. If by this was meant the escape of white corpuscles from the interior of small vessels, he attributed to Dr. Williams a mistake which I do not think he ever committed. If the President will refer to Dr. Williams's "Principles of Medicine," he will find that Dr. Williams supposed the colourless corpuscles which accumulate on the inner surface of the walls of small bloodvessels, as seen under the microscope, to be new formations. This, as I showed forty-five years ago, was a mistake, certainly, but very different from that attributed to him[5] in supposing that white corpuscles escape from the interior of small vessels. The very opposite—viz., that white corpuscles make their way from without into the interior of small vessels—might, with less unreason, have been deduced from Dr. Williams's words.

Ventnor.

[3] In explanation of all this, see my article in THE LANCET, entitled, "Dilatation of the Calibre of Small Arteries: is it a fact in nature, disclosed by experimental research, that dilatation of small arteries is *primary* and owing to an active expansion of their walls under the influence of special *vaso-dilator* nerves? An inquiry addressed to physiological authors, professors, and occasional orators." (For earlier discussions on the subject of congestion, see my articles in the British and Foreign Medical Review for 1842 and 1844.)

[4] See the postscript (second paragraph) to my article in THE LANCET of Nov. 22nd, 1885.

CANCER OF THE MALE BREAST, BASED ON THE RECORDS OF ONE HUNDRED CASES; WITH REMARKS.

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(*Concluded from p. 263.*)

Metastatic deposits in the bones.—Of these 91 cases, metastatic deposits in the bones were noticed in 5. Subjoined is a brief abstract of these cases:—

1. The patient, aged forty-two, had a mass of hard cancer, the size of a hen's egg, occupying the right breast, which infiltrated the overlying skin and the axillary glands. It was of eight years' duration. The breast was amputated, and the axilla cleared out. On microscopical examination, alveolar fibrous cancer was found. Three months later there was recurrence of the disease in the chest. Shortly afterwards, in raising his arm, spontaneous fracture of the right clavicle occurred, and at the seat of fracture a cancerous tumour soon formed. Subsequently cancerous growths developed in both tibiæ. He died of asthenia a year after the operation for the primary disease. At the necropsy the whole of the soft parts of the right mammary region were extensively infiltrated by a dense fibroid cancerous growth, which had invaded the subjacent ribs and the sternum by direct extension. There were metastatic deposits in both clavicles and tibiæ, as well as in the liver.

2. The patient, aged forty, came under observation with ulcerated scirrhosis of breast, and extensive nodular infiltration of the skin and adjacent soft parts and axillary glands. The disease was of five years' duration. He died shortly afterwards with secondary deposits in the sphenoid and base of skull.

3. This man, aged forty-five, had a hard nodular cancer of the right breast, with infiltration of the overlying skin and axillary glands. No operative treatment was undertaken. He died with extensive cancerous growths in the vertebræ and other bones. The total duration of the disease was thirteen months.

4. The disease began as a hard nodule the size of a marble in the right breast, a year before the patient came under observation. It soon increased to the size of a walnut, and the axillary glands became enlarged. The patient, whose age was forty-five, was emaciated, and, after he had been under treatment but a short time, he sustained spontaneous fracture of the right humerus at its lower third when turning in bed. About this time he complained of pain in all the limbs, and he died shortly afterwards with symptoms of secondary disease of the lungs.

5. This patient, aged forty-eight, had ulcerated scirrhous cancer of the left breast of four months' duration, and a cancerous growth of the left clavicle.

Treatment and result.—Of 56 amputations of the breast for primary cancer there were 2 deaths—a mortality of 3·6 per cent. The mortality after amputation of the female breast I have found to be 11 per cent. In 20 of these cases the axillary glands were removed as well;

[5] See my Report on the Present State of Knowledge of the Nature of Inflammation, in the British and Foreign Medical Review for April, 1844.

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the 2 fatal cases belong to this category. Both of them died of septicæmia about a month after the operation. With regard to the other cases, the ultimate result is stated only in 3; in all there was recurrence: (1) in the axilla two years and three-quarters after the operation, with subsequent invasion of the thorax by direct extension; (2) in the chest three months after the operation, and death twelve months later, with metastatic deposits in liver and bones; (3) in the chest a few months after the operation; this was destroyed with caustic several times, but it returned and increased rapidly. The average period of convalescence in 8 of the above cases was thirty days. In the other 36 cases the axillary glands were not touched. All of these recovered. The average period of convalescence in 6 cases was eighteen days. The ultimate result is mentioned in 14 cases as follows: One was well eleven years after the operation, and quite free from recurrence; another died six years after of apoplexy, without any recurrence. In the other 12 cases there was recurrence—in the chest in 9, opposite breast in 2, and the axilla in 1. In 6 of these the recurrent disease was extirpated; all recovered from the operation. The ultimate result was as follows: 1. Four months after amputation of the breast for the primary disease, there was recurrence in the opposite breast. This was amputated. There was no further recurrence in either chest or axilla; but two years and a quarter after the last operation a recurrent nodule formed in the skin of the hand, which was successfully excised. 2. At the primary operation both breasts were amputated. There was recurrence a year later in the left axilla. This was excised. The disease recurred six years later in the left chest and axilla. Two years later he was reported dying from invasion of the thorax by direct extension. 3. Soon after amputation of the left breast for primary cancer, recurrence was noticed in the chest. In the course of ten years it increased to the size of an orange, and several discrete hard nodules developed at the axillary end of the scar, but there was no obvious affection of the axillary glands. At the end of this time the recurrent disease was excised. There was no subsequent disease in the chest or axilla; but eleven years afterwards the patient died with metastatic growths in the liver and in the cardiac part of the stomach. 4. There was recurrence in the chest seven months after amputation of the breast for the primary disease. This was excised, but there was further recurrence soon afterwards. 5. The disease recurred in the opposite breast a month and a half after amputation of its fellow for the primary disease. This breast was also amputated; he was convalescent ten days later. 6. Recurrence in the chest eight months after amputation of the breast for the primary disease. Four months later this was excised. This disease subsequently recurred in the chest and axilla.

Initial seat of the recurrent disease.—This was noted in 14 cases:—In 10 the disease was seated in the mammary region. (No glands were removed at the primary operation in 4; glands were removed at the primary operation in 2; not stated in 4.) In 2 it was situated in the opposite breast. (No glands in either case were removed at the primary operation.) In 2 it occupied the axillary glands. (At the primary operation the glands were removed in 1, and not touched in 1.)

Causes of death.—In 18 fatal cases the causes of death were as follows: asthenia, with metastatic growths, in 7 cases; invasion of thorax by direct extension in 6 cases; not stated in 2 cases; septicæmia (after operation) in 2 cases; apoplexy (without any recurrence) in 1 case.

The necropsies.—Of these only 10 were recorded. There were metastatic deposits in 7 cases, or in 70 per cent. In 44 necropsies for cancer of the female breast I found metastatic deposits in 28 cases, or in 63 per cent. In the other 2 cases the thorax, lungs, &c., were invaded by direct extension. In these 7 cases the metastatic deposits were situated as follows: in the liver in 3 cases, lungs and pleura (both 2, right 1) in 3, and bones in 3; kidneys (both) in 1 case; bladder in 1; peritoneum in 1; stomach (cardiac part) in 1; and pancreas in 1. The following were the bones affected: both clavicles and tibiæ, the vertebræ and other bones, the sphenoid and base of skull, each in 1 case. Thus of these 10 necropsies there were metastatic deposits in the bones in 30 per cent. Of 44 necropsies for cancer of the female breast, I found the bones affected with metastatic growths in 9 cases, or in 20 per cent. The particular bones involved were as follows: the femur (both, 2; right, 1; left, 1) in 4 cases, the humerus (right, 1; left, 1) in 2 cases, the tibia (right) in 1 case, the ribs (both) in 1 case, and the lower dorsal and upper lumbar vertebræ in 1 case.

I will now conclude with brief abstracts of the cases of cutaneous epithelioma and melanotic cancer.

Cutaneous epithelioma of the male mamma.—Of this there are three cases.

1. This patient, aged sixty-three, came under treatment with a hard cancerous ulcer of the mammary region the size of a walnut. It was of a year's duration, and ulceration began after the disease had existed for six months. He had experienced several hæmorrhages from it. The disease was extirpated. The histological examination was made by Cornil, who described it as an example of "épithéliôme pavimenteux lobulé," which probably originated in the skin of the areola.[1]

2. The age of the patient was forty-seven. He came under treatment with a hard cancerous ulcer of the breast and infiltration of the axillary glands. The disease was first noticed five years previously as a hard lump at the left nipple. Ulceration began eighteen months ago. On microscopical examination it proved to be "squamous-celled[2] carcinoma."

3. A tall, thin, dark, neurotic man, aged forty-one, came under observation with epitheliomatous ulceration of the areola, in the midst of which the nipple was still visible. The disease seemed to consist of indurated plaques in the skin, which were movable over the subjacent soft parts. In the edges and base of the ulcer a blackish tint was obvious. The axillary glands were enlarged. He stated that the disease began five years previously as a small wart in the skin of the areola; ulceration set in six months ago. His mother died, aged sixty, of cancer of the bowels. His previous health had been good, although he had suffered from dyspepsia and emphysema. He had led a regular life under favourable conditions. The breast was amputated, and the axillary glands removed. On microscopical examination it proved to be a case of melanotic cancer of the skin of the areola, and the axillary glands were similarly affected. The patient recovered from the operation, but recurrence set in before complete healing of the wound. This was destroyed by Vienna paste; but it rapidly recurred in the chest and axilla. One year after the first operation he was in a moribund condition, with extensive recurrent disease invading the thorax and secondary disease of the liver.[3]

Cutaneous epithelioma of the female mamma.—The following is the only case on record of a similar disease in the female. The patient was fifty-three years old, and she suffered from hereditary tuberculosis. She was the mother of four healthy children, all of whom she suckled. In February, 1885, superficial swelling of the left areola was first noticed, which in April began to ulcerate. In December the left mamma appeared full and the nipple projecting; the skin of the areola was replaced by a hard, shallow, epitheliomatous ulcer, the edges of which were hard and irregular; its base, uneven and hard, secreted a yellowish-red watery discharge. The subjacent mammary gland was hypertrophied, but not involved in the disease. There was no obvious infiltration of the axillary glands, but several of those above the clavicle were enlarged and hard. For the purpose of diagnosis a portion of the disease was scraped away with a sharp scoop. On microscopical examination of these fragments the disease proved to be squamous-celled epithelioma, which had probably originated from the interpapillary processes of the rete. The breast was amputated shortly afterwards, and the infiltratd lymph glands were removed. The glandular tissue of the mamma was found, on microscopical examination, to be quite free from cancerous change, but the lymphatic glands were distinctly cancerous. The patient made a good recovery, but she returned three months and a half later with a recurrent ulcer the size of a florin at the outer end of the scar in the chest. This was destroyed with the thermo-cautery. Czerny points out that this condition is very different from that known as Paget's disease.[4]

Melanotic cancer of the male mamma.—The following are two cases of this condition.

1. The only details given of this case are that the man had cancer of the breast, with infiltration of the axillary glands; and that the disease followed a blow, and was of

[1] Bernadet's case quoted by Hortelonp.
[2] Barling's case, Brit. Med. Jour., vol. ii. 1887, p. 883.
[3] Chenet's case, quoted by Poirier.
[4] Czerny's case, Cent. f. Chir., No. 24, 1886, p. 28 in the Supplement

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two years' duration. On microscopical examination after removal, it proved to be fibrous alveolar cancer; both the cells and the fibrous alveoli were pigmented.

2. This patient was an Italian aged thirty-five. The disease was of one year's duration. When first seen he had a large hard fungating tumour of the right breast, the nipple being still preserved. The adjacent skin and other soft parts were extensively invaded by hard, cancerous nodules. The right clavicular and the axillary glands on both sides were infiltrated. The right upper limb was œdematous. The patient suffered much from dyspnœa. Palliative treatment was adopted. He died of asthenia three months later. At the necropsy the whole of the soft parts of the front of the right side of the chest were infiltrated by a very hard, quasi-fibrous growth of bright yellowish-green colour. The muscles of the chest, the mediastinal glands, right pleura, and diaphragm were invaded by growths of a similar nature, by direct extension. The right hydrothorax and the lung were collapsed. There were metastatic nodules of similarly coloured hard growth in the pancreas, both kidneys, and base of bladder.[5]

SUPPLEMENTARY NOTE TO A CASE OF RUPTURE OF AN AORTIC ANEURYSM INTO THE SUPERIOR VENA CAVA.[1]

BY WILLIAM EWART, M.D., F.R.C.P.,
PHYSICIAN TO ST. GEORGE'S HOSPITAL, AND TO THE BELGRAVE HOSPITAL FOR CHILDREN.

CASES of rupture of an aortic aneurysm into the superior vena cava are so uncommon and difficult of diagnosis that I may venture, even at this late date, to supplement with a few additional facts and remarks the valuable account given by Dr. Sisley in THE LANCET of June 15th, 1889, of a case which occurred under my care. A similar case was recorded by Prof. Gairdner in THE LANCET of June 22nd, 1889, and I quote his concluding observations, because they point very clearly to the physiological interest which attaches to this rare form of disease: "The respiration became decidedly noisy before death, without, however, any sense of paroxysmal or other dyspnœa. The stertor was quite as much cerebral as arising from pressure on the air-passages. The death, in fact, seems to have been greatly due to failure of the respiratory reflexes, and not to any sudden change in the condition of parts in the thorax." In connexion with my case it should be stated that, at the post-mortem examination, the superior vena cava was found to be quite patent. The area of the opening of communication between the vein and the aneurysm was little less than that of a sixpenny coin. A single crescentic flap was reflected downwards into the vein and remained somewhat stiffly in apposition with its inner wall, indicating the degree of lateral pressure which had existed within the vein after the rupture. The lungs were congested. The medulla was not, to the naked eye, abnormal. When the patient (then in bed) was first seen by me, the cyanosis of the head and neck was purplish-blue; but before his admission into the ward it had been several shades deeper, and was then described as "blackish-blue." The large veins were full; I did not at that time notice any pulsation in them. The radial pulse was very full, regular, and only slightly quicker than normal. Respiration was not impeded, noisy, or notably accelerated. Inspection, palpation, and percussion failed to detect any abnormality beyond somewhat deficient expansion of the chest; the double cardiac murmur was the only abnormal sound heard. I concluded that the pressure which was obviously bearing upon the superior vena cava, or upon both innominate veins, was most probably due to an intra-pericardial aneurysm, and that it might be relieved by copious venesection. During the performance of that operation the blood spirted with unabated force, and venous pulsation was noticed; the patient meanwhile became restless and confused, attempted to sit upright, and experienced a sudden call to micturate. With the gradual onset of stupor a few minutes later, the respiration became very noisy. At this stage the pupils were dilated. The breathing was frequent, and accompanied with a remarkably loud and long expiratory nasal stertor. Although there was but little inspiratory effort, each expiration was associated with powerful and sustained contractions of the abdominal muscles. This noisy expiratory hyperpnœa continued without material change until death. No general convulsions occurred.

Remarks.—Although the conditions present in this case were pathological, and therefore more complicated than those of a purely physiological experiment, they lend themselves fairly to physiological analysis, and they may be studied under the following headings:—

1. *Effects upon the venous circulation.*—The clinical history affords evidence that, in spite of slight occasional symptoms of pressure, the bulging of the aneurysm into the superior vena cava had been tolerated up to the time of rupture, and that the sudden onset of extreme cyanosis of the head and neck may be safely ascribed to that accident as a cause. The mechanism of production of the cyanosis is sufficiently clear. The systolic blood wave, propagated through the patent orifice of communication, told powerfully upon the column of venous blood, periodically hindering its descent into the auricle. Regurgitation of arterial blood into the tributary veins may have taken place at first, but it probably soon encountered in the venous tension an increasing resistance. Venesection had the effect of lessening the latter temporarily, and under its influence venous pulsation occurred, and probably for a while some regurgitation also.

2. *Effects upon the pulmonary blood-supply.*—The passage of arterial blood into the right auricle had no obstacle of this kind to overcome, and was favoured by the diastole of the auricle coincident with the ventricular contraction. It may therefore be assumed that, at each systole of the heart, the volume of arterial blood which penetrated into the right auricle, and subsequently underwent a second aeration in the lungs, was at least equal to the volume of venous blood which was thereby excluded from the heart. Thus the pulmonary arteries must have contained mixed blood, of less venous character, and therefore less stimulating to respiration, than normal; whilst the blood within the pulmonary veins would have possessed at least the normal arterial standard.

3. *Effects upon the medulla and its respiratory functions.*—In the medullary centres the vascular changes induced by the rupture of the aneurysm must have been (*a*) an improved supply of oxygenated blood, (*b*) an imperfect removal, and an unusually high pressure of venous blood. This combination would afford an adequate explanation for the coexistence, observed in my case, and also recorded in Prof. Gairdner's case, of intense cyanosis, and of complete freedom from active dyspnœa; the amount of oxygen having been sufficient, at least in the early stages, to counteract the stimulating effect of an excess of carbonic acid. But in addition to the chemical stimulus of the gases in the blood, the medulla was soon subjected to a progressive form of mechanical stimulation due to the increasing dilatation of its veins. It is conceivable that the expiratory hyperpnœa which was subsequently developed in my case may have resulted from this cause. In whatever way it was produced it presented a close analogy to the expiratory type of breathing which is observed in the second stage of asphyxia by tracheal occlusion, differing, however, from this in its longer duration, in the persistent supply of oxygen, and in the absence of general convulsions.

Prof. Gairdner gives prominence in the report of his case to the stertor, without, however, describing its kind. Further information as to whether the stertor was of the inspiratory or of the expiratory variety, and as to the presence or absence of any expiratory hyperpnœa, would be of much value in connexion with the subject of this communication.

In conclusion, the ultimate effects, on the respiratory function, of the forcible injection of aortic blood into the superior vena cava were clearly a depression of the inspiratory activity of the respiratory centre and a great increase in its expiratory activity. These may have been the outcome of complicated influences, such as I have suggested, exerted primarily on the medullary centre. But I suspect that the expiratory hyperpnœa was in great measure secondary to a peripheral irritation of the vagus in its bronchial and in its laryngeal distribution. As tributaries of the superior vena cava the veins of the laryngeal mucous membrane could hardly have escaped considerable blood-

[5] Lawrance's case, Med. Chir. Trans., vol. iii. p. 72.
[1] See THE LANCET of June 15th, 1889.

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pressure, and the bronchial veins were probably more exposed to pressure and to possible reflux than any other veins, owing to the fact that their parent veins (the left innominate and the vena azygos) arise near the heart, and are at their origin unguarded by valves. Severe congestion must have been occasioned in this manner within the sensitive respiratory membrane, and this alone may have sufficed to excite a sustained expiratory reflex such as I have described.

Clinically the case is of importance (1) because it shows that the mere removal of sixteen ounces of blood does not suffice to ward off the fatal consequences of the rupture; (2) because it suggests that death is probably due to the pressure of the blood within the cranium rather than to the quality of the blood; and (3) because it also shows that, in spite of the existence of some collateral circulation (which was, in my case, evidenced by the much slighter degree of the cyanosis in the upper limbs than in the head), the progressive increase of the intracranial pressure is likely to be too rapid for the establishment of a sufficient collateral relief.

Diagnosis in obscure cases, such as the present one, where the aneurysm is latent, is aided by the suddenness and intensity of the cyanosis, coupled with the relative freedom from dyspnœa. It would be greatly aided by the existence of a well-marked venous pulsation; but, judging from my experience in this case, I doubt whether pulsation will be found present in every case at the time when venous tension is at its height. If venesection should be resorted to, an arterial character of the blood flowing from the vein would be likewise almost conclusive. I am not prepared to state definitely from memory that, in this case, the colour of the blood spirting from the vein was brighter than appeared consistent with the degree of the cyanosis; such is, however, my strong impression of what occurred.

As regards *prognosis*, by far the most important quantity—namely, the size of the rupture—is incapable of being ascertained during life. The same must be said also of the next important factor—viz., the size and capabilities of the collateral channels, and especially of the communications between the vena azygos, on the one hand, and the inferior vena cava and its lumbar and renal branches on the other. In estimating the possible duration of survival these important anastomoses should not be overlooked. In cases of gradual erosion, preceded by pressure sufficient to obliterate the channel of the superior vena cava,[2] they would probably enable the circulation to be carried on. For in itself the partial reversal of the route followed by the blood does not give rise to so serious a form of contamination as that suffered by the blood in congenital cyanosis. But where the rupture is sudden and extensive, the chances of the mechanical distribution of the blood being spontaneously, or by the help of any method of treatment whatsoever, restored to and maintained in a condition of equilibrium, even approximate, must be admitted to be extremely small.

Curzon-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CASE OF TETANUS OCCURRING TEN DAYS AFTER DELIVERY.

By HENRY PEACOCK, M.R.C.P., F.R.C.S.

M. B——, aged twenty-five, residing about three miles from Gloucester, was attended by a midwife on March 1st, 1888, the case being a primipara. The midwife sent for me after (as she said) the woman had been in labour for forty-eight hours. On arriving I found that the pains had ceased, and that the head was resting on the perineum, which was very rigid and enormously distended. I at once applied the forceps, and had little difficulty in delivering her of a large and vigorous female child. There was a slight laceration of the perineum at the fourchette, but not involving the sphincter, or of sufficient consequence to cause any particular notice. I saw her the following day, and so well did she appear that I did not consider it necessary to call again, and I left her in charge of her mother and a neighbour. On the tenth day after her confinement I was called in, and found her in the following condition: lochia and lactation natural, pulse 90, temperature 100°. I was told that she had been doing remarkably well up to the eighth day, when she complained of a little difficulty in swallowing and of stiffness about the neck. I at once diagnosed an attack of tetanus; in fact, trismus had set in, the jaws being so firmly closed that it was impossible to open the mouth without using the handle of a spoon as a lever. The muscles of the neck were thrown into agonising spasm on the slightest motion or on any attempt made to touch her; the head was thrown back (opisthotonos), and her expression exhibited the "risus sardonicus" in a remarkable degree. A turpentine enema was at first administered, and a strong chloroform and opium liniment rubbed on the neck and back. On my next visit, a few hours later, I threw up by the rectum thirty grains of the hydrate of chloral, and gave the same drug by the mouth in fifteen-grain doses every four hours. On my visit next day, I found the paroxysms somewhat less, and there was a little less difficulty in opening the mouth. My friend Mr. Cuthbert, surgeon, of Gloucester, who took a kindly interest in the case, accompanied me in my next visit, and agreed with me that the same treatment should be persevered in, although he expressed little hope of the patient's recovery. On the next day (the third from the attack), the tetanic spasms were more violent, but she was still able to take nourishment in the shape of beef-tea and milk. I injected hypodermically a quarter of a grain of morphia, and still continued the chloral every four hours. Sound sleep followed the morphia injection, and the violence of the spasms was somewhat abated and occurred less frequently. On my next visit with Mr. Cuthbert, we found her much worse, the pulse 120 and temperature 100°. On the fourth day from the attack the paroxysms were less violent, but the diaphragm and abdominal muscles were affected, and death took place the same night, evidently from exhaustion.

Now on referring to old and modern works on obstetric medicine, I cannot find any record of tetanus following delivery, and I am at a loss to account for the cause. The laceration of the perineum would naturally suggest that it was a decided case of traumatic tetanus, but as slight and even severe lacerations are so frequent in primiparæ one would look to some other cause, and as puerperal disease had been prevalent in the neighbourhood for some months previously, might not a peculiar state of the nervous system brought on by the epidemic influence predispose to the attack? or was it caused by the perineum having been so long in a distended state with such direct pressure and stretching of the cutaneous branches of the pudic nerve? Such cases are certainly very rare, for in a practice of nearly fifty years I have never witnessed one like it.

Gloucester.

ILL EFFECTS OF ANTIPYRIN.

By THOMAS WINGRAVE, M.R.C.S. Eng.

OWING to the indiscriminate way in which antipyrin is now being administered for an endless variety of diseases, I think that all cases should be recorded in which unpleasant symptoms arise from its administration. The following are brief particulars of a case now under my care.

A young lady aged twenty-one, has been under my care suffering from chronic ovaritis, associated with intense dysmenorrhœa. In addition to treatment by bromide of ammonium and tincture of gelseminum (which, by the way, were fairly successful in reducing the pain), I had given her some powders consisting of ten grains of antipyrin, one of which was to be taken when the paroxysms became severe. On July 25th last she took one of these (the first); about five minutes afterwards she experienced a very curious sense of heavy weight in the thorax, with a feeling of suffocation, her breathing became hurried and difficult, and there followed almost immediately a loss of power in the left side (the right side was slightly affected); in a few minutes a peculiar, very bright erythema appeared over the whole surface of the body, the patient appearing, as her mother said, "just like a boiled lobster." This rash was accompanied by a sensation of "pins-and-needles" down

[2] Dr. Charlewood Turner's case probably belonged to this class. See Path. Soc. Trans., vol. xxxvi., p. 148.

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the left arm and leg; the circulation seemed to be arrested for a little while, as the rash faded to a dull purple. In a few minutes a feeling of collapse set in, accompanied by a profuse cold perspiration, and simultaneously severe vomiting began. In about ten minutes, under the influence of stimulants, all these unpleasant symptoms passed off, and she seemed to have recovered entirely. That the drug was good was shown by the fact that two or three other patients had had some quite recently from the same box, and I can only attribute the symptoms above described to an idiosyncrasy on the part of the patient. If such untoward attacks are to be reported frequently, it seems to me that the action of the drug should be more fully investigated experimentally than seems at present to be the case.

West-street, Finsbury-circus, E.C.

A PERFORATION OF THE SEPTUM NASI OCCURRING IN CEMENT WORKERS.

BY ALEXANDER G. R. FOULERTON,
RESIDENT ASSISTANT SURGEON TO ST. BARTHOLOMEW'S HOSPITAL, CHATHAM.

THIS perforation of the cartilaginous septum of the nose is not uncommon amongst workers in cement factories and probably in other trades in which conditions similar to those which I shall describe are prevalent. It occurs as a round opening situated a little above the columna and close to the floor of the nostril. Its size will vary, and beyond a little discharge from the ulcerating edges of the perforation no inconvenience results. Its causation is as follows. The dry cement dust is drawn into the nostrils and accumulates on the hairs in the neighbourhood. This necessitates the frequent use of the little finger in order to clear the passage out. An abrasion of the epithelium at a spot on the septum, against which the nail scrapes as the finger is rotated, becomes, on the course of events which gave rise to it being repeated, an ulcer. The ulceration is after a time followed by perforation. This lesion, which, so far as I am aware, has not been described before, is of some little practical importance, inasmuch as one would be rather apt to attribute to syphilis a perforation of this sort if no obvious cause were to be found.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

CHARING-CROSS HOSPITAL.

EXTRA-UTERINE GESTATION; ABDOMINAL SECTION; PERITONITIS; DEATH; NECROPSY.

(Under the care of Mr. BELLAMY.)

DR. MATTHEWS DUNCAN,[1] in a clinical lecture on extra-uterine gestation, has passed this subject under review, and alluded to several cases under his care. He says, "In extra-uterine gestation much has yet to be done before the utility of laparotomy can be well defined. We need more knowledge of the natural progress of the disease, more knowledge of the anatomy, more experience in laparotomy?" That the literature on this subject is now very extensive is proved by reference to the medical journals of the last few months, cases being recorded in large numbers, but accounts are still valuable. As regards the frequency of extra-uterine gestation, Bandl mentions five cases out of 60,000 gynæcological and obstetrical cases under observation during a period of five years in Vienna, whilst Goodell[2] says, "Extra-uterine fœtation is by no means so rare a complication as is supposed by the majority of the profession, and is perhaps the most common cause of sudden death in women. H. F. Formad, the well-known pathologist, is one of the two coroner's physicians in Philadelphia, and he holds now in his possession nineteen specimens of extra-uterine fœtation which he has collected within four years at inquests made by him in his official capacity." We have recently published notes of two cases of extra-uterine fœtation successfully treated by abdominal section.[3] The first case was one of tubal gestation; rupture at the end of the second month; several slight hæmorrhages into the peritoneal cavity in the first half of the third month; the left Fallopian tube, which had been expanded and ruptured, was removed. The second case was one of subperitoneo-pelvic gestation. At the operation, performed at the beginning of the fifth month, a fœtus, about six inches long, was taken from a sac in the left broad ligament, the sides of the opening in the sac stitched to the abdominal wound, and the placenta left *in situ* for several days. An attempt to remove it twelve days later caused severe hæmorrhage, and the whole of it was not removed for more than three weeks. Hæmorrhage is a cause of considerable anxiety to the operator in these cases, and it will be observed that Mr. Bellamy found it necessary to plug the cavity in his patient in order to arrest it. This has led to the suggestion that, as the death of the child will in time sever the vascular connexions of the placenta and allow it to be more easily detached, the operation should be postponed until evidence of the death of the fœtus is obtained. But, although a fœtus may be carried for months or even years, the risk is too serious, from rupture of the sac, to allow the suggestion to have much weight in practice. The following is from notes by Dr. F. O. Stedman, surgical registrar.

Mrs. H——, tailoress, aged twenty-five, was admitted on April 22nd, 1889. The following was her condition on April 24th. In the centre of the abdomen, situated entirely below the umbilicus, was a swelling, which had been gradually getting larger during the last three months. On percussion, dulness began about three fingers' breadth below the umbilicus; extremities of flank resonant. In the right flank the dulness commenced at a distance of three fingers' breadth from the anterior superior spine, and commenced at about the same distance on the left side. There was no bulging in the flank. The measurements were: at the umbilicus, 25 in.; and at a point 2 in. below the umbilicus, 27·5 in. From the xiphoid cartilage to the umbilicus, 6 in.; and from the umbilicus to the symphysis pubis, 6 in. From the right anterior superior spine to the umbilicus, 6 in., and the same measurement on the left side. There was most pain on the right side of the swelling; sometimes the pain extended across the abdomen. She had not menstruated for three months, and had one child four years and a half ago. Vaginal examination showed the cervix severed and partly softened. Urine clear and straw-coloured; sp. gr. 1014, no albumen. On either side of the cervix a firm mass could be felt above. Milk could be squeezed from the breast. Dr. Watt Black in consultation examined the patient, and found a tense elastic tumour in the right side of the lower part of the abdomen, reaching to within three fingers' breadth of the umbilicus, and the uterus pushed over to the left side.

On April 25th, at 10 A.M., Mr. Bellamy operated by making a median incision, about three inches in length, below the umbilicus. On opening the peritoneum a large quantity of clot appeared, which was not quite recent, but had not become organised. On removing some of this clot a fœtus (three to four months old) appeared, and was readily removed, the umbilical cord tearing through. A mass was then removed consisting of blood-clot and apparently of placenta; there was some oozing from the pelvic region, which was temporarily stopped by putting in a large sponge. The lower part of the great omentum was infiltrated and matted together with blood-clot; it was therefore ligatured in two places, cut off, and removed. It was impossible to ascertain what was the exact situation of the ectopic gestation, but it seems to have been either in the right Fallopian tube or between the tube and the ovary. A large cavity, continuing to ooze, was plugged with three sponges, having ligatures attached to them, which were brought out of the abdominal wound. The wound was then closed at its upper part with Chinese twist, and a large sponge placed over the abdomen, which was dressed antiseptically. The pulse was regular and easily compressible (120). At

[1] THE LANCET, vol. ii. 1889, p. 53. [2] Sajous, vol. ii., F. 39, 1889.

[3] THE LANCET, vol. ii. 1889, p. 69 (Mirror of Hospital Practice).

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12.30, the patient having had no sleep since the operation, a hypodermic injection of morphia was administered. She died at 6.30 A.M. on April 25th.

Necropsy.—On removal of the dressing and cutting the sutures, the small intestine was found adherent to the front of the wound and the coils adherent to one another by fibrinous lymph and blood-clots. On separating the coils of intestine a large cyst was found, bounded in front by the abdominal wall and the bladder and pubes, to the right by the cæcum and adjacent structures, and to the left of the middle line by adherent coils of intestine. The cavity, which extended nearly to the right of the middle line and was in size as big as a child's head, contained a quantity of lymph and blood-clot. The intestines showed some recent and old peritonitis, but not enough to account for death, the inflammation being localised to the lower part of the abdomen. The uterus and its appendages, together with the bladder and vagina, were taken out, then the bladder was cut away and the uterus opened with scissors from the front; it contained a decidua one-third of an inch thick. The other organs were not removed. "The parts of intestine were set aside for further dissection." Permission was only obtained to examine the abdomen.

HULL ROYAL INFIRMARY.

CARIES OF VERTEBRÆ; ANGULAR CURVATURE; RECENT PARAPLEGIA; RESECTION OF LAMINÆ; RECOVERY; REMARKS.

(Under the care of Mr. HENRY THOMPSON.)

THAT there are cases of paraplegia secondary to spinal caries which may be greatly benefited by operative treatment has become a well-recognised fact, and evidence as to the good result of such interference is accumulating. The following case is a contribution to the surgery of the subject of considerable interest. The cases which Dr. Macewen published in 1888[1] are a curious commentary on the dictum of one of our text books, that "no operation such as trephining the spine is justifiable, as the compression is due to disease of the membranes, and not to displacement of the bones." Dr. Macewen says: "The first operations of the kind were undertaken by me for the relief of paraplegia due to angular curvature of the spine. In such cases pressure may be exerted on the cord, either by connective-tissue neoplasms, or by direct displacement of the bodies of the vertebræ, both lessening the lumen of the canal. By lifting the laminæ from the affected part, the tumour could be removed and relief at the same time given to the compressed cord, where the osseous walls in front were found to encroach upon the calibre of the canal." On May 9th, 1883, that surgeon removed a connective-tissue tumour and laminæ of vertebræ for paraplegia with incontinence in a boy aged nine, the subject of Pott's disease, in the dorsal region. Improvement was at once manifest, and cure soon attained. A second case, that of a girl, was operated on in the following year, and proved equally successful, although her symptoms were more severe. "A third case was also successful, but two others have not been so; one succumbed a week after the operation, the other some months later to an attack of general tuberculosis." He attaches importance to the presence of an even, regular, and continuously febrile temperature before the operation. Mr. Wright[2] reported a case in which he removed the laminæ of three vertebræ in the mid-dorsal region of a girl of seven, taking away a buff-coloured leathery substance. There was some improvement at first, both in motion and sensation, but this was not sustained. Mr. Lane, in the case referred to by Mr. Thompson in his remarks, removed the laminæ of the fourth, fifth, and sixth dorsal vertebræ in a boy of seven. Mr. Thompson's case is remarkable for the extent of the paralysis and the height at which the disease was situated, as well as for the success of the operation.

Patrick M——, aged thirteen, was admitted under the care of Mr. Thompson on Jan. 28th, 1889. In 1883 part of a rickety wall fell on him, and in consequence he was an in-patient of the infirmary for three weeks with paraplegia. This paraplegia lasted for thirteen months and then completely disappeared, leaving, however, angular curvature in the lower cervical region. During these thirteen months an abscess formed on the left side of his neck and discharged for six months, but it is not known whether or not any fragments of bone came away. So completely, however, did he recover from his paraplegia that he was able to run and jump and get into mischief like other boys, although ever since the accident he had had difficulty in passing urine. Three weeks before admission he began to complain of pain in his back, and paraplegia gradually developed. For a fortnight before admission he had complete loss of power in his legs, and they were often spasmodically drawn up. During night and day he was crying out with pain in his back and legs, and he had high temperature and night sweats. On admission the boy was thin, with an anxious expression. There was an abrupt angular curvature about the junction of the cervical and dorsal vertebræ. The arms were partially paralysed, more especially the muscles moving the shoulder joints, and the intercostal muscles were paralysed below the third or fourth interspace. Respiration was almost entirely diaphragmatic, the chest hyperæsthetic above the third rib, whilst the abdominal muscles were paralysed and the legs completely so. Sensation in the paralysed regions was delayed, but not absent. His deep reflexes were exaggerated, the superficial ones absent. He had power over the sphincters and over the bladder, but complained of much pain in urinating; urine highly alkaline. The temperature was 98·4°. In spite of all treatment he steadily went downhill, and by Feb. 12th, owing to the development of great tympanites, which interfered with his diaphragmatic respiration, he was in imminent danger; and after consultation with his colleagues, Mr. Thompson determined to try to relieve the pressure on the spinal cord, which was evidently the cause of his symptoms. Mr. Thompson, after careful consideration of the case, recognised the probability that the mischief was not confined to the immediate neighbourhood of the curvature.

On the evening of Feb. 13th the boy was brought into the theatre. He was wrapped up in blankets, had hot-water bottles placed on each side of him, and then being turned almost on to his face, and chloroform having been administered, the region of the angle was thoroughly cleansed and made as aseptic as possible with solution of perchloride of mercury. Mr. Thompson, assisted by Dr. Pigeon, made an incision along the prominent angle commencing an inch or so above its first appearance, and terminating well below its disappearance. This incision was carried well down to the bone, and then by means of a scalpel and periosteum elevator the skin, muscles, and fasciæ were separated from the bones and the laminæ exposed. He then with a fine saw and bone forceps divided the laminæ of two of the vertebræ and also separated the spinous processes of the same, and after a little trouble raised up the prominence and exposed the spinal membrane. The spines of the vertebræ first removed were supposed to be the last cervical and the first dorsal, and that of the second dorsal was afterwards removed. The dura mater at first looked compressed and did not pulsate, but in a few minutes it commenced to do so. There was no appearance of any cicatricial or inflammatory tissue, but the bodies of the affected vertebræ seemed to be very near to and to be compressing the cord. It was not thought necessary to open the sheath, so the wound was stitched up, covered over with protective, a thick layer of boracic acid powder, and upon that a layer of alembroth wool was placed. A small drainage-tube was inserted before the wound was sutured.

For some days he was very ill, although the tympanites almost immediately began to disappear; but after he had got over the shock of the operation he gradually but steadily improved. The morning after the operation the temperature was 98·4°; in the evening, 102°. On the 15th, morning, 99·8°; evening, 103°.—16th: Morning, 99·6°; evening, 100·4°.—17th: Morning, 99°; evening, 99·6°.—18th: Morning, 99°; evening, 99·4°.—19th: Evening, 100°.—20th: Evening, 99·4°. After this date it was not higher than 99°. The wound was dressed three times, and was then completely healed. His recovery was delayed by a sharp attack of bronchitis, which came on on March 14th, but he is now well in health, he can stand with one hand resting on a table, he can move his legs one before the other, can lift them up when laid on his back, and it is believed that he will completely recover. He has been regularly galvanised and shampooed, and will shortly be sent home.

Remarks by Mr. THOMPSON.—Resection of portions of the spinal column is, comparatively speaking, a new opera-

[1] British Medical Journal, vol. ii., p. 308.
[2] THE LANCET, vol. ii. 1888, p. 64 (Mirror of Hospital Practice).

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tion. When done for recent injuries it has been almost universally fatal. Professor Macewen, at the Glasgow meeting, astonished his audience by the exhibition of some cases in which he had removed portions of the column for various causes, but they were chronic in character, and he lays down the axiom not to interfere in the presence of any acute symptoms. The above case shows well some of the peculiarities of the paraplegia of Pott's disease—viz., loss of power without loss of sensation. No paralysis of bladder or rectum, but painful tenesmus of the former organ. I conclude that during the process of the cure of the original curvature the spinal cord had accommodated itself to its contracted habitat, but that the advent of a certain amount of fresh hyperæmia or inflammatory mischief was sufficient to produce pressure enough to redevelop the paraplegia. In the *British Medical Journal* of April 20th, 1889, there is a very similar case recorded by Mr. W. A. Lane of Guy's Hospital, but in his case the symptoms were neither so acute nor so marked, and much more rapid improvement followed.

Notices of Books.

Archives of Surgery. By JONATHAN HUTCHINSON, LL.D., F.R.S. Vol. I., No. 1. London: J. & A. Churchill.—This is the first issue of a new journal, to which, with but very few exceptions, Mr. Hutchinson intends to be the sole contributor. The reasons for taking this rather unusual course are stated in the author's preface, and they are in the main two—the accumulation of a large amount of carefully sifted clinical material, and the inability, from want of time, to write an exhaustive treatise on surgery. This number opens with the beginning of a paper on Intestinal Obstruction, in which Mr. Hutchinson combats the teaching of some among us who recommend resort to laparotomy as soon as the diagnosis of acute intestinal obstruction has been made. He regards certainty of diagnosis as often impossible, and the possibility of cure by milder measures than laparotomy not remote. The treatment advocated is the employment of abdominal massage of a very vigorous kind and the administration of enemata. This is an excellent paper, and should be read by all, especially by those who hold that laparotomy affords the only hope of relief in cases of acute obstruction. Then follow accounts of certain rare and anomalous cases, clinical memoranda, &c. Fourteen pages are devoted to a surgical catechism for senior students in the form of questions and answers, and to short cases for diagnosis. Four good coloured illustrations complete the number. The journal is undoubtedly very interesting, and if it is maintained at the same level we anticipate for it a large circle of appreciative readers.

Beiträge zur Pathologischen Anatomie und zur Allgemeinen Pathologie. Redigirt von Dr. E. ZIEGLER und Dr. C. NAUWERCK. Vol. IV. Jena: G. Fischer. 1888–89.—The five "Hefte" which constitute the fourth volume of this recently-established journal of pathology are replete with important and interesting memoirs contributed by workers in many of the continental laboratories. Reserving for other occasions the notice of any of these writings, it may be of interest to state here the contents of this volume, indicating the universities to which the authors are attached. 1. F. Marchand (Marburg): On the Encapsulation of Foreign Bodies. 2. R. Bonnet (Munich): Stumpy-tailed Dogs in regard to the inheritance of Acquired Peculiarities. 3. St. Mircoli (Bologna): Epidemic Primary Mycotic Nephritis in Children. 4. T. Busachi (Turin): New Formation of Smooth Muscular Tissue. 5. A Weichselbaum (Vienna): On the Etiology and Pathological Anatomy of Endocarditis. 6. M. Löwit (Innsbruck): On Icterus and on the Formation of Pigment in the Frog's Liver. 7. E. Baquis (Bologna): Experimental Researches on the Forms of Retinitis. 8. N. Rogowitsch (Tübingen): The Action of the "Rauschbrand' Bacillus on the Animal Organism. 9. B. Morpurgo (Turin): Cell Formation during Acute Inanition. 10. A. Vossius (Königsberg): Amyloid Degeneration of the Conjunctiva. 11. E. Ziegler (Tübingen): Recent Researches on the Doctrine of Descent, and their Bearing on Pathology. 12. C. Golgi (Pavia): On the so-called Bacillus Malariæ of Klebs, Tommasi-Crudeli, and Schiavuzzi. 13. N. Rogowitsch (Tübingen): Changes in the Hypophysis after Removal of the Thyroid. 14. A. Hanau (Zürich): Suppurative Inflammation of the Salivary Glands. 15. A. Hanau (Zürich): A case of Suppurative Prostatitis in Pyæmia. 16. H. Suchannek (Zürich): On a Bilateral Fœtal Eye Disease. 17. E. Welti (Zürich): On Causes of Death after Burns of the Skin. 18. L. Bloch (Zürich): The Structure of the Human Placenta.

Cosmic Evolution: being Speculations on the Origin of our Environment. By E. A. RIDSDALE, Associate of the Royal School of Mines. Pp. 130. London: H. K. Lewis. 1889.—In this little *brochure* the author endeavours to show that all bodies at present existent in the universe have, by gradual evolution or differentiation under a fixed law acting during varying conditions, been wrought from one primordial form of matter. This form, he thinks, originally existed at an exceedingly high temperature, and was endowed with far greater chemical activity than any of its numerous descendants. The evolution was attended with a gradual loss of heat, increase of density, and diminution of chemical activity. He suggests that the several planets were left behind in their orbits, during the sudden contractions of the primordial mass, as gaseous masses or rings; but if so, surely gold and hydrogen would not be found on the same planet.

All about Pasadena and its Vicinity, its Climate, Missions, Trails, and Cañons, Fruits, Flowers, and Game. By C. F. HOLDER. Pp. 141. Boston: Lee and Shepard. 1889.—This volume gives an account of Pasadena, a health-resort at the head of the San Gabriel Valley in Los Angeles County, South California. The information may be found useful by those who think of wintering, or of sending patients to winter, near the shores of the Pacific, but the author's description of its climate and the advantages to be derived from it must, we think, be taken with some amount of reservation. "It is not Paradise, as I have said; but a careful examination of the country year after year will certainly justify the statement that it possesses more in every way to make life pleasant and less to render it uncomfortable than any one spot that can be mentioned in this country or the available portions of Europe." Again, he says: "People rarely die here, so we are told; at least, they seem disposed to live on to prosperous ages. The author enjoyed the acquaintance of an old lady of San Gabriel who, it was said, was at least one hundred and seventeen years old ..... Another old lady, Señora Eulalia Perez de Guilen, died here in 1878 at the ripe old age of one hundred and forty years." We can hardly accept the "it is said" as satisfactory evidence of the ages stated. The equable temperature and the good accommodation for visitors in the hotels and large boarding-houses seem to render Pasadena an eligible winter health-resort.

The Royal Academy Pictures, 1889. London: Cassell and Co.—This tastily got-up thin quarto is issued as a supplement to the *Magazine of Art*, published by the same firm, and contains a selection of the pictures exhibited this year at Burlington House. The selection includes, among works of artists of established repute, some of real merit by men outside the charmed circle of the Academy, and these are by no means the least worthy of admiration. The volume cannot but add to the already high reputation of the enterprising publishers, and should command an extensive sale.

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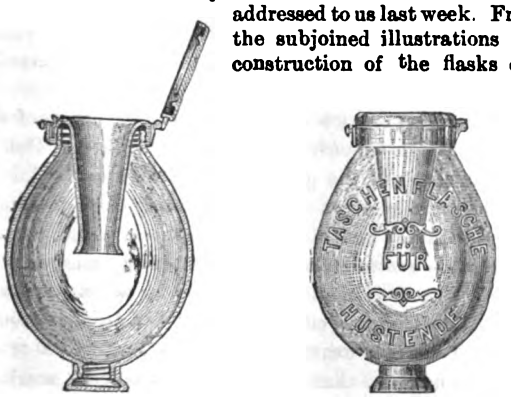
New Inventions.

BENNETT'S PATENT FLEXIBLE LEATHER BRUSH.

THIS simple contrivance is due to the ingenuity of Mr. F. J. Bennett, who is well known in connexion with the Geological Survey. It consists simply of a moderately stiff bristle brush of the ordinary type, about two inches broad and eight or nine inches long, set into a flexible leather back, which terminates in loops at either end, so that the whole brush is about two feet six inches long, and sufficiently flexible to fold on itself with a very moderate amount of pressure. Mr. Bennett advocates its use for dry-rubbing the skin as a means of cleansing which may be taken in addition to the ordinary bath, or as a substitute for bathing when baths are not to be got—a condition of things which many a traveller has experienced. The brush is also useful for producing mild and rapid counter-irritation, and its use is recommended for threatening lumbago and the milder catarrhal troubles to which all are liable. Liniments are often ordered more for the purpose of enforcing rubbing than for any special virtue in the liniment, and there is no doubt that Mr. Bennett's contrivance has great value, because every part of the body, such as the loins or the soles of the feet, can readily be reached by the individual himself quite as easily as with a rough towel. The flexible nature of the brush conduces to ease in packing, which is a great advantage. The brush is made by Mr. Ashdown, 35, Northbrook-street, Newbury.

DR. DETTWEILER'S POCKET FLASK FOR THE DISPOSAL OF SPUTA IN PHTHISIS.

WE have received from Messrs. Krohne and Sesemann one of the flasks mentioned by Dr. Hermann Weber in his letter addressed to us last week. From the subjoined illustrations the construction of the flasks can



readily be understood. Messrs. Krohne and Sesemann are the agents in this country for the sale of these flasks.

THE "PRESYSTOLIC" BRUIT.

To the Editors of THE LANCET.

SIRS,—Dr. Acland, in the second part of a clinical lecture published in your issue of July 27th, mentions me amongst those who have written in support of Dr. Barclay's explanation of the causation of the "presystolic" bruit as due to the reflux which must necessarily occur during the closure of a rigid mitral valve. I may, therefore, be permitted to point out the insufficiency of the argument which he adduces as controverting that interpretation of the clinical phenomenon. Dr. Acland is far from appreciating the basis of Dr. Barclay's view when he mentions as the chief argument relied upon by those who hold that view (1) that the force of the auricular systole could not produce so loud and harsh a sound as the typical "presystolic" bruit, and (2) that the absence of a break between this bruit and the systolic bruit, which so frequently accompanies it, is inconsistent with the supposition that the two portions of the continuous sound should have been produced by currents of blood going in opposite directions. These statements are, indeed, no argument in favour of Dr. Barclay's views, for (1) the fallacy of the former is proved by the fact that a prolonged mitral diastolic bruit commencing immediately after the second sound, and therefore, in part at least, caused by influx of blood into the ventricle unaided by any muscular contraction, may have the same harsh character as the short "presystolic" bruit by which it is continued up to the first sound; and (2) as regards the second statement, if it were true that continuity of a cardiac murmur is inconsistent with a reverse of the direction of the blood stream producing it, this would be fatal to Dr. Barclay's view, which implies a reversal of the direction of the blood passing through the mitral orifice between the diastolic part and short "presystolic" termination of the prolonged bruit often occupying the whole interval between the second sound and following first sound of the heart. The ventriculo-systolic explanation of the "presystolic" bruit rests (1) mainly upon the physical fact (α) that, with rigidity of the mitral curtains, there must be some, greater or less, *delay in closure* of the valve, and some *reflux of blood* in the process of closure; and (β) that this reflux, if of sufficient amount to produce a distinguishable sound, would necessarily produce a bruit with the precise characters of the "presystolic" bruit—a bruit of a rough harsh character, like the diastolic bruit often accompanying the "presystolic," because, like it, due to vibration of the rigid valvular curtains held out from the ventricular wall in the course of the blood stream, and dependent upon this position of the valvular curtains more than upon the force of the blood stream by which they are thrown into vibration, and continuous with a preceding direct diastolic bruit, like the note of a violin produced by the to and fro movement of the bow; a bruit "running up" to the snap of the valve made tense on closure, that sound being abnormally accentuated from closure taking place at a later period of ventricular systole, and a bruit differing in character from that of regurgitation after closure of an incompetent valve, owing to the arrest, partially or completely, of the vibration of the valvular curtains by contact of their edges, and the consequent predominance of the blowing sound of the fluid stream forced under high pressure through the chinks between the curtains when thus brought together. This view rests (2) upon evidence of the sufficiency of the duration of this mitral-closure reflux for the production of an audible bruit, afforded (α) by the occurrence of a "prediastolic" bruit of precisely similar character referable to semilunar-closure reflux, under conditions, in the elastic resilience of the arterial trunks, less favourable to prolongation of this interval of reflux than in the case of the muscular contraction of the ventricle; (β) by the clinical evidence of retardation of the cardiac action in states of quiescence in the subjects of mitral stenosis, in power-saving adaptation to the impediment to the passage of blood through the heart; and (3) lastly, by cardiographic tracings (by Galabin and Mahomed) which indicate an abnormally long interval between the auricular systole and apex beat.

Thus, according to the ventriculo-systolic explanation, the "presystolic" bruit is referred to an agency necessarily present, and producing valvular vibrations, which, if audible, would produce a bruit of that character, and of the sufficiency of which for the production of the bruit there is evidence in clinical observation. The weakness of the auriculo-systolic view is that there is no proof that the auricle is contracting at the time that the bruit is heard, or that the auricular and ventricular contractions do, or could, occur in such a way as to produce a bruit of the precise characters of the "presystolic" bruit—i.e., an auricular systole causing an influx of blood into the ventricle, increasing in force and volume to within an inappreciable interval from the first sound, and followed by a ventricular contraction so rapid as to arrest the auriculo-ventricular influx at its maximum, and close and make tense the rigid mitral curtains, in an inappreciable space of time. Until it is proved that a bruit of this character could be produced by the auricular systole, under some possible modifications of the auricular and ventricular contractions, the conviction of those who recognise the sufficiency for the production of this bruit of the reflux unavoidably occurring in the closure of a rigid mitral valve, cannot, I think, be affected by arguments in support of auriculo-systolic hypothesis as to its causation.

I am, Sirs, yours faithfully,

Finsbury-square, Aug. 6th, 1889. F. CHARLEWOOD TURNER.

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THE LANCET.

LONDON: SATURDAY, AUGUST 17, 1889.

PROBABLY no previous case of alleged homicidal poisoning produced a greater sensation in professional and general circles than the one the subject of this notice has caused. The social and moral surroundings of the case have invested it with a glamour of extraordinary interest. Until the present we have deferred a lengthy comment, in order to obtain sufficient opportunity to consider and carefully weigh the evidence tendered at the trial, and compare the leading points raised by the prosecution and defence with the known facts of arsenical poisoning in general. It is chiefly our purpose to discuss the medical testimony, but we should be failing in our duty if we neglected to review the other incidents that together represent an engrossing forensic history.

We need hardly reiterate that two problems were left to the Liverpool jury to solve. (1) Did the late Mr. MAYBRICK succumb to the lethal effects of arsenic? and (2) that being proved, was the poison administered by his wife? To say the least, there was a powerful motive to crime, but then such motive would be inoperative unless it presented itself to a person willing and ready to seize the opportunity of perpetrating murder with malice aforethought, or to one unable from moral and intellectual weakness to resist the impulse to commit a criminal act. Taken by itself, such incentive must be received with the utmost caution, for, as Mr. Justice STEPHENS said, the greater the guilt suspected the greater is the presumption of innocence.

Now, it may be accepted without reserve that Mr. MAYBRICK was a confirmed hypochondriac, and that he had for years been in the habit of resorting to the use of drugs. Nay, further, it must be admitted that on two occasions at least he had taken arsenic medicinally: once in America, when he suffered from malarial disease; and later in this country, when he procured it from a chemist in the form of a "pick-me-up' draught. Whether he habituated himself to "arsenic eating" is matter of conjecture. Mrs. MAYBRICK more than once complained of the deceased taking powders which she appeared to think might be detrimental to his health. She did this in writing to a brother o Mr. MAYBRICK many months ago, and again verbally to the family doctor. The conclusion to be drawn from these facts is not clear. On the one hand, these complaints might be supposed to point to circumstances antecedent to, and possibly causative of, his fatal illness; and, on the other, they might equally be considered as of little value as regards the question—How did Mr. MAYBRICK come by his death?

The first issue the jury had to try was this—Was Mr. MAYBRICK'S death attributable to arsenical poisoning? Clearly on this head they had to be guided by the medical evidence, which was undoubtedly most conflicting, strange as it may appear, when it is considered that the inquiry related to a poison of definite chemical composition, of frequent employment in the past as a means to compass death, one that can with the greatest precision be detected and the amount determined by analysis, and, lastly, the symptoms which it causes being as a rule pronounced. For the prosecution it was contended that the symptoms Mr. MAYBRICK evinced were consistent with the theory of arsenical poisoning; that the post-mortem appearances were in accordance with the symptoms; and that the results of the analysis of the viscera were corroborative of the same. By the defence it was argued that certain symptoms usual in arsenical poisoning were not present; that some of those which existed were not marked with accustomed severity; and that the absence of arsenic from the stomach and vomit post mortem, and the small quantity found in the liver, supported the hypothesis that death was due to gastro-enteritis not caused by administration of the mineral. Much stress was laid upon the absence of conjunctival itching and injection. These symptoms are present without doubt as a rule, but we cannot agree that they are necessarily so, judging by the known fact that the other symptoms of poisoning by arsenic are subject to marked variation as to existence, time of onset, duration, and severity: e.g., as regards diarrhœa, in twenty-three cases collected for analysis it was *known* to have been absent in four (GUY and FERRIER); and again, "The pain in the abdomen and vomiting are occasionally not urgent, except towards the close of life, and in rare cases have been absent" (WHARTON and STILLÉ). Moreover, the arsenic, though acting primarily and mainly as an irritant, may cause other groups of symptoms—e.g., they may be chiefly those of collapse, or, again, of coma; and not only do the symptoms of each group vary amongst themselves, but those of one group may take the place of, supersede, or mask the symptoms of another group.

In Mr. MAYBRICK'S case the proximate cause of death was clearly gastro-enteritis and irritative fever. But what was the cause of the gastro-enteritis? In our opinion the defence were in error when they endeavoured to establish as two distinct and alternate hypotheses *quoad* the cause of death—gastro-enteritis and arsenical poisoning; for arsenic poisons primarily and chiefly by setting up gastro-enteritis. There is one fact mentioned in the account of the post-mortem examination that seems to us of some weight—namely, that the enteritis was very marked in places, whilst in others it was absent or less pronounced. This is more in accordance with the theory of inflammation from an irritant cause, rather than from exposure to wet and cold. The localisation of the congestion in parts distant from one another would be explained by supposing that it was produced by the process of elimination of the poison by the intestinal glands in the lower part of the small intestine and in the rectum, whilst the duodenal injection would chiefly be due to the direct action of the poison in the same way as the stomach. Except as the result of an extensive irritant, or previous organic disease, such as cancer or ulcer, fatal gastritis must be extremely rare, and, indeed, we are of opinion that the above-mentioned causes should be excluded before the assumption of so-called idiopathic gastritis as a sole cause of death should be entertained. Irritant food and drink were suggested, but no facts were elicited to support the assumption. No other person in the house or at the office

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suffered in a similar way, and analyses of commercial samples, specially procured for the purpose, of the artificial food taken by Mr. MAYBRICK, gave negative results. Turning now to the results of the chemical analysis of the viscera &c., we find nothing inconsistent with the theory of arsenical poisoning in Mr. MAYBRICK's case. The total amount existing in the body post mortem was calculated at something under two grains, or in itself nearly a fatal dose; but this would probably be—especially considering that the stomach and its contents contained no arsenic—only a fractional amount of what was taken, seeing how rapidly the poison is eliminated. As proof of this assertion we quote the following statements, made at a trial, by Professor G. F. BARKER of Yale College: "It (arsenic) has been detected in the urine within one hour after it has been taken. The liver acquires its maximum quantity, in the opinion of several authorities, in from fifteen to eighteen hours after administration." "It is eliminated from the liver, and may entirely disappear in from eight to fifteen days after being taken; depending on the quantity and other circumstances." "It is not a cumulative poison." "Persons have died from the *primary* effects of arsenic in eight days, and no trace of the poison has been found in the body on analysis." Finally, on this head we must subscribe to Dr. STEVENSON's testimony of opinion. He is *facile princeps* amongst contemporary toxicologists, a man of unrivalled experience in this special department of medical science, of world-wide reputation.

Having thus arrived at the conclusion that the deceased fell a victim to arsenical poisoning, there remains for consideration the questions, Was the arsenic administered by design or taken by accident? and if by design, Was it taken by Mr. MAYBRICK himself or at the hands of his wife? The circumstantial evidence is too strong to seriously entertain the theory of accident. Mrs. MAYBRICK'S counsel adduced the following points in evidence: (1) It was shown that Mr. MAYBRICK had on more than one occasion taken arsenic as a medicine; (2) that Mrs. MAYBRICK had more than once complained of her husband dosing himself with remedies, and had particularised "a white powder" both in her letter to Mr. MICHAEL MAYBRICK, and in her explanation to the Court at Liverpool as to the manner in which the arsenic found its way into the Valentine meat extract. The symptoms of which Mr. MAYBRICK complained prior to the onset of his last illness were not such as to arouse a suspicion that he was then subject to the habit of arsenic eating; at least, on their own showing, the defence could scarcely advance such a proposition, for one of the main points on which they depended in proof of Mr. MAYBRICK'S not dying from arsenic was the absence of conjunctival irritation, and no mention was made of the existence of this symptom at any one time. Now it seems to us that this offers a direct negative to the theory of the self-administration of arsenic, at least with suicidal intent; for a man bent on such a purpose would not subject himself to protracted torture when a single dose would effect the desired end. This aspect of the question, it is true, was not presented by the defence, but we put it forward in order, by way of exclusion, to arrive at a final decision as regards the motive, means, and act that were subservient factors in the deplorable issue. Had Mr. MAYBRICK'S symptoms in the first instance been caused by the self-administration of arsenic on rational grounds, would he not have suspected that possibly his own act was in fault rather than the prescience of the doctors, which he seems to have complained of? Moreover, there is no testimony that he did not give himself up in every way to the care and directions of those whose lot it was to treat his serious illness. Look at it from whatever point we may, we are bound to face the assumption—nay, even accept it—that Mr. MAYBRICK was not cognisant of what was destroying his life. What, then, apart from motive, are the facts that tend to link Mrs. MAYBRICK'S name with the administration of the poison to her husband? Somewhere between April 15th and 25th, probably about the 20th, Mrs. MAYBRICK—openly it is true—purchased twelve fly-papers from a chemist, ostensibly because "the flies were getting troublesome in the kitchen." This reason may at once be discarded, since (1) the defence did not suggest it; (2) because at that period of the year the flies were not likely to be troublesome; (3) inasmuch as Mrs. MAYBRICK'S cook deposed to the fact that the flies were not troublesome. Mrs. MAYBRICK'S reason for her purchase as given to the chemist was obviously false, and yet for all that it did not follow that she obtained them for a criminal purpose. If she really bought them for cosmetic purposes she may have lied to shield herself against the charge of vanity. It is evident, moreover, that these papers were not put to the use for which they were intended, for they were found in a basin in Mrs. MAYBRICK'S room, soaking in water and covered by a towel—just what might be reasonably imagined if they were destined to yield a face wash. Mr. MAYBRICK'S illness dated from April 27th, when he attended the Wirrall races. On the evening of that day he complained of numbness, sickness, and pain, which he attributed, and perhaps not without some show of reason, to an overdose of medicine prescribed by Mr. FULLER of London, and dispensed by a chemist. Read by the light of the subsequent analysis—which showed that a bottle of such medicine obtained at his residence contained arsenic, whilst another bottle found at his office was free from the poison, although, as sworn, neither bottle originally contained the poison, nor was it prescribed—is there any doubt that the arsenic was introduced subsequently to the delivery of the medicine by the chemist? Here, too, had Mr. MAYBRICK intended clandestinely to administer arsenic to himself, would he not have chosen to put it in the bottle at his office rather than the one at his residence? On April 28th Dr. HUMPHREYS was called in, Mr. MAYBRICK being again sick. On April 29th he was better, having apparently recovered from the initial attack of April 27th. On this same date (the 29th) Mrs. MAYBRICK purchased twenty-four more fly-papers from another chemist—an ominous fact as it seems to us, since not more than from about ten to fifteen days previously she made her first known purchase of twelve of these papers. On April 30th Mr. MAYBRICK went to business, as also on May 1st and 2nd. On May 1st some Du Barry's revalenta food, which passed through Mrs. MAYBRICK'S hands, was sent to his office in a jug. Subsequently arsenic was found in some substance adhering to the rim of the jug, although the latter had been washed. On May 2nd some beef-tea

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was sent to his office, and he was ill after taking it. On May 3rd—a notable date—he was subject to vomiting, retching, and pain. On May 4th the sickness was so severe that he could retain nothing. On May 5th he still vomited, and complained of pain in the throat—henceforth till shortly before his death an abiding and prominent symptom. On May 7th Dr. CARTER saw the patient, who complained to him of "vomiting and diarrhœa for several days." On May 9th there were tenesmus and diarrhœa. On May 10th Dr. CARTER detected arsenic in the Valentine meat juice, which the nurse had seen Mrs. MAYBRICK take into an adjoining room and then replace it in the sick chamber. Mrs. MAYBRICK'S explanation of this was that she put a powder into the meat juice at the direction of her husband, and that, having spilled some of the extract, she filled up the bottle with water—quite possibly an innocent act, but certainly one calculated to arouse suspicion, as judged by other events which succeeded. On May 11th, Mr. MAYBRICK died, and on that same day, in a linen chest, there was found a box which contained a bottle, some arsenic mixed with a dark powder, and also a handkerchief on which there was some arsenic. On the following day, May 12th, two hat boxes were discovered. In box A was a wooden box enclosing three bottles. The first of these bottles contained from twelve to fifteen grains of solid arsenic, and some charcoal; in the second was a saturated solution of arsenic, with a little solid arsenic, which had apparently separated from solution; in the third bottle there was arsenic in solution, and in the solid state. In box B was a tumbler, and in this a handkerchief containing twenty grains of arsenic. On a dressing-gown and on a handkerchief in the pocket were stains impregnated with arsenic. To all of these articles Mrs. MAYBRICK had access, and considering that she alone in the house was proved to have recently purchased arsenic—to the extent of seventy grains or more—one can scarcely convict the jury of having added "insufficient motive to insufficient facts."

We can have no desire that the Royal prerogative of mercy should not be exercised in this case, but as a duty to the living relatives of the deceased, to a painstaking, fearless, and honest jury, and to one of the greatest ornaments of the English Bench, we solemnly assert as our unbiased opinion that the verdict arrived at in Mrs. MAYBRICK'S trial was warranted by the evidence.

FROM statements made in the *Gaulois*, it would appear that continental experience leads to two very opposite opinions as to the effects of solitary confinement on the minds of prisoners subjected to the influence of its operation. From the results at Mazas, the conclusion is that solitary confinement in French prisons leads to derangement of the intellect, and more especially to melancholic depression with suicidal tendency in prisoners who were previously of good health and constitution, and who inherited no predisposition to insanity. As many as thirty-two suicides in fourteen years are stated to have taken place at Mazas, "in spite of every precaution." We are not able to judge of the nature of the precautions taken, but they do not appear to have carried with them the merit of success; and precautions against suicide are clearly more in the hands of officials than are precautions against those occult atmospheric and insanitary influences by which deaths are caused in individual cases. Belgian experience, on the other hand, seems to lead to the impression that the "solitary" prisoner gradually comes to look upon his cell as "home," and frequently takes to ornamenting it with coloured pictures in a way in which Dr. VOISIN, the Belgian authority, recognises no symptom of imbecility. Some Spartan philosophers would, we doubt not, see more greatness or at least strength of mind in the man who commits suicide under such circumstances; and they would be apt to regard the pictorial ornamentation of the miniature "home" (if the word can be used without irony in this relation) as a token rather of mental imbecility. But, be this as it may, closer inspection of the details points to a more rigid adherence to the *solitary* principle among the French than among the Belgians. The daily visits of a variety of officials among the latter serve to break the painful monotony of an entirely solitary prison life, and they establish practically what in England is called "separate confinement."

In our convict prisons separate confinement has now been carried out upon a systematic basis for about fifty years. The term at first was eighteen months; but upon "facts" of a somewhat ambiguous or imaginary nature, the public mind became apprehensive of prejudicial results upon the minds of the convicts. The timidity of the prison officials during this experimental period was recognised by the convicts themselves, and they feigned insanity, and made capital out of extemporised convulsions with such success that the period of separate confinement was reduced to nine months in the case of convicts undergoing penal servitude. Under different circumstances, prisoners undergoing shorter terms of imprisonment in local prisons have a period of two years' separate confinement. In a Memorandum on Separate Confinement in the Appendix to the Report of the Directors of Convict Prisons for 1887-88,[1] Dr. GOVER, the Medical Inspector of Prisons, demonstrates the fallacy of the public and official belief that solitary confinement in a convict prison for eighteen months had been proved to act detrimentally on the minds of prisoners. He states, and there is no better authority on the subject in this country, that "experience shows that separate confinement under present conditions is not injurious to the mental or bodily health, and that the present limits of nine months and two years in convict prisons and local prisons respectively, are arbitrary and fanciful." Again, he says, "The conditions under which the prisoner is placed are such as to warrant the assumption that separate confinement is favourable to bodily and mental health; and facts are in accordance with such an assumption, as would be evident to anyone who might inspect the whole prison population of England and Wales, and who would carefully compare the condition of prisoners on the point of completing terms of imprisonment for twelve months or two years with that of prisoners undergoing shorter sentences, or of those just admitted, and those waiting for trial..... The fact that separate confinement in a modern English prison for two years not only does not injuriously affect the mental and bodily health, but is frequently attended with benefit, affords very strong presumption that it may be continued with perfect safety for much longer periods."

[1] See THE LANCET, Dec. 8th, 1888, p. 1141.

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Carrying his experience and opinion to their legitimate conclusion, Dr. GOVER does not hesitate to recommend the substitution of a limit of three years for the existing limits in convict and local prisons; the longer term permitting desirable modifications (in the way of industrial occupation as cooks, bakers, cleaners, &c., prior to release), without interference with the discipline of the prison, or any sacrifice of the principle of separate confinement. This suggestion of Dr. GOVER will have to be borne in mind in connexion with any proposed change of the law dealing with the various terms of imprisonment to be awarded to convicted offenders.

It is clearly impossible to arrive at any just or satisfactory comparison of the effects of solitary or separate confinement or, indeed, of any system of imprisonment in different countries without an equation being in the first place worked out as to the influence of the various factors which contribute, either as cause or effect, to the construction of a problem of much social and psychological interest. The following are the chief factors whose influence and bearing would have to be estimated:—1. The general national characteristics. 2. The personal idiosyncrasies of the prisoners—cast of mind, temperament, disposition—with considerations as to hereditary influences and congenital peculiarities. 3. The previous life history of the individual prisoner—as to social status, home culture, education, occupation, previous convictions, &c. 4. The discipline and treatment involved in the imprisonment. 5. The dietary in relation to physiological requirements. A comparison of the effects of penal legislation in different countries implies the existence of information on all these points; and it is not too much to hope that, in these days of international congresses, the necessary facts and statistics may be collected with a view to completing our knowledge on a most important branch of social science.

THE state of the ancient town of Rochester has long been a source of anxiety to those acquainted with its more hidden parts, and in January, 1887, we published the report of a special commission which we appointed to investigate its sanitary circumstances. We then pointed out how, for want of sewerage, the soil on which Rochester stands was in large part a sewage-laden soil; we recalled the fact that Dr. DE CHAUMONT had, at the beginning of the late European cholera epidemic, visited the town on the part of the Local Government Board, and had declared its sanitary administration to be "unsatisfactory and inefficient"; and we concluded our account of the city by expressing a hope that the "sad story" which our Commissioners had been bound to set forth might awaken a wider interest in matters which so deeply concerned its population.

This year the Local Government Board have again taken up the matter, and Mr. SPEAR has recently prepared a report on the general sanitary condition and administration of the district. From this report we gather that Rochester is still without any regular sewerage. The only semblance of drainage consists of overflows from cesspools and privy pits and a few slop drains, which empty into highway rain-water drains, or on to the river banks in small creeks, &c. But even this mischievous arrangement is only partial, for cesspools and privies with "uncontrolled leakage" generally abound; indeed, the cesspools are regarded as failing in their purpose if their contents do not get away into the soil. When they do fill up, a supplementary one is at times contrived, by means of an old disused well or otherwise. And this condition of things is made worse by reason of the confined and close back yards and courts which our Commissioners described, and which evidently remain—the houses being thickly aggregated on a soil with "accumulation of enormous quantities of sewage beneath their surface," the effluvia constantly contaminating the air breathed by the unfortunate inhabitants of these localities. But even as regards newer property, Mr. SPEAR says that the condition of things in the matter of excrement disposal is scarcely more satisfactory; and he instances, in this connexion, the state of the village of Borstal, where outbreaks of enteric fever have occurred during the past four years.

In 1887 we referred to the prevailing neglect as to filth removal, which until June, 1888, was left to owners and occupiers. And though change has taken place as to this, we regret to state that it was only under compulsion, the Local Government Board having been at last compelled to issue an Order under Section 42 of the Public Health Act. And even now there is evidently no disposition to do the work with the frequency needed in the interests of health, the task being postponed until the process of emptying is "imperatively called for by threatened overflow." Indeed, as we stated in 1887, so says Mr. SPEAR in 1889, there is only one real remedy for the state of affairs exhibited and maintained in Rochester, and that is the proper sewering of the district and the abandonment of the cesspool system. Some preliminary efforts have, it is true, been made to secure the co-operation of Chatham and Gillingham in this matter; but though these have failed, Mr. SPEAR distinctly says that no sufficient reasons have been adduced why Rochester should delay the execution of its own proper plans.

As we explained in 1887, a public water-supply is available for Rochester; but notwithstanding the fact that the chalk is made the receptacle for so large an amount of filth, there are still in Rochester some 125 local wells. How far the sanitary authority are hindered in closing these by reason of negative evidence obtained on the chemical analysis of single samples of water is by no means clear, but they have closed fifty-three wells since 1885, and this on positive chemical evidence that their contents were polluted.

One other point was referred to by our Commissioners. It was to the effect that for many of the defects of housing which had come under notice, the Artisans and Labourers' Dwellings Act, 1868, alone afforded sufficient remedy, and that there was no reason why the provisions of this Act should not be duly enforced. Mr. SPEAR, in now reporting on the medical sanitary administration of Rochester, points out that no formal representations have yet been made to the authority under the Act, nor, indeed, any of importance as to houses unfit for habitation.

In conclusion, we would remark that a day of reckoning can hardly fail to be in store for Rochester and its inhabitants. We have distinctly appealed to the latter to make such exhibition of public feeling as must necessarily have its influence on the action and composition of the sanitary authority. But, so far as we can learn, matters remain much the same as in 1887, and this although the

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Public Health Act enables even a single person to make definite complaint as to default in such matters as the want of sewerage, as would of itself necessitate formal inquiry by the central authority into the alleged default, and, if need be, the adoption of compulsory measures. How far the intervention of the County Council can be expected to make up for this dangerous state of apathy remains to be seen.

Annotations.

"Ne quid nimis."

SIR GUYER HUNTER AND THE COUNCIL OF INDIA BILL.

SIR GUYER HUNTER deserves the thanks of the people of India for taking advantage of the Council of India Bill, now before Parliament, to press the appointment of a medical man on the Council. The questions of sanitation and vital statistics which arise in connexion with Indian government are of the first importance, affecting not India alone or England alone, but Europe and Asia too. It is amazing that such an appointment has never been made since the creation of the Council of India in 1858, though the medical services abound in men who would add the strength of armies to the Council. We thank Sir Guyer Hunter in the name of the profession, and heartily wish his proposal success.

THE NOTIFICATION OF INFECTIOUS DISEASES BILL.

IT was neither to be expected nor desired that so significant a measure as the Notification of Infectious Diseases Bill should pass without criticism. We publish to-day a letter from Dr. W. J. Collins, which expresses in a very able way the best objections that can be made to the Bill. He follows the line taken in *The Times* by Mr. Crofts, secretary to the Liberty and Property Defence League. Mr. Crofts says the measure will tell most hardly on the poor, especially the small tradesmen and the working man. The small shopkeeper, Mr. Crofts thinks, will be under terrible temptation to keep infectious diseases to himself, and to avoid calling in the doctor. The Bill is simply the latest "instrument of coercion devised by medical officers of health and their confederates in Parliament." Dr. Collins' criticism is wider, and deals with certain medical points which no doubt deserve consideration, and which Dr. Collins thinks have not received the amount of attention they deserve. Medicine, he reminds us, is not an exact science. Diagnosis is not always easy; sometimes it is impossible. Then who shall decide what diseases are infectious? A Lumleian lecturer has, he says, been endeavouring all his life to get proof of the infectiousness of scarlet fever, and has failed to find it, but has obtained some evidence to the contrary. Then questions of humanity arise, and it will be asked whether the well should not make way for the sick, rather than the sick be removed to save those who are well. Finally, "medical men will not be willing to risk their friendly relations with patients for thirty pieces of—copper"; though, by the way, we are sorry to see that one of our medical contemporaries is quoted by another writer opposed to notification as saying that a numerous section of the profession will notify to earn the fee of half-a-crown, unless they can earn sixpence more to pretend not to recognise an infectious case, in which event they will be slow to recognise what is wrong with the patient. Against our contemporary's estimate of the influence of an extra sixpence, or of a whole half-crown, in influencing the conduct or the diagnosis of any number of medical men, we enter our emphatic protest. Though Dr. Collins' points are much more entitled to consideration, they do not alter our view that the State has a right, in the interests of the many, to insist on notification. No medical man need be inexact in this matter. If he is not clear in his own mind, he is not required to take action till he is so. The cases of difficult diagnosis are the exception, and one of the advantages of delay in legislation, of which there is a good prospect, is that it will give the profession time to demand some protection not afforded in the Bill against punishment or troublesome proceedings for honest mistakes. Dr. John Harley's opinion on the non-infectiousness of scarlet fever has happily not yet infected anybody else that we know. That notification does not work uniformly well may be admitted. Does anything human do so? Does the lifeboat or the fire brigade always save life? Do they not sometimes involve the loss even of more life? The highest note in Dr. Collins' letter is that notification, involving isolation and possibly removal of the sick, is not a magnanimous policy. Fear of infection, he would have us believe, is a low motive. But suppose that it is to the interest of the sick themselves to remove them? This is the general opinion of the sick and the friends of the sick, as is proved by the wide acceptance of the Metropolitan Asylums Hospitals for infectious cases. It is not a low motive for a parent with a case of scarlet fever or diphtheria in the house to regard the safety of his other children, and on this ground to accept public accommodation and advantages which would otherwise be unreasonable. There is infinite pitifulness in the multiplication of disease in straitened homes, and the notification system will save more shopkeepers than it will ruin. The case of puerperal fever is a more difficult question. It does not tend to spread in a household, and it is much less easily defined than the other diseases mentioned. The medical members of the House should seek to delete this from the list of notifiable diseases. With this omission and the acceptance of the single notification, we cannot see any sound argument against the Notification Bill, though we are not altogether sorry to see indications that it will not be passed this session.

THE COLLEGE OF SURGEONS' LIBRARY.

THE August number of the *Library* contains an interesting account of the origin and growth of the College of Surgeons' Library, by Mr. J. B. Bailey. From the time of their separation from the Barbers in 1745 the Surgeons' Corporation showed no great appetite for professional literature till the year 1800. The ancient manuscripts of their craft had remained in the hands of the Barbers' Company, and had by them been sold to Mr. Whiston, the bookseller. Hardly any attempt had been made to fill their place. In 1800, however, stimulated by a new charter, a change of residence, and the possession of Hunter's Museum, the College authorities remembered their need and voted £50 towards the formation of a book-room. For a time the new project advanced slowly. There was no librarian, and the books were difficult of access. The period 1827–29 was a memorable one. In it no less than £5269 was expended on books, and in 1829 the first librarian, Dr. Willis, was appointed. In 1833 there arose a governing committee. In 1835–36, when the College was practically rebuilt, the library was not forgotten, and the 18,000 volumes which it contained were provided for by building the present reading-room and the librarian's room. Successive additions have since been made which afford house room for 40,000 volumes. The first catalogue, one of authors only, was issued in 1831. This was enlarged by four supplements between 1840 and 1860. Since the latter date no printed index has appeared, but a complete list of all books in the library, with author and subjects, arranged in a common alphabetical order, is now in course of pre-

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paration by Mr. Bailey himself. The library includes, besides the more recent works, such literary curiosities as the first edition of Celsus (1478), the first of Hippocrates (1500), of Galen (1526), the rare Aselli "De Lactibus," with coloured woodcuts (1627), and others. It may safely be said, therefore, that if the College of Surgeons during the latter half of the last century appeared as a very Philistine in its disregard of books, it has in our own era proved itself as true a believer in their value.

CERTIFICATES OF DEATH.

So much has been written and said recently as to the giving and refusal of certificates of the cause of death that it is desirable, in the interests both of medical practitioners and the public, to examine the question closely in all its bearings. Many practitioners are under the impression that they have no option in the matter, that they are bound to give a certificate in the case of every person whom they have attended in his or her last illness, and the wording of the Act which relates to this (37 and 38 Victoria, 1874, chap. 88, sec. 20, sub-sec. 2) would imply such construction. It runs thus: "In case of the death of any person who has been attended during his last illness by a registered medical practitioner, that practitioner shall sign and give to some person required by this Act to give information concerning the death, a certificate stating to the best of his knowledge and belief the cause of death, and such person shall, upon giving information concerning the death, or giving notice of the death, deliver that certificate to the registrar, and the cause of death as stated in that certificate shall be entered in the register, together with the name of the certifying medical practitioner." It would appear, reading the above according to the plain meaning of English words, that not only *must* the medical practitioner give a certificate, but also that the registrar *must* enter the cause of death in the register as it is given in the certificate. But it is well known that registrars are under no such compulsion. On the contrary, their instructions are to refer every doubtful certificate to the coroner. It is extremely unfortunate that the subsection of Clause 20, quoted above, was drawn up in its present form. Ever since the original Act (of which this is an amendment) was passed in 1837, it has been generally understood that the mere giving of a certificate implied that the death was a natural one, and that all was regular; while, on the other hand, the refusal of a certificate was understood to indicate that it was a case for further inquiry. This feeling still prevails, for recently one coroner's jury censured a medical practitioner for not giving a certificate in a case which proved to be one of death from natural causes; while in another case the medical attendant was severely censured for giving certificates stating natural causes of death in what subsequently proved to be clear cases of arsenical poisoning. In the Maybrick case the coroner's inquest was held in consequence of no certificate of the cause of death being forthcoming. It would be easy to give examples of casés where a certificate either could not be given at all, or only at the risk of causing great mischief or unnecessary delay to an inquiry. Fortunately there is an escape from the difficulty, since one clause of an Act of Parliament must be read with the other clauses. And the penalty clause of this Act (39) runs thus: "And every person who refuses or fails, *without reasonable excuse*, to give or send any certificate in accordance with the provisions of the said Acts shall be liable," &c. The fact that the death arose from injury, or was sudden, or accompanied by other circumstances demanding inquiry, would, it is certain, be deemed reasonable excuse for refusing a certificate; hence timid practitioners may take courage, provided they do not pass beyond the bounds of reason. It must also be observed that the Act distinctly refers to cases attended by a medical practitioner during the "last illness." Hence it should not be considered as applying to cases where a practitioner has been hastily called in within a few hours of the death. The powers wielded by the profession in giving or withholding certificates of death are enormous for good or evil, and must not be weakened on the one hand or abused on the other.

MESMERIC OR HYSTERICAL ANÆSTHESIA.

THE famous experiments performed many years ago by Dr. Esdaile, in which that well-known surgeon operated on Hindoos during what was called mesmeric sleep, are now being repeated, and with, it is said, a successful result. The latest news we have of an operation under the mesmeric trance is from Paris, where, in the Hôtel Dieu, a young woman is stated to have been subjected by Dr. Mesnet to a painful cutting operation "of the class called dangerous and requiring great delicacy of manipulation," she being at the time "wholly insensible to pain, showing no sign of suffering, and awakening," not from an anæsthetic of the ordinary kind, but from a mesmeric sleep, "wholly oblivious to what had taken place." We want the full particulars of this operation before any satisfactory expression can be offered in respect to it; but we may say at once that similar results have often been reported with little after effect in the advancement of the supposed practice of anæsthesia by mesmerism. The phenomena are exceptional. They are usually observed in persons of hysterical type, and, offering, for the moment, the greatest hopes, are quashed quickly by the miserable failures with which they are attended so soon as the mesmeric plan is applied to patients at large. The fact is that anæsthesia differs according to constitution, not largely, but in some instances exceptionally, to a degree little understood by the public generally. There is a form of hysterical anæsthesia just as there is of hysterical hyperæsthesia, and when the representatives of the first class come under the hands of the mesmerist they are such perfect specimens for his suasion that they give him the most triumphant returns. These cases call for a special study in regard to anæsthesia, since until they are elucidated there can be no sound progress. We would give an earnest warning on this matter of mesmeric hypnotism, assuring our readers that they must not expect more from it than exceptional results, and these due, not to true anæsthesia, but to individual peculiarity.

ACTION AGAINST MR. J. G. LOCK OF TENBY.

AT the Glamorganshire Assizes, at Swansea, before Mr. Justice Field and a special jury, Benjamin Griffiths, livery-stable keeper, Tenby, sued Mr. Lock, practising at Tenby, for £2000 damages for slander and false imprisonment. The slander consisted in a statement that the plaintiff was insane and should be placed under proper control. Mr. Lock has practised in Tenby for twenty years, and used to attend the family of the plaintiff till 1884, when the latter became jealous and suspicious of Mr. Lock, and objected to his professional attendance on his wife, charging him with undue familiarities &c. This feeling took an insane form. The plaintiff, amongst other delusions, described a closet in his garden, which adjoined Mr. Lock's garden, and in the floor of this closet a hole through which a man's hand appeared, which he believed to be Mr. Lock's hand, with a letter in it, though his own witnesses thought it impossible for a man's hand to be passed through the hole. Police-sergeant Carr testified to being called to the plaintiff's house several times by the neighbours on account of disturbances, and that the plaintiff's own brother requested him to lock him up. He threatened repeatedly to shoot Mr. Lock. On all essential points the witnesses on both sides were

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agreed. Mr. Lock swore that there was absolutely no foundation for Griffiths' statements about familiarities with his wife, her having a miscarriage, &c. Dr. Hearder, superintendent of the Joint Counties Asylum at Carmarthen, then produced his notes on the first examination of the plaintiff, which showed him to be suffering from mania, delusions, &c., and dangerous to his wife, Mr. Lock, and others. Thereupon the foreman of the jury handed up a paper to the judge, intimating that they did not desire to hear any further evidence for the defence. His lordship intimated that the jury had found the plaintiff was a person of unsound mind who should have been under proper control. His lordship further expressed his inability to understand how anyone who had heard the trial could arrive at any other opinion. It is hardly necessary to congratulate Mr. Lock on a conclusion so natural and obvious. We would rather condole with him at the annoyance which he has had to bear, extending over years, and culminating in this trial. Considering the number of patients "cranky" and on the "borderland," as one of the plaintiff's witnesses expressed it, it is perhaps inevitable that medical men should occasionally be the victims of such an ordeal.

ESTIMATION OF OXYGEN DISSOLVED IN WATER.

SIR HENRY ROSCOE and Mr. LUNT have made an important communication to the Chemical Society on Schützenberger's process for the estimation of oxygen dissolved in water. They find that a series of estimations made on the same sample of London tap water gives results which differ 35 per cent. from the mean value, and that the time taken in titrating has a great influence, much higher results being obtained if titration be quickly than if it be slowly performed. The disturbing influence has been traced to the fact that when aerated water is introduced into an atmosphere of hydrogen, as in the usual process, it immediately begins to lose oxygen by diffusion, a fact hitherto overlooked. The result of an oxygen estimation thus depends on the degree of exposure to hydrogen during titration, and results between 0·53 and 7·56 were obtained with the same water by varying the exposure. Under favourable circumstances 20 per cent. of the dissolved oxygen diffuses, whilst in the usual form of the apparatus 50 per cent. of the oxygen diffuses during the estimation. An exposure of three minutes is sufficient to permit all the dissolved oxygen to escape. This explains the return of the blue colour during an estimation carried out in the usual manner, the *diffused* oxygen becoming reabsorbed by the reduced indigo-carmine. No return of the blue colour takes place on reducing indigo-carmine when free oxygen is absent, and the action has been proved to be due to the supernatant gas, and not to any action occurring within the liquid, as Schützenberger supposed. Diffusion also explains the observation made by Schützenberger, that twice the quantity of oxygen is found when a large amount of reduced indigo-carmine is present. In that case the dissolved oxygen is at once acted on, and so cannot diffuse. Ramsay and Williams, who have investigated the process, do not obtain twice the amount, but only an increase in the ratio 3 : 5. Diffusion also explains this observation, a smaller vessel having been used in their experiments; a larger proportion of the oxygen was found in the usual process—in other words, three-fifths of the whole. The method adopted to eliminate this error, due to diffusion, is to run the aerated water beneath the surface of a liquid containing a measured excess of hyposulphite, and a little reduced indigo-carmine as an indicator. In this way the dissolved oxygen is immediately acted on by the hyposulphite, and its diffusion prevented. For the standardisation of the hyposulphite, the two methods hitherto used were found inaccurate, the copper method being fundamentally wrong, owing to a secondary action which occurs between sulphite and dissolved oxygen; the aerated distilled water method, hitherto used with Bunsen's absorption coefficients, the authors show to be inaccurate, giving the values obtained by them, which agree closely with observations made by Dittmar. The new method of carrying out the process, and the corrected values for the oxygen dissolved by distilled water, give results for which perfect accuracy cannot be guaranteed, but which are not far removed from the truth, and certainly valuable. The reaction is much disturbed by the presence of free acid or alkali.

A MEDICO-LEGAL SOCIETY.

IN New York there is a Medico-Legal Society, presided over by Mr. Clark Bell, in which the professions of law and medicine are equally represented, and there lies before us a circular lately issued, from which we learn that the Society, having recently held an International Congress of Medical Jurisprudence, which has been successful "beyond the most sanguine expectations," proposes to improve the plan so as to make the Congress permanent in its character, and in the broadest sense international. The President was empowered and directed by the Congress to promote this idea by appointing additional vice-presidents for the various States, territories, provinces, and countries, and already a preliminary list has been prepared and published, in which the names of twenty-four gentlemen, including several chief justices and judges, in company with members of the profession of medicine, are enrolled. The design is ambitious, and, if the time be ripe for its accomplishment, its success will be exceptionally great. The question is whether the time has come. At present all the laws relating to medico-legal theory and practice are so widely different in different countries that it would at first sight seem impossible to bring them into anything like a common system. At the same time the fundamental principles must surely be nearly the same, and the objects must certainly be the same in all civilised nations. It is feasible, therefore, that by a series of friendly and learned meetings of medical and legal authorities some general code might in time be evolved. The grand difficulty that will lie immediately in the way is that of language. So long as men of different nationalities have no alternative, on meeting together for the discussion of principles, except to converse and discuss either in a different tongue or in an imperfect interpretation, so long will there be insurmountable obstacles to a common agreement, since upon nice and refined points of expression so much depends. Men not only speak in different tongues but think in them; and though they might generally understand each other for all ordinary intercommunication, it will be long before the genius of exposition of different languages and thoughts will be common property. Of course this objection does not hold good between this country and the present home of the new International, and it would be opportune, perhaps, now, for those members of the profession here, who some years ago did such active service as "The Medical Defence Association," to reconsider the idea advanced by their President, of transforming that Association into a medico-legal society for England, and so establish an English centre for the assistance and support of the wider scheme. An English and American society might at once become international in so far as the two countries are concerned, and others could be left to follow in due course, as each country founded, in imitation, its own organisation. We see, and our numerous readers will see, that a good medico-legal society centred in London would at once have sufficient work before it. Suppose, for instance, at this time the council of such a society, composed of able and well-accredited men, were available as reference in the

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Maybrick case. What a load of responsibility could at once be removed from the administration. There would be a tribunal ready at once to take up any question submitted to it, and to give, after due investigation, a decision which in a matter of science would issue actually as from a court of appeal. This illustration in favour of the organisation is suggested at the present moment, because of the current interest which is being taken in a particular case. But there are other developments for action to which a medico-legal society might devote itself. The laws relating to public health would come, in the most legitimate manner, under its consideration, and lead the way to the long-expected and deserved appointment of a Minister of Health and Medical Jurisprudence. These are anticipations. The primary crux is—Can the two professions of law and medicine in this country combine for a common object and for the common good?

A PLAN FOR RELIEF OF WHOOPING-COUGH SPASM.

DR. NAEGELI publishes in the *Correspondenzblätter für Schweizer Aerzte*, a paper on whooping-cough, in which he pays particular attention to the convulsive attack of choking, describing the latter as follows: Spasm of the glottis makes every inspiration impossible, tonic convulsions of all laryngeal muscles follow, all muscles of the throat and at last those of the face also share in the attack. Trismus almost always is present during the acme of the convulsion, although the tongue generally protrudes. As soon as it is possible to open the rima glottidis again so far as to admit of sufficient air for respiration, all sensation of choking and congestion of the blood with their sequelæ disappear as by a miracle. Heiberg was the first to observe that the raising of the upper jaw is the best method of making the larynx admit air, and he recommended a plan for that purpose, which Kappeler had mentioned before him, and which Naegeli has modified and described as follows: Standing in front of the child, the nurse lays firm hold with the index and middle finger of the ascending ramus of the lower jaw in ront of the ear, places both thumbs against the chin, and by strong but gentle traction and pressure moves the lower jaw forwards and downwards. If the mouth is a little open the jaw may be fixed by placing the thumb or index finger alone behind the anterior lower incisors and grasping the chin with the rest of the hand, performing traction as above. In all these cases the left hand rests on the forehead of the patient and performs counter-traction. If the nurse is behind the patient, she may place both thumbs close above the angle of the jaw, the index on the zygomatic arch, and the rest of the fingers on the chin, pushing forwards and downwards. Immediately the upper jaw is raised the child must be told to draw a deep breath. The plan may be adopted even if the fit comes on during sleep, and Naegeli says that if so the child does not wake.

BELGIAN MEDICAL ETHICS.

A CODE of medical ethics which is published in a recent number of the *Scalpel* is very similar to the rules, written and unwritten, which are generally understood as governing right-minded medical men in this country. One or two matters, however, may be mentioned wherein there is some slight difference. A medical man, on being summoned to a new patient, is bound to do his best to ascertain whether anyone else has been in attendance during the existing illness, and the mere denial of the patient is not to be considered as entirely absolving the doctor from any further attempts to get at the truth, as patients frequently say they are newly come to the neighbourhood or equivocate in some way when questioned as to any previous attendance. If it is found that some one else has been in attendance during the existing illness, the successor is bound to satisfy himself that his fees have been paid before he accepts the position of medical attendant himself. Again, when acting as temporary substitute for a *confrère*, if a new patient hitherto unknown to the latter sends, the locum tenens may retain him permanently on his own list, a permission which we think would scarcely be recognised in this country. This code is signed by Dr. Bax, and does not seem to be in any way authoritative; nevertheless, if faithfully carried out both in the letter and in the spirit, it would certainly obviate a very large amount of friction.

THE SALFORD INFECTIOUS HOSPITAL QUESTION.

THIS question has now reached an acute stage. At the last meeting of the Town Council, Mr. D. Sharrocks, who has all along been an active opponent of the Ladywell site, moved an amendment to the effect that its purchase should be postponed until a committee had been appointed and had reported on the whole question. This was seconded by Mr. Alderman Bailey, who held that Monsall Hospital and the Pendlebury Hospital for Sick Children would answer the purposes of Salford. On the motion being carried by a small majority, the mayor, as chairman of the Health Committee, and several other members of that committee, immediately tendered their resignations. Whilst we cannot help sympathising with those who apprehend that their properties will be depreciated in value by the purchase of the Ladywell site, we cannot agree with those who would thrust the two alternatives on the Town Council. Even if the Pendlebury authorities consented to "add a wing" to their hospital for the reception of a larger number of infectious cases in children, we cannot think that, on a site which must be regarded as limited at least for such purposes as recreation, such a course would be desirable in the interests of the large body of the sick who are received into this general hospital. And, as regards the use of Monsall, the authorities of which are at any time prepared to receive into their wards small-pox patients from sanitary districts including about a million of population, we feel convinced that Salford would not be justified in its selection as a place to which people suffering under other diseases than small-pox could at any time be compulsorily sent. Salford has for many years known the value of an infectious hospital of its own, and those responsible for the public health of this populous borough can hardly be prepared to make themselves dependent merely on other institutions in other sanitary districts.

"HEREDITARY CHOREA."

ORDINARY CHOREA is sometimes hereditary, but the disease called "hereditary chorea" is in many respects different from the chorea of children. The distinction between these forms of motor perturbation and motor debility—for there can be no perturbation without debility—rests not upon any remarkable difference in the appearance and character of the movements, but rather upon other characteristics, and chiefly on the time of life at which the diseases become prevalent, and upon their observed progress. Child chorea ever tends to get better, even though it relapses; whereas hereditary chorea, once established, never ceases to exist, even though it exacerbate and remit with longer or shorter intervals. Hereditary chorea is frequently, child chorea is rarely, attended with marked mental chorea, if such a phrase may be allowed to signify the jerky, weak, intellectual and moral actions of the sufferers. Child chorea is a failure in the motor nervous machinery largely due to a disability of development. Hereditary chorea is a breaking down of a motor mechanism which had already

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ceased to develop. Probably a close likeness in pathology exists between hereditary ataxia and hereditary chorea, the difference between the diseases being merely one of situation of the pathological lesion. In either case we must assume that the structures lesion of which caused the disease were defective *ab initio*. How else can we understand diseases like these two hereditary kinds, and like Duchenne's disease? The nerve functions are clearly weak, from an original and inherent fault of development, because so many members of the same family suffer, and so many generations of the same family. What especial circumstance in the history of the family protoplasm first caused the muscles or the nerves to be particularly vulnerable has never been clearly brought out. In one family of sufferers from hereditary chorea, in which no previous cases could be traced, though the means for tracing were favourable, the father had suffered from general debility, with cold hands and feet and low spirits, all his lifetime—a general want of vitality in the nervous system; such fathers or mothers may be more prone to generate a nervous system conspicuous for its capacity or tendency to degenerate long before the usual period for general corporeal degeneration has set in.

MEDICAL CONGRESS AT PADUA.

YEAR by year professional gatherings abroad are becoming more cosmopolitan in their attendance as their subject-matter appeals to a more widely diffused correspondence of scientific interests. The medical man, *en touriste*, may add another pleasure to his holiday by spending a day or two at these réunions, where German or Swiss are often found in friendly discussion with Austrian or Russian, and all four nationalities hospitably entertained by hosts either French or Italian. Foreign travel is so universal nowadays that the practitioner can never be sure when or where he may not be called in attendance on patients of diverse nationalities, or in consultation with physicians or surgeons who have qualified in other schools than his own. It is no light matter to be prepared for such contingencies, and therefore, we repeat, the opportunities afforded by international congresses of becoming familiarised with the language and *modus operandi* of foreign contemporaries are well worth embracing and turning to account. Italy frankly acknowledges she has gained much by these opportunities, and shows her sense of it by the welcome she accords to the guests she so freely invites to all her professional gatherings. The Medico-Psychological Congress, which will meet, as already announced, at Novara from the 8th to the 14th of September, will be followed by the purely Medical Congress, which is to assemble also in the Alta Italia from the 22nd to the 27th of the same month. Padua, the special seat of this latter, has many claims on the interest of the British medical man—if only as the school where so many compatriots, including the illustrious Harvey, acquired or perfected their theoretical or practical knowledge. The great consultant, Dr. De Giovanni, member of the Superior Council of Public Instruction and Professor of Clinical Medicine in the Padua School, is to preside; while the vice-presidents will be the Cavaliere Bassini and the Cavaliere D'Ancona, clinicians whose merits are acknowledged far beyond the Italian frontier. Dr. Achille Breda, Professor of Dermo-Syphilopathy, and Dr. Luzzatto, Professor of "the Propædeutic of Clinical Medicine"—subjects, by the way, more commonly represented in continental than in British seats of learning—will be the secretaries; and the two lecturers on Pathology, Drs. Alessio and Borgherini, the vice-secretaries. From all parts of Italy, and even from the countries of central Europe, physicians of eminence have already signified to the "Comitato Padovano dell' Associazione Medica" their intention to assist at the proceedings, and others who have not yet done so are invited to address the above-named committee to the same effect. An exposition containing all the latest adjuncts, mechanical and other, to the physician's art, will be on view, Public Health being the section in which the most numerous and most striking novelties will be exhibited. The surpassing interest of the fine old Venetian University town would suffice of itself to reward the physician on his holiday in paying it a visit. How much greater the attraction when he will have for his guides the hospitable men of light and leading of the locality, who are at this moment employed, as their circular sets forth, in preparing for a Congress which shall be worthy of the glorious traditions of the School of Morgagni?

THE PROPHYLAXIS OF TUBERCULOSIS.

THE New York Board of Health has not lost any time in taking action on the report recently submitted to it on the contagiousness of tuberculous diseases, for it has circulated widely the following rules to be observed for the prevention of consumption, which may be compared with those circulated by M. Chauveau's committee (*vide* THE LANCET, Aug. 10th, p. 282). 1. The sputa of suspected consumptives should be received in earthen or glass dishes containing a solution of bichloride of mercury, 1 to 1000. 2. Do not sleep in a room occupied by a person suspected of having consumption. The living rooms of a consumptive patient should have as little furniture as practicable. Hangings should be completely avoided. The use of carpets, rugs, &c., ought always to be avoided. 3. Do not fail to wash thoroughly the eating utensils of a person suspected of having consumption as soon after eating as possible, using boiling water for the purpose. 4. Do not mingle the unwashed clothing of consumptive patients with similar clothing of other persons. 5. Do not fail to catch the bowel discharges of consumptive patients with diarrhœa in a vessel containing corrosive sublimate (1 part) and water (1000 parts). 6. Do not fail to consult the family physician regarding the social relations of persons suffering from suspected consumption. 7. Do not permit mothers suspected of having consumption to nurse their offspring. 8. Household pets (animals or birds) are quite susceptible to tuberculosis; therefore do not expose them to persons affected with consumption; also do not keep, but destroy at once, all household pets suspected of having consumption, otherwise they may give it to human beings. 9. Do not fail to thoroughly cleanse the floors, walls, and ceilings of the living and sleeping rooms of persons suffering from consumption at least once in two weeks. Ten thousand copies of these rules are to be printed for distribution.

CLINICAL INSTRUCTION IN INFECTIOUS DISEASES IN GLASGOW.

IT has been amply shown before the General Medical Council that the great bulk of medical students receive almost absolutely no clinical instruction in infectious cases, which constitute so serious an element in ordinary general practice. With the general adoption of a notification system, ignorance of the clinical features of such diseases will be increasingly damaging to practitioners, and familiarity with them and with the notes by which they may be early and securely diagnosed increasingly advantageous. There are two obstacles to the general establishment and success of such teaching—a certain disinclination in students to run the risk of infection in taking such a course of clinical instruction, and the absence in the curriculum of most of our examining bodies of any requirement of such teaching. This great defect in medical education is engaging the serious attention of the Committee of Education of the Medical Council, and with other kindred matters

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is to be the subject of report at the next meeting of the Council. Meantime the discredit of sending out men as "qualified to practise" who have not had any such instruction rests with the individual examining bodies and with the medical schools. There is at least one place where an earnest attempt to give real instruction in such cases is being made. We refer to Glasgow, where Dr. James W. Allan, Physician Superintendent of the City of Glasgow Fever Hospital, Belvidere, has since 1884 been most laudably engaged in such an attempt. With varying but on the whole fair success he has overcome difficulties, admitting special obligations to Professor Gairdner, his old teacher; to Dr. R. Thomson, lately senior assistant physician at Belvidere; and to Dr. Russell, medical officer of health of Glasgow, of whom he speaks as having almost obliterated typhus from the Belvidere clinique and from Glasgow, in his effective co-operation with the Health Committee of the Town Council, who have also willingly accorded the use of the fever hospital for purposes of clinical instruction. Anyone in doubt as to the importance or feasibility of such teaching should read three short (very short) addresses on this subject by Dr. Allan, reprinted from the *Glasgow Medical Journal*, and published by Alex. Macdougall, 81, Buchanan-street. Dr. Allan had three pupils only in 1884, in 1888 seventeen, and in 1889 forty. In his parting words this year he expresses himself well satisfied with his pupils and their labours. He states that he is not aware of a single case in which a student has contracted infectious disease by visiting Belvidere. Since this statement was made he has been told that one of his students did contract scarlet fever. But the statement remains a very satisfactory and encouraging one, though, as Dr. Allan argues, the risk of infection is one of the risks of the medical life to be accepted by everyone worthy of the calling, though one apparently to be considerably reduced by care and due precautions.

CONGESTED STATE OF THE PROFESSION IN PARIS.

AN Edinburgh contemporary, alluding to the suicide of a medical man, sixty years of age, owing to inability to pay his rent, quotes the *Concours Médical* as saying that in the central parts of Paris there is one medical man for every eight houses, and from another medical journal takes the following quatrain—

> Le médecin, savant et sans intrigue,
> A Paris meurt de faim,
> Ou, s'il arrive enfin,
> Savant ou non, il meurt de fatigue.

Our contemporary alleges that in Paris the ordinary explanations of a congested profession here will not hold—viz., rival examining bodies and hospital abuse. Is he quite sure that there is no hospital abuse in Paris? Certainly we do not feel so. Neither are we disposed to moralise too much on the basis of one unhappy act.

INCUBATION PERIOD OF MEASLES.

M. H. LEROUX (*La France Médicale*, No. 89) relates cases of measles in which it was fairly evident that the usual period of incubation (twelve to fourteen days) had been exceeded. In one case a child, aged seven years, who was sent into the country the day following the appearance of the rash on his sister, developed the rash himself twenty days later. In another a school-girl, whilst suffering from an attack of scarlatina was also incubating measles. For the scarlatina developed on March 29th; the fever declined on April 10th; but on the 14th she again complained of sore-throat, had coryza &c., and on the 15th showed measles rash. She had been separated from her schoolfellows for nineteen days, and either the measles had an incubation period of at least this duration or it must have been conveyed to her whilst suffering from scarlet fever. The third case was one of a boy of eight years who had been isolated from a younger sister suffering from measles, and who did not exhibit the rash himself until twenty days afterwards. Of course in each case the contagion might have been conveyed by a third person, but M. Leroux is perfectly satisfied that this did not take place. The second case is remarkable as an instance of concurrence of two specific infective disorders.

INTERNATIONAL HONOUR TO VON PETTENKOFER.

THE Royal Society of Hygiene in Italy, which has its centre in Milan, has resolved to associate itself with the congratulations accorded by his countrymen to Max von Pettenkofer on his having attained his seventieth birthday. Accordingly, it has transmitted to the distinguished Munich hygienist a richly and tastefully illuminated parchment, emblazoned with the arms of the two Royal houses of Bavaria and Italy, under whose protection the public health of the two nations respectively stands. Below this are the insignia of the Italian Hygienic Society, held aloft by two finely-executed young genii, standing on a basement on which is recorded the device: "Salus populi suprema lex esto." Then follows the address, which may be thus translated: "Most Honoured Sir,—Although men of your distinction find their most genuine recognition in the approbation with which their work is received, yet this recognition assumes its most impressive form when many voices combine in one, and the praise of individuals is blended in the universal encomium, which takes opportune expression on some memorable stage of the life journey. Therefore it is that we votaries of the science which you, more than any other, have advanced on the highway of practical observation and felicitous experiment, most willingly accede to the invitation of the Royal Italian Hygienic Society and combine our congratulations with those which your compatriots have accorded you on the occasion of your happy completion of your seventieth birthday. In these congratulations, may it be your pleasure to recognise the expression of our homage as well as of our deepest affection—feelings inextricably interwoven in our minds and hearts." To this address, peculiarly effective in the Italian original, are appended the signatures of the most prominent professors and practitioners of State medicine throughout the Italian peninsula, including many occupants of chairs in the Universities, from Turin to Naples, members of the "Scuola di Applicazione degli Ingegneri di Bologna" (School of Applied Engineering in Bologna), of the "Scuola di Perfezionamento d'Igiene Pubblica in Roma" (School of the Higher Public Hygiene in Rome), and representatives of many undertakings, private as well as under Government, for the improvement of the public health of Italy.

LEICESTER PROVIDENT DISPENSARY.

WE have on more than one occasion during the past two years referred to the dissatisfaction which has arisen at Leicester in the working of the Provident Dispensary there, which numerically is one of the largest in the kingdom, and has been hitherto fairly successful financially. Stormy meetings have from time to time been held, and the dispute has at last resulted in the malcontents starting a new dispensary called "The People's Dispensary," which has set itself to work vigorously to compete with the older organisation. The payments are to be the same as in the latter, and there is to be no tax on cards or fines for arrears of payment, and all present members of the old dispensary can enter the new one without entrance fee. Medicines

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will be supplied from various druggists throughout the town, and it is calculated that 90 per cent. of the receipts will go to the medical staff and dispensing chemists. In addition, the members are to have a voice in the management of the new concern.

THE CONSERVATIVE TREATMENT OF DENTAL PULPS.

WHILST some deny that the dental pulp serves any purpose in adult life, there are many facts which seem to support the contrary view. In a healthy person, if caries of a tooth takes place, the formative activity of the pulp may be aroused and new dentine be deposited on the surface nearest the encroaching disease, and thus form a barrier, perhaps only temporary, but still a barrier to its further progress. After destruction of the pulp, certain pathological conditions—absorption and deposition of cementum—frequently occur in the root, and clinical observation shows that a tooth without a pulp has, to use an old simile, one leg in the grave. How far a nerve that is exposed can be successfully treated is an interesting question. Depending as it does not only on the local condition but upon the general health, we find the most varied views expressed, one dental surgeon maintaining that he "caps" always, another that "capping" results sooner or later in trouble, and therefore destroys the pulp at once; but probably the best practice is to treat the individual case on its merits. Should a healthy nerve be wounded accidentally during excavation, most are agreed that if it be capped the tooth will be little the worse for the complication; and it is rather to exposure from caries that we refer. The operation of "capping" a nerve as commonly practised consists in first reducing all inflammation by the removal of irritating material from the carious cavity and repeated antiseptic dressings, and then covering the exposed surface with a mixture of carbolic acid or oil of cloves and oxide of zinc, and over this a small quantity of oxy-phosphate of zinc (white stopping), mixed very thin, is allowed to flow; when this has set, the carious cavity is filled. The number of substances used for the purpose of capping is large—collodion, egg-shell, sticking-plaster, cork, &c.,—the important points being that it shall be non-irritating, that there shall be no pressure on the pulp and no space between it and the cap. In an American contemporary, Dr. Parramore recommends, after three years' experience in a large number of cases, sterilised sponge as a nerve-cap, and he opines that the sponge "becomes the seat of deposition of secondary dentine." Whether this is so or not it is at present impossible to say, as of course in the successful cases no tooth post-mortem has been made; but at any rate it is worth a trial in the interests of conservative dentistry.

DEFAULT AS TO SEWERAGE AT IDLE.

A PUBLIC INQUIRY has been held at Idle in Yorkshire, by Col. W. M. Ducat, into a complaint that the Local Board of Idle had made default in not providing the district with proper sewers; Mr. S. Wright, solicitor, appearing for his wife, who was the complainant under the Public Health Act. Mr. R. Honeyburne, the medical officer of health, was called, and he frankly admitted that no provision for the proper sewerage of the district had been provided. In the face of this evidence the clerk to the local board offered no opposition, but stated that, in deferring action, his authority had acted on his advice, and that he, in giving it, had been influenced by the consideration of cost. He, however, appealed to the inspector to urge the Local Government Board to give the authority a reasonable period, since he believed that the local board were ready, owing to outside pressure, to call in an engineer with a view of carrying out the necessary works.

THE TREATMENT OF ECZEMA.

DR. UNNA of Hamburg publishes in the *Monatsschrift für Dermatologie* a paper on the Diagnosis, Etiology, and Treatment of Eczema. He says that even before the experimental cultivation of bacilli exact clinical observation had distinguished a number of entirely different types of eczema, and he thinks that each different type will be found to require a different mode of treatment. The type most frequently seen in Hamburg is seborrhœic eczema, and the parasite causing it is the same which in the first instance produces pityriasis capitis. Those persons who suffer from seborrhœic eczema of the head, including those affected with pityriasis capitis, are apt to suffer from the same kind of eczema on other parts of the skin. Dr. Unna has repeatedly pointed out that we possess a series of valuable remedies for the treatment of seborrhœic eczema in all its forms—viz., sulphur, resorcin, chrysarobin, and pyrogallol. Of these remedies resorcin is the best, as being the least likely to produce local or general ill effects. It may also be used in an alcoholic or watery solution or in the form of ointment, paste, soap, or powder. Dr. Unna's favourite formula is a solution of three drachms of finely-powdered resorcin with an equal quantity of glycerine in six ounces of spirits of wine, diluted with four times the quantity of water or camomile tea. A thin layer of cotton wool well moistened with the solution is applied, covered with some waterproof material, and fastened by a bandage. These applications are particularly useful when the treatment is prolonged, or when it is carried out by night. They are, of course, impossible in general eczema of adults, but not in that of infants. Dr. Unna describes an especially important effect following the application of resorcin,—viz., a swelling of the epidermis, by which all painful fissures are healed in a single night. In order to ensure healing, he advises that the skin should be anointed after the removal of the bandage, and that washing with soap should be avoided. A few people suffer from a resorcin idiosyncrasy which necessitates the immediate cessation of this treatment, and the application of powder to the affected parts. This idiosyncrasy is, however, very rare, as he has only met with it ten times in five years' observation, during which time he has seen 2000 cases. He remarks that his treatment is not adapted to those cases of long-existing eczema, in which strongly-infiltrated or thickly-indurated patches occur.

PATHOLOGY OF PAINLESS WHITLOW.

DR. THIRIAR of Brussels publishes in *La Clinique* some notes of a case of painless whitlow, or the so-called Morvan's disease, which he thinks tend to prove that the central nervous system must be affected in this somewhat rare and ill-understood condition. Only one post-mortem examination seems to have been at all fully reported of a case of this character, and that was of one of Dr. Morvan's own patients (*Gazette des Hôpitaux*, April 30th, 1889). Here there were both peripheral and central nervous lesions, the cervical enlargement of the cord and the nerves of the upper extremities being affected. In the nerves there was a hyperplasia of connective tissue, and in the cord an abnormal development of interstitial tissue occupying the posterior column, the posterior cornua, and probably the central grey matter. It was unfortunately not possible to ascertain whether there existed morbid tubular cavities near the central portions of the cord—the form of lesion styled syringo-myelia—which Dr. Thiriar believes to be the condition to which painless whitlow is due. His patient was a woman of sixty-six, who six years previously had had a severe bruise on the left thumb, which caused a great deal of swelling, which swelling had never entirely disappeared. Fourteen months before her admission the first

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two phalanges of the ring finger of the right hand became swollen and painful, ultimately opening and giving exit to some pus. A year later the left thumb again became painful and increased in size, and after a time broke and gave vent to some pus. Since that time there had been very little pain from either of the whitlows. On examination the lymphatic glands on both sides of the neck and in both axillæ were found to be inflamed, and the upper arms were both considerably atrophied and wanting in sensibility. There was no pain or tenderness in the neighbourhood of either of the whitlows. The theory proposed by Dr. Thiriar to account for the second whitlow, which came on without any apparent cause, is that the old injury to the left thumb, which was never cured, set up an ascending neuritis which was followed by syringo-myelia, and probably then by descending neuritis on the right side.

THE MEDICAL OFFICERSHIP OF HEALTH FOR LEEDS.

MR. GOLDIE having resigned his position as medical officer of health for Leeds, the Town Council have decided to advertise for a new officer at a salary of £700 a year. Some discussion took place as to whether the remuneration should not be on a higher scale; but in the end the amount named was fixed on, one member of the Council stating that there was no need to assume that it would be the ultimate amount to be reached by an efficient officer. We regret that a salary so inadequate to the requirements of Leeds has been, so far, decided on. We learn that Dr. Henry Tomkins of Leicester is a candidate for the vacant post, for which his large experience in public health matters eminently fits him.

THOMSEN'S DISEASE (MYOTONY).

THE *Medicinisch-Chirurgische Rundschau* translates an interesting article by Dr. P. I. Wising in the Swedish journal *Hygiea* on myotony. The affection was first described in 1876 by Dr. Thomsen of Kappeln (Schleswig), after he himself and several members of his family had been affected. The first of these cases of tonic convulsions of the voluntary muscles observed in Sweden is the thirty-third of all hitherto published. The majority of them have occurred in Germany, where army surgeons have paid special attention to this affection. Pontoppidan of Copenhagen also observed several cases. The first Swedish case occurred in a Stockholm student aged eighteen, whose whole family was entirely free from the disease, showing that heredity cannot always be the cause, as was supposed from a study of the cases in Thomsen's family, though it is undoubtedly an occasional cause, as Pontoppidan relates the case of a family in which seven members were affected, and Bernhardt also reports a similar case. Wising, however, points out that in eighteen of the thirty-three published cases it has been proved that myotonic symptoms appeared in early infancy, while in most of the others a strong suspicion exists of a similar history. Diseases of the mind in those families affected with myotony, as observed by Thomsen, seem to be exceptional; and a sudden shock, such as is mentioned as an etiological factor in some patients, probably only makes the already existing affection plainer. Wising's patient suffered as long as he could remember, and no psychopathic complication existed in his family. The essential symptoms of Thomsen's disease are a continuation of the contraction of muscles after the intention to move them has ceased, a state which Seeligmüller calls "Intentionskrampf"; this abnormal continuation, however, ceases when the intentional movement is several times repeated. The myotony in Wising's patient affected nearly all the muscles of the body, especially those of the extremities, throat, and face, and was most marked on opening the eyes. It also affected the muscles of the tongue and mastication, but the pharyngeal and eye muscles were not involved. The affection was less marked when the patient was in good spirits or had taken a little wine, also when the air was of moderate temperature, but it was worse in very warm and oppressive weather. Muscular hypertrophy, which Seeligmüller first mentioned as a prominent symptom in myotony, was in Wising's patient very pronounced, and affected all muscles, especially the deltoids, femoral muscles, and gastrocnemii. On moderate as well as strong mechanical or electric irritation of the muscles the contraction was slow without being weak, and the cessation of contraction (decontraction), even with the interrupted current, took place very slowly. This specific form of contraction on increased irritation is analogous to the beginning of voluntary movement, another point of resemblance being the slower and less persistent contraction on continued irritation. Dr. Wising considers the affection to be of a permanent character but without any effect on the duration of life; he thinks, however, gymnastic exercises, which Thomsen had already recommended, very useful.

LOCAL TREATMENT OF DIPHTHERIA.

PROCEEDING upon the view that diphtheria is primarily a local disease, the importance of early detachment of false membrane from the tonsils and pharynx is being again strenuously insisted on. Dr. Gaucher is a firm advocate for this measure, the advantage of which has recently been insisted on by Dr. de Cresantignes (*La France Médicale*, Nos. 90 *et seq.*). It is important, however, to detach the membrane with great care so as to avoid excoriation and injury. This may be done by employing a "brush" formed by absorbent wool placed over the end of a rod, and this again covered by a layer of thick dry flannel. The latter adheres to the false membrane, which it can detach without risk of particles being set free in the mouth; and a fresh "brush" should be employed on each attempt. This is followed up by the application of strong carbolic acid (10 parts) and camphor (30 parts) solution, which is of course highly caustic, but which, Dr. de Cresantignes states, is well borne. He remarks that Roux and Verson, as well as Chantemesse and Vidal, have shown that carbolic acid and camphor are the best preparations to prevent the development of Klebs' bacillus. He considers irrigations as quite ineffectual for detaching membrane of recent formation, but they are most useful in cleansing the naso-oral passages.

LICHEN.

DR. HALLOPEAU (*L'Union Médicale*, No. 95) holds that no definition yet given of lichen implies a clearly-defined morbid condition; the papular form is not distinctive, and it is impossible to ally the "pilo-sebaceous" lesions of the affection termed by Hebra and Kaposi lichen scrofulosorum with that of lichen planus, which is met with on the palms of the hands and buccal mucous membrane. His criticism leads him to these conclusions: 1. The group "lichen" is artificial. 2. There are arbitrarily included in it different affections which have in common only the papular appearance of their elements. 3. Terms derived from pathological anatomy and physiology should be substituted for the word lichen. 4. The diseases at present confounded under this name may be collected under other types, with the exception of that described by Wilson, which alone should be called lichen, for it constitutes a morbid entity. 5. The qualification of lichen planus is merely applicable to a variety of this disease. An acute and a chronic form should be recognised, and under the latter such varieties may be discriminated as lichen planus,

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obtusus, acuminatus, tuberous, horny, coralliform, and sclerous. 6. The acute form comprises some of the cases published under the head of lichen ruber acuminatus.

IMPORTANCE OF EXAMINING SPUTA FOR BACILLI.

DR. HAUSMAN of Meran, in a communication to the *Med.-Chir. Rundschau*, insists on the necessity of examining sputa for the tubercle bacilli of Koch in all cases in which the diagnosis is at all doubtful. He mentions the following interesting case from his own practice as an example of this necessity. Years ago a man who had been given up came under his care in a state of emaciation and high fever, and suffering from diarrhœa. The middle lobe of the right lung and the upper lobe of the left lung down to below the level of the nipple were infiltrated and partly softened. The sputum, which was nummular, sank in water, and its quantity was immense. Over a year ago a testis had been removed for tumour and abscesses. The man had been sent to Meran for general tuberculosis, and the symptoms were so evident that a most unfavourable prognosis had to be made; indeed, the disease had begun to attack the vertebræ and the meninges. The patient could not bear to be touched, or to move his body, and seemed *in extremis*. Just at this time Koch had published his views on the subject of tubercle bacilli, and Dr. Hausman commenced a thorough examination of the secretion, believing that this undoubtedly specific sputum would quite accustom him to the microscopic appearance of tubercle bacilli. But neither he nor Koch's own pupils found the least trace of bacilli, though they repeated the examination frequently. The patient who until then had avoided any allusion to syphilis, admitted the possibility of the latter being the cause of his illness. Later on, slight osseous enlargements were observed, and as there continued to be entire absence of tubercle bacilli, syphilis was diagnosed, and the correctness of this view of the case was confirmed by the brilliant result of anti-syphilitic treatment. The patient not only did not die, but in spite of the serious lung defect and frequent relapses of a clearly syphilitic origin, he remained free from fever, diarrhœa, and from any serious amount of pain. Such signal success would have been impossible without examination for tubercle bacilli, and the patient would certainly have died. Indeed it was doubtful whether there was any real need for the operation of castration which had been performed.

VACCINATION AT EASTBOURNE.

IT is stated that the guardians of Eastbourne, having to face a growing unpopularity to vaccination, which has culminated in only 157 vaccinations out of 439 births during a period of six months, have decided to seek the advice of the Local Government Board. It is difficult to understand what advice that Board can give to the guardians, seeing that it is the latter, and not the former, who have the statutory duty of enforcing the law.

EXCRETION OF PHOSPHATES IN RICKETS.

DR. V. TEDESCHI of Trieste publishes in the *Rivista Veneta di Scienza Mediche* the following results of his examination of the urine, fæces, and sweat of rachitic patients compared with those of healthy people. In the urine of healthy children the phosphates varied in quantity even though the diet remained unchanged, the maximum and minimum amount of phosphates generally following one another directly. The urine of rickety children showed the same variation. This variation was probably the cause of different results in different examinations. As a rule, however, the phosphates in the urine of rachitic children were greater than in healthy children. The phosphates in the fæces were increased when the child was constipated, and diminished in diarrhœa. The fæces in the diarrhœa of rickety children contained less phosphates than those in the diarrhœa of non-rickety children, except the latter happened to be suffering from intestinal catarrh. Whenever the phosphates were increased in the fæces of rachitic children the same increase took place in the urine, and the same may be said of the decrease. The best remedy for the treatment of diarrhœa in rachitis seemed to be phosphate of lime. The profuse secretion of the sweat glands in rachitis contained more saline matter than is usually to be found in the secretion of healthy children.

THE INHALATION OF OXYGEN.

IN a paper on the Therapeutic Value of Oxygen Inhalation, Dr. W. Gilman Thompson (*Boston Medical and Surgical Journal*, No. 4) related experiments which showed that animals could live comfortably in an atmosphere of oxygen until a pressure exceeding three atmospheres was reached; above that pressure various effects were noted, especially a marked decrease in temperature of warm-blooded animals. Experiments were also made for the relief of dyspnœa artificially induced, with the conclusion that inhalation of oxygen does afford relief in some types of dyspnœa. Therapeutically, oxygen was used for the cure of certain general diseases, especially of the blood and circulation, and as a palliative in dyspnœa. He stated that about 200,000 or 300,000 gallons were used annually in New York. His own experience was adverse to its employment in anæmia, nor had its use in cardiac disease been encouraging. In certain cases of subjective dyspnœa it gave relief, and he mentioned a case of poisoning by coal-gas, where its administration was kept up for three days without any effect on the rate of breathing or cyanosis. It is in certain cases of asthma and of anæmic dyspnœa that its chief value seems to rest.

COMPRESSION OF PULMONARY ARTERY IN THE COURSE OF ACUTE PNEUMONIA.

DR. E. TORDIEU (*Journal de Médecine*, No. 14) records the case of a child five years of age admitted into hospital for well-marked acute lobar pneumonia of the left upper lobe, who presented a loud systolic murmur in the second left interspace, and traceable towards the axilla. The bruit persisted when the patient was discharged, but so also did the dulness and bronchial breathing at the left apex. The notion of congenital narrowing of the pulmonary artery was unsupported by any collateal evidence; and it was shown that similar bruits have been described which were subsequently proved to have been due to pressure upon the pulmonary artery by enlarged glands or phthisical consolidation. It was therefore surmised that a like causation explained the bruit in this case—a notion which was borne out by the fact that the bruit completely disappeared later, when a soft hæmic apex murmur alone was audible.

IRRIGATION IN SUPPURATIVE PERITONITIS.

DR. BERGSTRÖM reports in *Duodecim* the case of a little girl of five years of age who, some months after an attack of diphtheria, suffered from an attack of peritonitis. Just before she was seen for the first time a spontaneous opening had occurred, and a quantity of fetid matter had come away. Dr. Bergström introduced an indiarubber tube into the opening, and washed out the peritoneal cavity with a 2 per cent. solution of boracic acid at the temperature of the body. As the distance at which the child lived was great, it was arranged that the father should repeat the irrigation frequently. Opium was prescribed and enemata

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ordered every third day. After two days the discharge ceased to be fetid, and the child seemed better. At the end of ten weeks the tube, which had repeatedly been shortened, was removed altogether, and the little patient made a good recovery.

H.R.H. THE PRINCE OF WALES.

HIS ROYAL HIGHNESS THE PRINCE OF WALES has been suffering from a gouty affection of the leg, which has necessitated rest, and which has incapacitated him from riding, and therefore prevented him from attending the review at Aldershot on Wednesday, Aug. 7th. His Royal Highness has much improved, and it is fully expected that the treatment at Homburg, where he now is, will greatly benefit him.

NITROGENOUS CONTENTS OF SPUTUM.

DR. M. PANOFF has examined the sputum of patients suffering from various forms of lung disease with the view of ascertaining the amount of nitrogen expectorated. The details of his results are given in No. 2 of the St. Petersburg Dissertations for the session 1888–89. The estimations, which of course included both the liquid and precipitated portions of the sputum, were made by means of the Kjeldahl-Borodin process, the general result being that the greatest daily expectoration of nitrogen was 1·14 gramme, and that the sputum which contained the largest amount of nitrogen, both when reckoned by the total daily expectoration as well as by its percentage composition, was that of phthisical patients, while, on the other hand, that which contained the least nitrogen, both absolute and relative, was that occurring in cases of bronchitis and croupous pneumonia.

FOREIGN UNIVERSITY INTELLIGENCE.

Amsterdam.—Professor Korteweg of Groningen has been appointed to the Professorship of Surgery.

Berlin.—Dr. A. König has been promoted to the rank of Extraordinary Professor of Physics. Dr. von den Steinen has qualified as *privat-docent* in Pyschological Medicine.

Breslau. — Professor Loewig, the Nestor of German chemists, in consequence of his advanced age, is about to cease lecturing. Dr. C. Alexander has qualified as *privat-docent* in Medicine.

Christiania.—Dr. Max von Frey, Assistant in the Leipsic Physiological Institute, has been offered the Professorship of Physiology.

Klausenburg.—Dr. K. Lechner has been appointed Professor of Psychological Medicine.

Lille.—Dr. Lemoine has been appointed to the Professorship of Therapeutics.

Modena.—Dr. P. Bertacchini has qualified as *privat-docent* in Pathology, and Dr. S. Cecchini as *privat-docent* in Operative Medicine.

Prague.—Notwithstanding the refusal of the Austrian Minister of Education to appoint Dr. Krauss to the chair of Clinical Medicine, though his was the only name presented by the Professorial Senate, the Senate has now presented his name again, but added to it those of Professor Fleischer of Erlangen, Prof. v. Jaksch of Graz, and Dr. Singer of Prague.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. A. Nuhn, Honorary Professor of Anatomy in Heidelberg; Dr. Kandinski of St. Petersburg, a well-known writer on mental disease.

DR. FARQUHARSON, M.P. for West Aberdeenshire, has paired with Sir Trevor Lawrence, Bart., M.P. for Reigate, Surrey, for the remainder of the session.

AT a meeting of the Health Committee of the Nottingham Town Council last week, Dr. Whitelegge, medical officer of health for the borough, presented a report with reference to the outbreak of scarlet fever in Nottingham, from which it appeared that the epidemic was being effectually coped with. There were then eighty-seven cases of scarlet fever in the Woodborough-road Hospital, as against ninety-eight in the previous week. The committee gave orders for fifty additional bedsteads to be procured, and it was intimated that, in the event of the scarlet fever cases increasing, the fever wing of the new Hospital for Infectious Diseases at Bagthorpe would in all probability be at once utilised.

AT an inquest held last Saturday on the body of a young woman found in the Thames at Wapping Stairs, Mr. Russell Talbot, in giving his evidence, complained that the local mortuary was merely a shed, with neither gas nor water in it, and no convenience whatever for holding post-mortem examinations. In this particular instance he had to conduct his examination in the open air, and during it the wall surrounding the place was crowded with boys. The windows of the houses about there also commanded a view of the place.

THE death is announced of Surgeon-Major James Adolphus Smith, which took place on the 3rd inst. at Bhamo, Upper Burmah, of intermittent fever, at the age of forty-one. He became a surgeon in the army in 1874, and served in the North-West Frontier of India campaign of 1876, in the course of which he was wounded, and also in the Egyptian expedition of 1882 and the Soudan expedition of 1884–5, for the former of which he received the medal and bronze star, and for the latter the clasp. He was promoted to the rank of surgeon-major in 1886.

GERMAN medical journals report the outbreak of a serious epidemic of typhoid fever at Essen. It is stated that some of the medical men have as many as fifty cases under their care. The cause is supposed to be the unhealthy condition of the ground.

THE BRITISH MEDICAL ASSOCIATION.

THE fifty-seventh annual meeting of the British Medical Association opened at Leeds on Tuesday, the 13th inst. The attendance has been exceptionally large. At the first general meeting, under the presidency of Professor W. T. Gairdner, the Annual Report of the Council was read, which referred to the present position of the Association and the work carried on by its committees during the past year. It was pointed out that when the Association first visited Leeds in 1843, the members numbered a little over 1600; in 1869, when it met again in that city, they were 4095; whilst on the present occasion the roll has reached to more than 12,000 members, and the balance of the assets over the liabilities to £35,617. The adoption of the report was moved by Dr. Holman, treasurer of the Association, seconded by Mr. C. J. Wright; and several reports of committees were presented. Mr. Rivington moved, and it was unanimously resolved, that in the opinion of those present the Members of the Royal College of Surgeons of England should have a voice in the management of the College and in the election of its Council. A vote of thanks was then awarded to Professor Gairdner, for his services during the past year, who, in replying, introduced to the meeting the new President, Mr. C. G. Wheelhouse.

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In the afternoon a special service was held in the parish church, when the Bishop of Ripon preached to a crowded congregation.

At the evening meeting Mr. Wheelhouse delivered his presidential address, an abridged report of which will be found elsewhere. A vote of thanks was passed to Mr. Wheelhouse on the motion of Professor Gairdner, seconded by Dr. Cummings.

On Wednesday the Sections met in the class-rooms of the Mechanics' Institute and School of Science during the morning; and in the afternoon the second general meeting was held in the Coliseum, when Dr. Hughlings Jackson delivered the address on Medicine. At its close a vote of thanks was passed to Dr. Jackson, on the motion of Dr. Eddison, seconded by Dr. Bristowe. The interesting ceremony of presenting the Stewart prize to Dr. Klein, for his researches upon micro-organisms, and especially for his work upon the etiology of scarlet fever, then took place; the President of the Council, Dr. Bridgwater, making the presentation, and mentioning the foundation of the prize by the late Dr. A. P. Stewart.

Afterwards there was a reception at the Yorkshire College by the President, Council, and Senate, and in the evening a conversazione was given by the President of the Association and the Local Examining Committee in the municipal buildings.

THE SECTIONS.

PUBLIC MEDICINE.

The proceedings of this Section were opened by the President, Dr. E. BALLARD, who introduced the subject of "Medical Officers of Health; their Training, and the conditions on which they should hold office." He said it was clear that public interest had been roused with regard to this question, and that an expression of opinion was required regarding the relations between County and District Councils and their respective sanitary officers on the one hand, and between the latter and the sanitary authority of the kingdom on the other hand. The first question was, What are the requisites for a good and efficient medical officer of health? He thought his range of knowledge would need to be very wide, and that he ought to be able to say, "*Nihil mundanum a me alienum puto.*" Meteorology, geology, sewer and water engineering, the construction of houses, the ventilation of public and private buildings, bacteriology, and the diseases of the lower animals, all had an importance for him. Secondly, he requires practical training, comparable to what hospital work is to the physician. Some work under a medical officer of health should form part of the curriculum. Thirdly, tact was most important, as without it all other qualifications would fail of success. Young medical men whose zeal often led them astray, must remember that they are advisers, not administrators. They must allow for difficulties which seem small to them, but are great in the eyes of others. They must bear with the infirmities of their weaker and less intellectual brethren. They should keep their consciences clear by acting to the best of their ability, and look to the gradual improvement in public opinion to secure their ends. In the midst of difficulties they should seek consolation in scientific work. Nature is never unkind to such as seek her close acquaintance; she never disappoints, never vexes, never discourages. To the medical officer of health working in the wildest rural district, as well as to him who labours in the crowded town, she holds an open gate, and says: "Treasure is here; my servants are contented and happy; come and dig."

Dr. LITTLEJOHN (Edinburgh), after complimenting the President on his admirable address, and emphasising his remarks upon the importance of tact in the discharge of the duties of a medical officer of health, went on to say that he thought there were strong objections to the medical officer of health combining the duties of public analyst. The chemistry of adulterations was making such rapid advances, and the delicacy of chemical analysis was becoming so great, that it was impossible for an active officer of health to attend to such duties efficiently. He was much pleased that it was now impossible in Scotland for any local authority to dismiss the medical officer of health without the sanction of the Local Government Board. He thought there should be an absolute rule forbidding medical officers of health from engaging in private practice.

Mr. G. H. DE'ATH (Buckingham) thought that medical officers of health should have fixity of tenure while they did their duty. He thought the Local Government Board should—as is done in the case of vaccination work—periodically inspect medical officers of health and their district, and see that they do their duty and use their power and influence to make local authorities carry out what is required of them by law.

Dr. WHITELEGGE (Nottingham) held that the medical officer of health was responsible solely for the advice he gave the sanitary authority, not for the actions of the latter. He had, or should have, the advantage of the help of professed experts in law, engineering, and analytical chemistry; but, without necessarily claiming to be called a lawyer, or engineer, or chemist, it was essential that he should have a competent knowledge of the branches of those sciences which bear directly upon public-health work. As to tenure of office, the most unsatisfactory form of all was that which required re-election every year or every few years. The medical officer of health already had to obtain and classify returns of births and deaths, and the only difficulty in constituting him the official registrar was the fact that other less fitting duties are at present attached to this office. The medical officers of County Councils had a wide, though at present undefined, field of work; but although the County Councils would to some extent take over the duties of the Local Government Board, it would be a matter of regret if the supervision of the latter authority over the whole kingdom were relaxed.

Dr. BRINDLEY JAMES (London) thought that every medical officer of health ought to be apprenticed to a properly authorised officer of health to gain the experience necessary for that office. He should not practise, but give all his time to the duties of his office. He should be well qualified in every branch of medical science and the applied sciences. He should receive a proper salary to ensure his independence.

Mr. HOLDER (Hull) spoke as a member of a corporation as well as a member of the Association. He strongly approved of a period of pupilage first under a general practitioner, and then under a medical officer of health. He pointed out how in Hull the services given by Sir H. Cooper, Dr. R. King, and other medical men to the council of the corporation had guided public opinion into a wise channel, and he urged that the members of the profession would do more service to public medicine and to the public by seeking such positions where their technical knowledge would be readily and gratefully accepted.

Dr. OGILVIE EWART thought it most important that medical officers of health should first be general practitioners, in order to acquire tact in dealing with all classes. He himself had been trained as a civil engineer, but he attached very little importance to this special training compared with the experience he had acquired as a general practitioner.

Dr. CALDWELL SMITH was of opinion that the Medical Council, instead of requiring six months' attendance at a laboratory for medical officers of health, should insist upon a course of hygiene before the candidate entered for his examinations. He also drew attention to the fact that in Scotland medical officers of health had attained a certain amount of security of tenure, no officer being now dismissed without the consent of the Board of Supervision.

Dr. MAJOR GREENWOOD remarked that, in his opinion, the position of medical officers of health would be much improved if more members of the profession took an interest in local matters or deigned to come forward as candidates for places on the sanitary boards of their districts. In his own district, an important metropolitan one with a population of 150,000, on a board of 120 members he was the only medical representative, and, so far from getting any encouragement from neighbouring practitioners, he was rather rebuked for having anything to do with local matters. When endeavouring to promote sanitary reform in his district he sadly missed the presence of other medical men on his board, and he felt sure that a greater leaven of members of the profession in the various sanitary authorities throughout the country would make a world of difference in the position of medical officers of health, both as regards their influence for the public good and their own proper remuneration.

The PRESIDENT of the Section read a letter from Dr. Grimshaw of Dublin, calling attention to the great advances in the public medical service of Ireland, and advocating a

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further improvement in the system by the appointment of medical superintendents who possess a high sanitary qualification, and that the tenure of office should be made more secure.

Dr. ALLFREY, as the result of considerable experience, approved of Dr. Grimshaw's suggestion. He thought that the offices of medical officer of health and of vaccination might be usefully combined, and was strongly of opinion that medical officers of health should not engage in private practice.

The PRESIDENT having replied, the discussion terminated.

SURGERY.

The proceedings of this Section were opened by the President, Mr. JESSOP, who introduced a discussion upon the Treatment of Cancer of the Rectum. As regards the treatment of cancer by drugs, his attitude was one of hope and even faith in the future, but absolute distrust in the past. Some Pasteur of the future might yet discover a cure for cancer, but the claims put forward for Chian turpentine or any other drug rested upon the slenderest of foundations. Cancer never yet was cured, although medicines might give great relief. He passed on to operative treatment of cancer of the rectum. Partial removal was rarely advisable and barely scientific. He would deal only with proctectomy, which of late had been forced into prominence by the success of German operators. His own experience was limited to seven cases. One died in a few days; the remaining six obtained a varying amount of relief. All were still alive, one apparently well at the end of twenty-one months; a second equally well at the end of seventeen months; a third had had a speedy return of the disease, which now threatened to end fatally; two others were still well at the end of five months and twenty-six weeks respectively. In four of the cases the results had been almost all that could be desired, and incomparably better than those of the most exceptional colotomy. He had not yet attempted the removal of cancer when beyond the reach of the examining finger, nor had he advised the operation in any male in whom the disease was seated in the anterior wall of the rectum. In thin wasted patients access might be got to the disease by expanding the sphincter by a modified Weiss's dilator, but in stout persons it was necessary to cut from the rectum deeply down to the coccyx. Much of the success of the operation depended on the thorough cleansing of the wound, not only at the time of the operation, but during many subsequent days. In cases in which the disease had originated beyond the reach of the finger, or had crept up to a higher level, he thought the operation unsuitable. He spoke next of colotomy. His opinion was that in cancer of the rectum obstruction was not much to be feared if the disease were in the lower half, but was almost certain where the upper portions of the rectum are involved. Of fifty-four cases of colotomy taken from his note-book, performed for the relief of distress, and not for obstruction, three only died in the first month. Given the diagnosis of cancer high up in the rectum, the duty of the surgeon is to recommend without delay the formation of an artificial anus. As regards cases of disease affecting the middle and lower portions of the rectum, he found that the average duration of life in those who were not operated on was a little over seventeen months, whilst that of those who underwent colotomy was twenty-two months and a half. His experience had gradually raised his estimate of colotomy as a means of prolonging life. As regards relief of suffering, his conclusions were that operation lessened pain, diminished the desire to evacuate, prevented incontinence of fæces, and reduced the number of motions. He had hitherto only performed the lumbar operation, but he was favourably impressed by the evidence in favour of inguinal colotomy.

A discussion followed.

DISEASES OF CHILDREN.

Mr. THOMAS SCATTERGOOD, President of the Section, opened the proceedings by welcoming the members present. He regretted that, owing to various reasons, many of those who had been expected to take part in the discussions had been prevented from being present.

Dr. ASHBY (Manchester) introduced the subject which had been arranged for discussion—viz., "Paralysis of the first Two Years of Life." He referred to this under the following heads: (1) Intra-uterine meningo-encephalitis; (2) meningeal hæmorrhage and consequent brain injury; (3) syphilitic arteritis and softening; (4) acute cerebral paralysis, mostly hemiplegic; (5) anterior polio-myelitis; (6) peripheral paralysis. He pointed out the differences between the brain of the infant and that of the adult, especially emphasising the exceeding delicacy of the vessels of the pia mater and the soft condition of the brain. He illustrated the mechanism of meningeal hæmorrhage by reference to many cases of post-mortems made on newly-born children. He referred to the rarity of paralysis due to syphilitic arteritis during early life, and gave the details of a case of syphilitic arteritis and softening giving rise to spastic paralysis, both arms and legs being affected. In reference to acute cerebral paralysis, he especially called attention to the high temperature usually present and to convulsions as being important factors in producing the hemiplegia. He doubted if embolism would account for all the cases.

Dr. MANSEL SYMPSON read notes of two cases of Cerebral Palsy. In one there had been right hemiplegia since birth, which was curiously associated with migraine. It was due to cortical atrophy, caused by meningeal hæmorrhage. The second was a case of right hemiplegia with aphasia, the attack having followed measles at the age of three years and a half.

Dr. MANTLE read a paper on the Causes of Laryngismus in Young Children, with special reference to its production by Elongation of the Uvula. He mentioned an extreme case, lasting four months, in which convulsions took place, the patient being eventually cured by the removal of the uvula. Dr. Ringer was the only author he could find who had remarked upon the causation of laryngismus by a morbid condition of the soft palate. He advised cold sponging and fresh air as very important aids to cure.

THERAPEUTICS.

The proceedings of the Section were opened by the President, Sir WILLIAM ROBERTS, who gave an address upon some Practical Points in the Use of Antacid Remedies in Dyspepsia and Gravel. He remarked upon the great change which had taken place in the minds of medical men regarding the action of remedies. Forty years ago the leading minds of the profession seemed to have regarded with a sort of despair any hope of seriously influencing the issues of disease by the use of drugs. Some of them even gloried in a course of *laisser aller*, *laisser faire*, and turned their attention entirely to a study of the natural history of disease and the minutiæ of morbid anatomy. Now all this was changed. A more exact investigation of the fundamental action of drugs on the tissues and organs, and the discovery of the remarkable correspondence which has been found to exist between the chemical composition of substances and their physiological effects, have given a new and extraordinary impetus to therapeutical studies. Sir William Roberts went on to say that there were few simpler problems than those relating to the palliative treatment of acid dyspepsia and the chemical prophylaxis of uric acid gravel, but there were some practical points in carrying out the treatment which were neither simple nor well known. Antacid agents might be classified into those which were designed to take effect in the stomach, or gastric antacids; and those which were designed to take effect in the kidneys, or renal antacids. The gastric antacids in common use consisted of the alkaline and earthy carbonates and lime-water. Renal antacids combined, in addition to these, the acetates and citrates of potash and soda, which were changed in the *primæ viæ* into carbonates of these bases. Gastric antacids were employed in two distinct classes of cases—namely, in acid dyspepsia, and in a variety of conditions characterised by great irritation of the stomach, often with vomiting, which we sought to allay by the administration of milk mixed with lime-water. For acid dyspepsia the lozenge was the best mode of administration of an antacid. The Pharmacopœia had two lozenges of this kind, the troch. sod. bicarb. and the troch. bismuthi. The latter was to be preferred. It owed its antacid properties to the chalk and magnesia which it contained, the bismuth being probably inert. Many lozenges sold in the shops contained pungent spices which were injurious. The Vichy lozenges were valuable, but rather costly. It was well to vary the antacid from time to time. The question might now be put, Is there any harm in the practice of habitually using antacids for the relief of acid dyspepsia? He had naturally at one time

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regarded the practice with misgivings, but a more extended experience had led him to believe that it was harmless. He used the bismuth lozenge largely, but with the following precautions. They were not to be used at or near meal-times; they were not to be used regularly or systematically, but only when gastric pain was present and produced real discomfort; lastly, the use of the lozenge was to be discontinued if it failed to cut short the pain. Lime-water and milk was a favourite remedy, and often very successful. It sometimes failed, owing to the very low saturating power of lime-water. It was often desirable to substitute a solution of from five to ten grains of bicarbonate of soda per ounce for the lime-water. The use of renal antacids rested on an equally rational basis. To prevent uric acid gravel forming we had only to keep the urine alkaline; but, simple as this was, there were some practical difficulties in the way, owing to the persistence of the tendency to the uric acid formation. It was very important to remember that this tendency did not last throughout the entire twenty-four hours, the necessary conditions being only present during the hours of sleep. It followed that if we safeguard the night, the day might generally be left to take care of itself. In the milder cases a full dose of the alkalising agent at bedtime was sufficient. The citrate of potash was the best preparation. The dose for an adult should not be less than from 40 to 60 grains, dissolved in three or four ounces of water. In severer cases a second dose should be taken about the middle period of the hours of sleep. In still more severe cases additional doses might be required, but usually only temporarily. The essential point in the prophylactic treatment of uric acid was to guard the urine from precipitating within the precincts of the kidney. An antacid which was too feeble to render the urine actually alkaline might postpone the time of precipitation.

OBSTETRIC MEDICINE.

On Wednesday, the President, Dr. CULLINGWORTH, opened this Section with some suggestions towards the further application of antiseptic principles to midwifery practice. He pointed out that the very fact of the use of chemical disinfectants being an essential part of the antiseptic method carried with it the danger of regarding the part they play in the treatment too exclusively, and of neglecting other means of ensuring antiseptic cleanliness, which, though perhaps subsidiary, are nevertheless of the greatest importance. Amongst these means he particularly mentioned the avoidance of frequent vaginal examinations, especially during the first stage of labour; the immediate removal from the uterus of matters retained either after labour or after an incomplete abortion; the desirability of allowing patients after a normal labour to sit up in bed occasionally on the second or third day, so as to carry out the great antiseptic principle of drainage; the immediate suture of the perineum wherever the tear is at all considerable; and the more general substitution of absorbent pads for the old-fashioned linen diaper. Our zeal for the safety and well-being of the recently-delivered mother ought not to make us wholly unmindful of the newly-born child. Could we usefully apply antiseptic principles to the management of the infant? The answer was, that we could in at least two ways—viz., in the adoption of means to prevent ophthalmia, and in the mode of dressing the remains of the umbilical cord. In regard to the former, Dr. Cullingworth recommended, in addition to the wiping of the child's eyes with a clean, soft, dry cloth as soon as the head was born, and if possible before the eyes were opened, the application of a solution of corrosive sublimate (1 in 3000) by squeezing over each eye a saturated pledget of cotton wool immediately after the first washing. Credé's method of dropping in a 2 per cent. solution of silver nitrate need only be adopted in cases where the mother was known to have suffered from a purulent vaginal discharge. The report of a committee of the Ophthalmological Society showed that from 30 to 40 per cent. of the inmates of blind institutions in Great Britain and Ireland owed their blindness to purulent ophthalmia in their infancy; hence it was not unreasonable to infer that, by the adoption of the means of prevention here suggested, the amount of blindness at present existing in this country might be diminished by one-third. With regard to the dressing of the umbilical cord, it was pointed out that the normal course of events was for the remains of the funis, after division and ligature, to dry and shrivel up, and for separation of the desiccated and dead tissue to take place within a few days, leaving a raw surface analogous to the placental site on the inner aspect of the mother's uterus, and liable, like it, to be a channel for septic absorption. The objects to be aimed at, therefore, were to secure (1) the normal desiccation of the cord before its separation, and (2) an aseptic condition of the wound left when separation has taken place. The method recommended was, after drying the surface of the cord, to powder it plentifully with powdered starch and wrap it in a square of antiseptic gauze. The umbilical wound should be dusted freely with finely powdered boric acid, and covered with a pad of dry absorbent wool. Allusion was then made to the sectional arrangements, and especially to the considerations which had led to the selection of subjects for discussion. The address concluded with some remarks on the combativeness of the present race of gynæcologists, which was to be explained by the science of gynæcology, being in its youthful stage. When our knowledge had a firmer basis, we should differ less.

On the termination of the President's address, Dr. BRAXTON HICKS opened a discussion on the treatment of Placenta Prævia, and recommended the following method. 1. After the diagnosis of placenta prævia is made, proceed as early as possible to terminate pregnancy. 2. When once we have commenced to act, we are to remain by our patient. 3. If the os is freely expanded and the placenta marginal, rupture the membranes, and wait to see if the head is soon pushed by the pains into the os. 4. If there be any slowness or hesitation in this respect, employ forceps or version. 5. If the os is small and the placenta more or less over it, carefully detach the placenta from round the os, and if no further bleeding occurs we may wait an hour or two; but should the os not expand, and if dilating bags are at hand, the os may be dilated. If it appears that the forceps can be admitted easily, they may be used; but if not, version by the combined internal and external method should be employed, and the os plugged by the leg or breech of the fœtus; after this is done, the case may be left to nature, with gentle assistance, as in footling and breech cases. 6. If the os is small, and if we have neither forceps nor dilating bags, then combined version should beresorted to, leaving the rest to nature, gently assisted. 7. If during any of the above manœuvres sharp bleeding should come on, it is best to turn by the combined method in order to plug by breech. 8. When the fœtus is dead, or labour occurs before the end of the seventh month, version by the combined method, no force following, is the best plan. To these Dr. Braxton Hicks added, if we employ a routine method in most cases, it will be found that version by the combined method, no force following, gives a result as good as, if not better than, any. As to after-treatment, act on modern principles. Should oozing occur after expulsion of the placenta, swab the lower uterus by styptics, and irrigate tho uterus daily with some antiseptic solution, and particularly, if irrigation cannot be done, insert iodoform pessaries in the vagina. This is especially useful if the outlet of the uterus is blocked by adherent clots.

Dr. MURPHY (Sunderland) strongly urged the necessity of realising the extreme danger of leaving cases of placenta prævia to go on after they were once diagnosed, and wished to establish a rule that premature labour should be induced as soon as it is ascertained that the placenta presents, after the seventh month of pregnancy, and even before this should bleeding be serious or frequently recurring. He advised that the obstetrician should remain in constant attendance during the whole period of labour, which could be best induced by Barnes's bags, and then the question must be decided how further to conduct it. Generally separation of the placenta, full dilatation of the os, and bipolar version would give the best results. He submitted a table of thirty-eight cases, with two deaths; there had been a series of thirty-two consecutive recoveries included in this list.

The PRESIDENT read a letter from Dr. Lomer, in which he gave the greatest credit to Dr. Braxton Hicks for his method of treatment. He had treated twenty-eight cases by the combined method of turning, with one death of the mother and with thirteen living children. Putting together all the German statistics, there were 190 treated by Dr. Hicks's method, with only nine deaths. Dr. Lomer's rule was as follows. Turn, and then wait; consider the case as being simply one of foot presentation, in which there is no other reasonable necessity to extract the child than the impatience of the operator. Should hæmorrhage occur in the

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meantime, then naturally it is right to perform slight tractions on the foot in order to make the breech of the child tampon the bleeding parts; this traction ought, however, not to be a "hastened extraction."

Dr. ROBERT BARNES said, if he had been a German probably what was now called Bandl's ring would have been styled Barnes's boundary line, as he had long ago described it as the boundary line of dangerous hæmorrhage, which must be dilated to allow the child's head to pass. He recommended (1) puncture of the membranes, (2) separation of the placenta, (3) dilatation of the os by his rubber bags, and (4) forceps or turning according to the circumstances present. He said the prophylaxis of placenta prævia was of importance, as this complication was liable to recur. Attention should be given to the endometrium so as to get it into a healthy state.

Professor HARVEY (Calcutta) said treatment must vary according to the nature of the case.

Dr. WALTER (Manchester) gave details of twenty-three cases seen by him. The mode of delivery was in one case by forceps, in three by natural labour, and in nineteen by version. In hospital practice his mortality to the mother was 10 per cent.; in private practice he had no maternal deaths. He spoke highly of Dr. Hicks's method.

Dr. BERRY HART (Edinburgh) showed specimens (frozen sections) of placenta prævia, and spoke on the definition of the terms used in relation to the hæmorrhages at the end of pregnancy.

Dr. MORE MADDEN and Dr. MURDOCH CAMERON also spoke.

The following papers were then read: "The Mechanics of Puberty," by Dr. Johnstone (Danville, U.S.A.); "Some Points in the Treatment of Uterine Cancer," by Dr. More Madden; "Some Practical Points in the Surgical Treatment of Cancer of the Uterus," by Mr. Stuart Nairne; "Vaginal Hysterectomy for Cancer, with Notes of Ten Cases," by Professor Japp Sinclair. Dr. Walter (Manchester) gave details of a case of Total Extirpation of the Uterus for Cancer.

In the discussion which followed on the "Cancer" paper, the PRESIDENT gave the following statistics of the results of total extirpation at Dresden. From 1883 until 1889 there had been 160 cases of total extirpation of the uterus, with a mortality of 5·4 per cent. Leopold had reported 48 of these cases; of the remaining, 80 were cases of carcinoma, and of these 62 are living; in 3 there were signs of recurrency, 4 died at once; 14 died later (10 owing to recurrence); 59 were cured—some certainly, others possibly; and 52 cases occurred in succession without a death.

Dr. BRAITHWAITE (Leeds) gave details of seven cases of total extirpation of the uterus done by him with one death.

Dr. Campbell, Dr. Cameron, Dr. Bell, and Dr. Barnes also spoke in the discussion.

THE MAYBRICK CASE.

THE trial of Florence Elizabeth Maybrick for the wilful murder of her husband, James Maybrick, by poisoning him with arsenic last May, commenced on Wednesday, the 31st ult., and ended on Wednesday, the 7th inst., in a verdict of guilty and sentence of death. It was tried at the Crown Court, Liverpool, before Mr. Justice Stephen. Mr. Addison, Q.C., M.P., Recorder of Preston, led for the prosecution, with Mr. W. R. M'Connell and Mr. Swift; Sir Charles Russell, Q.C., M.P., with Mr. Pickford, appearing for the defence. The greatest interest was taken in the proceedings, the court being crowded each day. The case for the prosecution occupied three days and a half; that for the defence nearly a day and a half. The learned judge's summing up took up the whole of Tuesday, the 6th, and more than one half of the next day, and a more exhaustive recapitulation of the whole case could not have been made. The following is a condensed history of the more important medical features of the case as given in evidence.

The deceased was a Liverpool cotton-merchant, having an office in the city, and a residence at Aigburth, a suburb situated a few miles south of Liverpool. His age at the time of his death was fifty; he had been married eight years, the issue of the marriage being a boy aged seven and a girl aged three. The deceased and his wife lived apparently on happy terms until the day of the last Grand National Steeplechase, when they had a very serious quarrel, which was, however, on the intervention of Mr. Hopper, the family medical attendant, apparently made up. The deceased's health was described by Mr. Hopper and his relatives as being fairly good. His brother denied positively that he was in the habit of taking arsenic, and it appeared that the deceased had indignantly denied it. The deceased's family history was good, and his life was insured. On Sunday, April 14th, Mr. Fuller, of Albany-street, London, saw the deceased at the residence of his brother, Mr. Michael Maybrick, Wellington Mansions, Regent's Park. He complained of a little pain in his head and numbness in his legs; he was apprehensive of paralysis. Mr. Fuller spent an hour with him, examined him fully, and expressed his opinion that there was nothing the matter with him beyond indigestion, for which he prescribed acid. nit. mur. dil. with nux vomica and syrup. He also ordered a compound camomile pill, and in a second prescription extract of cascara, some glycerine, and cream of tartar. The deceased called at Mr. Fuller's residence the following Saturday, April 20th, and expressed himself as much better; the prescriptions were varied a little. Mr. Fuller never prescribed arsenic, and nothing was said to him about it. On Sunday, April 28th, Dr. Humphreys, who resides not far from the deceased's residence, was sent for, and found him in bed. Except for a trifling injury, he had not previously attended him. He complained of some peculiar condition of his chest and heart, was afraid he would be paralysed, and referred his symptoms to a strong cup of tea, adding that upon several previous occasions tea had produced similar inconveniences. He complained of the dirty state of his tongue, which he said had been furred and dirty for a long time, and that he could not get it clean. He had been at the Wirral races the day before, had dined with a friend, and while at dinner his hands were so very unsteady and twitching that he spilt some wine, which distressed him very much, as he feared his friends might think him drunk. Dr. Humphreys prescribed dilute prussic acid, and advised him to have nothing that day except milk and soda. He was called again to him that evening, and found him suffering from stiffness of the legs, for which he prescribed bromide of potassium and tincture of henbane. He called the next day; the deceased was better, but remained in bed, and, concluding that it was a case of chronic dyspepsia, Dr. Humphreys ordered him a dietary in writing and Seymour's preparation of papain and iridin, one teaspoonful a day. On May 1st the deceased was much better, his tongue was clean, and the headache had disappeared. On Friday he complained of being worse, and that the medicine did not agree with him. Dr. Humphreys assured him he was better, and at the deceased's request allowed him to go to town and to have a Turkish bath. He met him in town that afternoon, but had no conversation. At midnight Dr. Humphreys was again sent for; the patient was in bed in great pain, which he referred to his thighs, hips, and knees. He had been sick, which he attributed to inferior sherry put into his Revalenta Arabica food. The sickness continued, and on the following Sunday, May 5th, Dr. Humphreys proposed a consultation, to which Mrs. Maybrick objected on the ground that he had had so many doctors and that they had done him little good. But Dr. Humphreys being puzzled with the case, and the deceased's brother insisting upon a second opinion, Dr. Carter was called in and saw him on Tuesday, the 7th. He examined him thoroughly, and found nothing wrong with the heart, lungs, liver, or brain; diarrhœa was just commencing; the throat was much inflamed, red, dry, and glazed. The deceased complained of a sensation as of a hair in his throat, and some vomited matters and fæces were shown. Drs. Carter and Humphreys agreed that it was a case of acute dyspepsia resulting from improper food or drink, or both. On the 9th tenesmus was present, and there was looseness of the bowels, examination of the rectum causing such pain that it had to be abandoned. The symptoms strongly suggested some irritant, and about this time, circumstances exciting strong suspicions against Mrs. Maybrick having arisen, nurses were in attendance, with strict orders that the deceased was to have no food except what they themselves prepared in the rooms. Dr. Humphreys tested some urine and fæces, with a negative result; Dr.

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Carter tested some Neave's food, with the same result; but in a bottle of Valentine's meat juice he got distinct evidence of arsenic, both by Reinsch's and Marsh's tests. It was too late, however, to save the life of the unfortunate man, who sank and died on Saturday afternoon. On Monday a post-mortem examination was made, Dr. BARRON, pathologist of the Royal Infirmary, representing Mrs. Maybrick. There were no indications of any natural cause of death, and the appearances of the stomach, intestines, and rectum were those which would be produced by an irritant poison, such as arsenic. That the cause of death was an irritant poison was the opinion of all the three gentlemen who made the post-mortem examination; but Drs. Carter and Humphreys also expressed a decided opinion that it was a case of death from arsenical poisoning after hearing the result of the chemical examination by Mr. Edward Davies, analyst. That gentleman found arsenic in the liver, in the intestines, and in the kidneys, the total quantity in the abdominal viscera being estimated at one-eighth of a grain. Mr. Davies also found arsenic in the bottle of meat juice handed to him by Dr. Carter, the quantity being about half a grain. He found arsenic in many other articles sent him from the house, including a bottle of mixture made up from Mr. Fuller's prescription by Messrs. Clay and Abraham, a firm of Liverpool chemists, and proved the absence of any arsenic in another bottle of the same mixture found at the deceased's office, as also in all the bottles of ingredients from which the prescription had been made up. In the jug, basin, and pan from which the deceased warmed and took his lunch at the office, Mr. Davies found distinct evidence of arsenic, from which he inferred that there must have been a very decided quantity of arsenic in the whole of the food, as he had obtained crystals of arsenic from the small fragment which remained adhering to the jug even after it had been washed. On comparing the specific gravity of the fluid in the Valentine's meat juice bottle with that of a fresh sample, Mr. Davies concluded that the arsenic had been introduced in a fluid form. A basin containing fly-papers soaking in water was found by the housemaid in Mr. and Mrs. Maybrick's bedroom covered over with a towel. It was shown that Mrs. Maybrick had purchased fly-papers from several chemists, alleging that the flies were beginning to be troublesome, which was not correct. Arsenic was also detected on the front and in the pocket of a dressing-gown, on a handkerchief, and a bottle contained liquid with from twelve to fifteen grains of solid arsenic, also water and powdered charcoal. It was identical with some powder found in a packet and labelled "Poison for cats." A tumbler containing milk and a handkerchief was found to have between twenty and thirty grains of arsenic in it. A bottle of Price's glycerine also contained arsenic. Mrs. Maybrick was seen by one of the nurses to remove the bottle of Valentine's meat juice into another room—afterwards found to contain arsenic,—to return with it in a very suspicious manner half hidden in her hand, and to replace it on the table. The nurse gave it to Mr. Michael Maybrick, who delivered it to Dr. Carter. The lunch taken on May 1st was wrapped up in brown paper and given by the prisoner to Mr. Edwin Maybrick, who gave it to his brother. The latter ate it in his presence, and complained of it as having made him ill. It was in the remains of this that Mr. Davies found the arsenic.

Dr. Stevenson, Professor of Forensic Medicine in Guy's Hospital Medical College, and Analyst to the Home Office, received some of the viscera to examine, and was the last witness called for the prosecution. His analysis confirmed that of Mr. Davies, with the exception that he estimated the proportion found in the liver as larger. He expressed his opinion that death resulted from poisoning by arsenic.

For the defence, Dr. Tidy, the Lecturer on Medical Jurisprudence at the London Hospital Medical College, who was called on the same day as Dr. Stevenson, contended that it was not a case of arsenical poisoning. He argued that the four symptoms—vomiting, purging, pain in the stomach, and soreness of the eyes—were absent, and that the small quantity of arsenic found in the body of the deceased was accountable for by the alleged habits of the deceased. Evidence from America was brought by two witnesses, who testified to the deceased having taken arsenic some years ago, and by a retired Liverpool chemist, who identified the deceased by means of a photograph, who deposed to the fact of the deceased having gone to his shop to have "pick-me-up's" containing doses of Fowler's solution. Dr. Rawdon Macnamara, of Dublin, also gave evidence for the defence, contending that the deceased's symptoms did not correspond with those of patients suffering from poisoning by arsenic. Mr. Paul's evidence went to show that there was arsenic in the glazing of the pan in which the lunch was warmed, which might be set free by muriatic acid. He also contended that if arsenic had been present in the urine it must have shown itself by Reinsch's test which Dr. Humphreys employed.

Mr. Justice Stephen, in summing up, alluded to the partisan character of expert evidence, quoting also the old saying that "a physician was a man who put medicine, of which he knew little, into a body of which he knew less." He deprived the sarcasm of its sting, however, by the compliments which he paid to the various medical witnesses, the whole of whose evidence, as well as that of others, he went carefully through. At her own request the prisoner was allowed to make a statement. She stated that the solution of fly-papers was for a cosmetic, as her mother and some friends in Germany could have testified. She added that she put some white powder in the meat juice at her husband's request, and, as some of it was spilt, filled it up with water.

The jury were only absent from court about forty minutes, and returned with a verdict of "Guilty." Sentence of death was pronounced upon the unhappy woman, who throughout the whole of the long trial, and in a close court, in sultry weather, bore herself with most remarkable firmness.

The case resembles in some points that of Wooler, in others that of Madeline Smith; but it has its own peculiar features. As in Wooler's case, the poison was arsenic, and it was suspected during the deceased's lifetime. But there was not the same delay in coming to a conclusion as to the real nature of the case, or the same performance of Reinsch's test with acid contaminated with arsenic. The cosmetic theory set up in Madeline Smith's case was again set up here.

Pharmacology and Therapeutics.

SOMMERBRODT ON CREASOTE IN TUBERCULOSIS.

PROFESSOR SOMMERBRODT of Breslau, in two communications to the *Therapeutische Monatshefte*, declares that an experience of over 5000 cases has proved to his own satisfaction that creasote is not merely a useful drug for the symptomatic treatment of tuberculosis as has been conceded by others, but that it exerts a specific influence on the disease by the resistance it offers to the cultivation of tubercle bacilli. Dr. P. Guttmann had by his experiments shown that tubercle bacilli could scarcely be cultivated in sterilised serum containing 1-4000th of its volume of creasote, and the culture entirely failed when the solution was a little more concentrated. He concludes that if it were only possible to administer sufficient creasote for the blood to contain that drug for some time in the proportion of 1-4000th of its own quantity, tubercle bacilli would probably cease to develop. This, he contends, is impossible, not only because the required quantity of creasote in the blood would be more than twenty grains, but because it would be impossible to determine what quantity of creasote would have to be administered to make twenty grains of it circulate in the blood. Sommerbrodt believes that it is possible to give the necessary quantity of creasote. He has been prescribing for some time to many hundreds of tuberculous patients capsules of creasote, each containing one grain of the drug. These capsules were taken, three the first day, and every succeeding day one more until the eighteenth day, after which the same quantity—from twenty to twenty-five grains per day—was continued for many months. The author says that it is impossible to presume that the twenty grains of creasote have already entirely passed out of the blood by the time the second or third dose of the drug is given, so that probably such an accumulation of creasote takes place in the tissues as to fulfil Dr. Guttmann's postulate. He has at any rate had the most gratifying success with this medication, and his experience was that the more creasote a patient could bear in a day the greater was this success. The *modus operandi* of the creasote, Dr. Sommerbrodt says, has not yet been sufficiently cleared up. The drug is certainly a stomachic tonic and diminishes the secretions, but these can hardly be its chief effects. He rather believes, although

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the experiments on animals have so far led to negative results only, that a sufficient quantity of creasote must make the soil unsuitable for the cultivation of tubercle bacilli. He suggests therefore that serum from a man who has for some time taken more than twenty grains of creasote be used to cultivate tubercle bacilli, so as to find out if this acts differently from the serum of another person used for the same purpose.

SULPHUROUS ACID GAS IN FAVUS.

Dr. Schuster of Aix-la-Chapelle, in a paper on the treatment of favus, published in the *Monatsschrift für praktische Dermatologie*, describes the treatment he has adopted in place of the old one, which, after months of application, is so often unsuccessful. He applies sulphurous acid gas to the affected head in the following ingenious way: a net of strings is made across the lower third of an open cardbox cylinder, which is fitted to the head like a hat, and which can be closed by a cover of the same material. A saucer containing burning sulphur is passed through the open top and laid on the net of strings, and the whole covered up and hermetically sealed. The patient must sit still for half an hour. The whole cylindrical space is filled with sulphurous acid gas, which does not pass off even in that space of time, though the sulphur itself is of course extinguished after all the oxygen has been used up. The treatment is repeated daily, and a favourable effect is always observed after a few sittings, while in from six to eight weeks the head is free from favus, presenting in its place smooth white bald patches. The hair must of course be cut short, and the scabs softened with oil and removed, and the whole head washed with soap. Dr. Schuster believes the same treatment would be found suitable for ringworm.

THE TREATMENT OF FURUNCLES.

Staff-Surgeon Leu of the German army sums up a long communication to the *Deutsche Militärärztliche Zeitschrift* on the treatment of furuncles with the following conclusions. Subcutaneous injection of carbolic acid is a simple and effectual abortive treatment of furuncles. Incipient furuncles which have not yet suppurated are especially adapted for this treatment. A cure results in these cases without necrosis of connective-tissue; in the more advanced furuncles which have formed pus or are even discharging it, no deforming cicatrisation follows. The proper strength of the carbolic acid is 3 per cent. This mode of treatment is particularly valuable in the army, because it shortens the time on the sick list (when it is necessary to put the man on at all), and he returns to duty with a better cicatrix, while many may be treated without going to hospital. The simplicity of the apparatus required, consisting only of a Pravaz syringe and a small bottle of carbolic solution, makes it possible to apply the same anywhere and at all times—for instance, during manœuvres and on the march.

TORTURING AND STARVING FISH.

By J. LAWRENCE-HAMILTON, M.R.C.S.

IT is sad to relate that in the fish trades of the United Kingdom those professionally and pecuniarily interested and engaged in fish torturing and in fish starving have, in the ignorant thoughtlessness of chronic custom, been alike blinded to the sacred civilising duties of humanity and Christianity, and at the same time have overlooked and omitted their own material profits and advantages. I shall show that fish starving is a domestic sport which simultaneously diminishes the commercial value of the fish; it ruins the flesh, flavour, and firmness of the fish; it tends to induce parasitic, bacterial, and other diseases in the fish; it diminishes the weight of the fish, and increases its cost both to the professional fish starver and to the consumer—the general public. Fish so starved are more liable to rapid decomposition soon after death, and in codfish such starved fish are more difficult to crimp, which are additional causes and circumstances tending to enhance the avoidable risks of the present fish trade, and therefore an unfair tax on the consumer. The average absolute loss in weight of codfish by starvation and imprisonment appears to represent 10 per cent. of the entire weight of the natural normal healthy fish, a heavy avoidable commercial loss. The close confinement of codfish in their fish chests sunk in the fish docks causes a rapid increase in the relative number of bacteria always present in the blood of living fish, and when the proportion of bacteria exceeds that which the blood of living fish can tolerate, then the fish commences to sicken and will often die, even if well and regularly fed in a fair amount of space, as in the well-cared-for fish kept in aquaria but too often illustrate. Hence it is that these sunk fish trunks become the rapid carriers of contagious disease to any healthy fish which may chance to be in or near the fish chest.

It is known that fish, in addition to tolerating in health a certain proportion of bacteria, are also, up to a certain point, equally tolerant of various external and internal parasites, and generally every fish dissected shows either some parasites—as tapeworms—in its intestines, or other parasites about its gills, eyes, skin, or elsewhere, and even sometimes as many as fifteen different species of parasites have been discovered in one individual fish. Often these parasites, along with the bacteria, increase so as to gain the battle over the fish, especially when the latter becomes weakened by starvation, confinement, injury, or other causes tending to diminish its vitality. Parasites also promote decomposition the moment the fish dies. These sunk fish chests never err on the side of cleanliness, and are hence favoured localities for hatching and breeding bacteria and parasites specially destructive to fish health and fish life. Later I hope to be able to publish a detailed illustrated pamphlet on this subject. The loss of life in codfish caught in the nets will not average upwards of 5 per cent. Hooked fish on being drawn up are liable to disgorge or vomit not alone the contents of their stomachs, but also, especially in the case of deep-sea and abyssal fishes, to have their stomach and part of their intestines protruded through their mouths. Deep-sea and abyssal fishes, fish having air-bladders, by the rapid altered pressure, together with the influence of shock, get their air-bladders so dilated with evolved gases that they are unable to sink from the surface of the water in welled smacks till the fisherman, passing a long needle through the walls of the fish's abdomen, or the pit of the left pectoral fin, by letting the gases escape, allows the fish to resume its natural habits. Hooked salmon vomit through fright alone. Fish may be sometimes seen with a prolapsed and protruded rectum and lower intestine, which appears to be due to relaxed flabby muscles, and is a sign which, very shortly precedes the commencement of decomposition. As a rule, hooked fish keep longer fresh than netted fish. Netted fish, owing to being long injured by having been trawled over rough grounds, together with the sharp prolonged squeezing and banging about which they get in the nets, are, like over-driven cattle, specially liable to early decomposition.

Much of the so-called best prime "live" codfish at Billingsgate has after capture been transferred into welled smacks which accommodate from about 600 to 1000 codfish, each weighing from 16 lb. to 20 lb. avoirdupois, where, especially in rough weather, after having been subjected for a few days to injury, confinement, and starvation in the welled boats, to prevent these fish from eating one another they are sometimes specially secured by their tails. On arriving in port some forty of these codfish are tightly crammed into a fish chest, which is sunk in the fish dock (which in England answers only during the cold weather, from about November till April), where the codfish, after further confinement and starvation, all die within a few weeks. If the fish be kept for a shorter interval—say, a fortnight—then on an average only about 10 per cent. of such codfish are found dead upon opening the raised chest. All such starved, closely-confined codfish lose much of their natural healthy flavour, firmness, weight, and plumpness. The fish having to support life, consume much of the substance of their own livers, which appear small and shrunk when compared with the normal liver of a freshly killed healthy fish. Consideration of the chemical and microscopic changes thus artificially induced I propose to postpone for a subsequent occasion. This codfish, if not previously dead, is then stunned with a blow from a big mallet, and thus, whilst insensible, crimping is alleged to be carried on. As the sensibility never returns there is practically no cruelty. Skate are said sometimes whilst still alive to be crimped by fishmongers. So long as cod will "crimp," or show muscular contraction it is called in the fish trade "live cod," an intentional misrepresentation.

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Out of its healthy season, a woolly, watery codfish is often appropriately termed by the fishermen "churchyard" cod. Recollecting these facts, the familiar dry, flabby, cotton wool-like taste of the vaunted best prime "live" codfish so often sold at Billingsgate and elsewhere is easily explained. Skinning live eels and gutting live fish, causing avoidable, useless torture, are occasionally practised.

Lobsters and crabs are often kept alive on wet seaweed or ferns, and live on an average in hampers for a couple of days, starving before they reach the fishmonger, who frequently keeps them, if not sold, till they die of starvation. Lobsters and crabs thus starved to death lose weight, firmness, taste, and flavour, and immediately on death tend to decompose rapidly, which in such conditions is but slightly diminished by boiling in salted water. Instead of puncturing their brains with a stilleto, wriggled about so as to break up the animal's brain material, and then plunging the crabs and lobsters into boiling water, out of sheer thoughtlessness and careless custom, living lobsters have been placed in cold water which, whilst it is being heated up to the boiling point, causes the animal unnecessary and easily avoidable torture, for if plunged into boiling water it quickly dies. However, previously to boiling crabs and lobsters, to rid them of sand and dirt they should be well washed in fresh flowing water. Although no fish or shell-fish is legally protected against cruelty in this country, and although it is not punishable to boil fish alive, to roast fish alive, to slice fish alive (as turtle used to be in Ceylon, and as some air-breathing fish carried about in earthen pots in China are still), yet it is to be expected that these cruelties will rapidly disappear as soon as fish traders find that humanity to animals will benefit their own pockets. Codfish would keep in excellent health and condition if kept free in artificial ponds or docks fed with sea water, as was the custom among the ancient Romans and ancient Egyptians. The present St. Petersburg fish farms or ponds, fed by the river Neva, and where each species of fish has a separate compartment, yield profitable rentals. Lobsters and crabs can be fed on almost any fish refuse. The English law is curious as regards cruelty to animals. Scratching a tame rabbit so as to draw its blood is punishable with three months' imprisonment with hard labour, whilst the law permits anyone to roast a *wild* rabbit alive without any interference. Possibly the Legislature considers fish as wild animals, and therefore beyond and outside the jurisdiction of the law courts.

ALKALI MANUFACTURE.

THE twenty-fifth annual report of the chief inspector of alkali works presents upon the whole a favourable view of the work of his department during the past year. The best results of supervision are to be found in the improvement of the processes under inspection which tends to render supervision less necessary, and such an improvement appears to be slowly taking place in connexion with the industries under his care. Thus, a summary table given in the report shows that the average amount of acid gas discharged into the atmosphere from works of this description during three years past has very considerably diminished. The comparison of 1887 with 1886 does not indeed show uninterrupted improvement, since in the item of sulphuric acid manufacture there was an actual increase in the proportion of the acid which escaped to the acid produced. The year 1888 shows a better record. In every single item recorded there is a distinct advance over the record of either 1887 or 1886. The improvement is most marked in the class of manure works where the proportion of noisome gas which escapes has been reduced by over 20 per cent. as compared with last year, the last year itself showing an improvement on the year before. An improvement less marked but still important is recorded in the manufacture of hydrochloric and sulphuric acids, and the remaining items, if differing only slightly from the results of previous years, at least show movement in the right direction. This is so far very satisfactory; but it is at least equally apparent from the report that the duties of the inspector might with advantage be enlarged and his powers extended. This is especially the case in connexion with the production and emission of acrid smoke. There can be no doubt that the industrial community as a whole is chargeable with some slackness in this particular. Hygienic and economical considerations alike point to the use of smoke consuming furnaces as being the only proper appliances to use for almost all the purposes of combustion. Yet their employment is by no means so universal as it might be expected to be. To some extent the supineness of the manufacturers may perhaps be accounted for by a singular misconception to which Mr. Fletcher calls attention. He states that it has been asserted that black smoke ought not to be lightly dispensed with; for, that if the combustion in a furnace be so conducted as to prevent its appearance, carbon monoxide would probably be generated and the remedy be worse than the disease. In view of this theory he has, we think, done well to publish the copious analyses of chimney gases, which illustrate that part of his report which deals with this subject. These show in the clearest way that the view in question is entirely without foundation, or even the appearance of support, not only in chemical theory, but also in practice. The dreaded carbonic monoxide makes its appearance always in company with clouds of smoke. When the smoke is slight, the admixture of monoxide is small in corresponding proportion, and when the effluent gases are perfectly clear no admixture of monoxide is ever found. It may be hoped, therefore, that this mistake will receive from the present report its *coup de grâce*, and that the direction of public attention to this important matter will have the highly desirable effect of securing better management for furnaces. It is, as the inspector pointedly remarks, "by no means necessary that the public should suffer in health, in comfort, and in pocket by a continuance of the smoke nuisance." There is one other passage in this report which we note with great satisfaction—namely, that in which the prospect is held out of securing at no distant date the general adoption of methods of utilising alkali waste. The enormous quantities of this material which distigure the neighbourhood of Widnes and Runcorn are not only displeasing to the senses, they are also sources of direct and serious loss, for they represent useless accumulations of highly useful materials. The reason for their accumulation has been that the cost of extracting their contents has heretofore been so great as to render the process unremunerative. We hear now, however, of an operation which will rescue the sulphur certainly, and possibly make the residue available for the purposes of cement. Should this be successfully carried out, the benefit will not only be considerable, but, what is even more rare, complete and unalloyed.

THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

The International Congress of Hygiene.

ON Wednesday, Aug. 7th, as announced in a previous letter, the members of the Congress were up betimes, so as to catch the special train destined to take them to Rheims. After a three hours' journey we reached the historic town. A number of brakes, vans, and carriages were waiting at the station, and we were conveyed some distance out of Rheims to view the sewage farm. This is quite a new institution, and only commenced to receive the sewage some four months ago. The town possesses 150 hectares, but can dispose, for irrigation purposes, of 500 hectares. This is amply sufficient, and when there is a storm, or when by some other cause there is more sewage than the soil under cultivation requires, the water may be thrown on some waste land. Thus the danger of flooding the ground is obviated and underground drains are not required. There is a pumping station to send some of the water up to the higher grounds, which reach an altitude of twenty metres. Unfortunately the chief utility of this sewage farm is to prevent the contamination of the river. It does not in any way solve the drainage problem. Rheims still drains into cesspools; the town has not water enough for waterclosets, but when the water-supply has been increased, then the existence of this sewage farm will enable the town to drain direct into its sewers. After duly investigating all these facts, the Congress was entertained at lunch at the Château des Maretz, which belongs to the company that has undertaken the management of the sewage

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farm. The lunch was served in a magnificent avenue of trees. Of course, there were some excellent speeches, notably by the director of the company, the prefect of police, the Mayor of Rheims, Dr. Napias on behalf of the French, and Mr. Adolphe Smith, who was specially requested to return thanks by the Swiss, Turkish, Russian, American, and English delegations. Madame A. Tkatchef, doctor in medicine, spoke for the ladies, and the utmost enthusiasm prevailed. The Congress then visited the cathedral, the Pommery champagne cellars, and were again entertained, this time by the Municipality of Rheims, at a second lunch given in the Town Hall. Here more speeches were delivered. Those who participated in this pleasant journey will recognise that the study of serious subjects does not interfere with the spirit of mirth and the sense of enjoyment.

On the following day, Thursday, the Congress set to work again in good earnest. In Section 1, M. Delvaille (Bayonne) urged that the medical inspection of schools, as prescribed by the law of 1886, should be more rigorously applied, and that medical officers should be appointed for this purpose. Dr. Sevestre, of the Paris pauper children's hospital, urged that it was in its earliest manifestation that measles was most contagious, and that children suspected of this complaint should be kept away, but that the convalescents might be allowed to return earlier than was at present the custom. Dr. Layet (Bordeaux) related that, by exceptional severity towards the "suspect," they had avoided the necessity of closing schools, while Dr. Rochard insisted that the school teachers must be instructed in these matters. It was no use relying exclusively on the medical profession, for there were 28,000 communes in France which had no doctor. With regard to short-sightedness in schools, Dr. Motais (Angers) gave the results of investigation on 6700 children. He found that short-sightedness was much more frequent in Germany than in France, but that it was growing to an alarming extent in France. He was anxious to see the course of studies varied and children prevented from looking for too long a period at some near object.

In Section 5, Dr. Alméras (Mentone) read a paper on the Contagion of Consumption, in which he complained that delicate persons were afraid to visit winter resorts for fear of contracting phthisis. He therefore asked that hotel keepers should take rigorous measures to disinfect rooms which had been occupied by consumptive patients. At the present time hotel keepers generally charged £12 in case of death, under the pretext that the room had to be purified; but it was rarely, if ever, properly disinfected. He proposed that the ceiling, walls, &c. should be submitted to a pulverisation with a sublimated solution containing 2 of mercury per 1000 of water and 12 in 1000 of tartaric acid. When this was dry, then the same place should be similarly sprayed with a 1 per cent. solution of carbonate of soda. This would convert the sublimate into insoluble salts. This service of disinfection should be managed in winter health resorts by representatives of the public authority, and hotel keepers should receive written certificates from the municipalities that the work had been properly done. If this certificate could not be produced, strangers should refuse to hire the room or apartment.

Dr. de Valcour (Cannes) described three cases of scarlet fever following upon each other in the same room of an hotel where disinfection had not been practised, and called upon Mr. Adolphe Smith to describe the English law on the subject. After the Congress had heard this explanation, Senator Dr. Pacchiotti related how a lady belonging to an aristocratic and influential family was taken away by the police from an Italian hotel (though she was in a very grave condition, and subsequently died), so that she should not infect the hotel with the small-pox she had contracted. The Italian law had armed medical men with sufficient powers to see that proper precautions were taken. Dr. Felix (Bucharest), on the contrary, was loth to ask too much from the State, and more anxious to so educate the people as to make them spontaneously and willingly take the precautions judged necessary. At Bucharest they had a disinfecting stove, and he was surprised to note how many persons came of their own accord and asked to use it. The declaration of infectious diseases was not obligatory in Roumania, but the police had ample powers over hotels. A Swiss delegate explained that only in some cantons was a notification of disease obligatory. Disinfection in towns was easy, but difficult in country districts, though there were epidemics in villages as well as in towns. The section concluded that in each sanitary district a disinfecting service should be organised, and that the carding of bedding in the streets or squares of towns should be prevented.

Dr. Devillers brought forward a motion against fairs held in large towns. He related that in 1886, in the Belleville districts of Paris, small-pox broke out immediately after such a fair, and in houses that faced the street where it was held. This present year, it had been noted that there were six times as many cases of scarlet fever near one of these fairs as in other parts of Paris. In some provincial towns similar observations had been made. Apart from epidemic diseases accidents sometimes occurred, and the noise was most distressing to many persons, especially to invalids. Some speakers objected, on the other hand, that the special tax levied on these booths provided money for the elementary schools; nevertheless the section voted that such fairs should be held in open spaces outside large towns, and not in the streets.

Dr. Martin now read a learned dissertation on the condition of French sanitary legislation. He lamented that there was no law against infection. Theoretically the mayors had considerable powers, but as they could not act without funds, and could not obtain funds without a vote from the municipal councils, their powers were rather nominal than real, especially in cases of emergency. Nor had the mayors received any support from the higher Courts of Appeal. For instance, during the cholera epidemic of 1885, the Mayor of Caen had suppressed a cesspool which caused a great nuisance and contaminated the subsoil. On appeal, the Higher Court, while recognising that it might have been necessary to suppress the cesspool, decided that the mayor had no right to prescribe how this should be done, but should have left the work to the discretion of the owner. Practically, if the sanitary authority had no right of supervision, it would mean that the work would not be done, or would be done badly. Again, at Toulon, during the cholera, a man refused to whitewash his room; the municipal authorities thereupon sent their agents to do the work. The owner appealed to the local police court, and this court approved the action of the municipality, but when taken up to the Court of Cassation, this tribunal refused to confirm the decision of the Toulon police magistrate. Municipalities, after such judgments, are afraid to act. The French penal code, it is true, gives the right to sue for damages, but to apply this in cases of contagion would be so unusual that no court would grant a verdict. Yet there are laws in France that are very severe, especially against foreign epidemics, such as cholera, plague, yellow fever, and in some cases penalties of one year's imprisonment and even a sentence of death can be applied; but the utter lack of national feeling renders it impossible to apply the legislation that does exist. The French sanitary law had been justly described as the "freedom of suicide." But no one had a right to create such infection in his own house, as it was likely to travel to the houses of others. It was not always the landlord who was to blame. Often a tenant would hire a stable or coach-house and convert it into a dwelling. The text of the law was extremely vague. What constituted an unwholesome dwelling should be clearly defined, and not left to the discretion of judges, who very often were absolutely ignorant as to the rules of health. Many courts by their verdicts had set forth that they did not consider a supply of water in a house a necessity. A high court had condemned a local bye-law ordering that houses should be supplied with water as an attack against individual liberty. The best method of action and of punishment was for the sanitary authority itself to effect the required improvements and charge the owner with the cost. Only this must be done promptly. As matters now stood legal decisions sometimes were obtained months after the nuisance had ceased to exist.

The discussion on this important subject was resumed in the afternoon sitting, when the difficulty of uniting the commissions of hygiene and similar bodies composed of men technically qualified to deal with such questions, but possessing at present only the right to give advice and no executive powers whatsoever, with the mayor, the prefect, or other authorities who could act, was very fully debated. The facts also that the mayor had to consider his electors, and if it was a fashionable resort he had to be very careful not to spread alarm, were obstacles to the stringent application of prophylactic measures. Two Bills had been before Parliament to create a sanitary law and a sanitary

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authority. The project presented by M. Siegfried was countersigned by no less than fifty deputies belonging to all parties, and yet it had fallen through, such were the purely political preoccupations of the National Assembly. Dr. Treille (Deputy of Constantine in the French Parliament) remarked that as the sanitary services had been transferred from the Ministry of Commerce to the Ministry of the Interior, and were in the hands of a man on whom sanitary reformers might rely, we could look forward to considerable improvement. Parliament would not resist a project if its necessity was clearly demonstrated, but he would suggest that the Bill had better be first introduced into the Senate. Dr. Martin thought it was urgently necessary to alter the law of April 14th, 1850, which had rendered the law of 1789 inoperative. The Belgians, it had been seen, had availed themselves of the law of 1789, with the most admirable results so far as Brussels was concerned. Here 12,015 lives had been saved in fifteen years. Taking the one year 1886, there were 628 deaths less than the average. Estimating every life at the modest sum of 1000 francs, this represented a sum of 628,000 francs, and, as the Sanitary Bureau which had accomplished this result only cost 48,000 francs for the year, this was equal to an investment bearing an annual interest of 1400 per cent. On hearing these details the section burst into loud applause, and Dr. Janssens, the chief of the Brussels Sanitary Bureau, had to rise over and over again to bow his acknowledgments. After a few more observations from different speakers the section adjourned.

BURIAL REFORM.

THE returns obtained from the London cemeteries combine to furnish a most valuable document to all concerned in the work of burial reform. They were primarily moved for by a deputation from the Church of England Burial Reform Association, which also obtained the consent of Mr. Byrom Reed to ask for them officially in the House of Commons. The full significance of these returns will be made most apparent by placing the number of burials and the number of acres in each cemetery in juxtaposition.

Cemetery.	No. of Burials.	Acres.	Roods.
Abney Park	82,570	32	0
Brompton	155,064*	38	0
St. Mary's, Battersea-rise	24,648	8	2
Camberwell	80,790	29	2
Charlton	5,500	8	0
St. Paul's, Deptford	50,432	17	0
Walham	16,019	12	2
Greenwich Hospital	2,763	5	3
Hammersmith	19,712	16	2
Hampstead	11,281	19	0
St. James's, Highgate	76,220	38	0
Kensal-green, All Souls	80,265	69	1
Kensal-green, St. Mary's	56,246	30	0
Lambeth, Tooting Gravely	109,010	41	0
West Norwood	73,750	40	0
All Saints, Nunhead	65,550	50	0
Paddington	82,536	24	3
St. Mary's, Putney	5,010	3	0
Tower Hamlets, Mile-end	247,000	33	0
Wandsworth	4,822	12	0
Woolwich	27,687	32	0

* Including 10,000 stillborn infants.

Now it has been admitted authoritatively that in a well-conducted cemetery 1000 graves per acre can be made without any undue crowding, and graves may contain four, five, six, or more bodies, according to their depths. It must be evident from the preceding figures that there must have been the most frightful overcrowding in some of these cemeteries, and it is clearly imperative on the authorities to endeavour to prevent this in future. A certain standard number of graves in each acre should be allowed, and no excess permitted, while the number of bodies in each grave and the depth of the latter should be strictly limited.

THE INGHAM INFIRMARY, SOUTH SHIELDS.—The recent annual report, the sixteenth, records the continued satisfactory state of the institution. Financially, during the past year, there had been a general increase in the several usual sources of income. The medical statistics show that 193 in-patients and 1536 out-patients had been treated, that the casual cases at the dispensary numbered 5165, and 498 accidents were tended as out-patients.

THE PRIVY COUNCIL AND HYDROPHOBIA.

THE *London Gazette* of Tuesday states that on Monday last the Privy Council (present the Lord President and Viscount Lewisham) made an Order in Council with regard to rabies. The order recites that by the Contagious Diseases (Animals) Act of 1878 (amended in 1886) it is enacted that every local authority shall execute and enforce that Act and every Order of Council relating thereto, and that where a local authority fails the Privy Council may empower a person named in an order to enforce the provisions; that on July 9th last the Privy Council made the rabies order, which was to take effect from the 31st of that month, and that the order was to apply in the City of London and the Metropolitan Police district; that the local authority of the county of London (included in the Metropolitan Police district) is the London County Council; and that the said Council have failed to execute and enforce within the district the provisions of the rabies order. Therefore the Privy Council, in exercise of the powers vested in them, announce that Major John Trenchard Tennant, Chief Travelling Inspector of the Privy Council, is empowered to execute and enforce the rabies order or to procure the execution and enforcement thereof within the said district.

AMENDMENT OF THE CORONERS ACT.

THE following is a copy of a memorial sent to the twenty-eight large corporations, asking their agreement and support by similar memorial. Afterwards the memorial is to be forwarded, as soon as arrangements are completed, to the Local Government Board.

To the Right Honourable the Local Government Board, Whitehall, London.

The humble memorial of the Mayor, Aldermen, and Burgesses of the borough of Kingston-upon-Hull sheweth—

1. That your memorialists are the urban sanitary authority within and for the said borough, and, as such, the local authority for carrying out the provisions of the Public Health Act, 1875. Your memorialists are also the municipal authority having a separate court of quarter-sessions, and by the Municipal Corporations Act, 1882, have the right and power to appoint a coroner for the borough.

2. That an Act was passed in the session of 1887 which is known by the short title of the Coroners Act, 1887, which Act, in your memorialists' opinion, should be amended and altered, and your right honourable board is respectfully desired to introduce a Bill to amend certain of the provisions of the said Act of 1887, experience having shown the Act to be in many respects defective and insufficient, and to make further provision in relation thereto, more particularly the following:—

Your memorialists are advised and believe that section 4, subsection 1, should be altered so as to provide for the identification of the body by one or more competent witnesses before the coroner and the jury. The obsolete act of "viewing the body" by the jury, the intrusion of whom into a home rendered sacred by extraordinary grief and trouble, is unnecessary. It is offensive often to the jurymen, as well as to the relatives of the deceased, and raises a prejudice against thorough inquiry into the cause of death, because of the public excitement created in the neighbourhood.

3. That in most cases of inquests the inquiry takes place in Hull on premises belonging to licensed victuallers, commonly known as licensed premises, which, in your memorialists' opinion, should be prohibited, and, instead thereof, the urban sanitary authority should be compelled to provide and maintain proper and suitable places for the holding of such inquiries. If the useless act of "viewing the body" by strange jurymen be abolished, the necessity for holding the inquiry in the neighbourhood of the residence of the deceased would not exist. The removal of the coroner's court from the unwholesome surroundings of a room in a public house to a court house at the town hall, or other centrally situated premises, would promote the dignity of the inquiry and lead to increased efficiency. Nothing can be more repugnant to bereaved relatives than to have their natural sufferings accentuated by being the objects of what often proves to be unjust suspicions, exhibited to the gaze of persons surrounding a public-house bar. The structural arrangements of most public houses are unsuitable for holding public inquests, when it not infrequently happens that necessary witnesses have to arrange themselves, perhaps for the first time in their lives, in smoke rooms and dram shops, or stand upon the staircase, awaiting their summons, when such an inquiry ought to be held in a place and at a court befitting the solemnities and decencies of the occasion.

4. That in all urban sanitary districts the coroner may provide himself with a medical gentleman to act with him on such inquiries as he may deem it necessary in the capacity of assessor, and that the person to act in such capacity shall be a registered medical practitioner, appointed on such terms as may be considered necessary.

5. That in all urban sanitary districts, when a death is reported to the coroner the cause of which is not certified by any registered medical practitioner he may seek the professional assistance of any registered medical practitioner for the purpose of guiding him in his decision as to whether it may be necessary or not to hold an inquest. Such a professional opinion, from observation during life or otherwise, can in many cases render the cost and anxiety of a public inquiry unnecessary.

6. That your memorialists consider the present method of granting

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orders for the burial of bodies where no certificate of death is given is highly unsatisfactory and open to grave objections, and that such be amended. In practice the coroner, after inquiries, gives an order for burial, upon which is not stated the cause which has led him to grant such order, and the Registrar of Deaths, upon the production of such order, makes further inquiries for the purpose of registration, often arriving at a totally different opinion as to the cause of death to that of the coroner. This often causes to the relatives of the deceased great annoyance and pain, and leads to grave errors appearing in the return of the Registrar-General.

Your memorialists, therefore, humbly pray that your right honourable Board may be pleased to introduce a Bill amending the Coroners Act, 1887, in the manner hereinbefore set forth.

And your memorialists will ever pray, &c.

The adoption of the propositions embodied in the above memorial have from time to time been advocated in THE LANCET. We heartily endorse the prayer of the memorialists, and trust that the matter will be taken up by the profession generally, so that additional weight may be given to the petition, and thus the chances of the introduction of a Bill into Parliament be enhanced.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Liverpool.—This city, notwithstanding all the difficulties that have to be still contended with, affords a striking example of what can be done by sanitary measures; indeed, the death-rate for 1888—namely, 20·3 per 1000 of the population—is only one-half what it was forty years ago. Amongst the present needs, Dr. Stopford Taylor adverts especially to the necessity of making further provision for the isolation of infectious patients, if Liverpool, with its 600,000 people, is to be rendered at all safe in this matter. A great reduction has taken place in the deaths from typhus. In 1871 they were 568 in number, since which date they have steadily diminished, until last year they only numbered 36. In all, 5987 cases of infectious disease came under the notice of the medical officer of health, and of these 1003 were removed to hospital, either as paupers or in connexion with the provision made by the Town Council. The total number of infected articles which were disinfected was 25,454, and 1713 houses were dealt with in the same way. Improvements are steadily in progress as regards the common lodging-houses, and 765 sublet houses are also placed on the register; and, in a number of instances, fines were imposed for breach of the bye-laws. A vast amount of current work is included in the tabular matter which is appended to the report, and which relates to the duties performed in the various departments which come directly or indirectly under the supervision of the medical officer of health.

Bristol Urban District.—Dr D. S. Davies, in giving a somewhat complete account of the sanitary circumstances of Bristol, reminds the authority that private wells still remain within their limits, and he adverts to the danger of drawing a supply from a soil the surface of which is necessarily contaminated by the life conditions of over 220,000 people. To us, it seems almost incredible that such a condition of things can have remained to the present day. The sewers of Bristol remain without any special provision for ventilation, and it is only as regards new houses that efficient trapping of drains from sewers and a through current of air are required as regards the house drains. Exhaustive inquiry into such a system of sewerage might help to solve the question as to the extent to which it is requisite to ventilate public sewers, and as to the best manner of carrying any such ventilation into effect. Revision of the local bye-laws is evidently much needed in some respects; thus we learn that Bristol has no requirement as to a damp course in newly erected houses, and that conditions highly detrimental to health are the result. Very definite advice is given by Dr. Davies as to the present insufficient accommodation for the isolation of the infectious sick, and as to the unsuitability of such accommodation as does exist for the proper separation of a sufficient number of diseases; indeed, for nine months the hospitals were perforce closed against any but cases of small-pox—a condition of things that should not be liable to occur within the area of a sanitary authority such as that for Bristol. Amongst the other more important mattters dealt with in an exhaustive report are the questions of a public abattoir, the provision of a destructor for better dealing with ashes and house refuse, inspection of dairies, the making of bye-laws for regulating houses occupied by more than one family, and the provision of a steam washing-machine supplementary to the steam disinfector. The corrected death-rate for 1888 would appear to have been 17·4 per 1000. A separate report is given as to the port sanitary district, in which such work is carried on as regards the inspection of shipping as must tend steadily to secure great improvement in the sanitary circumstances which affect a floating population estimated at nearly 15,000 persons.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 4838 births and 3437 deaths were registered during the week ending Aug. 10th. The annual rate of mortality in these towns, which had been 21·0 and 20·5 per 1000 in the preceding two weeks, further declined to 18·8 last week. During the first six weeks of the current quarter the death-rate in these towns averaged 20·1 per 1000, and was 0·5 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 13·9 in Oldham, 14·3 in Derby, 15·7 in Bristol, and 16·4 in London. The rates in the other towns ranged upwards to 28·4 in Sunderland, 30·8 in Newcastle-upon-Tyne, 31·4 in Plymouth, and 34·6 in Preston. The deaths referred to the principal zymotic diseases in these towns, which had declined from 1018 to 893 in the preceding three weeks, further fell to 785; 548 resulted from diarrhœa, 60 from whooping-cough, 58 from measles, 52 from scarlet fever, 38 from diphtheria, 29 from "fever" (principally enteric), and not one from small-pox. These zymotic diseases caused the lowest death-rates last week in Halifax, Cardiff, Bristol, and Huddersfield, and the highest rates in Sunderland, Plymouth, Sheffield, and Preston. The greatest mortality from diarrhœa occurred in Sunderland, Norwich, Leicester, Sheffield, and Preston; from measles in Wolverhampton, Halifax, Hull, Newcastle-upon-Tyne, and Preston; from scarlet fever in Sheffield, Huddersfield, and Plymouth; from whooping-cough in Newcastle-upon-Tyne and Portsmouth; and from "fever" in Preston. The deaths from diphtheria included 28 in London, 2 in Plymouth, 2 in Birmingham, and 2 in Manchester. Small-pox caused no death in any of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and London Fever Hospitals at the end of last week was 779, against numbers increasing in the preceding six weeks from 559 to 727; 98 cases were admitted to these hospitals during the week, against numbers increasing from 33 to 124 in the previous eight weeks. The deaths referred to diseases of the respiratory organs in London, which had risen from 141 to 182 in the preceding three weeks, declined last week to 149, and were 40 below the corrected average. The causes of 81, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Norwich, Wolverhampton, Bradford, Sunderland, and in five other smaller towns. The largest proportions of uncertified deaths were registered in Manchester, Nottingham, Blackburn, Liverpool, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17·9 and 18·3 per 1000 in the preceding two weeks, further rose to 18·6 in the week ending August 10th; this rate was slightly below the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged last week from 15·0 in Edinburgh, in Aberdeen, and in Leith, to 21·0 in Glasgow and 30·8 in Paisley. The 475 deaths in the eight towns showed an increase of 7 upon the number in the previous week, and included 57 which were referred to diarrhœa, 24 to

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whooping-cough, 10 to measles, 7 to diphtheria, 7 to "fever," 2 to scarlet fever, and not one to small-pox; in all, 107 deaths resulted from these principal zymotic diseases, against 95 and 77 in the previous two weeks. These 107 deaths were equal to an annual rate of 4·2 per 1000, which almost corresponded with the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of diarrhœa, which had been 41 and 39 in the preceding two weeks, rose last week to 57, and exceeded by 39 the number returned in the corresponding week of last year; 23 occurred in Glasgow, 11 in Dundee, and 11 in Paisley. The deaths referred to whooping-cough, which had been 21 and 15 in the previous two weeks, rose again last week to 24, and included 14 in Glasgow, 5 in Paisley, and 4 in Dundee. The 10 deaths from measles exceeded by 2 the number in the preceding week; 4 occurred in Edinburgh and 3 in Leith. The 7 fatal cases of diphtheria included 3 in Glasgow and 2 in Edinburgh. The 7 deaths referred to "fever" corresponded with the number in the preceding week, and included 5 in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 55 and 60 in the preceding two weeks, were again 60 last week, and exceeded by 11 the number returned in the corresponding week of last year. The causes of 47, or nearly 10 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 24·8 and 20·7 per 1000 in the preceding two weeks, rose again to 24·8 in the week ending Aug. 10th. During the first six weeks of the current quarter the death-rate in the city averaged 23·7 per 1000, the mean rate during the same period being 17·9 in London and 16·2 in Edinburgh. The 168 deaths in Dublin showed an increase of 28 upon the number in the preceding week; they included 17 which were referred to diarrhœa, 4 to whooping-cough, 3 to measles, 1 to "fever," and not one either to small-pox, scarlet fever, or diphtheria. Thus the deaths from these principal zymotic diseases, which had declined from 25 to 15 in the preceding three weeks, rose again to 25 last week; they were equal to an annual rate of 3·7 per 1000, the rate from the same diseases being 3·1 in London and 2·9 in Edinburgh. The deaths referred to diarrhœa, which had fallen in the three previous weeks from 13 to 8, rose again to 17 last week. The three fatal cases of measles showed a slight decline from those recorded in recent weeks, while the 4 deaths referred to whooping-cough exceeded those returned in any recent week. The deaths of infants showed a slight decline from those in the previous week, while those of elderly persons showed a marked increase. Eight inquest cases and 4 deaths from violence were registered; and 46, or nearly a third, of the deaths occurred in public institutions. The causes of 18, or more than 10 per cent., of the deaths in the city were not certified.

THE SERVICES.

ARMY MEDICAL STAFF. — Surgeon-Major Nathaniel Alcock is granted retired pay (dated Aug. 14th, 1889); Surgeon Benjamin Allen Maturin, from half pay, to be Surgeon, vice George Scott Tate, M.D., deceased (dated July 26th, 1889).

ARMY MEDICAL RESERVE OF OFFICERS. — Surgeon William Milsted Harmer, F.R.C.P. Ed., 2nd Volunteer Battalion, the Buffs (East Kent) Regiment, to be Surgeon, ranking as Captain (dated Aug. 14th, 1889); Surgeon-Major John Prior Purvis resigns his commission (dated Aug. 14th, 1889).

HONOURABLE ARTILLERY COMPANY OF LONDON. — Richard James Reece, late Surgeon, Volunteer Medical Staff Corps, to be Surgeon (dated Aug. 10th, 1889).

VOLUNTEER CORPS. — *Artillery:* 1st Fifeshire: The undermentioned Acting Surgeons to be Surgeons: R. B. Graham (dated Aug. 10th, 1889); S. Linton, M.B. (dated Aug. 10th, 1889).—1st Caithness: Surgeon-Major (ranking as Lieutenant-Colonel) T. H. Rutherford, M.D., resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the Corps on his retirement (dated Aug. 10th, 1889).—*Rifle:* 1st Volunteer Battalion, the Lincolnshire Regiment: Honorary Assistant Surgeon J. W. Hembrough resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the Battalion on his retirement (dated Aug. 10th, 1889).—2nd Volunteer Battalion, the East Yorkshire Regiment: Acting Surgeon A. F. A. Fairweather, M.D., to be Surgeon (dated Aug. 10th, 1889).—2nd Volunteer Battalion, the Royal Scots Fusiliers: Acting Surgeon J. R. Watt, M.B., resigns his appointment (dated Aug. 10th, 1889).—5th (Deeside Highland) Volunteer Battalion, the Gordon Highlanders: Acting Surgeon D. M. Arthur resigns his appointment (dated Aug. 10th, 1889).—1st Dumbartonshire: Thomas Fauset Macdonald, M.B., to be Acting Surgeon (dated Aug. 10th, 1889).

VOLUNTEER MEDICAL STAFF.—The London Division: Surgeon Richard James Reece resigns his commission (dated Aug. 10th, 1889).

Correspondence.

"Audi alteram partem."

VACCINATION AND INFANTILE SYPHILIS.

To the Editors of THE LANCET.

SIRS, — The letter in your last week's issue by Dr. J. C. McVail, on the statistical proof that infantile syphilis has not increased owing to vaccination, raises a point as between himself and me which is, as he truly says, of small moment. My conclusion from the Scottish statistics was the same as his own, and happened to be published before his; only, it was not extended at so great length in my book as in his, and so it serves as a "valuable indication" of the slender basis upon which I rest a conclusion, and of the small amount of demonstration which satisfies me in a different matter altogether—namely, in my long historical account of the rise of Jenner's doctrine and practice, and of its acceptance at home and abroad. As Dr. McVail announces in his letter that he is now engaged in criticising my book, "Jenner and Vaccination," in an Edinburgh journal, I am at a loss to understand why he should ask your readers to judge of it by a mere "indication," derived from a source outside the book itself. The valuable indication is intended, I suppose, to be only provisional, and it is for the more particular benefit of a supposed reader of my book "who has not the opportunity of consulting the evidence at first hand." What difference would it make if this reader had before him all the original authorities whom I have either quoted in their own words or referred to in three or four hundred notes, or any other contemporary authorities which may be known to him, but are not known to me? Would the reader find my citations to be garbled, or the passages referred to in the notes insufficient to bear out the respective statements in the text? or would he find from his first-hand search through old journals, reports, pamphlets, and books, that I had taken what I ought to have left, and had left what I ought to have taken? If Dr. McVail be himself a reader who has consulted the evidence at first hand, he will have no difficulty in giving a reply to my question, which will be more useful both to me and to the supposed helpless reader than the vague and comprehensive innuendo which he thinks to get off with. Meanwhile, I have to deal only with his "valuable indication" of my scrappy method of proof. It so happens that I used the same argument against the connexion of infantile syphilis with vaccination which Dr. McVail used very soon after and independently. Anyone who happens to have his attention directed to the Scottish mortality returns will see that the mode of entries of the deaths of infants in their first year — namely, in separate columns for the first quarter of the year, the second quarter, and the second half respectively—is well calculated to throw light upon the alleged connexion of syphilis with vaccination, inasmuch as the operation need not be done in Scotland until six months from birth, and is, I am informed, in nearly all cases of public vaccination deferred as long as the law allows. On extracting the figures under the head of syphilis for several years, the result was at once obvious to me, as it would be to anyone, that "considerably more than half the deaths from syphilis under the age of one belong to the first three months of infancy." That appeared to me to be "a significant fact," which had not been used in the controversy before, and a fact which confirmed my pathological argument about the congenital type

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of infantile syphilis, and about the causes other than vaccination to which its increase was due. It appears, however, that in thus arguing from the Scottish statistics, I have argued "on a slender basis." Dr. McVail argues to precisely the same effect, only he labours the point in a much more impressive, not to say pedantic, manner. He transcribes the figures from the Scottish reports into his book, whereas I transcribed them only into my note-book. He then proceeds to extend the argument as a mathematical certainty and to stretch it so as to cover the very margins of probability, in a way which no one but a hardened statistician would ever think of doing. My failure (or refusal) to do the like is his "valuable indication" of my slender basis of proof and small amount of demonstration. By quoting the first words of a sentence in my letter of Dec. 1st, and leaving out the principal part of the sentence, he makes the basis of my argument about infantile syphilis to appear much more slender than it was in fact. I shall continue the sentence from the point where Dr. McVail dropped it: "and it [the statistical argument] formed only one small part of a general exposition of the pathology of infantile syphilis as congenital syphilis." The "indication" of my scrappy method of proof might have been less valuable, the basis might have appeared less slender, if my statistical argument had been reproduced in its proper connexion, as corroborating a much more elaborate argument from the pathological side of the case. Statistical abstractions are well enough in their way, although Dr. McVail seems to me to rely too exclusively upon them and to drive his inferences much too far in the direction of mathematical certainty. As he has thought fit to raise the point as to what is and what is not a "slender basis" for the proof that infantile syphilis has not increased owing to vaccination, I willingly submit my evidence for comparison with his. The former traces the increase of infantile syphilis positively to certain influences in modern industrial life, which tell unfavourably upon the nutrient function of the placenta, and so add to the amount of congenital disease all round; while, negatively, it excludes vaccination as the cause of the progressive increase by my original argument from the Scottish tables, which is stated correctly, although in the briefest possible manner. Dr. McVail's evidence is the same statistical argument, worked out independently by himself and thrown into the form of a quasi-mathematical demonstration, that the increase of syphilis in infants is not due to vaccination, whatever else it may be due to.

If the doctor has anything of a general kind to deliver on the relative value of probable and other evidence, and on the nature of proof, I hope he will table his contribution in the usual way. He will find me an attentive reader, the more so that I have myself essayed the theme, under a concrete guise, in an article published in one of the magazines for March last. These questions of sufficient evidence and of the proof which amounts to certitude are very old, and have received different answers from different sides, according to temperament and training. We have had an illustration in this country during the last few days. There are practised reasoners and eminently practical men who prefer to rely, for legitimate proof sufficient to yield certitude, upon various cumulating and converging probabilities, brought together with due diligence, and of course with close scrutiny, as regards all matters of fact. Dr. McVail will find that his objection to a "slender basis" of proof, or to a "small amount of demonstration," is not, as he supposes, an affair of the peculiarities or shortcomings of an individual writer, but a fundamental question of method, which has been a good deal debated at one time or another, and is clearly in need of being debated still farther.

I am, Sirs, your obedient servant,

Aug. 12th, 1889. C. CREIGHTON.

DIPHTHERIA AND ITS TREATMENT.

To the Editors of THE LANCET.

SIRS,—It is nearly two years since you did me the favour to place my views before the profession upon the "pathology and treatment of septic diseases." I am equally anxious that you should allow me to return to the subject, especially in relation to the treatment of diphtheria, when one reads in one of our daily papers (the *Morning Post*), in a leading article wherein it is stated a short time since that "diphtheria is a most formidable and fatal disease; at present its origin, its mode of spread, and the best method of treating it are alike subjects of dispute among the medical profession." I think, Sirs, we can scarcely admit that the origin of diphtheria and its mode of spread are still *sub judice*, as the medical profession have, during the past two or three years, agreed that one of the chief causes is aerial infection. Some atmospheres have been microscopically proved to contain millions of micro-organisms floating in them, especially in low, damp situations, badly drained, and overcrowded localities. Milk is another source, from cows drinking from stagnant ponds which in some seasons of the year are teeming with micro-organisms, producing in some cases diphtheria and at other times scarlatina, according to the specific character of the germs taken in, attacking children and others under states of low vitality. We also know that the specific contagium of diphtheria has infected animals and communicated the disease to human beings, as it has been seen in cats, fowls, and pigeons, as also from horses under the influence of strangles.

We have reason to believe that micro-organisms are more rife and proliferous in the atmosphere of late, as we find insect life generally is more prolific and pestilential to vegetable life. Undoubtedly diphtheria has of late years assumed a more virulent type from the above-stated reasons. The opinion now prevalent is that the throat is the primary seat of the disease, and the general poisoning of the system is due to the rapid absorption and infection from this source. The exudative inflammation caused by these microbes upon the membrane brings about a gelatinous or tougher kind of deposit looking like a patch of washleather, and in this membranous exudation are these micro-organisms found secreted. An important feature to be noted in diphtheria is, in many cases, the painless character of the throat affection, and thus frequently not attended to in the early stage. In one of our largest hospitals two house surgeons have died from the disease from inattention to first symptoms; they were not attended to until the system was saturated with these microbes.

Then, as to the treatment of diphtheria, I am grieved to admit there is a divergence of opinion, although it is generally agreed upon that the antiseptic plan is the most natural as well as successful; but upon the precise method of its adoption there are various modes of carrying it out. Fashion has much to do with it—e.g., some adopt the spray application to the throat; others have topical applications, mopping the diseased mass with boracic acid &c., with variable success; while I hold it is absolutely essential to select a very decided microbicide fluid, applied with a camel's hair brush, and the whole, or as much as the patient can tolerate, of the morbid deposit *brushed off and removed at each visit*, thus arresting the circulation of these germs from the surrounding atmosphere of the patient, so important for those in attendance.

Some men of standing and experience have objected to *irritating* the patient by applications to the throat. After thirty-five years of active practice, I invariably commenced by attacking the throat with a strong solution of nitrate of silver (one drachm to the ounce), and in many cases removing the whole of the deposit upon my first visit, thus materially cutting short the progress of the disease. I never had occasion to regret my applications; *mais, au contraire*, I used to continue daily applications so long as any deposit could be seen. I must admit it used to momentarily distress the patient. The liquor sodæ chloratæ is another excellent microbicide for application with a camel's-hair brush. As it is known that these microbes multiply with frightful rapidity when once within the body, it is important to adopt energetic measures for their destruction and extermination *quam primum*. To this end I would recommend following up the application to the throat by a mustard emetic, so as to dislodge and evacuate these micro-organisms from the stomach, œsophagus, and fauces, the oil of mustard, according to MM. Cornil and Babes, being an excellent microbicide. In half an hour, or as soon as the system had recovered from the effects of the emetic, I should give a dose of the liquor hyd. perchloridi in a little strong peppermint water, peppermint being another decided antiseptic. This dose might be repeated in another hour, and in about half an hour after this second dose of the liquor hyd. perchloridi a dessertspoonful or a medium dose of castor oil in peppermint water as an effectual evacuant. Having cleansed the entire gastro-enteric canal of these pernicious atoms, those that have entered the circulation must be disposed of in the way that Dame Nature is wont to do—i.e., by the emunctories of the body aiding her in various

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ways—viz., by keeping the patient warm in bed in an airy apartment, administering saline diaphoretics with chlorate of potash, aided by nutritious and unstimulating diet—e.g., pure milk, beef-tea, barley-water, and cocoatina. This is all that is necessary for two or three days, especially while febrile symptoms are present. Tonics and stimulants in the early stages should not be given.

Under the above treatment the system will very soon manifest reaction by ridding itself of the *materies morbi* under which it is so distressed. Doubtless there are cases which will require a course of ferruginous tonics for some little time, as it is well known these animalcues lessen the red corpuscles of the blood. In the administration of the liquor hyd. perchloridi, we must bear in mind we have a special microbicide. According to Cornil and Babes 1 in 20,000 will kill the spores in ten minutes. For a more detailed report of diphtheria, *vide* THE LANCET, Aug. 20th, 1887.

I believe in those cases where the urine is albuminous, it is owing to the retention within the body of the kidneys of a multitudinous host of the microbes, which those organs are endeavouring to eliminate, as we find upon the cessation of the albuminuria the patient's alarming symptoms are ameliorated. After death the blood has been found loaded with micrococci as well as the internal organs, particularly the kidneys, where they were found in numerous thrombi or in balls.

Upon inquiry at two of our largest hospitals a short time since upon their general treatment of diphtheria, I was sorry to learn that it was upon the stimulating and tonic plan *ab initio*, with poor results, and not upon the antiseptic and eliminative. I am, Sirs, yours faithfully,

Hanwell, August, 1889. EMANUEL MAY, M.D.

P.S.—I feel that I ought to mention that during an active practice of thirty-five years I only lost two patients with diphtheria, and each of these had been ill two or three days when I was called in to see them, and found that in each case the disease had travelled into the windpipe.

THE NOTIFICATION OF INFECTIOUS DISEASES BILL.

To the Editors of THE LANCET.

SIRS,—Permit me to ask, through the medium of your columns, has the profession fully considered this Bill, which is being pushed through Parliament with breathless speed at the fag end of the session? The sanction of the public would appear to be taken for granted in such a matter, though I am not aware of a single public meeting having been held to promote the Bill, and petitions in its favour have not required more than a single person to carry them. Has the great body of general practitioners considered the powers and the responsibilities which it is sought to confer? That it has the cordial approval of enthusiastic officials who are prepared to banish every ill and secure immortality for mankind, if the Legislature would only invest them with plenary powers, I have no doubt; but what about the rank and file upon whom the *onus*, or, as some say, the *stigma*, of carrying out the notification will fall? That a person labouring under an infectious disease may by exposure or inadequate isolation at home become a public nuisance is self-evident; that he is in most cases a nuisance in spite of himself, involuntarily, is equally true; how, then, shall he be dealt with? *Salus populi suprema lex* is a maxim at once as obvious and as useless as maxims are apt to be. Medicine, as a recent judicial utterance reminds us, is far from being an exact science, and so far does not lend itself readily to legislation. The Bill I understand is designed to deal with cholera, diphtheria, croup, small-pox, erysipelas, scarlet fever, typhus, typhoid, relapsing, and puerperal fevers. On the outbreak of any one of these the nearest relative or the occupier of the house is to acquaint the medical officer of health of the fact, and the medical attendant is also to send a certificate to the medical officer stating the infectious disease from which the patient is suffering. By section 124 of the Public Health Act, 1875, when the accommodation of the patient is not deemed satisfactory he may be compulsorily removed to any "hospital or place" which is deemed "suitable for the reception of the sick." The notification is to be compulsory for London; optional—at any rate at first—elsewhere.

Now it would be affectation to pretend that diagnosis in the case of many of the enumerated diseases is by any means invariably easy—nay, it is not always possible. Mistakes have occurred, and history may repeat itself, and every mistake means an unpleasant experience for the patient. Then, again, Dr. John Harley, in April this year, warned the College of Physicians that in the case of scarlet fever he had "been endeavouring all his medical life to obtain proof of its contagiousness, yet had failed to find it, but he had acquired some evidence to the contrary." Who knows but that such an utterance within such precincts may not have largely influenced medical opinion in the country, and what is then to become of the notification of that disease which other authorities hold to be the most infectious of all? Again, suppose under the new Bill and the old Act the following very possible sequence of events: Compulsory notification of, say, typhoid; the surroundings are deemed unsatisfactory and to hospital the patient goes. To obviate escape compulsory detention follows as a matter of course, and grim comfort is to be found in the reflection that

> "Stone walls do not a prison make,
> Nor iron bars a cage";

for in future its place will be supplied by a "hospital or place suitable for the reception of the sick." Compulsory treatment goes without saying—that is to say, the segregated patient has no longer the choice of his medical attendant, and there is hardly any line of treatment in typhoid which would not be vigorously assailed as useless and dangerous by some medical authority or other. This by no means exhausts the difficulties which will be certain to arise. Some may ask whether the adoption of the system in various places has been followed by uniformly good results, and the answer must be in the negative. Others will doubtless inquire whether it is not the sound that should make way for the sufferer rather than the risks of the sick be increased to save the whole. Questions of humanity will arise, and men will want to know the reason why a child with croup is to be robbed of parental care, and the puerperal woman torn from her natural protector, in the hour of sickness. To these a sneer of sentimentality will be an inadequate and ill-conceived retort. It has been well said "a sick body is better than a hard heart," and there are still higher motives to action in human nature than a funk of infection.

Lastly, medical men are justly fearful lest the notifying certificate required of them will operate detrimentally upon the relations between them and their patients, which they regard more highly than the sop which is offered them in the shape of a fee for such betrayal—viz., thirty pieces of—copper!

These, Sirs, are some of the difficulties I have heard raised. There are doubtless others, and there is much to be said on the other side no doubt; but if so, why this haste for ill-considered legislation upon an inadequately discussed and thorny topic?

I am, Sirs, yours truly,

W. J. COLLINS, M.S., M.D., B.Sc. Lond.

Regent's-park, Aug. 11th, 1889.

To the Editors of THE LANCET.

SIRS,—In your last issue Mr. Biddle refers to Bradford in connexion with the single system of notification of infectious disease. In the great majority of cases the notification is sent by the medical practitioner in a stamped envelope provided for the purpose, and addressed to the medical officer of health. From the readiness with which the medical men of Bradford take this duty upon themselves, I infer that they would find no hardship in the dual system of notification. I am, Sirs, yours faithfully,

Bradford, Aug. 12th, 1889. JAS. MCLINTOCK.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Corporation and Typhoid Fever, &c.

IT would appear that there is certainly a real desire on the part of our local parliament to do something to wipe away the disgrace of being the city with the highest mortality in the kingdom. The Unhealthy Dwellings Committee have a herculean task before them in their attempts to abolish the worst of the wretched tenements in which so many of the poor are huddled. At the last meeting of the Council it was stated that our new officer of health has been authorised to visit those large towns where similar

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efforts have been made, that the experience gained there might be utilised in Manchester. Another important step was sanctioned—i.e., that all cases of typhoid fever not having proper accommodation at home should be removed to the Infirmary Fever Hospital. To many it will no doubt appear late in the day for such a decision to be arrived at, but hitherto very few of these cases have been removed owing to the expense. The corporation at the present time pay large sums annually to the infirmary for the treatment of scarlet fever and small-pox, and from the report recently published at the annual meeting of the subscribers to the infirmary it would appear that no less a sum than £3000 was carried as profit to the infirmary funds from the receipts at the Fever Hospital, whilst during the past six years upwards of £17,700 has been made in excess of expenditure by the treatment of fever patients sent in by the surrounding health authorities.

The Sanitary Association.

This association has always showed itself desirous of assisting and helping forward the work of sanitation, at times appearing too eager for progress to suit the more slowly moving wheels of the corporation health machinery. It is at present endeavouring to aid the movement of smoke abatement by forming a committee to bring before the public, by means of an exhibition or some other practical manner, the various appliances which are efficient in preventing the waste of fuel and terrible pollution of our atmosphere which is continually going on. A very influential list of names has already been secured, headed by the Duke of Westminster, the Bishops of Manchester and of Salford, Sir F. Douglas Galton, and many eminent sanitarians.

The Proposed Fever Hospital in Salford.

A stormy scene took place at the last meeting of the Salford Council over the proposed Fever Hospital. A letter has been received from the Local Government Board sanctioning the proposal to borrow £13,100 for a new Fever Hospital at Ladywell concerning which a lengthened inquiry was recently held. The opposition to the selected site is, however, still very strong, and a resolution was carried deferring the whole business, and a committee was formed to reconsider the subject. The grounds of opposition appear to be two: first, that the site is a very undesirable one; and, secondly, that arrangements might be come to with the Manchester Infirmary for the reception of Salford cases in the same way that Manchester patients are received. All small-pox cases from Salford already go there, and it seems that the Salford Corporation also claim some right to send patients there free of cost, having paid to the infirmary authorities more money than they ought to have done, to the extent of some £300.

Hulme Dispensary.

At the annual meeting of this dispensary a very gloomy account was given of its financial position, and the committee state that "a crisis has now arrived in the life of this institution, and unless substantial assistance be afforded the existence of the Hulme Dispensary is imperilled." In years gone by good work has been done by this institution, and more than one former member of its staff has been promoted to that of the Royal Infirmary. It has been in existence now more than twenty years, and when it commenced its work provident dispensaries were unknown, and the other charities did not extend their operations over so large a field as at the present time. Last year 4037 out-patients and 2725 home-patients were treated, but it is at least open to argument whether most of these could not be provided for by the other charities referred to.

Victoria University.

In the pass lists of the Faculty of Medicine just published it is stated that in the Preliminary Scientific 9 students passed in the first division (5 from Owens College, 3 from University College, and 1 from the Yorkshire College); in the second division, 23—i.e., 13 from Owens, 8 from University, and 2 from Yorkshire College. In the Intermediate M.B. and Ch.B., first division, 2 from Owens College; in the second division, 5 from Owens and 3 from University College. In the Final M.B. and Ch.B., Part I., 6 from Owens and 3 from University College. Part II., first division, 4 from Owens; in the second division, 9 from Owens and 1 from University. Seven candidates also passed for the diploma in Sanitary Science.

Manchester, Aug. 12th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

University of Durham Medical Degrees.

I HEAR that the coming examinations for the various medical degrees of the University of Durham, to be held at Newcastle, is likely to be the largest as regards candidates since the establishment of the University. Over seventy, I understand, have entered for the first M.B. The degrees for practitioners, and those for the diploma in Sanitary Science, will bring the number of candidates up to—if they do not exceed—one hundred. So that there can be no question that the Durham degrees are increasing in popularity with the profession.

Tynemouth as a Health-resort.

Dr. Charles Gibson has reprinted in pamphlet form an address which he gave in 1887, when president of the North of England Branch of the British Medical Association, pointing out the advantages of Tynemouth as a health-resort. There is no doubt that in its proper seasons Tynemouth has many advantages for suitable cases. For instance, in the latter part of summer, and as a rule throughout autumn, it is dry and bracing, but it should be avoided in winter in all pulmonary cases; while in the spring, from the coarseness of its atmosphere, which it has in common with all our north-eastern coast, it is not good for asthmatics and very bad for bronchial cases. It is right to mention, as Dr. Charles Gibson points out, that the zymotic death-rate is low, and the average death-rate for five years—viz., June, 1882, to June, 1886—was only 11·52 per 1000. Some improvements in the water-supply are however, I believe, still desirable in this popular Tyneside health-resort.

Tynemouth Infirmary.

On Saturday Earl Percy performed the opening ceremony of the new public infirmary for the borough of Tynemouth, the foundation-stone of which was laid in commemoration of Her Majesty's Jubilee on Jubilee day, when the institution took the name of the Victoria Jubilee Infirmary. The site of the building was generously given to the trustees by his Grace the Duke of Northumberland, and it occupies a commanding and convenient position. The building has the usual modern hospital conveniences, with male and female wards, besides separate children's and isolation wards. The operation room is well contrived, lighted from the top as well as the sides, to prevent shadows falling on the table.

Hospital Demonstration.

The annual Sunday hospital demonstration has taken place under favourable auspices, including good weather, at North Ormesby. The various friendly societies mustered in large numbers in the market place, and marched to the music of spirited bands to the lawn in front of the cottage hospital, where addresses were delivered by some of the local M.P.'s and other leading local men. The collection taken was, I understand, to be divided between the North Ormesby Cottage Hospital and the North Riding Infirmary at Middlesbrough.

Tees Port Sanitary Authority.

At the last meeting of the Tees Port Sanitary Authority it was reported that during the past month 215 vessels had been inspected, but all were found clean with two exceptions. There had not been a single case of infectious disease on any vessel during the month.

Newcastle-on-Tyne, Aug. 14th.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

The Prevention of Cruelty to Children.

IN the Dublin Southern Police-court last week the mother and stepfather of a child were prosecuted for having unlawfully withheld sustenance from her. The charge was brought by the inspector of the English Society for the Prevention of Cruelty to Children, but as the Act did not apply to Ireland the case was brought under the ordinary provisions of the Vagrancy Act. The evidence showed a most revolting state of things. The unfor-

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tunate child—whose age was really six years, though she appeared to be not more than three—was proved to have been greatly neglected by her inhuman parents, sometimes being left for ten hours without food. The magistrate sent both prisoners to gaol for three months with hard labour, being the full punishment the Act of Parliament allows.

Mercer's Hospital, Dublin.

Dr. Cosgrave has been elected by the medical staff visiting physician, in the room of Dr. Knight. The validity, however, of this election is, I learn, a matter of dispute. Dr. Cosgrave is one of the physicians to Simpson's Hospital, and is connected with the Carmichael School of Medicine.

Adelaide Hospital, Dublin.

In response to the appeal by the committee for funds to clear off the debt which exists, about 1000 guineas have already been received.

Sanitary Condition of Derry Gaol.

As allegations have been made as to the insanitary state of this prison, and that an inmate died from fever contracted within its walls, the General Prisons Board on Tuesday sent Dr. O'Farrell, medical officer of the board, to investigate the matter. It is satisfactory to learn that, after a close examination, the prison was found to be in a perfectly sanitary state.

The Dublin Barracks.

There are at present some fifteen cases of typhoid fever among the troops in garrison, fourteen being from the Royal Barracks. The sewerage at the latter is being overhauled, and the Richmond Barracks are to be redrained.

Dublin, Aug. 13th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Inheritance of Syphilis.

CONTINUING the consideration of this subject, so full of interest to every practising physician, Professor Fournier, having passed in review the various opinions advanced as to the etiology of this disease, and traced the several sources of heredity with so much preciseness to their origin (see THE LANCET of July 20th and Aug. 3rd), next discussed the *prognosis* as regards the child; and as at the outset he showed heredity to be more frequently paternal than maternal in its origin, he would now prove that the latter was much more disastrous to the offspring than the former. That this was so one might almost affirm *a priori*, for the influence of the father was exclusively one of fecundation, whereas the maternal influence was *plus* this—one that was actively sustained throughout the whole of gestation; and it was evident that the alteration in the health of the mother from her syphilis, constantly present in a state of active evolution, could rarely fail to reflect itself on the fœtus. But whatever the true explanation, there was no doubting the fact that heredity of maternal origin recoiled with deadly effect on the child. For instance, in twenty-eight pregnancies where the mothers alone were syphilitic, twenty-one, or 80 per cent., resulted in the destruction of the offspring. Where heredity was traceable to both parents, the results, as might well be surmised, were still more deadly. In this connexion he cited the striking case recorded by Diday, in which a syphilitic woman married a healthy husband, and, having had by him several healthy children, was subsequently impregnated by the man who originally communicated the disease to her, to whom she bore a syphilitic child, who died of the disease. Professor Fournier summed up this part of the subject by giving statistics of the mortality from the three sources of inheritance. Thus in paternal heredity the mortality when the disease manifested itself was 28 per cent.; in maternal, 60 per cent.; in mixed heredity, 68·5 per cent. Entering now on the consideration of the conditions which modify the influence of heredity, he first discussed that of *time*. He showed that this alone, without any treatment, lessened, and at times even annulled, the power of syphilis to transmit itself from parent to offspring, and in support of this statement he quoted some remarkable figures. He further proved that the three years following the first manifestation of the disease were by far the most destructive. Thus of 176 deaths of infants, 139, or about four-fifths of the whole, resulted from syphilis which was not over three years old in the parent, and that after that a marked diminution in the mortality set rapidly in. These considerations, continued the distinguished speaker, naturally suggested the question—Has syphilis its limit of age where its hereditary influence ceases to be felt, and, if so, what is it? Here, added he, a categorical answer was impossible. The most that can be said was that, after a certain number of years, the hereditary influence was certainly greatly reduced, and was, if not altogether extinguished, at any rate extremely attenuated. On the other hand, M. Fournier was able to say, from a multitude of observations, many of which he quoted, that the hereditary influence might be manifested as late as sixteen years from the date of first infection. Some observers had even gone further, and spoken of the taint being apparent as far as the second generation. Having thus discussed the influence of time, he next passed to that exercised by *treatment*. Here M. Fournier would at once say that the beneficial effects of well-directed treatment were nothing short of marvellous. Nor was this effect manifested as the exception, but as the rule. And further, this remedial action obtained equally well whether the affection had its origin with the father or mother, or both. Indeed, the unerring effect of treatment was so marked and immediate that it was well to be on our guard lest we mistook a mere provisional amelioration for a permanent cure. And this provisional improvement was itself a striking illustration of the benefit of treatment. Here the Professor cited the case reported by Turkmann, where a syphilitic mother gave birth to seven syphilitic children in successive pregnancies, neglecting all treatment. During her eighth and ninth pregnancies she was treated, and the result was the birth of healthy infants. Becoming pregnant for the tenth time, and believing herself cured, she omitted treatment, and the result was a syphilitic child. Finally, in the course of her eleventh pregnancy, she again had recourse to treatment, with the same happy effect as in her eighth and ninth confinements. He then cited the results of (1) no treatment, (2) short treatment, (3) average-time treatment, and (4) prolonged treatment. Taking paternal heredity alone, which he had shown to be least destructive to the child, no treatment was followed by a mortality of 59 per cent.; short treatment (meaning by this where it did not extend beyond a few months) gave a mortality of 36 per cent.; average treatment (by which he meant treatment continued over a year) had a mortality of 21 per cent.; whereas by prolonged treatment it was reduced to 3 per cent. In the case of maternal heredity the figures were still more significant. He had under his care during the last two years thirteen women suffering from undoubted tertiary syphilis, but who, being ignorant of the nature of their malady, had had no treatment whatever. Now, following up these thirteen cases, he ascertained that these patients had together become the mothers of fifty-nine children. Of these fifty-nine, only ten were now living; forty-nine were either born dead or died shortly after birth—that is to say, a mortality of 83 per cent. Having thus shown the parallel and powerful effects of *time* and *treatment* when considered separately on hereditary syphilis, he said it was natural to suppose that these two factors in the cure would, when combined, continue to act in the same direction, but in a more certain and lasting manner, and this supposition was, in fact, well borne out by practice. These two elements in the cure, when thoroughly combined, completely changed the aspect of the otherwise despairing outlook, and reduced the risks to almost nothing. Since he had begun the study of the relations between syphilis and marriage, which had now occupied his closest attention for many years, many hundreds of his patients whose cases he knew *au fond* had married with his entire approval, and had had children whom he had the satisfaction to say were free from the smallest suspicion of heredity. Now what he termed his programme of admissibility to marriage rested chiefly on these two bases—viz., purification by *time* and purification by *treatment*. And the chronological minimum of this double method of elimination he would place at not less than three or four years. Under this time he did not believe it was safe to allow a syphilitic man to marry; while, after devoting this time to active treatment, he had no hesitation in asserting that he could enter the marriage state without dreading a shadow of danger either in his capacity as husband or father.

Paris, Aug. 13th.

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BERLIN.

(FROM OUR OWN CORRESPONDENT.)

A New Remedy.

WHILE working in the chemical laboratory of the Society of Physicists in Frankfort-on-the-Main, Herr H. Baum, chemist, recently discovered a substance which is likely to compete with salicylic acid as a remedy and antiseptic. This new substance, dithio-salicylic acid, consists, as it were, of two molecules of salicylic acid concatenated into one molecule by two atoms of sulphur. The well-known bacteriologist, Professor Hueppe of Wiesbaden, has ascertained that a 20 per cent. solution of sodium-dithio-salicylate kills anthrax spores in forty-five minutes, whereas sodium-salicylate under the same conditions has no perceptible effect. Its effect on cholera and typhus bacteria, on the bacterium of green pus, and on the staphylococcus aureus, is much stronger than that of sodium-salicylate. Sodium-dithio-salicylate II. (there is a similar substance called sodium-dithio-salicylate I.) has been tried in many cases of acute rheumatic fever in Dr. Knoblauch's wards in the city hospital of Frankfort, and Dr. Lindenborn reported on these experiments in No. 25 of the *Berlin Clinical Weekly*. In the slighter cases a dose of 0·2 gramme was given every morning and evening; in the severer ones the same dose every morning, and two, three, or four times an hour every evening. In slight cases pain, fever, and swellings disappear after two days; in severer ones, after six days at most. As compared with sodium-salicylate, sodium-dithio-salicylate possesses the following advantages: stronger effect and consequent adequacy of smaller doses, no bad effects on stomach, heart, and vessels, no collapse, no humming in the ears. A Frankfort physician had given a patient, who was suffering from acute rheumatic fever, 200 grammes of sodium-salicylate without any essential alleviation. He then tried the new remedy, giving the patient four doses of 0·2 gramme daily, which cured him in five days.

A Mineral Spring near Haarlem.

A very copious mineral spring was discovered some time ago near Haarlem. The water has been examined by the professor of chemistry in the University of Amsterdam, who declares that it contains so large a quantity of iron that it is surpassed in this respect only by the Pouchon spring at Spa. He found also a considerable quantity of common salt, earth-alkalies, and titanic acid in the water. The temperature is 11 degrees Celsius, and the spring yields 66 cubic metres of water in twenty-four hours. The water is clear, and remains so when poured into bottles. A committee has been formed in Haarlem, which has leased the spring for ninety-nine years. Plans for the erection of a kurhaus in the Friedrich's Park close to the town, and for conducting the water to it, have already been drawn up, and are to be carried out as soon as the committee has raised the necessary funds.

The Veterinary School in Stuttgart.

The students of the Veterinary School in Stuttgart have unanimously resolved not to attend the school next winter, because the hope that it would be raised to the rank of an academy (Hochschule) on the occasion of the recent celebration of the twenty-fifth anniversary of the King of Würtemberg's accession has not been fulfilled.

Poisonous Fungi.

The State authorities at Breslau have issued a warning against the eating of poisonous fungi, adding that all the popular methods of recognising the poisonous character of boiled fungi are deceptive and that no cookery can render them harmless.

New Hospitals for Berlin.

The operations preliminary to the building of a second lunatic asylum for Berlin were begun on the 29th ult. at Lichtenberg, near Berlin. It will accommodate 1000 patients. The building of a hospital of similar dimensions for epileptic patients at Biesdorf, also for the city of Berlin, is to be commenced in the autumn.

The New Museum for Natural Science in Berlin.

The entrance to the new Museum for Natural Science in the Invaliden Strasse is surmounted by statues of the geologist Leopold von Buch and the biologist Johannes Müller. The heads of Alexander von Humboldt, the mineralogist Weiss, and the zoologist Ehrenberg are sculptured above them in the wall. All these scientists except Buch taught in the University of Berlin. Buch lived in Berlin from 1806 till his death.

A Botanical Garden in the Cameroons.

Baron von Loden, governor of the Cameroons, intends to lay out a botanical garden at Victoria in that country, for the cultivation of plants useful in medicine and industry. The Berlin Botanical Garden has sent him a very large collection of such plants gratis. The site selected is not far from the base of the lofty Cameroon Mountains, and consists of heavy loam on a basis of volcanic rock. The above-mentioned gift of the Berlin Botanical Garden is a token of gratitude for some rare and valuable plants which it received from the Cameroons last summer, and which are thriving well here.

A Wonderful Cure.

The *National Zeitung* of Berlin relates the following remarkable story. The wife of a retired official of high rank in Havannah fell dangerously ill some time ago, and was despaired of by her physicians. She begged her husband to put her on board a ship bound for Spain that she might see her native land once more and be buried in its soil. Her husband fulfilled her wish, and she sailed next day for Santander. A coffin and all that was necessary for embalmment were put on board the ship, for the doctors said she could not live more than two or three days. But the voyage worked wonders. The lady recovered from day to day, and when the ship reached Santander, after a sixteen days' passage, she landed in good health and spirits.

The German Admiralty has given 4000 marks (nearly £200) towards erecting a second German hospital in Zanzibar.

Berlin, Aug. 6th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Meeting of the German and Austrian Anthropological Society.

THE first joint meeting of the Austrian and German Anthropological Society was recently held in the hall of the Vienna Society of Engineers, there being nearly 300 German and Austrian anthropologists present. The Vienna University was represented by several professors, among them being Zuckerkandl and Bruecke, but a great many German celebrities attended, including Professors Virchow, Waldeyer, Drs. Voss, Troeltsch, Bartels (Berlin), Professors Ranke and Rüdinger (Munich), Dr. Fraas (Stuttgart), and Professor Schaafhausen (Bonn). Two lady anthropologists were also present, one of them holding the post of curator of the Kiel Museum. The opening address was read by Baron von Andrian-Werburg, the president of the Austrian Anthropological Society. The guests were afterwards welcomed by a member of the Town Council and by the Austrian Minister of Public Instruction (Dr. von Gautsch), who alluded in his speech to the importance attributed to anthropological science by the Austrian Government. Professor Virchow gave an introductory address, which was listened to with great attention, and very frequently interrupted by loud applause. He stated that the idea of forming a German Anthropological Society was first conceived at the Innsbruck meeting of the German naturalists twenty years ago, when Professor Carl Vogt's lecture had given rise to a sharp controversy between anthropologists. Professor Virchow devoted a portion of his lecture to the question of nationality from an anthropological point of view, and he came to the conclusion that as there were so many differences, especially with regard to the formation of the skull among members of the same nationality, it was up to the present impossible to state the precise relationships existing between the different central European nationalities. He pointed out that Austria, on account of the many old nationalities living there, was one of the best countries for studying this difficult question. After a short allusion to the death of the Austrian Crown-Prince, who took such great interest in anthropological work, Professor Virchow claimed that human culture and progress were due not to the great mass of people, but to single individuals, who by their personal qualities, skill, and inventiveness helped on the progress of the whole race.

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He next dwelt on the various views held by anthropologists regarding the bronze age, and showed the errors made by the old school of anthropologists. The Darwinian theory of the descent of man was also discussed and criticised. Professor Virchow maintained that the links proving the descent of man from lower animals had not yet been found, and that a real pro-anthropos had not yet been discovered. We cannot, he said, determine even the descent of single races familiar to us for many hundred years; all human races, as we know, are man-like, and not ape-like. From the examination of skulls and from other craniological studies, it may be concluded that no remarkable change of human types has taken place during the last 5000 years. In closing his very interesting lecture, Virchow pointed out that the progress of anthropology depended not upon forming hypotheses, but in following the paths of exact scientific research. To-day, he said, we know what we know. Rich material, however, had been stored by anthropologists in the course of the last twenty years, so that it would be possible in the next twenty years to clear up the relationship existing between European nationalities.

In the afternoon the rich anthropological collections of the new Imperial Natural History Museum, to be opened by the Emperor on Aug. 10th, were visited, while in the evening the members of the Congress were entertained by the municipality in the Town Hall.

Vienna, Aug. 7th.

Obituary.

JOHN SISSON STEELE, M.R.C.S., L.S.A.

THE friends of the late John Sisson Steele will read the announcement of his death with sincere regret. He was the son of Thomas Steele, who was a medical practitioner in Reigate for nearly fifty years, and from whom he received his early medical training. He afterwards studied at Guy's Hospital and Webb-street, and in the year 1830 received the L.S.A., and afterwards the M.R.C.S. He was born at Reigate in the year 1809, and died July 18th, 1889, in his eightieth year, after nearly fifty years in busy general practice. No man could have been more universally beloved by his patients, and in truth by all who had the advantage of his acquaintance, for he was a man who read much and thought profoundly. As an artist he had abilities of a high order, and doubtless would have made a reputation had he given art his undivided attention. He numbered many artists amongst his friends. Sir Edward Landseer was one from whose hands he had received many acts of kindness. Ten years ago failing health forced him to retire from active work. Valvular disease of the heart, coupled with advanced years, rendered him unable to combat the hot weather, and the life of a man who did not know how to do an unkind action slowly and quietly ebbed out.

Medical News.

UNIVERSITY OF LONDON: INTERMEDIATE EXAMINATION IN MEDICINE.—The following candidates passed the examination for Honours in July, 1889:—

Anatomy.

First Class.—Wm. M. Stevens (Exhibition and Gold Medal), University College.

Second Class.—Alfred Theodore Rake, Guy's Hospital; Charles Henry Preston, Owens College and Manchester Royal Infirmary.

Third Class.—William Lloyd Andriezen, University College; William Barnett Warrington, Owens College; Edward Chichester, London Hospital; Thomas Holmes, Guy's Hospital.

Physiology and Histology.

First Class.—Wm. M. Stevens (Exhibition and Gold Medal), University College; Harold M. Richards (Gold Medal), University College.

Second Class.—William Lloyd Andriezen, University College.

Third Class.—Alfred Theodore Rake, Guy's Hospital, and James Edwd Ramsay, University College (equal); Edwd. Thos. Ernest Hamilton, Guy's Hospital, and George Lancelot Rolleston, St. Bartholomew's Hospital and Cambridge University (equal); Emily Elizabeth Wood London School of Medicine for Women.

Organic Chemistry.

First Class.—William Lloyd Andriezen (Exhibition and Gold Medal), University College; *George Seaton Buchanan, B.Sc., St. Bartholomew's Hospital; Edward Eldridge Blomfield, London Hospital.

Materia Medica and Pharmaceutical Chemistry.

First Class.—William M. Stevens (Exhibition and Gold Medal), University College; *Thomas Holmes, Guy's Hospital; William Lloyd Andriezen, University College.

Second Class.—John C. Mackmurdo Given, Liverpool Royal Infirmary.

Third Class.—Arthur Mantell Daldy, Guy's Hospital; James Edward Ramsay and Harold Meredith Richards, University College.

The following candidates passed the entire examination:—

First Division.—Louisa B. Aldrich-Blake, London School of Medicine for Women; Hugh Wells Armstead, St. Bartholomew's Hospital; Chesman Barker, Sheffield Medical Institution; Vivian Boase Bennett, University College, Liverpool; Arthur Seal Blackwell, St. Bartholomew's Hospital; Claude Churchill Chidell, Univ. College; John Gray Clegg, Owens College; Richard Clegg, Owens College and Manchester Royal Infirmary; Charles Coles and Howard Owen Davies, St. Bartholomew's Hospital; Thos. Benj. Philip Davies, Guy's Hospital; Chas. Arthur Dixon, the Yorkshire College; Chas. Caldwell Elliott, Guy's Hospital; John Herbert Fisher, St. Thos.'s Hospital; Henry Wilkes Gibson, Middlesex Hospital; John Harvey, University College, Liverpool; Jessie Flewitt Hatch, London School of Medicine for Women; Percy Lord, Guy's Hospital; Wm. Percy Montgomery, Owens College; Edward Albert Nathan, St. Mary's Hospital; William Prior Purvis, St. Thomas's Hospital; Herbert Barnwell Rowbotham, Queen's College, Birmingham; Wm. Edward Sargant, St. Bartholomew's Hospital; Alfred William Sheen, Guy's Hospital; Gerald Allpress Simmons, St. Mary's Hospital; Hugh Roubiliac Smith, University College; Wm. Robert Smith, King's College; Caroline Sturge, London School of Medicine for Women; John Odery Symes, St. Mary's Hospital; Tom Robinson Taylor, Guy's Hospital; Wm. Longworth Wainwright and Cuthbert Sidney Wallace, St. Thomas's Hospital; George Alex. Watson, University College; Arthur Nesham Weir, B.Sc., and Charles Edwin Wheeler, St. Bartholomew's Hospital; Arthur Whitfield, King's College; Samuel Williams, University College; and Charles Jerome Woollett, Charing-cross Hospital.

Second Division.—Tom William Beazeley, Queen's Coll., Birmingham; Charles Bernard Braithwaite, Guy's Hospital; Stanley Mewburn Brown, Owens College; Frank P. S. Cresswell, B.Sc., Guy's Hospital; Howard Edward Girdlestone, St. Thos.'s Hospital; Edgar Huntley, Thomas David Lister, and James Hannay Muncaster, Guy's Hosp.; Alonzo George Rider, University College; Mary Louisa Sprigg, London School of Medicine for Women; Geo. Robt. Fabris Stilwell, St. Thomas's Hospital; Edward Gaved Stocker, St. Bartholomew's Hospital; Wilfrid Watkins-Pitchford, St. Thomas's Hospital; Harry Bacon Wilkinson, Guy's Hospital; Alfred Field Henry Wray, St. Bartholomew's Hospital; Sydney F. Wright, St. Thomas's Hospital.

Excluding Physiology.

First Division.—Edward Bulwer Allan, University College; William Tillinghast Atwool, St. Mary's Hospital; James Benzeville Byles, University College; Rowland N. U. Pickering, St. Barthol. Hosp.

Second Division.—Harry Finley, University College; Frank Drew Harris, St. Mary's Hospital; Alfred Hugh Minton, King's College; George Dines Parker, St. Bartholomew's Hospital; Reginald Mander Smyth, St. Mary's Hospital; James Hugh Sproat, Queen's College, Birmingham; Henry Eugene Tracey, St. Bartholomew's Hospital; Arthur Longley Whitehead, Yorkshire College.

Physiology only.

Second Division.—John Jas. Brown, Guy's Hospital; Joseph Richard Buckley, Owens College; Rupert James, University College; Geoffrey Colley March, Owens College; Elizabeth Margaret Pace, London School of Medicine for Women; Charles Barré Phipps Spencer, Guy's Hospital; Mildred E. K. Staley, London School of Medicine for Women; Frederick Wallace Wilson, Guy's Hospital; John Gratton Wilson, London Hospital.

* Obtained the number of marks qualifying for the Exhibition and Gold Medal.

UNIVERSITY OF EDINBURGH.—In our list of candidates recommended to receive the degrees of Bachelor of Medicine and Master in Surgery from the University of Edinburgh, published last week, the name William A. Bryant was inadvertently omitted.

BEQUEST. — Mercer's Hospital, Dublin, has received £177 15*s.* 9*d.* under the will of the late Mrs. Clouston.

JERVIS-STREET HOSPITAL, DUBLIN. — At the termination of the session the following prizes were awarded:—Senior Grade: Daniel Shanahan, gold medal. Junior Grade: Francis T. Greeves, gold medal.

ROSS MEMORIAL HOSPITAL, DINGWALL. — The Marchioness of Tweeddale formally opened on Aug. 6th a new wing to this hospital. This addition provides accommodation for six beds, two nurses' rooms, and other conveniences.

BITTEN BY A HYDROPHOBIA PATIENT. — The Bucharest correspondent of a news agency sends particulars of a painful occurrence which has taken place at Kustendjie, where a soldier was under treatment in the military hospital for hydrophobia. The patient, it is stated, bit through the hand of the surgeon attending him so severely and held on with so much force that the soldiers present had the utmost difficulty in freeing the surgeon, who has gone to Bucharest to be treated at the Institute for Bacteriology. The wound is severe, and the case is being watched with interest by the medical world.

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SWEATING IN THE NAIL TRADE.—On Wednesday, at Dudley, a chainmaker was fined £23 for sweating persons in his shops.

SOME apprehension is being caused in the West-end by the occurrence of cases of enteric fever in that quarter of London. Complaints are made of noxious odours arising probably from defective drains. It is well known that the drainage of even better-class houses in the fashionable part of the metropolis is not above suspicion.

LITERARY INTELLIGENCE. — Messrs. Funk and Wagnalls, of 44, Fleet-street, London, will publish next week a medical book entitled "Emergency Notes, or what to do in Accidents and Sudden Illness till the Doctor comes," price 2*s.*, by Glentworth R. Butler, A.M., M.D., Brooklyn, N.Y.

RABIES.—According to the *London Gazette*, the number of dogs in England reported during the week ending the 3rd inst. as afflicted with rabies was 15, against 7 reported in the previous week. Of these, 14 were killed and 1 died. Of the 15 diseased animals, 3 belonged to the metropolis, 2 to Kent, 2 to Surrey, and 5 to York, West Riding.

HYDROPHOBIA.—An extraordinary case of hydrophobia is stated to have occurred near Sheffield. It appears that an iron-moulder named Parkins died after several days' acute suffering, although there was no evidence of his ever having been bitten by either a dog or a cat. The doctor's opinion is that the malady was caused by the deceased having been licked by a dog on the face, at a spot where he had cut himself by shaving.

MERTHYR GENERAL HOSPITAL.—At a meeting of the governors of this institution held last week, the chairman stated that from Oct. 22nd last, when the hospital was opened, to June 30th, 99 patients had been admitted, of whom 5 had died. There were 11 patients at the present time. Most of the cases had been accidents. The report and the accounts, which showed a satisfactory balance, were passed.

FEVER HOSPITAL ACCOMMODATION IN BIRMINGHAM.—Another ward has been added, as a precautionary measure, to the Infectious Hospital in Birmingham, in view of the continuance of scarlet fever in that town. A boy having contracted the disease from sleeping among the rags and refuse collected in a marine store in Allison-street, the health inspector, acting for the Health Department, purchased the entire contents of the shop and had them destroyed.

THE DWELLINGS OF THE POOR.—The usual monthly meeting of the Mansion House Council on the Dwellings of the Poor, of which the Lord Mayor is president, was held on Tuesday in the Long Parlour. The report presented by Mr. John Hamer (hon. secretary) showed that action had been taken with respect to insanitary conditions in Finsbury, Bethnal-green, Newington, St. George's-in-the-East, and Shoreditch. It was reported that active steps had been taken with regard to the retention of open spaces in Bethnal-green.

TWIN CENTENARIANS.—The following statement has appeared somewhat extensively in the public press:—On the 12th inst. at Coosat, a village near Athlone, Margaret Mulochill, 100 years of age, gave evidence at a coroner's inquest relative to the death of Honora, her twin sister. The old women lived together, and on Saturday, when Margaret went to the market she left Honora at home in good health. On returning she found her lying dead on the sofa. Death had resulted from failure of the heart's action.

SUPERANNUATION.—At the fortnightly meeting of the Hoxne Board of Guardians, held at Stradbroke last week, the official minute of the previous board meeting in reference to the superannuation vote to Mr. Read, medical officer of health for the Stradbroke district, was made public. From this it appeared that a motion to allow Mr. Read a superannuation allowance of £40 per annum was lost by 14 votes against 10, as was also, by 14 against 11, an amendment that no allowance whatever be made. A proposal was then carried by 16 votes to 1 that a donation of £145 be given to Mr. Read on his retirement from office.

BRITISH DENTAL ASSOCIATION.—The annual meeting of this Association will be held in Brighton on the 22nd, 23rd, and 24th inst. The retiring president is Mr. Daniel Corbett, and the president-elect Mr. S. Lee Rymer. At the first day's meeting Mr. Corbett will deliver his valedictory, and Mr. Rymer his inaugural, address, and papers will be read on a variety of subjects connected with dental practice. On the Friday the reading and discussion of papers will be resumed, and in the evening the annual dinner of the members will take place in the Pavilion. Saturday will be mainly devoted to demonstrations.

GLASGOW UNIVERSITY STUDENTS' UNION BAZAAR. An influential committee has just been formed in London to promote the interests of this movement. It comprises the names of the Duke of Argyll, the Earl of Stair, Sir Francis Sandford, Professor Bryce, M.P., Dr. Cameron, M.P., Dr. J. A. Campbell, M.P., the Rev. P. H. Aitken, the Rev. H. Sinclair Paterson, Drs. D. W. Finlay and Norman Kerr, Messrs. P. E. Dove, F. W. Clark, T. C. Hedderwick, Joseph Bain, J. J. Stevenson, and J. Hardie; with Mr. J. R. McIlraith, Barrister-at-law, 2, Essex-court, Temple, E.C., as secretary and treasurer, to whom all subscriptions should be sent.

PROPOSED EXTENSION OF THE CARDIFF INFIRMARY.—At a recent meeting of the general committee of the board of governors, a report was considered from the buildings committee bearing upon the extension of the infirmary. This report, which was unanimously adopted, recommended the erection on the south side of a new ward generally similar to the existing male ward, in which provision is to be made for sixty additional beds, including space for the ophthalmic ward. The cost of the extension will be about £8000, towards which a sum of about £1000 is in hand. The enlargement of the infirmary has long been needed, and it is now to be carried out on a scale commensurate with the requirements of the institution.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—The fifty-seventh report of this institution is, on the whole, satisfactory. The total number of in-patients was less than last year, a decrease attributed to the severity of the cases treated. The average time occupied by each patient was thirty-seven days, against thirty the previous year. The daily number of patients in the hospital averaged eighty-two, compared with seventy-seven last year. The balance-sheet showed a deficiency of £662 8*s.* 3*d.* in the ordinary annual income, but this deficit had been made up by deducting the amount from legacies received—viz., £1042 18*s.* 4*d.*, instead of placing the whole sum to hospital account.

VICTORIA JUBILEE INFIRMARY, NORTH SHIELDS. This institution was formally opened by Earl Percy last week, in the presence of a large and representative gathering, including many members of the local medical profession. The financial statement showed that while the total cost of the building, exclusive of furniture, was £3264 15*s.* 3*d.*, donations &c. amounted to £3112 1*s.* 2*d.*, leaving the small balance of £152 14*s.* 1*d.* to be raised to cover the cost of the building. This result his lordship explained had been almost entirely achieved by the efforts of the class which would be mostly benefited by the establishment of this institution. The proceedings wound up with a luncheon at Tynemouth.

PRESENTATIONS.—A valuable and very beautiful silver inkstand has just been presented to Mr. Jackson by his colleagues in the Sheffield School of Medicine, on the occasion of his retirement, after many years of unremitting and successful work, from the hon. secretaryship of the school. The inkstand presents in front an excellent engraving of the new buildings of the Medical School which were opened last year by Sir Andrew Clark, and to the successful completion of which the exertions of Mr. Jackson have largely contributed. With the inkstand was an illuminated address, signed by the president, treasurer, and teachers of the school, to the following effect: "Presentation to Arthur Jackson, Esq., surgeon to the General Infirmary, and lecturer on Surgery in the School of Medicine, Sheffield. August 9th, 1889. — Dear Mr. Jackson: In asking your acceptance of the accompanying silver inkstand, we, your colleagues, wish to express our united and cordial esteem for you personally, and our grateful sense of your most valuable services to the school as its honorary

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secretary during the last twenty-one years."——On the 2nd inst. the members of the staff of the Joint Counties Lunatic Asylum, Carmarthen, presented a handsome gold watch to Mr. John Powell, L.R.C.P., L.R.C.S. Edin., the senior assistant medical officer of the asylum, on his resigning that post.

ACCOMMODATION FOR LUNATICS IN CHESHIRE.—Cheshire has just now a difficulty in providing accommodation for its lunatics. The Parkside and Upton Asylum, belonging to the county of Cheshire, being full, the Cheshire County Council has given the Corporation of Chester six months' notice in which to remove all their pauper lunatics, numbering 109. It is said that something like £40,000 will have to be spent in providing an asylum, or else the lunatics will have to be sent to distant places. The question is to be further discussed at a future meeting of the Town Council.

PROVINCIAL HOSPITAL SUNDAY COLLECTIONS.—The Hospital Sunday collection this year, by the local friendly societies of Netherton, in aid of the Dudley Guest Hospital, amounted to £33. The recent Oxford friendly and benefit societies hospital Sunday collection, on behalf of the local hospitals, realised (net) £83 9*s*. The Liverpool Hospital Sunday collections have produced this year £6803, being an increase of about £346 on 1888. The annual friendly societies hospital parade, at Abingdon, on the 28th ult., for the benefit of the Cottage Hospital, amounted to £34 4*s*.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.—The annual meeting of this Association will be held in Newcastle-upon-Tyne from the 11th to the 19th prox. The programme, which can be obtained from the Tyne Printing Works Company, 26, Side, Newcastle, contains, in addition to full particulars of the meeting, portraits and memoirs of the presidents and lecturers—viz., Professor W. H. Flower, F.R.C.S., &c., Captain Abney, Sir Lowthian Bell, Bart., Professor James Geikie, Professor Burdon-Sanderson, M.D., Sir Francis de Winton, Professor Edgeworth, William Anderson, C.E., Sir Wm. Turner, M.B., Professor Roberts-Austen, Benjamin Baker, C.E., and Walter Gardiner, M.A.

RETIREMENTS OF MEDICAL OFFICERS OF HEALTH.—There were forty-six applications for the post of medical officer to the borough of Nottingham, about to become vacant by the resignation of Dr. Whitelegge, who is proceeding to Yorkshire. Of the forty-six applicants, six were selected, from among whom the final appointment will be made. The salary is £500 a year.—At a meeting of the Hoxne Board of Guardians at Stradbroke last week, a letter was read from Dr. W. H. Anderson, resigning his appointment of district medical officer of the Fressingfield, Laxfield, and Mendham districts, also of public vaccinator for the same districts, and of medical officer of health for the whole union.

ROYAL BOTANIC SOCIETY OF LONDON.—The fiftieth anniversary meeting of this Society was held in the gardens last week. It appeared from the report that the scientific work of the Society had shown great improvement, 744 students having received free admissions of from one to three months each, and 42,000 specimens of plants and flowers having been cut for study and examination by the various colleges, hospitals, and medical schools in London. The collections of medicinal, economic, and interesting plants had been largely increased. The Council hoped to continue next year the valuable lectures by well-known professors in the chief departments of economic and biological botany.

QUARANTINE.—The *London Gazette* of the 9th inst. publishes a telegram from the British representative at Constantinople announcing the imposition of ten days' quarantine on all arrivals from Bussorah in consequence of cholera. Quarantine has also been established at all Egyptian ports against arrivals from Massowah. The Governor of Malta has directed that vessels arriving through the Suez Canal shall be subjected to medical visit, and that no linen, wearing apparel, or other susceptible articles shall be allowed to be landed before they are disinfected. Quarantine drawbacks exist slightly at Odessa and Kertch; there are no pilots at Sevastopol, and the roadstead at Taganrog is an obstacle; whilst the inconsiderable size of the port of Batoum is frankly alluded to. The Russian authorities, however, have shown a desire to meet the proposals suggested, as far as local circumstances will permit, and as regards certain complaints by the owners and masters of British vessels, it appears that misrepresentations have been made.

CRUELTY TO CHILDREN IN RUSSIA.—The *Archiv für Eisenbahnwesen* says: "The Russian Ministry of the Interior has just issued an ordinance to all railway officials prohibiting the further 'packing of small children (literally 'sucklings') in baskets, to the number of eight in a basket (!), and forwarding them to the foundling-houses in the great towns as hand luggage.' This abuse, says the Ministry in the Circular, is no longer to be tolerated, since it involves a serious injury to the health of the children, and is also an attempt to evade the regulations for the carriage of passengers by rail. In Russia 'infants must be paid for.'"

MEDICAL NOTES IN PARLIAMENT.

Prevention of Cruelty to and Protection of Children Bill.

IN the House of Lords, on Thursday, the 8th inst., an amendment by Lord Milltown, allowing the sale of newspapers &c. in the streets in winter time by children under fourteen years of age up to 10 P.M. instead of 8 P.M., as proposed by the Bill, was carried by 23 to 13. Words were inserted placing circuses and travelling shows on the same footing as theatres as regarded the employment of children. On the following day (Friday, the 9th), an amendment was agreed to enacting that that portion of the subsection relating to the employment of children in places of amusement should not come into force until Nov. 1st, 1889. The Bill was then agreed to.

In the House of Commons on Wednesday, the 14th inst., the Lords' amendments were considered.—Mr. Fowler said that, in the absence of his hon. friend the member for Sheffield (Mr. Mundella) he had to ask the House to agree to the Lords' amendments. These were, with three exceptions, amendments which dealt mainly with procedure, and, as they had been mostly introduced at the instance of Lord Herschell, and, as all of them had been adopted under the supervision of Lord Herschell, and with the approval of the Lord Chancellor, he thought the House might rest satisfied to accept them. There were, however, three amendments of substance. As the Bill left this House the hours after which children were not to be employed in the streets were fixed at 10 o'clock at night in summer and 8 o'clock in winter. The House of Lords had thought fit to fix 10 o'clock as the hour all the year round. He regretted this alteration, but it must be borne in mind that power was reserved to the local authority to further extend or restrict the hours. The next amendment of substance was with regard to the position of a wife in regard to giving evidence against her husband. As the Bill left the House it was provided that the wife should be a competent and compellable witness. The House of Lords had altered that by providing that the wife should attend the court and be competent as a witness, but on her refusal to give evidence should not be compellable. The third amendment was the most important of all, and dealt with the employment of children under ten years of age in theatres. In this House it was carried by large majorities that such employment should without exception be prohibited. The alteration effected in the House of Lords was that as to children under seven years the clause remained unaltered, and the prohibition absolute; but as to children above that age power was given to a petty sessional court to grant licences for such employment. Now he regretted that amendment, but they had to deal with this matter as practical men, and looking to the state of public business and the fact that this amendment had the support of Her Majesty's Government in the other House, and that they were not likely to assent to its abandonment, if this amendment were not agreed to by the House of Commons the result would be a wrangle and the inevitable loss of the measure. Under these circumstances, having regard to the fact that this was a vexed question upon which many people just as philanthropic as themselves took different views, and that a fair compromise had been obtained, he hoped that the House would agree with the amendment, and thus permit the Bill, which would be a great boon to the children of this country, to become law without any further delay. The Lords' amendments were then agreed to *en bloc*.

Lunacy Acts Amendment Bill.

On Thursday, the 8th inst., the Commons' amendments to this Bill were considered and agreed to; and in the House of Commons, on Monday, the 12th, the Lords' amendments to the Commons' amendments were considered and for the most part agreed to.

Universities (Scotland) Bill.

The Marquis of Lothian explained that last year a Scotch University Bill was carefully considered and read a third time in that House, but the House of Commons had not time to deal with it. This year the Bill was introduced first in the House of Commons, and was practically the same Bill. After some discussion, the Bill, with slight amendments, passed through committee, and was read a third time and passed on Monday, the 12th inst.

Local Government (Scotland) Bill.

On Friday, the 9th inst., this Bill was read a third time, and, some verbal amendments having been agreed to, was passed after an ineffectual protest from Lord Denman.

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Adulterated Lard.

In the House of Commons, on Thursday, the 8th inst., Sir Michael Hicks-Beach, in reply to Sir R. Paget, said the Government were not prepared to prohibit all adulterations of lard, as besides the great cost of testing all imports there was no evidence that the bulk of such lards was other than harmless, the ingredients of those compounds consisting in a great measure of cotton-seed oil. The Customs were prepared to assign a separate heading for "lardine" in the import accounts of next year.

Fever in the Spanish Pavilion, Gibraltar.

In answer to Sir W. Barttelot, Mr. Brodrick (Financial Secretary, War Office) said that there had been three cases of fever, of which two were enteric, in four adjoining rooms on the ground floor of the Spanish Pavilion during the last eleven months. The rooms of the lower floor had been closed, and steps had been taken for dealing at once with the sanitary defects of the Spanish Pavilion, if any remained, after the overhaul it recently underwent. There had been no case of fever since June.

Myopia in Elementary Schools.

In reply to Dr. Farquharson, Sir W. Hart Dyke said that, as the inspectors had no previously ascertained data upon which to form a comparative judgment as to the alleged increase of short sight in the children attending public elementary schools, a considerable time would necessarily elapse before they could be expected to give an opinion; but the matter had not been lost sight of, and he hoped it might be possible to secure some reliable information in connexion with it.

Overhead Wires.

In answer to Sir Geo. Campbell, Mr. Ritchie stated that obviously no legislation on this question could be proposed this session, and he could not make any statement as to what might be proposed in a future session.

Consolidation of the Lunacy Laws.

In reply to Mr. Salt, Mr. W. H. Smith stated that an amendment had been inserted into the Lunacy Amendment Bill postponing its operation until next May, with the express view of making it possible to pass a Bill consolidating the Lunacy Acts before that date. This Consolidation Bill would be laid on the table of the House of Lords this session.

The Health of Mr. Conybeare, M.P.

In reply to Mr. MacNeill and Mr. McArthur, Mr. Balfour stated that the medical officer of the prison, who was a most competent gentleman, had daily opportunities of seeing Mr. Conybeare. It was the medical officer's business to report to the Prisons Board if there was anything in the prison cells injurious to health; and further, he had ample power, without going to the Prisons Board, to take steps for preventing injury to the health of prisoners.

The Medical Act (1886) Amendment Bill.

The order for this Bill was discharged, and the Bill itself withdrawn.

Pollution of the River Lea.

On Friday, the 9th inst., in reply to Sir J. Colomb, Mr. Ritchie stated that he was still awaiting a reply from the West Ham Corporation with regard to the allegations made against that body by the Poplar District Board of Works. Meanwhile he had directed an engineering inspector to visit West Ham and report the result of his inquiries, and he expected to receive his report shortly.

A Court for Criminal Appeal.

Mr. F. Maclean gave notice that as early as possible next session he should call attention to the advisability of constituting a court of appeal in criminal cases, and move a resolution.

Exceptional Children in Primary Schools.

In answer to Dr. Farquharson, Sir W. Hart Dyke said his attention had been called to a draft report on the condition of "exceptional children in primary schools," prepared by Dr. Francis Warner as honorary secretary of a committee appointed by the Psychological Section of the British Medical Association to consider this subject. He had no doubt that the intrinsic importance of the medical questions with which it dealt would obtain for it a sufficient share of public notice, but he had neither the means nor the right to authorise the publication of the full text of the investigations or of anything connected with the inquiry, as requested by the hon. member.

Medical Superannuation.

On Monday, the 12th inst., Mr. A. J. Balfour, answering Mr. Pinkerton, said the grounds upon which a superannuation allowance may be granted by the guardians of a union to an officer appointed under the Medical Charities Acts are permanent infirmity of body or mind or old age. The Local Government Board have been advised, in reference to a case which came before them, that there was no legal obstacle to a retiring allowance being granted to a medical officer in respect of an office under the Medical Charities Acts, although he might continue to hold another and distinct appointment under the Poor Law Acts, but the circumstances which could ever give substantial justification for such a proceeding must obviously be very exceptional.

Alleged Typhus in Derry Gaol.

In reply to Mr. Sexton, Mr. A. J. Balfour stated that of the three Falcarragh prisoners recently released from Derry Gaol one had since died of typhus fever. (Mr. Sexton: He was delirious when let out.) He (Mr. Balfour) had not heard of the illness of the two other prisoners from typhus as described by the right hon. gentleman. He did not think that particular circumstances connected with Derry Gaol had any bearing on the case of Mr. Conybeare. (Mr. Sexton: It is a dangerous gaol.) Mr. Balfour proceeded to say that the fact of a person recently released from Derry Gaol having died of typhus supplied very adequate ground for making a most careful inspection of the gaol, and the necessary inquiries were now being made.—Mr. Sexton said they would have to discuss in Supply whether this Derry Gaol was not a death trap.—Mr. Balfour said it was not absolutely certain that the man did die of typhus. There seemed to be some doubt about it.

Public Health (Cholera Prevention) Bill.

Mr. W. H. Smith, in reply to Mr. E. Robertson, said that it was not in his power to give any assurance that no more departmental Bills such as this would be introduced this session. Emergencies might arise at any moment rendering it necessary to introduce measures of this character in the public interest.—Mr. Ritchie moved for leave to bring in the Bill, and it was read a first time.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BOOTH, W., L.R.C.P. & S.Ed., F.R.C.S.E., has been appointed Medical Officer to the Edinburgh Provident Dispensary.

BUXTON, H., L.R.C.P. & S. Edin., L.F.P.S. Glas., has been appointed House Surgeon to the Ripon Cottage Hospital and Dispensary.

EGAN, FRANCIS, L.K.Q.C.P. Irel., L.M., L.R.C.S. Irel., has been re-appointed Medical Officer of Health of Fulham.

EXLEY, JOHN, L.K.Q.C.P. & L.M. Irel., M.R.C.S., has been appointed Medical Officer of the New Wortley District, Bramley Union.

HILL, A. B., M.D. Giessen, L.R.C.P., L.M., L.R.C.S. Edin., has been reappointed Analyst of the Borough of Leamington.

KEILLER, WM., L.R.C.P. & S.E., has been reappointed Assistant Medical Officer to the Edinburgh Provident Dispensary.

MATHESON, A. A., M.D., F.R.C.P.E., has been reappointed Medical Officer to the Edinburgh Provident Dispensary.

MUIR, W. L., L.R.C.P., L.M. Edin., L.F.P.S. Glas., has been appointed Medical Officer to the Fourth District, City Parish of Glasgow.

MULLEN, JOHN W., L.K.Q.C.P.I., L.R.C.S.I., &c., has been appointed Medical Superintendent of the Wilton Fever Hospital in the County Borough of Salford, vice Dr. John Tatham, appointed Medical Officer of Health to the City of Manchester.

MURDOCH, W. H., M.D., M.S.Irel., has been appointed Assistant Medical Officer of the Workhouse Infirmary, Parish of Liverpool.

ORR, HUGH, L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer and Public Vaccinator, Filey District, Scarborough Union.

ORR, R., M.D. Glas., L.R.C.S. Edin., has been appointed Vaccinator for the Parish, Glasgow.

PURSLOW, C. E., M.D. Lond., M.R.C.S., has been appointed Honorary Medical Officer to the Birmingham Lying-in Charity, vice A. F. Hawkins, F.R.C.S.E., resigned.

READ, HAROLD WM. KINGCOMBE, L.R.C.P., L.R.C.S., L.F.P. & S.Glas., has been appointed Medical Officer and Public Vaccinator to the Towcester Union and District, vice A. G. Evans, deceased.

ROBERTS, JOHN LLOYD, M.B., B.Sc., B.A. Lond., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to the Eastern Counties Asylum for Idiots, Colchester, Essex, vice Herbert Evelyn Crook, M.B., B.S. Lond., F.R.C.S. Eng., L.R.C.P., resigned.

RUSSELL, JAMES, M.B. & C.M. Edin., has been appointed Medical Officer of the Workhouse Infirmary and the North Keighley District, Keighley Union.

SOPER, R. W., M.R.C.S., L.S.A., has been reappointed Medical Officer of Health, Dartmouth Borough, and Port Medical Officer.

STALKART, C. E. G., M.B., C.M., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer to the Edinburgh Provident Dispensary.

STEPHEN, JAMES, M.D., M.B., C.M. Aberd., has been reappointed Parochial Medical Officer, Peterhead, Aberdeenshire.

WHEATLEY, THOMAS DALEMAIN, M.D. Edin., M.R.C.S., L.A.C., has been appointed Chief Medical Officer to the French Co. of Venezuelan Railways.

WILLETT, G. G. D., M.R.C.S., L.S.A., has been reappointed Medical Officer of the Districts of Bitton and Marksbury, Keynsham Union.

WILSON, GEORGE, M.D. Edin., M.B., C.M., has been reappointed Medical Officer of Health, Mid-Warwick Sanitary District.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BOROUGH OF LEEDS.—Medical Officer of Health. Salary £700 per annum, with disbursements.

CANCER HOSPITAL (FREE), Fulham.—Two Resident House Surgeons for six months. An honorarium at the rate of £50 per annum each, with board and residence.

CHILDREN'S HOSPITAL, Birmingham.—Resident Medical Officer and Assistant Resident Medical Officer. The salaries are £80 and £40 per annum respectively, with board, washing, and attendance in the hospital.

CITY ASYLUM, Birmingham.—Resident Clinical Assistant. Board, lodging, and washing provided, but no salary.

GENERAL HOSPITAL, Birmingham.—Resident Surgical Officer. Salary £130 per annum, with residence, board, and washing.

KINGSTON UNION (Offices: St. James'-road, Kingston-on-Thames).—District Medical Officer for the Parish of Teddington. Commencing salary £80 per annum, in addition to extra medical fees for operations, amputations, and to the payment for quinine, cod-liver oil, and linseed meal, at cost price.

NOTTINGHAM GENERAL HOSPITAL.—Resident Medical Officer for six months. No salary, but board, lodging, and washing in the hospital.

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RURAL SANITARY DISTRICTS OF KENDAL, EAST WARD, AND WEST WARD UNIONS, AND THE URBAN SANITARY DISTRICTS OF KENDAL, AMBLESIDE, APPLEBY, BOWNESS, GRASMERE, AND WINDERMERE, all in the county of Westmoreland, in combination.—Medical Officer of Health. Salary at the rate of £375 per annum, to include travelling and other expenses and disbursements.

VICTORIA INFIRMARY, Glasgow.—Superintendent and Resident Medical Officer. Salary £125 per annum, with apartments and board.

WALLASEY DISPENSARY (Honorary Secretary, Elm Mount, Penkett-road, Liscard, Cheshire).—House Surgeon. Salary £110 per annum, with furnished apartments, coals, and gas.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—House Physician (who will also be required to act as Chloroformist, Pathologist, and Medical Registrar). Salary £100 per annum, with board, lodging, and washing.

Births, Marriages, and Deaths.

BIRTHS.

CHATTERJIE.—On Aug. 13th, at 173, Gloucester-road, Regent's-park, the wife of Surgeon-Major N. Chatterjie, Indian Medical Service, of a daughter.

EVERARD.—On Monday, July 1st, at Estcourt, Natal, the wife of Horace N. Everard, M.B., of a son, stillborn.

HENDERSON.—On Aug. 10th, at 66, Camp-road, Leeds, the wife of Robert Wilson Henderson, M.D., of a son.

MINNS.—On Aug. 2nd, at White Hart-street, Thetford, Norfolk, the wife of Allan Minns, L.R.C.P. Lond., &c., of a daughter.

SAUL.—On Aug. 11th, at Manor House, Selsey, Chichester, the wife of William Saul, M.D., of London, of a daughter.

TRAVERS.—On Aug. 7th, at Phillimore-gardens, W., the wife of Dr. Travers, of a son, stillborn.

MARRIAGES.

CALTHROP—HARTLEY.—On July 4th, at the Cathedral, Lahore, Punjab, Surgeon-Major Christopher William Calthrop, M.D., Indian Medical Service, to Alice Evett, second daughter of the late Charles James Hartley, Esq., of Edgbaston, Warwickshire, England.

COMPTON—SYMES.—On Aug. 7th, at the Parish Church, Allington, Bridport, Francis Charles Compton, L.R.C.P., M.R.C.S., of Bayard Lodge, Poole, Dorset, to Agnes, eldest daughter of the late William Legge Symes, of Magdalen House, West Allington, Bridport.

GREIG—LARKINS.—On Aug. 7th, at the Cathedral, Gibraltar, William Charles Greig, M.B., C.M.Edin., to Rosa Marion, youngest surviving daughter of Frederick Larkins, of Auckland, N.Z., and London.

HAMERTON—JONES.—On Aug. 7th, at St. John's Parish Church, Aberdare, George Albert Hamerton, M.D., to Mary Cook Jones, second daughter of J. O. Jones, Mining Engineer, Cwmdwr, Clydach, near Swansea.

MACGILLIVRAY—KENT.—On Aug. 7th, at Kesgrave Parish Church, Suffolk, Charles Watson Macgillivray, M.D., F.R.C.S. Edinburgh, to Frances Anne, eldest daughter of Francis Aldous Kent, Kesgrave Hall, Suffolk.

ROGERS-TILLSTONE—WILKINSON.—On Aug. 8th, at St. Patrick's, Brighton, Hermann Rogers-Tillstone, M.B., &c., third son of B. T. Rogers-Tillstone, of Moulse, Coomb Place, Sussex, Esq., to Amy Legge Wilkinson, youngest daughter of the late Thos. Wilkinson, Esq., of Stanford House, West Brighton.

SAVORY—ROW.—On Aug. 8th, at St. Stephen's, Tunbridge, William Harmsworth Savory, M.R.C.S. &c., of Ashford, Kent, eldest son of Charles T. Savory, M.D., of Canonbury, to Grace, youngest daughter of the Rev. John Row, of Tunbridge.

STYAN—NORBURY.—On Aug. 7th, at St. Pancras Church, Thomas Geo. Styan, M.A., M.D. Cantab., M.R.C.S., of Chapel-place, Ramsgate, eldest son of Thomas Styan, Esq., of Upper Bedford-place, Russell-square, London, to Alice Sophia, second daughter of John Norbury, Esq., of Gordon-square, London, and Springfield, Congleton, Cheshire.

WINSTANLEY—MOTT.—On Aug. 7th, at Haslemere Church, Robert Wyndham Winstanley, L.R.C.P., M.R.C.S., and L.S.A., eldest son of the late Octavius Winstanley, of Forest-hill, to Alice (Sissie) Mott, elder daughter of the late Angelo T. B. Mott, of Greyswood.

DEATHS.

BAIKIE.—On Aug 5th, at Melville-street, Edinburgh, Robert Baikie, of Tankerness, M.D., H.E.I.C.S., Vice-Lieutenant for the County of Orkney and Shetland, aged 89.

CHALMERS.—On June 24th, at Brisbane, Queensland, Charles Bonner Chalmers, late Deputy Inspector-General of Hospitals, H.E.I.C. Service, aged 70.

FORESTER.—On Aug. 12th, at Barnstaple, Henry Forester, M.D.Aberd., M.R.C.S., aged 61.

ROSS.—On Aug. 3rd, at Chaussée de Charleroi, Brussels, Charles G. H. Ross, Surgeon-Major, late of the Bombay Army, aged 63.

SMITH.—On Aug. 8th, at Sundown, St. Aubins, Jersey, Robert George Fothergill Smith, M.D.

SMITH.—On Aug. 3rd, at Bhamo, Upper Burmah, of intermittent fever, Surgeon-Major James Adolphus Smith, youngest son of the late Richard Smith, Surgeon, of Winchcombe, Gloucestershire, aged 41.

TERRELL.—On Aug. 14th, at his residence, Herbert Villa, Pembroke-road, Clifton, Frederick Terrell, M.R.C.S., L.S.A., aged 85.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, August 15th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Aug. 9	29·95	W.	63	58	86	67	56	..	Cloudy
,, 10	29·80	W.	60	57	103	70	53	·13	Cloudy
,, 11	29·56	W.	58	54	102	69	50	..	Cloudy
,, 12	29·70	W.	56	55	84	63	53	·21	Raining
,, 13	30·00	W.	60	56	105	65	55	·02	Cloudy
,, 14	30·01	S.W.	60	56	108	70	55		Cloudy
,, 15	29·83	N.W.	63	60	118	76	59	·17	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE STUDENTS' NUMBER OF "THE LANCET" will be published on Saturday, September 7th. Those gentlemen holding official situations connected with medical institutions in the United Kingdom who have not yet forwarded the necessary information to our Office for publication in that number are earnestly requested to send it *without the delay of a single post.*

MALCOLM MORRIS INDEMNITY FUND.

THE following additional subscriptions to the above fund have been received:—

Amount previously acknowledged	£452	15	0	Dr. E. L. Birkett.. ..	£1	1	0
Dr. Bristowe	2	2	0	H. H. Clutton, Esq. ..	1	1	0

District Medical Officer.—If a patient has been attended continuously throughout the year on one order, that patient should be counted once; but if there have been two or three separate attendances, and a fresh order has been made for each, then each order should be counted as a fresh case.

A Subscriber.—We do not see the exact meaning of the questions. Will our correspondent rewrite them, and make his meaning a little clearer?

A. B. (Begelley).—Water containing in solution free carbonic acid as well as oxygen dissolves zinc to a very serious extent.

Mr. Jeaffreson (Newcastle-on-Tyne).—Yes, if of moderate length.

Dr. J. Mason (Blyth) is thanked.

THE LATE CHARLES SAMUEL WEBBER.

To the Editors of THE LANCET.

SIRS,—The case of my late esteemed friend, Mr. C. S. Webber, whose obituary appears in THE LANCET of to-day's date, well illustrates a remark made by Dr. Goodhart in your journal of July 6th, page 7, regarding "faulty habit." "The conscious direction of attention," writes Dr. Goodhart, "upon any pain, however slight, for a length of time will gradually make a trifle unbearable, and even apparently agonising; and there is many a sufferer whose sole ailment is thus generated, and whose successful treatment is to be compassed not with drugs....." For many years both my son and myself freely expressed our opinion both to the patient and his family that there was no organic mischief, and endeavoured, unsuccessfully I regret to say, to allow nature to act alone, assuring him that were he to resign himself unreservedly to proper care a cure was possible.—I am, Sirs, yours truly,

Boundary-rd., N.W., Aug. 10th, 1889. RICHD. NEALE, M.D.Lond.

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AMENDMENT OF THE VACCINATION ACTS.—THE NUMBER OF INSERTIONS.

A CORRESPONDENT writes suggesting that in any amendment of the Vaccination Acts the form of certificate should be altered so as to show the number of insertions, and of those which have been successful. He states that merely to please parents some vaccinators vaccinate very imperfectly or in only one place, and that to such poor vaccination some of the discredit of the operation is due. We agree to a great extent with our correspondent. If one thing is more clear than another, it is that the protective power of vaccination is in proportion to the number of good vesicles produced. Our correspondent also urges more effective inspection of actual vaccinations and the appointment of inspectors from those who have distinguished themselves as good vaccinators—that is, "vaccinators who showed the largest percentage of good vaccine marks."

C. S. Watson.—The subjects referred to are dealt with at some length in Dr. Lauder Brunton's book on "Disorders of Digestion," more particularly in the paper upon "Poisons formed from Food, and their relation to Biliousness and Diarrhœa."

Dr. Fred. A. A. Smith.—Dr. Bull's work may be obtained of Mons. G. Masson, Boulevard St. Germain, Paris.

Dr. Bowie.—Yes, soon.

MEDICAL PRACTICE IN BRITISH COLUMBIA.

To the Editors of THE LANCET.

SIRS,—In your issue of June 29th is a letter *in re* English medical qualifications, signed "C. F. N.," in which the writer bewails his hard fate in having to pass an examination as well as pay a heavy fee before practising in this province. I am happy to say that the law does not apply to any man holding a British—i.e., English, Scotch, or Irish—qualification, and who has registered the same in Great Britain. All that such a one has to do is to produce his diploma and certificate of registration, make an affidavit before a justice of the peace that he is the person mentioned therein, and pay a registration fee of ten dollars. He may then practise wherever he likes in the province. I was under the same impression as your correspondent, and accordingly last April I paid a hundred dollars to the Council, and in due course passed the examination, receiving in return a certificate of registration. A month ago one of the Council was good enough to tell me that I could get back the hundred dollars by applying for them, as I was allowed in virtue of my diplomas (M.R.C.S.Eng., L.S.A.Lond.) to practise without examination. It appears that during the last session of the Local Parliament a number of Medical Acts were consolidated, and among them an Act of 1866 which was thought to have been repealed. Consequently, as the law stands at present, only men with British diplomas have the right of practising in this province without examination. All others, Canadians and Americans alike, have to pass that dread ordeal, and have moreover to pay a hundred dollars to the Provincial Medical Council.

Hoping this may serve to correct any wrong impression which your correspondent's letter may have created with regard to the right of English medical qualifications, I am, Sirs, yours obediently,

Victoria, British Columbia, July 24th, 1889. CORYLAS.

MIDWIVES' INSTITUTE AND TRAINED NURSES' CLUB.

To the Editors of THE LANCET.

SIRS,—Will it be asking too great a favour to beg you to make known to medical men who may have copies of works upon midwifery and surgery for which they have no further use that such would be most gratefully received by the Midwives' Institute and Trained Nurses' Club, 15, Buckingham-street, W.C., if they are forwarded to the secretary? This institution endeavours to give all possible help to those midwives who are preparing themselves for the Obstetrical Society's examination, and all works on midwifery are invaluable to these women, many of whom have very small means, and consequently their education is a very severe strain upon their incomes. Frequent requests come from country members to the librarian to send them the different standard works for their studies, and the Institute cannot meet the demand, as they have a very limited supply of these books, although some medical men have generously presented their works to the institute. If you would be so good as to help the institute by making known this need, you would confer a great favour upon the members, and help a body of women who are striving to prepare themselves thoroughly for their responsible position.

I am, Sirs, yours obediently,

MARGARET R. NICHOL,
Secretary to the Midwives' Institute and Trained
August, 1889. Nurses' Club.

FIXING METAL RINGS ON NIPPLES.

To the Editors of THE LANCET.

SIRS,—It has been pointed out to me that there exists in certain countries a practice of fixing a metal ring on the human nipple. The information was derived from the *English Mechanic* (see March 29th, p. 99; April 5th, p. 118; May 3rd, p. 199; May 10th, p. 222; July 26th, p. 460). I shall feel obliged if you will allow this letter to appear in your columns, in order to ascertain if any member of the profession be cognisant of the practice. I am, Sirs, yours truly,

Aug. 8th, 1889. H.

OLD "REMEDIES" FOR HYDROPHOBIA.

OUR readers may be interested in perusing the following formulæ, which have been strongly recommended to us as efficacious in the treatment of rabies. There is a flavour of antiquity about their composition which brings to mind the days when faith in the efficacy of drugs and in length of prescription went hand-in-hand. It is pleasant to think that there are some even now who cling to old beliefs, which with most of us have been shattered by the ruthless progress of science.

"℞ Hydrargyri perchloridi, grana decem; potassii iodidi, grana octo et viginti; aquæ destillatæ, minima octoginta; pulveris gummi opii, grana decem; butyl-chloral hydratis, grana quadraginta; extracti cannabis indicæ, grana octo; pulveris gummi resinæ asafœtidæ, grana octoginta; pulveris foliorum digitalis, grana sedecim; pulveris gummi resinæ guaiaci, grana octo et quadraginta; pulveris gummi acaciæ, grana viginti; pulveris gummi tragacanthæ, grana duo; pulveris radicis glycyrrhizæ, grana quatuor et viginti; aquæ destillatæ, quantum sufficiat ut fiat massa pilularum, bene misceatur. In pilulas centum æquales dividatur. Harum capiatur una omni mane (cum misturæ dosi una) per tres dies, duæ quotidie per tres dies, tres per tres dies, quatuor per quatuor dies, quinque per quinque dies. Postea doses ad hunc modum minuantur—quatuor per quatuor dies, tres per tres dies, duæ per tres dies, ad postremum una per tres dies capiendæ."

"℞ Decocti sarsæ compositi concentrati (Pharmacop. Brittanic.—una pars ad septem partes parandas), uncias fluidas duodecim; potassii iodidi, grana trecenta et nonaginta. Misce fiat mistura. Cochleare minimum ex duobus aquæ cochlearibus magnis ter die ante cibos capiendum."

"℞ Hydrargyri perchloridi, grana quindecim; aquæ destillatæ, unciam fluidam dimidiam; aquæ calcis, unciam fluidam. Misce fiat solutio. Signetur "ad usum externum." Caute servetur ad canum morsuum cauterium. Caute injiciatur cum syringa parva continenti drachmam dimidiam. Vide ne penetrat syringæ punctum ad una lacera vulnera. Faciat duas injectiones statim vel quam primum post morsus recipiendos, et eas reficiat bis, per duas horas."

To this it may be well to append another formula for the cure of hydrophobia, which we have also received from a correspondent, who states that it was copied from an entry in a parish register, bearing the date Sept. 14th, 1765.

"An infallible cure for the bite of a mad dog, brought from Tonquin, China, by Sir George Cobb:—20 grains of native cinnabar, 20 grains of factitious cinnabar, 16 grains of musk. This was to be mixed with a small teacup of arrack, rum, or brandy. Persons who even had the symptoms of madness on them are said to have been cured by it."

Celt.—Personal canvassing is sometimes specifically forbidden in such cases. If it is not so in this case, we see nothing objectionable from a medico-ethical point of view in the course our correspondent mentions, so that it be taken with due respect to other candidates.

An M.R.C.S.—We will communicate with the writer of the letter referred to.

"LIFE IN TASMANIA."

To the Editors of THE LANCET.

SIRS,—In answer to "Emigrant," whose letter under the above heading appeared in your issue of Aug. 10th, allow me to state that during the winter before last I spent three months in Tasmania, and, as far as I could ascertain, there were no openings at all in the island for medical men. In Hobart, the capital, there were twenty medical practitioners. Launceston, the only other town of any size, had ten, and every little township—or village, as they would be termed here—had its doctor, sometimes two. People have, as a rule, rather vague ideas of the size of Tasmania. As a matter of fact, the entire population is only 60,000; so the scope for practice is very limited, the fees are low as money goes there, and there are plenty of good men. An M.B. of London was holding the post of house-surgeon to the hospital in Hobart at the time I speak of. Your correspondent would, I am sure, find it very difficult to make anything of a practice. In answer to his question as to the life one leads there, I may say that in the towns it is much the same as in English towns of similar size; in the country it means entire absence of social pleasures and long distances to travel over very indifferent roads, or "tracts," as they call them. I have ridden thirty-five miles, mostly through bush, to see a patient in conjunction with a friend of mine practising in the country.

In conclusion, I would advise your correspondent to think well before deciding on Tasmania. New Zealand and Australia are both getting filled up, though not to the same extent. The best openings, I believe, are to be found in the country parts of New South Wales. Of course, if "Emigrant" is going solely for health, it is a different matter—*necessitas non habet leges;* but, otherwise, I would advise him to stay at home. I am, Sirs, yours faithfully,

Aug. 14th, 1889. A. CROSBEE DIXEY, M.R.C.P.

Iain.—Only, we believe, from the Liverpool papers, which gave extremely full reports.

Mr. John J. Walsh.—Dr. Goodhart's book will probably suit our correspondent.

Peak.—We are unable to trace the reference mentioned.

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INSANITY AND MUMPS.

To the Editors of THE LANCET.

SIRS,—Dr. R. Percy Smith, at page 265, reports two cases of acute mania associated with mumps. Dr. Williamson, in your journal, March, 1886, page 487, records a similar case that proved fatal, and in the Medical Digest, Section 813 : 1 (Appendix), among the symptoms accompanying this affection delirium is noted.

I am, Sirs, yours truly,

Boundary-road, N.W., Aug. 10th, 1889. RICHD. NEALE, M.D.Lond.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Wharton Jones, Ventnor; Dr. T. Savill, London; Mr. Hodgson; Mr. Harrison Cripps, London; Mr. G. S. Pope, York; Dr. R. W. Reid, London; Dr. Dunlop, Jersey; Dr. J. Mason, Blyth; Dr. Luff; Messrs. Woolley and Son, Manchester; Mr. Chowdhoory, Burdwan; Messrs. Burgoyne and Co., London; Dr. MacLintock, Bradford; Mr. Horner, Cradley Heath; Dr. Creighton, London; Mr. Slade, London; Mr. Clement Lucas, London; Mr. Field, London; Dr. Graeser, Bonn; Dr. Ward Cousins, Southsea; Dr. Buchanan, Glasgow; Dr. Hebb; Mr. Crosbee Dixey, London; Dr. F. A. A. Smith, Cheltenham; Mr. Evans, Lower Burmah; Mr. Dyer, Ringwood; Mr. W. H. Denham, London; Dr. H. Campbell, London; Mr. R. F. Yorke, Bilton; Dr. Manby, Brighton; Mr. Wallace, Colchester; Mr. Keeling, Sheffield; Mr. W. Priestman, Birmingham; Mr. Foulerton, Chatham; Dr. Dabbs, Shanklin; Dr. J. Tily, Chiswick; Mr. Southam, Manchester; Mrs. S. P. Smith, Weybridge; Mr. J. G. Loch, Tenby; Lord Sandhurst, London; Dr. W. J. Collins, London; Dr. Purcell, London; Dr. Paterson, Boston; Dr. R. Neale, London; Dr. Woodhouse, Putney; Mr. W. J. Harris, Blackheath; Mr. Urquhart, Edinburgh; Mr. C. S. Jeaffreson, Newcastle-on-Tyne; Mr. Silverlock, Sheffield; Mr. Battam, Chiswick; Mr. J. M. Thorn, Crieff; Mr. Coghill, Birmingham; Mr. Haydon, Tiverton; Mr. Morgan, Sunderland; Mr. Stilliard, Birmingham; Mr. Keeley, Nottingham; Dr. Rayner, Leamington; Mr. Waldo, Derby; Mr. Tait, Birmingham; Mr. Mason, Sheffield; Mr. Lingard, Ennis; Mr. Gurner, London; Mr. Sawyer, Birmingham; Mr. Lamond, Glasgow; Mr. Crow, Canterbury; Mr. Drewitt, Kingston-on-Thames; Mr. Heap, Liverpool; Mr. Southern, Derby; Mr. Lamb, Soho-square; Mr. White, Wolverhampton; Miss Moorhouse, London; Messrs. Quibell Bros., Newark; Mr. Tinkie, Hants; Mr. Hornibrook, London; Mr. Hayes, Ennis; Mr. Fox, Manchester; Mr. Hyde, Buxton; Dr. Martin Gil, Malaga; Mr. Arbenz, Birmingham; Mr. Silverlock, London; Mr. W. T. Ord, Bournemouth; Mr. Arrowsmith, Bristol; Mr. Reinhardt, Highbury; Mr. Boys; Mr. F. R. Humphreys; G., M.R.C.S.; Medicus, Tamworth; Iain; Peak; C. E.; Celt; E. R.; Corylas; Altmore, London; An M.R.C.S.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Minns, Norfolk; Mr. Campbell, Reading; Mr. Macara, Crieff; Messrs. Gale and Co., London; Dr. Waterhouse, Haverstock-hill; Messrs. Savory and Moore, London; Mr. Campbell, London; Mr. Davidson, North Shields; Dr. Benton, London; Dr. Woakes, London; Messrs. Squire and Son, London; Dr. Anningson, Cambridge; Messrs. Wyleys and Co., Coventry; Dr. Burroughs, Shortville; Messrs. Giles, Schacht, and Co., Bristol; Mr. Sargeant, Camden-town; Messrs. Loeflund and Co., London; Mr. Webb, London; Dr. Hooper, Derby; Messrs. Curtis and Co., London; Mr. Heywood, Manchester; Mr. Henry, Bury St. Edmunds; Mr. Smart, Suffolk; Dr. Williams, Cornwall; Dr. M. Sutton, Cambs.; Mr. Sweet, Fishguard; Mr. Oldham, Liverpool; Mr. Schweitzer, London; Dr. Henderson, Leeds; Messrs. Maclachlan and Co., Edinburgh; Mr. Sandford, Sheffield; Messrs. Mottershead and Co., Manchester; Dr. Speirs, Cumberland; Mr. Lawrence, Bury St. Edmunds; Mr. Todd, Carlisle; Mr. Bott, Bucks; Messrs. Boulton and Paul, Norwich; Mr. Parker, Huddersfield; Messrs. Mertens and Co., London; Mr. Bryan, Shipley; Dr. Rayner; Messrs. Whittle and Co., Liverpool; Professor D'Orsey, London; Mrs. Jagger, Yorkshire; Messrs. Hatcham and Co., London; Mr. Compton, Dorset; Mr. Smith, Jersey; Mr. Beckton, London; Mr. Kelvin, Manchester; Forte, London; Royal Medical Benevolent College, London; General Apothecaries' Co., London; Y. X., London; Gunner, London; X. Y. Z., Tunbridge Wells; Auscultation, London; Sabac, London; L.R.C.P., Wells; Lady Superintendent, Maidstone; Assistant, London; Physician, Regent's-park; T. J. G., London; Rubrum, London; Hygiene, London; Ajax, London; Miss L., London; A. B., London; Medicus, London; M.B., Lancs.; Cosmos, Manchester; Medicus, Liverpool; S., London; S. S., Exeter; Medicus, Seaforth; Midlands, London; A. L. C., Hants; S. S., London; Surgeon, Sheffield; Academicus, London; Locum, Camden-road; Surgeon, Grimsby; Assistant, London; Matthews, London.

Newcastle Daily Chronicle, Birmingham Daily Post, Weekly Free Press and Aberdeen Herald, Liverpool Mercury, Tenby Observer, Surrey Advertiser, Hertfordshire Mercury, Reading Mercury, Maidstone and Kentish Journal, Edinburgh Evening Dispatch, Mining Journal, Derbyshire Times, &c., have been received.

Medical Diary for the ensuing Week.

Monday, August 19.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
ROYAL COLLEGE OF PHYSICIANS.—4 P.M. Dr. Norman Moore: The Distribution and Duration of Visceral New Growths. (Bradshawe Lecture.)

Tuesday, August 20.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

Wednesday, August 21.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, August 22.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Friday, August 23.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, August 24.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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Front Page per Line	0 1 0
Quarter Page	1 10 0
Half a Page	2 15 0
An Entire Page	5 5 0

The Publisher cannot hold himself responsible for the return of testimonials, &c., sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post Offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

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ABSTRACT OF THE

Address in Medicine,

Delivered at the meeting of the British Medical Association, Leeds,

BY J. HUGHLINGS JACKSON, M.D., F.R.S.

ON THE COMPARATIVE STUDY OF DISEASES OF THE NERVOUS SYSTEM.

AFTER thanking the President and Council of the Association for the honour conferred upon him by their request to deliver this address, the lecturer dwelt upon the necessity of having generalisations and working hypotheses for the classification and organisation into higher knowledge of the multitudes of accumulated facts, and continued as follows.

We have, ready made for us, so to speak, the hypothesis of evolution—one verified in numerous different cases. Huxley writes: "The peculiar merit of our epoch is that it has shown how these hypotheses [one of which is the doctrine of evolution] connect a vast number of seemingly independent partial generalisations; that it has given them that precision of expression which is necessary for their exact verification; and that it has practically proved their value as guides to the discovery of new truth." The indirect value of the doctrine of evolution to clinical medicine is very great indeed, and before long it will be without doubt directly helpful. We should also attempt a parallel study of diseases, as they are dissolutions—that is, reversals of evolution. Precise generalisations of great value would result from this method. The greatest merit of Gaskell's work consists in his having set many things long ill-assorted in realistic order. By so doing he will have put a stop to certain loose explanations in which the sympathetic figures. Generalisation, as here applied, is the classification of things which are for the most part very different by some fundamental peculiarity each of them has. I will give a series of illustrations of the method spoken of, because it is one I follow largely in this address.

1. A patient of mine had lost one hand, but, as is most often the case, he had representing it a phantom hand; this was always in such position as if encircling a vessel; the member had been blown off when he was holding a cylinder to be charged with an explosive.

2. An aphasic patient of mine frequently uttered, on being questioned, but with no relevance to anything going on, "Come on," or "Come on to me." He was a signal-man, and had been taken aphasic and hemiplegic on the railway in front of his box; the presumption is that he was saying, or was about to say, those words when taken ill.

3. An epileptic patient told me that his first fit occurred when he was a soldier, and at the very time he was "numbering off"; after every subsequent fit, and before regaining consciousness, he used to count; this we observed when he was in hospital.

4. A woman I was asked to see in a surgical ward in the London Hospital, who had fractured her skull by a fall when laying down oil-cloth on a staircase, kept, during partial unconsciousness a few hours before death, manipulating the counterpane of her bed. We supposed this to be a sort of continuance of the action of laying down the oil-cloth; the patient desisted, for a time at least, when the nurse assured her that "it was properly laid."

The consideration of these illustrations, which appear incoherently grouped, is to make a basis for the discovery of the reason why there is a fixation of states, normally temporary, upon the sudden occurrence of lesions of the nervous system; very different cases are chosen in order to make the basis a broad one. The comparative study of nervous diseases—the study of them as dissolutions—is a process of generalisation. The symptomatology of each must be regarded as the result of a flaw in an evolutionary whole, and should take into account the evolution going on in the undamaged remainder of the nervous system. A great part of the symptomatology of ocular paralysis is owing to over-activity of perfectly healthy nervous arrangements, and the same is true in a case of insanity, the erroneous projection and diplopia in the first, and the illusions, delusions, and all other positive mental symptoms in the second, resulting from the activity of undamaged parts. (1) Evolution is a passage from the most to the least organised, high organisation meaning perfection of union and certainty of action of nervous elements with one another. In this sense the highest cerebral centres are the least organised (the "most helpless centres"), although they are the most complex; whereas the lowest centres are the most organised, although the least complex. In other words, (2) the evolutionary ascent is from the least to the most modifiable. If the highest entres were not modifiable, we should be very simple machines; we should make no new acquirements. If the lowest ("vital") centres were to become as modifiable as the highest are, life would cease. It is only another aspect of this to say (3) that the passage is from the most automatic to the most voluntary; equivalently it is (4) from structures inherited most nearly perfected, such as the cardiac centres in the medulla, to those of the highest nervous arrangements of the highest centres, which are only incipient nervous structures, and which are evolving during the latest new mental states. (5) The process of evolution is from the simple to the complex; (6) from the general to the special. Reversals of evolution are effected by pathological processes, and are called dissolutions. They are reductions from the least organised &c. towards the most organised &c. In regard to the periphery, in most cases of progressive muscular atrophy, the muscles first morbidly affected are the small muscles of the hand, and in most cases of Duchenne's bulbar paralysis the tongue is first invaded. In both cases the special parts fail first. Going higher, it is plain that hemiplegia from disease in the mid-cerebral region is a failure in the order from "most voluntary" towards most automatic. Chorea and paralysis agitans illustrate dissolution in the same manner as hemiplegia, and the various phenomena of aphasia illustrate this still better. Dr. Donald MacAlister, in his admirable Croonian Lectures, pointed out that the febrile process exemplifies dissolution. "In the ascending scale of evolution we seem to rise from the thermolytic to the thermogenic, and thence to the thermotaxic nervous system." Fever is a process of dissolution, and recovering from it one of re-evolution. Probably all cases of insanity illustrate dissolution. "That general paralysis," Dr. Savage writes, "affects first the highest intellectual and motor acquirements is undoubted. Both Dr. Maudsley and I have independently taught that in this progressive degeneration the last and highest acquirements 'fail first.'" An entirely parallel state is seen in the symptomatology of drunkenness: the muscles of the tongue, the eyes, the face, and the limbs become successively unmanageable; and under the same circumstances muscles which have a double office, such as those of the chest, lose their voluntary and retain their involuntary motions; the force of the arms is gone long before the action of breathing is affected. We see, not dissolution, but evolution, illustrated by certain surgical cases, by the order of persistence of spectral representations of parts lost by amputation. Weir Mitchell writes: "The limb is rarely felt as a whole; nearly always the foot or the hand is the part more distinctly recognised, and on careful questioning we learn that the fingers and toes are readily perceived; next to these the thumb; then more rarely the ankle or wrist; and still less frequently the elbow and knee. Very often some fingers are best felt, especially the forefinger." This, the order in which the lost parts remain most vividly represented in consciousness, is almost exactly the order in which the parts physical do fail in dissolution of the nervous system. Speaking generally, the hemiplegic man is reduced to a more automatic condition of movement, the aphasic to a more automatic condition of language, and the insane man to a more automatic condition of mind.

Dissolution is exemplified in each of the following very different symptoms. 1. Most epileptiform seizures commence in the thumb or index finger, or in both; these digits are the most special parts of the body. 2. The words most often left to an aphasic, who is for the rest entirely speechless, are "yes" or "no," or both; these "words," as I called them, are the most general of all propositions. 3. The aphasic may be unable to put out his tongue when told, although he moves it well in other ways: loss of the "most voluntary"

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movement, with persistence of the more automatic movements of that organ. 4. In what is called word-blindness there is inability to recognise the latest learned, and very arbitrary "objects," letters, and words, whilst the recognition of objects, properly so-called, is unimpaired or comparatively so. 5. In early stages of atrophy of the brain—say in that occurring so often in hemiplegia in men past middle age—there is defect of memory for recent events, with seemingly good remembrance of long past circumstances, and there is at the same time loss or defect of the "finest" and latest acquired emotions, with obtrusion of the coarser and earlier acquired.

As to the evolutionist's measure of mind, a scientific standard ignores superior and inferior, as these terms are ordinarily used with regard to men's minds. Higher races of men and adults have the latest acquired faculties, and these, according to Spencer, are, intellectually, the power of abstract reasoning, and, emotionally, the sentiment of justice. In the cases of atrophy of the brain recently instanced, there first occurs defect of the two "latest" faculties I mentioned; the patient easily becomes confused by consideration of things of a little complexity, and of which the elements are not before him, and is often peevish and selfish. It may be said that the symptoms from morbid changes in the cerebellum do not accord with statements made as to the process of dissolution. I believe that all the skeletal muscles are represented in the cerebrum in one set of movements, and that all of them are represented in the cerebellum in another set of movements. In rough and only partial statement, the order of representation in the cerebrum is of movements of the arm, leg, and spine. This agrees with a popular doctrine, for the order is that of the degree in which the three parts of the body are "under the command of the will." The order of representation in the cerebellum is of movements of the spine, leg, and arm. This accords with the current doctrine that the cerebellum coördinates movements of locomotion. The arm then is the most special part in the cerebral series, and fails first in disease of the brain proper; and the back is the most special part in the cerebellar series, and fails first in disease of the cerebellum.

By the aid of the doctrine of evolution we shall discover a harmony or rational parallelism between (1) psychology, (2) the anatomy and physiology of the nervous system, and (3) that important part of clinical medicine which deals with diseases of this system. It will help us towards a comparative study of all diseases of the nervous system, and particularly of insanity. The doctrine of evolution implies that the whole nervous system has a sensori-motor constitution. I extend this to the highest cerebral centres, which represent parts of the body as certainly as the lumbar enlargement does; they are evolved out of lower centres, which everybody admits do represent parts of the body. No one denies that the highest centres contain sensory elements; no one denies that very many, if not all, parts of the body are represented sensorily in the "organ of mind." But there seems to be great objection to their representation motorily in that organ. The præfrontal lobes are said to be the "mental centres." That they are a great division of these I admit, but that they are motor also is shown by the appearance of descending degeneration as far as the medulla after their ablation in monkeys.

I will here state in outline what I believe to be the hierarchy of the motor centres. 1. The anterior spinal horns and their homologues higher up (nuclei of motor cranial nerves) are the lowest motor centres (both of the cerebral and cerebellar systems). These lowest motor centres, with the corresponding sensory centres, make up the lowest level of evolution of the central nervous system. 2. The convolutions of the Rolandic region are the middle motor centres of the cerebral system. With the corresponding sensory centres, they make up the second or middle level of the central nervous system. 3. The præfrontal lobes are the highest motor centres of the cerebral system. With the corresponding sensory centres, they make up the third or highest level of the central nervous system—that is, the "organ of mind." Movements rather than muscles are represented in the central nervous system. The movements effected by, say, thirty muscles of the hand are represented in the nervous centres in thousands of different combinations; just as so many chords, musical expressions, and tunes can be made out of a few notes.

I now speak of the representation of the muscles of the hand in the three orders of motor centres just spoken of: 1. In some lowest motor centres (anterior horns), which are evolved out of the muscles of the hand, the muscles are represented in numerous different combinations, as simple and very general movements. 2. In the middle motor centres (Rolandic region) which are evolved out of the lowest motor centres, the same muscles are represented (re-represented) in still more numerous different combinations, as complex and special movements. 3. In the highest motor centres (præfrontal lobes), which are evolved out of the middle motor centres, the same muscles are represented (re-re-represented) in innumerable different combinations, as most complex and special movements—the last representative of the "finest" movements of the hands in the anatomical substrata of tactual ideas and of other mental states.

The highest centres ("organ of mind") have no other function than that of representing parts of the body. Bearing in mind the subordinate centres, they may be said to represent parts of the body triply indirectly. Function is a physiological term, and not applicable to states of consciousness, such as attend functioning of the highest cerebral centres. We can only affirm concomitance, and the association is as yet inexplicable. According to the late Professor Clifford, between the physical facts and the mental facts there is a parallelism, but no interference of one with the other. It is not the mind, but the physical basis of mind, which is a product of evolution, and the sensori-motor hypothesis is not put forward to attempt to explain psychical by anatomico-physiological states. I contend that the highest centres represent all parts of the body supplied by nerves; not only sensory parts, but limbs and internal viscera. The highest centres are centres of universal representation or coördination. Dr. Mercier, dealing with coma, writes: "Thus we arrive at this most important conclusion—that the highest nervous processes, which form the substrata of the most elaborate mental operations, represent at the same time, not only the most elaborate forms of conduct and muscular movements, but also *every part of the organism*" (italics in original) in some degree. Ribot, writing on Personality, says: "Nous pourrons dire que le couche corticale représente toutes les formes de l'activité nerveuse—viscérale, musculaire, tactile, visuelle, significatrice." The lowest level (pons, medulla, and cord) represents all parts of the body; certainly motor effects in nearly all parts of the body are produced by discharges of the "motor region." I am only going a step further when I suggest that the highest level is also universally representing. A higher level of evolution is, so to put it, the lower "raised to a higher power." The phenomena of an ordinary epileptic fit seem to me to accord with the hypothesis of sensori-motor constitution and universality of representation. Cessation of consciousness results from a discharge beginning in some part of the physical basis of consciousness. Effects which are motor, or their equivalent, are seen in all parts of the body. In slight fits the effects are widely distributed, including pallor of face, increase of saliva, arrest of respiration, and emission of urine. The epileptic discharge differs from an ordinary one in being sudden, excessive, and rapid, and also in starting in some small part of the highest centres (a "discharging lesion" or "physiological fulminate"). Artificially induced discharges in the Rolandic region produce effects in all parts of the body, including the viscera; for if curara be given to a dog, and the sigmoid gyrus faradised, the fit is limited to the organic parts, and includes increased flow of bile, paling of the kidneys, and contraction of the spleen. That universal effects are so produced gives some countenance to the supposition that the anterior highest motor centres are also universally representing. To state this in another way: Whilst a man is having states of consciousness (willing, remembering, reasoning, and feeling), there occur correlatively slight discharges of nervous arrangements of his highest centres representing the whole of his body. Here is best seen the harmony of psychology with the anatomy and physiology of the nervous system, and here lies the basis of a comparative study of insanity (diseases of the highest centres) with diseases of the lower centres. When we explore an object the skin of our fingers and the muscles of our hands are engaged. During the actual exploration there is a vivid mental state; in thinking of it when absent there is a faint mental state. In both cases there is sensori-motor action, in both the same nervous arrangements of the highest centres. If the discharge were sudden, excessive, and rapid, there would be a miniature epileptic fit, with tingling referred to the fingers, and convulsion of the hand.

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Accepting, provisionally, the conclusion that the anatomical substrata of will, memory, reason, and emotion represent together all parts of the body, sensorily and motorily, how is it that such apparently different phenomena as convulsion, with cessation of consciousness and insanity, result from morbid affection of the "organ of mind"? Often enough there is the sequence of an epileptic convulsion with loss of consciousness and then post-epileptic mania. Moreover, I believe that paralysis also results from negative states of these centres; it exists in temporary post-epileptic insanities—indeed, in every case of insanity. According to the severity of the paroxysm, there is either mania or coma, which is acute temporary dementia rapidly produced. The negative affection of consciousness in the comatose patient implies a correlative negative state of more or less of his highest centres, which causes paralysis. That there is some universal paralysis after a severe epileptic fit accords with the hypothesis of universal representation by the highest centres, and is in harmony with the universality of the convulsion in the prior paroxysm. That there is paralysis is indicated by lateral deviation of the eyes and alteration of the deep reflexes observed after such seizures. The loss of power in post-epileptic coma is probably distributed over the highest, middle, and lowest centres.

From the conclusion about post-epileptic coma, we make the hypothesis that there is a widespread or universal paralysis in all cases of insanity, corresponding with the universality of representation by the highest centres, which are here certainly diseased. In all cases of insanity both the mental and physical conditions are duplex—positive and negative. The defect of consciousness and the positive mental symptoms vary inversely, and either may attract exclusive attention. But surely these positive symptoms of themselves imply the coexisting negative states of some non-recognition and some non-reasoning—that is, they really imply some coexisting defect of consciousness. Regarding the physical condition of the highest centres, the negative affection implies some temporary or actual loss of function, implying paralysis; the positive, some function over-active from loss of control or counterpoise. The delusions of insanity signify evolution going on in the remains of a mutilated nervous system, as certainly as the beliefs of sanity signify evolution going on in an entire nervous system. In post-epileptic mania, the positive symptoms are due to a great hyper-physiological activity of the healthy third layer, which are no longer controlled by the highest two layers of the highest centres. When a rabbit's cerebrum is cut out the animal is demented. But movements of every part of its body can be evoked by appropriate incitations. Nevertheless, I declare that the animal is paralysed. It retains all simple movements represented on the lowest level of evolution, which is pretty much all that is left of its cerebral series. But it has lost all the more complex movements, those which we should distinguish as the physical aspect of conduct, and is therefore universally paralysed. So the incoördination which results from a tumour of the middle lobe of the cerebellum is referable, not to the direct influence of the lesion, but to the over-activity of perfectly healthy nervous arrangements, which are doing more than their normal share of work, owing to loss of some movements of the spinal muscles. In comparing such a case with one of hemiplegia, the comparison is not one of incoördination with hemiplegia, but of loss of movements of the spinal muscles with loss of movements of the limbs. I submit that the formula describing all incoördinations with negative lesions of the nervous centres is that there is, negatively, loss of some movements, paralysis (this alone being the result of pathological change), with, positively, forcing of some other movements of the same muscle. In saying this, the assertion that much of the symptomatologies of nervous diseases is owing to activities or over-activities of healthy nervous elements is implicitly reiterated. I believe that in what is commonly called tremor in a case of disseminated sclerosis—say of an arm—there is paralysis in the sense of loss of some movements of the limb; the tremor itself is owing to the fact that the excursions of the limb have to be effected by fewer, and presumably less fit, movements than normal. Observe, there is loss of some and retention of other movements of the same muscles. The movements by which the limb carries, although erratically, a cup to the mouth are not blameworthy; they are the best in the evil circumstances—the next best to the normal; they are produced, I suggest, by discharge of healthy nervous arrangements. When a man has paralysis of the extensors of the forearm his grasp is weak and the hand moves clumsily in all its uses. But no one thinks of blaming the flexors for the weak grasp and for the clumsy operations of the limb; the flexors are acting faithfully; what they do is badly done because the extensors will not co-operate. So I suggest that, in the kind of tremor spoken of, the fault is that, certain movements being lost, they no longer co-operate with others which, being unaided, move the limb erratically; the real fault, what the pathological change causes, is paralysis. That a patch of sclerosis, if it be an absence of proper nervous elements, can cause any movements, good or bad, is an impossible thing; the tremor has, however, been ascribed to imperfect function of intact axis cylinders in the parts sclerosed.

I have long held that the lesion in cases of aphasia produces paralysis in the sense of loss of complex &c. movements of the articulatory muscles. It may, however, be urged that the articulatory muscles move well; so they do in simple operations, but they never move so as to make articulations (syllables). The experiments of Semon and Horsley demonstrate, in one case at least, that there may be loss of some movements of a muscular region, with persistence of so many other movements of that region, that no disability in the working of the muscles is discoverable. (These experiments are a strong confirmation of Broadbent's well-known hypothesis, for one case at least.) In cases of pernicious diabetes the lesion is supposed to be of a certain part of the great vaso-motor centre, the disease producing nothing but paralysis of the hepatic arterioles. As a result of local paralysis from lesion of part of the spinal system, it is comparable to ordinary progressive muscular atrophy or anterior polio-myelitis. I suggest that the xerostomia described by Hutchinson and Hadden is also a paralysis, owing to a negative lesion of the centres for the motor nerves of the salivary and other oral glands. The essential thing, that which disease, in the strict sense of pathological change, produces in cases of insanity, "disorders of coördination," with negative lesions, tremor, aphasia, pernicious diabetes, and xerostomia, is paralysis. I submit the hypothesis that (1) progressive muscular atrophy, (2) paralysis agitans, and (3) general paralysis are homologous diseases. The comparison and contrast is not of wasting of muscles, tremor, and a negative psychical defect; but there is loss respectively of (1) simplest, (2) more complex, and (3) most complex movements of the hands. The comparison is of three cases of paralysis. The lesion is supposed to be wasting of cells, in the order from smallest towards largest, of lowest, middle, and highest motor centres respectively. 1. In progressive muscular atrophy there is loss of simplest movements of hands, of those represented in the lowest motor centres. The muscles are cut off from the influence of the central nervous system and waste. Were there not, however, retention of more complex middle and highest centres, the patient could neither think nor dream of moving the part, and would have no physical basis for tactual ideas. 2. In paralysis agitans there is, negatively, loss of complex (middle) movements of the hand, and at the same time, super-positively, over-development of simplest movements. 3. In general paralysis there is loss of some of the most complex ("finest") movements of the hands, those represented in the highest motor centres, of those entering into the physical bases of tactual ideas, and of other mental states. Here there is retention of less complex (middle), and of simplest (lowest) movements. The negative psychical defect in general paralysis is wider than that answering to loss of motor elements in the highest centres representing the hand. Yet, if Spencer be right in saying that all other ideas have to be translated into tactual ideas, to lose these is to become imbecile. I ask you to bear in mind the suggestion that the positive mental symptoms correspond to activities of healthy nervous arrangements. If so, we have nothing to do with them at the time we are dealing with the effects of pathological processes. Most mentation is carried on in visual and tactual ideas, and by aid of words. To have negative affection of consciousness is, therefore, to have especially loss of these three; and thus it implies that there is correlatively a negative state of their sensori-motor bases. In general paralysis, the lesion, if of the highest motor centres, is of the motor elements in those sensori-motor nervous arrangements—is loss of more or fewer of the most complex ocular, manual, and articulatory movements; the lesion, therefore, produces paralysis in the sense of loss of the "finest" movements of the three parts.

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ABRIDGED REPORT OF AN

Address in Psychology,

Delivered at the meeting of the British Medical Association, Leeds,

BY SIR JAMES CRICHTON-BROWNE, M.D., &c.,
LORD CHANCELLOR'S VISITOR IN LUNACY.

TAKING for his text the Hygienic Uses of Imagination, the lecturer spoke as follows:—

The 84,407 insane persons who were in asylums of one kind or another on Jan. 1st last, and under the care of specialists, had all been consigned to these establishments on the evidence of medical men who were not specialists. The admissions to asylums during the previous year, 1888, had numbered 20,098; and calculating that of these 2850 were private cases, in which two certificates are required, and 17,248 pauper cases, in which one suffices, we arrive at the conclusion that 22,948 certificates of insanity—certificates, I need scarcely say, involving nice considerations and grave consequences—were granted during the year by medical men who are not specialists. The Lunacy Acts Amendment Bill, which is awaiting the Royal assent, will, when it becomes law, to some extent relieve medical men from the apprehensions which have hitherto attended the signing of lunacy certificates, for merely vexatious legal proceedings, founded on such certificates, will henceforth be no longer possible; but no Act of Parliament can in any way diminish the sense of responsibility attending a step entailing deprivation of freedom, some opprobrium, and far-reaching disabilities; and the certification of the insane must, therefore, always remain an anxious duty to general medical practitioners, and bring home to them the truth that they have an immediate concern in medical psychology. But this immediate concern is, indeed, brought home to them, as a rule, in each case long before the question of certification arises, for insane persons are only removed to asylums or brought under official cognisance when their mental disorder has reached a certain pitch of intensity or assumed a dangerous type; and a large majority of the 20,098 patients admitted into asylums last year must have been for a considerable period prior to that event under the care and treatment of general medical practitioners. ..... Besides the badly managed brains that are sent into asylums for safe keeping or repair, there are in this country in every stratum of society, large numbers of blemished brains that perform their functions irregularly, have no delight to pass away the time, and are centres of misery and annoyance to their owners and all connected with them. These blemished brains in which aberrant mental action may stand alone or be bound up with the phenomena of every variety of nervous disease, perpetually remind the general practitioner by their appeals to him for commiseration and help, that he cannot ignore medical psychology. .....

But the general medical practitioner, in the performance of his daily duty, must have regard not only to the psychical symptoms of corporeal disease, but to the psychical conditions and experiences out of which corporeal diseases grow, and by which their course may be beneficially or injuriously affected. He has to determine the part played by mental overstrain and worry in the production of degenerative changes in old and young; he has to watch the destructive ravages of violent passion and emotion; and he has to endeavour to abrogate the causes of mental agitation or failure, and impart a healthy tone to the system by instilling confidence and hope. And he is, perhaps, never more a medical psychologist than when he is practising what is called moral treatment, and is by his manner, demeanour, and well-chosen words driving out fear, calming turbulent feeling, and encouraging self-control. His success or failure as a practitioner will, indeed, often depend as much on his expertness in this moral treatment—that is to say, on his acumen as a medical psychologist—as on his manual dexterity or skill in simples. It would seem, then, that medical psychology meets the general practitioner at every turn, and that mind in its relations to nervous activities must necessarily engage his attention to some extent. .....

Mind still remains to us an impenetrable mystery, "having neither beginning of days nor end of life"; and to speak of it as if it were an exhalation of brain matter, and of brain as if it were a solidification of mind, is to fall into the grossest error. Materialism is simply a logical blunder, springing out of indiscrimination between the objective and subjective. Matter, which signifies what is the object of our knowledge or that which can be known, can never by gradual transitions become subjective and knowing, stripping itself of its essential attributes and assuming those of its opposite; and materialism is therefore founded on a confusion of ideas. At first, it is assumed, all was matter or object, and in the fulness of time matter came to know itself, and object by fissiparous division gave origin to subject. But object cannot exist without subject, and matter *minus* spirit is a nonentity, and therefore materialism and idealism, in the ordinary acceptation of these terms, are equally self-contradictory. .....

But although the real nature of the relation between mind and brain is unthinkable, it is convenient to have a working hypothesis on the subject, and hence several metaphysical versions of it have been advanced and more or less widely accepted. To three of these, which may be called the intersectional, the identical, and the parallel theories, I may briefly allude. It has been suggested that the brain is an internal periphery, as it were, upon which psychical forces impinge, just as physical forces impinge on the external periphery of the sensory nerves and nerves of special sense. It has been suggested, again, that the activities of the mind and brain are the obverse and reverse aspects of one and the same thing, so that there is nothing to explain. And it has been suggested also that there is a parallelism between mental and cerebral activities which, although entirely different and never interfering with each other, yet invariably occur in correlation. This last theory, the theory of parallelism, or of concomitance as it is also called, which supposes that mental states arise during functional states of the brain, from which, however, they are totally dissimilar, is that which has been adopted by Herbert Spencer, Max Müller, Tyndall, Hughlings Jackson, and others of our foremost thinkers; and the first theory—the theory that the mind acts through the nervous system—has been pronounced the least tenable, because by it an immaterial agency is supposed to produce physical effects. .....

Whatever theory we may approve as to the relation between mind and matter, we must take care not to confine that relationship within too narrow a compass. No doubt it is in the highest and dominating centres of the cortex, in which are finally repeated all lower nervous arrangements, so that they become the unifying centres of the organism, that those functional activities upon which psychical states attend are to be sought, but it must be firmly maintained that it is the whole body that is the organ of mind. A brain that is detached from a body is no longer an anatomical substratum of thought, and there are grounds for believing that what may be described as a radiation of consciousness is perpetually taking place. The difficulties in the way of accepting the current theory of sensation has led one of our most philosophical anatomists, Professor Cleland, of Glasgow, to argue that "consciousness extends from its special seat as far as there is continuity of the impressed condition"; or, in other words, that when an irritation is applied to a nerve extremity, as in the finger or elsewhere, the impressed condition of the nerve travels upwards, as is generally understood, but exists for at least a moment along the whole length of the nerve, and that as soon as there is continuity of the impressed condition from the extremity to the brain, consciousness is in connexion with the nerve, and is directly aware of the irritation of the nerve extremity. Functional continuity between nerve extremity and brain is proved to be necessary to sensation; while, on the other hand, the existence of distinct unbroken routes of communication between them is highly improbable; and seeing that functional continuity is of itself sufficient to explain the phenomena, we are not entitled to assume the existence of distinct routes, as has hitherto been done. ..... But whether or not we accept the view that the mind recognises an irritation at the part of its application according to its character, we shall do well very strenuously to oppose a too rigid circumspection of psychical states in the cerebrum itself. We all know that electrical stimulation of the præ-frontal lobes in animals is not followed by muscular movements, and that, as Ferrier has shown, their extirpation in monkeys is followed, not by any sensory or

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motor disturbance—the senses, emotions, and power of voluntary motion remain intact,—but by an alteration in character and behaviour, which betokens a loss of the faculty of attention and intelligent observation. But Hughlings Jackson teaches that the whole of the frontal lobe is chiefly motor in its functions; and Ferrier and Gerald Yeo have demonstrated that some movements, such as the lateral movements of the head and eyes, are represented in the præ-frontal division; and attention and intelligent observation, if localised here, do not by any means exhaust psychical activities. These are not to be pent up in any corner of the brain; and to call the frontal lobes psychical or ideational is misleading. Perhaps, even as regards sensory and motor centres in the brain, we have attempted too sharp a demarcation and too much exclusiveness. Some motor centres apparently to some extent overlap each other; some movements seem to have a widely-diffused representation. Gowers has given reasons for thinking that motor centres also possess some sensory functions, and has been confirmed in this position by the observations of Nothnägel, Exner, and Luciani. Then it is probable that we have not by our experiments demonstrated all the functional activities of any part of the cortex. That large area, the præ-frontal lobe, does not in any way respond to electrical stimuli, and affords only vague and problematical indications when submitted to ablation; but that it possesses important functions is indubitable, and we are not entitled to deny that functions kindred to those of the præ-frontal lobe, beyond the reach of anything but vital stimuli, are possessed by regions of the cortex, electrisation of which evokes cruder and more accessible sensory and motor functions. Much and prolonged observation and experiment are still requisite in order that we may attain to anything like a complete knowledge of cerebral architecture, and meanwhile we cannot be too careful in assigning sites to psychical activities. .....

But I wish to direct attention more particularly to a mental faculty that has certainly no narrow local habitation in the brain—to imagination, which has been called the noblest attribute of man, and which arises during re-excitations in ever-varying coalitions of permanent cell modifications in sensory and motor centres. I wish to impress upon you that this psychical power has its hygienic uses which neither the medical psychologist nor general practitioner can afford to neglect. Now, imagination awakens and calls forth from their organic registers the records of movements and sensory impressions. The impressions of sense are strong, the revivals of memory are faint, and the images of imagination may be said to occupy an intermediate position. Sometimes, indeed, in the coarse frenzy of the madman, and even in the fine frenzy of the poet, the molecular thrill of the idea revival becomes so intense that it overleaps the boundaries of the cerebral cells, and vibrating to the peripheral expansion of the nerve, reinduces exactly the conditions of the original sensation, when hallucinations arise and a counterfeit is mistaken for reality. But in the less violent workings of imagination, the revivifications which it effects are practically confined to cerebral centres, and, although more clear and luminous than the reproductions of memory, are surrounded by a nebulous haze that distinguishes them from the communications of sense. But the essence of imagination lies not in the superior brightness and clearness of its representations when compared with those of recollection, but in the novelty and supersensuous suggestiveness of the combinations by which they are made up. Its images, in which are brought together in harmonious blending things new and old, are not reached by elaborate composition, but by a flash of intuitive perception; they are not built up, and do not even grow by slow and silent increments, but spring into being fully formed. ..... I do not propose to say anything about the operation and influence of the imagination when resting on intuitive beliefs and historical facts, and, stirred by the most earnest cravings of our nature, it mounts into faith and reveals to us "the substance of things hoped for, the evidence of things not seen."..... As a matter of fact, faith has an overpowering influence on individuals and nations, an influence that is essential to their health and well-being, for whatever disasters perversions of faith may have entailed, its normal action is wholesome and hygienic. ..... But it would be neither expedient nor possible for me to trace out here the bearings of faith on corporeal and mental welfare, nor must I even pause to bestow the notice they deserve on those excrescences on faith known as faith-healing and Christian science, which have a certain vogue at present and fall legitimately within the scope of medical inquiry..... Their professors, like empirics of all sorts, have wrought modern miracles on hypochondriacal men, who have fallen into drivelling egotism; on hysterical girls, who have entertained demons not unawares; and on a few sincere but highly sensitive persons, who can pass at a touch out of one allotropic state of the nervous system into another. But the small good they have done these has been more than counterbalanced by the mischief they have wrought in encouraging imposture, in postponing medical treatment where it is needed, and in inducing in their adherents, now a large class, an attitude of mind that is debilitating and conducive to the incursion of disease..... Let the faith-healers and Christian scientists commence with skin diseases—woo the acarus scabei from its burrow without aid of brimstone, arrest lupus, and wipe out a nævus,—and we shall then be ready to follow them with some hope in their campaign against hidden maladies. ..... But my theme now is not faith-healing or faith—which faith-healing travesties,—but the secular imagination and its hygienic uses, my aim being to convince you that it is one of the most effectual of those psychical agencies by which we may modify the conditions of health and disease, and deserves, therefore, the attention of the general medical practitioner in his capacity as a medical psychologist.

Now, the scientific use of the imagination in relation to medicine may be properly included in its hygienic uses, for that faculty is the main instrument of discovery in our investigations, both as regards the specific maladies of our patients and the nature and affinities of disease generally, and so aids us in readjusting the conditions of health when these have been deranged in the individual, and in suggesting measures for the protection of the public health. As medical men we have not merely to identify and catalogue the symptoms of disease, but we have to trace them to their antecedents and true causes, and this we can only do by invoking imagination's help, to supply us with speculations and hypotheses, which are not less essential to us in our work than the microscope, test-tube, and clinical thermometer. All true science rests on imaginings, and is, strictly speaking, a body of established truth which imagination has built up. Sensible phenomena are not rightly discerned until illuminated with ultra-sensible light, and our knowledge remains a heap of sequences and coexistences until imagination steps in, and, by combining, adding, subtracting, and arranging, determines how these were brought about and how they stand related to each other. The way in which medical knowledge is attained is identical with that by which reasonable knowledge is acquired in common life. ..... "Without imagination," says Tindall, "Newton would never have invented fluxions, or Davy have decomposed the earths and alkalies." Faraday's discoveries must be ascribed to the amazing fertility of his imagination. Through imagination Harvey beheld the circulation of the blood. Darwin has transformed biology by an hypothesis. Pasteur's passage from the facts of fermentation to the prevention of hydrophobia has been a brilliant flight of speculations, and Lister's advance from Pasteur's earlier experiments to the triumphs of antiseptic surgery has been a chain of admirably conceived hypotheses; and in these, and indeed in all instances of scientific progress, the noteworthy point is that it is imagination which has not only anticipated the conclusion, but given the insight. .....

The cultivation of the imagination, then—and it can be cultivated and disciplined to agility and steadiness of action,—is of high importance to us as medical men; for it can be serviceable in collecting materials, in showing different problems, and, by the analogies it suggests, in guiding us in our life-long search after truth. ..... But it may be objected that the imagination, if sometimes stimulating and restorative in its influence, is often morbid in its tendencies, and that its indulgence is to be guarded against by those who desire to possess well-regulated minds. ..... But the weak vessels wrecked by imagination are really fewer than is commonly supposed. ..... A vulgar error as to the nature of insanity has perhaps conduced to exaggeration as to the dangers of imagination. Visitors to asylums invariably arrive expecting to find growths of morbid invention and belief, wild, tangled, and luxuriant as a tropical forest, and leave much disappointed by the barrenness of the land, for the insane are the least imaginative of beings. At rare intervals a madman is encountered—a Blake or a

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Swedenborg—whom two intrepid doctors have certified, who dazzles all around him by the meteoric brilliancy of his conceptions; but, as a rule, the lunatic is as dull as a stone..... Idiocy is the absolute negation of imagination, and insanity undermines and destroys or enfeebles it more or less; and, when we try to drive out insanity, the first thing we do is to invoke imagination's aid, for moral treatment consists mainly in appeals to this faculty, and fully acknowledges its hygienic uses. .....

Imagination seems to have a trophic influence on the brain. When it is absent, tardy growth goes on; when it is more or less in abeyance, weakness exists; when it is active, there is vigorous development; and the immediate effects of imagination in causing exhilaration and preventing sleep when it is excessively indulged almost suggest that the states of the cortex which accompany it have some control over metabolic changes in the body. We now know that, besides alkaloids exercising a poisonous effect, which owe their formation to microbes and are called ptomaines, there are others which are produced by the cells of the living organism themselves in breaking down albuminous matter, and which are called leucomaines. Now Bouchard has shown that the alkaloids of the latter kind formed during sleep have a stimulating action, so that, when they accumulate to a certain amount, they excite the nerve centres and cause awakening, while those formed during waking hours have a depressing action and tend to induce sleep. And it is just possible that in the formation of leucomaines of different classes, under varying conditions of the supreme nerve centres, a key may be found to the curious fact that certain emotional moods, after having persisted for a time, tend to induce their opposites—excitement, depression—appetite, disgust; and also to the influence of imagination, when very active, in causing exhilaration and wakefulness. It is just possible that under such circumstances it may arrest the formation of those leucomaines, usually manufactured during waking hours, which are depressing and lead up to sleep, or so modify decomposition that other leucomaines of a stimulating character are produced. There can be no question that, in insanity, certain states of the highest nerve centres are accompanied by rapid disintegration of the tissues and emaciation, while in other states of these centres metabolism is reduced to a minimum, so that prolonged starvation may be sustained with comparatively little wasting. But it is only an inordinate indulgence of the imagination that produces excitement and interferes with natural slumber; its reasonable and regulated use causing only a certain buoyancy of spirits with which a sense of soothing is associated. Imagination, indeed, legitimately used, combines to some extent the pleasurable effects of both morphine and caffeine, without any disagreeable after-consequences, such as headaches, despondency, or confusion of thought. .....

I have referred to the alleged dangers of imagination as a direct morbific influence, and endeavoured to show that these are illusory; and I must say one word as to the alleged evils attending it, which make it a demoralising agent, and therefore a harbinger of disease, for whatever demoralises tends to upset the equilibrium of the nervous system. Like every good gift, imagination may be prostituted and abused; and, in the history of art, literature, and the drama, abundant pooof may be found that it has been made to pander to vice and folly. But, when this has been the case, it is not so much the imagination that has been at fault as a certain pestiferous element that has been infused into it. We do not blame the atmosphere for the impurities with which it is loaded in our large cities, and so we must not charge to the imagination the degrading and licentious suggestions of which it has sometimes been made the vehicle. .....

In prisons and reformatories there are, perhaps, a few waifs landed there by impulses engendered of blood-curdling tales or hair-stirring melodrama. Every asylum medical officer has seen in the wards under his care more or less distorted reflections of incidents that have vividly occupied the public mind, and in the epidemics of the middle ages we have depicted on the large scale the effects of dominant and startling ideas on populations made unstable by poverty and despair, or religious fanaticism. But in all such cases it is a deficiency rather than a superabundance, immaturity rather than ripeness, of imagination that is responsible for the evils observed. It is the ignorant and neglected boy, keen perhaps with that superficial sharpness that is really a kind of imbecility, but with a narrow intellectual horizon that is lured into wickedness by the "penny dreadfuls"; and the silly and dissipated youths of better social position who go to ruin can rarely trace their downfall to poetry or fiction. Sheer weakness and vacuity or instability of temperament are the soils most congenial to vicious and atrocious ideas. A highly and widely cultivated imagination seems to increase physiological resistance to morbid and profligate suggestions, and also to pathogenic germs, for in plague and pestilence those are most likely to escape who have varied mental resources. ..... The preservation of our juvenile literature from any taint is of paramount consequence, for impressions made on the imagination while brain development is actually going on are not only indelible, but highly influential. Burns and Scott both asserted that they had their bias given to them by the legends of an old woman; and the battle of the sects over education clearly shows what importance is attached to the momentum imparted to the brain and mind during their developmental epochs. ..... Fletcher of Saltoun said that, if he might write the ballads of a nation, he cared not who made its laws, and vast power for good or evil centres today in those who are preparing our school books. .....

That the craving for works of fiction is not only great but growing may be deduced from the figures given from time to time in that useful periodical, the *Publishers' Circular*, showing the number of books of different descriptions published annually, and of new editions issued. Now a table which I have had constructed shows that, whereas in the six years from 1877 to 1882 there were 2632 new novels published, in the six years from 1883 to 1888 there were 3655; the increase, subject to some fluctuations, having been markedly progressive, from 446 new novels in 1877 to 926 in 1888. As the number of works of any class published is a fair indication of the demand for books of that class, it is clear that the consumption of light literature is largely upon the increase. ..... The vast extension of the habit of novel reading amongst us is also demonstrated by an observation of journalistic literature. Newspapers that at one time confined themselves to news, political commentaries, and criticism, now form syndicates to supply their readers with a modicum of fiction. ..... And that the demand for cheap fiction will go on growing can scarcely be doubted. ..... To us as medical men it is interesting to remark that this appetite is most urgent in spring, when nervous erithism exists, and "a young man's fancy lightly turns to thoughts of love," and is least pressing in autumn, when the nervous system is comparatively quiescent. In the Birmingham lending libraries the issue of novels reaches its maximum in March (32,796 were issued in that month last year), and touches its minimum in August (27,140 were issued in that month in 1888—a difference of 5650 in favour of March).

And now, gentlemen, having trespassed as far as I dare on your patience, I must close without having even mentioned several topics in connexion with the hygienic use of the imagination which I had proposed to bring under your notice in some detail. Matthew Arnold said that two-thirds of life are conduct, and it may be truly alleged that three-fourths of thought are imagination. It is not merely the child who builds castles in the air. Each of us—the most matter-of-fact as well as the most romantic—has "cloud-capped palaces and gorgeous towers" known to himself alone, to which in hours of solitude and reverie or sadness and chagrin he retires with ever-renewed wonder and refreshment. And the great faculty that out of thin air constructs these cities of refuge for us, and enables us in a sense to shape our own environment—that is, the handmaid of science, the giver of insight, the harmoniser of discords,—must always receive primary consideration in a study of mental hygiene.

IRISH MEDICAL SCHOOLS AND GRADUATES' ASSOCIATION.—The summer general meeting of this Association took place at the Philosophical Hall, in Leeds, on Wednesday, Aug. 14th, 1889, the President, Dr. Fegan of Blackheath, being in the chair. The following resolutions were carried unanimously:—(1) "That the Council be authorised to form branches of the Association in the United Kingdom." (2) "That the recommendation of the Council be adopted in reference to the arrangement with the *Medical Press*, by which that journal is to be constituted the official organ of the Association." A vote of thanks to the reception committee of the British Medical Association was then passed.

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ON THE

PROGNOSIS OF CASES OF ALBUMINURIA, WITH SPECIAL REFERENCE TO LIFE INSURANCE.[1]

BY F. W. PAVY, M.D., LL.D., F.R.S.

THE title of this communication is not my own framing: it was handed to me with the request that I would introduce the subject for discussion by the members of the Association at the present meeting. It stands as evidence of a new departure, the traditional notion being that the presence of albumen in the urine should be regarded without further question as excluding the case from fitness for acceptance by life insurance companies. Reference to works on the principles of guidance for the medical selection of lives for insurance gives in unequivocal terms albuminous urine as a ground for rejection. In former times, however, the urine was not subjected to analysis as a part of the examination of a candidate for insurance in the frequent manner it is now. Brinton, writing in 1856, says with respect to the urinary apparatus: "Careful inquiry will often give us so healthy a history of its function as to allow us to dispense with all further examination, not only of the organs themselves, but even of their secretion. It is only where gout, scarlatina, dropsy, or some other disease or appearance of a like suspicious character, specially directs our research towards these structures that we need alarm or annoy our subject of examination by insisting on any further inquiry." Later on, Sir E. Sieveking in 1882 contended that as no medical man reports on a case for life assurance without examining the thorax, so no report for life insurance ought to be considered complete without a definite statement as to the condition of the urine after examination by the physician, and it is scarcely necessary, he says, to insist upon the necessity of rejection if albumen is found and is persistently present. Under the most frequent examination of the urine that has been practised as a matter of routine in connexion with life assurance, combined with the systematic examination that is frequently adopted as a preliminary to selection for employment in the public services, and the common procedure of now including the examination of the urine in the clinical investigations of a case, whether the symptoms suggest the requirement or not, the knowledge has been acquired that albumen is often found where there is nothing in the state of health to lead to a suspicion of its existence. Thus, through the information that has been gained as a result of the increased observation occurring, an advance has been made sufficient to give the question before the meeting the position of being an appropriate one for discussion, and the gathered experience of the profession cannot fail to be of service in helping to a right settlement of the matter.

Put plainly, the points upon which discussion is invited are: Is it to be considered or not that there are cases of albuminuria which admit of being regarded as eligible for life insurance; and, if so, how are these cases to be distinguished with the requisite confidence from those which are to be looked upon as of a serious nature? The question lies between albuminuria as a functional aberration, which is now admitted to exist, and albuminuria associated with structural disease.

Albuminuria sometimes occurs as a transient phenomenon. Certain conditions of a passing nature are recognised as sometimes productive of albuminuria which disappears with the removal of the condition. If the condition is a morbid one, the albuminuria partakes of the significance of the state that has given rise to it, and the consideration consequently becomes merged into that of the exciting cause, upon the degree of importance of which the prospect to be looked for will depend. There are other conditions in themselves not to be spoken of as morbid, but constituting only ordinary conditions of life which from the evidence of recorded observation may prove productive of albuminuria. An unusual susceptibility to influence may exist, or the condition may be carried beyond the ordinary degree of tolerating power. Forced exercise is mentioned as one condition. In the case of Weston, the great American pedestrian, the production of an albuminous state of the urine upon one occasion under my own observation occurred. It was with his first pedestrian feat in this country, in which he undertook to walk 115 miles in 24 consecutive hours. The state of the atmosphere was against him and he was much distressed by his performance. The urine passed an hour after the finish was albuminous, and contained hyaline and granular casts of tubules, unaccompanied with blood-corpuscles; twelve hours later it was found to have resumed its normal condition. Severe mental strain, as with candidates at examination, is enumerated as another source of temporary albuminuria; immersion of the body in cold water, another. Dr. Barnes says, "When physician to the *Dreadnought* Hospital I saw several cases of transient albuminuria from sudden immersion in cold water." Further, under certain circumstances the ingestion of food may constitute a determining agency. But transient albuminuria need not detain us. It is sufficient to find that the case is only of a transient nature, and, all other circumstances being favourable, it may be disposed of by regarding the prospects as of an ordinary character—at least, such is the view I should myself take. It is where the albuminuria is not of this transient kind that we encounter a more difficult question to deal with, and my own experience would suggest that it will be convenient to group the cases under three heads. It appears to me that discussion will be facilitated and the matter made clearer by adopting such a course. The three groups are—(1) cases in which traces only of albumen are observed, (2) cases in which a notable amount of albumen exists and is always present, and (3) cases in which a notable amount of albumen is found at one period of the twenty-four hours and none at another, or, in other words, cases which possess a cyclic character.

Before speaking of these groups, it must be stated that in every case, as a first consideration, there must be an absence of all the elements, apart from the presence of albumen, of Bright's disease to justify the question of a favourable view being entertained. The albuminuria must constitute the only factor present to admit of the case being regarded as an open one for consideration. It is necessarily understood that the mode of testing adopted is such as to afford an infallible indication to start upon. A careful survey of all the collateral circumstances is therefore called for, and the following are the points to which attention requires to be given:—Whether there is anything in the family or personal history to be suggestive of the existence of renal disease. It is known that Bright's disease occasionally runs in families. The family of a former peer, bearing a title which has now become extinct, has furnished a striking instance of this. Is there a history of antecedent nephritis, gout, lead poisoning, or conditions that would lead to lardaceous disease? Is the age such as to favour the presumption of organic disease? Whilst simple functional derangements are common in early life, structural alteration becomes more common as a source of deviations from the ordinary state in proportion as age advances. Has there been the slightest evidence of œdema, and is there any unnatural pallor? The question of persistent headache, vertigo, and any kind of fit must be inquired into. Is there impaired or disordered vision? If so, by ophthalmoscopic examination it must be ascertained whether the changes in the retina and optic disc belonging to Bright's disease are discernible. Does the examination of the cardio-vascular system reveal by such signs as hardness of pulse, thickened artery, undue cardiac impulse, accentuation of the aortic second sound, and reduplication of the first sound at the apex, the existence of high arterial tension? Has there been anything of the nature of albuminuric dyspnœa or palpitation? A frequent feature of renal disease is anorexia, amounting, it may be, to an actual aversion to food, especially meat; and there may be with it nausea, vomiting, and a disposition to diarrhœa. Another feature is a disposition to inflammation of the serous membranes, but should these conditions exist, the case is scarcely likely to allow a doubt to prevail as to the manner in which it should be dealt with in relation to life insurance. The state of the urine, beyond the presence of albumen, will require attention, An occasional large quantity with low specific gravity is not a matter of import, the permissible inference being that a nerve or some other temporary state has given rise to it. As the habitual occurrence, however, it may possess great significance, and will suffice

[1] Read Aug. 14th at the Section in Medicine of the British Medical Association meeting at Leeds.

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to excite suspicion of grave disease. An examination microscopically will suggest itself as absolutely indispensable. No opinion, unless other circumstances are sufficient by themselves to lead to an adverse one, should be given without it. Blood-corpuscles will prompt delay and further inquiry. Casts of renal tubules may be spoken of as standing prohibitory; but the absence, on the other hand, of casts does not imply the non-existence of renal disease. Our task would be much lightened if it did. Experience, indeed, is not very rarely supplying instances where the diagnosis of Bright's disease is permitted, and no casts are at the time to be found in the urine. It must not be omitted to be borne in mind that casts are liable exceptionally to be come across derived from the seminal tubules. They closely resemble renal casts, with a very transparent character. They may be found accompanied or unaccompanied by spermatozoa. Recently in a case where advice was sought upon the ground of spermatic trouble I observed them in several specimens of urine passed at distant periods. There was nothing besides to lead to the suspicion of renal disease; but had there been, they might easily have been taken as affording supporting evidence. In another case there actually had been recurring attacks of nephritis, associated with tonsillitis, put down to the effects of taking cold. The case was therefore a complicated one, but, at the time of observation the urine was free from albumen, and the single specimen in which the casts were found also contained spermatozoa. Such are the points that require to be looked to as a collateral proceeding in framing a conclusion respecting the prospects in a case where albumen has been found in the urine; and attention to them may alone suffice to establish a diagnosis of Bright's disease, where, as may rarely happen, the urine may be observed on testing to give no reaction of albumen.

The first of the enumerated groups is that in which traces only of albumen are present. My own experience leads me to say that it is not to be regarded as a specially remarkable circumstance to find urine containing traces of albumen without the case being such as to justify the conclusion that anything of the nature of renal disease exists. It will be understood that what is comprised under the head of traces of albumen is from the indication afforded by the employment of a delicate mode of testing, but one, nevertheless, from which the information given is to be regarded as free from fallacy which some of the tests are open to. With traces of albumen thus found, and with everything else bearing upon the point to be pronounced satisfactory, after a full and careful investigation of the case, I should not consider the prospects invalidated. The granular kidney is the form of renal disease which is especially associated with small amounts of albumen, and what calls therefore for most consideration in the investigation of the collateral aspects of the case is attention to the main coincident conditions belonging to this affection—viz., increased quantity of urine, low specific gravity, and morbid changes in the cardio-vascular system.

The second group of cases is that in which a notable amount of albumen exists and is always present. Instances are sometimes come across of the description named where no history of nephritis can be elicited, no casts of tubules discovered, and none of the general symptoms of Bright's disease recognised. I am not prepared to state that a definite opinion can be given about the future in these cases. I have reason to believe there are some which run on without any serious results arising, but I do not consider that medical knowledge is at present in a position to enable us to differentiate these cases from those which may become developed into well-marked Bright's disease. It is not sufficient that there is an absence of casts of tubules and cardio-vascular changes, for frequently in established Bright's disease our examination fails to disclose the presence of casts; and it is not by any means always that we come across evidence of a positive nature from the heart and arteries, notwithstanding there may be sufficient upon other grounds to diagnose the existence of the disease. It would be only in a case that had been under distinct observation for a considerable time without anything wrong becoming developed that I would venture to look favourably upon the prospects, and even then I should consider that a decidedly more than ordinary risk existed. Without saying more, I submit these cases for the opinion of others to be expressed upon them.

The third group comprises cases with a notable amount of albumen appearing and disappearing in such a manner as to give the case a cyclic character. Of these cases I have personally had a somewhat extensive experience, and since grouping and describing them under the head of "cyclic albuminuria" they have been freely and widely discussed in the profession. They are admittedly cases of functional albuminuria, but also something more—namely, functional albuminuria, with a special, sharply defined, and readily noticeable character, which groups them together into an easily recognisable class standing in a distinct position by themselves. Functional albuminuria is the "generic" and cyclic albuminuria a "specific" group contained within it. The distinguishing character belonging to the case is that, without evidence from other sources of the existence or pre-existence of renal disease, albumen under the ordinary course of daily life is at one period of the day present and at another absent, and that this recurs day after day in exactly the same order. At the period of rising in the morning there is no albumen to be discovered. In an hour or two's time albumen shows itself, increases in quantity for awhile, and then, as the day advances, declines and becomes usually entirely lost before bed-time is reached. Remaining absent during the night, it returns after rising the next day, and subsequently follows the same order that had been previously observed. To call the case cyclic is simply to express an outwardly observable feature belonging to it, and the condition may run on with its repeated diurnal variation not only for weeks or months, but also, it can be said, for years, without anything further becoming noticeable. I have committed myself to a definite opinion with regard to the prospects in these cases, and the opinion I expressed in 1885 is sustained by the experience derived from the extension of time up to the present date and by the additional cases I have seen. It is now about ten years that my attention has been fixed upon the point and that I have made a close study of the subject. Expressing myself upon this foundation, I feel it warrantable to state that with a sufficiently full and careful inquiry it may be ascertained whether the case falls or not in the cyclic functional group, and that, if it does so, a favourable opinion of the future may be given. Speaking with reference to life insurance, the opinion to be given is founded upon the same basis as that which guides to an ordinary medical prognosis. In the latter case, however, it may be allowable to incline more to optimism than in the former, where there is not the outside pecuniary interest placed at stake upon the strength of our opinion, as there is when the question of life insurance is involved. The condition existing is not the ordinary one. It may be taken as standing in the position of a border-line, with a serious outlook on the one side and a favourable one on the other; and everything depends upon whether, by the light of other considerations, it is viewed rightly or not. Under these circumstances, if insurance companies should decide to admit these cases as eligible for acceptance, it is not unreasonable that an additional premium should be demanded to meet the possible contingencies, whether from diagnosis or otherwise, that may arise.

Chemistry has shown that several modifications of albumen exist, and the number has been an increasing one with the recent advances made by research. The usual form met with in renal disease is serum-albumen, which is precipitable by mineral and not by the organic acids. It is certainly the exception and not the rule in cases of structural disease of the kidneys to find that anything in the shape of proteid matter is thrown down by the organic acids. In cyclic albuminuria, on the other hand, my experience leads me to say that it is the rule instead of the exception for the addition of an organic acid to be followed by the production of a precipitate. What is usually observed in this class of case is that two kinds of albuminous matter are present: one which, like alkali-albumen and mucin, is precipitated by an organic acid, and the other which corresponds with serum-albumen. I submit the question of the chemical nature of the urinary albumens as far as it bears on diagnosis for further elucidation by those taking part in the meeting.

The remark I have in conclusion to make is that the safety of an opinion will depend upon the completeness and carefulness with which the investigation of a case is made. I designedly use the word "investigation," for something more than the kind of examination ordinarily made for life insurance purposes is needed in the class of case that has been referred to.

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A CASE OF

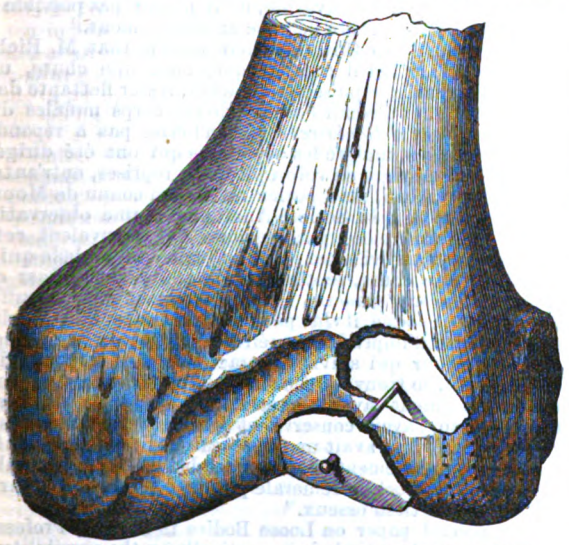
LOOSE BODY IN THE KNEE-JOINT, FORMED BY THE DETACHMENT OF A PIECE OF THE ARTICULAR CARTILAGE BY AN INJURY.

REMOVAL; RECOVERY.

BY W. H. A. JACOBSON, M.CH. OXON.,
ASSISTANT SURGEON TO GUY'S HOSPITAL.

J. K——, aged thirty-two, while doing his work as a railway porter was moving a cask weighing 2cwt., when it slipped, and in falling struck him violently upon the inner side of the right knee, which was bent at the time. Shortly after he noticed a large bruise, and the joint gradually swelled and became so painful that about a month later the patient was obliged to desist from any attempt to get about. He then came under treatment at Guy's Hospital. The joint was in a condition of chronic effusion, with all the signs of a considerable collection of fluid. No heat or redness; marked tenderness on inner side. No history of any sudden locking of the joint. The fluid was gradually absorbed by treatment, but the joint recovered no strength, and was crippled and painful as soon as the patient attempted to use it. I had repeatedly examined for a loose body but without result, when one day, by the merest chance, I detected, on the inner side of the joint, the smooth darting movement of a loose cartilage. This slipped away as quickly as it came.

The patient was admitted on March 17th, 1886, and operated on upon the 19th. The "loose body" could be



Loose body found after a recent injury within the knee-joint (Nélaton). The dotted lines show the condition of the inner condyle in my case as judged by touch.

detected on two or three occasions, sometimes on the inner, sometimes on the outer side of the joint. On the day of the operation, as often happens, it could be neither seen nor felt. An incision, two inches long, was made along the inner side of the patella, going down to the capsule, every bleeding point being carefully compressed with a Spencer Wells' forceps. The inner side of the joint was chosen, as this had been the site of injury and was still distinctly tender. The capsule being opened, the index finger, when introduced, came at once upon a distinctly depressed roughened patch, deficient in cartilage, situated upon the anterior and encroaching slightly upon the inferior aspect of the convexity of the internal condyle. (See Engraving.) This roughened patch contrasted very sharply with the surrounding smooth, cartilage-covered articular surface. Attached to it at one spot was a small, irregular, slightly movable body. This was readily detached with the finger nail, and when extracted was found to be about the shape of a grain of wheat, and to show altered bone and articular cartilage. As this was clearly not the "loose body" which had been felt, which was certainly detached and very mobile, further search was made, this for some time revealing nothing. After a while the tip of the second finger could just detect a much larger loose body at the extreme upper and outer angle of the synovial sac. After several attempts this was hooked down and removed. The causes of difficulty here were the close proximity of the patella to the condyles, and consequently little room for manipulation, and the position of this second loose cartilage high up in the extreme upper and outer limit of the infra-patellar pouch. As the interior of the joint had been a good deal handled, a small drainage-tube was inserted through the wound, and brought out by a counter-puncture on the inner side of the popliteal space. The wound in the capsule was closely united with chromic gut sutures, and three silk ones inserted superficially. Sal-alembroth dressings were then applied, but before these were secured the leg and foot were evenly bandaged up to the knee. Carbolised sponges were packed on either side of the joint, to make pressure, and thus prevent any effusion of fluid. The first and smaller body is irregular in shape, somewhat resembling a gigantic oat. One aspect, the attached, is roughened, the other smooth, roughly convex, and covered with altered articular cartilage. The second and larger body evidently corresponds to the part of the rim of the internal condyle, which was missing, and represented by the rough patch above mentioned. It was covered on one aspect with smooth, yellowish-white articular cartilage; the other, the posterior aspect, shows a bony surface, dotted with minute pits.

March 20th: Condition very satisfactory. No oozing. Pain very slight.—21st: Temperature 100°; pulse 88, quiet.—23rd: Dressings changed on this the fourth day, that the drainage-tube might be removed. Sponge pressure re-applied. A patch of discharge, about the size of a shilling, had come into, but not through, the dressings. The highest temperature since the operation has been 100·8°.—30th: Second dressing. Wound quite healed save at site of drainage-tube. All sutures removed. Wound to be dressed with ointment of boracic acid and iodoform.—April 7th: Went out to-day in one of Mr. Croft's splints, within three weeks of the operation. He continued to attend as an out-patient, and had a Martin's bandage substituted for his splint. When he was last seen in May the joint was still somewhat stiff, but yielding to active flexion.

Professor Humphry[1] assigns at some length his reasons for being sceptical as to the origin of "loose bodies" in joints by the detachment of portions of the articular cartilage. These are: (1) "It must be a very extraordinary and violent accident that would break off into the knee-joint a piece of the articular cartilage, with or without bone, of the femur or tibia. One can scarcely imagine the occurrence of such an accident, nor conceive how it could take place. Even a smart blow from a hammer would hardly produce it, and in any event such an accident would be attended with severe shock and contusion of soft parts, ecchymosis, and immediately consecutive pain, inflammation, and other trouble, which the sufferer would not quickly recover from, and would not easily forget, but which we do not find forming part of the history in cases of loose bodies in joints." In answer to Professor Humphry's objections, I will call attention, one by one, to certain points in the case which I have published, and which seem to me reasonably conclusive that it was a case of "loose cartilage" originating in an injury and in that alone.

1. (α) *A very severe injury.*—A cask weighing 2 cwt., slipping from a man's grip, swings round and strikes him full upon the inner side of the bent knee. In my patient and in Mr. Teale's,[2] in which a piece of articular cartilage was injured by an accident, and slowly exfoliated during twelve months, becoming loose at the end of the time, the violence is strikingly similar. Mr. Teale's patient, aged thirty-seven, "accidentally let a cask, which he was lowering into a cellar, slip against the right knee." (β) *The position of the limb.*—This was distinctly stated to have been flexed, a position which would tend to expose to violence, by opening out the joint, the articular cartilage on the inner condyle to any violence from the inner side. (γ) *Severe bruising* followed, pointing to the violence received. Thus the knee quickly swelled up, and the patient was obliged to give up his work. In Mr. Teale's case, "severe pain in the joint

[1] Brit. Med. Jour., March 17th, 1888.
[2] Med. Chir. Trans., vol. xxxix., p. 31.

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followed, and he was unable to work for three months, after which time he followed his employment as usual for nearly twelve months, until a few days ago, when he became suddenly lame, and was unable to bear his weight on the right leg." During this time the cartilage was exfoliating.[3] While I admit that the above is not the history which one usually gets from a patient with a "loose cartilage," it is exactly that which one would expect in a case dating to injury.

2. Professor Humphry's second objection is: "Such a detached or semi-detached fragment could scarcely assume the even surfaced, spherical, or circular, flattened form of a loose cartilage." I would reply that, with the smooth and even surface presented by its articular cartilage, the larger of the two bodies removed in my case was an excellent example of a "loose cartilage," the above characters being also well shown in its rapid furtive movements and the facility with which it got out of reach.

3. Professor Humphry's third reason for being sceptical as to the traumatic origin of these loose bodies is as follows: "We have a ready and sufficient explanation of the formation of loose bodies in the growths into the joint of tufts or processes of synovial membrane which may assume various forms, which, naturally containing cartilage cells, may become the seat of cartilage growth and ossification of the cartilage, which become pendulous as they increase, and by rupture of the pedicle become loose in the joint; and we frequently see the various stages of this process in the same joint. We need not, therefore, search for other and highly improbable modes of origin. I may observe that the ossification which takes place in them accords with the ordinary process of ossification in cartilage, and a section of one of them does not correspond with that of articular cartilage and bone. This process is quite sufficient to explain the origin of the single as well as of the multiple loose bodies, which latter are common in rheumatic arthritis; and we not unfrequently meet with instances in young persons where a solitary loose body, not having yet broken loose from its moorings, retains its attachment to the synovial membrane."

To the above I would reply: 1. That the fact that these loose bodies originate far more frequently as suggested by Professor Humphry does not of necessity exclude another though less common mode of origin. Rare as it is to find "loose bodies" in a joint originating in an injury, such cases as M. Richet's and mine[4] show that such an origin is a *vera causa*, directly or indirectly, by causing slow exfoliation. The rareness of this origin makes it important not to lose sight of it in cases of obstinate synovitis dating to an injury. 2. The condition of the interior of the joint afforded evidence, both positive and negative, in favour of a traumatic origin of the loose cartilage. Thus, in the first place, there was an entire absence of that alteration in the synovial membrane which one would have expected to meet with, if the loose bodies had originated in a synovial fringe gradually becoming polypoid and detached. Thus there was no evidence of enlarged and toughened synovial processes, no fibro-cartilaginous nodules; the inner surface of the joint was everywhere, save for one spot, smooth and normal. This spot, which, rough and bare, at once arrested the exploring finger, was situated on the inner and inferior part of the articular surface of the internal condyle. It was about three-quarters of an inch long, and had still attached to it the smaller of the two bodies removed. This, which was almost loose, was a small piece of the articular cartilage and bone of which the vitality had been damaged but not completely destroyed at the time of the injury. When it had been detached with the finger-nail, the roughened surface with which it was in contact corresponded closely, in shape, size, and feeling as of exposed bone, to the base of the larger loose body, which was also rough and bossy. Furthermore, this roughened patch on the inner condyle corresponded precisely to that pointed out by the patient as having been struck by the cask. 3. The appearance and structure of the loose bodies removed. These seem to me to complete the evidence that the above bodies were traumatic in origin. (*a*) The appearance: This is entirely against the view that these loose bodies had developed as cartilage in a synovial tuft, gradually increasing and becoming pendulous. It is equally opposed to any osteo-arthritic origin; for there is no trace of synovial tissue attached to either of the bodies, and there is nothing approaching to a pedicle. (*β*) The structure: It has already been stated that to the unaided eye this showed articular cartilage and subarticular lamella of bone. A microscopical section showed a dim granular matrix, with groups of cells scattered in it. Below this was a distinct layer of true bone, with well-formed and regularly arranged Haversian canals &c. Now, the above is not the structure of the loose cartilage, which has formed in a synovial tuft or in an osteophyte. It can scarcely be the structure of any other loose body save one dating to an injury. In all other kinds there is much less evidence of definitely organised tissues. Any cartilage present in them is usually highly fibrous, not hyaline, as in the articular variety, and any cells present are not grouped. Calcareous matter often takes the place of true bone, and where this last tissue does appear to be present, it usually lacks the regular arrangement of Haversian systems, lacunæ, and bone corpuscles.

M. Nélaton[5] thus alludes to loose bodies originating in injuries. One of these is represented in the woodcut.

"Dans d'autres observations, le corps mobile présentait une surface rougeuse, hérissée d'aspérités, et de structure osseuse, tandis que l'autre était bien polie et de nature cartilagineuse. Tel était celui qui fut extrait du genou d'un homme opéré par Velpeau, et dont M. Richet a publié l'observation. Ce corps présentait ceci de curieux, qu'étant osseux dans presque toute son épaisseur, il n'était recouvert de cartilage que sur l'une de ses faces. Il ressemblait tout à fait, lorsqu'il fut extrait, à une portion détachée de l'extrémité articulaire du fémur, car la face cartilagineuse était convexe. L'autopsie prouva que telle était bien son origine: en effet, on rencontra sur l'extrémité inférieure du fémur un perte de substance profonde, de forme parfaitement semblable à celle que présentait le corps mobile précédemment retiré, lequel, une fois replacé, s'adaptait tellement bien à l'excavation, qu'il n'était pas possible de douter qu'il n'en eût été détaché antérieurement."

It is probably to this case, here shown, that M. Richet thus refers[6]: "Est-il possible que, dans une chute, une portion du cartilage puisse se détacher, rester flottante dans l'articulation, et devenir l'origine de ces corps mobiles dits *corps étrangers articulaires?* Je n'hésite pas à répondre par l'affirmative, malgré les objections qui ont été dirigées contre cette manière de voir à plusieurs reprises, entr'autres par Parise. Ainsi, sans parler du fait si connu de Monro, j'ai lu, en 1843, à la Société Anatomique, une observation et présenté une pièce pathologique qui prouvaient cette origine jusqu'à l'évidence. Il s'agissait d'un malade qui, à la suite d'une chute, sentit en relevant *quelque chose* qui roulait dans son genou. Comme il continuait à souffrir depuis cette époque, il vint pour se faire traiter à la Charité, où, par suite d'imprudences réitérées, il succomba le vingt-cinquième jour qui suivit l'extraction de ce corps mobile. A l'autopsie, je trouvais sous le condyle interne du fémur un emplacement ayant exactement la forme du corps étranger que j'avais conservé, et dans lequel nous pûmes le replacer; ce corps avait une face cartilagineuse et l'autre osseuse, et précisément la perte de substance qu'avait subie en ce point la trochlée fémorale portait toute à la fois sur le cartilage et le tissu osseux."

In a second paper on Loose Bodies in Joints,[7] Professor Humphry speaks a little less sceptically on the possibility of the origin of these bodies in the detachment of portions of articular cartilage and bone by accident. "With regard to the former of these modes of detachment—namely, by accident—I am not aware that any reliable instance has yet been adduced of the formation of a loose body by the breaking off of a piece of articular cartilage or bone by a blow; and we can scarcely conceive such an occurrence without greater damage to the joint than appeared to have taken place in any recorded case of loose body in the synovial cavity." Professor Humphry, however, goes on to admit that there are "two instances of the production of loose bodies in the joints by accident—viz., (1) a specimen[8]

[3] In a letter to which I have referred later, Professor Humphry has been good enough to inform me that he has had the above specimen of the elder Mr. Teale examined microscopically, and that he has "found it clearly not to be a knocked-off piece of bone and cartilage."

[4] As will be seen a little later, Professor Humphry is inclined to admit two other cases.

[5] Path. Chir., tome ii., p. 719, fig. 258.

[6] Traité pratique d'Anatomie Médico-Chirurgicale, p. 130.

[7] Brit. Med. Jour., Sept. 19th, 1888.

[8] This specimen is in St. Thomas's Hospital Museum. The description of it will be found in the Path. Soc. Trans., vol. xv., p. 206. It is figured by Mr. Howard Marsh in the Brit. Med. Jour., April, 14th, 1888, p. 787. Mr. Marsh here and elsewhere (Dis. of the Joints., p. 181), gives reasons for believing in the traumatic origin of loose bodies in joints. It will be remembered that Professor Humphry's remarks were first elicited by a case which Mr. Sheild brought before the Medical Society (Brit. Med. Jour., March 3rd, 1888, p. 469). See also a letter by this surgeon, March 31st, 1888, p. 718.

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of a fragment of cartilage and bone taken by Sir J. Simon from the knee-joint three weeks after a wrench received in falling; and (2) the specimen figured by Mr. Teale,[9] which, with its rough (fractured) bony surface on one side, and articular cartilage on the other, as seen in the bottle, leaves no doubt, I think, that it was, as he concludes, broken off from the articular surface of the patella by the severe wrench which he describes. Possibly it was broken off by a violent wrench against the margin of the femoral condyle, and the St. Thomas's specimen may have been due to the same cause." In a letter in reply to one in which I drew the Professor's attention to my case, he writes: "Your specimen seems to me the most clear instance of a loose body caused directly by a blow."

Finally, I would repeat that the object of this paper is to add one more case to prove that loose bodies in joints do occasionally originate in an injury, and in no way to question Professor Humphry's opinion that the great majority of these bodies are derived from the synovial membrane after the manner which he has described.

Great Cumberland-place, W.

CASES TREATED BY HYPNOTISM AND SUGGESTION.

BY CHARLES LLOYD TUCKEY, M.D., C.M. ABERD.

LAST autumn I had the pleasure of watching for a fortnight the practice of Dr. Liébeault of Nancy, and was much struck by some of the cures I saw him effect by hypnotism and suggestion. Liébeault is the pioneer of the system which has during the last few years been so prominently brought before the profession by Bernheinoq, Charcot, Heidenhain and other eminent foreign physicians. The treatment is conducted at Nancy almost as a matter of routine, and is shorn of all mystery and objectionable surroundings. The power to hypnotise does not seem to belong to one person more than another, and probably any medical man will arrive at a fair amount of dexterity after a little practice. Lethargic and anæmic subjects are perhaps the most encouraging patients to begin with, and boys about the age of puberty seem especially susceptible. Though the majority of people can be influenced by hypnotism, only a small percentage arrive at the more intense stages which involve unconsciousness; and for therapeutic purposes a slight degree of languor or somnolence is sufficient. For example, of over a hundred patients of all ages and in all ranks of societv, I have only completely failed in twenty-three cases; but among the eighty influenced I found only seven who completely lost consciousness and were susceptible to the advanced phenomena described by Charcot as characterising "le grand hypnotisme." The induction of the hypnotic state is of course merely preliminary to the treatment by suggestion, and it appears to act by closing the channels of ordinary thought and directing the attention of the patient exclusively to the point indicated by the operator. The immense power of directed consciousness to influence the organs and functions is so often seen in practice, and has been so well shown by Dr. Hack Tuke and other observers, that we may well credit it with most of the curative effects of the treatment. Faith on the patient's part is not required, but his hostility or mental preoccupation will render futile any attempts to hypnotise him; it is well, therefore, on every ground to act upon the warning given by Professor Beaumis: never to operate without the patient's formal consent, and in the presence of witnesses. The following cases were treated by hypnotic suggestion.

CASE 1. *Insomnia.*—A. T——, electrician, aged thirty-five, had suffered from sleeplessness for three years, as the result of shock after a severe accident. He invariably awoke at 3 A.M. whatever time he went to bed, and was unable to sleep again. He was a man of exceptional mental activity, and want of sleep had induced much nervous depression and dyspepsia.—Feb. 1st: He was hypnotised, and at once fell into a slightly lethargic state (Liébeault's first stage), and the suggestion was made that he would sleep well that night and would not awake at the usual time, but that even if he did awake he would be able to sleep again.—2nd: He awoke at 3 A.M., but almost at once went to sleep again. He was again hypnotised, and told to sleep steadily through the night.—3rd: He awoke about 4 o'clock in consequence of a noise in the street, but soon fell asleep again.—5th: He reported having had two good nights, and the suggestion was repeated. From this time he has remained a good sleeper, getting an average of eight hours' sleep every night, and his general health has greatly improved.

CASE 2. *Chronic diarrhœa.*—General B——, aged seventy-two, came under hypnotic treatment on April 3rd. He had previously been attended by me for chronic diarrhœa, but without much effect, and the malady was generally considered quite incurable. It dated from the time of the Crimean war, and since then he had never passed less than four motions a day, and these were always thin and watery. Any excitement or emotion aggravated the condition, and the day previously to my visit he had been moved twelve times. He is a man of exceedingly nervous type, but enjoys fairly good general health for his age. Hypnotism produced very much the same effect on him as on the preceding patient—a slight lethargy. In this state his abdomen was gently rubbed and the suggestion made that he should in future have but two motions a day, and that they should be properly formed. On April 4th the patient reported three motions during the last twenty-four hours. He was again hypnotised, and the same suggestions were repeated. On the morning of April 5th he passed the first formed motion he had had for over twenty years, and from that time his bowels have continued to act regularly twice a day and the stools have been well formed and natural.

CASE 3. *Paroxysmal sneezing.*—F. H——, thirty-eight, lady's maid, suffered during the summer of 1888 from hay fever, and the fits of sneezing continued into the autumn, so that when I saw her on Oct. 4th she told me that every morning on awaking she was seized with a paroxysm, which lasted about an hour, during which time she sneezed about forty times, and discharged copiously from the eyes. In addition to this, for a few days she had suffered from pain after eating, flatulence, and constipation. She was hypnotised, and at once fell into a profound sleep (Liébeault's sixth stage). Her nose was rubbed, and the suggestion made that she should sneeze no more. The stomach was also rubbed, and the suggestions made for the regulation of the digestive functions. There was no need to repeat the operation, for the paroxysmal sneezing ceased forthwith, and the digestion became easy and painless. There has been no relapse.

CASE 4. *Nocturnal enuresis.*—Alice C——, aged nineteen, a dressmaker, came under treatment on Jan. 15th. She was anæmic, highly nervous, and suffered from dysmenorrhœa. She had always been addicted to wetting the bed, and had never passed more than a few consecutive nights without doing so. The habit prevented her getting employment and had resisted all treatment. The week before seeing me she had come out of hospital, where she had spent a month without benefit. She fell into the third or cataleptic degree of hypnotism, and was told that the habit was to be cured, and that she was to awake at 2 A.M. and leave her bed to void urine. — Jan. 16th: The night had passed without accident. She awoke about 2 A.M., left the bed as directed, and then slept until called in the morning. The treatment was repeated. On the 17th a similar report, but she had wet the bed on the night of the 18th. This was the last time the habit recurred, and she has since awoke spontaneously in the middle of the night and left the bed. The dysmenorrhœa at the same time has almost disappeared, and the general health and mental condition have improved.

CASE 5. *Functional dysmenorrhœa.*—A. T——, aged twenty-one, clerk, came under treatment on Oct. 10th, 1888. She suffered much from painful menstruation, and has done so since the function became established four years previously. The period was always delayed three or four days, and was scanty and light coloured. It lasted about three days, and was attended with excessive backache, languor, and frontal headache. She suffered also from gastralgia, constipation, and flatulence. After treating her for some time on general principles, she was hypnotised on March 15th, immediately after a period, and at once fell into a profound sleep (Liébeault's sixth stage). Suggestions directed to the painless performance of the digestive and menstrual functions were made and were repeated two or three times a week for four weeks. The following period appeared on the twenty-ninth day, and

[9] Brit. Med. Jour., May 26th, 1888, p. 1109.

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was attended by but little pain or inconvenience. She was told to return in three weeks, and suggestions were then made regarding the next period. This came on twenty-seven days after the last, and continued for four days. It was more abundant and healthy, and perfectly free from pain. Since that time she has continued regular, and there has been no dysmenorrhœa. The digestion soon became painless and natural, and the general health shows great improvement.

CASE 6. *Tabes dorsalis.*—H. F——, aged forty-seven, a gentleman's servant, came under hypnotic treatment on March 9th. His family history was good, and he had never drunk to excess or had syphilis. About five years ago he had what he called blood poisoning, and what appears to have been a severe attack of typhoid fever. He had been severely wounded in the leg in the Franco-German war, but had made a good recovery. About the beginning of 1888 he noticed his sight was failing, and at the same time the skin of parts of the back became numb. His bowels became constipated, and when moved with the help of purgatives the action was attended by so much colicky pain and vomiting as to confine him to bed for twenty-four hours afterwards. He suffered from frequent sharp lightning-light pains in the limbs and from neuralgia in the chest and back. The tongue was coated and dry; he had no appetite, and there was great mental depression. He had lost two stone in weight in twelve months, and presented an emaciated and cachectic appearance. He was unable to walk more than half a mile, and always felt tired. His pupils were contracted and almost insensible to light, and there was nearly complete atrophy of the right optic nerve with partial atrophy of the left. The reflexes were absent, but there was nothing ataxic in his gait. Extensive patches of local anæsthesia occupied almost the whole of the left thorax and the back, and also the nose and upper lip. He was hypnotised, and fell into the third stage. Suggestions were made as to his bowels, digestion, sleep, and pains, the parts at the same time being gently rubbed.—March 10th: Bowels had acted slightly after breakfast (the first natural relief for three months), and with but little pain. He had slept well and felt better. The treatment to be repeated. — 11th: Bowels acted again more freely and quite painlessly. Suggestions repeated. He was hypnotised daily until the end of March, and by that time his general health was found to be greatly improved. He enjoyed his food, hardly ever had any pain, and was able to walk four or five miles without fatigue. His sight, which was rapidly deteriorating previously to the treatment, had remained stationary, and was always somewhat clearer for some hours after each sitting. The patient is still under observation, and though the disease probably progresses, he is, as a rule, fairly comfortable and free from pain.

CASE 7. *Torticollis.*—W. T——, aged thirty-four, consulted me on March 3rd for rheumatism of the muscles of the neck, shoulders, and back. She was subject to rheumatism, and the present attack had appeared suddenly about two weeks before after exposure to wet and cold. She had been unable since that time to dress or undress herself, and the least movement of the head or upper extremities caused pain. The muscles were tender to the touch, but there was no swelling or constitutional disturbance. The patient was advised to try hypnotism, and with some reluctance, for she said she did not believe in it, she consented. In less than a minute she slept profoundly, and in this condition the affected muscles were well rubbed for two or three minutes and the head turned in various positions. Within five minutes of her being hypnotised she was aroused, and asked to move her head and arms freely. This she did without pain, but said there remained a slight stiffness. The stiffness continued until the following morning and then disappeared, and the symptoms did not recur.

CASE 8. *Headache, restlessness, and uterine pain after confinement.*—F. Y——, aged forty-three, was confined of her fifth child on Jan. 20th. She was anæmic, and had had much colicky pain, headache, obstinate constipation, and hæmorrhoids during the last two months of gestation. Delivery was tedious, and there was much hæmorrhage from the relaxed and insufficiently contracted uterus, and the placenta had to be removed as it remained adherent. The patient complained greatly of headache and restlessness after the placenta was removed; the uterus contracted but slowly, and there was much pain, in spite of hot douches and ergot. She knew nothing of hypnotism, and was directed to look at my forefinger, and to compose her mind as much as possible. In a few moments the eyelids began to twitch, and almost immediately she closed the eyes and sank into a profound sleep, which lasted for four hours. She awoke greatly refreshed, and without headache or after pains. The operation was repeated daily, and she made an unusually good recovery.

CASE 9. *Scrivener's palsy* (*partial*).—Alice N——, aged thirty, post-office clerk, came under treatment on Jan. 10th. She had been in post-office employment for fifteen years, and had had a great deal of writing and telegraphing to do. About four years previous to her visit she had begun to feel numbness and loss of power in the right forefinger and thumb after writing a few lines, and this was followed by pain along the front of the forearm, extending to the elbow. This condition gradually became worse, and in 1888 she was for three months under electrical treatment at St. Bartholomew's Hospital, with temporary benefit. She was fairly well nourished and complained of no other symptoms. The grasp of the right hand was considerably weaker than that of the left, and there was some tenderness and soreness on pressure of the flexor muscles in the forearm. But the muscles were not wasted, and there was no hyper-sensitiveness apparent along the course of the nerve trunks. After writing four or five lines she complained of loss of power and numbness in the fingers, and pain in the forearm, and was obliged to give her whole attention to holding the pen and to grasp it tightly. She was hypnotised, and immediately fell into a profound sleep. In this state the muscles were masséed, and the fingers forcibly extended and pulled out. She was told she would be able to write without pain or embarrassment, and that the hand and arm would soon gain power. In a few minutes she was awakened, and told to sit down and write a page of foolscap, and this she did almost without fatigue. The treatment was repeated three times a week for a month, and she then reported herself quite cured. All tenderness and stiffness of the muscles had disappeared, and the grasp of the right hand was at least equal to that of the left. She has since continued well, and is able to write many hours a day without inconvenience.

CASE 10. *Dipsomania.*—L. G——, a gentleman of position, who was intensely anxious to be cured, was under my care during the month of January. His case was a bad one, and for three years had been getting worse. Uncontrollable fits of craving for spirits recurred every two or three weeks, and indulgence for three or four days was followed by intense nervous depression. He was hypnotised twice daily, and, like most of these patients, he was a very susceptible subject. Suggestions were always made that he should look upon spirits and intoxicating liquors generally with dislike, and that he should have no craving or wish for them. Under this treatment his appetite soon became very good, he slept well at night, and recovered his spirits. In four weeks he was able to return to his family, and he writes at intervals, telling me that, in spite of exceptional temptation, he has no inclination to taste alcohol or break his promise to me.

Notes to cases.—1. The treatment of sleeplessness by suggestion is one of the triumphs of the system, and when this symptom occurs in almost any disease it at least can nearly always be removed if the patient is susceptible to hypnotism. 2. The same remarks apply to chronic constipation and diarrhœa and their treatment by suggestion. 3. The success of suggestion in this case seems to point to its use in hay fever—at least, when of a purely neurotic type; and Dr. Van Eeden of Amsterdam tells me he had several successes in treating this malady last summer. 4. The physicians practising hypnotism make a strong point of its success in nocturnal enuresis, and, in fact, consider it specific in functional disturbance of the urinary system. It is of great importance to make the patient promise not to wet the bed. 5. I have here given a case of functional dysmenorrhœa only, yet it is certain that when painful menstruation depends upon a well-defined pathological condition it may often be affected beneficially by suggestion. In one of my cases menstruation was attended by pain in the back, bearing-down ovarian irritation, occipital headache, and giddiness. All these symptoms have disappeared, though the state of uterine subinvolution remains, as shown by the sound passing nearly four inches. 6. This case is interesting, as showing the power of suggestion to relieve pain and other symptoms in organic disease. How great the relief may be is shown by a case reported at

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great length by Professors Fontain and Sigard of Toulon,[1] where a man in an advanced stage of disseminated sclerosis of the cord was so benefited as to be enabled to leave the hospital. The diagnosis was verified, as the patient returned within a year and died of tuberculosis. An elaborate necropsy revealed very extensive patches of sclerosis and render the improvement in the symptoms a remarkable feature of the case. 7. In rheumatic torticollis, lumbago, and sciatica, hypnotic suggestion acts very satisfactorily, and in many cases of chronic rheumatism great improvement results from the patient employment of hypnotism combined with massage. 8. It appears as if hypnotism will prove a most useful auxiliary in the lying-in room. Several observers relate cases in which women have been painlessly confined under its influence, and it may often be employed to relieve after pains and to procure sleep. The mental condition induced by the combined mental strain and loss of blood render the puerperal woman especially susceptible to hypnotism. 9. In the treatment of writer's cramp brilliant results have been attained by hypnotic treatment, and in my own practice I have found no circumstance more gratifying and convincing than the rapid improvement which follows suggestion. 10. The treatment of dipsomania and the morphia habit by suggestion opens up quite a new field. In the case quoted, as much, if not more, effect followed a month's treatment as is generally expected from a year's esidence in a retreat. The Rev. Arthur Tooth of Croydon tells me that he is getting most gratifying results in his institution for dipsomaniacs from the systematic use of hypnotism.

Green-street, W.

NEW SLIDING SPRING REPOSITOR.

BY ALEXANDER DUKE, F.K.Q.C.P.I.,
EX-ASSISTANT MASTER, ROTUNDA HOSPITAL; GYNÆCOLOGIST, STEEVENS' HOSPITAL, DUBLIN.

PLUGGING the cervical canal in cases of severe hæmorrhage (other than post partum) will be found more effectual and much more comfortable to the patient that the older method of plugging the vagina. The want of a simple means for completely and firmly filling the cervical canal has long been felt, but I think it will be found an easy matter by means of the instrument illustrated. It is simply an improved form of sliding repositor, the difference is that instead of the cannula being pushed forwards on the rod, the latter is made to retreat into the cannula by pressure of the



fingers on the projecting cross bars, and so the cotton plug with which the top of the rod is armed is pushed home into the cervix with ease and celerity. It may be urged that a sponge-tent or sea-tangle would be an easier mode of plugging the cervix, and quite as effectual; but besides the inconvenience of having to place a tampon of some kind in the vagina as well, in order to retain the tangle or tent till swollen enough to retain its hold, we have also the great liability to sepsis, and I certainly prefer being on the safe side. The size of the os being determined by digital examination, a piece of absorbent cotton is to be neatly, *but not too tightly, wound* round the projecting part of the rod (which measures about two inches in length) and thickly enough to fill tightly the cervical canal, or a short piece of round lamp wick can be drawn down on the point of the stylet and used instead if the operator prefers. The cotton plug, or wick, is then to be saturated with some antiseptic styptic; a saturated solution of alum in glycerine, Churchill's tincture of iodine, or turpentine; but I have a strong objection to iron in any form. A large-sized cylindrical speculum is now passed, and the os and cervix syringed through speculum till all clots are removed. The cervix is then to be steadied with the tenaculum or the volsellum, held in the left hand, while the repositor, armed with a plug, is introduced with the right; and on pressure being made on the side bars of the instrument the plug is firmly pushed home into the canal, and the speculum and repositor withdrawn. Thus the whole operation can be done without assistance. If the plug is of the right dimensions (which of course must depend on the judgment and experience of the operator), there need be no cause for anxiety, and the antiseptic and astringent properties of the lotion with which the plug was saturated should keep all sweet till expelled by uterine action, thus differing materially from sponge-tent or sea-tangle, which always gives rise to a certain amount of anxiety in the mind of the practitioner the longer it remains *in utero*.

The repositor will also be found useful (as it has been in its original form by the American gynæcologists) for depositing small pieces of cotton wool soaked in some caustic solution in the cervix in the treatment of chronic endometritis, and the leaving of such in the cervical canal need not give the least anxiety to the doctor, as they are sure to be expelled by uterine action, as indeed any substance lying unattached in either the cavity or neck of the womb is bound to be. Messrs. Arnold and Sons, London, are the makers of the repositor, and the instrument on trial will be found a useful addition to the everyday armamentarium of the gynæcologist.

Dublin.

[1] Revue de l'Hypnotisme, Feb. 1889.

STATISTICS OF PERINEAL LATERAL AND MEDIAN LITHOTOMY:

BEING OPERATIONS PERFORMED ON MALE INFANTS AND BOYS IN THE WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL FROM 1864 TO 1888.

BY T. VINCENT JACKSON, F.R.C.S. ENG.

A FEW months ago my friend Mr. Reginald Harrison wrote to me with a request that I should supply Professor S. W. Gross, of Philadelphia, with a tabulated statement of all the cases of lateral and median lithotomy performed on infants and boys up to fifteen years of age in the Wolverhampton and Staffordshire General Hospital. Mr. Gough, house surgeon, at some trouble grouped together all these particular cases of operation from the hospital books, and the list was forwarded to Professor Gross; but his lamented death soon afterwards having doubtless prevented its publication, I feel that, as the record is one of practical interest and value, I ought no longer to refrain from making it known.

Cases of Lateral and Median Lithotomy from 1864 to 1888, inclusive.

Age.	No. of cases.	Deaths.	Causes of death.
1 to 5 yrs. incl.	70*	2	(*a*) Aged two years. Death from shock 16 hours after operation; very little hæmorrhage at the time or after operation. Stone weighed 10 gr.; uric acid.
			(*b*) Aged three years. Severe shock after operation; no bleeding. Stone weighed 47 gr.; uric acid.
6 to 10 yrs. ,,	47*	2	(*c*) Aged nine years. Death on the 13th day from subacute peritonitis. Stone weighed 100 gr.; urates combined with phosphate.
			(*d*) Aged seven years. Death 5 days after operation, from exhaustion. Stone weighed 312 gr.
11 to 15 yrs. ,,	13*	1	(*e*) Aged fourteen years. Death 2 days after operation, from secondary hæmorrhage. Stone weighed 130 gr.; oxalate of lime.
15 years	1†	0	—
11 years	1†	0	—
—	132	5	—

* Lateral lithotomy. † Median lithotomy.

The above table indicates that during a period of twenty-four years 132 perineal operations for stone in the bladder of boys, varying in age from one to fifteen years, have been

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performed in the Wolverhampton and Staffordshire General Hospital, and that 5 of the patients died from causes sequential to the operation, 2 of these between the ages of one and five years, or 1 death in 35 cases, 2 between the ages of six and ten years, or 1 death in 23½ cases; and 1 between the ages of eleven and fifteen years, or 1 death in 13 cases. Of the whole number, the death-rate is 1 in a little over 26 cases, the mortality being between 3 and 4 per cent. The authenticity and correctness of this record are undoubted. In our hospital the house-surgeon acts as the surgical registrar, and the duty devolves upon him of entering in the operation-book every operation performed, with its result; and as this book is inspected and signed at each monthly meeting of the Medical Committee, there is no chance of any error or misstatement being undetected or not corrected. Although to a considerable extent I am responsible for the performance of the majority of the operations, yet it must not be forgotten that the present series is not a personal one, but includes the operations of every member of the surgical staff since the year 1864, and as such it is a remarkable and an almost unique record, and it nearly beats the "barely 5 per cent. of deaths" of Cheselden, who cut 213 patients and lost 10.

I do not think it is desirable to lengthen this short paper by copying the lithotomy tables and the conclusions which are to be drawn from them, which are to be found in various published papers, monographs, text-books, and surgical treatises, as I wish these observations to be considered a contribution to the very important subject of perineal lithotomy in male children and boys, especially as at present the employment of other operative methods of dealing with this particular surgical disease is being strongly recommended to be adopted, as it were, to the effacement of that time-honoured operation for the removal of stone from the male bladder—viz., the great English surgeon's improvement of Frère Jacques' method.

Wolverhampton.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF EXTRA-UTERINE GESTATION FOLLOWED BY RUPTURE; RECOVERY.

By T. N. THOMAS, L.R.C.P., M.R.C.S.

AFTER what appeared in THE LANCET of the 13th ult. on Extra-uterine Gestation, the following brief notes of a case may be of some interest.

M. K——, baker's wife, married in September, 1885. After marriage she only menstruated once before becoming pregnant. She aborted in December following without any assignable cause unless it was due to hard work, as she had to stand at the counter many hours in the day. After the abortion she continued at her work as usual, having a rather clear discharge tinged with blood, off and on, for a long time afterwards. The discharge then stopped and she menstruated normally, once in the beginning of February, 1886. She then came pregnant again and carried the child very well until she had gone eight months, when on Oct. 6th she was confined prematurely. The labour was a very tedious one, and the "waters broke" the day before delivery. She was in labour altogether about two days and one night; and, according to her statement, her then medical attendant tried to apply the forceps to expedite the delivery, but for some reason the instrument slipped, and so the delivery was left to nature. Chloroform was not given, though she wished it. The patient got on well after that, and made a good recovery; but the child was very puny, and never appeared to thrive, and on Dec. 2nd it succumbed, owing, as the mother thinks, to the cold weather which then prevailed. The lochia stopped in about a fortnight, and she menstruated about a month subsequently. After this the catamenia lasted a long time at each period, though she did not lose a large quantity, and usually went a month between. She was last poorly at the end of February, 1887; considered herself pregnant, and did not menstruate in March. On April 21st she consulted her doctor, complaining of "bearing-down pain and weight in the womb," which had been going on since the 16th, and on the 20th there had been just a few drops of blood—only a few spots on the linen. On Saturday night, April 23rd, she was seized with a severe attack of pain in the region of the womb, which lasted about an hour, and then entirely ceased. On the following day she had another similar attack in the same place. This also passed off in about the same time as the other. The slight red discharge had continued from the 20th, and still went on. On Monday, the 25th, the pain returned, and continued until 3 P.M., when the doctor was called in; there was then great pain at the lower part of the abdomen, in the middle, just over the pubes; her pulse was good, and nothing abnormal could be felt on palpating the region complained of. This pain lasted continuously from the 25th to the 27th, when, at about 8 P.M., it became suddenly much more intense; in fact, so much so that her friends thought she was dying, and I was called in and saw her about an hour later. She was then in a state of profound collapse (with extreme pallor, small pulse, cold extremities, &c.), had been sick, and had vomited twice. On palpating the abdomen, it was found to be too tender to make out anything definite, or even perform a satisfactory examination. The usual restoratives were administered, to tide her over the collapse, and she was seen again next day, when a tumour was discovered above the pubes, extending from a point just to the left of the middle line right across the iliac region of the right side. The pain abated, and the tenderness diminished daily until April 30th, when she passed a decidua of considerable thickness, which formed a complete cast of the interior of the uterus. Up to this time the slight—very slight—discharge continued, but after passing the decidua it entirely ceased. On May 13th a very slight discharge appeared again, continued for three days, and then stopped completely. After this the hæmatocele disappeared very rapidly, and the patient made a good and uninterrupted recovery.

Leicester.

POISONING BY SICHERHEIT (A NEW EXPLOSIVE).

By JOHN STOKES, M.B., B.S., M.R.C.S.

SICHERHEIT ("security") is a new explosive manufactured by the Flameless Explosive Company, and is used for blasting in confined spaces and in mines. The chief component is dinitro-benzene, probably. The details of its manufacture are as follows. (These particulars were given me by the patient whose case is described below.) The "dinitro" is placed in a pan heated by means of a steam jacket until liquefied; then to this is added a quantity of a white crystalline substance called "oxalate" in the works, and sometimes there is also added another white crystalline substance called by the men "potash" (what these are I cannot discover); the whole mass is then mixed mechanically by means of stirrers, during which process a large amount of bluish smoke is given off. After complete mixture the pan is covered with a lid, and the whole mass is heated for twenty minutes, and then allowed to cool down to the consistency of dough, when it is scraped out by means of brass knives. During this process blue fumes are given off largely; these fumes smell strongly of almonds. The substance is then ground down into a fine powder by machinery, and is sieved by the men; during this work large quantities of the material are inhaled by the men, causing great sneezing. The powder is then packed into suitable cases for blasting purposes. It will be noticed that the occasions in which the poisonous materials are taken into the system are (1) when the substance is being heated, (2) when it is being scraped out of the pan, and (3) when it is being sieved.

Details of the case.—On July 30th, 1889, I was called at night to see G. R——, aged twenty-three years. He was sitting on a chair, with his head thrown back. His face, lips, finger-tips, and nails were blue, and his face had a pinched, anxious look. Pulse weak, rather irregular, 90 per minute; breathing weak and hurried, 30 per minute; temperature normal. He was very nervous and trembling; he had just fainted, and had been very sick. The patient informed me that a week previously (July 22nd) he had started working at the Sicherheit manufactory at Denaby. After the first day's work he noticed that his face and hands were blue,

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his appetite was gone, and that on exertion he became short of breath, which symptoms had increased up to the time I saw him. After working two or three days, he found that he had great difficulty in passing his urine, and that when he did so the urine was scanty, very dark-coloured, and smelt strongly of almonds. His bowels were also constipated. During the week he had exacerbations of these symptoms shortly after mixing or sieving the explosive. I administered stimulants, and had the man put into a warm bed. The next morning the patient was decidedly better, but still very blue in the face and finger-tips. He told me he had not passed urine for twenty-four hours, and that he had frequently not done so for a similar period since working at the manufactory; during the day, however, he passed a small quantity, having a strong smell of almonds. During the week the blueness of the face &c. gradually disappeared and micturition became normal, and he returned to his usual state of health.

There have been five men employed at these works, of whom three have been under treatment for poisoning,[1] and all the patients recovered on being withdrawn from this work.

Sicherheit appears to be nitro-benzene $C_6H_5(NO_2)$, or dinitro-benzene $C_6H_4(NO_2)_2$, derived from benzene or benzol C_6H_6 by the substitution of NO_2 or $(NO_2)_2$ for one or two atoms (as the case may be) of the hydrogen of the benzene. Nitro-benzene or dinitro-benzene is made by acting on benzol with nitric acid. The smell of almonds to which the patient particularly drew my attention is remarkable, and is easily accounted for: the alcohol $\left.\begin{matrix}C_6H_5\,CH_2\\H\end{matrix}\right\}O$ benzol alcohol may be obtained by acting on oil of bitter almonds (C_6H_5COH, aldehyde of benzyl group) by alcoholic potash, &c.

Rotherham.

ABSENT RECTUM IN AN INFANT.

By OWEN PRITCHARD, M.D.

WELL-AUTHENTICATED cases of successful colotomy, or Littre's operation for absent rectum in infants, are, I believe, rare, and my notes of the following case may be of interest.

On May 6th I was sent for to see Mrs. B——'s baby, a boy nearly forty-eight hours old. The mother had been attended in her confinement by a midwife, who stated that, although soap injections had been used, the infant's bowels had never acted, there had been constant vomiting since birth, and that he was now sick unto death, and certainly he looked like it. On examination, the child was found to have the anus and lower part of the rectum perfectly normal, but, on passing the finger an inch or an inch and a half up, the bowel was found to end in a cul-de-sac, and no pulsation or any evidence of bowel above could be felt when the infant cried, though there was enormous distension of the abdomen; it was therefore thought perfectly hopeless to attempt any operation from below, the only alternative being colotomy. The left groin was selected as the most convenient situation for an artificial anus. The child being placed under the influence of an anæsthetic, the operation described by Littre was performed. As soon as the abdominal cavity was opened the bowel protruded prominently, and after being well secured by carbolised silk sutures to the peritoneum and skin, it was opened, when a free motion was immediately passed. The sickness stopped, the distended abdomen became flaccid, and in another twenty-four hours the infant began to look healthy and to take its bottle greedily. On May 8th the bowel had prolapsed about an inch and a half, but was returned after some difficulty, and the nurse was ordered to be more careful in keeping a firm pad over the opening to prevent another accident. Things went on well until May 20th, when I was asked to see the child. The nurse having neglected her instructions, I found the bowel had again prolapsed, this time two or three inches, and had been down some considerable time; it looked almost black, was swollen and bleeding, and was not reduced without great difficulty. After this everything went on well, the little patient looking very healthy and strong.

The tendency to prolapse in such cases, it seems to me, is a difficulty likely to continue, and to remain a source of anxiety and possible trouble in the future; and had I adopted the plan suggested by Mr. Allingham, of drawing down the bowel as far as it would come before opening the same, the operation might probably have been equally successful and this permanent source of danger avoided.

Southwick-street, W.

[1] Brit. Med. Jour., July 20th and Aug. 3rd.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

A CASE OF LEPROSY; DEATH FROM PNEUMOTHORAX; REMARKS.

(Under the care of Dr. CAVAFY.)

WE published in a recent issue of THE LANCET notes of a case of leprosy which had proved fatal from pyæmia, and in which the laryngeal disease necessitated the performance of the operation of tracheotomy.[1] We give below notes of another case of typical character which was under observation in London, the patient dying from pneumothorax secondary to tubercular disease of the lungs. Death in these cases seldom occurs directly from the disease itself—dysentery, renal or lung disease being the commoner causes of a fatal ending. No danger to the other patients results from a case of leprosy in a ward of one of our modern hospitals, and the few cases which come under observation in London are better treated in the general wards than they would be in a special ward set apart exclusively for the treatment of such cases. Leprosy is regarded as an incurable disease, and the record of a single case of recovery does not justify the giving of other than a bad prognosis. The contemplation of patients suffering from a more advanced condition of the same malady, with all its worst features, could not fail to produce an amount of mental depression most harmful to those in the earlier stages, and the combating of this mental state is already a difficult task in those who know the nature of their disease. We are also of opinion that for purposes of clinical teaching it is better that such cases should be distributed as much as possible amongst the hospitals to which medical schools are attached. We are indebted to Mr. E. Le Cronier Lancaster, M.B., M.Ch. Oxon., for the notes of the following case.

William R——, aged twenty-four, was admitted into the William King ward of St. George's Hospital on Aug. 25th, 1888. His family and personal history were good. As far as he knew, there had been no phthisis in his family. His parents are English, but he was born on the Coromandel Coast, and when a baby was taken to St. Thomas's Mount in the Madras Presidency, where he remained until seven years of age, when he came over to England. He enlisted as a drummer-boy at the age of fourteen, and again went out to India at the age of sixteen, and was quartered in Bellary, in the Madras Presidency. He had only been there five months when he first (March, 1880) noticed swellings on both cheeks. The swellings were about the size of large marbles; they remained for about six weeks, and then disappeared. Swellings about the same size then appeared over the front of both thighs, and were so painful as to prevent his walking. A continued fever next attacked him, and lasted three months; he says the doctors never could get his temperature down, and that he was in a "continual heat." He was in the hospital from the end of March, 1880, until the August of that year. As he was still very weak, he was sent up into the hills to do infantry duty, and remained there nearly two years. No new swellings appeared, but the sites of the former ones grew quite dark, the pigmentation remaining for some months. He was then sent back to Bellary, and soon afterwards had another continued fever lasting about three months. In 1884 new swellings appeared on his back and on his legs. In 1885 he noticed that his voice altered and became hoarse, and the alteration has been permanent. In

[1] THE LANCET, vol. ii. 1889, p. 166: Mirror of Hospital Practice.

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1886 the first phalangeal joints became much enlarged. In the same year he was again in the hospital, this time for laryngeal catarrh, and whilst there noticed that lumps developed very rapidly—"in the course of a few hours"—over his chest. According to his own account he was then for the first time diagnosed as having leprosy, by a civilian doctor. He was discharged from the army in August, 1887, and since his discharge the swellings have become much more numerous. He has never noticed any anæsthetic patches. He says that the swellings "come and go," and he has noticed them develop, especially whenever he is constipated. Since leaving the army he has lost much flesh. For the last three weeks he has had a bad cough, and sweats much at night. He is subject to attacks of general pruritus, coming on about once a month, and lasting for two or three days. He complains of increasing weakness, but thinks that of late the leprosy has not increased, and considers that he has good general health.

Condition on admission.—Looks much older than he is—say fifty-five. Has a typically leonine aspect. The skin of the face is yellowish, shiny, and smooth. He has no moustache, whiskers, or eyebrows. There are a few hairs under the skin. The conjunctivæ are slightly yellow. There is much thickening of the subcutaneous tissue of the eyebrows, nose, cheeks, and ears. The lobes of the ears are enlarged, flabby, and pendant. There is hardly any bridge to the nose. The facial furrows are much deepened. The tongue shows three small patches near the tip.—Thorax: Skin smooth and yellowish. There are numerous discrete copper-coloured tubercles, situated in and just beneath the skin, scattered universally over the front of the trunk. There is a scab on an inflamed base on the right elbow, and a large red scaly patch resembling psoriasis over the left elbow.—Arms: Very numerous tubercles, varying in diameter from a pin's head to a fourpenny-piece, on the extensor surfaces of the upper arms, also several maculæ; these maculæ are of various shades of pigmentation—red, brown, black, and a few white. The skin over the backs of the hands and wrists is thickened, red, and in parts scaly. The first phalanges are enlarged, seemingly from skin-infiltration. The nails are all cracked and broken.—Abdomen shows numerous tubercles and maculæ.—Back: There are numerous tubercles and maculæ, especially over the buttocks. Some of the maculæ display a white centre, surrounded by a dark ring.—Legs: Tubercles are scattered all over the thighs. In each ham is the scar of an old ulcer. There are four ulcers over the ankles and lower part of the legs. The largest of these is about four inches long by two inches broad. They have a sodden, white, raised margin, are covered with feeble granulations, and exude much pus. The skin of the foot has a tendency to peel, and the nails are badly nourished.—There are two or three small anæsthetic patches on the extensor surfaces of the arms, one of which is not larger than a pea. Nothing abnormal was detected in the heart or abdominal viscera. A few doubtful clicks were heard at the apices of the lungs. The throat was examined with the laryngoscope, the mucous membrane of the arytæno-epiglottidean folds was thickened and tuberculated, and prevented any view being obtained of the vocal cords.

Course and treatment.—The man remained in the hospital until the beginning of January. During the whole of the time his temperature was very irregular, varying between 96·6° and 102·6°. Whenever the fever showed exacerbation, new tubercles appeared, principally on his thorax, back, and arms. The evening temperature was usually the highest, but occasionally the maximum point was reached about 3 P.M. Salicylate of soda was tried in simple doses three times a day, but the administration of this drug was promptly followed by the worst exacerbation of fever, and the most rapid development of tubercles that occurred during his whole stay in the hospital, and after a week's trial it was given up. He seemed to derive benefit from Chaulmoogra oil in doses of fifteen grains three times a day, and also from the outward application of equal parts of Gurjun oil and olive oil. Carbolic acid lotion, boracic acid, and iodoform were tried for the ulcers, of which the latter was by far the most successful, and when he left the ulcers were almost healed. He had a constant cough, due to laryngeal irritation, as nothing definite was ever heard in his lungs. His general health improved very greatly, and he was mainly instrumental in decorating the ward at Christmas. During his last six weeks the temperature was more regular, not rising above 100°; his urine was free from albumen. He went from St. George's to St. Thomas's, where he remained some months.

He presented himself for readmission at St. George's on May 29th, 1889. The leprosy had decidedly improved, there were fewer tubercles, and his aspect was much less leonine. But he was very low and ill, partly from starvation (as he was unable to live on his pension, and could get no work), but principally from phthisis. Both lungs were extensively diseased, and he was much emaciated. He was treated almost solely for the lung mischief, but after a temporary improvement he gradually got weaker, and died on July 13th, having developed a left pneumothorax a few days previously.

Remarks by Mr. LE CRONIER LANCASTER.—This case was a typical example of the tubercular variety of leprosy, and ran a characteristic course. The development of the tubercles during the febrile attacks was very well marked. The slight amount of anæsthesia was curious; he was not aware of it himself until it was demonstrated upon him. That there was, however, some interstitial neuritis is probable from the fact that the swollen ulnar nerve could be plainly felt behind each condyle. Dr. Sheridan Delépine, however, has various specimens of the tissues in preparation for microscopical examination. There is no doubt that his leprosy *per se* was considerably better when he died than on his first admission 11 months previously, and the improvement dated from the administration of the Chaulmoogra oil and the application of the Gurjun oil. Salicylate of soda, which has been much recommended for the reduction of the leprous pyrexia, failed so signally that it was not considered advisable to give it an extended trial. His disease was not inherited, and he stated that though leprosy was frequent among the natives at Bellary, yet he knew of no other European having been attacked. I must thank Dr. Cavafy for his kind permission to publish the case.

CITY HOSPITAL (SOUTH), LIVERPOOL.

TWO CASES OF SCARLATINAL NEPHRITIS, FATAL FROM MENINGITIS; NECROPSY.

(Under the care of Dr. W. IRVINE.)

THE occurrence within a short space of time of two cases similar in many respects, and illustrative of a rare sequela of scarlet fever, makes them of sufficient interest for publication. How far the later symptoms were due to uræmia, and how far to meningitis, and the question of the pyæmic origin or otherwise of the meningitis, are not easily determinable. For the account of these cases we are indebted to Mr. C. Knox Bond, resident medical officer.

CASE 1. John F. C——, aged five years, was admitted to the hospital on the 3rd of June, 1889, suffering from scarlatinal nephritis. The parents stated that the child had had scarlet fever, with definite red rash, and sore throat followed by desquamation, five weeks previously. The attack was mild, and the boy had been up and about until five days previously to admission, when he had a fit, followed by vomiting frequently repeated during the next two days. He appeared ill, was breathing rapidly, expiration being attended by expulsive effort, the face pale, aspect dull and heavy. The skin was dry, presented no rash and very slight indication of desquamation on the lower extremities and the palms of the hands. No œdema beyond very slight puffiness on the dorsum of each foot, said to have been noticed previously to admission. Lungs: Resonance impaired over left chest, especially back; movement good; a few bronchitic sounds over left lung. The heart sounds were sharply accentuated at the base and apex. Pulse 140, hard. The urine contained a very slight shade of albumen, treated with picric acid; and gave no blueness with guaiacum and ether. The tongue was thickly coated along the dorsum, yellow; edges clean and moist. Temperature 103·4°. The child remained in much the same condition until June 9th, when the apex of the right lung became consolidated, slight left otorrhœa commenced, and diarrhœa supervened. On the night of the 10th he became very dull, with slight intervals of restlessness and delirium, and was very cold and collapsed, the temperature falling in a few hours from 102·8° to subnormal. This condition was attributed to the effect of the application of ice to the abdomen to check the diarrhœa; on discontinuing this treatment the temperature again rose and the collapse abated. The lung consolidation rapidly

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spread downwards, until signs were present over the entire front and upper scapular region on the right side. The heart's action became very irregular and laboured; the pulse 128, and correspondingly irregular; the pupils were large, equal, and very mobile. The discharge from the ear had ceased. The child became more dull, and the evacuations were passed involuntarily. After 11 P.M. on the night of June 12th the temperature, previously normal for some thirty-six hours, commenced to rise, reaching a maximum of 105·8° at 5 P.M. on the following day, and remained high till death took place at midnight. This sudden onset of fever was associated with vomiting, profuse sweats, free discharge from right and left ears, repeated convulsions, and coma, which preceded death.

Necropsy, thirty-five hours after death.—Thorax: There was slight excess of fluid in the pericardial sac and dilatation of the ventricles of the heart; no valve lesion. The right lung was adherent over the front, the adhesions soft and recent, the upper lobe solid, and in a condition of red hepatisation. On removing the skull-cap the membranes were found to be much congested, the dura mater slightly adherent here and there at small patches along the longitudinal sinus, where recent lymph had been thrown out, chiefly about the middle of the sinus. The brain substance generally was soft, swollen, and œdematous, and there was slight excess of fluid in the ventricles. No indication of extension of ear suppuration was observed about the temporal bone. No scattered abscesses elsewhere in the organs or other evidence of pyæmia. The kidneys presented the usual appearances in nephritis.

CASE 2.—Emily H——, aged five years, was admitted to hospital on July 2nd, 1889, suffering from scarlatinal nephritis. The primary illness had been mild, the patient never having been kept in bed. A red rash was the only symptom noticed three weeks before admission. A younger child, a sister, had died convulsed at home a few days before this child was brought to the hospital. On admission, the child appeared ill, but was sensible, and could walk. She was desquamating about the hands and feet; the skin was dry. There were general anasarca, ascites, and lung œdema, with pleural dropsy. The heart-sounds were clear. The mother said she had had ear discharge, but none was then present. The tongue was clean, papillæ just red and prominent. Pulse 102; tension increased; regular; respiration 70, easy. Cough single, frequent. Temperature 101°. Urine scanty, showed slightest trace of albumen with picric acid; no blueness with guaiacum and ether. The child improved gradually under treatment, the dropsy almost entirely disappeared, the lung condition amended, the skin became moist, and the child less pale and lethargic, the pulse becoming softer and less frequent; vomiting, which was a rather troublesome symptom, ceased, and the temperature fell to normal. The improvement continued until the early morning of June 10th, when, after a fairly good night, the child was noticed to be not so well, having become very dull, breathing with effort and rapidly; was restless, grinding her teeth, biting her hands, screaming out at times, rolling her head about, and between 9 and 10 A.M. she became unconscious, remaining so until 1.30 A.M. on the following morning, when she died. The temperature commenced to rise after 7 A.M. from normal, reaching 101·8° at 11 P.M. The pulse became very irregular and intermittent, hard, scarcely to be counted, at the wrist 100. Convulsions appeared impending several times, slight twitching taking place; baths were given frequently and free purgation. Nitro-glycerine relieved the vascular tension, and the child died without actual convulsion taking place. The eyes became fixed, wide, pupils dilated, and equal. There was no vomiting. At the necropsy held on the day following death, the appearances of the brain and membranes were almost identical with those seen in the previous case, the amount of lymph thrown out towards the middle of the longitudinal sinus being in excess of that then seen.

RABIES. — According to the *London Gazette*, the number of dogs in England reported during the week ending the 10th inst. as afflicted with rabies was 13 against 15 in the previous week. Of these, 9 were killed and 2 died. The remaining two cases existed in previous weeks, but were not reported until this week. Of the 13 diseased animals, 2 belonged to Hants, Kent, and Lancaster respectively, 3 to London, and 1 each to Kent, Middlesex (excluding London), Oxford, and York (West Riding).

Reviews and Notices of Books.

On Bronchial Asthma: its Pathology and Treatment. By J. B. BERKART, M.D. Second Edition. London: J. & A. Churchill. 1889.

THE subject of asthma is a fertile field for hypothesis, and many have been the theories advanced to explain its paroxysmal character and the varied conditions which apparently favour its occurrence. Among them all that which has gained the widest acceptance, which not only harmonises with the clinical phenomena and morbid associations of the affection, but which seems to be fully confirmed by the results of treatment, is that of bronchial spasm. It would be idle to deny that this theory is free from objection on the physiological side, but that it is competent to account for the phenomena of the attack and to explain the action of remedies is certainly true. The great exponent of the doctrine in this country was the late Dr. Hyde Salter, whose work on asthma ranks amongst our medical classics. It is well worth taking down from the shelf, to re-peruse its vivid descriptions, before turning to the monograph by Dr. Berkart, of which the second edition is now before us. The reader will then be the better able to judge whether the facts and reasonings advanced by Dr. Berkart are sufficiently weighty to overturn the views held by his predecessor; and we may hope that Dr. Berkart's able and highly interesting essay will incite others to follow his example, and to study the phenomena of the disease untrammelled by preconceptions or prejudice.

There is much that is excellent in Dr. Berkart's volume. Nowhere, we think, will be found so elaborate and careful a study of the sputa of the asthmatic, a description which is enhanced by drawings of great beauty and delicacy. Dr. Berkart lays great stress upon the characters of the sputum, for they reveal much, he thinks, of the true nature of the affection. This he holds to be essentially inflammatory in nature, and he avers that the process invariably spreads from above downwards. There is, indeed, no question that in the majority of cases the bronchial "spasm" is preceded by symptoms of irritation of the naso-pharynx. Violent sneezing is often a precursor, by years, of the onset of asthma, and many an attack is ushered in by the symptoms of nasal catarrh. Nevertheless, cases do occur where the dyspnœal paroxysm arises suddenly, and without premonitory symptoms of any kind. Dr. Berkart's view is that the inflammatory process involves changes in the epithelial lining of the bronchi, accompanied by a croupous exudation, as evidenced in the casts and spirals which are expectorated during or at the close of an attack; and that the dyspnœal paroxysm is owing to the displacement of plugs so formed, and their lodgment in other parts of the bronchial tract. This detachment of plugs—he applies the term "embolism" to their transference—and the consequent obstruction to which they give rise, account, he thinks, in great measure for the expiratory difficulty, although he is quite prepared to accept a certain amount of superadded spasm, "bronchial tenesmus," owing to the presence of these obstructions. The cessation of the paroxysm is due to the free secretion of thin fluid, and the dilatation of the bronchi, allowing of the escape of the plugs of mucus and epithelium. This ingenious doctrine is supported by the carefully described dissection of the lung of one case, where such a plug was found, together with secondary changes in the bronchioles and alveoli, and it is, moreover, applied to the circumstances of the attack. In order, however, to establish it the author is compelled to thrust aside as "romance" and "imagination" the greater portion of the exciting and predisposing causes hitherto alleged to exist. For him "hay asthma," in so far as it is due

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to pollen, is a fable; whilst the statements of attacks induced by particular odours, by special climatic influences, and all the "alleged capriciousness" of the affection are brushed aside as unworthy of credence. Even the avowed relationships of the asthmatic paroxysm to gastric disturbance and to cutaneous disease, to gout, or to rheumatism, are similarly dismissed, the latter as coincidences, the first-named as being merely the effect of increased respiratory movement entailed by a full meal, such movement leading to the detachment of the croupous plug.

What idiosyncrasy there is in asthma lies, then, on this hypothesis, in the readiness with which the bronchial mucous membrane is liable to undergo this specific change. It is possible—and the discovery of streptococci in the sputum suggests it—that the real exciting cause is a micro-organism allied to the streptococcus erysipelatis. But Dr. Berkart does not press this suggestion. He lays considerable stress upon the type of conformation of the chest, which he attributes to previous rickets, and the small ill-developed lungs that are associated with this. He regards the frequent association of nasal polypi with asthma as confirmatory of his view, since they are evidence of repeated irritation of the mucous membrane; whilst the effect of their removal in checking asthma (which has, he thinks, been over-rated) is attributed to the retention of secretions to which their presence gives rise. With such views it is obvious that Dr. Berkart must and does regard most of the current treatment of the asthmatic paroxysm as ill directed. Some of it, indeed, he holds to be directly harmful, as increasing the liability to congestion of the respiratory tract. Antispasmodics are of quite secondary importance; morphia is advocated as the best measure to relieve the "bronchial tenesmus"; and other remedies, if efficacious at all, owe their efficacy to their expectorant or stimulant properties. Even iodide of potassium, so much praised by many physicians, has been disappointing in his hands. Climatic treatment is discounted; the reasons alleged that a patient is free from asthma at one place and not at another (common as that experience is) are held to be formed "on a hasty conclusion, based on the flimsiest of grounds." It is invigorating to meet with so stern an iconoclast as the author shows himself to be; and, whether the reader agree with his dicta or not, he will not fail to find much enjoyment as well as profit in the perusal of Dr. Beckart's monograph. It is obviously the product of close personal observation and study of the affection. There is always room in medical science for the honest expression of diversity of opinion, especially when based on reasonable argument.

A Text-book of Medical Jurisprudence for India. By I. B. LYON, F.C.S., F.I.C., Brigade Surgeon, Bombay Medical Service; Chemical Analyser to Government; Professor of Medical Jurisprudence, Grant Medical College, Bombay. Revised as to Legal Matter by J. D. Inverarity, Esq., Barrister-at-law. Pp. 557. Calcutta: Thacker, Spink, and Co. London: W. Thacker and Co. 1889.

THE above work is an admirable exposition of the science of Medical Jurisprudence generally, but its special value lies in the fact that it has been written for the purpose of guidance for medical men practising in India.

The subject matter has been arranged with great care, the classifications of poisons being especially worthy of notice. For example, we find special poisons divided into two chief classes. Group I.: Central poisons, including strychnine, Calabar bean, gelseminum, and methyl-conia. Group II.: Peripheral poisons, under which head are placed conium, curare, and aconite. Of course this method of classification implies much "cross division," but for all that it gives at a glance the primary and chief action of the poisons, and incidentally their physiological antidotes. The chapter on "Legal Relations of Insanity," though occupying only eleven pages, is a capital exposition of the subject. It is prompted by intimate knowledge of the question, and is handled with care and precision.

Towards the end of the work is a valuable series of illustrative cases. Those relating to arsenic poisoning may be studied with advantage by readers interested in the Maybrick case.

The book reflects great credit on the author and publishers. The letterpress is excellent—large bold type; and the illustrations are accurate representations of the originals. The diction is clear and concise, and is well worthy the author's reputation.

THE BRITISH MEDICAL ASSOCIATION.

THE SECTIONS.

MEDICINE.

ON Wednesday, Aug. 14th, the Section of Medicine was opened by the President, Dr. EDDISON, who, in the course of a brief address, expressed his regret at the many subsections into which medicine was divided, leaving only a very narrow range for 'medicine proper. His remarks to this effect were received with evident approbation by the members present.

The first paper was by Dr. DOUGLAS POWELL, on the subject of Chronic Tubercular Diseases of the Serous Membranes. He alluded to his subject as one of arbitrary limits, including cases not acute, in which the disease was in the first instance limited to one serous membrane, spreading perhaps to others, chiefly through lymphatic paths; in which the fever, low in range, was of remittent or irregularly intermittent type, the intervals of apyrexia being often long; in which the constitutional state was that common in tuberculous subjects of the erethic type, with quickened pulse, harsh dry skin, wasting body, and associated with which phenomena were the local signs and symptoms of the disease. Tubercular disease of serous membranes was rarely primary; if general, a forgotten mass of old tubercle was usually in the background; if local, there was commonly precedent disease of the subjacent or neighbouring organ. He accepted as satisfactory the views of Mr. Barker, who admitted the tubercle poison as disseminated in the blood current; and, on the other hand, accepted a receptivity or preparedness of tissue of more or less embryonic conformation in young people, the embryonic type in adults being represented by the young cells of plastic exudations. He was inclined, however, to attach more importance to activity of growth and functions in certain parts at certain ages, as rendering them liable to the onslaught of tubercle in those hereditarily or by evil conditions of life predisposed. Tubercular meningitis as a chronic disease was in his experience almost unknown. Tubercular pleurisy was by itself, as shown by post-mortem examinations, a rare disease. Was it so rarely met with clinically? It was well known that pleurisy commonly preceded phthisis, but were not such cases of pleurisy in the first instance tubercular, and, indeed, secondary to tubercle present in the lung? He was increasingly inclined to think so, and related two cases illustrative of his experience. In one of these cases the clinical history suggesting possibly-old tubercular lesion was corroborated by the discovery by Dr. Wethered of elastic tissue encrusted with lime salts in the sputum. There were no clinical rules of very precise application for the recognition of tubercular serous effusions. The insidious onset and symptomatology, the preceding symptoms, the duration, and the possible affection of other membranes were in point. Dry pleurisy at the apex should be always regarded with suspicion, Dr. Burney Yeo had described three interesting cases of apex pleurisy in young people, attended with peculiar hard coughs, and in one with some stained mucous sputum, all of which got well, What was Dr. Yeo's experience of the future of such cases? It

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was difficult to recognise slight pulmonary changes, especially in the presence of effusion; examination of the sputum, if any, would help, but a continuing slight febrile action and persistently-quickened pulse were of much importance, a secondary rise of temperature after the third week being (empyema excluded) very significant. The appearance of the fluid was not characteristic. It was mostly clear, sometimes smoky or blood-stained, or opalescent, not often purulent, excluding cases of perforation. Examination of the fluid for tubercle bacilli had proved unsatisfactory, the organisms not having been found in many cases whose tubercular nature was otherwise demonstrated. He related a case in which after several failures, bacilli had been found in certain tiny flecks of an otherwise clear effusion. This experience, and that of a case some years ago, in which, after failing to find bacilli in the pus of an empyema, plenty had been discovered in a drop removed on the point of a probe from the pleural surface, led him to believe that the bacilli germinated chiefly in contact with the pleural surface, and were not to be found free in the effusion, except in minute flecks or sheddings from that surface. Cultivation and inoculation experiments were also at present not to be trusted in diagnosis. The case he related was also one in which rapid absorption and recovery had ensued, although the effusion was distinctly tuberculous. He thought he had observed many such cases. What was their future? With the practical rest brought about by adhesions, and in the absence of fresh pabulum, the bacilli became extinct or dormant and the tubercle underwent fibroid degeneration, so that indefinite quiescence might be hoped for. The disease might recur in another membrane or in the lung, but not necessarily in the same lung. Phthisis advanced by a succession of attacks, and any temporary lull might become permanent quiescence. Caseation was comparatively rare in serous membrane tubercle. In chronic tubercle of the peritoneum, with similar constitutional symptoms, we observed colicky pains, intestinal flatulence, irregular or relaxed bowels, enlarging abdomen with impaired resilience and elasticity, and a doughy resistance and movement *en masse* under palpation significant of intestinal adhesions, slight tenderness, and sometimes peritoneal friction sound. The effusion often proceeded to ascites, and in some cases, after a time, the physical signs became remarkably altered, the resonant intestines being held back to the flanks. In such cases the diagnosis from ovarian cyst was often very difficult. The fluid might be absorbed, and the patient recover, as not infrequently happened; or in what might be regarded as the third stage, signs and symptoms arising from contractile deformity of the omentum and mesentery ensued; masses or bands were to be felt resembling cancerous masses; contortions, irregular peristalsis, and obstruction (partial or complete) due to constriction by or entanglement around the contracted or thickened bands occurred. In other cases perforation of the intestine and localised abscesses, perhaps pointing through the abdominal wall, took place. Dr. Fenwick had found ulceration of the intestines recorded in only eight of his forty-seven collected cases. He (Dr. Powell) thought that ulceration or tuberculous disease of some (often a pelvic) organ was more usually present. In discussing the treatment, Dr. Powell alluded to the scanty growth and feeble vitality of serous membrane tubercle and its tendency to obsolescence. The dangers were from inflammatory damage to subjacent organs and from contortion and strangulation of vital parts; in other cases from perforations and suppurations. Nothing at present known would cure tubercle; the bacillus would cheerfully withstand antiseptics in doses beyond the toleration of his host. Mercury was the most hopeful antiseptic, but reduced the resisting powers. Mechanical rest to chest or abdomen with good hygiene was very important. On the question of opening the abdomen we were collecting experience, and in forming a judgment it should be remembered (1) that many cases had a favourable issue under careful treatment; (2) that the tubercle could not be removed by operation, arrest and obsolescence being all that could be hoped for; (3) that the successful cases hitherto met with were cases in which the peritoneum had inadvertently been opened in non-suppurative cases; (4) the cases most needing surgical help were those analogous to empyema, in which, however, the presence of perforations and intestinal ulcerations often rendered such treatment of doubtful utility. The matter was one for very useful discussion and new experience.—Dr. HANDFORD agreed with Dr. Powell that we have no direct treatment which will injuriously affect the tubercle bacillus. It produces changes which are closely analogous to, and in many cases indistinguishable from, those of actinomycosis and syphilis. It is these changes which we must treat on their merits, independently of the bacillus itself. Sufficient importance has not been given to the very varied course which the bacillus runs in the different lower animals. As a general rule, it tends to be a more localising affection in the animal feeders than in the vegetable. There is much reason to believe that something of the same kind is true in the human subject. He doubted whether those cases of tubercular peritonitis where a caseous affection of the omentum and mesenteric glands, without any great effusion of fluid, is the prominent feature, would be benefited by abdominal section. Dr. BURNEY YEO spoke of the occurrences of dry pleurisies of the apex, which he had studied for some time. He believed that some apical pathological conditions, which were really pleuritic in origin and not tubercular, were mistaken for the early stage of phthisis. They were really rheumatic in origin, and ran a different course from tubercular disease. They were prone to occur in persons of rheumatic tendencies, and recovered perfectly, as did many rheumatic affections of the joints, by counter-irritation, blisters, and iodine, and iodide of potassium internally. He called attention to the analogies, anatomical, physiological, and pathological, between synovial and serous membranes. He believed in the value of antiseptic agents in the treatment of tubercular affections, though he did not believe that they acted as germicides.—Dr. BROADBENT had not heard Dr. Powell's paper, but, having seen an abstract, he was in complete agreement with him in all important points. He brought before the Section only his experience on the subject of opening the abdomen in tubercular peritonitis. He had had this done in several cases, and, although he had not seen the remarkably good results which had now been so often obtained, there had always been relief, and, except in one case he considered that life had been prolonged. He had come to the conclusion that the tubercle bacillus was a vulnerable organism if it could be got at, and that the difficulty in the treatment of phthisis and other tubercular disease consisted in the fact that remedies administered by the mouth or by inhalation did not reach the organism. He had seen no good results from the so-called antiseptic treatment of phthisis.—Dr. C. GAGE BROWN had seen cases of pleurisies of the base followed by phthisis at the apex, not necessarily on the same side. Post-mortem examinations in some of these cases had only shown evidence of old-standing non-tubercular pleurisy of the base.—Other speakers followed, after which Dr. Powell replied.

Dr. C. R. DRYSDALE read a paper upon the alleged Rarity of Phthisis among London Jews. As the result of extensive inquiries among Jewish practitioners of medicine, he had come to the conclusions—(1) that Jews suffered less from phthisis than the ordinary inhabitants of London; and (2) that the evidence was strong that this was in part due to the exclusion of tuberculous meat from their diet, owing to strict inspection; hence the importance of a wise examination of all animals used for food, and especially cattle.

At the meeting on Thursday, Aug. 15th, Dr. PAVY read a paper upon the Prognosis of Cases of Albuminuria, with Special Reference to Life Insurance. (This paper will be found printed *in extenso* at page 361 of our present issue.) The following discussion took place:—

Dr. MAGUIRE would speak of two classes of case. 1. Cases of functional albuminuria with high-tension pulse, but without any other evidence of disturbance of health. These cases were found at all periods of life. In the young there was usually a family history of Bright's disease. The amount of albumen varied throughout the day. 2. Cases with low arterial tension, in which some debility was usually present. There were no cardiac changes. The albumen might be present in large quantities. It was "cyclic" in occurrence, and was influenced by exercise. Hyaline (never granular) casts might be present. The albumen mght be wholly globulin, but the kind of albumen was not sufficient to distinguish functional albuminuria from organic disease. The prognosis was bad in the first case, more favourable in the second, but an increased premium should be required.—Dr. PYE-SMITH agreed with Dr. Maguire that the presence of globulin without serum-albumen was favourable. He thought albuminuria was never truly physiological, but always indicated a falling short of the standard of health.

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It was influenced by repose, cold, and food, but not in his experience by emotion. Casts might be present without organic disease. There might be Bright's disease without albuminuria. Some of the cases of functional albuminuria were really cases of hæmatinuria. Albuminuria might be compared with hæmoptysis, inasmuch as its occurrence only suggested disease. The business of a medical referee of an insurance company was to exclude all cases in which there was a reasonable doubt. In ordinary prognosis we might fairly incline a little more to optimism. We could hardly hope to exclude with certainty early Bright's disease from cases of functional albuminuria. Cases should be deferred and re-examined before a definite opinion was given. — Dr. GAIRDNER was still unconvinced that we could talk of functional albuminuria. He did not object to the term "functional albuminuria," if by it was meant an albuminuria which was not necessarily accompanied by demonstrable changes in the kidney. In Weston's case, related by Dr. Pavy, the strain was unphysiological. He held that the presence of albumen in the urine was a danger signal. The amount of the danger varied enormously. He thought the occurrence of albumen in typically healthy persons was a rare event. In insurance such cases should be postponed and the medical attendant of the applicant communicated with.—Dr. RABAGLIATI thought the presumption was against the life if albuminuria were present. If casts were also present there should be a heavy increase of premium in the young and absolute rejection in the old. We must remember that the better classes, who comprised the great majority of applicants for insurance, had more than their due proportion of renal disease owing to their large consumption of nitrogenous food and alcohol.—Dr. DRYSDALE thought we were becoming rather optimistic in this matter. The time was hardly ripe for drawing the line very sharply. All cases of albuminuria in candidates for insurance should be postponed for detailed examination.—Dr. CRANSTOUN CHARLES gave some statistics regarding the occurrence of albumen in his experience. In 250 apparently healthy students he had found albumen present in the mid-day urine of 34 (13·4 per cent.). In 72 pupils of a training college, he had found albumen in the after-dinner urine of 24. In half of these cases peptones were present. In 110 candidates from the country, coming up to London for examination, he found albumen in the morning urine of 30. He had seen albuminuria due apparently to tight-lacing, to constipation, to hard work in clerks and shop-girls, and to rowing and football.—Dr. SAUNDBY was gratified at the results of the discussion, and hoped it would serve to mitigate in some measure the gravity of our prognosis in albuminuria. He was a firm believer in a form of albuminuria which was innocent. He suggested the term "mechanical albuminuria," as posture had something to do with it. As regards casts, it was their number and frequency which gave them importance.—Dr. TYSON deprecated the amount of anxiety which the advance of knowledge regarding albuminuria was causing many persons. He thought the comparatively small number of deaths from Bright's disease compared with the large number of cases of albuminuria that came under notice was an indirect proof that many of the latter get well. Cases should be carefully watched and reported, but the premature recording of abuminuric cases as cured should be strongly deprecated.—Dr. BARR thought that too much attention had been given to albumen, to the neglect of the other constituents of the urine. He thought the real defect was nominally circulatory. The quantity of urea present was most important.—Dr. GEORGE HARLEY paid great attention to the specific gravity, since it was not the excretion of albumen which killed, but the retention of the excrementitious salts. If the specific gravity were above 1015 he treated the albuminuria as probably curable. He objected to the terms physiological or functional albuminuria.—A communication was read from Dr. GEORGE JOHNSON, in which he gave it as his decided opinion that all albuminuria was pathological.—The PRESIDENT (Dr. Eddison) advised that no case should ever be passed without postponement. He doubted if albuminuria were ever due to excitement.—Dr. PAVY replied.

On Friday, Aug. 16th, Dr. ARMAND RUFFER, of the Pasteur Institute, Paris, read a paper upon Pasteur's Method in Hydrophobia. He adverted, in commencing, upon the great interest felt in the subject of hydrophobia in spite of the rarity of the disease, an interest due to the facts that a person bitten by a rabid dog was often kept for months in suspense as to the issue, and that, if the smallest genuine symptom of hydrophobia made its appearance, the victim was doomed to one of the most painful and horrible of deaths. Since Pasteur's discovery in November, 1885, twenty anti-rabic institutes had been founded in various parts of the world, including Naples, Palermo, Odessa, St. Petersburg, and Havannah. The virus of hydrophobia was probably a particulate virus, and due to a micro-organism. The only absolutely sure method of inoculation was under the dura mater. The bites of rabid dogs never healed by first intention, whereas the wound from an inoculatory injection had never been known to cause an abscess. A point of very peculiar interest in the disease was the very variable and often prolonged period of incubation. Statistics showed that 20 per cent. of those bitten developed the disease within one month, 50 per cent. within two months, 70 per cent. within three months, and 90 per cent. within four months. One case had died after a lapse of fifteen months. Twenty-seven months was said to be the extreme limit, and such prolonged periods of incubation were very rare. The shortest period known was thirteen days. The symptoms of the disease were divisible into three stages: (1) A stage of melancholia, with pain at the seat of the wound; (2) a stage of convulsions; (3) a stage of muscular weakness and paralysis. The symptom which had given the name to the disease—viz., hydrophobia—might be quite absent. It was exceptional in dogs and invariably absent in rabbits. The paralytic form of the disease, which was the rule in rabbits, was not very rare in man. The prognosis was always fatal in the human subject if once the symptoms developed themselves. A dog had been known to recover twice from inoculated hydrophobia. If the virus were transferred from animal to animal the period of inoculation fell from eighteen days to six or seven days. It did not further shorten, and the virus was then said to be "fixed." Pasteur's treatment was of two kinds—viz., the simple and the intensive. In the former the patient was inoculated on the first day with virus from a spinal cord dried for fourteen and thirteen days, on the second day with virus from a spinal cord dried for eleven and twelve days, and on the fifth day with virus from a spinal cord dried for six days. In the second, or intensive method, which was specially applicable to face bites (as in these the incubation period was very short), four injections were given per diem, and on the third day a spinal cord dried for only six days was used. This method, though apparently more dangerous than the other, gave better results. Its aim was to bring the patient as speedily as possible under the influence of the inoculations. Pasteur never injected a cord dried only one or two days, but this was done at Odessa. The results of treatment at Paris and elsewhere were then given in great detail and in tabular form. First, as regarded the proportion of persons bitten by rabid animals who developed hydrophobia if untreated. A variety of statistics were given to show that from 15 to 20 per cent. of persons bitten by dogs or cats developed the disease, but from 60 to 64 per cent. of those bitten by rabid wolves. In face bites the mortality was very high, over 80 per cent. The results in cases treated by the Pasteur method were then given. Of 2164 persons treated at the Pasteur Institute from November, 1885, to January, 1887, only 32 had died—a mortality rate of 1·4 per cent.; 214 of these were bitten in the face or head—a class of wound in which, as already stated, the mortality was terribly high where no treatment was adopted. In all the above cases the animals inflicting the bite had been proved to be rabid. Of 518 persons bitten by animals supposed, but not definitely proved, to be rabid, and treated at the Pasteur Institute, only 3 had died, a mortality of only ·58 per cent. The mortality after using the simple method of treatment was higher—viz., 6·6 per cent. The results obtained at the anti-rabic institutes in other countries had been practically the same. In 484 cases treated at St. Petersburg the mortality was 2 per cent. In three sets of cases, numbering respectively 324, 345, and 364, treated at Odessa, the respective mortality rates were 3, ·58, and ·6. At Moscow three sets of cases, numbering 107, 208, and 431, had been treated, with a mortality of 8, 1·2, and 1 per cent. At the same place (Moscow) 70 persons bitten by wolves had been treated, with a mortality of 10 per cent. At Turin the recorded mortality was only ·56 per cent.; while at Naples, Palermo, and Havannah it varied from practically *nil* to a little over 1 per cent. Some further details of Pasteur's own results were given. In the year 1887 there

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were treated 1778 cases, with a mortality of 1·3 per cent. in those who had undergone any treatment and of ·73 in those who had completed the entire course. Of face bites, 127 cases had been treated, with a mortality of 7·87 in those who had undergone any treatment and of 2·51 in those who had completed the course. In 1888 there were treated 1626 cases, with a mortality of 1·16 in those who had undergone any treatment and of ·55 in those who had completed the course. It was too soon to tabulate the results of treatment in 1889, but Dr. Ruffer thought the mortality would hardly exceed 1 in 500. In spite of assertions to the contrary, there was not the slightest proof that any case of disease had ever resulted from the treatment itself. As a proof that the inoculations were perfectly safe, he might mention that all M. Pasteur's assistants and laboratory workers had been inoculated, and that no case of hydrophobia had ever been known among them. Dr. Ruffer's lengthened address was listened to with profound attention by a large audience, and at its conclusion he was heartily applauded.—The following joined in the subsequent discussion: Dr. Drysdale, Dr. Saundby, Sir William Moore, Dr. Vaughan Harvey, Dr. George Harley, and others. The general sentiment of the speakers was one of warm admiration for M. Pasteur's labours, and a thorough endorsement of his results.

The PRESIDENT of the Section (Dr. Eddison) remarked upon the injustice of the British laws, which allowed all kinds of wanton cruelty to be inflicted upon animals for amusement or gain, while they hampered and impeded scientific experiments for the alleviation of human suffering and disease. A ratcatcher might leave his trap unwatched for a week, or a gamekeeper might set his rabbit-traps in the evening and go round next morning to take out the tortured animals, and all this without interference from the laws, while scientific experiments were under a ban.

Dr. RUFFER, in reply to some questions, said it was a total error to suppose that heat had any influence in the causation of rabies. The largest number of cases at the Pasteur Institute occurred in February and the smallest in August. The disease was not most prevalent in warm countries, but it existed in Russia. He strongly advised the muzzling of dogs, and believed that if this were universally carried out the disease would disappear in a couple of years.

SURGERY.

At the meeting on Wednesday, Aug. 14th, Mr. JESSOP delivered his address on Treatment of Cancer of the Rectum (see last week's issue, p. 333). In the discussion which followed, Mr. F. MARSH showed a patient on whom he had performed Madelung's operation.—Mr. MITCHELL BANKS regarded colotomy as often of great advantage in cancer of the rectum, but some patients went on very comfortably without operation.—Mr. HARRISON CRIPPS advocated early excision, and gave statistics in support of his views.—Mr. ALLINGHAM also advocated early proctotomy and inguinal colotomy, if the case were too far advanced for excision. He gave details of his method of performing the latter operation.—Dr. WARD COUSINS thought inguinal superior to lumbar colotomy.—Mr. VINCENT JACKSON objected to the use of the term "inguinal colotomy," and thought it more correct to speak of it as "iliac colotomy." He had not yet either advised or performed proctectomy on account mainly of the distressing atresia. He preferred lumbar colotomy in acute obstruction; in other conditions he recommended "iliac colotomy."—Mr. BENNETT MAY had performed colotomy at an earlier stage since he had practised the inguinal operation. The inguinal operation was easier and more certain when the colon was empty, and in exhausted cases it caused less disturbance. He preferred the lumbar operation where there was much meteorism, and Madelung's operation when there was a prognosis of a considerable period of life. He thought moderate procidentia an advantage.—Mr. F. BOWREMAN JESSETT thought there were few cases that justified excision of the rectum. He was not satisfied with Allingham's operation, owing to the large amount of procidentia. He now practised complete division, closed the lower end with sutures, and dropped it back into the abdomen.—Mr. RUSHTON PARKER advocated excision. In one case he had divided the bowel as high as twelve inches from the anus. Access was obtained by incising backwards and upwards, removing the coccyx and lower vertebræ of the sacrum, and opening the peritoneum.—Mr. INGLIS PARSONS advocated the use of a powerful interrupted voltaic current, and related a case which was treated a year ago and remains well.—Professor TRENDELENBURG objected to the statements which had been made about German statistics, and expressed a strong preference for excision of the rectum in all cases where practicable. When the infiltration was not extensive the parts could be strapped without much cutting.—Mr. LAWFORD KNAGGS thought that in cases where the precise seat of obstruction had not been ascertained the left inguinal operation was preferable, seeing that the small intestine could be opened within a few inches of the ileo-cæcal valve.

Mr. MAYO ROBSON showed a patient on whom he had performed Cholecystenterostomy for a Biliary Fistula through which the whole of the bile had passed for fifteen months. The patient expressed herself as being in perfect health, only a scar remaining.

Mr. RUSHTON PARKER related a case of Cerebral Tumour attended with a puffy swelling of the scalp, removed by trephining from the right Rolandic area of a man aged thirty-eight. There had been severe headaches and stupidity, which eventually incapacitated him, followed by paralysis of the left arm and leg. Iodide of potassium was given without effect, and the operation was performed on Feb. 23rd, 1889, a large trephine being used. A tumour the size of a walnut was removed from the cerebral cortex. It looked at first like a firm sarcoma, but was now believed to be a gumma. Suppuration occurred in the brain, and a return of symptoms more serious than before. Opening up of the wound on Jan. 19th, removal of more brain, and the scraping out of suppurating tracks and packing the wound with antiseptic dressings, was followed by a cessation of bad symptoms and eventual sound recovery. The patient five months after operation was in excellent health, able to get about by himself and walk several miles.

At the meeting on Thursday, Aug. 15th, Mr. HENRY MORRIS read a paper on the Surgery of the Kidneys. The chief points discussed were as follows:—1. The various ways in which renal calculi are embedded in the kidney require special precautions whilst operating. 2. Tubercle of the kidney, as well as suppurating foci due to other causes, may give rise to the same tactile impressions as small calculi. 3. Tubercular disease of the prostate is a source of fallacy in diagnosing renal calculi. 4. Nephrectomy is of very doubtful value in advanced tubercular renal disease. 5. Lumbar nephrectomy is the proper treatment for advanced hydronephrosis and for large collections of fluid behind the peritoneum, the result of lacerated kidney. In these cases, nephrectomy, without previous incision and drainage, should be more frequently resorted to than has been the practice hitherto. 6. Nephrorraphy for movable kidney is often of great service. 7. The changes which the perinephritic tissues undergo under long-continued irritation sometimes render the search for the kidney very tedious and difficult.—The following took part in the discussion upon Mr. Morris's paper: Mr. Jessop, Mr. Bennett May, Dr. Newman, Mr. Lawson Tait, Mr. Bruce Clarke, Mr. Kendal Franks, Mr. Lawford Knaggs, and Dr. Imlach.

Mr. MAYO ROBSON gave an abstract of two hundred consecutive cases of Abdominal Section, with results. Of sixty-one cases of ovariotomy for large tumour he had had fifty-nine recoveries, with two deaths. In fourteen cases of operation for uterine myoma he had had twelve recoveries and two deaths; two cases of supra-pubic hysterectomy, with one recovery and one death; two cases of hepatotomy for hydatids, with recovery in each case; one case of nephrectomy, which terminated fatally; two cases of gastrostomy, with one recovery and one death; eleven cases of cholecystotomy, with sixteen recoveries and one death; one case of cholecystenterostomy, which recovered; thirteen cases of enterotomy for intestinal obstruction, with sixteen recoveries and three deaths; one case of enterectomy, which ended fatally; fourteen cases of opening and draining, with three deaths; thirty cases of herniotomy for strangulated hernia, with twenty-four recoveries and three deaths; twenty-nine operations for the radical cure of hernia, with twenty-eight recoveries and one death; and seven cases of exploratory operations, with four recoveries and three deaths (from malignant disease).

On Friday, Professor ALEX. FRASER (Dublin) described a "Method by which the Human Body, with all its essential details of Structure, has been made practically Transparent for Operative Surgical Purposes." First, as to the head and neck. The author said: "In a work, now approaching completion, which has cost me the leisure of the last four years, or,

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rather, all left apart from onerous teaching duties, on the Morphology of the Mammalian Central Nervous System, especially that of Man, I was obliged to originate various methods, or rather, so far as this communication is concerned, to apply one in particular not much used by morphological anatomists in this country, and the capabilities of which, for biological and museum purposes, is but faintly appreciated; but that the illustrative anatomy of the future rests with it, and that not alone in a human direction, but in every domain of biological inquiry, is a conclusion which few having the love of those studies at heart, will seriously call in question. I mean the photographic method. The aim of this contribution, however, confines me to one of its applications—viz., the manner in which I have been able to represent the relations of the deep-seated parts to the skin, so that the surgeon can strike any portion of the outer surface of any organ, such as the brain, or of its internal structure, which he may desire to reach with an ease and certainty hitherto unattainable. To accomplish this, and to reproduce each division life size, I have adopted the ordinary way of apportioning the body into head and neck, thorax and abdomen, with proximal and distal portions of the upper and lower extremities. The only one of these divisions which I have thoroughly worked out is the head and neck, although in the young subjects the thoracic and abdominal viscera have in great measure been represented through the skin. I say nothing here of the method used in preserving the body with all its organs *in situ*; suffice it to say that it was only after many failures that I have been able to employ a method which leaves nothing to be desired. Neither need I say anything at present of the apparatus I use, further than that it has been made by the best makers from sketches sent by myself, and that it is more than large enough to reproduce the above-mentioned divisions of the body life size. In what manner, then, have I reproduced the head and neck so as to make the title of this communication justifiable? I have done it in two ways. These methods are shortly as follows:—1st. The head and neck can be looked at from four different points of view—lateral or from side to side, from vertex to base, from front to back, or from back to front, these two latter being much the same, though in an inverse order. I had to make, then, a series of views all of natural size in these different directions, so that, when the prints were made transparent and fitted in order one over the other, the entire structure, or as much of it as was my purpose to show, could be seen at a glance. I had made all these series, however, and had forgotten one thing, which made them useless for practical purposes, and that was. I did not show the diminution of the round of the head when projected on a plane surface, so that I had to begin again and arrange measuring tapes in a fixed manner on the head. By this means the diminution has been shown, while the surgeon can read off at a glance the relation of the internal structures to any particular inch or half-inch on the skin. The number of views I have made in each of the above-mentioned directions average from sixteen to eighteen, running in this way: first the skin, with its measurements; then the bone view; then dura mater, succeeded by pia mater; then external surface of brain and cord, followed by as many dissections of the brain as one's skill and knowledge can compass; and finally end at the skin again, if one so determines. This, then, is the first method, but it is not all. 2nd. In working through the head in the manner described above, I had laid aside a number of plates, and exposed each of them on three different views, the skin view being common to all, and found that I could with proper care take up three different views on a single plate. In this way, then, I have done away with the necessity under the first method of making the prints transparent, as the essentials of skin, bone, and brain views can be shown on one print, or any other combination, all taken direct from nature—such as skin, dura, and external surface of the brain, or skin, pia, and brain, or skin, outer surface of brain and central parts of brain, and so on indefinitely; this, then, is the second method. Words of mine in a communication like the present cannot express the full significance of a method such as this, which brings up the relations of the deep-seated parts to the external surface of the body with a fidelity which disregards the subjective leanings of the particular worker, and the many useful applications of which can only be discerned by the initiated.

At the same meeting, Mr. A. F. MCGILL opened a discussion upon the Treatment of Retention of Urine from Prostatic Enlargement. He advocated the following propositions—(1) That prostatic enlargements which give rise to urinary symptoms are intra-vesical, and not rectal. (2) That retention is caused by a valve-like action of the intra-vesical prostate, the urethral orifice being closed more or less completely by the contraction of the bladder on its contents. (3) That in many cases self-catheterisation is the only treatment required. (4) That when the catheter treatment fails, or is unavailable, more radical measures are necessary. (5) That this treatment, to be effectual, should (*a*) for a time thoroughly drain the bladder, and (*β*) permanently remove the cause of the obstruction. (6) That these two indications are best fulfilled by a supra-pubic rather than by a urethral or perineal operation. The supra-pubic operation is preferable (*a*) because it is more generally applicable, (*b*) because it can be performed with greater precision and completed with greater certainty, (*c*) because it ensures complete and most efficient drainage, (*d*) because it is equally safe. Of ten patients upon whom the speaker had operated eight had continued well, only one having required the passage of a catheter, and that only after excessive drinking. In one case, owing to the extreme hardness of the prostate, the operation was unsatisfactorily completed; in another there was temporary relief, with death at the end of ten months.—Mr. EDWARD ATKINSON said he had been the first to follow Mr. McGill's lead in performing supra-pubic prostatectomy. He had had five cases. Of these one had died, and the remaining four were well—had good control over the bladder, did not require to micturate more than six to ten times in the twenty-four hours, and were enjoying fair comfort.—Mr. REGINALD HARRISON congratulated Mr. McGill upon the practical value of his paper. He considered that his operation would occupy a permanent place in connexion with the surgery of the urinary organs, as it was based upon the recognition of those cases where the prostate not only obstructed micturition, but caused a vesical irritation far exceeding anything that either a stone or tumour is capable of creating. He referred briefly to some cases of advanced prostatic obstruction which he had treated by perineal prostatotomy, which he thought was specially applicable to those instances where obstruction was the prominent and most distressing symptom. He concluded his observations by a reference to the importance of the early treatment of prostatic enlargement by mechanical means.—Mr. BRUCE CLARKE stated that he had taken the greatest interest in the subject. The obstruction was due mainly to two causes: (1) the growth of the prostate into the urethra, and (2) into the bladder; and both of these must be relieved. He had had eleven prostatic cases under his care, in which some form of operation was required. So far his plan of treatment had been to make a perineal incision first, and examine the bladder; if necessary, incise the floor of the prostate; then one could ascertain exactly what needed to be done, and perform a supra-pubic operation afterwards, if necessary. He had done this in two cases with the best results.—Dr. WARD COUSINS said he had performed two operations for prostatic retention and calculus. Both cases were old men labouring under intense suffering. He enucleated some masses around the neck of the bladder, which proved to be cancerous. Both cases were for a time relieved. He thought Mr. McGill's operation would be the method practised in the future for cases in which catheterisation was impossible from pain and mechanical difficulty. The essential treatment consisted in the timely use of the catheter.—Mr. MACEWEN wished to say that after hearing Mr. McGill's paper, seeing his patients in the Leeds Infirmary and the specimens, he had upon this evidence become a convert to the supra-pubic removal of the prostate, as it removed the pathological cause of the difficulty; and he would put the operation in practice on the earliest suitable opportunity.—Mr. BENNETT MAY agreed that it is the intra-vesical growth which causes the obstruction and retention, and further, when retention is complete and permanent, that it is a collar enlargement; with partial retention, but great irritability, a pedunculated middle lobe. He believed that for drainage the supra-pubic is inferior to perineal cystotomy, but he regarded formal removal of any portion of the prostate by the perineal route as an impracticable proceeding in most cases. He thought Mr. McGill's operation should be done before the patient is much exhausted. In such cases median perineal drainage might be the more prudent course.—Mr. Jordan Lloyd, Professor Trendelenberg, and others also spoke, after which Mr. McGill replied.

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Dr. OTTO E. KELLER read a paper upon Trephining in a case of Actinomycosis of the Brain.

Mr. W. ADAMS read a paper upon the Successful Treatment of cases of Congenital Displacement of the Hip-joint by Complete Recumbency, with Extension for two years.

OBSTETRIC MEDICINE.

On Thursday, Aug. 15th, Dr. HERMAN of London introduced a discussion on the Frequency, Diagnosis, and Treatment of Corporeal Endometritis. He first adverted to the difference of opinion as to the frequency of corporeal endometritis, which depended upon the fact that, while some accepted a diagnosis based on inference, others were not content with anything short of demonstration. The difficulty of demonstration arose from the impossibility of getting the secretion of the body of the uterus unmixed with secretion from other parts, and also from the imperfection of our knowledge as to the changes in the endometrium during the menstrual cycle, and also of those due to age. The limits of time obliged him to restrict his observations to the common forms, those occurring apart from pregnancy and the puerperal state and during menstrual life. The first referred to fungous endometritis, which was well known. This caused hæmorrhage, and was best treated by caustic and curette. We needed information as to its circumstances of origin; also as to whether it was ever a preliminary stage of cancer. Next as to gonorrhœal endometritis: this was no doubt a stage preliminary to salpingitis, but at present we had no knowledge of its symptoms. He then referred to endometritis occurring in the course of fevers, and its relation to subsequent abortions, placenta prævia, and menstrual disorders; then to endometritis from slight causes. This he believed always tended to recovery when the cause was removed without local treatment. Endometritis was described as producing slight local symptoms, but many reflex symptoms. He was not acquainted with such cases. He thought that the difficulty was to distinguish in such cases between symptoms due to the disease and those due to the patient. He did not think frequently-repeated applications to the endometrium were beneficial; one effectual cauterisation was much better. —Dr. BYERS (Belfast) said they must all thank Dr. Herman for his most suggestive paper. In reference to the use of caustics or the curette in the treatment, he preferred the latter (sharp curette), as it enabled one at a single operation to do what might require many applications of caustics. The object of curetting was to get rid of the diseased membrane at once. It should be done with antiseptic precautions. As to the gonorrhœal variety, he thought it often occurred in nulliparous women, and history was of great importance. He agreed with Dr. Herman in thinking that the application of remedies for chronic endometritis by means of probes was of little use; the caustic applied in this way did not reach the cavity of the uterus. He thought that cases of endometritis had a very direct bearing on obstetric practice, their presence often causing sterility and abortion.—Dr. ROUTH spoke in favour of injections into the uterus.—Dr. GRAILY HEWITT regarded congestion of the uterus as of first importance in these cases, and he looked upon flexions as causing endometritis through this congestion.—Mr. TEALE (Leeds) thought that dilatation of the os internum was of great importance as a factor leading to good results in treatment, and was a safeguard in getting the remedies applied.—Dr. BRAITHWAITE (Leeds) thought there were in unmarried women cases of dysmenorrhœa with endometritis and simple cases of dysmenorrhœa; in the former good results followed dilatation and curetting, but he thought that dilatation up to No. 7 or 8 (Hegar) was enough. He believed curetting was good in chronic cases. He dilated up to No. 7 or 8 (Hegar), then applied the liquid carbolic, or a solution made of equal parts by weight of iodide of potash and spirits of wine.—Dr. H. JONES thought cases varied according to the stages. He believed in dilatation and curetting with the blunt curette, and to prevent lapsing discharge he applied iodoform pessaries to the interior of the uterus.—Dr. DUKE and Dr. MORE MADDEN advocated the method of dilatation and the use of the sharp curette.—Dr. HORROCKS said he had only seen one case of tubercular endometritis, and he spoke of the importance of alcohol as a cause of endometritis, a symptom of which was frequent hæmorrhage.—Dr. BELL and Dr. MURDOCH CAMERON (Glasgow), and Dr. WALLACE spoke.—In summing up the discussion, Dr. CULLINGWORTH (the President) said they were all agreed that corporeal endometritis was a reality, and that curetting was the best plan of treatment, combined with dilatation and done with antiseptic precautions. He thought that in thus dealing with these cases in a vigorous and effective way they had tended to raise the position of gynæcology, the former methods being slow and often failing.—Dr. HERMAN replied.

The following papers were then read:—On Cardiac Insufficiency in its relation to Abortion, by Dr. Handfield Jones; Cæsarean Section, with notes of a second successful case, by Dr. Murdoch Cameron (Glasgow); Concealed or Ante-partem Hæmorrhage, by Dr. Arthur Roberts.

On Friday the whole time of this Section was taken up in an interesting discussion on the bearing of Electricity in Gynæcology. Dr. PLAYFAIR was unable to be present, but in his absence Mr. WHEELHOUSE read his paper—an Estimate of the Value of Electricity in Gynæcology,—which was based on the results of two years' work. In his communication, Dr. Playfair said the objectors to the electrical treatment in gynæcology had no practical evidence to give, and, if theoretical objections were of weight, then we should never have had an ovariotomy or any anæsthesia. Many of those who had tried this method had done so in an imperfect way, and often used imperfect instruments, and it was incumbent on them all to follow strictly the rules laid down by Apostoli. In non-hæmorrhagic cases, Dr. Playfair's experience was small, but in instances of tumours impacted in the pelvis he had good results, and he thought in such cases hysterectomy was not legitimate till electricity had been tried and had failed. It was well known that fibroid tumours sometimes got gradually smaller of themselves, and it might be that by electricity we started by art a process which gradually went on till the tumour disappeared or got less in size. The application of the positive current to the uterine cavity in hæmorrhagic cases was of great value, and here Dr. Playfair thought a very decided advance had been made; in several cases, he said, it had prevented the removal of the uterine appendages, or hysterectomy, and it had succeeded when other hæmostatics had failed. Just as surgeons, before amputating the thigh for disease of the knee-joint, would try simpler methods, so, he thought, electricity should be employed before having recourse to surgical interference in cases of fibroid tumours. He had found the electrical treatment good in membranous dysmenorrhœa and in cases of obstinate chronic uterine catarrh. Finally, he drew the following conclusions:—1. The continuous current is capable of effecting much good in certain selected cases otherwise little amenable to treatment; and its introduction is, therefore, a distinct gain to gynæcology. 2. It is an agent of considerable power, and therefore, if rashly and injudiciously used, it is also capable of doing much harm. 3. It involves the cost of a costly plant, and it is troublesome and tedious to work. 4. Since the proper selection of cases requires, moreover, much special knowledge and great care in the application of the remedy, it is never likely to come into very general use.—Dr. CUTTER (New York) gave details of his eighteen years' work in the United States in the treatment of uterine fibroids by galvanism. He had arrested 50 per cent., cured 22 per cent., and his mortality had been 8 per cent.—Mr. LAWSON TAIT (Birmingham) said that since 1880 he had removed the uterine appendages for uterine myoma in 262 cases, with a mortality of 1·23 per cent. He said Dr. Playfair's paper was full of scattered details; what he asked for was a tabulated statement of cases treated by electricity, the total number of cases, those cured, and those in which there had been death. Until this was done no mere statement was of any use. When the electricians took a tumour, say on the leg or arm, outside the body, whose size they could estimate exactly, and caused it to disappear, he would believe in the efficacy of this method. They had two methods of treating myomata, the surgical and the electrical. Speaking of the mortality after abdominal operations, Mr. Tait said there were intrinsic and extrinsic mortality influences. The former were due to the surgeon himself, such as failing to tie a vessel or leaving a sponge in the abdominal cavity. His results, which he to-day presented to them—a mortality of 1·23,—showed that the intrinsic causes had disappeared. The extrinsic mortality influences were independent of the operation, and one of the most important of these in myomata was delay. Now, if the electrical treatment did no good in a case, it did further harm by the time lost in

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the treatment. It was said removal of the uterine appendages unsexed patients; they would have no more children. His reply was that those with these tumours were often sterile; and, further, did the electrical treatment cure them so that they afterwards became mothers? Again, it was argued as an objection to removal of the appendages that it caused disappearance of the sexual appetite. This he denied; and, even if it was true, it was better for humanity. As to Dr. Cutter's statistics, his mortality was 8 per cent., the same, Mr. Tait said, as hystèrectomy, and his cures were 22 per cent.; while in hysterectomy the cures were 91 to 99 per cent.—Dr. PARSONS hoped Dr. Keith would furnish them with his results.—Dr. BELL (Glasgow) welcomed any treatment which would do away with surgical interference.—Dr. GRAILY HEWITT said his experience in the use of electricity was not fortunate.—Dr. BRAITHWAITE (Leeds) had tried electricity in thirteen cases, and said it had advantages, and should be applied to certain cases; but it was tedious and very expensive. On the other hand, the risks of oöphorectomy were very slight. If the fibroid was in the posterior wall of the uterus or in the fundus, or if it was multiple, he would remove the appendages. He would try electricity if it was in the anterior wall.—Dr. MORE MADDEN (Dublin) spoke in favour of electricity, Dr. IMLACH (Liverpool) against.—Dr. HORROCKS (London) said they had found no good results follow the use of the electrical method at Guy's Hospital. He thought they should recollect that the history of fibroid tumours indicated to them that in the vast majority of cases patients with them did not die even if untreated.—Several others having spoken, a very interesting discussion was brought to a close by the President, Dr. Cullingworth, to whom a very hearty vote of thanks was accorded for the thoroughly business-like way in which he had presided over the Section of Obstetrics and Gynæcology.

PATHOLOGY AND PHYSIOLOGY.

In this section Dr. COATS (Glasgow) gave a most interesting opening address, in which he spoke of the susceptibility of races, individuals, and organs to various forms of disease, laying special stress upon the facts brought out in connexion with heredity, with acquired susceptibility, and pointing out how these might vary under different conditions of nutrition and position. It is a subject specially studied by Dr. Coats, and will no doubt appear *in extenso*.—Professor GAIRDNER (Glasgow) did not think Dr. Coats had cleared up all the difficulties; that was impossible, but he had put into clear and definite form many very difficult questions. It frequently happened that we acquired a man's terminology without grasping his ideas, and when that was the case it was no wonder that we misquoted and led others to misunderstand. It had often struck him that John Hunter was an example of a man who was not able to make himself understood. He was a man not learned in the schools, and he had to invent his own terminology. It was a positive ordeal for him to give a lecture; and so much did he feel this that he was often compelled to have recourse to opium to enable him to face his students. All his writings bore the impress of a want of power to express all he had in his mind, and all he wished to say. So much was this the case that Professor Gairdner had at one time been almost tempted to believe that Hunter was not the great man he was always represented to be. When, however, he came to see his museum and his wonderful collections of all kinds, he was fully impressed with the power and the greatness of the man. His phrases, however, were not even clear to himself, and still less so were they to other people. It was a case of tyranny and coercion, as in all cases he was afraid the theoretic bias misled where definitions and theories were concerned. For instance, what John Hunter called coagulable lymph was in the earlier history of the subject of pathology spoken of as exudation. The term was frequently used, but usually with very different meanings. This exudation was looked upon as a kind of sweating out of blood-vessels, the material differing in different cases, or afterwards becoming much altered, and giving rise to various forms of new growth, organised or degenerating. Virchow went a step further, and pointed out that all cells, in diseased processes as in healthy ones, were derived from pre-existing cells, and that with multiplication came differentiation. Why this was the case was not determined. The process of disease had now been traced back a step further, and it was known that specific micro-organisms had a specific action on certain groups of cells, which, in consequence, underwent certain series of changes. Speaking of constitution and habit, it was often difficult to determine how far these were local, how far they were general, and how far hereditary. What was more local than a habit of a particular part of an organ? He might take as an example that mentioned by Darwin, where a man was in the habit of allowing his thumb to rest on the bridge of his nose when he was asleep. This habit was continued through three generations of his descendants, and in one case, at any rate, it could not be due to imitation, as the father died when his successor with the same habit was in the cradle.

Dr. CHURTON gave a paper on Indicanuria, in which he stated that he had found indican in cases of typhoid and other fevers, and in twelve cases of the former disease he had found it in all stages. In cases of fæcal toxæmia, however, he had found the reaction with hydrochloric acid and chlorinated soda especially well marked. This had happened several times, especially where there was intestinal obstruction, and loading of the small intestine as well as the large. He had been led to ask the question whether some of those cases of so-called apyrexial typhoid were not simply cases of fæcal toxæmia. It was the general opinion that indol, skatol, &c., were imperfectly transformed into urea, and passed out as indican in the urine.—Mr. HENDERSON (Jamaica) asked if chlorate of potash might not be used instead of chlorinated soda.—Dr. CHURTON thought that it might, and the process of the reaction was simply the oxidation of indican into indigo, by which means the characteristic indigo colour was obtained.—Dr. JACOBS thought that there were cases of typhoid in which pyrexia was absent, giving, as an example, the case of the soldiers before Paris, who in their extremely emaciated condition had no pyrexia. This might be because their temperature was in the first instance subnormal, so that on the onset of the disease the normal was a high temperature for the individual affected.—Dr. COATS was not very sure about the origin of indican, and thought that, in some cases at any rate, the peculiar reaction was due to the presence of extraneous matter—such, for instance, as carbolic acid.—Dr. CHURTON, in reply, cited a series of experiments from which he has been able to determine that carbolic acid was not the cause of the reaction. Indican might be formed from indol in the epithelial cells of the kidney, and might be due to the absorption of fæcal products.

Dr. MOTT read a paper on the Pathology of Cardiac Failure. He insisted that the whole circulatory system must be taken into account in considering this important subject, not only in the cardio-vascular system, but in the contained blood also. In all cases of failure of the circulation there was some alteration in the nutrition of the cardio-vascular system. The heart itself, which acted as the force-pump, was in every case disorganised. In myocarditis, fatty degeneration, and some other conditions there was usually coronary obstruction. This was very important, as in forty-nine out of fifty cases examined there was organic disease of the myocardium. It was necessary to examine the coronary arteries, not only at their openings into the coronary sinuses, but also for some distance from the mouth, as it was frequently found that there was constriction at as much as one inch from this point. In partial obstruction the degeneration was not usually fatty, but was often merely a part of a widespread degenerative process associated with chronic inflammation, affecting the cardio-vascular system, especially the heart and kidneys. In these cases the termination was not sudden, and was quite different from those cases in which there was sudden failure from imperfect filling of the cerebral and coronary vessels, as when the patient sat up suddenly. In most of the cases of complete obstruction of a principal branch of one of the main trunks, with partial occlusion of the other, there had been a syphilitic history. Of five such cases four had died suddenly from syncope due to fatty degeneration of the myocardium. Dr. Mott then discussed the conditions met with in chronic alcoholism in which there was no affection of the coronary arteries, but in which fatty degeneration had been followed by sudden and fatal syncope. In cases of fatty degeneration he pointed out how the arrangement of the muscles led to imperfect action of the valves—the musculi papillares, in which the process is best seen, being the continuation of the figure-of-8 bundles of muscular fibres in the walls of the cavities of the heart. This explanation might be readily adapted to Mr.

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Williams's theory of "delirium cordis." In no case was it sufficient to make a diagnosis without the aid of the microscope, and he recommended that osmic acid or Pal's modification of Wright's method should always be used in order to determine the amount and distribution of fatty degeration in the myocardium. Fatty degeneration alone did not produce angina pectoris, as was evidenced from those cases of pernicious anæmia in which the fatty degeneration was well marked, but where there was no angina at any stage of the disease. A description of acute and chronic myocarditis was given, and it was pointed out that the former was invariably associated with acute fatal pericarditis. At the close of the paper some beautiful photo-micrographs of various forms of disease of the heart and bloodvessels were projected on to a screen. This demonstration was most instructive, and was greatly applauded by the members present.—Dr. POPE asked if Dr. Mott had directed his attention to the condition of the coronary sinus in the cases he had examined.—Dr. HENDERSON (Jamaica) thought that Dr. Mott had passed somewhat lightly over the more acute changes with which they in the tropics are familiar—as in cases of malaria, yellow fever, &c. In these cases it was a rule with them that the tendency to heart failure was so great that the patient must be kept absolutely quiet, even though his surroundings at the time he was struck down were not all that could be desired. In melanuric fever they frequently found coagulation necrosis of the myocardium of the left ventricle, and in such cases they observed that the heart stopped in diastole. In hæmorrhagic cases he had met with small thrombi in the coronary arteries, and in these cases they always found subdurous petechiæ. Although this was the case, embolism was rare in such conditions.—Dr. CROOKE (Birmingham) said that he quite agreed with Dr. Mott as to the absence of anginal symptoms in cases of fatty degeneration. He had never been able to determine that there was any change in the ganglia associated with either heart or bloodvessels, but he could not say how far this was his fault.—Dr. WARDROP GRIFFITH agreed that the distribution of atheroma was not what was usually described; he quite thought that it was a law unto itself. He exhibited an infected specimen of the heart, from which it was evident that there was free anastomoses between the coronary arteries of the two sides, probably through the capillaries, through which ordinary wax injection could not pass.—Dr. COATS said that, from his experience, the coronary artery was frequently obliterated on one side and partially closed on the other in a considerable number of cases; perhaps in the course of his work he came across three or four in a year. He observed that it was not until quite recently that it was known that the coronary arteries were diseased in such a large proportion of cases. He referred to the work done by his assistant, Dr. Lindsay Steven, and Dr. Newman, the former of whom had found that there was a communication between the two coronary arteries, not by capillaries only, but also by means of small arterioles. There were some points concerning which he could not agree with Dr. Mott: first, as to the causation of angina; and, second, as to the frequency of syphilitic atheroma and aneurysm. In Glasgow they had a large number of cases of both atheroma and aneurysm, but he was glad to say that syphilis was comparatively rare. It of course happened that the two conditions were found together, but there were no statistical facts to establish any definite relation between the two.—Dr. MOTT, in reply, said that the damming back of the blood in the coronary sinuses had first been pointed out by Sir Wm. Jenner, and that Dr. Mitchell Bruce had more recently referred to the same condition. As regarded the acute changes mentioned by Dr. Henderson, he had seen a number of cases of typhus fever in which there was cardiac failure, and a similar series of changes in connexion with surgical kidney, diphtheria, and similar diseases. Angina was certainly associated with coronary sclerosis, but he must admit that degeneration of the nerves of the heart was very difficult to demonstrate, and though he had examined, he might say, thousands of sections, he had never been able to satisfy himself on the matter, more especially as there was, so far as he was aware, no standard by which he might go in making his comparative observations. In one case at least, however, inflammation around the aorta must have affected the coronary plexus. He was satisfied that in the disease one coronary artery was quite sufficient to nourish the heart. In three out of the four cases of syphilis scars were actually found, and in one patient, aged twenty-nine, the kidney was not affected. He was quite aware, however, that much was attributed to syphilis, especially when there were no accurate data on which to work.

Dr. POPE read a paper on a case of Thrombosis of the Vertebral Artery, with Pressure on the Glosso-pharyngeal Nerve and Unilateral Loss of Taste. It was found on post-mortem examination that the left vertebral artery was distended by a clot, so that there was a fusiform enlargement. The brain and heart were both normal. The dilated artery pressed on the glosso-pharyngeal and also on the roots of the pneumogastric nerve. This gave rise to the symptoms mentioned above. The patient could not swallow. There was partial paralysis of one side, but no loss of speech and no urinary troubles. The left pupil was smaller than the right and insensible to light, and the left side of the soft palate was higher than the right. There was some pain and numbness, which might be due to the interference with the blood-supply to the descending tract on that side. The tip of the tongue was not affected, nor was the chorda tympani. The evidence of pressure on the glosso-pharyngeal was the loss of taste of one side of the tongue.

Dr. CROOKE (Birmingham) read a paper on the Histology of Bright's Disease, or rather, as he said, described a series of specimens which were under microscopes in the demonstration room. It was suggested that Friday should be devoted, partly at any rate, to the discussion of these specimens. This was agreed to unanimously; and after Dr. Crooke had given a lantern demonstration the meeting adjourned to examine the specimens.

At the meeting on Thursday, Dr. T. J. MACLAGAN forwarded a paper to introduce the subject of Fever to the Section. This was read by the Secretary, Dr. E. H. Jacob. Dr. Maclagan maintained that in all cases it was important to bear in mind both the metabolic and the neurotic phases of the causation of fever. In cases of fever in cerebral affections there must undoubtedly be impaired inhibition, not as a passive agent merely, but as an active condition. The neurotic and the metabolic causes acted in different spheres, but both were essential, though the thermotaxic derangement might in some case be more prominent than the thermogenic disturbance. In the case of specific fevers he considered that the organismal theory was the only one that would explain all facts, and in connexion with this he thought it should be pointed out that, although the production of the poison went on continuously, the temperature did not rise beyond a certain point, and from this he should argue that the process was not entirely nervous. The changes which were associated with the taking up of nitrogen and water were in some way connected with the production of heat.—Dr. BROADBENT thought that we could not look upon the two theories as antagonistic to one another; whatever be the mode in which the fever was determined, it must be conceded that it came ultimately from metabolism. He considered that the theory that heat resulted from the taking up of nitrogen and water by micro-organisms was difficult to understand, as it was, he should say, a process of construction in which heat was used up, rather than one of metabolism, in which heat was set free.—Dr. SIMS WOODHEAD agreed with Dr. Broadbent that the taking up of the nitrogen and water could not account for the increase of heat. He thought, however, that the increase of temperature, in so far as it was a real thermogenesis, might be brought about by stimulation of the tissues by the products of micro-organisms, and that F. Darwin's researches on the effect of carbonate of ammonia on the protoplasm of cells threw some light on the subject under discussion. Certain tissues would react much more energetically and continuously under the inflence of stimuli than others, and the period of depression appeared to him to come on at a much earlier stage in the nerve centres than in the other organs and tissues. This might account for the altered thermotaxic arrangement as well as for the altered thermogenic arrangement.—Dr. HANDFORD said that sufficient attention had not been directed to the fact that the thermometer did not indicate the rise of heat. To be perfectly accurate it was necessary to use a calorimeter, an instrument very difficult to use and very expensive to make. In inflammatory processes there might be a rise in temperature without any extra production of heat, so that the increased surface temperature might be due to rapid elimination by surface radiation, rather than to increased production.—Dr. COATS was certainly disappointed that more points had not been raised in the discussion, for whatever might be the opinion of previous speakers, Dr. MacAlister's theory, as advanced in his recent lectures, was by no means

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convincing in many respects—as, for instance, in connexion with the functions of muscle as a contractile organ and as a heat producer. He might point out that even in the cold stage of fever there was an increased production of heat, and he should of course agree that the rapid rise afterwards had something to do with the impaired discharge of heat.—Drs. BROADBENT and WM. HUNTER both expressed the opinion that Dr. MacAlister contended that, although both processes were usually at work, there might be great fever without increased metabolism, and the reverse, and that what took place could not always be measured by means of the thermometer. The thermogenic and thermotaxic mechanisms both played important, but by no means constant, parts (relatively) in the process of fever.

Dr. HANDFORD read a paper on the Visceral Lesions occurring in Enteric Fever. He had observed and carefully studied sixteen cases in his own practice during the last four years, and he had come to the conclusion that the chief factors in the production of these lesions were high temperature, septic organisms, and typhoid organisms (if such were present, of which he had not yet convinced himself). He wished specially to point out that in all his cases the lesion described pointed rather to what had been called mixed infection. He had noted that organisms passing through certain individuals appeared to have had their virulence increased, whilst in other cases it was diminished, this being the case especially in cases of what might be called diarrhœa resulting from the inhalation or ingestion of micro-organisms. He then described in detail the changes in the stomach and intestines, including minute infiltrations, small ulcers, &c. In the lung he met with a special form of pneumonia which, though lobular in its distribution, was croupous or exudative in character. There were also marked interstitial changes. This form of lesion appeared to be rapidly followed by death, and it seemed to be due to actual septic infection. In the heart there was degeneration of the muscular fibres associated with more or less interstitial change. In the liver he had frequently demonstrated the presence of an interlobular infiltration of small, round cells, which eventually became converted into fibrous tissue. He would explain, and to his mind did so satisfactorily, those cases of non-alcoholic cirrhosis met with especially in children. There were usually found also cloudy swelling and fatty degeneration of the liver cells, and in some cases these changes were due more or less directly to the presence of some septic organisms, although there might be no abscess formation. The most marked changes in the kidney were interstitial and glomerulo nephritis.—Dr. CROOKE agreed in the main with Dr. Handford. He (Dr. Crooke) had pointed out that similar interstitial changes occurred in the liver in many cases of scarlatina. He had also described similar conditions to those mentioned by Dr. Handford as occurring in the kidney.—Dr. WOODHEAD was very glad that Dr. Handford had insisted so strongly on the fact that in enteric fever there was frequently a mixed infection. He had observed the same thing in connexion with this fever, and also in cases of scarlatina and diphtheria. He agreed that the lesions should be divided into two groups as soon as such division was possible: first, those essential to the disease; and, second, those the result of septic infection, or perhaps in certain cases of septic poisoning.—Dr. MOTT thought, from the description given and the drawings made by Dr. Handford, that the conditions met with in the heart might be summed up as septic myocarditis. He thought that syncope would play an important part in the death of the patient, and that fatty degeneration must have been present in many of the cases mentioned. He described Mr. Lingard's typhoid lesions of the liver, in some of which were present the bacilli said to be characteristic of typhoid fever.—Dr. JACOB considered that there was in many cases mixed infection; but he also thought that many of the immediate effects of bad smells were due to the action of bad gases, and not to micro-organisms at all. There might be gaseous blood-poisoning quite apart from micro-organisms. He pointed out that one epidemic of a specific fever differed from another according to the class of person in whom the poison had been evoked, and from whom it was disseminated. It was quite possible that, in course of time, we should desire to choose the individual from whom we should wish to take our dose of poison. This was quite within the range of Pasteur's system.—Dr. COATS spoke of the mode or path of infection; it was certainly not always by the lung, and was far more probably through the blood. Drs. Handford and Crooke had discriminated between the modes in which the lesions were produced in typhoid fever and scarlatina, and they had agreed that some of the lesions were very similar in the two diseases. It came to be a question whether we were able or not to discriminate the specific lesions from the general. It should be remembered that septic infection was a very different thing from septic poisoning. In the case of enteric fever, as in many other diseases, there were four possibilities to be considered in regard to the mode of infection &c.: (1) that there might be a specific microbe in the blood which could be carried to and deposited in various organs; (2) that a specific animal alkaloid might be distributed in the same manner; (3) that there might be a local lesion formed which opened up the road for the invasion by septic organisms, and (4) a similar lesion opening up the way for septic poison. It was necessary to consider how, in connexion with the lesions in the lungs, the diseased matter had got there. Was it possible that the bronchus was the centre of infection?—Dr. HANDFORD, in reply, said that he had been interested in the study of these cases, more especially from the clinical side, and had studied their pathology in order to gain light on certain clinical symptoms.

Mr. ROGER WILLIAMS read a paper on Evolution in Neoplastic Processes, in which he stated briefly the views he held on the genesis of neoplasms. He reviewed the position taken up by Virchow and others, and reverted to Goodsir's theory that every cell may be the centre of growth, and that it has the potentialities of an individual. It could under certain conditions give rise to the growth of an individual, and under other conditions to the growth of a tumour. He scouted the micro-organismal theory of tumours entirely, and looked upon tumours as lowly organised potential individuals.—Dr. MOTT asked Mr. Williams if he accepted any or part of Cohnheim's theory.—Dr. WOODHEAD thought that Mr. Williams should make some distinction between sarcomas and cancers in accepting or rejecting the micro-organismal theory of their causation. For his part, he considered that many of the so-called sarcoma would ultimately be relegated to the category of specific infective new formations, whilst cancers, as their President had told them in his opening address, were associated with lowered conditions of the tissue and with irritation of epithelial surfaces. He believed that this irritation, not only of the epithelial but also of the deeper tissues, might be the result of the action of various irritants, and of course amongst these micro-organisms might be reckoned. Micro-organisms would not account for the appearance of similar epithelium in distant parts, and it was on this ground that he ventured to differ from some great authorities on the subject.—Dr. COATS said that a new formation must be looked upon as a piece of tissue growing independently; but the statement of this fact could not be said to bring us any nearer the point at which we were aiming, and he could not see how Mr. Williams had brought us much light, though his paper was eminently suggestive. He quite agreed with some of the speakers that some of the sarcomas must be transferred to the group known as infective granulomata, and in the work on which he was at present engaged he had given effect to this recognition of the fact. He must dissent from the statement that cancers were lowly organised. Very frequently they were composed of a highly developed type of tissue, and he had seen one in the bone of the skull which had the mature structure of well-formed thyroid gland.—Mr. WILLIAMS, in reply, remarked that it was much easier to criticise a theory than to form one. He might say that throughout his work he had tried to bring to bear on his subject the latest developments of biological research, and to bring before them a statement of facts based upon our present biological knowledge.

Dr. WOODHEAD gave a short account of some experiments made by Inoculation into Rabbits of Material from Tuberculous Cattle, in which suppurative peritonitis and pleurisy had been developed. In all the animals in which this had occurred the glands had been previously affected by tubercle.—Dr. MOTT had noted a number of similar cases where he had used guinea-pigs for his experiments.

Dr. WARDROP GRIFFITH gave a demonstration and note on Portal Obstruction and Compensatory Venous Enlargement in Cirrhosis of the Liver. The veins of the round ligament and of the anterior abdominal wall were greatly enlarged. He agreed with Dr. Drummond's explanation of the phenomena observed It this case there was slight

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hæmatemesis, which, he should observe, did not always act as a safety valve. In addition to the communications already mentioned, there were, of course, those of the veins around the œsophagus, rectum, &c.

Dr. E. H. JACOB gave a lantern demonstration of the Visceral Lesions of Syphilis; and Dr. MOTT exhibited some lantern slides and microscopic specimens of similar lesions.

At the meeting on Friday, in opening the discussion on the Histology of Bright's Disease, Dr. CROOKE said that he based his observations on the examination of sixty cases of acute nephritis occurring in the course of other diseases. Dealing with the kidney in its normal condition, he said it was easy to observe the kidney in any stage taken from the animal, but not so in the case of man, as a man must have died suddenly from accident, and even then he might recently have been drinking a quantity of fluid. He then dealt with the symptoms of healthy and diseased kidneys. True parenchymatous nephritis he considered to be an ideal disease, and he placed more reliance on Cohnheim's researches, and gave cases of his own supporting Cohnheim's results and statements. He coincided with the view set forth in Dr. Saundby's work that the lardaceous changes in Bright's disease were not sufficient in extent or importance to be regarded as primary; that nephritis was also secondary, and that both were concomitant morbid phenomena, traceable to the same cause. He had only seen one case where the history was quite clear, and that was a lardaceous case. In another case, where there was no history of a previous illness, the lardaceous changes were also well marked, the kidneys being of the large white type. The intestinal changes were never present by themselves, nor were the epithelial changes ever met with alone. There was simply a different proportion in different diseases and in different stages of the same disease.—Dr. DRESCHFELD quite agreed that in Bright's disease the whole of the changes were the result, direct or indirect, of an inflammatory process, and the differences were those of degree and position rather than of kind. In the granular contracted kidney we had chronic interstitial changes, whilst in the forms of acute Bright's disease the parenchymatous changes were more prominent. So far as he could find, there were no changes in the muscle cells of the middle coat. He contended that it was now necessary to distinguish the different positions in which we got the various changes in the glomeruli. In acute scarlatinal nephritis the true glomerulo-nephritis was met with, whilst in the chronic interstitial forms a pericapsular glomerulo-nephritis was met with. He was glad that Dr. Crooke had mentioned that there was vacuolation in the epithelial cells in the chronic as well as in the acute forms. Of course there were cardio-vascular changes wherever there was increased blood-pressure, as in subacute nephritis.—Dr. RUSSELL believed that glomerulo-nephritis was much more commonly found in non-scarlatinal cases than was generally supposed, though it was usually met with in specific infective fevers. He had certainly found that there was an increase in the amount of interstitial tissue in most chronic cases, but he had observed a case now and again in which this was not the case. The true cirrhotic kidney (small granular) might be the termination of post-scarlatinal cases, but he thought that a great number of the chronic cases of kidney disease took their origin in vascular changes in the organ.—Dr. CHURTON, as a result of his experience, had come to the conclusion that the conditions of the kidney were not the cause of hypertrophy of the heart. He frequently came across cases of granular contracted kidney in which there was no hypertrophy of the heart, and of course many cases of cardiac hypertrophy in which there was no kidney disease, or, at any rate, no granular contracted kidney. He looked upon disease of the vessels as the common cause of both conditions.—Dr. WOODHEAD had not yet been able to satisfy himself that there was ever any sharp line of demarcation between the interstitial and the parenchymatous forms of Bright's disease. One or other might be the predominating feature, but, so far as his experience went, they were always associated conditions. As to glomerulo-nephritis, he certainly thought that the true form occurred in those cases in which the epithelial changes were most marked—acute parenchymatous nephritis,—and that the pericapsular changes were really part of the interstitial or comparatively chronic processes. He was at one with those pathologists who objected to the term "large white kidney." In the first place, as Professor Hamilton had pointed out, it was not white; and, in the second place, we had a large pale organ in so many different forms of diseased kidney that, unless everyone agreed as to the exact meaning of the term, there might be, as frequently happened, great confusion. It was not desirable that the acute parenchymatous form, the subacute interstitial form, the waxy, and the fatty kidney should all have the same term applied to them, when each might be equally well denoted by more accurate and distinctive terms.—Dr. COATS said that, although he had long been trying to get away from the purely parenchymatous form of nephritis, he had been compelled, he might say almost against his will, to come back to it. He was decidedly of the opinion that in scarlatina there were two poisons to be reckoned with, the specific and aseptic, this latter coming in to play its part especially in the later stages of the disease. In the first case there was glomerulo-nephritis, associated with parenchymatous nephritis, in which there was a collection of shed and proliferated epithelial cells within the capsule and the convoluted tubules. The septic irritant, which was often a concomitant, brought about more widely distributed changes, which affected especially the vascular system. He objected to the term glomerulitis, as it left out of count the fact that it was part only of a nephritic process. As regarded the term "large white kidney," he could not agree with one of the speakers, as he thought that, with proper limitations, it was a useful term, referring as it did to a definite stage in the course of the disease. He had hoped to hear more about arterio-sclerosis, as he had very small experience of the condition, gout being a comparatively rare disease in Scotland, but he thought that the chronic interstitial form of Bright's disease in gout was quite a local disease.—Dr. CROOKE was pleased to think that it was considered he had made out a strong case for the unity of type in the various forms of Bright's disease, which he thought he had done if a few puzzling and very exceptional cases were left out of consideration for the time. He looked upon every form as merely a transitional stage in the course of the disease. The kidney was like other organs in the fact that vascular changes must lead to other important structural alterations. Increased pressure would give rise to enlargement of the capillary loops, and, as was often found, they had granular material and even blood-corpuscles between the loops or between the tuft and the capsule. He was glad to think that he had brought forward points that had admitted of such general discussion.

Dr. DRUMMOND gave the history of a case of Acute Lead Poisoning that had recently come under his observation. There was œdema of the eyelids, but no other dropsy, double optic neuritis, marked constipation, lethargy, and headache. The blue lead line on the gums was well seen. The patient had convulsions, followed by coma, then a rapid rise of temperature from subnormal to 104°F., and death. The pecularity of the case in connexion with the cerebral symptoms, which were usually absent, was the presence of a very considerable amount (a couple of grains estimated as pure lead) of lead in the brain. He remarked that medical men seldom had the opportunity of making post-mortem examinations in cases of death from lead poisoning, as the medical officers of lead factories would not allow their patients to go into the infirmary, as an inquest was then necessary in case of death.—Dr MACKENZIE (Burnley) was doubtful whether this could be looked upon as a case of acute lead poisoning from what he had heard of the history.—Dr. CHURTON said that in his experience in and around Leeds lead did not affect the brain at all. It was difficult to determine in these cases whether the patient died of syncope or from respiratory failure.—Dr. CROOKE said that they had numerous cases of chronic lead poisoning in Birmingham, and perhaps he ought to have mentioned this fact in connexion with his observations on the kidney. In cases of lead poisoning he had found acute interstitial myositis, which gradually became chronic in both the voluntary muscles and the heart.

Dr. WOODHEAD gave a short note on Ulceration of the Vermiform Appendix, leading to Suppurative Peritonitis. He found that the ulceration was localised, that the point of perforation was usually some little distance from the cæcum, and that the tube between these points was healthy; so that it would be an easy matter to obtain a perfectly healthy portion that could be ligatured above the point of perforation. This was important, as he quite agreed with recent surgical writers that many cases of peritonitis said to be due to obstruction of the bowel were really cases of peritonitis due to ulceration of the vermiform

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appendix. In all the cases he had examined he had found hard concretions composed of mucus (sometimes traces of hardened fæces) and particles of phosphate and carbonate of lime, which were separated by the epithelial cells of the simple cysts in the mucous membrane lining the appendix. At the point of ulceration there was found a regular coagulation-necrosis layer, beneath which the vessels were greatly distended, and it was evident that the breaking down was due to some localised injury. The concretions themselves, unless very large, were sufficient to cause only localised catarrh; but if the cæcum became much distended, or if there was a sudden strain of the muscles or blow over the hard concretion, a localised necrosis resulted, and eventually ulceration and perforation. He exhibited microscopical preparations of the various parts of the appendix described.—Dr. JACOB was doubtful as to the agency of these concretions in the production of ulceration of the vermiform appendix.—Dr. WARDROP GRIFFITH related the facts of a case in which there were two concretions, one of which was in the abscess, surrounding the perforated appendix, and the other fitting the floor of the ulcer exactly. He considered, of course, that the effects of ulceration varied according to the relation of the peritoneum, and it should always be remembered that the appendix itself was completely surrounded by peritoneum.—Dr. COATS had been greatly interested, as he had been studying the relations of these perityphlitic abscesses to the peritoneum. He mentioned a case in which the pus had passed from the right side to the left across the abdomen, and then had made its way to the under surface of the diaphragm, this being followed by an attack of acute pleurisy on the left side. Many of these cases recovered, but it was probable that the appendix was not actually perforated.

Dr. JACOB exhibited for Dr. A. W. Sinclair specimens of Distoma Crassum taken from a gentleman suffering from beri-beri. In the same patient were found specimens of Anchylostoma duodenale.

A vote of thanks to Dr. Coats brought the work of the Section to a conclusion.

PUBLIC MEDICINE.

At the meeting on Thursday, Aug. 15th, Dr. PARSONS (Local Government Board) read a paper on Disinfection with reference to the Control of Epidemics. He did not see any advantage in disinfecting the infected air of sick rooms by chemical means, for active chemicals, if present in sufficient quantity to be effective as disinfectants, would render the air irrespirable. It was easier to get rid of it and let its place be taken by fresh air. The contagia of most infectious diseases appeared to be destroyed when fully diluted with fresh air. The poison of typhus fever was notably so, but that of small-pox did not appear to be, and it had been proposed that, instead of ventilating small-pox wards into the open air, the air from them should be extracted through a flue and burnt in a furnace, or he might suggest that a steam blast might be used to extract the air and disinfect it at the same time. For the disinfection of excreta corrosive sublimate was the best disinfectant. Care was necessary in its use. Books might be disinfected by dry heat. For house disinfection, fumigation with sulphurous acid or chloric gas—the latter preferred,—followed by thorough cleansing and scrubbing, the removal of wall-paper, and lime-washing, were to be recommended.—Dr. Caldwell Smith, Dr. W. Squire, and Dr. E. W. Hope spoke on the subject.

The next subject discussed was Infectious Disease occurring in Hotels. Dr. C. H. Allfrey, Dr. Hutchinson, Dr. Aston, Dr. Littlejohn, Mr. Loe, Mr. Ogilvie Grant, Dr. Major Greenwood, Dr. Whitelegge, Dr. Eastes, Dr. Hirst, and Dr. MacLaurin spoke on the subject. The following resolution was adopted by the Section:—That it be recommended to all keepers of hotels, hydropathic establishments, and boarding-houses in a town to form themselves into an association having the following objects: (1) An agreement to insist upon the removal as soon as possible of all members of an infected family. (2) An agreement to require the signature of every visitor to a declaration that none of his or her party has recently been suffering from any infectious disease, or has been exposed to known contagion. (3) The establishment of a register of hotels certified as being in a perfect sanitary condition. (4) The provision of a detached building for the isolation of infectious or doubtful cases.

Dr. MAJOR GREENWOOD contributed a paper upon the Disposal of Town Refuse. He urged the necessity of covered vehicles for the removal of refuse, and advocated cremation for the disposal of such refuse.—Mr. BRINDLEY JAMES advocated the total suppression of cesspools, and that each householder should be compelled to burn his own vegetable refuse, and be provided with pails for periodical removal. He also urged the construction of a parish crematorium, for the reduction to ashes of all refuse that could not otherwise be disposed of.—Dr. E. SLADE KING urged that fire was the only effectual agent for the destruction of refuse matter.—Mr. EDGAR FLINN advocated the daily door-to-door collection at a stated early hour of refuse, and the use of dustbins large enough to contain the dry refuse collected during the twenty-four hours.—Dr. C. F. Moore, Dr. Parsons, Dr. Ballard, Dr. Jessop, Dr. Cameron, Dr. Littlejohn, Dr. Caldwell Smith, and Dr. Greenwood joined in the discussion.

On Friday, Aug. 16th, Dr. J. T. ARLIDGE read a paper upon the Sources of Lead Poisoning in the Arts and Manufactures. In the form of ore, lead was productive of plumbism among miners and smelters, being injurious to the former chiefly in the shape of dust, and to the latter in that of vapour. It was, too, as a vapour that it produced its noxious effects among the makers of the oxides of lead in the process of calcination. In the case of metallic lead, plumbism was a result among those who frequently handled it—such as file cutters, the rollers of sheet lead, the makers of leaden pipes and utensils, of shot and lead foil, weavers employed at Jacquard looms furnished with weights, plumbers, and casters of leaden toys and of letter type. In the character of an alloy, it proved mischievous with pewterers, the makers of soft metallic capsules, and of inferior German silver or pinchbeck. Further, metallic lead and lead alloys became indirectly the cause of illness when employed to form utensils for the storage or preparation of articles of food or of luxury, as snuff and tobacco, or for the construction of pipes for conducting or drawing off fluid. The making of white lead or the carbonate of lead and the use of lead by house-painters were the most frequent sources of poisoning. Among pottery artisans the proportion of cases was very high. Its poisonous consequences were also encountered among the mixers of paints and colour-makers, and those employing it as a flux or in the preparation of enamels or glazing materials. Another class of workmen amongst whom the evil effects of lead were seen were the makers of floor-cloth and linoleum. Other miscellaneous trade operations in which lead played its part as a poison were found in the business of lapidaries and cameo-makers; in that of brush-makers, who employed it to colour the hair or bristles; in that of picture-frame making, where the raised pattern was formed by a sort of cement or putty into which lead entered as an ingredient; in the less justifiable operations of whitening Brussels lace, and of colouring and weighting of sewing threads and woven tissues; also in the colouring of vulcanised indiarubber, so commonly used for feeding-bottles. He concluded the survey of lead poisoning by mentioning the introduction of the metal into drinking water; into porter, beer, cider, lemonade, or fruit juices, any of which might have stood in contact with lead or its alloys in the form of pipes or capsules; into food preserved in lead foil, or into food cooked or salted in vessels on the surface of which lead occurred as a glaze.—Dr. Ballard, Dr. Sinclair White, Dr. Whitham, and Dr. Holdsworth joined in the discussion upon the paper.

Dr. ARLIDGE read a second paper upon the Effects of Occupation upon Health. In order to obtain precise results upon this subject it would be necessary to ascertain the number of persons engaged in the various industries concerned, the diseases occurring among them for a series of years, the character of those diseases, the conditions of employment, and the materials used in performing it. He knew none better fitted to make such observations than medical officers of health, and he trusted that many of them would undertake the task.—Dr. SINCLAIR WHITE had tried for two or three years in Sheffield to tabulate the deaths in some thirty or forty of the principal trades. He had found that the death-rate among the needle-grinders was not very much greater than among the ordinary artisans throughout the country. Among puddlers and men working round hot furnaces he had found that the amount of bronchitis, consumption, and kidney diseases was very great.—Dr. UNDERHILL had only been able to find one case of "colliers' consumption" in twenty years' work among that

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class. The old disease, that used to be called "black spit," seemed to have quite disappeared.—Dr. CALDWELL remarked that this disease was still frequent in Scotland. Deficient ventilation might account for it.

A communication from the Worshipful Company of Plumbers having been brought before the Section, pointing out the desirability of a national system of registration of plumbers, Dr. H. Tomkins moved, and Dr. Caldwell Smith seconded, the following resolution, which was unanimously adopted: "That this Section strongly approves the movement set on foot by the Worshipful Company of Plumbers, as serious defects in the plumbing work of dwelling-houses are constantly leading to disease and ill-health, and demonstrate the need that exists for the more rigid supervision of plumbers and their work."

Dr. SINCLAIR WHITE read a paper upon Lead Contamination in Drinking-water. He pointed out that the size, age, and purity of the lead piping employed, the length of time the water remained in contact with the lead, the pressure of the water in the pipe, the temperature of the water, and the admixture or otherwise of air with the water, had each more or less influence in determining the amount of lead which any given water would take up. Laboratory experiments must thus be received with caution. He had found that acid moorland water invariably acted on lead, and the intensity of the action was in direct proportion to the degree of acidity; new lead piping was acted on more than old lead piping; the amount of lead which an acid water would dissolve went on increasing for the first twenty-four hours, when the action usually stopped; afterwards some of the dissolved lead was deposited, and at the end of six days there was considerably less lead in the water than at the end of the first day. Other things being equal, the greater the pressure under which the water was stored, the greater amount of lead was taken up; and an increase in the temperature of the water increased its lead-dissolving power. As remedial measures, he suggested the substitution for lead piping and lead-lined cisterns of other materials, such as wrought iron, tin, and glass-lined iron; the removal of lead from the water, or treating the water before distribution so as to do away with its solvent action.—Dr. T. B. FAIRCLOUGH was of opinion that much of the anæmia and physical degeneration apparent in large towns was largely due to the constant drinking of small quantities of lead, the amount of lead palsy and lead colic being by no means a true indication of the real amount of lead poisoning in a district. Soft waters were those to be avoided; yet corporations trusted to surface waters to fill their reservoirs, having gone to the moors for catch-ground instead of to the springs. The only safe water for domestic use was spring water of sufficient hardness not to take up lead under any circumstances. Lead poisoning generally occurred more frequently in summer than in winter.—Dr. TOMKINS suggested that a very thin lining of tin in house pipes would obviate the danger of lead contamination.—Dr. ROBERTS said that water filtered by charcoal did not dissolve lead.—Dr. Arlidge, Dr. Jessop, Dr. Underhill, Dr. Deville, and Dr. Whitelegge also joined in the discussion.

DISEASES OF CHILDREN.

On Thursday, Aug. 15th, Dr. CHURTON (Leeds) read a paper on Tubercular Meningitis following slight injuries to the head, drawing attention to the cases which form the subject of judicial investigation, as in the case of school-children having been struck by their teachers. He said that no simple injury to the head was likely to cause meningitis in healthy children, but in tuberculous cases much less violence was followed by meningitis.—The PRESIDENT (Mr. Scattergood) said he had seen cases which bore out Dr. Churton's experience, and he reviewed the medico-legal aspects of the question.—Dr. ASHBY agreed with Dr. Churton as to the pathology of these cases.—Dr. CHURTON, in his reply, commented upon the illegality of striking the children.

Mr. CHURCHILL described the ordinary methods of operating for Hare-lip, and then illustrated the modifications which he is in the habit of adopting with a view to obtain accurate coaptation of homologous structures and a fine linear scar. Being a face deformity, it is obvious that minute care and attention to detail are needful for success. He favoured the retention of the pre-maxillary bone in double hare-lip, but urged that it should be pressed into its proper position, so as to retain the artistic profile. The date of the operation should be in the early months, before the commencement of dentition. Hæmorrhage may be best controlled by digital compression before the insertion of the pins. To avoid hæmorrhage into the mouth the surgeon should not incise the alveolar margin of the buccal membrane. The cheek being elastic and easily transposed towards the mesial line, very large gaps may be closed in without much strain upon the pins. The mechanical means he used were finer than those usually adopted. Messrs. Maw have in stock some finely-tempered steel pins about an inch long, made specially for the purpose. Cutting pliers were not required. The inflexibility of these pins was very important for maintaining accurate coaptation of the buccal and cutaneous edges, and for properly controlling the hæmorrhage. After securing the pins with the usual turns of finely-waxed silk, dumbbell-shaped pieces of Leslie's plaster should be applied, so as to grasp the whole surface of the cheeks.

The work of this Section was concluded on Thursday.

THERAPEUTICS.

This Section was occupied on Thursday with a discussion upon Food for Infants and Invalids, introduced by Dr. Burney Yeo, and joined in by Dr. Sidney Martin, the President of the Section (Sir Wm. Roberts), and others.

On Friday morning the Section, having completed its work, adjourned to the General Infirmary, where Dr. Trevelyan gave a demonstration of the Suspension Treatment of Locomotor Ataxy.

THE INTERNATIONAL MEDICAL CONGRESS OF 1890.

As organising committee of the International Medical Congress to be held in Berlin next year, Professors Virchow, Von Bergmann, and Waldeyer have issued the following resolutions. The Congress is to be opened on Aug. 4th and closed on the 10th. It is to consist of diplomated physicians and surgeons who have had registered themselves as members and have taken tickets of membership. The registration fee is twenty marks, and each member will receive a copy of the Transactions. The purpose of the Congress is purely scientific, and its business will be transacted in sections. The Committee of Organisation will cause the definitive officials to be elected in the first sitting of the Congress—namely, a president, three vice-presidents, and an indefinite number of honorary presidents and of secretaries. In the first sittings of the various sections a president and a sufficient number of honorary presidents will be elected, the latter to preside alternately with the former. Owing to the difference of languages, a sufficient number of secretaries will be appointed from among the foreign members. After the Congress the Transactions will be edited and published by an Editing Committee appointed by the presiding officials. The general sittings are intended for debates regarding the work and general relations of the Congress, and for addresses and communications of general interest. Such addresses are to be delivered only by members requested to do so by the Committee of Organisation. Proposals relating to the work of the Congress must be made to the said committee before July 1st, 1890. The committee will decide whether they shall be adopted or not. All discourses and communications in the general and in the sectional meetings must be delivered to the secretaries in writing before the close of the sitting. The Editing Committee will decide whether and in what compass these writings are to be printed in the Transactions. The official languages used at all meetings will be German, English, and French. The bye-laws and programmes will be printed in all three languages. It is permitted, however, to use another language at the meetings for brief remarks, provided that one of the members present undertakes to communicate the meaning of such remarks in one of the official languages. Introductory discourses in the sections are to be limited, as a rule, to twenty minutes; in discussion only ten minutes are allowed to each speaker. Students of medicine and other persons of both sexes who are not physicians, but feel interested in the debates, may be invited by the president, or may receive permission to attend the sittings.

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THE LANCET.

LONDON: SATURDAY, AUGUST 24, 1889.

THE International Congress of Hygiene, which has just terminated its bi-annual session in Paris, and has arranged to meet again two years hence in London, is an institution destined to exercise considerable influence on the legislatures of civilised countries. Dr. BOURNEVILLE, Deputy to the French National Assembly, very frankly and openly declared that it was the sanction given to his proposals by the various International Congresses of Hygiene which enabled him to obtain from Parliament a law for utilising Paris sewage on the land. Madame TKATCHEFF described new laws destined to protect the health of workers in Russia. These laws bear the date of 1882 and 1885. The first International Congress of Hygiene was held at Brussels in 1876. Who shall say how far the reports of M. le Baron DE SUZOR and other official and unofficial Russian delegates, who have regularly attended all these Congresses, may have contributed to bring about the enactment of those laws that will throw a gleam of health and joy on the dark picture drawn by Madame TKATCHEFF of the high death-rate, the disease, degradation, immorality, and drunkenness prevailing among the working classes of Russia? How often has some local practitioner unknown to fame, some village pioneer in the cause of hygiene, fought and overcome local obstructiveness by describing in glowing terms the importance of these International Congresses, the immense number of delegates that attended, the variety of nations represented, and the State receptions provided by the Governments of the countries where the Congresses met. Then, when the desired impression is created, a very big volume is produced. It is the official report of one of these Congresses; it contains a debate on the question at issue, and a resolution carried in the sense of the reform advocated. Will the village obstructives resist that which was approved by 678 delegates, representing the united wisdom of twenty-eight nationalities? But if such Congresses are useful as a means of encouraging national and local progress, their higher mission is to bring about international measures. With the frequency and rapidity of international intercourse the international assimilation of prophylactic precautions becomes more and more indispensable. For instance, a person is ill with small-pox or scarlet fever at Dover; his clothes and bedding are removed and carefully disinfected before he is allowed to go out and mix with other people. But twenty-one miles away, at Calais, a Frenchman is suffering from the same complaint; no disinfection is enforced, and after an hour's sail he can land at Dover, during his convalescence, without any precautions whatsoever having been taken. Evidently much greater security would exist if the same methods of disinfection, isolation, &c., were practised in both countries.

The fact that, in the face of such obvious reasons, England should for so long have remained inactive, and left to Belgium and France the honour of initiating the movement in favour of international sanitary reform, is a regrettable circumstance which we cannot satisfactorily or creditably explain. In any case, we have not neglected this important movement. From its infancy, from the Paris Congress of 1878, we have given the largest publicity to the various Congresses, and have protested over and over again that the number of English delegates attending was not in keeping with the importance of English progress in sanitation. With one single exception—the Turin Congress,—and so as to increase the number and importance of the English delegation, we have sent our special correspondent to attend every congress held; and to him are due the fullest descriptions written in the English language, and published in our columns, of the International Congresses of Paris (1878), of Geneva (1882), of the Hague (1884), of Vienna (1887), and Paris again in 1889.

But, after all, it is of little use lamenting over the past. Our only desire is to show that, as a nation, in the comity of nations, we have lost ground in this respect; and that, therefore, we must, by some extraordinary effort, redeem our reputation and take up that leading position which, considering the progress of sanitation in England, we have a right to occupy. It seems that England is at last beginning to move in the matter, for the Eighth—it should have been the First—International Congress of Hygiene will meet in London in the first week of August, 1891. We must see that this Congress, though held so late in the history of the movement, shall be the best so far as its practical results are concerned. Anything short of best would be a moral disgrace for England. *Noblesse oblige*; and in the matter of Congresses—that is to say, of government by public opinion—England stands first among the great nations of the world. We must organise the Congress in a manner worthy of a nation long accustomed to free institutions; and, if this is ably done, the Congress will differ very materially from its predecessors. We do not deny the utility of abstract theoretical discussions; there may be a little time to spare for such academic debate at the forthcoming Congress; but the greater part of the work should be confined to a distinct purpose, to the adoption of short pithy resolutions, that can be easily reproduced in every organ of publicity throughout the world, and which, by reason of this publicity, shall directly influence the legislatures of the different countries. A lamentable feature in the recent Paris Congress was the absence of the lay press. The medical journals in France have given lengthy reports of the Congress, and those who are technically concerned will be able to consult the voluminous official reports of the proceedings, which will be published in the course of a few months. But hygiene is essentially a popular question. It is of no use for medical men, engineers, and architects to agree as to certain principles of health unless the great mass of the people also understand these things—and, understanding, are willing to sanction their practical application within the privacy of their homes. The work of these Congresses, to be useful, must be essentially an educational work. From each Congress a series of short resolutions should proclaim to the world, in simple terms, some great principles of hygiene, and how these principles can be applied to all nations. This the Paris Congress has done, but in a somewhat confused and unsystematic manner. Also the pro-

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fessional men who met in Paris have been too much absorbed by professional considerations, too readily satisfied with publicity in professional organs, and have not thought enough of the outside public, on whom it was, above all, necessary to exercise an educational influence, and without whose votes and support but little can be done. Nevertheless if there is thus still some room for improvement in the management of this international agitation, we gladly and without hesitation render all homage to the bold initiators who for so many years have worked to promote the movement. The French Society of Public Medicine and Professional Hygiene was the first to propose, in 1878, that these International Congresses should be a permanent institution, and should meet every two years. Since that date this Society has rendered eminent service as an international link between sanitary reformers of all countries, and we cannot better conclude these remarks than by congratulating its two most active secretaries, Dr. NAPIAS and Dr. MARTIN, on the very efficient and courteous manner in which they have helped to promote, on an international basis, the cause of sanitary progress.

THIS question which has been raised into such prominence by the Glasgow judicial inquiry, to which we referred in our issue of Aug. 10th, has long agitated the minds of thoughtful men. It is this. To what extent is it right to permit the consumption by man of the flesh proceeding from tuberculous animals? There was presented to the International Veterinary Congress, assembled at Brussels in 1883, an elaborate report compiled by Messrs. A. LYDTIN (Baden), G. FLEMING, and VAN HERTSEN (Brussels), which entered with some minuteness into the history of opinion on this very subject. That Congress resolved that only such flesh was permissible as proceeded from animals suffering from tuberculosis in its earliest stages, with very limited lesions and absence of evidence of lymphatic infection. Even prior to that, however, attention had been drawn to the question in this country, one of the earliest to do so being Professor WALLEY, who reminds us that resolutions were passed at Veterinary congresses and meetings five or six years ago urging the inclusion of tuberculosis under the Contagious Diseases (Animals) Act. A not inconsiderable impetus was given to the discussions by the work of Dr. CREIGHTON upon Bovine Tuberculosis (1881), and by his paper read before the Section of State Medicine at the London International Congress. Dr. CREIGHTON then, following VIRCHOW, considered that the bovine disease had characters distinct from those of human tuberculosis, and his argument for transmissibility was based on the detection post mortem of lesions, in children especially, which closely simulated those of "Perlsucht." But, as we have already pointed out, there now appears to be overwhelming evidence of the identity of the human and bovine affections, and the criterion has shifted from the merely anatomical characters of the neoplasm to those of the bacillus of KOCH.

In the inquiry held at Glasgow before Sheriff BERRY this latter test was made the basis of the whole matter. The various witnesses for the prosecution and for the defence were subjected to examination and cross-examination upon the bacillus tuberculosis to an extent which compels admiration of the manner in which the advocates had mastered their briefs. It does not appear that the bacillus was exhibited to the court, and it may be feared from some of the evidence given that the notions held concerning its precise nature were somewhat crude and faulty. Nevertheless, the doctrine of the infectivity of tubercle, and of the bacillus as the *fons et origo mali*, was so strenuously and widely adopted (so far as we can gather, only one expert confessed that he did not "believe" in it), and had so much weight assigned to it, that it undoubtedly largely influenced the view taken by the judge. Yet it would have been quite possible to have argued the case and gained it without reference to the bacillus at all, and seeing how obscure is yet the question of its precise mode of action, this course might even have been adopted with advantage.

The cause of action lay in this: Two carcases, one of a bullock apparently in prime condition, and one of a cow, had been condemned by the local authority; and the clerk to the magistrates and council of the city petitioned the high sheriff of Lanark to enforce this order. The one animal exhibited marked evidence of recent tubercular pleurisy, and the other of more chronic tubercular disease of the lung. The flesh appeared to be healthy, but the carcases were condemned, the case evidently being made a test one in order to enforce a practice which is carried out in Edinburgh, Paisley, and Greenock of condemning the flesh of all tuberculous beasts as unfit for consumption. The inquiry lasted over several days, and for the prosecution there were called fifteen witnesses; for the defence nineteen. Amongst the experts there appeared for the prosecution Dr. J. B. RUSSELL, Dr. LITTLEJOHN, Mr. ARCH. ROBINSON, Mr. A. MCGEOGH, Mr. A. E. MAYLARD, Dr. JOSEPH COATS, Professor W. LIMONT, Professor THOS. WALLEY, Dr. J. WALLACE, Professor J. MCFADYEAN, and Professor JAS. MCCALL; and on the other side Mr. G. GOLDIE, Dr. FRANCIS IMLACH, Dr. T. W. HIME, Dr. S. GIBBON, Dr. ALFRED HILL, Dr. J. W. MASON, Dr. JOHN DOUGALL, Mr. W. ANDERSON, Dr. WM. G. YOUNG, and others. There is much that is interesting in the details of the evidence given by these gentlemen, which is available for any who desire to peruse it, but it will hardly bear condensation, and we prefer to limit our remarks to the main points raised by the learned counsel on both sides in summing up the case from their respective points of view. Mr. URE, for the prosecution, pointed out the indubitable presence of tubercular disease in each of the animals, which derived further significance from the fact deposed to by some witnesses of the existence of tuberculisation of the lymphatic glands (pre-pectoral in both cases, and inguinal, also, in one), showing that the disease was disseminated. Mr. URE held that great importance attached to the disease being due to the bacillus, which was admitted by Drs. IMLACH and HIME, who gave evidence for the defence, with the inference that, given tubercle in one part of the body, a general systemic infection is to be implied. He cited the significant conclusion arrived at by the Departmental Committee of the Privy Council, and the resolutions of the Paris Congress, as to the condemnation of the flesh of tuberculous animals being used for food, the former statement being that "although the bacilli may be found but rarely in the flesh, still the chance of their being present, either there or in the blood, is too probable to ever allow of

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the flesh of a tuberculous animal being used for food under any circumstances, either for man or the lower animals." And it was clearly shown in evidence that ordinary cooking would not suffice to destroy the bacilli. Mr. JAMESON, for the defence, pointed to the serious economic effects of such wholesale condemnation, and speaking of the case of the cow took up a position which was certainly a tenable one. The disease in that animal, he pointed out, was quiescent and limited; indeed, it seems to have been of the nature of "obsolescent tubercle;" and it was given in evidence by only one witness, Mr. MCGREGOR, that the pre-pectoral gland was infected. Apart from this, the disease was strictly a "local" tuberculosis, and Mr. JAMESON held it to be "pure imagination" that the blood, and therefore the flesh, of such an animal could be infected. He attributed all the "commotion" to the results of the Departmental Committee and Paris Congress, and hinted, not obscurely, that the scientific world was running wild over this question of bacillary infection. Mr. COMRIE THOMSON, who also spoke for the prosecution, minimised the extent of economic disaster likely to ensue from the condemnation of tuberculous meat, and he maintained that the possibility of transmission of disease to man by his ingestion of such meat had been absolutely proved. Mr. M'KECHNIE followed for the defence, and analysed closely some of the scientific evidence given as to the presence of bacilli in the diseased animals.

In giving judgment for the prosecution, Sheriff BERRY based his decision largely on the fact that from the involvement of the lymphatic glands there was evidence that the disease had commenced to spread through the system, and that it was not merely local, as contended. He did not, therefore, need to endorse to their full extent the declarations of the Departmental Committee and the Paris Congress, so that the decision does not strictly bear on the question of wholesale condemnation, or of the inclusion of tuberculosis under the provisions of the Contagious Diseases (Animals) Act. Nevertheless it is probable that in Glasgow the authorities will now proceed to act as they have been doing for some years at Edinburgh, Greenock, and Paisley, and condemn all meat from tuberculous animals; whereas it was given in evidence by Mr. GOLDIE, Dr. S. GIBBON, and others that at most other important centres the flesh, if of healthy appearance, is invariably not condemned, although some tubercular disease may be present in the body. For our own part, we cannot but think that to condemn as unfit for human food the flesh of an animal presenting, say, an old cretified nodule in the lung, would be both foolish and wasteful; yet it may well be objected that there is no line of demarcation to be drawn between the grades of tubercular infection, and no test (short of obvious generalised miliary tuberculosis) that the system is impregnated with the virus that could be employed to determine when to accept or when to reject such flesh. For, indeed, the infection of lymphatic glands in the vicinity of the local focus may not be evidence of systemic infection, although it is generally assumed to be so, since these glands may act as barriers to the further extension of disease. We would by no means be understood as upholding the somewhat lax inspection that allows flesh to be passed as healthy because of its external appearance, and without regard to the existence of tubercular disease in the animal; but we must candidly confess that there is danger of being so far carried away by the bacillary doctrine as to shut our eyes to the plain teachings of morbid anatomy on the arrest and cure of tubercular lesions. Moreover, M. NOCARD'S experiments ("Congrès pour l'Étude de Tuberculosis," Paris, 1888) seem to show that the flesh of tuberculous animals very seldom contains the virus, for it was quite exceptional to induce tuberculosis in guinea-pigs inoculated with the juice of such flesh, and he deprecated the adoption of too rigorous measures. The question is one which, although so long debated, is still obviously open to further inquiry. Towards this the Glasgow case will furnish valuable material, and meanwhile we would urge our veterinary *confrères* to suggest and enforce prophylactic measures whereby this bovine "scourge" may be mitigated amongst the herds, so that it may come to be a rare thing for tuberculous beasts to be sent to market.[1]

A FORTNIGHT ago we called attention to the very important subject of the treatment of tuberculous disease of the hip, particularly as presented by Mr. HOWARD MARSH in his lectures at the College of Surgeons. It may be useful to look at the present state of surgical therapeutics for an allied affection—tuberculous disease of lymphatic glands; for the points of resemblance, and those of contrast too, are striking. In passing, we may notice that the influence of age is as well marked in the etiology of the one affection as the other, and the special prevalence of tubercle in the glands of the neck and of the abdomen seems to be due to the liability of these glands to slight inflammatory irritation from disordered conditions of the mouth, tonsils, pharynx, or intestine, in the same way as the great frequency of tubercle in the hip-joint is to be explained by the proneness of this joint to suffer from jars and strains.

It is, however, to the operation of erasion as practised upon tuberculous glands that we wish to refer. The operation itself is almost too well known to need description. It consists of a puncture with a knife into the abscess cavity, and then through this puncture a small Volckmann's scoop is introduced and passed into the gland, the entire contents of which are removed. The operation is one of the simplest in surgery, and certainly one of the most successful, although if not done thoroughly it may fail. The cavity left by it quickly fills up, and only a fine linear cicatrix is left to indicate the seat of the previous disease. We have here the complete removal of a local tuberculous focus followed by speedy and oftentimes permanent recovery, and at first sight such a result seems to warrant the inference that similar treatment applied to other tuberculous lesions would be both equally successful and equally innocuous. But the special features of the case must be carefully borne in mind. First of all, the tuberculous matter is confined within the tough capsule of a gland, and it is both an easy and a safe procedure to scrape away the entire contents of the capsule without the risk of wounding or removing other parts, or of leaving behind some of the infected tissue. This is done

[1] As to the prevalence of tubercular disease in such animals, the following recently published statistics of the Berlin markets may be quoted. Of oxen and cows there were 1296 tuberculous out of 98,397, or 1·36 per cent.; of pigs about 1 in 1300; of calves about 1 in 4000; and of sheep and goats 1 in 5000. The proportion of tuberculous cattle in the Glasgow market was given at ½ per cent.

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without what may be called mutilation; no functional disability is experienced by the patient; and in these respects the operation stands in striking contrast to many of those practised for tuberculous disease in other parts—for example, in joints. There the operation itself is a serious one, the limits of the infected material are not well defined, important healthy structures have to be divided or removed, and, if the tuberculous disease is cured, more or less serious after-effects are experienced, such as lameness, ankylosis, and deformity. In the case of tuberculous glands, operation is attended with the maximum of benefit and the minimum of evil; while in the case of a joint, it is far from certain that the surgeon will secure the maximum of good, while it is sure to be accompanied with ill results, which may vary from slight to very grave. But there are other considerations, too, which render the comparison we have instituted inexact. From their position in the absorbent system it cannot be doubted that tuberculous glands are more liable to infect other glands and distant parts of the body than is a tuberculous focus in a bone or joint, so that the operation which removes this source of danger is more urgently called for in the one case than in the other.

Again, the possibility of applying other forms of treatment differs in the two cases. In the one case rest can be carried out to a degree that is practically impossible in the other, and nothing is more striking than the beneficial effect of perfect rest in tuberculous joint disease. No such treatment can be so efficiently carried out in the common case of tuberculous glands in the neck. It must not be lost sight of, also, that it is comparatively easy to guard against a repetition of the strain or similar local irritation that has led to the development of a tuberculous arthritis. But it is usually difficult or even impossible to protect glands from all similar local irritations. It is therefore illogical to argue from the case of a gland to that of a joint. The essence of the disease is the same in both cases, but the peculiar conditions of each are far too important to neglect. But we may at any rate learn this—that experience of tuberculous glands shows that for operation to be really successful it should be attended by complete removal of the tuberculous material, and at the same time the healthy or non-tuberculous parts should be interfered with or removed to the smallest possible extent.

It is very important to notice that there is reason to fear that even such a slight operation as the erasion of a tuberculous gland may be followed by a general infection. All cases bearing upon this ought to be carefully reported, and it would be interesting to know whether this result is the direct or the indirect effect of the operation; whether it is due to the introduction into the circulating blood through the wounded bloodvessels of the tuberculous virus; or whether the administration of an anæsthetic, or the infliction of a trauma, or nervous shock, renders the tissues of the body generally a suitable soil for the growth of the tubercle bacilli.

THE Leeds meeting of the British Medical Association will rank high among the records of similar gatherings. The attendance was large, over nine hundred members being present; the public addresses attained a high range of merit; the discussions in the various Sections were vigorous and practical; while the hospitalities, public and private, were worthy of the reputation of Yorkshire. It was expected that a town of medical traditions like Leeds—the town of the HEYS, the NUNNELEYS, the TEALES, and of SAMUEL SMITH—would give a cordial welcome to the profession, and this expectation has been fully realised. The efforts of the Reception Committee to ensure the comfort and pleasure of their guests were happily seconded by the Marquis of RIPON, the Bishop of RIPON, Sir JAMES KITSON, and the Mayor of Leeds, whose receptions added much to the interest and enjoyment of the meeting. Fortunately the weather, which has shown such extraordinary perturbations of late, did not seriously mar the success of the proceedings. With the exception of Wednesday there was no rain of consequence; and that most critical day, the Saturday devoted to excursions, was everywhere favourable to out-door enjoyment.

We speak elsewhere of the address of Mr. WHEELHOUSE, who must be congratulated on his discharge of the duties of President.

Dr. HUGHLINGS JACKSON gave a subtle address upon those obscure relations of Evolution to Medicine regarding which we are still but feebly groping our way towards the light—assured, however, that the day of fuller illumination is not far distant. Mr. TEALE spoke lucidly on Detail in Surgery. While Sir JAMES CRICHTON BROWNE delighted a large audience by his powerful and humorous handling of the topic of the Hygienic Uses of the Imagination. His prescription of fiction as a wholesome mental tonic and a preventive of the degeneration of mental stagnation into downright lunacy may seem superfluous at a time when novels pour in ceaseless stream from the press, but the general truth of his remarks cannot be controverted, and they may be commended to the attention of those crabbed moralists who denounce fiction as an unmixed evil, forgetting that the taste for it is one of the most natural and earliest to develop of all our inherited faculties.

The sectional work at Leeds was in many respects eminently satisfactory. Broad general questions of practical interest were in the main chosen for discussion; they were introduced in most cases by acknowledged leaders of the profession; the succeeding speakers were selected on grounds of special knowledge; while visionary and academic questions were avoided. The discipline that such meetings affords should be most wholesome to persons who are capable of profiting by experience. Some men, no doubt, think themselves ill-used if they do not secure attention; but they should note the thronging crowd and the eager interest that await the man who, by the thoroughness of his methods and the convincing character of his facts, gives some fair presumption that he is about to inaugurate some advance, however small, in the ancient art of healing.

In the Section of Medicine, the first day was mainly occupied with a discussion introduced by Dr. DOUGLAS POWELL upon Tubercular Disease in Serous Membranes. Among the many points brought out clearly in the course of this discussion was the fact, emphasised by such speakers as Dr. BROADBENT and Dr. POWELL himself, that the bacillicide treatment of phthisis rests on no sure foundation, and is unsupported by trustworthy evidence. On the second day, Dr. PAVY introduced the very timely and practical question of the significance of albuminuria, with

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special reference to life insurance. It was remarked by one of the speakers that the very fact of such a question being discussed indicated a change in medical opinion, since a few years ago the presence of albuminuria would have been accepted without further question as a bar to insurance. This is true, but it must be admitted that the advocates of "physiological albuminuria" did not shine in the course of the discussion, and that the sense of the meeting seemed to be best summed up in the loudly applauded remark of Professor GAIRDNER, that "albuminuria is always a danger-signal.' One point of real practical importance, especially to the busy man of general practice, came out clearly—viz., that it is better to adhere to the old tests and to ignore any albumen which is not shown by heat and nitric acid. The interest of the Section reached its maximum on the third day, when Dr. ARMAND RUFFER of the Pasteur Institute gave a lengthened and powerful address upon the results of the Pasteurian Method in Hydrophobia. We have not space to do justice to the subject in this brief sketch, but, put briefly, M. PASTEUR has succeeded in reducing the mortality of those bitten by undoubtedly rabid animals from somewhere about 20 per cent. to less than 1 per cent., a result which we venture to think one of the most brilliant of the many achievements of science. Dr. RUFFER'S masterly marshaling of his facts, his demonstration that only cases of bites of really rabid animals were counted, all doubtful cases being presented in a separate category, his refutation of the calumny that hydrophobia has ever resulted from the inoculations, and his recital of M. PASTEUR'S prodigious difficulties, and with what patience and wisdom they have been overcome, all profoundly impressed his hearers.

Good work was done in the Surgical Section under the able presidency of Mr. JESSOP. The Treatment of Cancer of the Rectum, of Surgical Diseases of the Kidney, and of Prostatic Enlargements were the main topics considered. As regards the last of these, Mr. MCGILL'S operation of supra-pubic cystotomy was received with considerable favour.

In the Obstetric Section, the always important subject of Placenta Prævia was brought forward by Dr. BRAXTON HICKS, whose combined method of turning was favourably reported upon by several speakers. The vexed question of the value of Electricity in the Treatment of Uterine Fibroids was also warmly discussed upon another day. It is to be desired that this question should not degenerate into mere polemic, but it must be confessed that the general drift of British opinion seems to be setting in strongly against the method of APOSTOLI.

The Section of Public Medicine was well sustained, and, as usual, it aroused much attention on the part of the lay press. The Training and Position of Medical Officers of Health, the Control of Epidemics, the Disposal of Town Refuse, Lead Poisoning, and Water Contamination were among the many very important questions ably handled by competent speakers.

Of the other Sections we cannot speak particularly. Sir WILLIAM ROBERTS' gravity was evidently more than once severely tried by some of the suggestions which were offered to him as President of the Therapeutic Section, but a little untempered enthusiasm for treatment is a fault that leans to virtue's side, and one to which enlarging experience will probably supply an efficacious antidote.

The excursions of the Association were among the most successful ever held. Scarborough, Ilkley, York, Rievaulx Abbey, Harrogate, Fountains Abbey, Ripon, Settle, and Gordale Scar were among the many places visited. In all cases a hearty welcome and a kind hospitality awaited the members joining in the excursions.

DR. BRUCE LOW'S report to the Local Government Board on Diphtheria in the Halstead District[1] offers a striking example of the confusion which exists as to the extent to which that disease is present amongst us as a cause of sickness and of death. For a series of years diphtheria has persisted in the Halstead registration district and in neighbouring districts in Essex, Suffolk, and Cambridgeshire, and of late it has shown marked increase. But when the mortality statistics came to be examined it at once transpired that the fatal attacks of diphtheria had been associated, and this often in the same houses, with other deaths certified under a number of different names, amongst which croup, laryngitis, membranous croup, ulcerated throat, tracheitis, &c., figured, and the occasional addition of words indicating sudden collapse or syncope is extremely significant of the true nature of the disease really in question. Indeed, during a group of years "croup" alone caused 66 deaths, whilst 63 others were set down to diphtheria. And when all these fatal throat affections are added together, it appears that whilst 27 and 23 deaths occurred during quinquennial periods ending respectively 1878 and 1883, no less than 103 took place in the five years ending 1888. The deaths were mainly amongst young children, and whilst they had occurred in nearly every part of the registration district, certain parts—as, for example, Halstead town and the village of Sible-Hedingham—had suffered much more heavily than other places.

No proper estimate as to the extent to which this throat mischief had prevailed can, however, be made; for information accidentally obtained in villages where it was alleged that there had been no prevalence of diphtheria for years past went to show that when the school registers were examined and other data inquired into, sore-throat, becoming more and more severe until a "croup" death took place, had been by no means uncommon, and that occasionally the sustained group of attacks had ended in one or more admitted deaths from diphtheria. In short, no proper history could be prepared of diphtheria in the Halstead district which did not take accurate account of a multitude of attacks of throat disease of varying severity and infectiveness; and the inquiry, instead of attempting to deal with the circumstances leading to the origin of the prevailing disease, had rather to content itself with an attempt to identify the chief conditions under which diphtheria had manifested itself in a district where "sore-throat" of varying type had been endemic if not universally prevalent.

Personal infection is regarded as having been a powerful means of conveying the disease from one to another, although the extent of its operations cannot well be measured in view of the circumstance that throat mischief

[1] Eyre and Spottiswoode, East Harding-street, E.C.; Adam and Charles Black, Edinburgh; Hodges, Figgis, and Co., Dublin. Price 1s.

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and its prevention seem to have been the concern of no one unless it happened to be regarded as diphtheria. School influence appears to have been largely operative in this respect, and instances of extension of the disease came under notice which were easily explained when it transpired that children returned to school, after ailments more or less severe, exhibiting definite diphtherial neuroses, which affected speech, vision, &c. One special school seems to have been influential in this respect, and its influence determined the marked incidence of the disease in one-half of Halstead, on the east side of the river Colne. Factory influence amongst the silk-workers in Halstead and its vicinity is also considered, and this especially in connexion with the conveyance of the disease to the surrounding villages by young women who, working in the factories, live away from home except from Saturday to Monday in each week. The extent to which diphtheria has prevailed in certain villages appears to have depended, amongst other things, on the number of their residents who thus travelled to and from a factory district. As to sanitary circumstances, nothing definite as to causation could be made out; indeed some of the worst localities escaped, whilst others in their immediate vicinity and having better health conditions were severely attacked. Other influences, such as gross conditions of slaughtering, are considered in connexion with the cause of the disease; but, apart from the communication of the infection by means of persons not themselves suffering from recognised throat ailment, nothing very definite could be made out by reason of the overshadowing effect of the attendance at one of the infant schools. Summarising the experience derived from this inquiry, Dr. BRUCE LOW adverts to the facilities favourable to the spread of the disease by reason of the failure to recognise its characteristics in mild attacks; to the absence of evidence of any connexion between insanitary surroundings and the prevalence of diphtheria and allied throat disease; to the fact that there is distinct suggestion of the communication of the infection by means of clothing, much as is the case with scarlatina and measles; and to the circumstance that a very potent factor of the disease in Halstead town was school influence.

THE demand for a Court of Criminal Appeal, to which the course of the MAYBRICK trial has very naturally directed public attention, has been renewed under very favourable auspices. Lord ESHER has expressed a very strong view in favour of the proposal, and lends to it the support not only of high judicial position, but also of great personal weight. In the debate which arose in the House of Lords on the 15th inst., the like sentiment was expressed by Lord FITZGERALD and Lord HERSCHELL, and it may therefore be hoped that means will be found for giving legislative effect, or at least legislative form, to the proposal. At the present moment the discussion lacks a little in point. The argument that if the determination of controversies touching property warrants the maintenance of Courts and a system of appeal, much more should questions which touch life and liberty receive equal consideration, is one of undeniable and irrefragable force. And, indeed, if the two matters stood on exactly the same footing that argument would be absolutely conclusive. But it must be admitted that the functions of a jury are very different in the two cases. In the case of a civil action the tribunal has to exercise the utmost impartiality between the parties, and if upon the whole the evidence preponderates on one side the verdict must be given accordingly. But in a criminal action the position in which the jury is called upon to stand is very distinctly different from this. Not perfect impartiality, but a state of mental prepossession in favour of the innocence of the accused person, is the frame of mind which is legally recognised as being the right attitude for a jury empanelled to try the issue of guilty or not guilty. This is a very broad ground of difference, and, while it explains, it goes far also to justify the absence of any machinery of appeal upon questions of fact in criminal cases which characterises our juridical system. Indeed, it may even be pressed still farther, for we think reflection will show that where the conditions of the problem vary so widely it can hardly be said that the success of the system of appeal established and approved by experience in the one case affords any guide to the conditions of success in the other. And, in truth, it would be difficult to imagine anything less calculated to promote the ends of justice than the adoption intact of the complicated and slow machinery of appeal in use for civil business for the purpose of administering the criminal law.

All this being frankly admitted, there still remains a broad and solid ground for the demand which has arisen. The unanswerable argument in its favour is that in a certain number of cases an appeal has been created by the force of circumstances. Improvised out of the Royal prerogative of mercy, it is carried by more or less informal methods before a tribunal constituted at the Home Office, of which the Home Secretary is the only responsible member, and the colleagues whom he may summon into consultation with him are mere assessors. With such a manifestly makeshift arrangement it were easy to find fault. But it is more profitable to study it with a view to discovering the true principles upon which a permanent and recognised Court of Criminal Appeal can be established. The circumstance that, in spite of constitutional theory, such an irregular tribunal as we have described has to be constituted three or four times a year is a very strong argument in its favour as a branch of our system of legal administration; while the further circumstance that, in spite of its fugitive character and ill-defined constitution, it serves its purpose fairly well, is the best possible evidence that in it may be found the elements indispensable to its success. Whenever, therefore, the Legislature undertakes the task of adding a Court of Criminal Appeal to our institutions of government, it will do well to find its model at the Home Office, and, boldly discarding the methods of civil procedure, to advance along the line of developing and systematising the practice which has been created under pressure of circumstances by successive Home Secretaries. A tribunal so constituted would differ greatly from any recognised Court at present exercising jurisdiction within this realm, but it would probably conform pretty nearly to the outline which Lord ESHER has sketched of a Court affording an appeal "as large as possible on law, facts, and sentence, with the largest discretionary power as to any means by which, in the opinion of the Court, it could be assisted to arrive at a right, just, and merciful conclusion."

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Annotations.

"Ne quid nimis."

HOLIDAY DANGERS.

THE holiday season has dangers special to itself, and some of these which can most easily be avoided should be borne in mind by the many who are now flocking to seaside and other resorts. The selection of the holiday residence is a point of the utmost importance, and yet most people, in taking either a house or lodgings, think of little else than the general appearance of comfort and the number of rooms available, altogether ignoring such questions as the character of the drainage and the source of the local water-supply. Many who are thus thoughtless have taken precaution to see that the sanitary state of their permanent home is such as to involve them in no risk, and it is these people, who are in no way acclimatised to the influence of unwholesome conditions, who run the greatest risk when subjected to such conditions whilst away from home. In a certain number of our seaside and other pleasure resorts a registry is kept by the sanitary officers of lodgings and houses which are wholesome in point of construction and water-supply, and it would be a distinct safeguard if the public generally were to consult either the medical officer of health or his registry of houses before making any arrangement as to residence. Disconnexion of waste and overflow pipes from the drains, and severance by means of an air-break between the house drains and the sewer, should be insisted on before any house is regarded as wholesome in this respect. As a rule, surface wells should be looked upon with the greatest suspicion, and their surroundings should be carefully investigated. And where a public service is available it should be seen that the water for drinking and cooking purposes is never drawn from a cistern which supplies a watercloset. Some guarantee should also be obtained that no infectious disease has recently occurred in the house; and on this point the opinion of the medical officer of health should usually be obtained. As to food-supplies, care is generally needed for the exercise of some control over the stimulus which at the onset change of air, and especially sea air, gives to the appetite; and owing to the sudden demand which is generally made on the local milk service, especial precaution is needed as regards this article of diet. There is a common impression amongst some persons that little risk attaches to milk which comes from the country, whereas it is essentially in the country that the danger lies, and very often the danger is greatest in the most rural places, for it is precisely in remote localities that unrecognised attacks of specific sore-throats and other infectious ailments in the families of those having to do with cows and small dairy farms pass altogether unnoticed. And if, during a busy season, the temptation arises to temporarily increase the milk-supply by the aid of water, it is in the rural areas especially that the quality of the water is most open to suspicion. Holiday-time is, therefore, the time, above all others, in which all milk should be boiled or otherwise cooked before use. These are some of the points to be held in view by intending holiday-makers, and most of the dangers we have adverted to can best be avoided by a preliminary consultation with the ordinary medical adviser, who in turn can procure from the local health officer the needed information as to the sanitary circumstances of the localities and houses where the holiday is intended to be spent.

MR. WHEELHOUSE ON MEDICAL EDUCATION.

IT is a happy circumstance that Mr. Wheelhouse took the occasion of his presidential address at Leeds to give his views on Medical Education and Examinations to the profession. Whatever may be thought of these opinions, they are those of one who has had a long and large experience combining in a rare degree that of a general and consulting practitioner and of a teacher in surgery. Mr. Wheelhouse in the Medical Council has been somewhat silent. He has been half buried in committees, and perhaps, particularly as the chairman of the Business Committee, he has felt hindered in stating his views of Medical Education with so much fullness and force as he showed at Leeds. But he made up for it at the recent meeting, and declared boldly in favour of a short pupilage, an extension of the time of medical education, and a reduction in the number of examinations. Mr. Wheelhouse pointed out with much force that formerly men took eight years to complete their medical education, whereas now it is all crowded into four, though the majority of men, as a matter of fact, take five to get through the ordinary examinations. The very moderation of Mr. Wheelhouse's argument should secure for it great attention. He admits that the new race of students are better educated than their predecessors, and, in the long run, make better practitioners. But for the first few years of their professional life they are inapt, unfamiliar with the common work of practice and the common types of disease. The result is that they do not make good assistants, and are apt to make annoying and humiliating mistakes. His great remedy for this is a short pupilage, which he would place at the beginning of professional study, when men are not above learning and not expected to be above mistakes, or afraid of having their mistakes pointed out. Opinions may differ as to when and how this familiarity with common disease is to be acquired, but Mr. Wheelhouse's fearless address will do much to secure the supply of a great want in medical education. His remarks on the faults of examinations, both as to method and number, were equally fearless and serious. It is undeniable, he says, that far too often the best students are rejected and the worst pass through with triumph. His great remedies are to eliminate unnecessary subjects from the examinations, and to secure that candidates shall have more time and leisure for their serious work. One of his chief proposals is that the written part of the examinations should be taken at the different schools, instead of in London. It is coming to be recognised that the unjust rejection of a good student is a very great evil, which, as it can never be undone, should occur with extreme infrequency. Mr. Wheelhouse has done much to hasten this reform. His somewhat sanguine forecast of the triumph of medicine in a not remote future is worthy of study. The one plague which he does not see his way clear to curtail and control is syphilis, of which he speaks in tones that resemble those of Dr. Gowers, on which we have lately commented. Otherwise, his belief in the progress of medicine is large and millennial—that is to say, millennial for all but the medical profession, who, in the fulfilment of his views, will find their occupation gone. It was kind in Mr. Wheelhouse to add that these results would not accrue in our generation.

THE FIRST SOUND OF THE HEART.

THE part recently issued of the *Archiv für Anatomie und Physiologie* contains a paper by Dr. Ludolf Krehl, in which, from investigations conducted in the Physiological Institute of Leipsic, he has arrived at the conclusion that the contraction of the cardiac muscular fibres is the principal cause of the first sound, instead of being, as is now generally admitted, merely an accessory cause, or, as some will have it, entirely inoperative. The part played by each of these

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factors in the production of the sound can only be finally determined when the intensity of the full sound is ascertained, as well as the intensity of the several possible factors. But the difficulties of the case are well known; for whilst, on the one hand, the systole of the heart is found to consist of a single and sudden contraction, which it is held can produce no sound, since it produces only a single wave, and whilst it is rendered indistinct by the incompetency of the auriculo-ventricular valves,—on the other hand, such experienced observers as Ludwig and Dogiel have satisfied themselves that under circumstances in which the sudden tension both of the auriculo-ventricular valves and of the vascular walls is impossible the first sound is still indubitably audible, from which it would appear that one, if not the chief, agent in its production is the muscular sound. The researches of Krehl were undertaken to test the truth of Ludwig and Dogiel's observations under conditions in which the play of the valves was still more stringently prevented, and this he believes he has accomplished by the employment of an ingeniously constructed little apparatus, consisting of a tube, from the extremity of which an expanding crown can be protruded, and by this means, when the instrument is introduced into the cavity of the heart, the valves can be firmly pressed back against the walls of the arteries. The animals used were dogs, and whilst after the insertion of the instrument one observer auscultated the heart, another alternately pressed in and withdrew the crown. The results obtained were that when the auscultator knew that the crown was thrust out and the valves compressed against the arterial walls, he perceived that the systolic sound was duller and a little less strong; but when with averted face he was unaware of the position of the crown, he was unable to distinguish any difference between the periods when the valves were acting and when they were not acting. This result obtained incidental confirmation by the fact that in all instances as the animals bled to death the second sound disappeared, whilst the first sound was still for some time distinctly audible; and additional evidence is to be found in the circumstance that, when in such cases the ventricle had ceased to contract and the auricle alone acted, a sound was clearly perceptible—that is, when the play of the valves had certainly ceased. He does not consider that he has been able to determine from his investigations whether the cardiac contraction is a simple convulsion or a tetanus, but he thinks that the sound may arise from the friction of the muscular fibres against each other; and this is supported by the observation of Dr. MacWilliam, that a sound is audible on simple convulsion or spasm of the voluntary muscles.

THE WEST-END FEVER "SCARE."

WE must confess that we have considerable sympathy with those who are regarded as having indulged in the so-called "fever scare" in the West-end. It is true that the outbreak has been limited, that it has been mild in character, and that it has not cost many lives, but the mere fact of a number of houses scattered over a wide area being simultaneously attacked with this disease is in itself a matter for anxiety; and the circumstance that the houses attacked were of a sort to make it practically impossible that the disease was due to any ordinary sanitary defects attaching to the drains or otherwise is the reverse of reassuring. Whether the actual cause is known or not has not yet transpired, but the public at present hear only of some unnamed condition which resulted in a group of enteric fever cases in Mayfair and the neighbourhood on the 25th and 26th of July last, the cause itself being apparently involved in some obscurity. If it be really obscure, then there is no guarantee whatever that it may not recur, and for this reason alone people have a right to show their anxiety by taking part in the "scare." The sanitary authority can certainly not guarantee that a recurrence of the disease will not be as virulent in its effects as the recent one has been mild, and for this reason alone it is to be hoped that an exhaustive inquiry will be carried out until the cause is found, and any possible recrudescence of the disease has been prevented. For our part, we think that the circumstances of the outbreak justify a strong suspicion against milk as the vehicle of the infection, and this aspect of the question will doubtless be thoroughly looked into. Indeed, the President of the Local Government Board has promised that the inquiry made into the outbreak by Dr. Corfield shall now be supplemented by further investigation of the circumstances by one of the medical inspectors of his department. In the meantime, we would, as we have often done before, urge that safety in the consumption of milk cannot be expected unless the consumers boil or otherwise cook all milk used in their households. There is, in all probability, no article of food which is so apt a vehicle of the contagia of disease as milk in its natural state.

NAVAL HYGIENE.

EQUAL in importance to a seaworthy fleet is it to have seaworthy sailors, and whilst we are engaged in testing the fighting qualities of our ships we ought not to forget the men to whose care they are committed. And this is the more important, since it is obvious that increase in the number of our ships does not really mean an increase of naval power unless there is a corresponding increase of sailors to man them. It is out of our province to inquire into the truth of the statement that the naval review and manœuvres have shown that the home fleet is undermanned. The statement, however, has been made by responsible persons, and will no doubt receive due attention from those especially qualified to discuss such matters. Whatever that discussion may reveal, one fact is evident, that discontent exists among the seamen and petty officers on board certain of the more modernly constructed ships, not on account of unavoidable discomforts brought about by the exigencies of their construction and the necessary sacrifice of space for the accommodation of huge coal bunks, enormous boilers, and machine-worked guns, but because no adequate attempts seem to be made to improve conditions of life on board. Ever since the days of Lind, the medical officers of our fleets have endeavoured to the utmost of their ability to improve the condition of the sailor's life on board ship; and we have only to turn to the text-book on Naval Hygiene to see what excellent work has been effected. But, unfortunately, their efforts have not always been appreciated or seconded by the authorities, and many hints which, if adopted, would have improved the sanitary conditions of recently constructed ironclads have been passed over unheeded. Among the many desirable improvements would be a rearrangement of the sailor's dietary. The science of victualling ships has made enormous strides of recent years, but with all this the sailor's dietary is even more defective than the soldier's, which has recently been subjected to severe criticism. The allowance as it stands is defective in quantity; it is also too frequently, as we hear, defective in quality. Owing, moreover, to the crowded condition of the ships, sufficient space is not always allowed for the cooking ranges, and many minor discomforts arise from this which might be obviated by the employment of improved ranges. We pass over the monotony of the prescribed rations, merely remarking that there is no excuse for them nowadays, and that a more varied dietary could easily be arranged at no extra cost. But we must heartily condemn the practice of serving out

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nothing after the mid-day meal till the mid-day meal of the next day, except a little tea or cocoa with hard biscuit. This cannot be sufficient to keep a man in health, exposed as the sailor is to cold and wet above and to steam and damp below deck. What refreshment can there be, after the previous evening fast, to come down after a night or early morning watch to a breakfast of dry biscuit and cocoa? Instead of allowing the men to gorge themselves at mid-day, the allowance should be divided and a good evening meal secured. We could speak of many other points calculated to improve the health of the men and render the service more popular, and such reforms must be undertaken if we hope to man our fleets with really seaworthy sailors.

THE HASLAND POISONING CASES.

AT the recent Derby Assizes Mary Ann Whitfield was charged with the wilful murder of her son, Ernest Whitfield, at Hasland, Derbyshire, on June 27th, 1888. The prisoner was the wife of an engine-driver, and the mother of four children. They came to live in Hasland in November, 1887, and the four children were all in apparently good health until June 5th, 1888, when one of them (Alfred) was taken ill. He appeared to be in a lethargic state, had a difficulty in defecation, vomited, and was puffy about the face. The medical attendants, Mr. R. P. Jeffreys and Mr. J. Goodwin Shea, found albumen in the urine, and treated the case as one of nephritis. There was no contraction of the pupils; there were sickness and semi-consciousness more or less until his death on the 18th. A certificate of death from nephritis, with uræmia, was given. On the 26th the youngest child, Ernest, was taken ill, and was seen by Mr. Shea, who found roughened breathing, dulness of the lungs, dilated pupils, and unconsciousness. He treated him with hypodermic injections of sulphuric ether, but the child died on the 27th, and on the 28th Mr. Shea gave a certificate of death from congestion of the lungs. It was well known that the prisoner was a woman of drunken habits. The smallest inquiry would have elicited the fact that both children were insured, Alfred for £10, Ernest for £6. The two deaths occurring within so short a period was, in the absence of any infectious disease, suspicious, and even though a certificate was given, it seems strange that an inquest was not held there and then. The boy's body was buried, and the prisoner's husband was subsequently ill on several occasions, the illness always occurring on a day when he was off work and at home. The symptoms were loss of the use of his legs, sickness, and the same lethargic state as had been observed in the children. Fortunately he recovered. On Feb. 4th last the prisoner was found by another son (Henry) in the attic in an unconscious state, and, on Mr. Symes being called to her she was found to be suffering from narcotic poisoning. She was arrested for this attempt on her life, and all these suspicious events demanded a full inquiry, which was held, the bodies of both children being exhumed on Feb. 20th, and a post-mortem examination made by Dr. Fielden of Chesterfield, who removed the viscera and forwarded them to Mr. Alfred Henry Allen, county analyst. That gentleman found no trace of poison in the viscera of the boy Alfred. In those of Ernest he found meconic acid in small amount, but no trace of morphia. It was proved that the prisoner had sent her son Henry to buy laudanum, and that she had it in the house. Many other very suspicious facts were proved. The case was a very clear one, and Mr. Justice Hawkins, who has tried many cases of murder by poisoning, including those of Lamson and Berry, summed up in such a manner as to show that he had no doubt of the prisoner's guilt. But to the astonishment of everyone in court, and to the prisoner most of all, the verdict was "Not guilty." Two days later she pleaded guilty to the charge of attempting to commit suicide. The learned judge told her that she must not go away with the notion that the verdict of the jury removed every stain from her character, and removed the cloud of doubt and mystery which hung over that young boy's death. The jury acquitted her because the evidence was not sufficiently satisfactory to them to find her guilty. That was all the ground upon which she was acquitted. She was sentenced to four months' imprisonment with hard labour.

FRIENDLY SOCIETIES.

THE report which the Parliamentary Committee has presented upon Friendly Societies deals generally with the important subject referred to very much upon the lines which have from time to time been pointed out in these pages. Thus, for instance, on the question of infantile insurance, the finding of the committee is that the allegations of culpable, and even wilful, neglect and violence have been in some cases well founded, and that the object of such neglect and violence has not been disconnected with the sums payable on the death of the children. But at the same time they also say, "It must be admitted that insurance for burial expenses is highly valued by the working classes for perfectly legitimate reasons, and that an unnecessary hardship would be inflicted upon them were it prohibited." They accordingly conclude in favour of better regulation as against prohibition, a conclusion in which we entirely concur. We do not, however, feel equally well satisfied with the method of regulation to which the committee appear to incline. They remark that the medical certificate of the cause of death does not require the medical man to make any inquiry as to whether the child's life is insured; and, further, that it is probable that medical men are very often not acquainted with the provisions of the Friendly Societies Act of 1875, and that hence it happens that practitioners are not unfrequently asked for, and give, more than one certificate as to cause of death, the additional certificates being avowedly obtained for the purpose of getting insurance moneys. Hence they recommend that the Registrar-General should add to the form of medical certificate of death a column demanding particulars of insurances on the life of the deceased, of whatever age, to be filled up by the medical man. This surely is a case of putting the saddle on the wrong horse. If medical certificates are really given in the circumstances specified, they are wholly irregular, and for their purpose worthless. The Friendly Societies Act, with which a medical man may quite innocently be unfamiliar, but which the officers of the societies are at least bound to know, expressly prohibits the payment of insurance money except upon a certificate issued by the registrar of deaths. If the societies choose to pay upon a certificate issued by somebody else, they surely should be blamed, and not the innocently ignorant medical man. So with the proposed remedy. It is the wholly illusory one of requiring the medical man to tabulate the result of inquiries which he is to be called upon to make as to insurances—a subject wholly foreign to his professional duties. This would be inexcusably burdensome in any case, even if great good could be expected to result from it. But, as a matter of fact, the cases would be so numerous in which, at the time of the giving of the medical certificate, the survivors would not know, or would pretend not to know, whether any insurances were subsisting, that the certificate would be quite illusory. For such a gain we must protest, and protest most strongly, against the further addition of an irksome and thankless office to the large volume of a medical man's already subsisting statutory duties.

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THE ISOLATION OF ENTERIC FEVER IN MANCHESTER.

AN early if not the first official act performed by Dr. Tatham, the newly appointed medical officer of health for Manchester, has been to induce the corporation to take a step which will remove a distinct blot from their sanitary administration. Hitherto Manchester has required the notification of enteric fever, but when they have learned the existence of that disease in their midst they have been content to leave it there, instead of securing the isolation of the sick. We are not prepared to say that isolation in hospital is a necessity in every case of enteric fever, and we freely admit that a distinction, as regards its communicability, may be drawn between enteric fever and some of the other infectious fevers; but we have no hesitation in saying that the retention of all enteric fever patients in their own homes in our ordinary towns and villages is distinctly fraught with danger to the public health, and that their removal to hospital is often necessary in the interests of the patients themselves. But the need for isolation in such a town as Manchester must be obvious to anyone acquainted with that city as a whole; and we imagine that, although Dr. Tatham's present proposal is only to send such cases of enteric fever to hospital as "cannot safely be treated at home," the number coming within that definition will be by no means a small one, whether regard be had to the safety of the public, or to the safety and chance of recovery of the sick persons themselves. The truth is that a large number of children and young adults continue to be attacked with enteric fever in Manchester; that the incidence of the disease is essentially in the poorer parts of the city, where the means of its safe treatment are notoriously absent; and that, as Dr. Tatham states, the disease is an eminently communicable one under conditions such as are by no means exceptional in Manchester. The report submitted to the corporation practically asked that a failure in the sanitary organisation of the city—which we believe had been deliberately decided on, and which has certainly been acted on for a number of years—should no longer prevail; and we congratulate Manchester on the confidence which has been shown in their new officer by the resolution which was come to on the subject, and which was to the effect, "That the report now read be adopted, and that the Health Committee be instructed to make such arrangements as may be proper and necessary for carrying out the recommendations thereof."

SECONDARY GROWTHS IN CARCINOMA.

IN the August number of the *American Journal of the Medical Sciences* is a short paper by Dr. Heneage Gibbes, in which he describes the results of his investigations on the development of secondary cancerous growths in lymphatic glands. By staining sections of infected glands with picro-carmine, rosaniline sulphate, and iodine green, he is able to distinguish by colour four different parts. The connective tissue is stained by the picro-carmine, unchanged lymph cells stain bluish green, cancer cells stain green, and large multinuclear cells stain purple. He further finds that while the majority of the irregular nuclei of the multinucleated cells stain a deep purple colour, here and there one more rounded in outline will take a faint green stain. He is led to believe that on reaching a lymphatic gland the cancer cells divide and form the multinuclear masses; after a time one of these nuclei becomes separated from the mass and forms an independent cell in the resting stage; after this it becomes active, germinates, and produces another multinuclear cell. He has seen nothing to justify the view that a so-called spermatic influence can be exerted on connective-tissue cells to lead to their producing epithelial cells. Dr. Gibbes classifies cancers into: (1) those derived from protective epithelium, such as that of the skin, tongue, and gullet; (2) those derived from the epithelium of simple secreting glands, such as that of the pylorus and rectum; and (3) cancers derived from epithelium which forms the parenchyma of the true secreting glands, such as the breast.

THE INTOLERANCE OF SWITZERLAND TOWARDS ENGLISH MEDICAL PRACTITIONERS.

MR. T. K. TAPLING, M.P., does good service in directing the attention of the British public and Government to the absurd state of mind of the Swiss Government towards English medical practitioners in Switzerland. In a letter to a contemporary on Aug. 20th, he says that the Swiss Government has arrived at a final decision hostile to the English doctors. This is a most illiberal attitude on the part of Switzerland. Mr. Tapling is informed that about £2,000,000 of money go into Switzerland annually from British tourists, to say nothing of the freedom of our markets to Swiss labourers and workmen. Nor does the state of our British medical law give much show of reasonableness to the action of the Swiss Government and the illiberality of a clique of Swiss medical men who are understood to urge the Government in this matter. We have not yet recognised, so as to admit to registration, Swiss diplomas. But no law and no body in this country would interfere with a Swiss doctor prescribing for his compatriots here. Yet the Swiss are so intolerant to their English visitors as to disallow an English doctor in a hotel prescribing for an English visitor, and to forbid a Swiss chemist to dispense his prescriptions. It is conceivable that an English visitor might die for want of assistance in a Swiss hotel with capable physicians and surgeons of his own country in the same hotel. Such a state of matters is alike incredible and intolerable, and cannot be too soon or too strongly complained of by our Foreign Secretary.

WHITE-LEAD POISONING.

CASES of plumbism still continue very numerous in districts where white-lead manufactories are situate, in spite of the stringent regulations which are supposed to be enforced. As we have before pointed out, many of these cases are due to an extreme susceptibility of the individuals affected, for in many instances, when an inquiry has been made, it has been found that, whilst many of the old hands have never, during a long course of employment, suffered in the slightest degree from plumbism, there are others who, after repeated attempts, and apparently using similar precautions, are attacked after only a few weeks' work. An example of such extreme susceptibility has just been the subject of an inquest held by Dr. Danford Thomas, concerning the death of a young plumber, who was a strong and healthy man two years ago, before he began to do plumbing work and handle lead. The coroner remarked that he had never before had a death brought before him of lead poisoning where a victim was a plumber, and remarked upon the extreme susceptibility that must have existed to have brought about a fatal result. It is well to bear in mind this fact, for undoubtedly many cases of plumbism occur in private practice which for a time may be overlooked owing to the difficulty of connecting the symptoms with the use of lead. Thus cases which at first were thought to be progressive muscular atrophy have proved to be lead palsy caused by the use of hair-dye. A young lady was attacked with severe abdominal colic, the nature of which was unsuspected until the patient mentioned casually that a few days before she had been engaged in painting some vases. Even sleeping in a house in which some of the lower rooms are being painted, though removed

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from the actual sleeping-room, has caused undoubted plumbism in some of the more susceptible inmates. Besides this, even if the more marked features of lead poisoning are absent, contact with small quantities of lead will in some persons produce decided ill-health, such as obscure pains in the limbs, numb feelings in the fingers, muscular twitching, and anæmia. Of all the salts of lead the carbonate is the most poisonous, and it is with satisfaction we hear that a process has been instituted which has received the approbation of Sir Henry Roscoe, by which the dangers attendant on the manufacture of white lead can be avoided, and by the substitution of another salt, the white sulphate, the risk of using white paint may be considerably, if not altogether, removed. Whether sulphate of lead can replace the carbonate for all purposes remains to be seen. So far as it has been used for woodwork it seems to have satisfied Sir Henry Roscoe, and if with a wider application it is found that it can be used for most of the requirements of trade, a great step will have been taken towards protecting the health and life of those engaged in the manufacture and use of this subtle and dangerous metal.

THE FOURTH INTERNATIONAL PRISON CONGRESS.

OVER and above its great interest to the student of State Medicine, this Congress, which is next year to meet at St. Petersburg, will have special attractions for the Englishman. Coinciding as it does with the centenary of John Howard's death, it will be utilised for the bestowal of international honours on that noble philanthropist. The Government of the Czar, bearing in mind the fact that it was on Russian soil—at Kherson in fact—that Howard met his death in 1790, desires to show its appreciation of his philanthropic work by offering a prize for the best monograph on "The part filled by John Howard in the History of Penitentiary Reform." Competitors must write in the Russian or French language, and their work must include a biography of John Howard and a review of his publications; a characterisation of penitentiaries at Howard's time, and a full list of all the innovations completed or proposed by him in these institutions; an estimate of Howard's influence on the subsequent course of penitentiary reform; and a bibliography of all his writings. Competing monographs must by May 1st (i.e., according to the Russian almanac, the 15th), 1890, at latest, be in the hands of "The President of the Organising Committee of the Fourth International Prison Congress at St. Petersburg." They must be furnished with a motto, and accompanied by a sealed letter containing the writer's name and address. The jury which will examine the monographs will be elected by the Congress itself, and it will award two medals of gold, a larger and a smaller, as well as silver medals and certificates of honourable mention. The competitor to whom shall be adjudged the larger gold medal will also receive 2000 fr. (£80), and his monograph will be inserted in the Proceedings of the Fourth Congress, while he will also have the right of reprinting it. All competing monographs, whether printed or in writing, which have not been withdrawn within two years by their authors are to be destroyed; and, lastly, the result of the Competition will be published in the Bulletin of the International Penitentiary Committee, and also in the Proceedings of the Fourth Congress. Besides the above-mentioned competition, there will be another at the instance of the conductors of the *Prison Discipline Review*. Its subject is the following: "What in the most civilised nations has been the historical development of the institutions relating to the correctional education of minors who have been convicted of crimes at common law, or who have been put in custody for idleness and vagabondage, or with a view to paternal discipline?" The conditions of the competition are identical with those of the preceding, except the following modifications. The competing monographs, in writing or in print, may be written in any language, but there must be a French translation of the same appended. The successful competitor will receive as prize the sum of 2000 francs (£80) from the conductors of the *Prison Discipline Review*. The organising committee of the St. Petersburg Congress will be entitled to publish the successful monograph in the Proceedings of the Fourth Congress, while the author will, at the same time, have the right of reprinting it.

SEASIDE HOSPITALS IN ITALY.

IT is owing mainly to medical inspiration and initiative that the Italian seaboard, with its many attractive bathing quarters, is now so extensively utilised for the scrofulous and rickety youth of both sexes, as well as for the convalescent poor when they leave the hospital. At Rome, for instance, an arrangement has been effected between the civic authorities and the administration of the hospices at Porto d' Anzio to convey to that seaside resort, and to maintain there for fifteen days at least, all the children threatened with tabes or afflicted with rachitis in the various orphanages of the city. For two months relays of these little unfortunates will thus have the benefit of a "fortnight at the sea," with all the restorative and exhilarating effects that such a sojourn implies for the youthful invalid "in populous city pent." This practice—which is becoming universal throughout Italy for the summer months, and which it is in contemplation to render operative all the year round whenever change of air and scene is indicated for the sickly or convalescent poor—might with great advantage be imitated nearer home, where the seaside resorts are quite as numerous and as inviting as in Italy, and where the means at the disposal of the public are infinitely more affluent than is the case with "the youngest of the European powers."

THE INHALATION OF DUST.

DR. KUNZE, in his inaugural thesis for the M.D. degree of the University of Kiel, publishes as a contribution to the diseases caused by the inhalation of dust a series of examinations of lungs so affected. In all these dust was found microscopically, and after chemical tests in the various anatomical and histological parts of the lungs and in the interior of the lymphatic vessels numerous leucocytes were found covered with the dust. Being arrested in its progress, it causes inflammation producing hyperplasia of connective tissue, especially where a dense network of lymphatic vessels exists. Dr. Kunze also proved that the degree of alteration in so-called "dust lungs" depends not merely on the quantity of the dust inhaled, but also on its greater or less morphological power of injuring the tissue. He concludes from his experiments that even the greatest alterations in these lungs—such as nodes, indurations, and vomicæ—are mainly produced by the inhaled dust, and that tuberculosis is only an occasional coincidence. The least serious alterations in the lungs resulted from the inhalation of lamp-black, the particles of which are very fine and little injurious; the most serious, from the dust inhaled by earthenware manufacturers and stonemasons. The lungs of a locksmith showed only a moderate hyperplasia of connective tissue, the dust consisting partly of the finest particles of iron. In a worker in oxides of iron the lungs were found full of small granules, and the morbid changes in the tissues were very considerable. The lungs of gold miners were generally indurated and atrophied; the dust in these cases is exceedingly fine. Sand produced numerous circumscribed hard nodules and thick indurations. In cloth

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manufacturers, the lungs, in spite of their contact with an enormous quantity of organic dust, presented but few indurations. In the lungs of two stonemasons induration and tuberculous disintegration were observed; all the other lungs were entirely free from tuberculosis of any kind, an observation which was verified by the absence of tubercle bacilli in the muco-pus in the vomicæ.

SENSATION IN FALLING FROM A HEIGHT.

IT is commonly asserted that persons who fall from a height die in falling, and are mere unconscious bodies when they crash against the earth. Perhaps this comfortable conviction has had some connexion with the fact that monuments and other elevated structures have sometimes been chosen by suicides as their stepping-stones to an uncertain future. The feelings of any who have made such perilous journeys will probably remain for long matters of conjecture, though sufficient evidence exists to prove that the mere passage through space, even from considerable altitudes, is not necessarily fatal. There is, indeed, nothing incompatible with life in a swift air transit of a few seconds. It is true that such rapid movement, combined with the tension of suspense, the frenzy or despair preceding an attempt at self-destruction, and perhaps other circumstances besides, may lull the senses into a state of semi-consciousness, but all this is consistent with life. The effective action of these forces, moreover, will depend somewhat on the temperament of individuals. Thus men of steady nerve should feel even so great a change distinctly less than others of weaker nervous organisation. Again, one who falls accidentally is in a different position as regards apprehension and intensity of feeling from that of one who precipitates himself. It is highly probable, however, that in any case the momentary whirl of sense provides that its sudden and usually fatal arrest, if not painless, will entail at most a mitigated pang.

MURDER BY STRYCHNINE POISONING.

GEORGE HORTON, coal miner, was tried at the Derby assizes before Mr. Justice Hawkins for the wilful murder of his daughter by poisoning her with strychnine on May 20th last at Alfreton. The facts of the case were extremely clear, and have been made more so by the confession of the prisoner since his conviction, in which he admits having committed the crime for the sake of £7 insurance money. The deceased child, Kate Horton, was eight years old, and on the morning of May 20th, having been previously in her usual health, she went into her sister's room soon after six o'clock and lay on the bed, "twitching and becoming quite stiff." A woman living in the same house was called to her, and found her eyes and mouth twitching very much, her legs quite stiff, and complaining "that her belly hurt her." She died at seven o'clock, having previously told a neighbour that "dadda gave her some blue stuff out of a bottle in a cup." The prisoner went out about six o'clock, and was previously heard refusing to give the deceased a drink, saying that he would be late for his work. A post-mortem examination of the child's body was made by Dr. Bingham of Alfreton, who found the organs healthy and no marks of violence. In the stomach he found a collection of greenish-blue particles, which were also in the intestines, together with a number of worms. Mr. Allen, the borough analyst, found abundant evident of strychnine, he being able to isolate three-tenths of a grain of it from the stomach, two-tenths from the intestines, and three-tenths from the liver, making eight-tenths in all. The blue particles consisted of ultramarine, which was the colouring matter used in the vermin-killing powders sold by chemists. The prisoner had threatened another daughter, who had formerly, but not recently, lived with him, that he would poison her, and she feared he would. A son of the prisoner was also from home, and the latter had been heard to say that "he had got shut of two children, that he would soon get shut of the rest, and take his hook." He showed some grief when he found the child dead on his return home between eight and nine, but he asked Dr. Bingham for a certificate of death, which was refused. When arrested on the 28th, he said, when charged with the murder, "I have nothing to say." In sentencing the prisoner to death, Mr. Justice Hawkins described the crime as a cruel, sad deed, terrible even to contemplate. It is worthy of remark that there was no proof of the prisoner having purchased any poison, nor was any cup or glass found with traces of it. Taken with the prisoner's confession, this case is a very instructive one. The crime was conceived and carried out with diabolical cunning; to prove it was a matter of difficulty, and, but for the tell-tale blue of the ultramarine, it might have been impossible. It was an apt illustration of the lines:—

> "Murder, though it have no tongue, will speak
> With most miraculous organ."

THE ABUSE OF STICKS AND UMBRELLAS.

A CHAPTER on the proper mode of carrying sticks and umbrellas would afford most persons material for profitable reflection. We have not space for such a chapter, but shall merely notice, with regard to the matter, a few instructive but easily forgotten hints of daily experience. The point, whether of stick or umbrella, figures prominently in the small accidents of every thoroughfare. It is carried or suddenly jerked behind one under an arm, and often painfully near to the persons of passers-by. It is heedlessly thrust in front by the arm of a rapid walker, or anon describes a circle, with some careless hand for the centre. It travels swiftly upstairs at railway stations, performing an aggressive zigzag movement among the crowd of passengers. It forms the centre of the spread umbrella suddenly opened in the teeth of a stormy wind, and in the face of wayfarers. Its uncertain level threatens by turns a shin, a back, or a face, a child's mouth or eye, or the solid front of some portly citizen. "Beg pardon" readily follows if it strikes a mark, but a missing tooth is not so soon restored or a bruise reduced. In such matters no body of regulations can give security, but self-interest alone might teach the careless the duty of watching and guiding aright this apparently insignificant but seriously offensive point.

CRUELTY IN CIRCUS TRAINING.

UNLESS the methods of circus training in this country differ materially from some that still prevail abroad, it must be allowed that the protection afforded by the Prevention of Cruelty to Children Bill has not come a day too soon. The history of an English boy, who was till recently attached to a performing troupe on the Continent, furnishes a pitiful narrative of barbarity and oppression. The lad was apprenticed to a German circus manager when ten years old — that is, at the limit of age prescribed in the Act. For nearly eighteen months he has remained with his employer learning his calling, and enduring much hard usage. If he fell from the trapeze (a frequent occurrence) he was well thrashed. If he failed in the feat of sitting on the ground with legs astride, he was forced into the required position by a woman placing her full weight on his shoulders. After a time the treatment became so unbearable that he ran away, and, though recaptured, finally reached home with the assistance of the British Consul in Barcelona. This is exactly the kind of case which the new Bill is intended to provide for. Some of its opponents object to what they consider to be its needless interference

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with the abused rights of parents or masters. What place is there, we may ask them, for the rights or the wrongs of a child like this circus boy unless the law provide one? In our own view, there is real cause for disappointment that many children, like this boy over ten, will still be exposed to the hardships of such training merely because their age does not exempt them.

SIR JOHN BANKS, K.C.B.

THOUGH there have been presentiments of the event, it is gratifying to find duly gazetted the gift of a K.C.B. to Dr. Banks, Regius Professor of Physic in the University of Dublin. Our Irish brethren will begin to think that the Government is no longer slow to do honour to those who stand in the great succession of Crampton, Marsh, Graves, Stokes, and Corrigan. It is but fit that the same honour enjoyed by the Regius Professors of Physic in Oxford and Cambridge should be accorded to the Regius Professor of Physic in the University of Dublin. Those who know Sir John Banks best will most rejoice with him in his new rank. Her Majesty may feel assured that she could not have conferred the honour on any Irish physician who better represents all that is urbane in Irish manners and cultivated in Irish medicine, or made a selection more acceptable to the profession in Ireland and the United Kingdom generally.

BACTERIOLOGICAL STUDY OF THE KIDNEY IN TYPHOID FEVER.

DR. KONIAEFF publishes as a graduation thesis (St. Petersburg Dissertations, 1888-89, No. 13) an account of a series of observations made on patients suffering from typhoid fever at the Alexander Barrack Hospital, with the view of ascertaining the existence of typhoid bacilli in the kidney. It was found that "lymphoma" of the kidney occurred in 17 per cent. of the cases in which post-mortem examinations were made, and that typhoid bacilli were present in these centres of morbid change. In some cases bacilli were found in the urine, and it appeared probable that this was the only outlet for the bacilli in the kidney.

THE ELIMINATION OF ARSENIC.

AT the meeting of the Paris Academy of Medicine on July 23rd (*Gaz. Hebd.*, No. 31), M. Marty recalled that in 1863 M. Roussin had pointed out that arsenic could be found in the skeleton, replacing phosphorus, and that its elimination was very slow. M. Brouardel remarked on the medico-legal importance of this fact. He said that formerly it was believed that after arsenical poisoning all trace of arsenic had disappeared from the body by the end of a fortnight or three weeks.

UTERINE CANCER.

DR. L. LANDAU, in a clinical lecture on Carcinoma of the Uterus, first points out the great importance of the microscope in the diagnosis of incipient cancer. He advises the strictest examination of the microscopical diagnosis in all reported cures of carcinoma, considering that erroneous conclusions are frequently due to the ambiguity of many anatomical plates and to insufficient knowledge of the disease. He considers that the microscopical diagnosis itself of incipient malignant growths is still as uncertain as every other method of examination, and that it must remain so until an easily recognisable cause of carcinoma and specific cancer cells have been found. With regard to treatment, Dr. Landau is one of those gynæcologists who in cancer of the cervix greatly prefer excision of the whole organ to high amputation. In discussing the question of the ultimate curability of uterine cancer, he points out the great physical and moral relief afforded to the patients by excision, though the disease may afterwards recur. He recommends that incurable cases should be kept continually under the influence of morphia.

THE ROYAL COLLEGE OF PHYSICIANS.

THE Bradshawe Lecture at the College of Physicians was delivered on Monday last, the 19th inst., by Dr. Norman Moore. The date, in some respects inopportune, is fixed according to the trust under which the lecture is delivered. The President (Sir Andrew Clark), Sir Henry Pitman, Sir Dyce Duckworth, and Dr. Munk were among those present to hear the lecture, which dealt with Visceral Cancer, and was based upon Dr. Moore's extensive pathological experience at St. Bartholomew's Hospital. Several conclusions respecting the development, nature, duration, and dissemination of malignant growths of the various organs were drawn, and stated in clear and concise terms. The lecture will be published in our columns.

DEATH OF DR. THOMAS KING CHAMBERS.

IT is with considerable regret that we have to announce the death, on the 15th inst., at the age of seventy-one, of Dr. Thomas King Chambers, honorary physician to the Prince of Wales. The deceased received his M.D. degree from the University of Oxford in 1846, and was elected a Fellow of the Royal College of Physicians, London, in 1848, of which College he filled the office of censor in 1860-61, was Lumleian lecturer in 1863, Goulstonian lecturer in 1850, and Harveian orator in 1871. Dr. Chambers was a member of the General Medical Council, senior consulting physician to St. Mary's Hospital, consulting physician to the Lock Hospital, and a Fellow of the Royal Medical Chirurgical Society. Among his works may be mentioned "Lectures, chiefly Clinical," fourth edition, 1865; "Some Effects of the Climate of Italy," 1865; "Indigestions, or Diseases of the Digestive Organs Functionally Treated," second edition, 1867; "Harveian Oration and Two Sequels," 1871; "A Manual of Diet and Regimen in Health and Disease," second edition, 1876. Dr. Chambers was also the author of articles on "Catalepsy," "Ecstasy," and "Somnambulism" in Reynolds's "System of Medicine." We hope to give a more detailed account of Dr. Chambers's life and character in a future number. We will only say here that he was a physician of high culture and great originality. His active life and usefulness were unfortunately sadly curtailed by a severe illness some years since. On the death of the late Dr. Rolleston he was appointed representative of Oxford in the General Medical Council. In the work of this body he took an important part, especially in the production of Reports on Medical Education and on the question of Unqualified Assistants.

WOOLLEN CLOTHING IN PHTHISIS.

DR. GRECHKO has examined the effects of supplying phthisical patients with woollen clothing. He finds (St. Petersburg Dissertations, 1888-89, No. 44) that the loss by the lungs and skin is greatly increased only during the first four-and-twenty hours; the temperature of the skin is distinctly increased during the first day, but after that it begins to fall slowly, so that by the end of the week it has become normal. The internal temperature and the blood pressure do not undergo any change.

As we go to press the intelligence reaches us that the sentence of death passed upon Mrs. Maybrick has been commuted by Mr Matthews into penal servitude for life.

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THE sixty-second Congress of German Physicians and Naturalists meets at Heidelberg from the 18th to the 23rd (inclusive) of next month. A representative body of the profession will on this occasion be elected to take part in the great International Congress which is to assemble in August, 1890, at Berlin. Another feature of the Heidelberg gathering will be the participation in its proceedings of foreign guests specially invited. A new statute will also be formulated by which the Congress will be provided with a governing body, which shall have a permanent seat and standing orders.

AT Rome from the 15th to the 17th (inclusive) of October next will assemble the second Congress of the Italian Medical Association. Among its special features will be reports on "Malarial Infection," by Professors Baccelli and Marchiafava; on the "Pathology and Cure of Nephritis," by Professors Bozzolo and Rattone; and on "Gout," by Professors Cantani and Murri. Other papers and memoirs have been announced to the organising committee, and the whole proceedings are expected to be of an unusually interesting tenour.

Pharmacology and Therapeutics.

SANDELL'S ANTISEPTIC SUBLIMATE PELLOIDS.

THESE pelloids dissolve very easily in cold water, and thus afford a very convenient addition to our means of rapidly preparing an antiseptic solution of any strength that may be desired. One pelloid in a pint of water forms a lotion containing 1 in 4000 of corrosive sublimate. The pelloids are supplied in tubes of twenty at a low price, and will probably be much appreciated owing to the readiness with which they may be employed without tedious weighing and calculation.

THE NARCOTIC PROPERTIES OF CHLORALAMIDE.

Drs. Hagen and Häfter, assistants in Professor Strümpell's clinic at Erlangen, consider chloralamide one of the most reliable narcotics, and recommend that it should be given in a slightly acidulated solution or in wine. They say that the most appropriate cases for its administration are neurasthenia, spinal affections, and heart disease, and recommend a dose of fifty grains. The drug, when it acts at all, produces the desired sleep in half an hour. Its administration in phthisis has not proved so satisfactory, as in some cases it did not act at all, while in others, though sleep was induced, considerable general malaise was complained of on waking. They also gave it one morning to three convalescents from syphilis, who had taken a dose the night before with good effect. The result in all three cases was that the patients slept nearly the whole day, without being deprived of their ordinary sleep the next night. Before the communication of the authors to the *Münchener Medicinische Wochenschrift*, experiments had been made altogether in twenty-eight cases (twenty-five patients and three healthy people), embracing 118 doses of the drug. A decidedly narcotic effect followed in twenty-six cases, superior to that of other narcotics in sixteen, and almost equal to it in ten cases. Complete failure occurred in two cases only—one of paralytic dementia and one of advanced phthisis; in a case of acute myelitis the result was doubtful. In comparing the amide with the hydrate of chloral, the authors decide in favour of the former, on account of its less unpleasant taste, and more particularly because its narcotic effect is decidedly greater than that of the hydrate. Undesirable effects are certainly less marked and of less frequent occurrence with the amide than with the hydrate. They consist generally of slight headache and a somewhat dazed feeling on waking, but such symptoms occurred in only three of the twenty-eight cases; once collapse was noted, which, however, could not with any certainty be referred to the drug. Patients do not become accustomed to the amide of chloral, so that the same dose, however often administered, always has the same effect. The authors point out that the drug has not, as a rule, any specific effect on pain or other symptoms; but they mention a case of cardiac asthma in which the pulse, which had been very unsatisfactory, improved and maintained its improvement.

BROMOFORM IN WHOOPING-COUGH.

Dr. Stepp of Nürnburg publishes in the *Deutsche Medicinische Wochenschrift* a large number of cases of whooping-cough, in which he claims to have obtained most satisfactory results from the internal administration of bromoform. The drug has, according to the author, no ill effect of any kind, and his numerous observations have proved that bromoform, as applied by him, is non-poisonous, and that the pulse and temperature remain unaffected by it. The action of bromoform is entirely different from that of bromide of potassium, as has been observed in epilepsy, the former being rather an excitant than a sedative. Children are ordered from five to twenty drops during the twenty-four hours in very frequent doses. The solubility of bromoform in water being very slight, the mixture requires the addition of alcohol. The author has administered bromoform in about sixty-five cases of whooping-cough, the children mostly ranging in age from six months to seven years. The longest time required for a complete cure was four weeks. Symptoms of pulmonary catarrh in all these cases were entirely absent, or else they were very slight and soon disappeared. No complications existed in any of the cases observed by the author, but Dr. Goldschmidt has treated several serious cases of whooping-cough complicated with pneumonia, completely curing them in a fortnight by the daily administration of bromoform. Dr. Stepp concludes from his observations that under bromoform treatment bronchial catarrh and lobular pneumonia do not generally occur, and that where they exist at the commencement of the treatment resolution takes place with facility and at an earlier period than under other methods of treatment. His observations showed also that the dose of bromoform must be in direct proportion to the severity of the affection and the age of the patient. The system does not seem to become accustomed to the drug, which has, moreover, considerable prophylactic power, so that the other children of a family in which whooping-cough in an advanced stage already exists can be shielded from the disease by being given bromoform. Dr. Stepp believes that bromoform is either excreted unaltered by the lungs or is separated into its elements, and that the free bromine is excreted by the lungs. In this way an effect on the bacilli of whooping-cough could be easily supposed to result.

INTRAVENOUS INJECTION OF CARBONATE OF SODA IN POISONING.

Dr. Sanquirico of Siena treats cases of poisoning by intravenous injection of large quantities of an 8 per cent. solution of carbonate of soda, and so producing a very active secretion of urine. He was able to give the animals he experimented on (rabbits and dogs) considerably larger doses of some poisons that are usually lethal without fatal results, if he at the same time injected his solution of soda. When he used both the soda injection and the usual antidotes, he was able to save his animals even after doses of poison that would have certainly proved fatal if only one of the two modes of treatment had been applied. The only poison which withstood this combined treatment was nicotine. He points out that the diuretic treatment can only be successful when the functional power of the heart and of the central nervous system have not been so seriously paralysed as to prevent antidotes from exercising their influence, or so as to cause a diminution of the secretion of urine in consequence of the weakened action of the heart.

HYDRACETIN IN PSORIASIS.

The *Berliner Klinische Wochenschrift* publishes a paper by J. Oestreicher of Berlin on the therapeutic value of hydracetin in the treatment of psoriasis. He was induced to make trial of this drug by the objectionable secondary effects of the usual remedies for psoriasis. Six patients, one a medical man, were the first cases under the new treatment. Lanolin ointment, with at first 10 per cent. and afterwards with 20 per cent. of hydracetin, was applied once a day, without having recourse to any other external application or to any internal medication. After two or three applications, in every case desquamation ceased, the redness disappeared, the efflorescence became more and more level with the skin, and in a fortnight the cure was generally complete. In all the cases, however, a disturbing element appeared,

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which gave rise to a suspicion of toxic results of the treatment. After the seventh and before the tenth application of the hydracetin ointment all the patients began to complain of an increasing weakness of the limbs, which gave the impression that they were suffering from a serious internal malady. The skin became pallid, almost waxy, especially in the face, which in places was swollen; the mucous membranes became anæmic and yellowish; in one case general jaundice was present. There was no fever in any of these cases, and the heart and digestive apparatus were normal. The urine was of a dark mahogany colour, with a slight greenish tinge as if containing bile, which was, however, never found by Gmelin's test. Albumen was found in moderate quantity only in those cases which presented most distinctly the appearance of icterus. Nothing else was found in the urine except (by Jaffé's test with hydrochloric acid, chlorate of lime, and chloroform) an increase of indican. It was evident that hydracetin is a poisonous substance, and that it must therefore be used with caution.

ACETOPHONE.

Acetophone, or methyl-phenyl-ketone, which has been employed chiefly by some French physicians as a hypnotic, has recently been studied by Dr. S. S. Kamenski (St. Petersburg Dissertations, No. 70, 1888–89) in the laboratory. He finds that it lowers sensibility and interferes with reflex action. Large and medium doses produce a moderate amount of sleep. It quickens the heart's action, probably by stimulating the accelerator nervous apparatus. It increases the irritability of the respiratory centre, except in large doses, which may arrest respiration altogether. It lowers the blood-pressure by its action on the vaso-motor centre and by weakening the heart's action. Medium and large doses lower the irritability of the brain, and even small doses have a similar effect on that of the cord.

ETHEREAL TINCTURE OF IRON IN CHRONIC NEPHRITIS.

Dr. Wyss of Geneva speaks very highly of the ethereal tincture of iron, or Bestucheff's tincture, as it is usually called on the Continent, in cases of chronic Bright's disease. Five or ten drops of this preparation in a glass of water were given to a large number of patients from three to six times daily, the result being that in more than half the cases the albumen entirely disappeared from the urine, and the œdema and other symptoms were also cured.

THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

The International Congress of Hygiene—(Concluded).—Filters.—River Pollution.—The Working Classes of Russia.—Gennevillier and Durand-Claye.

ON the 8th inst. the English delegates gathered in Section 5, in the hope that the question of quarantine would be reopened. Dr. Proust, however, was absent, and as he was the author of the report on the subject it was thought advisable to await his arrival. The section therefore proceeded to discuss the subject of vaccination. Dr. Villemin related that in the department of France where he lived vaccination was performed only once a year, and those who were not present on that occasion could not be vaccinated. A Mexican delegate spoke in favour of compulsory vaccination, and Dr. Treile lamented that, even in an intelligent centre like Paris, the population displayed the greatest indifference to the subject. He described how at Fribourg small-pox had reappeared since the abolition of compulsory vaccination in that town. An American delegate said that from time to time he instituted a house-to-house visitation, so as to know if all the inhabitants had been vaccinated. Dr. Arnoult, military inspector, claimed that to the army belonged the honour of having given the example to the French nation of the advantages that accrue from vaccination and revaccination. But their difficulty was to contend against the non-vaccinated civil population. In the Second Army Corps some soldiers under his care contracted small-pox at the Amiens Hospital. To avoid resistance he had sought to popularise vaccination from the calf. Dr. Proust, who by this time had arrived, said that the German army was only really exempt from small-pox when the civil population had been vaccinated and revaccinated. He preferred vaccination from the calf to the use of lymph from even the healthiest-looking children. Dr. Felix said that in Roumania vaccination, but not revaccination, was obligatory. They had not succeeded, even with the aid of the law, in vaccinating everybody till vaccination from the calf was introduced, then the popular resistance ceased. Dr. Janssen said that in Belgium vaccination was not obligatory by law, but was insisted upon in every school, in every public service and institution, and was so admirably organised that there were very few Belgians who were not properly vaccinated. The subject was then allowed to drop.

Mr. Adolphe Smith, on behalf of the English delegates, now rose to inquire whether the Inspector-General of the French Sanitary Services, Dr. Proust, understood that the section had not adopted the fourth clause of the conclusions of the report on sanitary works in seaport towns. The first three clauses had been carried unanimously, but as nothing had been said about quarantine, Mr. Smith, in common with several others, imagined that the vote did not apply to the fourth clause. The English delegates, especially at this late hour, were not in the least desirous of opening up the question of quarantine, and if Dr. Proust would concur in the opinion that the fourth clause had not been put to the meeting the subject need not be further discussed.

Dr. Proust, however, did not agree to this. He was under the impression, on the contrary, that the fourth clause had been adopted; but, if there were any objection to this clause, he was quite willing that the matter should be investigated. Dr. V. Vignard, formerly director of the sanitary service of the Lower Danube, rose and fully endorsed what Mr. Adolphe Smith had said. He had also voted for the first three clauses, which alone had been discussed, and not for the fourth, to which he was absolutely opposed. A conversation thereupon arose between Dr. Proust and Dr. Vignard, which continued till they were called to order and each party asked to make a statement. Dr. Vignard consequently delivered an energetic speech. The resolution stated "that it was only when the ports presented a soil unsuitable for the penetration of morbid exotic germs that the last quarantine checks could be abolished;" but what criteria were they to show that the soil could not harbour germs? A port was never quite purified. People talked of the "rendering healthy" (the *assainissement*) of England as if it was something similar to the washing of a plate—an operation which, when once performed, was evident to all eyes. But there were English delegates present who could testify that this was not the case. In spite of the great works accomplished in England, much remained to be done, and even in London there were many plague spots. He complained that he did not know what was going on in the sanitary services of France, and required a large publicity and public control with regard to the quarantine observations imposed by the French port authorities. He had noted with pain and surprise a remark in Dr. Brouardel's opening speech, to the effect that the treason of one guardian of a lazaret had cost Spain in 1884–85 no less than 200,000 lives. What was this system which by the momentary neglect of one out of many thousand guardians could bring about the loss of 200,000 lives? He agreed with quarantine as defined by Fodéré in 1815. It meant a rope. The difficulty was to prove its utility or its inutility; for if we pointed to failure in one country, others would point to success in other countries. History, however, was against quarantine; for in the fifteenth century it had been properly and rigorously applied. In those days it was said that for a quarantine three things were necessary—money, force, and the hangman. A quarantine enforced, as in the past, by sentences of death was logical; but as we were not prepared, and as it was absolutely unpractical, to return to these barbarous practices, it was illogical, vexatious, and useless to maintain the fiction of quarantine. It was not till the Government of England had officially proclaimed that quarantines were useless that real sanitary improvements were accomplished. The great fear entertained in England of cholera facilitated the execution of sanitary works. What was the use of asking municipalities to vote large sums for sanitary works if they were told at the same time that they would be protected by the imposition of quarantines which would cost them nothing?

Dr. Proust, in reply, protested that he had no desire to

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revive the old quarantine methods. They were willing to give every facility to companies whose ships were well managed. As for publishing the details of what was done, that would be very uninteresting reading, but whenever anything of interest happened it was at once communicated to the press. The term quarantine was subject to misinterpretation; the abolition of this word had been proposed at the Rome Conference. We need only take precautions against the cholera, the plague, and the yellow fever. These diseases came from such a distance that precautions were possible. First, all consuls in the different distant ports could telegraph information; then the journey took from fifteen to twenty days, which was in itself a period of observation; and, finally, the greater part of the ships had to pass through the Suez Canal, where timely information could be obtained, and, if necessary, the ships detained before they entered the Mediterranean. This detention was proposed at the Rome Conference, and approved by the twenty-two or twenty-three nationalities officially represented. England and India alone voted against the proposal. If a ship had a disinfecting stove on board, a good doctor, and no dangerous case had recently occurred, then they would give free pratique. But if there had been cases of cholera on board two or three days previously, then the ship should be detained. Practically, he had found on inquiry that such detention would have the effect of stopping four or five English ships for four or five days each year. There was a great difference between this and the quarantines described and denounced by Dr. Vignard. Besides, England had herself just sent the ship *Neva* into quarantine for sixteen days at Southampton. (This assertion greatly surprised the English delegation, who had certainly not heard of the circumstance.) Dr. Proust went on to give further explanation, which tended to reduce the meaning of the word "quarantine" to method of observation and of disinfection, very different from what is generally understood by the term. Dr. Treile approved of quarantines, and maintained that they had saved Algeria from cholera in 1884.

Mr. Adolphe Smith rose to explain that the point at issue was the actual wording of the resolution. Dr. Proust might attenuate the meaning of the word quarantine in a very satisfactory manner, but this would have no effect whatever with the outside public. Hundreds of newspapers would publish the text of the resolution, but would not know, or would not have space to mention, the explanations given in the section. The point was not what Dr. Proust might mean, but what the resolution meant; and the resolution undoubtedly meant that quarantine might be imposed even in the most salubrious of ports, for there was no port in the world which could be described as absolutely incapable of harbouring imported germs of disease. Dr. Proust and several French delegates protested that they did not interpret the resolution in such a literal sense; but Mr. Smith, supported by the English delegates, persisted that this was the view the outside public, unenlightened by the discussions of the section, would take of the matter, and that therefore he should be obliged to press the question to a division. Dr. Proust now, however, offered to withdraw the word "quarantine," and put "restrictive measures" in its stead. This, when taken in connexion with the general tone of the discussion, was considered satisfactory, and it leaves for future congresses to discuss what restrictive measures may be imposed as a substitute for the old-fashioned quarantines. An amicable compromise being thus effected, the section adjourned without a division. The following is the text of the original resolution and the amendment proposed, and accepted by Dr. Proust and the entire section:—"C'est seulement alors que les ports présentent un terrain réfractaire à la pénétration des germs morbides exotiques on pourra supprimer complètement les dernières entraves quarantenaires." Altered to "les dernières mesures restrictives."

On Friday morning the members of the International Congress of Hygiene went to the Exhibition and examined the sanitary apparatus displayed there. In the afternoon, in Section 5, M. Maignen read a lengthy paper on Water Filtration. He suggested, as a test, that water should be mixed with a known microbe, and a guinea-pig or rabbit inoculated with the water. Another rabbit should be inoculated with the same water after filtration. If the former died, and the other did not, this might be taken as a proof that the filter was good. Dr. Macé had made experiments with the germ of anthrax in this manner, and found it did not pass through the "filtre rapide." The filter was equally efficacious in preventing the passage of metallic poisons, copper, lead, &c., in solution. Some little discussion ensued, during which preference for the porcelain filter was expressed by some of the speakers, though it works much more slowly. M. Maignen was thanked for his interesting communication, and the President of the section concluded by saying that filters were always excellent at first; the difficulty was to discover how long they would last.

Dr. Girard (Rheims) opened a discussion on the Supervision of Meat, urging that diseased meat should be cremated; that this was the best means of preventing its being surreptitiously sold. He further urged that the rules for supervision should be the same in rural as in town districts. This proposal was adopted by the section.

After a few words about syrup of glucose, Dr. A. J. Martin's report on River Pollution was taken into consideration. There has been a great amount of legislation on this question in France. There were ordinances issued in August, 1669; in February, 1773; in June, 1777; and July, 1782. All these had the force of law, and all declared that refuse, filth, manure, &c., should not be thrown into rivers. These old laws were recently invoked (July 24th, 1875) by a Ministerial decision. Then there is the law of Oct. 10th, 1810, on manufactories &c. The law of April 15th, 1859, inflicts a fine of from 30 francs to 300 francs and imprisonment of from one to three months on those who throw into rivers chemicals that kill the fish. A Ministerial circular, dated July 31st, 1882, forbids pits or porous wells, by which subsoil waters can be polluted with the residue of factories. Nevertheless, all these enactments require to be codified, and, above all, more strictly applied. Consequently, Dr. Martin concluded that industrial residue of a dangerous nature should not be allowed to flow into a river or an underground watercourse. This can only be allowed when the residue has been so treated as to deprive it of all toxic, putrid, dangerous, or any other sort of matter that can alter the natural quality of the river water. The purification of industrial waters or residue must be rendered compulsory, and executed according to approved methods. The purification by irrigation is the most perfect means of treating the waste water from mills &c. containing organic matter. This must sometimes be preceded by chemical and mechanical processes, to render such waters fit for agricultural purposes. These conclusions were adopted, but a very lengthy discussion ensued as to who should be responsible for the application of such a law. If a manufacturer refused to purify his residue, should the State do the work for him and charge him with the cost? If so, what method would the State apply? Perhaps some antiquated expensive method—in a word, the State might blunder and put the manufacturer to unnecessary expense. As it was, many manufacturers had actually made money in seeking to prevent water pollution, for this had led to the discovery of advantageous methods of utilising waste. M. L. Faucher, civil engineer, member of the Central Council of Hygiene in the department of the Nord, related that river pollution had produced typhoid epidemics in his district. Each manufacturer, however, denied that the waste was the cause, because they only partially polluted the rivers. It was as if one man had a pistol, another some powder, and a third a bullet, and each declared he could not possibly do any harm. Yet it was only necessary for the three to come together to be able to kill some one. This is exactly what happened in the river with the waste from factories, and now that it had been stopped in his district typhoid fever had been stamped out. It was ultimately decided that the authorities ought to carry out the necessary works if the manufacturers persistently refused to do so themselves.

In Section 4, on Saturday morning, Madame Tkatcheff read a most interesting and carefully prepared paper on the Condition of the Working Classes in Russia. Irrespective of Siberia and Poland, she said there were about 932,000 operatives employed in the mills and factories of Russia. The way a considerable proportion of these workers were recruited had a great influence on public health. Many of them were agriculturists, who, being unable to earn enough to live, came to the industrial centres and worked in factories from September to February. They had no homes in those industrial centres, but slept very often in the factory itself, in the midst of the machinery, or in a sort of dormitory provided for them just above the works, and separated from the works only by a rude wooden floor,

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through which all the bad odours passed. Here the workers lay down on wooden shelves. They slept in their clothes, and at best had a little sacking. The shelves were placed one above the other, so that sometimes there was only a hundred cubic feet of space per person. All the inspectors appointed by Government to inquire into these questions had complained of the dirt, overcrowding, and the promiscuity, for men and women often slept in the same dormitory. The hours of work varied from twelve to fourteen, and the food was altogether insufficient. The clothing was also of the poorest description. It was rare that a man could afford to wear leather boots, but contented himself with wrapping his feet in paper and rags and thrusting them in woollen shoes. Shirts were considered a vain luxury, and but for the sheep's skins, worn with the wool inside, the people would die of cold. This sort of life soon destroyed all sense of self-respect, and fearful immorality was the result. The migrations of villagers into towns for a short time each year had brought back syphilis to the villages, and there were some villages in Russia where every single inhabitant was syphilitic. In some departments 10 per cent. of the recruits were syphilitic. There was but one redeeming feature: the Russian, however poor, always insisted on having a bath. He would as soon go without his food as go without his weekly bath. There were no statistics to show what was the mortality of the Russian working-class population, but the general mortality was sufficiently significant; it was 17 per 1000 in Sweden, 24 per 1000 in France, and 36 8 per 1000 in Russia. Out of 1000 deaths, the proportion of infants under one year was 113 in Norway, 190 in England, 216 in France, and 313 in Russia. The mortality among adults was equally high in Russia, and taking the deaths occurring at ages varying from thirty to sixty years the comparison was as the figures 11 for Norway, 13 for France, and 19·4 for Russia. Up to the year 1882 children five years old worked in factories. These children were sometimes syphilitic as well as the victims of alcoholism. There were no regulations to prevent the explosions of boilers, nothing to hinder accidents with machinery. Women had to suckle their babies in the passages of the factories; and as for benefit societies or anything of that description, it would be a mockery to speak of saving to people who are driven by starvation to put up with so fearful an existence. In the match trade 75 per cent. of the workers were children, and they employed white phosphorus. Yet there were men and women in Russia well acquainted with the progress accomplished in Europe, and some attempt had been made to imitate the good example. In 1882 a law was enacted forbidding the employment of children under twelve years of age, and limiting their work up to the age of fifteen to eight hours—that is, four hours, then an interval of three hours' schooling, and then four hours' more work. The law also forbids the employment of children in thirty-six different and dangerous industries, and this is three more than is the rule in most European States. Another law enacted in 1885 forbids night work for women and children in weaving and spinning mills, but this law is as yet only applied in three centres. There is also organised, under the Ministry of Finance, a system of factory inspection. Russia for this purpose is divided into fifty-nine industrial departments; and as each head inspector receives 5000 roubles and the sub-inspectors 3000 roubles, it is anticipated that they will be able to render good service, and that it will not be easy to bribe them to neglect their duties. There is also a law to the effect that where there are more than a hundred persons employed in a factory medical attendance should be provided; but it is physically impossible to apply this law, for there are only 18,000 doctors in the whole of Russia. Consequently many factories have no medical attendant, and the lack of proper care in sickness is another cause of the high rate of mortality.

Madame Tkatcheff's paper, of which this is but a brief and incomplete summary, produced a deep effect. After a few questions had been put, Mr. Adolphe Smith rose, and urged the section not to rest satisfied with congratulating Madame Tkatcheff. She had given them a graphic and appalling picture of widespread suffering and human degradation. It was no use holding congresses if they did not exercise their undoubted influence to put an end to such abominations. He would suggest that the Russian delegation might prepare a report on the effect of the recent Russian legislation, and on the actual condition of the working classes in that country. This report could be presented to the London Congress, and followed by a resolution worded in the manner which the Russian delegates might think would have the best effect in Russia. Such a resolution, put to the entire London Congress, and adopted unanimously, as there was every reason to hope it would be, could not but have effect. There was no Government so deaf as not to hear the voice of a congress representing the best elements of sanitary progress in modern civilisation. In any case, it was impossible to sit still and make no effort to remedy a state of affairs which was a disgrace to our common humanity. The use of international congresses was precisely to bring international pressure to bear where there was a weak point in the armour with which civilisation clothed herself to war against disease and premature death. He therefore moved the following resolution: "That this section invites the Russian delegates to submit to the International Congress of Hygiene, in London, in 1891, a report on the results of the new laws for the protection of labour, and a resolution for the amelioration of the material condition of the working classes in Russia."

This speech and proposal were warmly cheered, and the resolution was unanimously carried.

Dr. Dargelos read a paper on a method for rendering felt hat manufactories less unwholesome. M. Fisher brought forward some proposals for disinfecting night soil on its passage to the sewers, and M. Maignen an invention for purifying sewer water and extracting therefrom the solid residue, the ammonia, &c. The section, on the strength of these two papers, was asked to vote a resolution regretting that the proposed credit of 200,000 francs for experiments in this direction had been struck out of the French budget. Mr. Smith objected, on the ground that the French budget did not concern an international congress, but only the principle at stake, and he thought we should all agree that all the Governments, and not one single Government, should be more liberal in such matters. The utilisation of sewage was a problem that might necessitate expensive experiments, and the States of Europe and America should, by small subventions, encourage such experimental research. A resolution in this wider sense was thereupon unanimously adopted, and the section adjourned.

On Friday afternoon some sections met at two o'clock, but at four o'clock all the sections met together in the grand amphitheatre for the final sitting. Dr. Brouardel, as President of the Congress, explained that the sections had passed a number of resolutions, that the subjects to be discussed in each section had been fully announced beforehand, and therefore each member of the Congress had enjoyed the opportunity either of supporting or combating any one of the proposals brought forward. Under these circumstances they might conclude that what the sections had done had been well done, and now he would ask the Congress to approve by vote, and if possible without discussion, the decisions of the sections. Dr. Martin then commenced to read upwards of fifty resolutions. Dr. Brouardel soon discovered that a large number of these resolutions dwelt exclusively with French questions, and therefore did not put them to the Congress, but referred them back to the French committee. Most of the other resolutions of a general character were confirmed by a show of hands, though now and then there were a few opposing votes, and often a great number of abstentions. The fact was that many of the subjects were entirely new to a large number of the members, who had not been able to attend more than one section at a time. Still, it was too late for discussion, and many things were allowed to pass which will require revision. Many of the resolutions thus confirmed have already been given in describing the work of the sections. To these I might add a resolution, very warmly applauded, demanding that an address be forwarded to M. de Freycinet, Minister of War, congratulating him on his recent measures on sanitation in the army. Other resolutions demanded—a permanent inquiry into the cause of excessive infant mortality, a stricter control over midwives, the teaching of hygiene in schools, the publication of methods of water analysis, the creation of bureaux of hygiene and municipal laboratories in all centres of population, new laws enabling municipalities to compel householders to adopt the town water-supply, the abolition of all laws preventing cremation, the encouragement of cremation on battle-fields, the better inspection of phtrmacies, &c.

The reading of these resolutions having taken up con-

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siderable time, the concluding ceremony had to be proceeded with very promptly, and Dr. Brouardel spoke for only a few moments. He announced that the next Congress would be held in London during the first week of August, 1891. The work of organisation had already commenced, and the subjects to be discussed would probably be known in about six months time. He thanked his colleagues from abroad for the excellent support they had given the Congress, and hoped the harmony which had prevailed during the week among the members of the Congress would continue to reign amongst the nations represented.

Dr. Roth, on behalf of the foreign delegates, wished to thank the President and the organising committee for all they had done.

Senator Dr. Pacchiotti, in an enthusiastic speech, reproved the President for qualifying him as a foreigner. "The President," he exclaimed, "salutes the foreigners, but there are none in France. We are all at home in France. Here we meet each other, we live close to each other, we learn to love each other, we talk on the same subjects, we pass the same resolutions; we are not foreigners, we are brothers."

Mr. Shirley Murphy, in the name of the English delegation, rose to thank the French organisers of the Congress for the admirable reception they had prepared. He hoped to demonstrate the gratitude felt by the care they would take in providing hospitable entertainment in London. The cause they had at heart merited the support of all civilised nations. He only regretted that London was not a beautiful city like Paris, and that London did not possess a Brouardel. Nevertheless, he cordially urged all present to accept the invitation and meet again in England, and therefore he did not say *adieu*, but *au revoir*.

Mr. Shirley Murphy was loudly cheered, and the Congress was declared closed amidst cries of "*à Londres!*"

Though the official work of the Congress was thus brought to an end, some two hundred members met again on the following Sunday morning, and, led by M. Bechmann, engineer-in-chief of Paris, visited the palatial sewers that run from the Place de la Madeleine to the Châtelet. In barges and in a sort of tramway they travelled through underground Paris. The sewers were illuminated by many lamps and also by electricity. The barges were supplied with cushioned seats, the ladies came in elegant toilettes, and, so that they should not soil their dresses, the steps down into the sewers were carpeted. As an engineering feat these palatial sewers, as they have been so justly described, are certainly most remarkable, and well worth a visit. From the Châtelet the members of the Congress were conveyed in comfortable brakes to the sewage farm of Gennevillier. At Clichy they stopped to see the pumping machines, which lift a third of the sewage and send it over the river in an iron pipe to Gennevillier, where it is used to irrigate 750 hectares of market gardens. The remainder will in course of time be sent to Archères and to Méry. In the meanwhile, two-thirds of the Paris sewage still fall into the Seine at Asnières, and the members of the Congress were able to witness how it fouls the waters of the river. They then went over the sewage farm, admired the vegetables, ate some of the fruit, and drank the beautiful clear water derived from the sewage of Paris. It contained, they were assured, a smaller number of microbes than the best spring water, the Vannes water, supplied to the town of Paris. The Congress now proceeded to enjoy the excellent lunch provided by the town of Paris at a restaurant in the little village of Gennevillier. The toasts were preceded by speeches of a particularly earnest and hearty character. Dr. Martin, as president, proposed that a crown composed of flowers from the sewage farm of Gennevillier should be deposited by the Congress on the grave of M. Alfred Durand-Claye, the author of the scheme of which they had admired the result. He recalled that when, in 1878, Durand-Claye had visited Gennevillier, he had been mobbed by the inhabitants; now he was the hero of the place.

M. Emile Trélat, who could scarce control his emotion, drank to the memory of his old friend. Durand-Claye had been an eminent engineer, he had distinguished himself at college everywhere; but what made him really great was the whole-hearted manner with which he had given himself up to his work. Around them at Gennevillier, every hod of earth, every flower, breathed his name. A man with two hearts—a heart in France and a heart in his native Italy, Pacchiotti had proposed that a monument should be raised in honour of Durand-Claye. As a Frenchman, he could but blush that a Frenchman had not first made the suggestion; but while blushing, he gladly followed the example set by his excellent Italian friend. M. Deligny, Municipal Councillor, who had worked fifteen years with M. Durand-Claye, spoke a few affectionate words in his memory; and then the Mayor of Gennevillier, in the name of the inhabitants, desired to associate himself with the project, and promised a free grant of land for the monument.

M. Bechmann, M. Durand-Claye's successor, and Dr. Henriot, Mayor of Rheims, having spoken, there were loud cries for Dr. Bourneville, who in the National Assembly had carried the Bill which legalised these irrigation works, and whose admirable report on "l'Utilisation agricole des eaux d'égout de Paris" should be studied by all who are interested in the subject. Dr. Bourneville, in his speech, paid a handsome tribute to the various international congresses of hygiene. It was their debates, their decisions, which had strengthened his hands and enabled him to obtain the sanction of the French Assembly. M. Durand-Claye had collected a splendid library on sanitary questions, and proposed to leave it to the Museum of Hygiene which he hoped the Municipality of Paris would soon be able to create, and he called upon M. Deligny to press the matter forward.

M. Bonkowsky Bey, chemist to His Majesty the Sultan, in a few well-turned sentences proposed that the name of the ten agriculturists who first consented to utilise the Paris sewage water at Gennevillier should have their names engraved on Durand-Claye's monument. Delegates from Mexico, Brazil, and Egypt having also expressed their sympathy, Mr. Adolphe Smith was again selected as spokesman on behalf of England and America. In the name of these nations he desired to participate in the centenary celebrations of 1789, a date to be ever associated with the spread throughout the world of those principles of freedom which were the basis of true scientific research and knowledge. As representing the most liberal nations of the civilised world, he hoped America and England would always remain united with France in their forward march. He claimed for these countries the full right to participate in the honours to be rendered to the memory of Durand-Claye. He challenged the French right to monopolise this memory. Durand-Claye was a glorious example of the international character of sanitary science. He had never paused at a frontier line, but studied hygiene with equal assiduity in England, Holland, Belgium, even in Germany, availing himself of all the good ideas he could find in all countries. That library which he had so generously left to the town would be found to be an international library; and Paris was an international town, and hygienists of all countries meant to avail themselves of Durand-Claye's experience, and while inspiring themselves by his great works, claimed their right to contribute to the homage that would so justly be rendered to his memory. This speech was enthusiastically received. Dr. John H. Rauch, medical officer of health of Chicago, confirmed briefly in English the sentiments expressed, and promised to raise a subscription for the monument in America. Several hundred francs were at once collected among the guests, who, though they had started at nine in the morning, did not get back to Paris till five in the afternoon. Still the Congress was not quite over, for the next evening a hundred members, principally the foreign delegates, were entertained at a brilliant reception given in their honour at the Ministry of the Interior, by the Minister, M. Constant.

Thus at last was this most animated and successful Congress terminated. I have given a very imperfect, incomplete account of the proceedings, but perhaps have said enough to show the interest and importance of such congresses. Several subjects, notably the ventilation and heating of houses, so originally and ably treated by M. Emile Trélat and M. Somasco, I must leave for a separate study, and will attempt to describe the theories enunciated when dealing with the exhibits on these questions. But for a full account of the Congress it is best to wait till the official report, which will constitute a large and handsome volume, is published. This will probably be done at an early date, and will be sent gratuitously to all the members of the Congress. Those who were not members will probably be able to obtain the report by applying to the Secretary General of the Société de Médecine Publique et Hygiène Professionnelle, 28, Rue Serpente, Paris.

Paris, Aug. 19th.

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THE NEW SYDENHAM SOCIETY.

THE thirty-first annual meeting of the new Sydenham Society was held at Leeds on Friday, Aug. 16th, Dr. Robert Barnes in the chair. The report, as below, was read and adopted, as was also the balance-sheet.

During the year which has just closed the following works were issued:—Second and concluding volume of Spiegelberg's Midwifery; the fifteenth fasciculus of the Lexicon of Medical Terms; the first volume of Cohnheim's Lectures on General Pathology; the first volume of Henoch's Lectures on Diseases of Children. For the year just commenced (1889) two works are already in the members' hands; these are—the seventh fasciculus of the Atlas of Pathology, comprising Diseases of the Gall-bladder, Calculi, &c., with one plate, illustrating Osteitis Deformans; the third volume of Charcot's Lectures on Diseases of the Nervous System.

Respecting the Lexicon of Medical Terms, the Council is glad to know that its value is being more and more widely appreciated, and that new members are not rarely attracted by the wish to obtain it. The editors have now completed considerably more than half of their onerous task, and although their work does not proceed so rapidly as could be wished, its progress is steady. Respecting the excellence of their work, the Council believes there is but one opinion, and that nothing has been omitted likely to hasten its conclusion may readily be believed.

The following works will be ready within the next six months, and the date of their issue will depend entirely upon the funds placed at the Council's disposal:—The second volume of Henoch's Lectures on Diseases of Children; the second volume of Cohnheim's Lectures on General Pathology; the sixteenth and seventeenth fasciculi of the Lexicon of Medical Terms; Flügge's Treatise on Micro-parasites. The Council wishes it to be clearly understood by local secretaries and members generally that the question as to the number of works to be issued in the current year rests with themselves. The works mentioned are almost finished, but most of them must of necessity be held over for another year unless subscriptions now due are paid up promptly, and a certain number of new members enlisted. It may be understood in a general way that the addition of £500 to the Society's income carries for all members an additional volume for the year. If, then, that number of new members can be added for 1889, or half that number for the two years 1888 and 1889, an additional volume will be given. In this matter the Council cannot but feel that it has discharged its share of duty to the Society, for the works in question are in readiness.

The receipts for the year amounted to £1887 11*s.* 1*d.*, and the expenditure to £1799 13*s.* 7*d.* Dr. W. T. Gairdner was elected President for the ensuing year, and Dr. Sedgwick Saunders and Mr. Jonathan Hutchinson were re-elected Treasurer and Secretary respectively.

OUR ARMY.

FROM the "Preliminary Return of the British Army," prepared by the Adjutant-General, we learn that the average strength of officers in 1888 was 7822, and of warrant officers, non-commissioned officers, and men 203,783. Of the latter, 103,140 were serving at home and 100,643 abroad. The deaths reported among them during the year were 1852 and the number discharged as invalids 2750, being respectively in the ratio of 9·11 and 13·53 per 1000 of strength. There were 8409 men, or 41·36 per 1000, transferred to the Army Reserve. There were 47,503 recruits inspected, of whom 14,973 were rejected before, and 1616 after, attestation, making a total of 16,589, or 349 per 1000 examined. Of the total enlisted, 25,156 ultimately joined, being in the proportion of 529 per 1000. Of the recruits who joined, 17,129, or 682 per 1000, were under twenty years of age. This is unsatisfactory, as it shows an increase in the proportion under twenty compared with 1887, when it was 642, and with 1886, when it was 636 per 1000. Of the men serving at home on January 1st, 1889, 234 per 1000 were under twenty years of age. Arranged by nationalities, of every 10,000 serving, 7580 were English, 908 Scotch, 1379 Irish, 128 colonials, and 5 foreigners. The average strength of the Army Reserve in 1888 was 54,395 non-commissioned officers and men, of whom 51,174 were in the first class and 3221 in the second. The deaths among the former were 303 and among the latter 61, being respectively in the ratio of 5·92 and 18·94 per 1000 of strength. The difference in the death-rate was doubtless the result of the different age distribution of the two classes; in the first class almost all the men were under forty, and three-fifths of them were under thirty, while in the second class they were nearly all above forty years of age. The average strength of the Militia, exclusive of the permanent staff, was 110,441, and among them the deaths reported were 408, or 3·69 per 1000, but this is probably understated, as a considerable number were struck off the strength as absentees, some of them in all likelihood being deaths. The Militia Reserve averaged 30,503, with 113 deaths reported, or 3·70 per 1000, but they also had a number struck off as deserters and absentees. The average strength of the Yeomanry Cavalry was 11,081, and they lost 81 by death, being 5·32 per 1000. The difference in the death-rate of Militia and Yeomanry Cavalry may be in a considerable degree a result of age, as in the latter the proportion of men above thirty was 375 per 1000 of strength, while in the former it was only 260. There was also a marked difference in the numbers struck off for absence, amounting in the Militia to 79·6, while in the Yeomanry Cavalry they were only 19·2 per 1000. The average strength of the Volunteers during the year was 227,253, and the deaths reported were 746, or 3·28 per 1000; but it is probable that the omission to report deaths has been even greater than in the Militia. The Volunteers are comparatively young, the proportion above thirty years of age being only 221 per 1000. We have prepared from the report the following table, showing the relative ages of the men forming the home force of the kingdom:—

	AGE.		
	Under 20.	20 to 29.	30 and upwards.
Army at home	233·8	636·1	130·1
Militia	279·9	459·6	260·5
Yeomanry Cavalry ..	63·5	561·8	374·7
Volunteers	218·7	560·5	220·8
Army Reserve	—	572·5	427·5
Militia Reserve	43·8	654·0	302·2

From this it appears that the Militia has the highest proportion of lads under twenty, and that the Regular Army has the smallest proportion of men of thirty and upwards.

IRISH LUNATIC ASYLUMS.

THE thirty-eighth report on the District, Criminal, and Private Lunatic Asylums in Ireland has just been issued. The report has been prepared by Dr. Nugent, the other inspector having retired on pension. The continued and progressive decrease of the population of this country, to the extent of 776,000 individuals within the present decade, and of whom no less than 78,600 emigrated last year, has materially influenced, as regards Ireland, the proportion between the sane and insane. The accepted ratio of mental disease, as judged by reliable data in the United Kingdom, had hitherto been estimated at about 2·86 cases in every 10,000 inhabitants; that proportion has been undergoing a progressive and marked change in Ireland, through emigration and from the fact that the mentally affected of all ages are abandoned by their departing relatives, while the indigent and those in the humbler walks of life are relegated to poorhouses or public asylums. The result is that about 36 to 10,000 would at present represent in Ireland the proportion of the insane to the sane. Of the 15,685 patients mentally affected on Jan. 1st last, 10,825 were located in district asylums, and 4083 in workhouses. As contrasted with the number of insane on Jan. 1st, 1888, there has been an increase of 442. The total number under treatment for the past year in district asylums was 13,320, of whom 1207 were discharged recovered, 356 improved, 144 incurable, and 786 died. The mor-

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tality in Irish asylums, as represented in a long series of annual returns, has been uniformly low in proportion to the daily number of their inmates. Last year it was only 7⅛ per cent., or one and a half under the average. Of the 786 deaths, 287 were due to thoracic affections, 205 to cerebral and cerebro-spinal affections, 120 to debility and old age, and 78 to abdominal affections. In a few asylums dysentery prevailed for some time, especially at the Richmond and Carlow institutions. In the former there were 96 cases, of which 25 proved fatal; and in the latter 11 died out of 61. The sewerage of the Richmond was, on examination, found to be imperfect, and the main conduits to the river choked up, so that an extensive system of sanitary improvements was undertaken, at an estimated cost of £15,000, and is already far advanced. In reference to the physical causes of the mental disease in the inmates of asylums, 265 were attributed to intemperance and irregular living, 274 to cerebral disease, and 323 to bodily injuries and disorders, out of a total of 977 from physical causes. Of the total number (2821) admitted into district asylums during the past year, 868 were married, 1717 single, 134 widowers or widows, and in 102 instances the social condition was not known. That the number of single should nearly be double that of the married is contrary to what is observed in other countries. In consequence of the excess of admissions over the available accommodation, day-rooms and corridors were not unfrequently converted into dormitories, in some asylums to between a fifth and a sixth of their legitimate extent. The institutions most affected were the Richmond, Cork, and Belfast; in the first there is an excess of about 240 inmates, and in the others of over 130. The total insane in workhouses amounted to 4083: the idiot class was composed of 1903 individuals, 360 being epileptic; and the demented to 2180, of whom 389 were also epileptics. The expenditure in district asylums for the past year was £219,585, equal to a capitation scale of £20 10*s.* 10*d.*, or a slight decrease as compared with 1887.

THE BRITISH DENTAL ASSOCIATION.

THIS Association commenced its tenth annual meeting on Tuesday in the Pavilion at Brighton.

Mr. Daniel Corbett (Dublin), who occupied the presidential chair last year, being unable to visit Brighton, the chair was occupied by Mr. J. Smith Turner.

Mr. F. Canton made a good report as to finances, declaring a satisfactory balance at the bankers.

Mr. Morton Smale, in reading the report of the executive for the past year, said: "The prosecution of offenders against the Dentists Act as hitherto conducted, although eminently successful from a legal point of view, has not produced that impression on the public generally which is so very desirable; but it is hoped in the immediate future by concerted action to not only punish offenders but also to impress the public and enlighten them how to distinguish between the regular practitioner and the quack or charlatan. Three prosecutions have been successfully carried out during the past year. It is hoped during the coming year to deal with those who, unable to call themselves dentists or dental surgeons, evade the Act by styling their premises 'Dental Institutes,' 'Dentoriums,' &c." He said that the members numbered 763, against 710 last year, showing a net gain of 53. The Association had lost by death two members; one of these, Mr. Spence Bate, F.R.S., had a reputation as a scientist that extended far beyond the confines of the dental profession.

Sir John Tomes, Sir Edwin Saunders, and Mr. John Smith (Edinburgh), were elected Vice-Presidents of the Association.

It was decided to hold the next annual meeting at Exeter, Mr. Browne-Mason of that city being chosen President-elect.

Mr. S. LEE RYMER, J.P., the President for the year, then delivered his inaugural address, in which, after welcoming the Association to Brighton and thanking the members for the honour of his election, he proceeded to review hopefully the probabilities of prolonging the average of human life to seventy years—the aids of science, including dentistry, being employed towards this end.

The remainder of the day was occupied by the reading and discussing several important papers on Anæsthetics, their nature and action and methods of administration.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

THIS Society held its summer meeting on Thursday, Aug. 15th, in the theatre of the Medical School, Leeds, and during the meeting of the British Medical Association in that city, Mr. F. Treves, a member of the Council, took the chair. There was a good attendance of members and visitors, and a number of interesting matters were brought before the meeting. Dr. Ambrose succeeded, by following the nerve trunks, in ascertaining that an extra lumbar vertebra belonged to the sacrum and not to the dorsal region, Drs. Griffith and Oliver, having observed that the distribution of herpes zoster seemed irreconcilable with current accounts of the anatomy of the spinal nerves, were led to investigate their anatomy. They showed to the satisfaction of the meeting that the dorsal branches of the spinal nerves were distributed to the skin very much lower than is supposed, and that they ran downwards for some distance in the substance of the muscles of the back. Three gentlemen also showed a very interesting series of specimens and frozen sections from the Leeds Museum, including a patent parumbilical vein, an anomalous round ligament of the liver, feet with six toes, and frozen sections of the pelvis. Dr. R. W. Reid also sent some rare specimens of cervical ribs, a fifth lumbar vertebra with a suture in the neural arch, between the upper and lower articular facets, and the calvaria of a tumbler from Sir Astley Cooper's collection. Messrs. Lockwood and Withers showed an unusual right aortic arch, which, besides showing the usual condition, had persistence of a part of the second left arch, which gave off the left subclavian artery. By far the most interesting exhibits were those of Professor Alexander Fraser, who showed a very large series of photographs of anatomy, histology, and embryology. His composite photographs were greatly admired, as were also his photographs of brains. The same anatomist also described some bodies like Paccinian which he had found in the thyroid gland, and, in giving the details of his work on the spinal cords of a number of rodents, said that he found that the pyramidal tract ran in the posterior columns of the cord, and not as others had described. Both as regards the attendance of members and visitors and the value of the work placed before it the meeting was most satisfactory.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6016 births and 3518 deaths were registered during the week ending Aug. 17th. The annual rate of mortality in these towns, which had declined from 21·0 to 18·8 per 1000 in the preceding three weeks, rose again to 19·2 last week. During the first seven weeks of the current quarter the death-rate in these towns averaged 20·0 per 1000, and was 0·4 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 9·0 in Derby, 15·9 in Bristol, 16·2 in Nottingham, and 16·6 in London. The rates in the other towns ranged upwards to 27·9 in Newcastle-upon-Tyne, 28·1 in Hull, 29·5 in Sunderland, and 42·6 in Preston. The deaths referred to the principal zymotic diseases in these towns, which had declined from 1018 to 785 in the preceding four weeks, rose again last week to 812; they included 555 from diarrhœa, 69 from measles, 54 from diphtheria, 53 from scarlet fever, 45 from whooping-cough, 36 from "fever" (principally enteric), and not one from small-pox. These zymotic diseases caused the lowest death-rates last week in Oldham, Huddersfield, and Bradford, and the highest rates in Hull, Plymouth, and Preston. The greatest mortality from diarrhœa occurred in Hull, Portsmouth, Birmingham, Leicester, and Preston; from measles in Hull, Halifax, and Preston; from scarlet fever in Plymouth; from whooping-cough in Birkenhead; and from "fever" in Preston. The deaths from diphtheria included 36 in London, 4 in Birmingham, 3 in Sheffield, and 2 in Liverpool. Small-pox caused no death in any of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever

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patients in the Metropolitan Asylum and the London Fever Hospitals at the end of last week was 822, against numbers increasing in the preceding seven weeks from 559 to 779; 90 cases were admitted to these hospitals during the week, against 124 and 98 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 182 and 149 in the preceding two weeks, rose again to 162 last week, but were 26 below the corrected average. The causes of 79, or 2·2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Norwich, Wolverhampton, Blackburn, and Cardiff; the largest proportions of uncertified deaths were registered in Newcastle-upon-Tyne, Liverpool, Bristol, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased from 17·9 to 18·6 per 1000 in the preceding three weeks, declined again to 17·8 in the week ending August 17th; this rate was 1·4 below the mean rate during the same week in the twenty-eight large English towns. The rates in these Scotch towns ranged last week from 11·6 and 14·0 in Aberdeen and Greenock to 20·7 in Glasgow and 26·9 in Perth. The 455 deaths in the eight towns showed a decline of 20 from the number in the previous week, and included 43 which were referred to diarrhœa, 21 to whooping-cough, 10 to measles, 7 to diphtheria, 6 to "fever" (principally enteric), and not one either to small-pox or scarlet fever; in all, 87 deaths resulted from these principal zymotic diseases, against 77 and 107 in the preceding two weeks. These 87 deaths were equal to an annual rate of 3·4 per 1000, which was 1·0 below the mean rate from the same diseases in the twenty-eight English towns. The deaths referred to diarrhœa, which had been 39 and 57 in the previous two weeks, declined to 43 last week, but exceeded by 23 the number in the corresponding week of last year. The 21 fatal cases of whooping-cough showed a decline of 3 from the number in the preceding week, and included 12 in Glasgow, 4 in Paisley, and 3 in Dundee. The deaths from measles, which had been 8 and 10 in the previous two weeks, were again 10 last week, of which 4 occurred in Glasgow, 3 in Aberdeen, and 3 in Leith. The 7 fatal cases of diphtheria corresponded with the number in the preceding week, and included 3 in Edinburgh, 2 in Glasgow, and 2 in Dundee. The 6 deaths attributed to "fever" showed a decline of one from the number in the preceding week, and included 2 in Edinburgh. The deaths referred to the principal diseases of the respiratory organs, which had been 60 in each of the previous two weeks, were 57 last week, and corresponded with the number in the same week of last year. The causes of 36, or nearly 8 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 20·7 and 24·8 per 1000 in the preceding two weeks, declined to 24·4 in the week ending Aug. 17th. During the first seven weeks of the current quarter the death-rate in the city averaged 22·4 per 1000, the mean rate during the same period being 17·7 in London and 16·1 in Edinburgh. The 165 deaths in Dublin showed a decline of 3 from the number in the preceding week; they included 25 which were referred to diarrhœa, 4 to whooping-cough, 3 to "fever," 1 to measles, 1 to diphtheria, and not one either to small-pox or to scarlet fever. Thus the deaths from these principal zymotic diseases, which had been 15 and 25 in the previous two weeks, further rose to 34 last week; they were equal to an annual rate of 5·0 per 1000, the rate from the same diseases being 3·0 in London and 2·2 in Edinburgh. The deaths referred to diarrhœa, which had been 8 and 17 in the preceding two weeks, further rose to 25 last week. The four fatal cases of whooping-cough corresponded with the number in the previous week. The deaths from "fever" exceeded those recorded in any recent week, while those from measles showed a further decline. The deaths of infants showed a marked increase, while those of elderly persons were below those recorded in the preceding week. Three inquest cases and 4 deaths from violence were registered; and 40, or nearly one-fourth, of the deaths occurred in public institutions. The causes of 22, or more than 13 per cent., of the deaths in the city were not certified.

Correspondence.

"Audi alteram partem."

VACCINATION AND INFANTILE SYPHILIS.

To the Editors of THE LANCET.

SIRS,—Returning with Dr. Creighton from his interesting excursus into the laws of evidence, the Maybrick trial, &c., to our starting-place, I have to point out that the subject of my letter was "the argument derivable from Scotch registration statistics regarding the relationship between vaccination and infantile syphilis, and Dr. Creighton's connexion therewith." He had stated that he had "established" the argument in question, and I showed, as I believe, that his assertion rested on very insufficient ground, and I further urged this as a warning to his readers—who might not be able, as I had been in this case, to turn to the original documents—of the too great facility with which it was possible for him to come to a finding on the subject. We seem to be at one as to what his ground actually was, and this being so, his reiteration of its sufficiency only of course emphasises my opinion that he is apt to build on too slender a foundation, and leaves the issue clear for those who care to judge. He states, quite truly, that in addition to the Scotch statistics, he had other reasons for his views on infantile syphilis. That goes without saying. It was not, however, with his other arguments that I elected to deal, but only with the particular statistical argument in question, and therefore I did not dream of inserting, as he thinks I should have done, a quotation as to his opinions on congenital syphilis.

Whether the indication which I gave would be provisional or permanent would of course depend on whether or not the reader would take the pains to extend his acquaintance with the subject, either through consulting the authorities at first hand, or, more easily though less satisfactorily, through such criticism as may appear in the *Edinburgh Medical Journal* or elsewhere. But, as we may take it for granted that many readers will do neither, then unquestionably I desired and do desire that, carrying away with them the fact that vaccination is opposed by one man of standing in the profession, they should at the same time carry away the other fact (as I hold it to be) that the man in question is liable to base his statements on insufficient evidence. This Dr. Creighton calls "a vague and comprehensive innuendo." The term does not seem to me to be applicable.

The Doctor mentions, as a difference between us, that while I had transcribed the Scotch figures into my book, he had transcribed them only into his note-book. That, I take it, was unfortunate, for though they owe much of their value to comparisons which he has not made—one being with English figures of which he was not cognisant,—if he had put even the Scotch figures into his book, they would have served in great measure to counteract the pageful of figures, constituting an oft-repeated argument against vaccination, which in his discussion of the matter he did insert. Indeed, it is not easy to see why, in his desire to protect vaccination from unjust assault, he should have omitted the former (as pedantic?), while he found a place not only for the latter, but for another table showing how the registrations from vaccinal erysipelas had increased during the past thirty years. On his part, as a defender of vaccination against the "alarmist teaching" of anti-vaccination writers[1] on this subject, the omission was surely a tactical blunder.

I am, Sirs, yours sincerely,

Aug. 19th, 1889. JOHN C. MCVAIL.

THE USE OF ROBURITE IN MINES.

To the Editors of THE LANCET.

SIRS,—I trust to your sense of fairness to allow me space to reply to an annotation under the above heading in your issue of July 20th.

1. In the first place, let us eliminate from consideration the unfortunate accident at Gathurst which you refer to "as proving beyond doubt that roburite is a very poisonous compound," since it had nothing whatever to do with the use of the explosive in mines. It was proved at the inquest that the poor man died from the effects upon a weak heart of getting into a closed shaft or

[1] THE LANCET, Dec. 1st, 1888.

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funnel employed to carry off the fumes of di-nitro-benzol during the manufacture of roburite, for the purpose of cleaning it out, and doubtless he inhaled into his system a quantity of the finely divided substance. This ought, of course, never to have been allowed, as mechanical means can be used for the purpose, but it may be noted that other healthy men had repeatedly done the same without receiving any sensible harm. I have known a remarkably strong man die from inflammation of the lungs caused by inhaling the fumes of a pot of guncotton which "fumed off" during manufacture, yet I venture to say no one would characterise guncotton as "a very poisonous compound."

2. The report of the medical and chemical experts referred to by you was couched in the extremely cautious terms universally employed by such authorities, and yet was considered by Her Majesty's Mining Inspectors and the Home Office as favourable to the use of roburite. As reported in *The Times* of July 20th, the Home Secretary refers to it as follows:—"I am informed by the inspector that there is a growing use of roburite in the Lancashire collieries. It is a useful explosive, and practically safe for use in fiery mines. I gather from newspaper reports that its use has been condemned by miners as injurious to health. An inquiry was recently held into this matter by a committee of experts on which the Miners' Federation was represented, and their conclusion was, that if proper care is exercised by managers, shot-firers, and colliers, the use of roburite will not add to the harmful conditions under which the miner works." Now, the appointment of the committee in question arose chiefly out of the abortive strike at the Park-lane Colliery of the Garswood Coal and Iron Company, referred to by you; but you were not aware, probably, that this strike was led by the secretary of the Lancashire Miners' Confederation, and that, in addition to himself, two members of the miners' committee which condemned roburite were concerned in the said strike. I will only add that the most powerful defence of roburite which I have seen appeared in the columns of the *Wigan Observer*, from the pen of an independent working miner, who considered safety from the danger of explosion as the very foremost requisite of an explosive for coal mining.

3. In laying such stress upon the injurious effects of the fumes of fired roburite, the Lancashire Miners' Confederation have chosen to attack that explosive upon its strongest side, for there is abundant evidence that its products of explosion are less noxious than those of any other high explosive in ordinary use. Testimonials to this effect can be seen from many colliery managers in the Lancashire district, as well as from other parts of the country. While carrying out an extended series of experiments, on the first introduction of roburite, in the great Yorkshire and Durham coal districts, many shots were fired in distant galleries of deep mines under the superintendence of my colleague Admiral Colomb and of myself. I can testify that after taking up a position as near to the coal face as was consistent with safety, I invariably rushed up the moment the shot was fired, and never experienced the least inconvenience from the fumes, although I was at the time suffering from a bronchial affection. But we have far stronger testimony on this point; two experimenters employed by the Roburite Company have fired many thousands of shots under all possible conditions, and both of them are perfectly healthy. One of these men in the early part of the present year fired away in one series of experiments 401b. of roburite in eighty charges of various weights, in an unventilated tunnel, spending twenty-three consecutive hours in the tunnel without being the worse for the fumes. The experts' report shows that, besides an amount of carbon di-oxide not sensibly greater than that often inhaled in a London fog, there is present a small quantity of carbonic oxide, which they consider arises from the action of di-oxide upon the carbon of the coal, and which would therefore be generated by the use in a coal mine of any other explosive substance.

4. In the peroration of their report the Miners' Committee draw a harrowing picture of the results of having placed in their hands a substitute for gunpowder which will "slowly destroy our health, poison our whole system, and eventually send us to a premature grave." Certainly, the fumes will not shorten their lives, and why the shot-firers should handle the naked roburite I cannot conceive, since it is enclosed in air-tight and waterproof cartridges of various sizes. A drop of nitro-glycerine on the skin will cause a bad headache, and no one would needlessly handle naked dynamite; but I deny that, unless carelessly taken into the system with food, or absorbed through abrasions of the skin, handling even naked roburite will poison any one; I have made experiments with the granulated substance taken from a glass bottle, and manipulated it with my fingers a great many times without any ill effects whatever. The peculiar smell of roburite arises from a mere trace of mono-nitro-benzol always present with the mass of the chloro-di-nitro-benzol, which latter is not volatile, and, as everybody knows, the ammonium nitrate is harmless.

5. In conclusion, while expressing my surprise that the writer of your article should have followed the miners' committee in misreading the report of the experts, I would point out that to condemn roburite as poisonous and injurious to health, if used with ordinary care, is to condemn the whole class of modern high explosives, of which di-nitro-benzol is a chief ingredient, as securite, bellite, and others, whereas a scientific commission, appointed by the French Government, which has been carrying on exhaustive experiments during the last two years, has reported most highly upon this class of explosives, as eminently adapted for use in fiery mines. An elaborate and valuable report upon this subject, addressed to the Minister of Public Works, may be seen in a comparatively recent number of the *Journal Officiel* of the French Republic.—I am, Sirs, your obedient servant,

W. H. WARDELL, Major-General, R.A.,
Author of articles "Explosives," &c., in last edition of the "Encyclopædia Britannica," and the "War Office Handbook of Gunpowder and Guncotton."

Brighton, August 20th, 1889.

THE NOTIFICATION OF INFECTIOUS DISEASES BILL.

To the Editors of THE LANCET.

SIRS,—The contention of Dr. McLintock of Bradford is that also of Mr. Crosse of Norwich, and of Dr. Whitelegge, late of Nottingham—namely, that under the single or householder system of notification, although the local Act directs the medical man to hand the certificate to the householder or person in charge of the patient, the medical man takes the duty of notifying upon himself in almost every instance, just as if he were under the dual system. This is very remarkable, and indicates an ignorance of the law obtaining in the several towns that one can scarcely credit. But quite possibly the assumption has arisen in the minds of the medical officers of health from the fact that the only signature appearing is the doctor's, and that the address of the sanitary authority is printed in readiness, either on the back of the form of certificate or on an envelope provided for the purpose. Be this as it may, the practitioners of Norwich, Nottingham, and Bradford are under no compulsion to notify directly, and there are no penalties attached to an omission to do so on their part, although they are compelled to certify. The rights of both householder and practitioner are in those towns protected by law, and if either of them casts his right away he has no one to blame but himself. But it is easy to conjecture that in numberless instances the householder would acquiesce in the document being sent by the doctor direct. And this only shows how needless is the dual system, especially as statistics give the preference to the other. I am very pleased to see Dr. Collins's letter, and, in common with the majority of the profession, am deeply grateful to you for your untiring support of our cause.

I am, Sirs, yours faithfully,

Kingston-on-Thames, Aug. 17th, 1889. D. BIDDLE.

To the Editors of THE LANCET.

SIRS,—Dr. W. J. Collins's criticisms on the Notification Bill conveyed in his letter in the present issue of THE LANCET appear to centre chiefly on the compulsory system the Bill will introduce, and the restrictions thereby imposed upon the liberty of the subject. The system, like almost everything else that is new, may cause a little friction at first, a little annoyance to certain general practitioners, and in a few instances even a little domestic unhappiness, which a voluntary notification from the heads of families would entirely do away with. Unfortunately, this much-to-be-desired consummation would be too much to expect, and it must be conceded that there will be, and has been, less concealment of infectious disease under compulsory notification than without it. As a practical hygienist himself,

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Dr. Collins, with a full knowledge of the conditions under which the poorer classes of the community almost invariably live in crowded localities, and of the apparently hopeless task it is to instil into their minds the most elementary principles of the hygiene of the sick room and of the meaning of the word "cleanliness," will perhaps admit that, although the compulsory element in the Bill is not entirely free from objection, it will only press hardly on those who, either from ignorance or from selfishness, are apathetic as to the public health—the class precisely for which a little mild legislative interference with the liberty of the subject is so sorely needed. That the Bill as it stands is not absolutely perfect may be granted; that opinions vary as to the justice of requiring the practitioner to notify as well as to certify is also a fact; that young practitioners have, and will again, call measles scarlet fever is a matter of history. Surely Dr. Collins does not desire to delay the passing of the measure on grounds such as these; or even because Dr. John Harley has not yet obtained proof of the contagiousness of scarlet fever. The Bill is sound in principle, and should be loyally supported by all sanitarians and the profession generally—to the extent even of waiving, for once in a way, any individual pet theories of the spread and prevention of certain diseases,—and welcomed as a step in the direction of strengthening the hands of those doing battle in the cause of health. As an educational measure alone it will prove invaluable, inculcating upon the individual the obligations of citizenship. The beneficial effects of the system have been proved already in more than fifty towns and districts. The measure can scarcely be called ill-considered, and, if it does become law, will, after all, be optional outside the metropolis, instead of being universally compulsory.

I am, Sirs, yours truly,

E. J. LAWLESS, M.D. Brux., D.P.H. Lond.

London, Aug. 19th, 1889.

THE PROPHYLAXIS OF TUBERCULOSIS.

To the Editors of THE LANCET.

SIRS,—On page 326 of THE LANCET of last week you publish some American rules as prophylactic against phthisis. Among other things, it is there stated that the room where the unfortunate patient lives and that in which he sleeps must be without curtains, or carpets, or rugs, or anything that is nice and cozy; and the sputum and the evacuations from the bowels are to be disinfected. And all this—I will not say what—you publish without note or comment. In opposition to these arbitrary, and in my judgment quite needless, precautions, seeing that it is still doubtful if phthisis is infectious at all in the ordinary sense of the term, will you kindly publish the fact so often stated, and as it would seem so generally ignored or overlooked, by our ardent theorists, that before the *bacillus* came to the front, or was even dreamt of, the Consumption Hospital at Brompton, without any precautions against infection whatever, showed as clean a bill of health amongst its staff of medical men, matron, and nurses, as any *non-special* hospital in the kingdom. Perhaps this fact may comfort some who have relatives or friends suffering from pulmonary consumption, and who may not care so to shut them out of society, and so to treat them, as laid down in the above-mentioned extraordinary rules.

I am, Sirs, yours obediently,

King's Lynn, Aug. 20th, 1889. WM. DALE, M.D. Lond.

*** Publication of the suggestions referred to does not imply approval, as our correspondent would have seen had he noted the remarks on this matter made in these columns in the preceding week. We agree with him as to the impracticability of these and many other proposals to treat phthisis as a contagious disease; but there is no disguising the fact that the opinion that it is communicable has been arrived at by many scientists in all parts of the world.—ED. L.

DIPHTHERIA AND ITS TREATMENT.

To the Editors of THE LANCET.

SIRS,—I have read with great interest Dr. May's letter in your issue of Aug. 17th under the above heading. I do not think he emphasises sufficiently the importance of frequent applications every three or four hours at least of the selected germicide to the affected parts, with removal at every application of as much membrane as possible. With regard to Dr. May's practice of administering an emetic or an aperient with the view of removing from the stomach and intestines the diphtheritic poison which may have lodged there, it is difficult to see how a single evacuation of their contents can be of any service at all. We know that the diphtheritic membrane is constantly re-forming, and that particles of it are constantly being swallowed by the patient along with his food or the saliva; one would require therefore continual emetics and aperients to keep the alimentary system free from the presence of the germs. I cannot agree with Dr. May that "tonics and stimulants in the early stage should not be given." One can lay down in diphtheria no such hard-and-fast line, for though I may have seen cases which required throughout little treatment save attention to general rules, I have carefully followed to its termination many a one in which a free and early exhibition of tonics and stimulants seemed obviously the rational treatment. I may say that I have found a solution of 1 in 1000 corrosive sublimate made up with glycerine and applied with a brush a most excellent throat application. Allow me to add that my experience has been gained in the Birmingham Children's Hospital, and that the results of the treatment there have always been very good.—Yours faithfully,

Linlithgow, Aug. 20th, 1889. THOS. HENDERSON, M.B.

THE GOVERNMENT AND PROFESSIONAL PENSIONS.

To the Editors of THE LANCET.

SIRS,—The Bill relating to Civil Service Pensions which is to be brought into the House of Commons aims a blow at all professional men who are engaged in the service of the Crown, and the fact of such a measure being introduced at the fag end of a Parliamentary session alone calls for the most uncompromising opposition to which a Bill can be subjected. Medical men, engineers, and other professional and scientific experts who have been engaged on a definite understanding as to pensions run grave risk of having the amount of their pensions lowered under this Bill. One proposal is to calculate the amount of pensions on a longer period of service than heretofore; another is to do away with the special allowances in case of abolition of office; and a still more important change is, in calculating pension allowances, to deprive professional men of the added number of years which were allowed them owing to the fact that they have had to spend many years in acquiring a profession before they were fitted to serve the State. Besides which, the age at which a professional man can enter the service of the State, taken together with compulsory retirement at sixty-five years, would prevent him, and him alone among civil servants, from ever attaining the two-thirds of his salary which constitutes full pension. Immediate steps should be taken to urge all members of Parliament to oppose the introduction of such a Bill at this season of the year; and all who are likely to be influenced by the proposal, either now, on promotion, or hereafter, should at once communicate with members of Parliament on the subject; appeal being especially made to members representing universities, and to members of the learned professions who are in the House of Commons.

I am, Sirs, yours obediently,

Aug. 20th, 1889. Q.

RESECTION OF LAMINÆ OF THE VERTEBRÆ.

To the Editors of THE LANCET.

SIRS,—Mr. Henry Thompson, in connexion with the report of a case at the Hull Infirmary, published in the last number of THE LANCET, refers to a case of paraplegia due to spinal disease, treated by resection of the laminæ of three vertebræ, under my care. I regret to state that the subsequent course of that case was not so satisfactory as I had hoped it would be. The boy progressed very well till he was attacked by diarrhœa, which was prevalent in the ward at the time, and he suffered very severely from it for some weeks in spite of remedies. On my return to town, after a month's absence, I found him much emaciated and extremely feeble. His chest trouble, which had apparently subsided before the onset of the diarrhœa, had also made considerable progress. He was sent home. I have not heard of him since.—Your obedient servant,

St. Thomas's-st., S.E., Aug. 17th, 1889. W. ARBUTHNOT LANE.

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LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Maybrick Trial.

IT is only natural that the *cause célèbre* which has attracted so much attention throughout the length and breadth of the land should have been the absorbing topic of conversation in medical and lay circles in the neighbourhood where it occurred, and in the city where the case was tried. The Crown Court, though probably one of the largest in the kingdom, was far too small for the demands made upon it. This court has witnessed several memorable trials. In 1860 Winslow was tried for the murder of a widow named James by poisoning her with antimony. It was only too probably a case of wholesale poisoning, but evidence was excluded which would now have been admitted, and what has generally been regarded as a great miscarriage of justice took place. In 1884 the two notorious women Flannigan and Higgins were tried, the trial lasting the whole of three days. More recently the no less notorious Mrs. Berry was tried and found guilty after four days' trial and sentenced to death. Still more recently came the case of Charles Parton, who caused the death of an elderly gentleman by putting chloral into his drink, and was found guilty, but was reprieved. The recent case, however, transcended in interest all these previous cases, the circumstances surrounding the case (as noted in THE LANCET of last week) combining to produce an effect never before seen. The crowds around St. George's Hall, in which are the Assize Courts, were enormous, requiring a large staff of police to prevent the hall being taken by storm. It may be confidently asserted that there never was a prosecution carried out with greater moderation and a fairness to the prisoner amounting to superstition. When Justice Stephen summed up, five days had been entirely taken up with the evidence on both sides and the three speeches of counsel. His charge to the jury occupied the whole eight hours of Tuesday, the 6th, and from 10 A.M. of Wednesday till 3 P.M., with, on each day, a short interval for lunch. This was considerably longer than the charge of the Lord Justice Clerk in Madeline Smith's case, which occupied seven days and a half, and little less long than that of Lord Campbell in Palmer's case, which latter occupied ten days in the evidence and speeches. To many of those who have watched the case from the first, and have been in a position to take a dispassionate view of it, the verdict of "Guilty" was a foregone conclusion.

"The Lancet' and the Local Press.

The leading article on the Maybrick case in last week's issue of THE LANCET appeared in the local evening papers of Thursday and the morning papers of Friday, and has given great satisfaction among the profession here. The excitement at first raised is calming down, and it is being made apparent that trial by mob would be a very sorry substitute for trial by jury.

A new Mortuary for Liverpool.

The Health Committee at their last meeting passed the plans for the new mortuary and post-mortem room which it is proposed to erect not far from the present structure. The plans were originally drawn up by Mr. G. F. Lyster, the dock engineer, on suggestions made by a sub-committee of the Liverpool Medical Institution, who also inspected the plans when completed, and suggested some improvements of a minor character. These plans have been revised and modified by the city engineer, and there is now every prospect that this greatly needed improvement will soon be effected. The importance of having a mortuary in accordance with modern requirements in such a city as Liverpool needs no advocacy.

City Churchyards and open Recreation Places.

Till within the last few years our city churchyards presented a miserable appearance, reminding one of Dickens's description of a London one: "Walled in by houses; overrun by grass and weeds, the growth of vegetation's death, not life; choked up with too much burying; fat with repleted appetite." Our city authorities deserve the greatest credit for the improvements they have effected and still are effecting. The various churchyards of St. Luke's, St. Peter's, St. Michael's, and St. James's have been converted from places like the above to pleasant recreation grounds, laid out in walks, with trees, shrubs, and flowers. Now St. John's churchyard, which, being close to St. George's Hall and our newest city buildings, was quite an eyesore, is being levelled and laid out at a considerable expense for another recreation ground. It occupies from one and a half to two acres in extent, and underneath are buried 81,000 bodies!

Liverpool, Aug. 19th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

A Munificent Bequest to Newcastle.

ONE of the poorer and most populated townships of Newcastle has just come in for the munificent bequest of £15,000 under the following circumstances:—In 1884 Mr. Lewis Thompson, a gentleman then resident in Newcastle, made a will, which has been proved, by which he leaves the income on annuity of this large sum to the overseers of the poor at Byker for the reduction of the poor-rate in the township. The conditions are very simple—viz., the overseers are to keep his father's tomb in good repair, and annually on the 17th day of August to place thereon a garland of the value of not less than 2*s*. If from any cause the guardians for three successive years fail to comply with these conditions, then the whole sum is to become the property of the British nation. It is to be hoped, however, that the memorial will be properly kept up and become of real benefit to the poorer ratepayers. Mr. Lewis Thompson, the generous donor, was educated for the medical profession, and studied in Newcastle and London. He never, I believe, practised on his own account, but assisted an eminent metropolitan surgeon. He afterwards turned his attention to scientific pursuits as applied to the arts and manufactures—such as gas and soap making. He was a copious contributor to such works as those of Drs. Ure, Lardner, and McCulloch, as well as to French and American encyclopædias. Although he wrote much, he seldom attached his name to what he wrote; and, further, with a view of preserving his anonymity, he recently destroyed some very valuable correspondence, under the belief that no one would be interested in it, and because some of the forecasts of his friends had not been verified by facts. All his labour in connexion with gas making was done gratuitously, and when some of the old gas companies proposed to remunerate him he returned the money.

Tyne Port Sanitary Authority.

At the last meeting of the Tyne Port Sanitary Authority it was reported that during the past month the following had been inspected: British steamers, 1380; British sailing vessels, 560; foreign steamers, 420; foreign sailing vessels, 433—making a total of 2793; while the total number of visits amounted to 3433. The number of emigrants that had arrived in the Tyne *en route* for America was 134, a decrease of 202 as compared with the previous months.

The Moors in the North of England.

I availed myself, after leaving the Leeds meeting, of the opportunity of taking a run over the Cleveland and North Yorkshire Moors—not as a sportsman, however, but as a traveller fond of the heather, and I can say I never saw it at the same time in such splendid bloom, the vast moorlands presenting a rich purple appearance, while a delightful aroma is wafted from it with every breeze.

Sunderland.

During the course of an inquest at Sunderland last week, one of the jurymen suggested that, as the doctor had not arrived, the medical fee should be divided among the jurymen. Mr. Coroner Graham said that if they waited a few weeks they would find that jurymen would be paid something: he could not say how much, but it was the intention of the County Council that some payment should be made to jurymen.—At the last meeting of the General Committee of the Sunderland Infirmary, a very interesting document referring to the railway ambulance movement and its progress, drawn up by Mr. J. C. Patterson, locomotive superintendent N.E.R., was read. It appears since the year 1872 611 cases have been conveyed by railway from the docks and east end of the town to the infirmary. There has been a gradual increase in these cases from twelve in 1872 to

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seventy-six last year. The average time for conveyance of such cases to the infirmary is about seven minutes. The late Mr. James Hartley assisted very materially in the inception of the movement, and was deeply interested in its progress.—The present state of Sunderland is not keeping up to its late good health record, although there has been a decrease in the deaths from diarrhœa and in the infectious diseases notified. There are still seven cases of infectious disease in the hospital, five being small-pox.

The Health of Rothbury.

Some reports prejudicial to the fair fame of Rothbury at the present time as a health resort having appeared in some of our local papers, the three resident medical men, including the medical officer of health, are anxious to contradict the same. They say that during the spring there was a mild outbreak of scarlet fever, which subsided in May. Since then there have been only two cases, which they believe to have been imported. If so, it is very hard on this beautiful moorland health resort (where Lord Armstrong does the honours of Newcastle in his Cragside home) to have its fair name and season blighted by one or two sporadic cases of scarlet fever or any other disease. Great injustice is sometimes done to health resorts by the removal to them by persons and families from infected homes.

Newcastle-on-Tyne, Aug. 21st.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

The Dublin Barracks.

As previously mentioned in these columns, two regiments removed from the Royal Barracks are at present under canvas in the Phœnix Park, and, despite the recent inclement weather, the health of the men is all that could be desired. At the commencement some tents were pitched on low-lying ground, and, being liable to be flooded during heavy rain, they have now been removed to higher ground; while, in order to protect the inmates, an extensive system of drainage has been carried out, the main trench, which is about eight inches deep, removing the rainfall to the rear of the camp. The water-supply is obtained from the adjoining magazine fort by means of metal pipes The Supplementary Army Estimate issued yesterday includes a sum of £20,000 to proceed further with the contract for the Grangegorman Barracks, and £7000 for certain alterations and reconstruction of the drainage of the Wellington Barracks.

Health of Ireland for June Quarter.

The births numbered 28,227, equal to 23·9, and the deaths 21,095, or 17·8 per 1000 inhabitants. The birth-rate for the quarter was 1·7 under the average rate for the corresponding quarter of the ten years 1879-88, while the deaths also show a decrease of 2·1 as compared with the same period. The general death-rate, being 10 per cent. below the average, must be regarded as satisfactory, while the rate represented by the total mortality from the principal zymotic diseases was also much below the average for the June quarter, and only slightly exceeds the rate for the second quarter of 1886, which was the lowest rate for any quarter recorded. Measles was very prevalent in a few districts, and whooping-cough in a larger number; but no other zymotic disease was prevalent throughout the country.

Alleged Insanitary Condition of Derry Prison.

Dr. Plunkett O'Farrell, medical member of the Irish Prisons Board, has inspected this prison along with the architect of the board, and it is stated that both gentlemen are thoroughly satisfied with its sanitary condition. The prison has had a remarkable immunity from fever and other contagious diseases for years past, a case of fever not having occurred for nearly ten years, while the ventilation and sanitation are regarded as perfect.

Mid-Antrim Coronership.

An election for a coroner for Mid-Antrim took place last week. There were two candidates, Mr. Caruth and Dr. McCaw, the former being successful by a large majority.

The Queen has conferred the order of K.C.B. on Dr. John Thomas Banks, one of the Physicians in Ordinary to Her Majesty in Ireland.

Dublin, Aug. 20th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Perils of the Telephone.

AT a recent meeting of the Société de Biologie Dr. Gellé read a note on the ill effects of audition by the telephone. He stated that he had on many occasions observed them. The first was that of a man of great intelligence, occupying a position which obliged him to listen sometimes almost incessantly to telephonic communications. The result was a state of nervous excitement, and hyperæsthesia of the hearing and of the ear itself to such a degree that the sounds caused vertigo and ringing in the ears, and led to the persistence of alarming vertiginous sensations. Complete rest was sufficient to remove these troubles. In another case a young *employée* in a large establishment, who had to attend to telephonic messages, felt her ear becoming rapidly weak, and it was soon the seat of noises and of a remarkable hyperæsthesia, and at the same time the hearing became painful. In this case also perfect rest and the cessation of her work almost completely cured her of these symptoms.

The Therapeutical Value of Inhibition.

It is already known that inhibition has been employed with a therapeutical object. Professor Brown-Séquard has made several interesting communications on this subject, and lately Dr. Dupuy brought to the notice of the Société de Biologie a new example in its support. He observed a case of lumbago disappear instantaneously by the injection of a few drops of chloroform in the thickness of the muscles of the sacro-lumbar region, and not under the skin, where the liquid would have produced an eschar. Dr. Dupuy remarked that this fact is most interesting, as it adduces a new argument in favour of this doctrine, which consists in considering the subcutaneous injections of morphia or of any other substance as acting principally, if not exclusively, by inhibition. The absorption, more or less rapid, of the medicament would then only have a secondary *rôle*.

Conjugal Diabetes.

Dr. Debove read a note at the Société Médicale des Hôpitaux on the coexistence of diabetes in the husband and the wife. Of fifty cases of diabetes, Dr. Debove observed five which existed simultaneously in the husband and in the wife. The same coincidence was established by Dr. Lecorché, who thought that this coincidence can only be explained in two ways: by the use of the same defective alimentation, or by the cares of life shared in common by husband and wife. Dr. Debove said that he could not accept this explanation, as women, from the nature of their habits and the exigencies of their sex, do not live exactly as their husbands. Hence it is that gouty couples are rare. He would therefore ask if diabetes were contagious; but for the present we must rest contented to register the fact. If new facts should show that conjugal diabetes is not a simple coincidence, it is only then one could propose a theory, which for the moment would be premature. Five or six other members also cited one or more cases in which they observed the coexistence of diabetes in the husband and wife.

Some Effects of the Paris Exhibition.

Of all the indispositions (and there are many) created by the Exhibition, the most curious is that which is caused by the firing of the cannon on the Eiffel tower. Every evening at 10 o'clock, when the gun is fired for the last time in the day, it is not unusual to see produced a sort of frenzy among the young female visitors to the Exhibition. Under the already strong impression produced by the illuminations, the luminous fountains, &c., when the gun is fired, they seemed to be seized with a veritable panic. It appears to them that a sudden catastrophe, such as a great fire, has taken place. Cries of admiration escape from some, and of terror from others, when fainting, attacks of hysteria, and of prostration occur. The subject has attracted the attention of Professor Charcot and other physicians.

The Tuberculosis Question.

There is prospect of a lengthy debate upon Tuberculosis at the Academy of Medicine arising out of the suggested "instructions" drawn up by the Standing Committee of the Congress on Tuberculosis. These were submitted to the

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Academy, and exception was taken to some of the statements and proposals by MM. Germain Sée and Dujardin-Beaumetz. The preliminary discussion was concluded on the 13th inst. by M. Lancereaux, who laid more stress on the factor of predisposition than on the presence of the bacillus itself. M. Villemin, in reply, said everyone agreed as to the danger arising from the expectoration, a more fruitful source of the dissemination of the disease than the consumption of either milk or the flesh of tuberculous animals. The question was then referred to a commission consisting of MM. Verneuil, Sée, Cornil, and Dujardin-Beaumetz.

Paris, Aug. 20th.

THE SERVICES.

ARMY MEDICAL STAFF. — Surgeon Thomas Robert Lingard, M.B., from half pay, has been granted retired pay (dated Aug. 3rd, 1889).

ARMY MEDICAL RESERVE OF OFFICERS.—Surgeon Robt. Clark resigns his commission (dated Aug. 21st, 1889); Acting Surgeon Edward Thomas Crouch, 3rd Volunteer Battalion, the Hampshire Regiment, to be Surgeon, ranking as Captain (dated Aug. 21st, 1889).

INDIA OFFICE.—The Queen has approved of the following promotion:—Surgeon Charles Henry Beatson, of the Bengal Medical Establishment, to be Surgeon-Major (dated May 16th, 1889).

ADMIRALTY. — Surgeon Archibald McKinlay has been promoted to the rank of Staff Surgeon in Her Majesty's Fleet (dated March 31st, 1886).

VOLUNTEER CORPS.—*Artillery:* 2nd Volunteer (Essex) Brigade, Eastern Division, Royal Artillery: Acting Surgeon S. Evans resigns his appointment (dated Aug. 17th, 1889). 1st Volunteer (Devonshire) Brigade, Western Division, Royal Artillery: Surgeon and Surgeon-Major (ranking as Lieutenant-Colonel) G. Pycroft resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the Brigade on his retirement (dated Aug. 17th, 1889).—1st Renfrew and Dumbarton: Acting Surgeon W. R. Sewell, M.D., to be Surgeon (dated Aug. 17th, 1889).—*Rifle:* 2nd Volunteer Battalion, the Princess of Wales's Own (Yorkshire Regiment): Acting Surgeon J. F. Porter, M.D., to be Surgeon (dated Aug. 17th, 1889).—1st Volunteer Battalion, the Manchester Regiment: Surgeon J. A. Mackenzie, M.B., resigns his commission (dated Aug. 17th, 1889).—*Infantry* (Portsmouth Brigade): Surgeon and Surgeon-Major H. R. Smith, 3rd Volunteer Battalion, the Hampshire Regiment, to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Aug. 17th, 1889).

Medical News.

ACCORDING to a telegram from Copenhagen, an epidemic of diphtheria and typhus has broken out at Aarhuus, in Jutland. The authorities have ordered all the schools, public and private, to be closed.

THE ROYAL WEDDING.—In our enumeration, on page 208, of the list of members of the medical profession who were present by special invitation at the late Royal wedding, we inadvertently omitted the name of Mr. Arnold Royle, C.B.

A GENEROUS OFFER.—Alderman Pierce (the Mayor of Bangor) has signalised his year's mayoralty by an offer of £500 to form the nucleus of a fund towards the erection of a hospital for infectious diseases in that city. Bangor is not at present provided with such an institution.

ROYAL CORNWALL INFIRMARY.—The annual report of this infirmary for the past year records that 345 in-patients were admitted during the year, of whom 116 were medical cases and 229 surgical. There were 52 operations, 60 accident cases, 149 out-patient casualties, and 821 out-patients. Both the in- and out-patients had exceeded in number that of any previous year. The annual subscriptions continued to fall off, arising chiefly from deaths and removals; but the receipts and disbursements showed a balance in hand of £102 16*s.* 6*d.*

FOOTBALL ACCIDENT—ABERDEEN.—In a football contest on the 13th inst., between the A Team of the Orion Club and the Rangers, Thomas Irvine (of the Orion Club) came into violent collision with a Ranger player, Irvine sustaining a compound fracture of the right leg just above the ankle.

THE PLAGUE.—The *London Gazette* of the 20th inst. publishes a telegram from the British representative at Jeddah, dated Aug. 15th, as follows: "Plague at Assyr has disappeared; slight cases continue in Holba and two other villages. Quarantine reduced to five days from to-day; cordon between Lith and Taith removed."

THE WATER-SUPPLY OF DARLINGTON.—The justice of the complaints of the inhabitants of Darlington as to the bad condition of their water-supply has been confirmed by a report of a joint committee of the Town Council and the Durham County Council, which has declared it to be proved that the waters of the Tees, from which the supply is taken, is polluted with sewage.

POLICE AMBULANCE CLASSES.—On Aug. 16th Mr. W. A. Tyssen Amherst, M.P., presented certificates on behalf of the St. John Ambulance Association to 146 police officers in the theatre of the Royal United Service Institution. The certificates presented on this occasion brought the total of police officers certificated by the Association in the metropolis to 2231, and the aggregate number of certificates granted to date to nearly 170,000.

WEST HAM HOSPITAL.—A hospital in this densely populated district has, after several years' endeavours, been erected. The need of such an institution is sorely felt, but it appears the opening must be delayed for want of funds for the requisite furnishing and the disbursement of the architect's and the builder's fees. The estimated cost of the institution, including furnishing, is £7961, and the amount raised is £5760. The deficit—£2200—necessarily compels the committee to defer the opening of the institution for the reception of patients until additional funds are forthcoming. The accommodation provided is twelve beds for men, twelve for women, four for boys, and four for girls.

OVERHEAD WIRES.—A set of regulations has been issued by the Board of Trade in regard to overhead wires for the supply of electricity. *Inter alia* no aerial conductor must be at a less height from the ground than 20ft., or, where it crosses a street, 30ft. Every aerial conductor is to be furnished with efficient lightning protectors of a pattern approved by the Board of Trade. There are minute regulations dealing with the insulation, the suspension of conductors, and the protection of telegraph and telephone wires, &c. Any failure to comply with the requirements of the Postmaster-General is to be considered a non-compliance with the regulations.

ANCOATS HOSPITAL AND DISPENSARY. — The sixty-first annual meeting was held at this institution on the 15th inst. Mr. James Jardine presided. The report referred to the erection of the new wing to the hospital, and to the variety and amount of cases, especially in accidents, treated in the past twelve months, the number being larger than that of any previous year. The treasurer's financial statement shows a small increase in the subscription list, and that £9893 9*s.* had been contributed towards the extension fund. The medical report states that the total number of patients had been 10,169 (including 511 cases attended by the honorary dentist); of these, no fewer than 4487 were accident cases. The home patients numbered 2373.

PROVINCIAL HOSPITAL SUNDAY AND SATURDAY COLLECTIONS.—The recent Dawlish Hospital Saturday collections on behalf of the Cottage Hospital realised £33 7*s.* 2*d.*—The Windsor Hospital Saturday collection on July 27th amounted to £100 9*s.* 1*d.*, an increase of £10 11*s.* 8*d.* on last year.—The committee of the Hoyland and District Hospital Sunday Festival, recently held, have handed £30 to the treasurer of the Beckett Hospital.—The Hertford Hospital Sunday collection this year produced, net, £107 14*s.* 5*d.*, of which £53 17*s.* 2*d.* was apportioned to the Hertford General Infirmary, and a like amount to the Herts Convalescent Home.—The annual parade of the Warminster Local Friendly Societies, in aid of the funds of the Warminster Cottage Hospital, was held on Sunday, the 18th inst., and produced upwards of £29.

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THE MUZZLING ORDER.—As a result of this order, 1100 dogs have been received during the last few days into the Dogs' Home, Battersea.

DRAINAGE OF MARGATE.—It is understood that official sanction has been given to Mr. Baldwin Latham's scheme for the sewerage of Margate.

LEWES HOSPITAL AND INFIRMARY.—At the forty-second annual meeting of the governors of this institution it was announced that the last Hospital Sunday collection in aid of the funds of the institution amounted to £202 17*s.* 7*d.*, but the receipts still show a small deficiency. Mr. W. T. Martin was re-elected hon. surgeon-dentist.

THE MEASLES EPIDEMIC AT ABERDEEN. — The medical officer of health, Dr. Hay, in his July report, states significantly that the decrease in the measles epidemic has been found to be coincident with the advent of the school holidays. Such being the case, it is manifest that extra precautions should be taken at the close of the vacation.

ALLEGED SWEATING BY VESTRIES.—A conference was held at the Metropolitan Hall, Blackfriars-road, last week, to protest against the system of "sweating" adopted by a number of London vestries with respect to the women employed in the dust-sifting yards of the vestries and who only receive the wage of 7*s.* a week. It was stated at the meeting that women stood working all day up to their waists in dirt and filth. Resolutions were passed denouncing the system, and calling upon the Government to grant a Royal Commission to inquire into the question with a view to the scandal being suppressed. A committee to collect the necessary information was appointed and the conference adjourned.

THE CALEDONIAN MEDICAL SOCIETY.—This Society, the membership of which is rapidly increasing, held its ninth annual reunion in the Grand Hotel, Trafalgar-square, on the 16th inst., Wm. A. Macnaughton, M.A., M.D., the President of the Society, in the chair. The objects of the Society are for purposes of mutual support, and for the advancement of medical science among its members, who must be graduates of a British university, and have some connexion with the Highlands of Scotland. The following are the office-bearers for the ensuing year:—President: Allan Macfadyen, M.D., D.Sc. Vice-President: J. Duncan Greenlees, M.B. Secretary and Treasurer: T. F. Tannahill, M.B., Rochester. Editor of Journal: J. Macpherson, M.B., Larbert, Stirling, N.B.

BEQUESTS AND DONATIONS TO HOSPITALS.—The Dowager Countess of Kintore has subscribed £1000 to the Jubilee Fund for the extension of the Aberdeen Royal Infirmary.—The guardians of the City of London Union have voted a donation of £10 to the Infirmary at Bow.—The late Miss Harriet Barton Denton, of Bank Road, Bootle, has bequeathed £110 to the Bootle Borough Hospital.—Mr. Adam Geck, late of Chiswell Street, London, has left by his will £300 to the German Hospital, Dalston, and £100 to the City of London Hospital for Diseases of the Chest.—On Aug. 13th, delegates from the various friendly, benefit, and trade societies met at the Old Friends' Hall, Upper St. Martin's Lane, London, for the purpose of presenting £139 to the secretary of the Children's Hospital, Great Ormond Street, being the net result of a demonstration held on June 30th.—The proprietors of the *People's Friend*, Aberdeen, have handed to the directors of the Aberdeen Hospital for Sick Children the whole receipts of the recent National Wild Flower Exhibition, amounting to £160 18*s.* 11*d.*, making no deduction for expenses.

MEDICAL NOTES IN PARLIAMENT.

The Lunacy Laws.

IN the House of Lords on Thursday, the 15th inst., a Bill to consolidate the Lunacy Laws was brought in by the Lord Chancellor and read a first time.

A Court of Criminal Appeal.

Lord Fitzgerald raised the question of establishing a Court of Criminal Appeal, and asked the Government to consider the matter during the recess and present a measure to Parliament during next session to effect that object.—The Lord Chancellor, Lord Herschell, and Viscount Cross condemned Lord Fitzgerald's action in raising this question at the present time, when considerable excitement prevailed in connexion with a case that was occupying the public mind.—The Lord Chancellor said he would prefer not to discuss the subject now in reference to any future alteration in the law, and that was as satisfactory an answer as the noble lord was likely to get from the Government.—Lord Fitzgerald said that, in view of the unsatisfactory statement made by the Lord Chancellor, he would take upon himself the duty of introducing a Bill next session dealing with the question.

Poor Law Bill.

The report of amendments on this Bill was brought up and agreed to. The Bill contains provisions enabling the Metropolitan Asylums Board to receive into their asylums patients suffering from diphtheria, and to hire out the Board's ambulances for the conveyance of fever patients from one place to another. The Bill was subsequently read a third time and passed.

Civilian Doctors and Military Service.

In the House of Commons on Thursday, the 15th inst., Dr. Kenny asked the Secretary of State for War whether Dr. Richard Nicholls of Navan, who was for over seventeen years civil medical officer to the regular troops stationed in that town, and also for some years medical officer to the Meath Militia, had recently, under some new regulation, been deprived of those appointments without compensation.—In reply, Mr. E. Stanhope stated that Dr. Nicholls held no appointment. He was employed, as medical men were all over the kingdom, to attend at contract rates detachments of troops when no military medical officer should be present. A military medical officer having been stationed at Navan, the necessity for Dr. Nicholls's service ceased. It had always been a condition of the employment of a civilian medical practitioner that his employment might cease at any time without notice and without the creation of any claim to compensation.

Scotch Universities.

In Committee of Supply, on the vote to complete the sum of £16,888 for Scotch Universities, Mr. Hunter moved to reduce it by £1316, the amount proposed to be paid to the University Professors of Theology. At the Aberdeen University the education of about thirty divinity students was £62 a year each. The medical endowments were smaller than those for divinity, but the number of students in medicine was more than ten times the number of divinity students, while the cost was only £4 16*s.* per student. The University of Edinburgh had an income of £1944 for divinity, and the number of students was 107; while the endowments for medicine amounted to £1776, the number of medical students being 1879; so that the cost per medical student was 19*s.*, and for each divinity student £18 3*s.* Taking the whole of Scotland, the endowments for medicine amounted to £5800, and there were 3000 students, the cost being less than £2 per head. The endowments for divinity amounted to £7664, and the students numbered 278.—The Solicitor-General for Scotland replied, and the vote was carried on a division by 123 against 73.

Londonderry Gaol.

On Friday, the 16th, Mr. Balfour, in reply to Dr. Kenny, Mr. Sexton, and others, stated that the results now received of the special investigation made by the medical member of the General Prisons Board, showed that Londonderry Prison had for at least a period of twenty years enjoyed a remarkable immunity from the principal zymotic diseases. There had been no case of fever among the prisoners during that period, nor was there any now.

Unqualified Medical Practitioners.

Mr. Ritchie, replying to Mr. Causton, said that he had made inquiry of the Registrar-General, and was informed that the death of a child was registered on the certificate of a duly registered medical practitioner, who stated on his certificate that he had attended the child during its last illness, and that the cause of death was, to the best of his knowledge, "dentition convulsions." An inquest was held, and a verdict found that the cause of death was narcotic poisoning. The coroner requested the registrar to inform the Registrar-General that the practitioner had certified that he had attended the child, although he had, in fact, never seen it, the child having been attended by his unqualified assistant. The registrar had asked to be furnished with a copy of the depositions. He had not yet received them, and he had therefore at present no evidence on which to take action.

Contagious Diseases Act.

Mr. Cavendish-Bentinck asked whether there were any statistics from India as to the alleged increase of contagious disease in the Indian army since the repeal of the Contagious Diseases Act. — Mr. E. Stanhope, in reply, stated that, so far as the British troops were concerned, the admissions for venereal disease had risen from a yearly ratio of 323 per 1000 for the year 1887 to 560 per 1000 for the first four months of 1889.—In reply to a further question from Mr. Cavendish-Bentinck, Sir J. Gorst said that the Cantonment Bill contained provisions for mitigating the prevalence of all contagious diseases within cantonments, and regulations for that purpose were now under the consideration of the Government of India.

Hospitals in Ireland.

On Saturday, the 17th, in Committee of Supply, on the vote to complete the sum of £16,658 for hospitals and infirmaries in Ireland, Mr. Sexton promised the support of the Irish members if the Government would bring in a Bill embodying the recommendations of the Royal Commission in favour of capitalising the whole grant for hospitals in Ireland, and putting the control of the sum realised under a central body, which should distribute the income according to the number and value of the various hospitals.—Mr. Jackson, in reply, stated that such a Bill had been drafted, and he believed it was just about ready. He would endeavour, after what Mr. Sexton had said, to introduce it during the present session.

Lunatic Asylums in Ireland.

On Monday, the 19th, Mr. Balfour, in reply to Mr. O'Keefe, stated that the scheme for the nomination by the Irish Government of governors on the various boards of lunatic asylums in Ireland was now practically completed, and the names would shortly be published.

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Typhoid Fever in the West-end.

On Tuesday, the 20th, in reply to the Marquis of Granby, Mr. Ritchie said his attention had been called to the outbreak of typhoid fever in the West-end of London, and especially in the parish of St. George, Hanover-square. He had been assured that the vestry of that parish had a constant staff of men flushing the sewers at a large cost, and that the London County Council also had a staff of flushers for the purpose of flushing their main sewer. He had also received a provisional report from Dr. Corfield, the medical officer of health of the parish, from which it appeared that the outbreak took place almost entirely in the Mayfair sub-district. The outbreak had been limited to fourteen houses, and was confined to residences of the better class; and from the uniformity in the date of the attacks and the fact that the sanitary arrangements of most of the houses where the cases occurred had been carefully carried out, Dr. Corfield had come to the conclusion that the outbreak was not due to any defect of sanitary arrangements, but to some temporary cause, which had apparently ceased to operate.

The Vaccination Acts.

In reply to Mr. Bradlaugh, Mr. Matthews promised to make inquiries into a case tried at Enfield, wherein the magistrates adjourned a summons for two months against a man who had failed to have his child vaccinated. The medical attendant swore in court that the child was not then fit, and would not be fit for at least a year, to be vaccinated. In default of the father finding sureties to appear in two months, he was committed to gaol.

Health of Prison Officials.

On the report of the vote for superannuation and retiring allowances, Sir G. Campbell called attention to the enormous number of prison officials who had retired on account of ill-health.—Mr. Jackson explained that the phrase "ill-health" in connexion with prison warders was different from what it would mean in the case of other Government servants. A prison warder had to be in very full physical vigour, having to take charge of men not always of the most orderly character. It was therefore perfectly within the proper meaning of ill-health when the doctor certified that the warder's physical vigour and capacity were not equal to the arduous duties he had to discharge.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on August 20th, 1889.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever	Other diseases.	Total.	
Eastern Hospital	224	61	..	35	3	323	400
North-Western Hospital	153	14	..	4	..	171	435
Western ,,	145	11	..	7	..	163	262
South-Western ,,	..	..	..	..	..	..	402
South-Eastern ,,	286	13	..	15	1	315	462
Northern ,,	..	..	..	..	..	..	480
Totals	808	99	..	61	4	972	2441

Births, Marriages, and Deaths.

BIRTHS.

COCKEY.—On Aug. 11th, at Little Waltham, near Chelmsford, Essex, the wife of E. Percival Cockey, M.D. Lond., of a daughter.

DILL.—On Aug. 17th, at Brunswick-place, Brighton, the wife of John Gordon Dill, M.A., M.D., of a son.

GRACE.—On Aug. 15th, at Park House, Thornbury, Gloucestershire, the wife of Dr. Edward Mills Grace, Coroner for the Lower Division of Gloucestershire, of a son.

NICHOLLS.—On July 30th, at Dominica, West Indies, the wife of H. A. Alford Nicholls, M.D., F.L.S., of a daughter.

WELLS.—On Aug. 14th, at Belsize-park, N.W., the wife of Poulett Wells, M.B., of a daughter.

WILKINS.—On Aug. 19th, at Windsor-road, Ealing, W., the wife of H. G. G. Wilkins, L.R.C.P. Lond., M.R.C.S., of a daughter.

MARRIAGES.

BUCKMASTER—BROOKS.—On Aug. 14th, at Worsley, Lancashire, George Alfred Buckmaster, M.D., Oxford, to Amy Elizabeth Brooks, eldest daughter of the late Charles Brooks, of Chester and Newton.

DILLON—STRELLEY.—On Aug. 13th, at the Parish Church, Reynoldstone, Glamorganshire, Charles Frederick Dillon, M.B., fourth son of Charles Forbes Hodson Shaw-Mackenzie, D.L. & J.P., of Newhall, Ross-shire, to Ada Maud, third daughter of the late Richard Clayton Strelley, of Oakerthorpe, Derbyshire.

GARRY—ROBERTS.—On Aug. 17th, at Sydenham, T. Gerald Garry, M.D., M.Ch., &c., of Princes-road, Liverpool, to Bridget, only daughter of the late Edmund Cleaton, J.P., of Vaenor Park, Llanidloes, and widow of the late W. D. Roberts, of Princes-road, Liverpool, and Bodhyfryd, Llanrwst.

JOSEPH—DUDER.—On Aug. 17th, at St. Luke's Church, Little Bay Mines, Notre Dame Bay, Newfoundland, Louis Joseph, M.B., C.M., to Alice Jane Duder. (By cablegram.)

MILLS—MUDGE.—On Aug. 15th, at the Parish Church, St. Elwyn, Hayle, by the Rev. W. Horsburgh, B.A., Vicar, Joseph Mills, of 28, Queen Anne-street, W., younger son of the late Robert Mills, of West Court, Inkpen, Berks, to Mary, youngest daughter of James Mudge, of Bonaér, Hayle, Cornwall.

WIGHTWICK—D'ALTON.—On Aug. 14th, at St. James's Church, Spanish-place, London, Fallon Percy Wightwick, M.B., only son of William Wightwick, J.P., Hilden, Folkestone, to Helen D'Alton, only daughter of the late John Shea, J.P., Cork, Ireland.

DEATHS.

CHAMBERS.—On Aug. 15th, at Shrubs Hill House, Sunningdale, Thomas King Chambers, M.D., F.R.C.P., Honorary Physician to H.R.H. the Prince of Wales, aged 71.

CHEVALLIER.—On Aug. 21st, at Ipswich, Barrington Chevallier, M.B. Oxon., M.D., M.R.C.P. Lond., Medical Superintendent of the Borough Asylum.

COMBE.—On Aug. 15th, at Holly House, North Walsham, Lancelot Orloff, second son of Orloff Combe, M.D.

CUMBERBATCH.—On Aug. 18th, suddenly, on board the yacht *Evangeline*, at Salen, Loch Sunart, Argyllshire, Lawrence Trent Cumberbatch, M.D., of Cadogan-place.

TAYLOR.—On Aug. 17th, at Nottingham, Henry Taylor, M.R.C.S., L.S.A., aged 76.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

FIELD, EDGAR A. H., L.D.S. Eng., has been appointed House Surgeon to the National Dental Hospital, Great Portland-street, W.

GILL, JOHN, L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Guilsfield District, Llanfyllin Union.

KELLETT, R. G., L.K.Q.C.P., L.R.C.S. Irel., has been reappointed Medical Officer of No. 1 District, Halstead Union.

MALET, HENRY, M.B., B.S., M.D. Dub., has been reappointed Medical Officer of Health of the Borough of Wolverhampton.

WHEELER, THOMAS, M.R.C.S., L.S.A., has been reappointed Medical Officer of Health, Bexley Union District.

WILKINSON, ARTHUR T., B.A., B.Sc., M.D. Lond., M.R.C.P. Lond., has been appointed Honorary Physician to the Ancoats Hospital, Manchester.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BIRMINGHAM MEDICAL AID ASSOCIATION (Secretary, Westminster-chambers, Corporation-street, Birmingham).—Several additional Medical Officers in the borough and suburbs.

BOROUGH HOSPITAL, Birkenhead.—Junior House Surgeon. Salary £60, with board, lodging, and washing, also fees for notifying infectious cases. No wine or beer.

CITY ASYLUM, Birmingham.—Resident Clinical Assistant. Board, lodging, and washing provided, but no salary.

KINGSTON UNION (Offices: St. James's-road, Kingston-on-Thames).—District Medical Officer and Public Vaccinator for the Parish of Teddington. Commencing salary £80 per annum, in addition to extra medical fees for operations, amputations, and to the payment for quinine, cod-liver oil, and linseed meal, at cost price.

METROPOLITAN ASYLUMS BOARD (Offices: Norfolk House, Norfolk-st., Strand, W.C.)—Assistant Medical Officer, at the Eastern Fever Hospital, The Grove, Homerton, E.—Salary £15 per month, with board, furnished apartments, and washing.

NORTH LONDON CONSUMPTION HOSPITAL, Hampstead, N.W.—Resident Medical Officer. Honorarium £40 a year, with board, rooms, &c.

ROTHERHAM HOSPITAL.—Assistant House Surgeon. In lieu of salary, rooms, commons, and washing provided in the hospital.

STAMFORD, RUTLAND, AND GENERAL INFIRMARY.—House Surgeon and Secretary. Salary £100 a year, with board, lodging, and washing.

SWANSEA HOSPITAL.—Resident Medical Officer. Salary £100 per annum, with board, furnished apartments, coals, gas, laundress, and attendance.

VICTORIA INFIRMARY, Glasgow.—Superintendent and Resident Medical Officer. Salary £125 per annum, with apartments and board.

WALLASEY DISPENSARY (Honorary Secretary, Elm Mount, Penkett-road, Liscard, Cheshire).—House Surgeon. Salary £110 per annum, with furnished apartments, coals, and gas.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, August 22nd, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Rainfall.	Remarks at 8.30 A.M.
Aug. 16	30·02	S.W.	65	61	119	78	59	..	Hazy
,, 17	29·79	S.W.	64	62	112	75	62	..	Overcast
,, 18	30·03	W.	63	58	117	73	53	..	Cloudy
,, 19	29·72	S.E.	63	59	101	74	57	..	Hazy
,, 20	29·24	W.	60	59	91	67	59	·19	Overcast
,, 21	29·54	W.	59	56	95	67	55	·03	Overcast
,, 22	29·47	N.W.	60	56	105	69	56	·14	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE STUDENTS' NUMBER OF "THE LANCET" will be published on Saturday, September 7th. Those gentlemen holding official situations connected with medical institutions in the United Kingdom who have not yet forwarded the necessary information to our Office for publication in that number are earnestly requested to send it *without the delay of a single post.*

MALCOLM MORRIS INDEMNITY FUND.—EIGHTH LIST.

THE following additional subscriptions to the above fund have been received:—

Amount previously acknowledged ..	..	£458	0	0	F. Swinford Edwards, Esq.	£1	1	0
Dr. Percy Boulton	..	2	2	0	A. Napper, Esq.	1	1	0
Dr. Bowles ..	..	1	1	0	Dr. A. Garrod Thomas ..	1	1	0
Dr. Anthony Corley	..	1	1	0	Dr. Frazer	0	10	6
					Johnson Herbert, Esq. ..	0	10	6

Quien Sabe.—Severe symptoms have been noted amongst those engaged in the manufacture of benzine. Usually these consist of mental disturbance and uncertain gait. Delirium and loss of consciousness have also been observed. Several references to the subject will be found in Neale's Medical Digest.

Mr. W. Stevens is referred to a general notice at the head of this column.

VOLUNTEER AMBULANCE WORK.

To the Editors of THE LANCET.

SIRS,—I wish again to call the attention of the Volunteer Medical Service in the metropolis to a sum of £108 8s. 8d. which was handed over in June, 1887, to the Volunteer Medical Association by the Volunteer Ambulance Department, so ably conducted by Lieut. Andrew Maclure of the London Scottish R.V. This money has been placed under control of a joint committee representing the Volunteer Medical Association and the College of State Medicine. Two years have now elapsed, and the regimental surgeons and stretcher-bearers who subscribed to this fund are desirous to know when it is to be devoted to the purpose for which it was intended. It has been suggested that a challenge shield should be provided, and that it should be annually competed for by a detachment of each battalion. Would it not be better to hand over the sum to the Lord Mayor's Volunteer Patriotic Fund?

I am, Sirs, your obedient servant,

R. R. SLEMAN,

Ambulance Sergeant 20th Middlesex (Artists) R.V.; Hon. Sec. Volunteer Ambulance School of Instruction.

Gracechurch-st., E.C., Aug. 16th, 1889.

A HISTORICO-MEDICAL COINCIDENCE.

IN Rome, where the Sacred Way descends into the Forum, stands the interesting old church dedicated to SS. Cosmas and Damianus, two Christian physicians who for their services and sufferings in Arabia were canonised by the Pope. Damianus, or, as he is called for brevity's sake, Damian, became a power in Italy, where more than one house of prayer was reared in his honour, notably that one in the Umbrian hills. It was there that S. Francis of Assisi devoted himself to the spiritual life, and in a special manner to the cure of leprosy, a disease which by that time (the latter half of the twelfth century) had been introduced by the Crusaders from the East into all the countries washed by the Mediterranean. A ritual was compiled to celebrate with awful solemnity the isolation of the leper from his fellow-Christians—"a pathetic and melancholy service, in which the sternest interdict was softened by words of consolation and pity." Moved by their forlorn condition, S. Francis became the constant associate of the leprous and the inmate of their asylum at Assisi, where he washed their feet and dressed their sores, to which, indeed, in one case he applied his lips with such effect that the poor leper instantly became whole. So, at least, says S. Bonaventura. But the interesting point is this: that his care and cure of these victims to a loathsome malady was practised "sub invocatione Sancti Damiani" (under the invocation of S. Damian), a saint who six centuries thereafter was to find a counterpart in a Belgian priest of almost identical name—the Père Damien, whose noble life and death in the leper island of Molokai will never fade from the annals of his church, or, indeed, from the history of the world. The Vatican, it is understood, has taken the preliminary steps towards the canonisation of this true martyr in the service of mankind, and though the prescriptive period required for admission into the saintly calendar will not expire till well on into the twentieth century, there may be those now living who will survive to witness the Church of Rome's invocation of S. Damienus, closely allied in merit as in name with that other S. Damianus, who inspired S. Francis to his life of philanthropic self-sacrifice.

G., M.R.C.S.—Our correspondent should apply to the Secretary of the Medico-Psychological Association, Dr. Fletcher Beach, Darenth Asylum, Dartford, Kent.

Toothache should be guided by the advice of a qualified dentist.

TETANUS AFTER PARTURITION.

To the Editors of THE LANCET.

SIRS,—In the interesting communication in your last issue by Mr. H. Peacock on a case of tetanus occurring ten days after delivery, I notice that the writer states that he could not find any reference in old or modern works on obstetric medicine to tetanus following delivery. If, however, your correspondent would refer to Dr. Milne's Manual of the Principles and Practice of Midwifery, page 442, he will find therein a good account of tetanus in the puerperal state. The author gives details of a case as narrated by Dr. Craig of Edinburgh, which appears to be very similar to Mr. Peacock's case. It is fortunate that this terrible disease is so seldom developed, as treatment seems to have little or no effect upon it. There is a field open here to investigation, both as to its pathology and treatment.

I am, Sirs, yours faithfully,

JOHN COCHRANE, L.R.C.P & S.Ed.

Medical Officer of the Parish of Strath.

Broadford, Skye, Aug. 19th, 1889.

TOXIC PROPERTIES OF "CHICHA," A SOUTH AMERICAN DRINK.

THE *Anales de la Instrucción Publica en la Republica de Colombia* contain an interesting account of the effects produced by over-indulgence in a certain popular drink called "chicha," which is prepared by the fermentation of malted maize, with the addition of the leaves of the primum payaca, or "sandino," as it is called in the country. This beverage, when taken in excess, produces a feeling of extreme weariness, rendering the patients totally unfit to follow any kind of employment. There is also observed a loss of the power of coördination, which may make it possible on a cursory inspection to mistake the case for one of locomotor ataxia or spasmodic tabes; but "chichinism" can be distinguished from these conditions by making the patient shut his eyes and stand or walk, and touch his toes with his hands, all of which he is able to do. The course of chichinism, too, is quite short, and it may terminate in trophic changes and acute diffuse myelitis. Another symptom which is frequently observed is an erythema of the dorsum of the hand, similar to that seen in pellagra. Physiological experiments also show that the chicha has a special action on the skin; for frogs subjected to its influence present very decided changes of colour. With chronic alcoholism there is a good deal of affinity, but there does not seem to be any liability to excitement or hallucinations.

One who is nearly Bald should consult his usual medical attendant. We do not prescribe.

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VENTILATION OF RUSSIAN RAILWAY CARRIAGES.

ACCORDING to Dr. Taratkevich (*St. Petersburg Dissertations*, 1888–89, No. 75), the ventilation arrangements of Russian railway carriages, especially those provided for third- and fourth-class passengers, leaves a good deal to be desired, the amount of carbonic acid being frequently ten times that which is compatible with health and comfort. The air was naturally found to be most vitiated at night and during the latter part of the day. Several of the estimations gave over 7 parts of carbonic acid per 1000 in the third and fourth classes. The highest amount found in a second-class carriage was 4·8 per 1000, and the highest found in a first-class carriage 3·41 per 1000. The relative humidity was usually very high at night in the third class, being frequently more than 85 per cent. The highest figures for the second and first classes were 87 and 75 respectively.

E. R.—The venture proposed is not in accordance with the spirit of the Pharmacy and Medical Acts. Clause 11 of the Pharmacy Act of 1852 says that "no person who is a member of the medical profession, or who is practising under right of a degree of any university, or under a diploma or licence of a medical or surgical corporate body, shall be entitled to be registered under this Act." The manager to be appointed, though qualified as a druggist, would only veil the real proprietor. We cannot say whether, legally considered, the real proprietors could be secured from liability. The arrangement contemplated is equally contrary to the bye-laws of the medical corporations. Thus the licentiate of the King and Queen's College of Physicians consents to give power, on being admitted, to the President and Fellows to withdraw his diploma if he shall after obtaining the diploma keep open shop for the sale of medicines.

J. S.—We cannot at present re-open the discussion.

"THE MELBOURNE OPERATING THEATRE."

To the Editors of THE LANCET.

SIRS,—As you have formed your opinion (THE LANCET, Aug. 10th, p. 275) from the bombastic remarks of "The Ghost" in *The Speculum*, I should like to give you my experience and opinion.

The building is one-storeyed, and is isolated from all the wards and offices of the hospital, but is connected to the main surgical wards by covered ways, and so it is much more likely to be kept aseptic than when the theatre is situated in the main building. I think I may safely say I have seen more operations performed in the Melbourne theatre than "The Ghost," but I have never yet seen a patient anæsthetised on the floor. It is true he is placed on a stand about eighteen inches high, which makes it a little, but not very, inconvenient to administer the anæsthetic. Though the Melbourne air generally contains more dust than that of London, in my opinion an examination of it would prove it to be much more aseptic than the soot and fog befouled atmosphere of this city; and if it is not so, it is the fault of the sanitary condition of the city, and not any fault in the construction of the theatre. As to light, I have seen London surgeons perform delicate operations in a November fog, in a light in which a Melbourne surgeon would refuse to perform a major amputation. If you had quoted his fantastic scheme for a new theatre, people would have known how to appreciate his remarks. I have calculated his model theatre would cover a space of 190 × 140 feet, without allowing for halls, passages, and store-rooms, and would comprise over seven rooms—a truly Utopian idea. As to the results of the hospital, considering the way the wards are overworked, they are very good. None but urgent cases can be taken in, and many cases are treated and operations done in the out-patient department which are never treated outside the wards here. The general cleanliness of the hospital surpasses anything to be seen in London. If "The Ghost" had turned his attention to the quarters of the resident medical staff and the want of accommodation in the wards, he would have had much better grounds for penning a philippic.

I am, Sirs, faithfully yours,

London, Aug. 19th, 1889. MELBOURNE STUDENT.

THE RECENT MEETING OF THE BRITISH MEDICAL ASSOCIATION.

WE have received from Messrs. Burroughs and Wellcome two excellent photographs, intended as souvenirs of the meeting at Leeds last week. One is a representation of the town hall; the other a view of the lake, Roundhay Park. We are asked to state that Messrs. Burroughs and Wellcome will, on request, have pleasure in sending a copy of the souvenirs to any member of the profession.

Merlin.—1. We think the form of certificate is responsible for the evil complained of by our correspondent.—2. We have no knowledge of the gentleman mentioned.

MEDICAL PRACTICE IN AMERICA.

To the Editors of THE LANCET.

SIRS,—Will any of your readers who have any experience give me information regarding the above? Also, is there scope for practice, and what capital would be required to gain a moderate practice, and the best part to go to?

I am, Sirs, yours obediently,

August 19th, 1889. J. R. P.

LA METTRIE, THE ARMY SURGEON.

AMONG the eminent army surgeons in whom France has been so prolific, there are few more interesting figures than La Mettrie. He studied medicine under Boerhaave at Leyden, and did splendid work at the battle of Fontenoy (May 11th, 1745). "Army surgeon La Mettrie," says Carlyle in his History of Frederick the Great, "of busy brain, expert with his tourniquets and scalpels, is thrice-busy in hospital this night. 'English and French all one to you; nay, if anything, the English better!' those are the Royal orders." Pity it was that the great anatomist and operator did not persevere in the work for which his genius best fitted him. But he was vain of his power with tongue and pen, and though, according to Carlyle, "wisdom of the highest nature was what he drove at," he did so "unluckily with open mouth, and mind all in tumult." He left the army soon after that busy Fontenoy evening, and entered on a crusade to put the whole world right. He attacked the Senatus of the Sorbonne in the wildest controversial way, and did not spare the medical faculty: "Doctor Astrue, Doctor This and That, of the first celebrity, taking it very ill," says Carlyle. So that La Mettrie had to get out of France rather in a hurry, "lest worse befell." He fled to Leyden, and from that safe distance continued his cannonade against the Sorbonne and the French physicians and surgeons; and then he turned his artillery against the Dutch, till Leyden became too hot for him. His "L'Homme Machine" (Man a Machine) is still read for its literary and logical brilliancy, and though, says Carlyle, "tumultuous La Mettrie meant nothing but open-mouthed wisdom by it, it gave scandal in abundance, so that even the Leyden magistrates were scandalised, and had to burn the afflicting little duodecimo by the common hangman." We next hear of La Mettrie at the Court of Frederick the Great, "seldom inexorable when there was worth recognisable," and from that conversation-loving monarch he received a pension which enabled him some time longer to keep up his controversial fire, "not of a malignant incendiary kind," says Carlyle, "but pleasantly lambent." He was first-favourite of Frederick till Nov. 21st, 1751, when he died, rather ignobly, if the jealous chroniclers of the Court are to be believed. According to one of these (Thiébault, whom Carlyle calls "unbelieveable"), La Mettrie was on terms so familiar with the king that he would enter Frederick's room as he would that of a friend, plump down whenever he liked, which was often, and lie upon the sofas; if it was warm, would take off his stock, unbutton his waistcoat, and fling his periwig on the floor. And yet the great monarch found qualities in him invisible to the Voltaires and Nicolais, his contemporaries, insomuch that he penned a handsome *éloge* on him, which was read some time after to the Berlin Academy.

Dr. T. Lucas Benham.—We should have pleasure in publishing a list of well-authenticated cases of cures of hydrophia if our correspondent would care to collect it.

THE FOOD OF THE CHILDREN OF THE POOR.

To the Editors of THE LANCET.

SIRS,—As I see a good deal of the results of the improper feeding of the infant children of the poor in the town in which I live, I intend to have some leaflets printed with short plain directions on the most important points to be given by the registrar to the mother when the birth is registered. If any of your readers have already done this, or would be kind enough to make any suggestions, I should be deeply obliged, as no doubt any hints would be useful.

I am, Sirs, yours faithfully,

Aug. 19th, 1889. PARISH DOCTOR AND M.O.H.

THE TONGA ISLANDERS.

THE British Vice-Consul at Nuknalofa, in the Tonga Islands, in his official report refers to the population of the islands, and remarks that although no census has been taken, it is believed that, like other South Sea aboriginal races when brought into contact with civilisation, with settled forms of government and missionary effort, the Tongans are decreasing in numbers. A severe epidemic of a bronchial character carried off a large number in the spring of last year. They are very subject to lung diseases, and a great number die of consumption. The custom of attending religious services before daylight and leaving warm blankets, either on a rainy morning or with a heavy dew on the grass, with the thermometer perhaps at 50 degrees, is not calculated to lessen the evil.

Therapeutist.—Some qualities of the drug are described in our present issue.

WRINKLES.

To the Editors of THE LANCET.

SIRS,—Will any of your readers inform me if they have any experience of the removal of wrinkles by electrolysis, as practised by Dr. Vernoy of Paris, and what is the *modus operandi* and strength of current employed?

I am, Sirs, yours obediently,

Clapham, Aug. 19th, 1889. NEMO, M.K. & Q.C.P.I.

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COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Pavy, London; Prof. A. Fraser, Dublin; Dr. J. C. McVail, Kilmarnock; Dr. J. W. White, Uddingstone; Dr. Lancaster, London; Mr. Morton Smale, London; Dr. K. N. Fenwick, Liverpool; Messrs. Rankin and Co., Kilmarnock; Dr. Lancaster, London; Messrs. Oppenheimer and Co., London; Dr. Greenlees, Stone; Mr. Horsfall, Leeds; Mr. Arnold Royle, Esher; Dr. F. L. Benham, London; Messrs. Thompson and Co., London; Mr. P. S. Hutchinson, London; Messrs. Hatchard and Co., London; Dr. Sizer, Brooklyn; Mr. Stabb; Messrs. Hatchman and Co., Cheapside; Prof. A. M. Vargas, Madrid; Messrs. Doulton and Co., London; Dr. T. Henderson, Linlithgow; Messrs. Trübner and Co., London; Dr. Herman, London; Dr. Dorn, Berlin; Mr. Vaughan Harley, London; Mr. J. Cochrane, Broadford; Messrs. Barron and Co., London; Mrs. Cousins, Southsea; Dr. Enko; Messrs. Bell and Bradfute, Edinburgh; Mr. A. H. Allen, Sheffield; Dr. Judson, New York; Dr. Prowse, Bristol; Dr. S. Phillips, London; Mr. D. Biddle, Kingston; Mr. E. Willmore, London; Dr. Peregrine, London; Mr. A. Lane, London; Dr. Abraham, London; Mr. Sugden, Birkenhead; Mr. Marquis, Bombay; M. Manceaux, Brussels; Mr. Hope, Stamford; Mr. Sleman, London; Dr. Lawless, London; Messrs. Russell, Liverpool; Mr. Sandell, London; Mr. Lawrence, Norton; Mr. Hyde, Baxton; Mr. Browne, London; Mr. Jones, Rotherham; Mr. Dean, London; Mr. W. H. Brown, Leeds; Mr. Hogg, London; Mrs. Tuck, Carmarthen; Mr. Scott, Manchester; Mr. Sell, London; Mr. Webb, Bournemouth; Mr. Godfrey, Northampton; Messrs. Griffiths and Co., Birmingham; Mr. Barlow, Birmingham; Messrs. Kewn and Sons, Cumberland; Mr. Hornibrook, London; Messrs. Orridge and Co., London; Mr. Pearson, Baden; Mr. Palethorpe; Messrs. MacLehose and Son, Glasgow; Mr. Elliott, Carlisle; Mr. Gibbard, Newcastle-on-Tyne; Mr. Lamond, Glasgow; Mr. Grün, Putney; Dr. W. Dale, King's Lynn; Mr. Boyce, Lowestoft; Major-General Wardell, Brighton; Mr. Mower, London; Mr. Fardon, Bristol; Mr. J. Herbert, Whitby; J. R. P.; A. B. C., London; L. M., Leeds; Secretary, Rotherham Hospital; S. E.; Melbourne Student; No Canter; Medicus, South Kensington; An East-end Surgeon; Quien Sabe.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Thorn, Crieff; Mr. Menzies, Lancaster; Mr. Liesching; Dr. Ellis, Bishop Auckland; Mr. Cannock, Derby; Mr. Mills, London; Mr. Bell, Bury St. Edmunds; Mr. Mouncey, Lancashire; Dr. McLintock, Church Stretton; Mr. Frost, London; Dr. Stirling, Essex; Messrs. Farwig and Co., London; Mr. Tyte, Minchinhampton; Mr. Clements, North Walsham; Mr. Hall, Hertford; Dr. Moore, Hants; Messrs. Slinger and Son, York; Mr. Johnson, Aberdeenshire; Mr. Challand, Matlock Bridge; Mr. Hughes, Birmingham; Mr. Hamilton, Yorks; Dr. Mahon, Ireland; Mr. Anderson, Carmarthen; Miss Wilson, Wilts; Mr. Tully, Hastings; Dr. Mackenzie, London; Dr. Cochrane, Skye; Mr. Davies, Cardiff; Miss Coward, Cheshire; Mr. Webster, Salop; Dr. Macara, Crieff; Mr. Hart, Brigg; Mr. Sutton, Cheshire; Mr. Davies, Milford Haven; Mr. Montifore, London; Mr. Hooper; Mr. Williams, South Wales; Dr. Finch, Salisbury; Mr. Wotton, Notts; Mr. Morris, North Wales; Mr. Newton, Suffolk; Dr. Scriven, Derby; Mr. Daniell, Port Talbot; Miss Manning, Towcester; Mr. Float, Liverpool; Mr. Paul, Radhapuram; Mr. Griffith, Cumberland; Messrs. Johnston, Edinburgh; Mr. Adams, Birmingham; Mr. Deane, Bath; Mr. Bruce, jun., Exeter; Mr. Moran, Sunderland; Mr. Tinker, Hants; Mr. Hough, Cambs.; Mr. Brocklehurst, Cheshire; Mr. Coombe; Mr. Fulton, Belfast; Mr. Fox, Manchester; Mr. Spalding, Montrose; Mr. Phillips, Rotherham; Mr. Drewett, Kingston-on-Thames; Mr. Moullin, Soho-square; Mr. Brown, Edinburgh; Dr. Waller, Peterboro'; Mr. Clark, Cambs.; Mr. Jay, London; Mr. Withers, Cheshire; Dr. Ferdinands, Aberdeen; Mrs. Turner, Finsbury-park; Mr. Rye, Rye; Mr. Lupton, Notts; Mr. Stevens; Dr. Johnston, Aberdeenshire; Mr. Winkworth, Beds; Mrs. Lawrence, Compton; Dr. Wood, Pontypool; Mr. Crow, Canterbury; Mr. Guest, Staffs.; Mr. Owen, Merioneth; Dr. Tooker, Easingwold; Mr. Heywood, Manchester; Messrs. Fenwick and Chinery, London; Mr. Jones, Southend; Mr. Nicholls, Brockley; B. D., London; Prof., Wellingboro'; Lady Superintendent, Belgrave Hospital for Children; X. Y., Colchester; Secretary, Staffs. County Asylum; Secretary, Bristol Royal Infirmary; Secretary, Dumfries Royal Infirmary; Colon, London; C. A., London; Clerk, Risbridge Union; C. A., Wrexham; Assistant, London; Secretary, Barnwood House Hospital; Enthusiast, London; Cumberlands, Penarth; Lady Superintendent, Canterbury; Dr. M., Rugby; Secretary, Royal Isle of Wight Infirmary; Sigma, London; H., Staffs.; Registrar, Yorkshire College; Zeta, London; Dorset, London; Lex, Durham; Medicus, Gateshead-on-Tyne; Tropicus, London; Dr. B., Stamford-hill; Z., London; Assistant, Brockley-road; Medicus, Bradford; Gambit, London; Medicus, Cheapside; A. H., Burton-on-Trent; Asylums, London; Medicus, London; B. B., Catford; Secretary, Queen's Hospital, Birmingham; Davidson, London; A. B. X., Maida-vale.

Northern Daily Telegraph, Reading Mercury, Surrey Advertiser, Leeds Mercury, Weekly Free Press and Aberdeen Herald, Kentish Mercury, Mining Journal, Daily Chronicle, Hertfordshire Mercury, North Star (Darlington), Eastbourne Gazette, Pump Court, &c., have been received.

Medical Diary for the ensuing Week.

Monday, August 26.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, August 27.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

Wednesday, August 28.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, August 29.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Friday, August 30.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, August 31.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

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Agent for the Advertisement Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

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The Bradshawe Lecture

ON THE

DISTRIBUTION AND DURATION OF VISCERAL NEW GROWTHS.

Delivered at the Royal College of Physicians of London,

BY NORMAN MOORE, M.D., F.R.C.P.,

ASSISTANT PHYSICIAN AND LECTURER ON PATHOLOGICAL ANATOMY AT ST. BARTHOLOMEW'S HOSPITAL AND WARDEN OF ITS COLLEGE.

MR. PRESIDENT,—My first duty is to thank you for doing me the honour to appoint me to lecture on this occasion.

The subject which I have chosen is one on which nothing is to be learned in the medical treatises of ancient times. The Hippocratic writings show that the Greeks had observed that cancer sometimes affected internal organs, that it was a disease of adult life, and that in many cases the cancer continued to grow as long as the patient lived,[1] but they contain no rules for distinguishing this disease from similar conditions. The physicians of the middle ages were inclined to neglect observation, but they excelled in definition to such a degree that a reader who goes no further than the first paragraph of their statements on each disease will be inclined to think too well of their knowledge. Dr. John of Gaddesden was the most famous of English physicians before the foundation of this College, and his definition of cancer is: "Cancer est morbus maleficus, tumorem faciens cum duricie, vel ulcerationes faciens cum dolore et fetore et horribilitate."[2] But his further remarks show that in his time cancer was not exactly distinguished from other forms of tumour, of induration of tissues, and of ulceration. This defect continued for more than four centuries after the time of John of Gaddesden, though a vast collection of observations of new growths of all kinds was made by physicians throughout Europe in consequence of the active study of the morbid anatomy of the human body in its relations to clinical medicine, to normal anatomy, and to the anatomy of animals, which was in this country encouraged by your illustrious predecessor, Dr. Caius, and carried on by Harvey, Glisson, Lower, Willis, and many other Fellows of this College. The most famous of them in this part of medicine, Dr. Matthew Baillie, was a contemporary of more than one physician still living. His book, "The Morbid Anatomy of some of the most important parts of the Human Body," appeared in 1793, and received improvements from his hand till Oct. 1st, 1817, when he sent the fifth edition to the press. This admirable treatise, which is so full of precise and original accounts of what the author had himself seen that it can never become obsolete, contains many observations on new growths. It is easy for any pathologist to satisfy himself that Dr. Baillie was acquainted with the appearances of cancer of the œsophagus, stomach, and intestine, of the liver, of the pancreas, and of the bladder, with new growths of the thyroid gland, of the brain, of the lungs, of the ovary, of the peritoneum, and of the pericardium. He had made the observation that such new growths may infect the glands, for he says under the heading "Mesenteric Glands Cancerous" (p. 209): "When a portion of the intestinal canal becomes cancerous, some of the absorbent glands in the mesentery generally become affected with the same disease: this is in consequence of the matter of cancer being conveyed to these glands by absorbent vessels. The glands become enlarged in size, and are changed into hard masses, exhibiting a scirrhous or a cancerous structure." That the defect of definition of cancer from other conditions remained is, however, clear from what Dr. Baillie remarks on "large white tubercle of the liver (p. 231): "Hard white masses are sometimes found in the liver. They are often as large as a chestnut, but I have seen them both a good deal larger and smaller than this size. They are to be found near the surface of the liver in greater number than near the middle of its substance; two or three frequently lie contiguous to each other, with a considerable portion of the liver in a healthy state interposed between them and a cluster of similar tubercles. They consist of a firm opaque white substance, and are generally somewhat depressed or hollow upon their outer surface. The liver in this disease is frequently a good deal enlarged beyond its natural size.

The kind of tubercle which we have now described is much more rare than the other, and resembles more the ordinary appearance of scirrhus in other parts of the body. In one or two instances, however, I have observed a thick sort of pus lodged in this species of tubercle, resembling very much the pus from a scrofulous sore; and therefore I am rather disposed to think that this tubercle may be of a scrofulous nature, but no satisfactory opinion can be formed upon this single circumstance." These tubercles were what we should call masses of carcinoma or of sarcoma, and we can explain clearly how different are their nature and structure from those of scrofulous sores, to use Dr. Baillie's term. The first step towards the exact definition of the structure of cancer and other new growths was the observation of Leeuwenhoek, in 1674, that the epidermis consisted of minute scales placed side by side. In a letter to Oldenburg he says: "I mentioned that I could not otherwise perceive but that the scarf insensible skin consisted of small round scales, and declared my sense of the skin's fabric thus: that continually as it was worn away on the outside, it was supplied from beneath."[3]

I do not propose to take up your time with an account of the successive advances in our knowledge of the cellular structure of the skin and of other tissues of the body, and of the gradual abandonment of the word "epidermis" and growth of the use of Ruysch's word "epithelium," from Leeuwenhoek's description of the epidermis in 1674 to Waldeyer's enunciation in 1867 of the modern doctrine that carcinoma is a new growth originating in epithelium. But as it is on new growths originating in epithelium that most of my observations have been made, I will ask you at once to consider some well-ascertained facts in its structure and natural history.

An epithelium consists of a continuous surface of nucleated cells, sometimes flat and polyhedral, sometimes columnar in shape, and sometimes with intermediate forms, sometimes in one layer, and sometimes stratified. The cells appear under the microscope almost contiguous, and are held together by a very thin structureless interstitial cement substance. These cells are the descendants of those which at a very early period of life were formed first upon the outer surface of the animal as epiblast, and some of which afterwards as hypoblast came to line the inner surface of the animal. Their ancestors, the cells of the epiblast and of the hypoblast, having to cover a smaller area, were much fewer in number. They multiplied by division. This power their descendants in the adult epithelium inherit, and thus throughout life as some cells die, and are shed on the surface, fresh cells are formed and take their place. There is what may be called a regular rhythm of growth. If the epithelium is stratified, the cells of the lower layers divide and supply in regular order and interval of time the deficiencies of the superficial layer. If the epithelium is in one layer, similar lateral changes take place in regular rhythm. The cells of the epiblast and of the hypoblast have another peculiarity. Their series can dip down into the subjacent structures and there continue their growth. The epiblast by this kind of ingrowth forms the stomodeum, which in time becomes the cavity of the mouth, and the proctodeum, which becomes the rectum. The hypoblast has numerous ingrowths which become glands. These ingrowths are numerous and normal in both epiblast and hypoblast. Now and then they occur at irregular points, as when the epiblast dips in and becomes separated from its original surface and forms one of those dermoid cysts containing teeth and hair which so long confused the ideas of anatomists as to the development of the ovum. This power of ingrowth is not displayed normally after its adult condition is reached. Its cells then proceed to succeed one another in a definite rhythm and along a definite line. The powerful effect of heredity is illustrated by the regularity of their plane and direction of growth. Is it never interrupted? May we not regard a carcinoma as a simple interruption of this regular rhythm of growth? What the disturbing influence is we do not know. Probably it is

[1] Προρρητικον, ii., 11. [2] Rosa Anglica, Venice, 1516, p. 125-6. [3] Phil. Trans., 1692-3.

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not always the same. It seems certain that as regularity of growth is a hereditary quality of epithelial cells, so irregularity may also be inherited by some epithelial cells. Thus the cells of every primary carcinoma are normal epithelial cells growing inward instead of following their normal plane of growth. The stroma in which they are set cannot be considered as the representative of the very thin interstitial cement substance. It is in parts formed by subjacent tissue, carried in with the epithelium, just as the mesoblast in many normal curves follows the epiblast. In other parts it is formed by fresh connective tissue, the formation of which is due to the irritation set up by the epithelial ingrowth. The same method of explanation may be applied to many sarcomata, new growths originating in any of the tissues developed from the mesoblast. Such is the primary new growth. Others appear in distant parts of the body. Are they contemporaneous morbid alterations of the rhythm of cell growth, or are they the immediate descendants of the primary growth? As to settle this point is essential to the study of the distribution of new growths of the viscera, I shall shortly describe three cases which demonstrate what most pathologists would now admit—that the later growths are the descendants of the first growth.

A man aged thirty-seven, by occupation a chimney-sweep, was admitted into St. Bartholomew's Hospital under my care on Sept. 8th, 1883. He had had hæmoptysis for a month before admission, and thought that he had become short of breath in April, 1883. He had a pain in his chest which kept him awake at night. The cardiac impulse could not be felt, but the heart sounds were audible and normal. The breathing sounds were normal. On Sept. 24th a small swelling was observed to have appeared on his left clavicle. On Oct. 3rd his breathing was shorter, and the following were the physical signs in his chest: absolute dulness on the left back from the spine of the scapula downwards; just over the root of the left lung, and there only, bronchial breathing; in front a peculiar hyper-resonant note just below the left clavicle; elsewhere on the left side absolute dulness; right side normal. Three days later I had paracentesis performed, and twenty-seven ounces of clear serum were drawn off. The dyspnœa was but little relieved, and three days later the man died. The day afterwards I examined his body. The pericardium contained blood-stained fluid, and both its surfaces were infiltrated with a dense whitish new growth. At the root of the left lung the growth had invaded the main bronchus. The bronchial glands were infiltrated. There was a small nodule on the sixth left rib. Below the diaphragm the growth was only present in the supra-renal bodies. I examined the new growth microscopically in every part in which it occurred, and in all situations it had the same characters. It everywhere consisted of large oval or polyhedral nucleated cells contained in well-marked alveoli. Precisely such cells cover the surface of the pericardium. Obscurity of cardiac sounds was the first physical sign observed. It was followed by pleural effusion, due to the pressure of the growth as it extended from the pericardium into the lung. The growth on the clavicle was observed to begin to grow some time after the physical signs indicated a growth in the pericardium. Its structure was precisely the same as that of the pericardial growth. No such cells occur in the substance of the supra-renal body, yet the nodule of new growth there had precisely the same cellular appearance as that on the pericardium. I believe the growth to have been primary in the pericardium (1) because the physical signs indicated that new growth began there, (2) because the largest and densest mass of new growth was found involving the pericardium, and (3) because the form and arrangement of the cells of the new growth were identical with those of the normal endothelial cells of the pericardium. As to the growths on the clavicle in the lung and in the supra-renal body, their structure was the same as that of the pericardial growth. In the substance of the lung and in the supra-renal body and clavicle no cellular structure exists normally which is like the structure of the endothelium of the pericardium. The conclusion is obvious that these large polygonal cells grouped together in alveoli in the lung and in the supra-renal body are the descendants of the similar cells of the endothelium of the pericardium. The new growth, due in the pericardium to an alteration of the normal rhythm of growth of the pericardial cells, is in the supra-renal body and lung due to the transference from the pericardium of some of these cells. The pericardium is the mother country of these cells—the masses in the lungs and supra-renal bodies are colonies. I have heard, Sir, that in the midst of your professional labours you have been so wise as to give some of your time to philosophical studies, and I may therefore venture to remind you of a famous passage in which one of the greatest writers and philosophers which this country has produced points out how colonists when they emigrate carry with them to their new abode the part of the character of their original nation predominant at the time of their emigration. Some of the cells of the endocardium which is the seat of morbid growth are carried off by the circulation or in the lymph channels, and form colonies in a region of totally different structure, the supra-renal body, and there illustrate the principle laid down by Burke. They carry with them the power of developing fresh cells of the original form and the tendency prevalent when they left the pericardium for these cells to multiply in irregular groups, instead of in a single layer on an extended surface.

The second example, illustrating the relation of descent between a primary new growth and secondary new growths is afforded by a man aged forty-seven, who was first under my care as an out-patient, and afterwards in St. Bartholomew's Hospital, to which he was admitted on Aug. 25th, 1888. He died on Sept. 22nd in the same year. Three years and five months before his admission his right eye had been removed by operation for a new growth in it, which proved on examination to be a melanotic sarcoma, growing from the choroid membrane, and containing dark pigmented connective-tissue cells of the kind normally abundant in the capillary part of that membrane. In August, 1888, when I saw him first, he had a greatly enlarged liver. The socket of his right eye was empty and showed no sign of disease. His left eye was natural. After death the enlargement of his liver was proved to be due to its infiltration by numerous masses of new growth mainly consisting of dark pigmented connective-tissue cells, precisely resembling those of the capillary part of the choroid membrane, and wholly unlike any normal cellular structure of the liver. Some of the abdominal lymphatics and the kidneys contained similar masses of pigmented sarcoma. Neither kidneys nor lymphatics normally contain any such pigmented connective tissue. The conclusion is surely obvious that the abnormally growing but normally constructed pigmented connective-tissue cells of these masses in the liver, abdominal lymphatics, and kidneys were the descendants of the original new growth starting in the normal pigmented cells of the choroid. Their colonising ancestors had already left the original mass in 1885. The growth in such a case is sometimes said to recur in such and such a part after an operation for its removal, but the phrase is incorrect. It does not recur. It began in the choroid, and thence started pigmented cells, which were already on their way to other regions when the original growth was extirpated in the eye. It was truly extirpated, for no morbid change except atrophy of the root of the right optic nerve was discoverable in the head. If I may again borrow an illustration from history, I would compare the melanotic growth in the liver—surviving and flourishing long after the destruction of the original seat of its cells in the choroid—to the Parsi community of Bombay, which preserves in a colony the race and beliefs of a Persian empire destroyed centuries ago by the Mussulman armies.

A third example of the relation of the secondary nodules of a new growth to the primary new growth is that of a man aged fifty-two, who was a patient of Dr. Gee in St. Bartholomew's Hospital, and whom I had the opportunity of observing in the wards and in the post-mortem room. He died of carcinoma of the uppermost part of the rectum growing from the epithelium lining the small crypt-like glands of the mucous membrane. The epithelial cells of these glands are columnar, and they arrange themselves in conformity with the shape of the glands in circular or ovoid tubules. The primary growth had infiltrated the submucous tissue, and consisted entirely of perfectly and imperfectly developed columnar epithelium, arranged exactly as is the normal epithelium of the tubular glands of this part of the rectum. Before death several nodules had grown so as to be felt on the surface of the liver through the abdominal wall. After death many such were found in both lobes of the liver. These masses in microscopic sections showed the columnar cells and tubular arrangements which I have already described as found in the new growth in the rectum. Just as the cells like those of the pericardial endothelium found forming a mass in the supra-renal body, and as the pigmented cells of the choroid kind

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found in masses in the liver, are, from their resemblance to those of their original seat and dissimilarity to any cells of the organ in which they were found, believed to be secondary and descended growths, so these columnar epithelial cells arranged in tubules occurring in the liver are to be regarded as secondary to and descended from the primary abnormal growth of the normal columnar epithelium of the tubular glands of the rectum.

It would be easy to multiply examples. I have chosen these three because in each case the clinical history pointed to the new growth having begun in a particular region, and because the microscopic character of the cells of the region of origin were well marked, peculiar, and unmistakable. I wish these examples to illustrate the law that malignant new growths have a primary seat in which the abnormal growth of normal epithelial cells begins, and that the cells of all secondary growths are descended from these. The microscopic characters alone are, however, not always, as they were in these three cases, sufficient, when studied with the clinical history, to establish after death the position of the primary growth. When these, taken together, leave the determination of the primary growth uncertain, it may be usually settled by a consideration of the naked-eye characteristics of the several parts of the growth. If the growth has been comparatively slow, then the densest mass is probably the oldest. If the growth has been rapid, then the oldest mass will probably be that which is softest, in which most degeneration has taken place. It is essential, in the investigation of this point, always to consider together these three circumstances — microscopic structure, naked-eye appearance, and clinical history. The growth into the substance of an organ of a carcinoma or sarcoma always gives rise to the formation of fresh connective tissue. When the growth is slow, much connective-tissue formation is present and the growth is dense. When the growth is rapid, but little connective tissue is formed. Bearing this in mind, the enlargement of lymphatics near the growth must not be taken as a proof that the new growth itself has begun in them; their enlargement is frequently due to simple inflammation. In the same way, it is important, by examining numerous microscopic sections, to guard against the error of mistaking the round cells of the inflammatory process, which are often very abundant round the growth, for the cellular structure of the growth itself. The extensive degeneration which often takes place in the epithelial cells of a new growth on the surface of a mucous membrane adds to the difficulty of determining the nature of the cellular structure of the new growth unless many sections are examined. In the new growths which I am about to mention I have endeavoured to avoid error due to these circumstances. In each case I have examined the body myself, and have observed both the distribution and the naked-eye appearances of the fresh new growth, and have afterwards examined several sections of the primary growth and of the several secondary growths. In nearly every case I have examined microscopically the secondary growth in all places of its occurrence, and I have always done so when the naked-eye appearances left any room for doubt as to whether what seemed a mass of new growth was really so. In a few instances where many organs were the seat of secondary deposit, and where nearly all were successfully examined, accident prevented the examination of some one secondary nodule. With this altogether unimportant exception, the statements as to the nature of the new growths which I shall mention are all based on full microscopical examination. Although for practical purposes we may often be quite sure of the nature, say, of a carcinoma of the œsophagus, still it seems desirable, in establishing sound premisses from which to deduce conclusions as to the distribution and duration of new growths, to deal with only those cases in which the precise nature of the growth has been determined by microscopic examination. My own contribution is a very small one; but if similar collections of observations are made, there will be in time a sufficient accumulation for certainty in these important points with regard to visceral new growths: the directions in which they tend to grow, and to what organs in each case they tend to distribute secondary growths from the primary mass, and the duration of this growth—a period of extreme interest, since, so far as the possibilities of our art are at present, we must admit that it is conterminous with the survival of the patient.

Following the strict method I have described, I have to lay before you the results of the examination of one hundred and twenty-three cases of new growths in the internal organs of the body. Most of my remarks have relation to new growths from epithelium, for of these cases one hundred and two were carcinomata and twenty-one sarcomata, among which I include growths from endothelium, though some of their characters are so distinct that it is well to keep for them the distinctive term "endotheliomata." As to terms, I may add that the term "scirrhus," which in Heberden and all earlier writers was applied to all growing indurations of tissue in soft parts, whether due to new growth or to the process we term "cirrhosis in the liver" and "sclerosis in the brain," has little value as a pathological term for a new growth. Hardness is a common character of widely different new growths, and some carcinomata are softer than some sarcomata. If the term "scirrhus" is still to continue, it ought to be used as a purely clinical expression for any dense and therefore slow-growing new growth. The terms "medullary" and "encephaloid" are open to the same objection, and as they are not useful in clinical observation it would be well if they could be allowed to drop out of use altogether. All three terms date from a time when the origin of new growths was unknown, and refer to points in their description which are not distinctive of their nature. Every new growth should now be described by mentioning the form of its cells and their arrangement in relation to one another or to any intervening tissue. The term "epithelioma" may also with advantage fall into disuse, since it has practically become a synonym for carcinoma. A new growth may become adherent to neighbouring structures and grow into them, and this may be termed "growth in continuity"; or it may give origin to the formation of masses in distant organs, when these are termed "secondary growths." It is of considerable importance to observe this distinction, and I shall do so in the account of visceral new growths to which I shall now proceed, beginning with the alimentary canal and its large glands—the liver and the pancreas, and going on to the lungs, heart, and pericardium, spleen and lymphatics, kidney and brain.

The *œsophagus* is a common seat of new growth in men, a very rare one in women. In fifteen cases which I examined I found that the new growth was in all a carcinoma. All had a well-marked stroma. In five the cells contained in the meshes of the stroma were some of them columnar, suggesting that the morbid epithelium in this case was that of the small mucous glands. In the other ten the cells were polyhedral, or rounded, and of flat appearance, and the morbid epithelium was clearly that which forms the general lining of the œsophagus. In none were there any cell nests, such as are common in cancer of the lip. In four cases the new growth extended from the lower end of the œsophagus into the stomach. In six there was a growth in continuity into one lung. The commonest seat of secondary growth was the liver, in which masses were found in seven out of fifteen cases. Secondary growths occurred in the lungs in five cases and in the heart in five. In four, growths were found in the kidneys; and in three of those in which there was growth in the heart there was also growth in the kidneys. The pancreas, spleen, and supra-renal body were were each affected in one case. The following conclusions are justified: (1) That in carcinoma of the œsophagus the new growth is rarely confined to the œsophagus; (2) that it may grow along the œsophagus into the stomach; (3) that it may grow directly into the lung, and that this is a frequent occurrence; (4) that it may grow directly into the mediastinal glands; (5) that it may, though rarely, infiltrate the dorsal vertebræ; and (6) that it is frequently associated with widespread secondary growths, of which the commonest seat is the liver, and that, after the liver, the lungs, heart, and kidneys are more often affected than any other viscera. It is worth while to point out, in addition, that the tendency of the new growth to cause adhesion of the œsophagus to the lung sometimes leads to perforation of the œsophagus, the passage of food into the lung, and the patient's death from gangrene of the lung, or from pneumonia, before actual infiltration of the lung by the new growth has taken place.

The *stomach* is a common seat of new growth in both sexes. In twenty-nine cases, eight in women and seventeen in men, which I examined microscopically, I found the new growth in all to be a carcinoma. Its stroma was always abundant. The cells in twenty-one of these cases were columnar and spheroidal, with intermediate forms, and probably originated in the layer of columnar cells which line the whole stomach, the pyloric glands, and the peptic

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glands. In four cases the cells were polyhedral, resembling and probably growing from those which normally occur at the neck of the pyloric and of the peptic glands. Very great degeneration of many of the cells of the new growth was often present, and in a few cases there was copious hæmorrhage into its substance. In twenty-three out of the twenty-nine examples the new growth was densest at the pylorus, and had grown thence in the gastric wall towards the œsophagus, in eleven cases infiltrating the whole gastric wall. In three cases it was most dense, and radiated from what seemed to have been a simple gastric ulcer of long standing. In two the seat of new growth was the cardiac end, and in one the posterior wall only. In one case the growth, densest at the pylorus, had filled the whole gastric wall and extended a little way into the œsophagus. In one case a mass of new growth projected through the pyloric orifice, but in no case was the wall of the duodenum in the slightest degree affected. Growth from the stomach in continuity into the lymphatics along its edge occurred in seven cases, into the liver in four, into the diaphragm, omentum and mesentery, pancreas and transverse colon in two each, and into the œsophagus, ascending colon, spleen, vertebral column, and vena cava inferior in one each. Secondary growths occurred in the liver in fourteen, in remote lymphatics such as the lumbar glands in nine, in the pancreas in six, in the lungs in five, in the peritoneum generally in three, in the kidney in two, in the heart, spleen, and supra-renal in one each. In three cases only the growth did not extend anywhere beyond the stomach. The following conclusions are justified: (1) That carcinoma of the stomach generally grows from the pylorus towards the cardiac end of the cavity; (2) that the growth is rarely continued into the œsophagus, but more often than into the duodenum; (3) that in about one-fourth of the cases the growth extends directly into the lymphatics along one or both curvatures of the stomach, forming dense masses which may often be felt through the abdominal wall; (2) that after these lymphatics its most frequent seat of growth in continuity is the liver; (5) that it may also grow in continuity, though with less frequency than into the liver, into the diaphragm, omentum and mesentery, pancreas and transverse colon, and less often still into the ascending colon, spleen, vertebral column, and vena cava inferior; (6) that in two-thirds of the cases there are secondary growths, and that in one-third these are widespread, affecting one or more regions; (7) that the commonest seat of secondary growth is the liver, and next to it remote lymphatics, especially the glands in the hilum of the liver, the lumbar and mesenteric glands, and those of the mediastinum; (8) that after these the pancreas and lungs are most often the seat of secondary growth, and with nearly equal frequency; and (9) that secondary growths are rare, but may also occur (in the order of frequency) in the peritoneum generally and in the kidney, and least often, and with equal rarity, in the heart, spleen, and supra-renal bodies.

I have examined nine growths in the *colon*, of which four were in the ascending colon, two in the transverse, and three in the descending. As these are purely artificial divisions, I shall treat of the growths as one series. Three were in women, six in men. All were carcinomata. In eight the cells were distinctly columnar. In one, in which the stroma was very dense, I found no well-formed columnar cells, but only spheroidal cells. All had no doubt originated in the columnar-celled epithelium which lines the large intestine and its mucous glands. Two had grown in continuity into the duodenum, two into the abdominal wall, one into the ileum, one into the stomach, and one into the liver. In two, small lymphatics near the intestine contained new growth, but there was no general infiltration of the abdominal lymphatics. The only remote seat of secondary growth was the liver, and that in only one case. The conclusions justified are: (1) That carcinoma of the colon tends to spread by direct continuity, and may thus, according to its situation, penetrate the stomach, duodenum, ileum, or abdominal wall; and (2) that it rarely has secondary growths, and that when these occur they are commonest in neighbouring lymphatics, and may rarely be found in the liver.

New growths of the lower part of the *rectum* are commonly sent into the surgical wards of a hospital, and it thus happens that nearly all the cases I have examined are of the upper part. They are eight in number, three in women and five in men. All were examples of carcinoma; in six the cells were columnar, in two polyhedral, and in one I could find only spheroidal cells. The commonest origin of the cell growth was probably the epithelioma of the mucous glands. In the two cases with polyhedral cells the new growth was nearer the termination of the intestine, one just within the anus, the other a little higher. The one which most certainly belonged to the area of the proctodeum had as widely spread secondary growths as any, and had them abundantly in the lumbar glands, liver, and pancreas. The other with polyhedral cells had neither growth in continuity nor secondary deposit. The remainder had no growth in continuity, unless in one case in which the peritoneum was adherent over a very small area, and here I found none, though I suspected it. Five were without any external growth. In those which had secondary growths the lumbar glands were infiltrated in two, the liver in three, and the pancreas in one, in which both liver and lumbar glands were affected. Even on so small a series it is fair to point out: (1) That in carcinoma of the rectum a majority of the cases have neither growth in continuity nor secondary growths; (2) that the lumbar glands and the liver are the most frequent regions of secondary growth; and (3) that the pancreas is sometimes infiltrated. On reviewing the new growths of the alimentary canal, it is worth note: (1) That the stomach is a more frequent seat of new growth than the œsophagus, and the œsophagus than the colon, and that notwithstanding its greater length, and therefore greater area of epithelium, the small intestine is the least frequent of all; (2) that new growths of the œsophagus lead to the most widespread secondary growths, and new growths of the colon to the least widespread; and (3) that new growths of the colon have the greatest tendency, perhaps owing to their situation, to grow directly into the other parts of the alimentary canal.

The *gall-bladder* and *large bile-ducts* are a seat of new growth in both sexes, and I have examined ten cases, five in each sex. All were examples of carcinoma. Polygonal and columnar cells, with intermediate spheroidal and subspheroidal forms, were present in all cases, corresponding exactly to the epithelial cells lining the ducts and the gall-bladder. In one case the common duct only was affected. In all the others the duct near the gall-bladder, and the upper part or the whole of the gall-bladder, were the seat of growth. Gall-stones were present in only four of the cases, and in a fifth a dead, partly calcified hydatid cyst occupied the fundus of the gall-bladder. In six of the cases the growth extended in continuity into the liver substance for a very short distance. In two it grew directly into the wall of the duodenum, and in one of these into the lumbar glands as well. Of secondary growths, the lymphatics were the most frequent seat, especially the glands in the hilum of the liver, the lumbar and the mesenteric glands. In only two cases was there wide general infiltration of the abdominal lymphatics. In three cases there were secondary growths in the lungs; in one only a separate secondary growth in the liver. In one a scattered growth in the peritoneum. In two cases there was no growth anywhere else. The following conclusions may be stated: (1) That carcinoma of the gall-bladder and large bile-ducts (generally the common duct) usually grows directly into the liver; (2) that secondary deposits, if present, are not widespread; (3) that their most frequent seat is the abdominal lymphatics, but that they may occur, in order of frequency, in the lungs, the liver, and the peritoneum.

The *liver* is a rare seat of primary new growth. I have examined three, two of them in men. All three were examples of carcinoma. Two had large polyhedral cells, which were jaundiced (though there was no general jaundice), and the third had polyhedral and columnar cells. Those with only polyhedral cells may have begun in the ultimate termination of the bile-ducts or in the liver-cells, the one with some columnar cells a little lower down in the bile-ducts. In one case the growth had extended in continuity into the omentum. There were no secondary growths except in the nearest lymphatics, and in a lymphatic on the external surface of the pericardium.

Primary new growth in the *pancreas* occurs in both sexes. Of eleven cases which I have examined, six were in men, five in women. All were examples of carcinoma, with spheroidal and columnar cells closely resembling those of the gland. Growth in continuity into the stomach, gall-bladder, and transverse colon was present in one case, and into the duodenum in another, and in a third into the lymphatics in the hilum of the liver. There were secondary

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growths in seven cases; in the most widespread example in five separate localities. Next to the neighbouring lymphatics the liver was the most frequent seat, and was infiltrated in six cases, the lungs and the kidney in two, and the peritoneum and heart in one each. The conclusions are: (1) That in carcinoma of the pancreas growth in continuity is rare, but may take place into the stomach, gall-bladder, transverse colon, or duodenum; (2) that secondary growths are not usually widespread, and that their commonest seat is the liver; and (3) that they may also occur in the lungs, kidney, peritoneum, and heart. It is worth mention that jaundice was present in all the cases but one.

Primary new growth in the *lungs* may be a carcinoma or a sarcoma. I have examined eleven, ten of them in men. In all, the new growth formed a dense whitish mass, thickest about the root of the lung. In three the growth was a sarcoma, consisting of densely packed round cells, without any stroma, and probably growing from the lymphatic glands at the root of the lung. The other eight were carcinomata, with dense stroma, and columnar or spheroidal cells. In these the new growth probably originated in the epithelium of the mucous glands of the bronchi. In the three sarcomata there was growth in continuity into the bronchial glands, and in one case into the right auricle. The secondary growths were into the liver and pancreas in two cases, into the brain and supra-renal in one each, and in one into the vertebral column. The distribution of the carcinomata was similar. One grew in continuity into the right auricle; one had penetrated several ribs; one had secondary growths in the brain. There were secondary growths in the pancreas in half the cases; into remote lymphatics in three; into the liver in two; into the supra-renal, kidney, and spleen in one each. In one case only the growth was confined to one lung, and the bronchial glands were not infiltrated. One of the cases illustrated the necessity for minute examination of all details in the investigation of new growths. The patient had sudden right hemiplegia shortly before and up to her death. It seemed probable that a secondary growth had appeared in the brain, as sometimes happens both in carcinoma and in sarcoma of the lung. At the post-mortem examination I found an embolus plugging the left middle cerebral artery, and microscopic sections of this embolus showed it to consist of blood-clot only. The fact that a secondary growth may occur in the brain, in new growth in the lung, deserves notice, and the possibility of direct growth into the heart is also remarkable.

All the primary new growths of the *heart* and *pericardium* (only five in number) which I have examined proved to be endotheliomata, consisting of large polyhedral cells, arranged in well-marked stroma, and so exactly resembling the cells which line the pericardium that there could be no doubt that they were the origin of the growth. Both surfaces of the pericardium were infiltrated. In one of the cases the growth extended to the endocardium. In three there was a continuous growth into one or both lungs. In all but one case secondary growths were widespread. In all, the mediastinal lymphatics were infiltrated, and in two the lumbar glands. In three there were secondary nodules in the lungs; in two there were nodules in the liver, in two in the spleen, in two in the pancreas, in two in both kidneys, and in two in both supra-renals. In two cases there was a secondary growth on a clavicle. It is perhaps not safe to adopt more than two conclusions: (1) That endothelioma of the pericardium may grow directly into the lung; and (2) that its secondary deposits are usually widespread, and may include the liver, pancreas, spleen, kidney, and supra-renal body.

I have seen but one case of new growth primary in the *spleen*. It was a sarcoma of mixed cells, round and elongated without any stroma, and it grew directly into the stomach, diaphragm, and abdominal lymphatics, without any secondary growths.

Two cases of sarcoma primary in the *lymphatics* may be mentioned here. The new growth consisted of small round cells grouped in the meshes of a connective tissue, and was of the variety known as a lympho-sarcoma. It grew in continuity into the outer part of the pericardium in one case and into the right lung in the other. There were no remote growths, except a small nodule in the right lung in the example in which the pericardium was infiltrated.

I have only examined four cases of primary new growth in the *kidney*. Three in adults—two men and one woman—were carcinomata, consisting of spheroidal cells arranged in a well-marked stroma, and in one case in circular alveoli like tubules. One was a sarcoma growing from the pelvis of the kidney in a child aged two years and a half; in this case there were no secondary growths. In all the cases one kidney only was affected. The only growth in continuity was in one carcinoma, and was into the right supra-renal body. In two of the carcinomata there were growths into both lungs and into the liver, and in these cases the lumbar glands were also infiltrated. In the third carcinoma, that with the tubular arrangement of cells, the growth was confined to the left kidney. In two of the cases a ragged calculus occupied the pelvis of the kidney. It deserves note that while in new growth of the heart, whether primary endothelioma or secondary carcinoma, the kidney is sometimes affected; in none of these four cases of new growth in the kidney was the heart affected.

I have examined six cases of primary growth in the *brain*. All were growths of the genus "sarcoma." Three were in the cerebellum, one in the pons Varolii, one in the left cerebral hemisphere, and one in the optic chiasma. In only one was there any secondary growth except in the brain itself, where in two cases there were several. The extra-cerebral secondary growth in this one case was in the right supra-renal body.

I have now mentioned one hundred and fourteen examples of various new growths. In none of these were there any secondary growths in the uterus, ovaries, or testes. I have not accumulated sufficient observations on new growths of the generative system to enter upon that part of the subject. It is, moreover, one in which the difficulty of determining precisely the primary growth and its nature is often very great, owing to the rapid and extensive degeneration which often takes place. I have also omitted, as requiring larger discussion than this lecture permits, cases of widely spread and rapidly growing sarcoma in children, sometimes involving the skeleton, and sometimes almost all tissues but the bones. It remains to consider the duration of the new growths I have described. In each case I have taken from my own note-book when I had seen the patient during life, and from the careful records written from day to day by the house physicians at St. Bartholomew's Hospital, when I had not, the date of the first unequivocal symptom of new growth—as, for example, in cancer of the œsophagus, dysphagia; in cancer of the pancreas, jaundice. This clearly does not indicate the beginning of the disease, but it does mark the commencement of its distinct symptoms, and generally the time at which a physician is first likely to see it. In some of the cases I was unable to determine the duration. I shall mention the longest duration I could make out, and the shortest duration, and the duration of the majority of cases.

In carcinoma of the *œsophagus*, the majority of cases terminated within eight months, the longest case lasted thirteen months, and the shortest two months. In carcinoma of the *stomach* the majority of cases (in both sexes) lasted more than nine months, and half the cases from nine to eighteen months. The evidence seemed conclusive that one case (the longest) lasted sixty months and another thirty-six months; but these were the only ones which exceeded eighteen months. The shortest case lasted four months, and nearly a quarter of the cases lasted less than six months. In carcinoma of the *colon* the majority of cases lasted from ten months to nineteen months, which was the longest duration, and the shortest duration was four months. In cancer of the *rectum* the majority of cases lasted from four months to six months. The longest duration was thirteen months, the shortest three months. The duration of the three cases of cancer of the *liver* was respectively ten, seven, and five months. In cancer of the *pancreas* the majority of cases lasted from five to seven months; the longest lasted twelve months, and the shortest five weeks. In carcinoma of the *lung* a majority of cases lasted from seven to nine months, which was the longest duration; the shortest duration was three months. In the three cases of sarcoma of the lung the duration was respectively twelve months, ten months, and five months. In endothelioma of the *heart* and *pericardium* I could not satisfactorily determine the duration in most of the cases. In two which I observed throughout it was about six months. In the single case of sarcoma of the *spleen* the patient was under my own observation, and his illness lasted seven months. The two cases of lympho-sarcomata of the *lymphatics* each lasted two months. In carcinoma of the *kidney* the longest duration was nine months, the shortest six months. In the

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sarcomata of the *brain* the duration of the majority of cases was from one to three months—the longest duration; and the shortest duration was four weeks. The large majority of cases of new growth in the viscera thus seem to terminate within a year from the appearance of distinct symptoms. In some cases, a period of doubtful health preceded the onset of undoubted illness, but this period I found so difficult to define that, as a safer assistance in determining the true duration of growth, I have drawn up a table of nine cases of what may be called external new growth (removed wholly or partially by operation). These show longer periods of time. Seven of them were cancers of the breast. A majority of the patients lived for from twenty-four to fifty-one months, and the shortest duration recorded was fifteen months. A man whose eye had been removed for melanotic sarcoma lived for forty-two months. The secondary growths in all the cases of carcinoma were widely distributed. Out of seven, the liver was infiltrated in five, the lung in four, the kidney in three, the spleen in two, and the heart, thyroid, and brain in one each. If it be supposed that after the operation only a very few morbid epithelial cells remained in the body, we have here a measure of how long they take to grow to a wide distribution—a period ranging from fifteen to fifty-one months. The intermediate durations are sufficiently near to make the mean a useful quantity. It is very nearly twenty-six months; or, omitting the single case of fifty-one months, somewhat more than twenty-one months. If this period be added to that determined by the symptoms, it seems likely that it may give an approximation to the true duration of the disease. For practical purposes, however, the determination of the observable period is far more important, and in every inquiry which we make as physicians practical usefulness to sick men ought to be our chief aim.

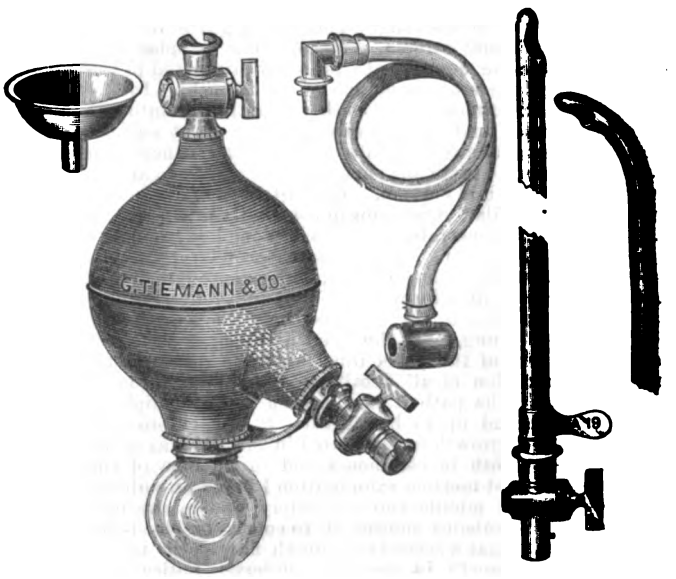
I hope that the observations recorded in this lecture, and the conclusions based upon them, are likely to be of use in diagnosis, as aiding in determining the probable situation and nature of internal new growths; in therapeutics, since treatment can only be safely based on an accurate diagnosis; and most, perhaps, in prognosis. In the Hippocratic writings, prognosis not only means the prediction of the event, but the prevision of the course of a disease and of all the probable incidents and opportunities of treatment likely to occur. I have tried to make this lecture a contribution to prognosis in this wider sense. The prognosis of our day is better than that of the Greeks, for it includes among its premisses the sure observations of morbid anatomy, and if Hippocrates could survey the practice of medicine as it now exists, I do not doubt that he would adhere to the opinion he expressed so many ages ago—that the most important thing for a physician is that he should practise forethought, and always have before his mind what has happened, what is happening, and what will happen in the case which he is treating. *Τὸν ἰητρὸν δοκέει μοι ἄριστον εἶναι πρόνοιαν ἐπιτηδεύειν.*

THE "PERFECTED" EVACUATOR.

BY FESSENDEN N. OTIS, M.D.,
CLINICAL PROFESSOR OF GENITO-URINARY DISEASES IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK, ETC.

THE credit of conceiving and carrying to ultimate success the operation of removing stone from the bladder by lithotrity at a single sitting is indisputably due to Professor Henry J. Bigelow of Boston. The method of crushing the stone has not materially changed from that pursued in former times, although we are indebted also to Professor Bigelow for more powerful lithotrites. These at once became a necessity when attacking the large and hard stones, which the field of his brilliant operation quickly embraced. With the heavier instruments now available it is rare indeed to find a stone which in skilled hands is beyond their compass. After the ability to use large evacuating tubes (from 25 mm. to 30 mm. in circumference, and even larger) was demonstrated, the evacuation of the débris seemed easy of accomplishment. The first instrument, a modification of Clover's, devised by Professor Bigelow, answered the purpose admirably in the main, but was soon found to permit a return to the bladder of a portion of the débris after it had been deposited in the receiver—a fault which did not prevent the accomplishment of many notable successes by this method; but Professor Bigelow at once began a series of elaborate and expensive experiments to remove the difficulty. Sir Henry Thompson of London, who soon adopted Professor Bigelow's operation, and contrived instruments of his own for its accomplishment, found the same difficulty to contend with. A sharp rivalry between these distinguished surgeons—to construct an evacuator which should act by the most direct and shortest route, and yet perfectly prevent the return of débris to the bladder—began in 1879, and for the several succeeding years furnished to the journals (chiefly the London LANCET) many interesting illustrations and much animated discussion. After various modifications and expedients had been adopted and discarded during a period of several years, Professor Bigelow, in 1883, presented the instrument, which has remained from that time up to the present (1889) without modification. In presenting his improved instrument to the profession in THE LANCET of Jan. 6th, 1883, Professor Bigelow says: "However otherwise arranged, a satisfactory aspirator should have some device near the catheter to act as a trap for débris, and secure every fragment that has passed it. The chief difference among evacuators now is in the certainty with which they retain the fragments they have aspirated. Any instrument will draw out the fragments, but few hold them securely, for the débris does not always fall into the glass receiver, nor does it always remain in it; on the contrary, it is easily carried back into the bladder. This defect in the action of the evacuator has received little attention from surgeons, although it is the only point connected with the instrument which offers any difficulty whatever. Until recently it has been remedied only by sacrificing simplicity in the apparatus."

FIG. 1.



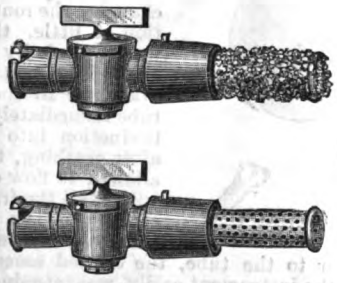
Professor Bigelow's latest evacuator (1883). Holds 10½ oz. Weighs 24 oz. (troy) empty, 34½ oz. filled.

In the latest instrument of Professor Bigelow (Fig. 1) the route to the bladder has been changed to correspond with that of Sir Henry Thompson, in which the evacuating tube was attached directly to the evacuator, without the intervention of tubing, as in Professor Bigelow's previous instruments, thus apparently giving both surgeons the advantage of the same and the shortest route to the bladder. In place of various contrivances, ball, valves, traps, and strainer of previous modifications, a perforated tube was inserted into the lower side of the rubber bulb, and continuous with a stopcock connected directly with the evacuating catheter. This perforated tube or strainer was claimed to

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prevent effectually the return of débris into the bladder; and, in operation, it was proved to do so; but the strainer, while working perfectly in experiments with crushed coal or coral, when in practical use quickly became so clogged with mucus and coagulated blood that the frequent cleansing of the strainer during operation became necessary. This fact led Sir Henry Thompson to say, in THE LANCET (1883), that "all the perforated tubes and strainers get so blocked with débris (as I found long since) in the human bladder—not with coal in water—as to be practically useless there." As Professor Bigelow had, in THE LANCET of Jan. 6th, 1883, presented a large-sized woodcut illustrative of the absolute inability of Sir Henry Thompson's then latest instrument to prevent the return of débris to the bladder, with ample descriptive text, it might be suggested that his opinions of perforated tubes and strainers had been somewhat modified by personal feeling. The accompanying accurate copy of a photograph of the perforated tube or strainer of Professor Bigelow's improved evacuator, taken at the close of an operation at St. Luke's Hospital not long since, will, however, go far to justify Sir Henry Thompson's statement. (Fig. 2.)

FIG. 2.



Showing tube blocked with mucus and coagulated blood.

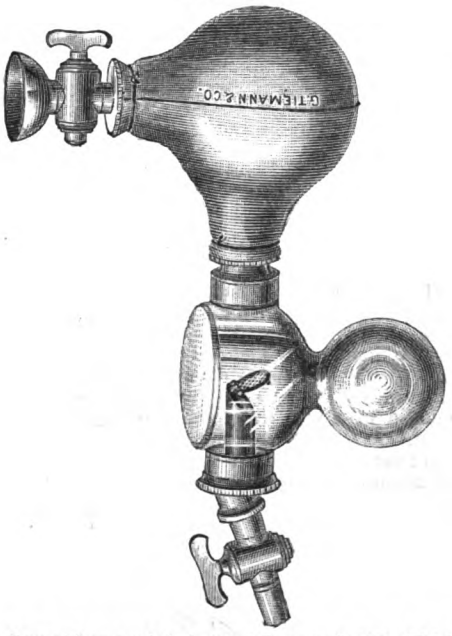
In cases free from mucus and pus, and perfectly free from any admixture of blood with the water during operation, there will not be any noteworthy difficulty; but if there is a trace of blood present in the progress of the procedure, the perforated tube will inevitably and promptly become blocked, as in Fig. 2. The instrument was a good one for practical purposes before the addition of the perforated tube; but it was open to the objection, as shown, that débris was likely to be left in the bladder after operations with it. Save under very favourable conditions, or by the frequent cleansing during operation, the objection evidently remains.

Sir Henry Thompson's experiments and modifications finally culminated in an evacuator which equally in action prevented the return of débris, without being open to the objections made against Professor Bigelow's instrument. This improved aspirator was presented in the London LANCET of April 12th, 1884. (Fig. 3.) "The improvement consists in a light, loosely-hanging valve of fine wire attached by a simple hinge to the end of the evacuating tube, which terminates within the glass trap of the instrument. When pressure is made on the indiarubber globe, and the current flows by the evacuating catheter into the bladder, this light valve is driven close to the aperture, and no débris can leave the glass trap. When the pressure is removed, and the current returns from the bladder, the valve floats widely open, and permits the débris to enter unchecked. The wire valve is circular in form, and its border, being flat and thin and about the tenth of an inch wide, is delicately sensitive to the movements of the current, and responds to the slightest impulse of the hand on the indiarubber globe." "But," Sir Henry Thompson further remarks, "I am quite satisfied that with my last published aspirator (the one so elaborately criticised by Professor Bigelow in THE LANCET of Jan. 6th, 1883), as well as with the form now described, no débris returns to the bladder if the instrument is properly used, when, of course, the valve is unnecessary. Few persons are aware that very slight but quickly-made pressure on the globe, sufficing to transmit only six or eight drachms of fluid into the bladder, generally removes more débris than a powerful impulse which transmits at one act all the fluid contents of the globe, or nearly so. When employed in the manner last named the valve becomes useful, and only then is it required."

At the commencement of the evacuator contest I was using very satisfactorily the original Bigelow instrument, and was, at the time of the notable discussion at the London International Congress of 1881, under the impression that it was the best then in use. During that discussion, Sir Henry Thompson accorded to me a fair share of the honour of contributing something towards the ultimate success of the operation of removal of vesical calculi at a single sitting. My distinguished countryman, Professor Bigelow, however, neglected to give me the credit of the previous discovery of the normal urethral calibre, through which alone the rapid evacuation became possible. Not desiring to assert my claim as a grievance, I determined, if possible, to invent another evacuator, and, in describing it, to write the history of evacuators in general; in this I proposed, while according honour where honour was due, to take what I believed to be my legitimate place in the preliminary history of litholapaxy.

Two years afterwards—viz., in November, 1883—I presented and demonstrated my first evacuator at a meeting of the New York Academy of Medicine, and read a paper in

FIG. 3.



Sir Henry Thompson's instrument (improved), 1889. Weighs 27½ oz. troy empty, 40 oz. filled.

which "the removal of débris from the bladder after lithotrity" was fully considered, with representations of previous instruments which had been in use for that purpose, adding those of my own, and in which, while it was distinctly shown that Professor Bigelow did not discover the increased capacity of the urethra, which alone made his operation possible, and also that he did not discover the tolerance of the bladder to prolonged instrumental interference, yet, as I there claimed, "he did much more—he utilised the knowledge which he, in common with other surgeons, possessed. He had the inspiration to conceive of its value as a factor in a great life-saving operation. He seized my demonstration of an average urethral calibre of 32 mm. in circumference. He joined it with his knowledge of the toleration of the bladder to legitimate surgical procedures, and litholapaxy was born. He had the courage, the surgical knowledge, the skill, the inventive mechanical genius, and the perseverance to carry it, *vi et armis*, to a successful maturity, thus finally achieving one of the most brilliant surgical triumphs of modern times."

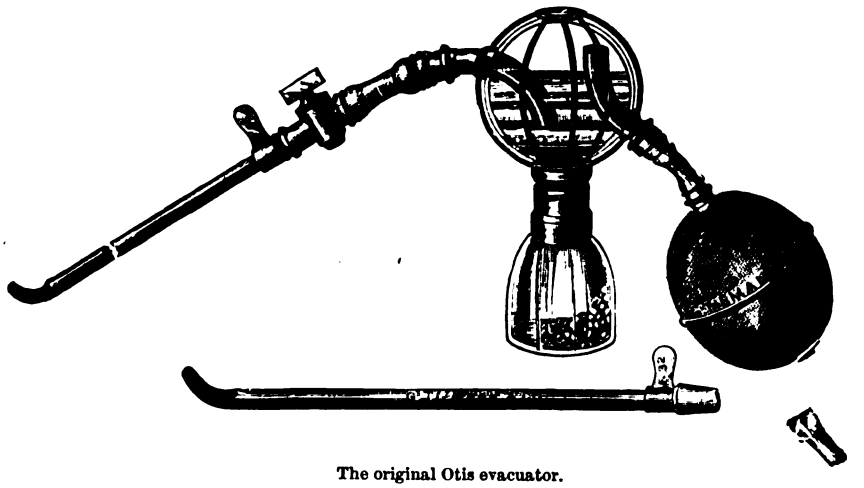
My own instrument was constructed on an entirely different plan from those of both Professor Bigelow and Sir Henry Thompson. Having appreciated the difficulties of overcoming the alleged faults of both, I endeavoured to accomplish evacuation without return of the débris, independently of traps, valves, or strainers. This was effected by a simple breaking of the currents to and from the bladder, so that the débris should be released *in transitu*, and drop

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down into a receiver arranged to be a perfectly dead point. (Fig. 4.)

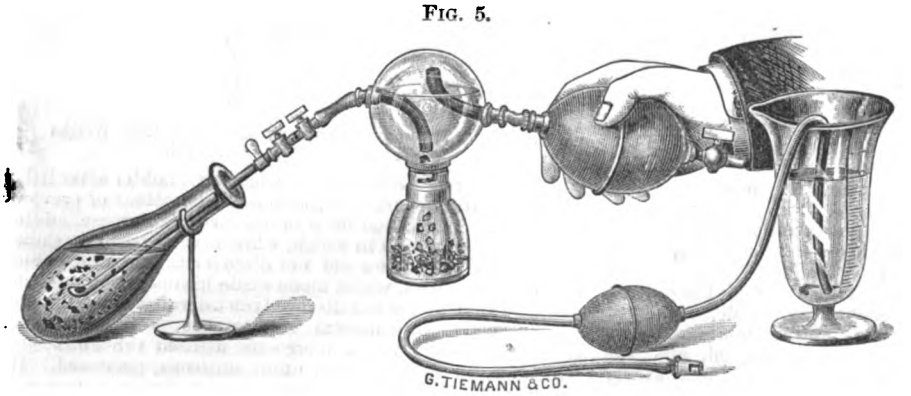
In its practical working it was found fully equal in its evacuating power to the improved instrument of Bigelow, with the advantage that, without trap or strainer, no débris was returned to the bladder. It was found, however, that under circumstances where during the operation it became desirable to introduce an additional amount of water into the bladder this could only be effected with considerable inconvenience, much greater than in Professor Bigelow's or Sir Henry Thompson's instruments. In 1885, therefore, a tap and stopcock were added at the end of the rubber bulb, as shown in Fig. 5, so that, when it was found desirable to introduce additional water into the bladder, this was done with great ease by attaching the discharge pipe of the Davidson's syringe to a stopcock, while the supply end is immersed in a vessel (preferably a large glass graduate) filled with water at a proper temperature. The easy attachment and detachment of the Davidson's syringe allow any desired amount of fluid to be introduced into the bladder without delay or inconvenience. With this addition the instrument did most satisfactory service in my hands during the following two years. The only real embarrassment which was found in the use of this evacuator was from the weight and inconvenience of manipulation of the two stopcocks, which objection obtained equally in the instruments of Sir Henry Thompson and Professor Bigelow. At the suggestion of my son, Dr. Wm. K. Otis, who had noticed the greater lightness of the evacuator of Dr. Ultzmann of Vienna, I substituted hard rubber fittings similar to his; and in the course of experimentation which this change suggested, removal of all intermediate connexions between the glass reservoir, the rubber bulb, and the evacuating catheter was found to decrease the weight and add to the ease in handling the instrument. It was then discovered that a stopcock was not necessary to prevent the water from flowing from the evacuator, this being effected by atmospheric pressure alone in any position which the handling of the instrument required, and that only when laying it down was any water liable to run out. For use in this event a simple plug of hard rubber attached by a string was alone necessary. These important changes decreased the weight to such an extent that when filled my perfected evacuator weighed six ounces less than Professor Bigelow's when empty. The successful elimination of one stopcock, previously supposed to be the most important, and still absolutely essential in the instruments of both Prof. Bigelow and Sir Henry Thompson, directed attention to the possibility of getting rid of the remaining stopcock on the evacuating tube, which seemed desirable in order to prevent loss of water while attaching the evacuator to it after the crushing. It was ascertained in actual practice that, by changing the routine of operation a little, this stopcock was also wholly unnecessary. Instead of attaching the evacuator to the evacuating tube immediately upon its introduction into the bladder after crushing, the fluid was allowed to flow out, carrying with it all the fragments that could thus be washed out; then, deliberately attaching the evacuator to the tube, the desired amount of water for working the instrument easily, was introduced by means of the Davidson's syringe, which was connected with the rubber bulb. The syringe was then attached and the evacuation deliberately proceeded with. It was not found necessary to press the end of the evacuating tube to the extent of depressing the bladder floor so as to make the portion with which it is in contact the lowest point, as advised in using the evacuator of Professor Bigelow, but the current was sufficiently strong to draw out the débris if the tube was simply well introduced into the bladder cavity. Among the tests which were originally made to prove that the receiver was a perfectly dead point, and that fragments once deposited in it were thus entirely out of the influence of the currents passing to and fro during evacuation, was that of filling my evacuator completely as for ordinary use, then detaching the reservoir, emptying it, refilling it with glycerine, and then reconnecting it with the reservoir. A small quantity of crushed coral (which more nearly resembles vesical calculus than coal) was introduced into an ordinary soda-water bottle, and this was half filled with water to which a little ink had been added. On working the bulb, the fluid thus coloured was seen to pass back and forth through the reservoir, but not in the least mixing with the glycerine, while the coral was drawn out of the bladder in the inky current, and, receiving its impulse and direction from the discharge-pipe, was disengaged from the coloured medium and, dropping down through the clear glycerine, was deposited at the bottom of the receiver. This experiment, which proves in a striking manner the perfect retention of the débris in the receiver during evacuation, was subsequently found to work admirably in actual practice; and, in all operations for the last two years where blood was present in sufficient quantity to obscure the fluid, I have used glycerine with great satisfaction. Without it, it

FIG. 4.



The original Otis evacuator.

FIG. 5.



The Otis evacuator, improved.

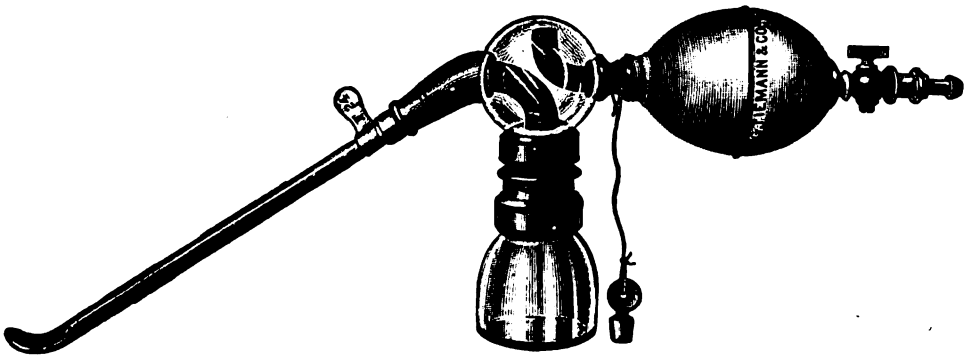
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will occasionally be difficult, and sometimes impossible, to tell whether the evacuation of the débris is proceeding satisfactorily without disengaging and emptying the receiver.

The changes which have been made in the old instrument are as follows:—1. Removal of all stopcocks. 2. Removal of tubing between the bulb and globe, and between the globe and evacuating tube, thus making the instrument more compact and the distance from the bladder to the receiver the shortest possible. 3. Introduction of hard rubber in place of metal wherever possible, giving the utmost lightness. 4. Making the tube apertures in the globe oval instead of round (Dr. W. K. Otis's suggestion), and thus giving the greatest security against their fitting loosely and leaking. 5. Increasing the calibre of the evacuating tube where it enters the globe, thus securing a greater rapidity in delivery.

It is now claimed that this latest evacuator (Fig. 6) presents the following advantages over all other instruments now in use:—1. Perfect trapping of all fragments without the use of any form of valves, perforated tubes, or strainers. 2. Shortest possible route of fragments from the bladder to the receiver. 3. Absence of all stopcocks between the bladder and receiver. 4. Ease of filling and perfect control of the amount of water in the bladder during evacuation. 5. Lightness, compactness, power, and facility of manipulation. 6. The fragments being visible from the moment of leaving the tube until removed from the receiver, it can be seen that they do not return to the bladder.

FIG. 6.



The perfected Otis evacuator. Holds 8 oz. Weighs 10 oz. empty, 18 oz. filled.

I may state that the original Otis evacuator was manufactured by Messrs. George Tiemann and Co. (surgical instrument makers of New York), who with much pains and skill have aided me in the succeeding changes necessary to bring the instrument finally to its present state of perfection.

New York.

A STUDY ON LEPROSY:

BEING A SUMMARY OF OBSERVATIONS MADE DURING A RESIDENCE IN PALESTINE.[1]

BY DR. MAX SANDRECZKI,

DIRECTOR OF THE HOSPITAL FOR CHILDREN AT JERUSALEM.

Translated by EDWARD ATKINSON, *Honorary Surgeon to the General Infirmary at Leeds.*

AN article of such a nature as I here present to dermatologists, specialists, and philanthropists cannot pretend to be a scientific dissertation, or even a complete recital of all the phases which the horrible malady with which we are about to concern ourselves passes through. My aim is infinitely more modest. I desire, as simply as possible, to impart to my colleagues the observations and experiences which I have made during my residence in Palestine, and at the same time to gain the attention of both colleagues and philanthropists to the possibility there may be of combating with success the terrible scourge of leprosy.

The disease which bears the name of "leprosy" has been known from the most remote times. We find already in the Bible indications and data, more or less exact, of the leprosy called the "white,"[2] *morphœa, alba, mosaica,* and also of the leprosy named "tuberculous," nodosa, tuberculosa, mutilans,[3] also in Celsus,[4] and Pliny's Lucretia. Nowadays, one meets in Palestine and at Jerusalem (excepting only rare and isolated cases) with none but the tuberculous, mutilating leprosy, accompanied, according to the individual case, with anæsthesia or analgesia. Notwithstanding the total absence in Palestine of medical statistics, it is allowable to estimate at about 600 the number of lepers inhabiting the towns and villages of this country. At Jerusalem they live in common in a domicile assigned to them by the municipality. Immediately that symptoms of leprosy are apparent in a person he is promptly excluded from his village, separated from his family, and must go to the nearest town, in order to live on alms and on what his relatives bring to him. It happened formerly that some individuals suffering from another malady—e.g., from syphilis,—but accused by their enemies of being leprous, were doomed to expatriation. Such events no longer occur, because when a similar case arises the inculpated submits himself to examination by the doctors. There exists at Jerusalem a large hospice for lepers, founded under the auspices of the Moravian Brethren, and destined to collect together, if possible, all the lepers of the country, with the intention of bringing about the disappearance of this affection by means of a process of exclusion and isolation. The founders and patrons of this institute hope to attain their end, which, however, is rather philanthropic and religious than scientific. It is, at the same time, useful to draw attention to the fact that, as the Government has no intention to let these poor unfortunates be shut up, or to separate married people by force, this great establishment has but a very limited *clientèle*, amongst which there are also some syphilitic cases. As to my opinion, I am obliged to declare that the result of my researches gives me the conviction that leprosy is by no means contagious, and that consequently the exclusion and isolation of the patients is both a useless and a cruel measure. If leprosy were contagious in the sense in which one understands it, the staff of the above-named hospice, where men and women devote themselves to the care of the lepers, would be likely to suffer from this daily contact, dressing of wounds, washing of linen, &c. During the twenty-five years the hospice has existed not one of the *employés* has suffered either from any infection or any contagion whatever. Since the existence of this hospice, and by the example given to the public of not fearing the leprosy, lepers are permitted to enter the towns and the bazaars, and it has not been proved that there is any increase of leprosy. The same fact is pointed to in numerous places in the East, where leprosy ought to be followed by an excessive propagation among the lower classes if it were truly contagious. Eleven years ago I had

[1] "Étude sur la Lépre: résumé des Observations faites pendant un séjour en Palestine." Par le Dr. M. Sandreczki. Published in the "Revue Médico-Pharmaceutique," Constantinople, April 30th.

[2] 2 Kings v., 27; Exodus iv., 6; Numbers xii., 10; Leviticus xiii., &c.

[3] Deut. xxviii., 27.

[4] Lib. iii., c. 25.

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in my Children's Hospital, for four years, a leprous boy, and although he was always in contact with the other patients and domestics, and often with my own children and myself, there was never any contagion, even though there were always several other cases of leprosy with wounds in the hospital. Medical literature also tells us that there have been persons who have for long together lain in the same bed with the leprous, and have even cohabited with leprous women, to prove whether there were infection or contagion, and the result was negative. In Japan, lepers are free to live and to go where they will, and leprosy, instead of increasing, has even diminished, according to the report of Dr. Sissu, chief physician to the Prince of Satsuma, and of Professor Balz of the University of Tokio.

The heredity of leprosy is not constant; it sometimes appears to be in a manner intermittent—that is to say, neglecting one generation to appear again in the next. It is so among the lepers of Palestine. I have seen many children of lepers who were in no way tainted by the disease of their parents. Chinese physicians only admit one mode of propagation of the disease (*la voie héréditaire ou sexuelle*), but I have examined the wives of lepers in perfect health. Lepers whom I have questioned have assured me that inheritance is not constant, and they have told me that as soon as the leprosy is well developed procreation ceases. As everywhere else, hereditary propagation is difficult to prove, seeing that leprosy is only developed (as a rule) at the age of puberty. I have seen some cases at the age of five and six years. I have never seen it in the newly born. Dr. Zambaco of Constantinople tells us that leprosy shows itself even at birth. If children remain under bad hygienic conditions, which it is well known tend to produce leprosy, it is evident the disease might easily develop without being hereditary of necessity. As to persons favourable to the propagation of leprosy, I am in a position to state that in all Palestine, and especially in Jerusalem, I have never met with a single case among the inhabitants of towns, or of those who belong to the well-to-do classes. On the contrary, in China and Japan, in the Canaries and Sandwich Islands, even the rich are susceptible of becoming lepers. After the Crusades, in the middle ages, there were lepers even among the seigneurs.

Leprosy in Palestine is developed by insanitary conditions, of which I will enumerate the chief: impure air—the tainted exhalations which prevail in the villages and unhealthy habitations of the fellaheen; the water-supply, often stagnant and deteriorated; the oil and fat (used for food), rancid, or salted beyond measure; olives and cheese in a state of decomposition; meat rotten, or coming from animals diseased, or worse still. Add to all this extreme uncleanliness the utter absence of skin-action, and then one may easily explain derangements in the tissues of the skin, in the lymphatic and ganglionic systems, and, in a word, complete disorder of all the nutritive functions. The rapid changes of temperature in this country, the difference between the dryness of the day and the moisture and cold of the nights, necessarily affect the reciprocal action of the skin and of the lungs; but this and its interruption have not yet been sufficiently studied either by observation or experiment. I have, however, been able to prove, in a great number of lepers, the gradual and sometimes complete cessation of perspiration. Excess in venery, which the fellaheen practise, greatly augments, no doubt, their predisposition, by weakening the body. After numerous inquiries, I am of the opinion that chronic intermittent fever plays a part in the development of the disease. Chinese physicians, and Japanese also, mention that, besides the above-named causes, variability of climate is favourable to its evolution. Hindoo specialists also say as much. I have found it stated, in a report upon the lepra caspica, that the people who furnish the majority of candidates for leprosy suffer much from intermittent fever. Sweat contains various acids, urea, and many bacteria. If these excretions are retained by the want of perspiration, is it not probable that they would cause derangement of the tegumentary structures, and is it not remarkable that leprosy shows itself chiefly in those parts of the body which are most exposed to the air. To sum up, then, it must be concluded that leprosy is developed indigenously, spontaneously, under conditions and predispositions known and unknown, especially when there is general organic waste (*déchéance*) of an individual or of a people.

As to the possibility of cure, one may say without fear of contradiction that among adults it is excluded. Throughout the whole extent of the literature which I have studied upon this point I have only found a few isolated cases the authenticity of which seemed to me to be established. The historians of leprosy are in accord in saying that all measures of restraint, such as isolation, exclusion, forbidding to marry, and other cruelties, have not tended to the annihilation of leprosy. Whenever the disease has diminished or has disappeared, it is certainly hygiene and civilisation which have brought it about. If one might believe the sheiks of the villages (statistics again being unfortunately defective), leprosy even in Palestine is in course of receding under the influence of civilisation and of the amelioration of the general circumstances of the population. It is yet necessary to create for the people better conditions of existence, and to establish a sanitary regimen even in the smallest hamlets. Taking account of all these observations and of my own researches, I have arrived at the conclusion that leprosy is curable in children if it is taken in time—that is to say, when it begins to show itself. In order to be able to base my opinion upon a fact, I received into my Hospital for Children, and cared for, a young boy ten years of age attacked by leprosy and already in a somewhat advanced stage. Examination of this boy gave the following results: Colour of the face sickly brownish (*brunâtre malsaine*); the eyelids, nose, and ears tumid; tubercles, of sizes varying from a pea to a hazel-nut, on the forehead, nose, and eyelids, of which some were in a state of suppuration; the eyes weeping; nose running; palate and pharynx sprinkled with small tubercles, and slight points of ulceration; the breath malodorous; and, lastly, a hoarse and nasal voice. On the hands were contracted cicatrices caused by ulcers. His whole system was enfeebled. He suffered from intermittent fever, and did not perspire even when working in the greatest heat. Sensibility of the face, arms, and hands was much diminished, and he complained of severe deep pains in his arms and in his muscles. After a treatment which extended over a space of four years, the young man could be sent home cured. He now earns his living as a labourer, and lives with his parents. The treatment followed may be designated simply as *hygièno-tonique*, internal as well as external: mineral baths, exercise, gymnastics, work in the open air, without the use of any specific. The sheiks of his village recognised the young man as cured, and have satisfied themselves that the malady was arrested. Several of my European colleagues also are convinced of his cure. After the cure the perspiration was abundant, and the intermittent fever ceased.

A German specialist, Professor Staeser, has declared that he attaches no importance to hospices and prisons for lepers with a view to the annihilation of leprosy; but that, on the other hand, asylums for children have every chance of giving good results. A treatment like that of our leprous boy is naturally very expensive; it requires much patience, and lasts for years; however, it seems to me that, all considered, the result obtained balances the cost. If leprous children can be cured and remain healthy, the next generation will most likely be so also. But to advance securely it will be necessary to make repeated experiments, and certainly the subjects will not be wanting. Up to the present time I have received no subsidy or aid, either from the Ottoman Government or from the municipality, to place me in a position to treat other leprous children. My hospital, with 200 in-patients per annum, treated gratuitously, costs me enough already. These lines will perhaps have the effect of attracting the notice of some men of science or philanthropists to this interesting subject. I am obliged to confess that I have not had an opportunity of making a special study of the bacillus of leprosy. The discovery of the bacillus has not hitherto advanced the curing of leprosy. Neither the transmissibility nor the mode of propagation has been demonstrated. Unfortunately we are not permitted here to make dissections, and it is almost impossible to procure objects for the microscope. In conclusion, I would remark that if the bacilli cause leprosy and propagate it from one person to another, how can we explain the long latent period—the repose of the bacillus for years? Is it not probable that the human body, more and more degenerated by years of misery and by every sort of hurtful influence, becomes the soil favourable for the development and culture of the bacillus?

Leeds.

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NOTE ON LEPROSY IN NORWAY AND THEIR SPECIAL HOSPITALS.

BY HERCULES MAC DONNELL, M.D.,
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HAVING just returned from visiting nearly all the leper hospitals in Norway, a few remarks concerning them may be of interest to the readers of THE LANCET. When I left, in June, the leper craze in England had assumed an acute form; when I returned, a month later, it had apparently died out. It is reported (whether truly or not I am unable to say) that an eminent member of the profession has started for the "land of the midnight sun," with the avowed object of collecting materials for an article in one of our leading monthly magazines on this savoury subject. To my mind, discussion on such subjects in the lay press is to be deprecated. If, however, the public crave such pabulum, it is well that it should be supplied by an eminent peripatetic vendor of such articles; but let us hope that we may be spared pen-and-ink sketches or photographs of the various phases of this loathsome affection.

Having arrived at Bergen on June 19th, Dr. Christie kindly appointed the next morning to show me round the Special Hospital and Asylum. The hospital is pleasantly situated about a mile and a half from the town, in close proximity to one of the general hospitals. There were sixty-two cases under treatment in various stages of the disease. The nursing seemed inefficient, the wards not over clean, and the patients had that peculiarly sad, downcast air which is always visible where large numbers of lepers are gathered together. In all the hospitals and asylums I visited, the physicians were thoroughly conversant with every detail relating to their special subject: not only treatment but pathology and statistics receive exhaustive care. The Government has gone to great pains and expense in publishing returns and maps with coloured areas showing the infected districts and the progress of the disease during decennial periods. By means of these maps the advance which hygiene and segregation have made in diminishing the disease can be traced with rapidity. In 1876 there were some 1300 lepers; the last return shows only 846. Dr. Christie is of opinion that about 10 per cent. of non-tubercular cases are curable. He has given up the gurjun-oil treatment, and relies mainly on the salicylates of soda and potass internally. Excoriated surfaces are treated generally with ointments containing salicylate of soda or iodoform, and solid nitrate of silver is used where fissures are deep and difficult to heal. I saw one remarkable case of elevated flat ulcer on the sole of an atrophied foot, which had resisted all treatment for a period of six months.

Dr. Christie then brought me to the Leper Asylum. It is an old building, with a curious chapel in the central courtyard dating from the fifteenth century. There being no isolation law in Norway, the authorities are unable to compel lepers to leave their homes. They are, however, forbidden to marry, and at certain central places—such as Bergen—asylums are open for their reception, where they are paid 40 ore (5½*d.*) daily. The inmates have to supply their own food out of this allowance; they have each a separate apartment, and are subject to few restrictions. In Bergen Asylum they are permitted to work, and, when not too ill, to vend their wares in the open market. Dr. Christie does not believe in the contagiousness of leprosy, and in Bergen it is quite common to see sufferers walking about and offering goods for sale. In other places—such as Molde—they do not allow lepers the same latitude of intercourse.

At Molde, Dr. Kaurin received me with the utmost courtesy—as, indeed, did all my Norwegian *confrères*. Nowhere did I perceive that any credence was attached to the fish-origin theory. Dr. Kaurin's writings on this special subject are widely known abroad. He has contributed some classical papers to the chief French work on leprosy, and his tabular statistics are most valuable. He holds more pronounced views on its contagiousness than those of his colleagues further south. He does not permit the sale of work, and lays much stress on the necessity of patients remaining a great deal in the open air and having ample ventilation in all wards and day rooms. The climate of Molde is not so severe in winter as Bergen or Trondhjem, and, though the district is one where leprosy is extremely prevalent, the result of semi-isolation and treatment is most encouraging. The hospital contained seventy-four patients. It is a fine building, with large and well-ventilated wards containing from three to nine beds, lofty corridors, and the kitchen and offices scrupulously clean. The entire hospital conveyed the impression of being well managed, that no necessary expense was spared, and that the patients were well cared for. Schooling and instruction in various ways are provided for such of the inmates as desire it. There is a bright well-lit chapel in the hospital, and the grounds for recreation are ample and well kept.

At Trondhjem, the Spedalsk Hospital is situated on a high plateau about two miles and a half from the town. At my visit there were seventy-eight patients under treatment. The building is large, having a long central corridor, off which the wards open. The wards are high and airy, but there was a most decided want of cleanliness throughout. The situation left nothing to be desired; but I cannot say I was impressed with the general arrangements. Much might be done at Trondhjem and Bergen to render the surroundings more cheerful and the lives of the inmates less irksome. There seemed to be a total absence of interest by the external world, and, in consequence, a daily routine dreary and depressing in the extreme.

The three places I have alluded to are the main centres for the treatment and semi-isolation of lepers in Norway. The steps which have been taken have proved most successful, and it is now merely a matter of time for the disease to be almost stamped out. All the specialists agree that hygiene carried out in the homes, with special attention to personal cleanliness and proper food, would hasten this desirable end; but amongst so democratic a people it is difficult to pass any law trenching on the liberty of the subject. The difficulty of inspection and the insistance on sanitary measures are wellnigh impossible, owing to the great distances patients live from centres of civilisation and the total interruption of all communication during the long winter months. The main factors in producing the disease (besides heredity) are filthy habits, bad food (mostly fish, salted or dried), the absence of sunlight for many months, foul air in stuffy and smoky cabins, insufficient heat and clothing, and the almost entire absence of green food or flesh meat. Compulsory isolation can alone deal rapidly with such a condition of things. The Storthing has been appealed to in vain by sanitary reformers for more stringent measures than prevail at present. The existing arrangements are slowly and gradually working a vast improvement. It is probable a time may come when they shall have accomplished all the improvement they are capable of effecting, and a residuum of cases will remain. When that times arrives, the sturdy common sense of the nation will insist on such further measures of restriction as may be necessary to stamp out completely the disease, for one and all are agreed that stamped out it must be.

Dundalk.

ON JOINT SCRAPING; WITH TABLE OF CASES TREATED.[1]

BY H. A. LEDIARD, F.R.C.S. ENG.,
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ON Nov. 1st, 1882, a boy aged six came under my care at the Cumberland Infirmary with disease of the knee-joint. The case is recorded fully in the writing of Dr. Leith Waters, then house surgeon, and I give a brief abstract of it as an introduction to what is to follow on the subject of joint scraping. The knee was flexed and tender; a sinus existed on the outer side of the thigh, from which from half an ounce to an ounce of pus drained daily; a probe did not enter the joint. The boy was pale and emaciated. The disease was traced to an injury some six weeks previously. On Nov. 18th an ordinary semilunar incision was made as for excision of the joint through the patellar ligament, and the posterior part of the internal condyle of the femur was found softened and carious; it was

[1] Paper read before the Carlisle Medical Society, Dec. 13th, 1888.

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scraped, the scraping of the softened tissue resulting in the formation of a hollow in the substance of the condyle; the crucial ligaments were softened and infiltrated, but the joint was otherwise in a fair state of health. The wound was stitched up and a back splint applied. At the end of March, 1883, the joint was put up in a stiff bandage, and the boy went home wonderfully changed in appearance for the better. The lad never came back as desired, but during August, 1887, I found him out, and heard that the joint had discharged for eighteen months after he got home, and then healed up. I found ankylosis present at a bad angle. The upshot of the surgical procedure in this case was a surprise to me. I had not intended to stop short of excision of the entire joint; but, finding the disease so localised, it seems that we determined at the time to try what scraping out the diseased part would do.

In the spring of 1887 I heard from Mr. H. W. Page, of St. Mary's Hospital, that a new method of dealing with joints was being tried. He called it "arthrectomy," the chief feature of the operation being that all disease, whether in synovial membrane, cartilage, or bone, was carefully removed with a sharp spoon, and it is entirely due to my conversation with Mr. Page on this subject that I am in a position to draw attention to joint scraping.

It appears to me that in the treatment of joint affections, as in the treatment of many surgical affections, efforts are being made to break away from the routine treatment of past years. Formerly amputation was then the only treatment for diseased joints; afterwards came excision. Short as has been the reign of excision, and hardly perfected in many of the needful appliances, we have been led to believe that excision has been resorted to too freely, and that rest follows the rule of a "complete removal of diseased parts" as essential to success in excision of the knee. Bleeding from the cut surfaces of the bones is sometimes very troublesome and difficult to arrest. Given an ordinary excision of the knee, with a moderate amount of bone removed, good position, and absence of much hæmorrhage, and yet the result is often amputation. This may in some instances be due to the entire disease not having been taken away; bone surfaces are perhaps clear, and much synovial gelatinous degeneration also cut away, but much that escapes the eye may be stitched up in the wound and lead to failure—at least, I am sure that it has been so with me. "All portions of diseased synovial structure that can be safely dissected off should be removed," said the late Mr. Spence, a remark which seems to imply a difficulty in dissecting everything away.

In the operation of scraping out a joint, the principle favoured by Mr. Bryant—viz., "the least sacrifice of parts"—is held in view, and as such should at least command the attention of all surgeons. Tedious as it may be to scrape out a large joint, hand-aching, and very dull to an onlooker, yet the saving of a limb is the goal to be kept in view. Taking the cases seriatim, I will glance at them as briefly as possible. (See accompanying table.)

1. Hannah B——, aged twenty. Knee diseased eight years. No sinus. On opening the joint, the cartilage was almost all gone, and the bone diseased throughout the joint. The case did well. I should add that the crucial ligaments were left. The patient can walk, though the knee is stiff. Osseous ankylosis is present, but there is no shortening. Patella left. (Exhibited to Society.)

2. Jane P——, aged three. Pus in knee-joint, with

Cases of Joint Scraping.

RECOVERIES.				AMPUTATIONS.					DEATHS.				
Date of Operation.	Name.	Age.	Joint.	Date of Operation.	Name.	Age.	Joint.	Date of Amputation.	Date of Operation.	Name.	Age.	Joint.	Date of Death.
Nov. 18, 1882.	John McA.	6	Knee.	Aug. 25, 1887.	Eliz. S.	9	Knee.	Aug. 17, 1888.	Nov. 28, 1887.	Tom J.	8	Hip.	Mar., 1886.
May 30, 1887.	Hannah B.	20	Knee.	Feb. 13, 1888.	Fred. G.	22	Knee.	June 6, 1888.	May 16, 1888.	Joseph T.	12	Hip.	Oct., 1888.
June 1, 1887.	Jane P.	3	Knee.	June 11, 1888.	Thomas H.	12	Ankle.	Sept. 12, 1888.	—	—	—	—	—
June 5, 1887.	Sarah J. B.	5	Ankle.	—	—	—	—	—	—	—	—	—	—
Aug. 29, 1887.	Mary J. G.	5	Knee.	—	—	—	—	—	—	—	—	—	—

Recoveries, 5; amputations, 3; deaths, 2—Total, 10.

and drainage are all that are necessary to cure many cases of diseased joints; this, I take it, is the outcome of Sir Joseph Lister's work. The last suggestion which has been put into practice seems to me a sort of compromise between excision and rest with drainage. The joint is to be laid open and the diseased parts cleared out, with a hope that ankylosis or perhaps even a movable joint may result; at any rate, excision of the diseased joint by a less severe method than that which succeeded amputation. In any case the movement is one which every surgeon will welcome, and it is one which will ultimately mark the last quarter of the nineteenth century.

First a word on the difficulties attending excision of the knee; for difficulties there are which have been recognised on all sides, or else why so much ingenuity displayed upon splints for use after operation? I cannot say how many methods I have seen, from Dr. P. H. Watson's plaster and iron rods to Mr. Morrant Baker's skewers for fixing the bones. The difficulty of fixing the ends of the femur and tibia and obtaining ankylosis in good position is due to the fact that excision thoroughly loosens the entire joint; frequently, in order to obtain good position, more bone is removed than is really needful—as where there is subluxation or semi-flexion. Sometimes several slices of bone require removal before the limb can be put on a back splint, and this means severance of all ligamentous attachment between the bones, lateral and posterior. For subluxated joints it is probable that the bones must still be sliced away, in many cases unnecessarily so far as the disease goes.

I venture to express an opinion that it is occasionally difficult to tell exactly where diseased tissues end and healthy begin, especially where bone is concerned; hence, rather than leave any doubtful tissue behind, the surgeon pulpy disease. Little or no change in cartilage. No sinus. The crucial ligaments were sacrificed during the scraping. The case did well, and osseous ankylosis at a slight angle resulted. Patella left.

3. The next case was an ankle. Mary J. B——, aged five. Entire ankle diseased, the joint being soft and swollen, with numerous sinuses, which discharged pus freely. The entire joint was scraped out, the astragalus included. The child was very strumous and weak. She ultimately did well, and had a sound joint, though the foot was much shortened. (Exhibited to Society.)

4. The next case was knee No. 3. Elizabeth S——, aged nine. The knee was subluxated, and had numerous sinuses. Limb attenuated. General health not broken down. On scraping, pulp and pus were present; cartilages destroyed; osseous surfaces soft; patella scraped away; crucial ligaments gone; femoral epiphyses scraped away. This case was in the balance for a long while, was finally amputated on Aug. 17th, 1888, and recovery resulted.

5. The next case was another knee. Mary Jane G—— (date Aug. 29th, 1887). No sinuses. Knee enlarged. The child was puny, and had spinal curvature. On scraping, pulpy disease was present; no pus; commencing ulceration of cartilage; bone subjacent red and soft; epiphysial cartilages exposed; one crucial ligament left standing. The case took a long time to recover, but did well. The child is paraplegic from spinal disease.

6. The next case was a hip in a delicate boy of eight years of age. There was a large abscess of the hip-joint; no sinus existed. The joint was scraped out. Head of femur soft; scraped away. Acetabulum scraped out. The case hung in the balance for some months, but death occurred

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from brain disease in March, 1888. This was the first hip case operated on.

7. The seventh case was another knee. Frederick G——, aged twenty-two. The disease had existed eight years; no sinus. On scraping the joint I cut away the patella at once. Cartilages of joint diseased and loosened; underlying bone soft; crucial ligaments left. The case did not do well, and amputation was performed on June 6th, 1888.

8. The next case was the second hip operated on—an unfavourable one for any treatment. An abscess had been opened in the thigh, and the scraping was secondary to this by two months. The head and neck of the bone were scraped away, and the acetabulum scraped out. I thought it possible that it might even be perforated. The case did badly; abscesses formed repeatedly; high temperature was kept up, and death by hæmorrhage ended the case in October, 1888, five months after the scraping.

9. This case was the second ankle. Abscesses of the joint had been opened previously. The limb was wasted and the boy rather hectic. His age was twelve. The ankle-joint was filled with pulp and pus; the osseous parts were soft, and the cartilages gone. The astragalus in this case also was scraped away. The case did fairly for a time, but continued pain and failure to heal necessitated amputation on Sept. 12th, 1888, recovery ensuing. (Died later on with phthisis.)

I have thus operated on six knees, have lost no patients, but had to amputate two of them. I have operated on two ankles, one of which did well, and the other was amputated. I have had two unsuccessful and fatal cases of hip disease, where scraping was tried. These two cases would not have done well or better by ordinary excision, and were certainly unsuitable for hip amputation.

Evidences of failure after scraping will be found, clinically, in continuation of more or less elevation of the temperature, general failure of the patient's nutrition, persistence of pain on palpation of joint, and failure in obtaining a certain amount of ankylosis. Thus, the ankle scraped out on June 11th, 1888, was amputated on Sept. 12th following, the joint being as loose as a healthy joint, and perhaps looser. The temperature was always up during a part of the twenty-four hours. There were numerous discharging and unhealthy-looking sinuses; there was tenderness on pressure all over the joint; and the nutrition of the limb was declining. It is somewhat difficult to say when interference is called for in cases where scraping has been tried; but I think that six or eight weeks will probably show how matters are likely to turn out. It is true that I have one case which was not healed for a long time, but there was not that association of those evidences of failure which I have already alluded to. The gradual stiffening of the joint, absence of pain, a normal or nearly normal temperature, and an improved condition of general health are the symptoms which are to be looked for where success is to be expected.

If this method is proved to be of permanent value, and if the joints scraped out remain sound and good, the question arises naturally, to what joints is scraping limited? If the knee and the ankle are joints to which scraping can be applied, what about other joints which are so frequently diseased? It appears to me that at the elbow scraping would be followed by ankylosis, which would render the arm probably useless; and I question whether the free mobility obtained after excision of the elbow in the usual manner could ever be obtained by scraping. This is, however, an open question, and I have not as yet been tempted to scrape out an elbow joint. My two cases of hip disease are not encouraging, but I can say this, that the operations caused far less shock, hæmorrhage, and disturbance of parts than excision would have done. I am not sanguine that movement will be obtained even after partial scraping of a joint, and am inclined to think that ankylosis is the end to to be kept in view.

In conclusion, I desire to state distinctly that the number of cases operated is insufficient to justify any dogmatic assertion as to the future of scraping, but that, as a substitute for excision, it is very hopeful and worthy of trial; that the shock of the operation is not to be compared to that of excision; that the hæmorrhage is less than that of excision; the loosening of the joint is markedly less; the retentive apparatus necessary is but slight compared to that needful after excision; and the pain of dressing subsequently is trivial by comparison. In some instances where the surgeon is prepared to excise, he may, after the joint is exposed, find that the disease is limited to one part of the joint, as in the first case I treated by scraping, and if this is so the case may be conducted to a happy issue without subjecting the patient to the greater risk of entire excision of the joint.

Carlisle.

FULMINATING PYO-HÆMOTHORAX IN AN INFANT AGED EIGHT MONTHS.

By ANGEL MONEY, M.D., F.R.C.P.,
ASSISTANT PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL AND TO THE HOSPITAL FOR SICK CHILDREN.

THE rarity of this affection in infants under the age of twelve months, and the difficulty of distinguishing it at the outset from simple intense broncho-pneumonia, constitute the *raison d'être* for the publication of the case.

The patient was a female child, aged four months when first seen on Sept. 14th, 1888. The interest of the case does not really begin till the morning of Jan. 20th, 1889, when I was called to see the child because of the state of her breathing. She had suffered from a catarrh during the past four or five days, but on the night of Jan. 19th she was in a state of sound sleep, with a normal temperature, and breathing 24 to the minute; this proved to be a calm before the storm. On the 20th, at 9 o'clock, the breathing varied from 56 to 72 per minute, and the expiratory sound was panting, with a well-marked pause between inspiration and expiration (so-called expiratory respiration). The temperature was 104·2°; the lips pale and slightly blue; the alæ nasi working, but not the sterno-mastoids; the pulse was 168. *The child screamed at the slightest touch, and especially when lifted up* in such a way as to stretch the trunk; the right back and side were harder than the left; there were dulness, tubular breathing, and sharp râle at the right base behind. This side was ordered to be poulticed and an ice-bag applied to the head. The abdomen was normal. There was no retraction of the head, but the child had vomited once. On Jan. 21st there was no improvement, the dulness at the right lower half of the chest had increased, and there was some sensation of resistance on percussion; the rate of the pulse and breathing had increased; the heart's apex beat was in the fifth space, a quarter of an inch within the nipple line; the left sterno-mastoid was working very vigorously; the right side did not move so freely as the left; the supra-sternal notch and lower sides of the chest receded during inspiration; the abdomen apparently moved equally on the two sides; certainly there was no want of expansion during inspiration over the lower abdominal region. The case progressed from bad to worse, and on Wednesday night (23rd) matters seemed to be rapidly coming to an unfavourable climax; the whole of the right side was dull, and there were dulness and crepitation over the left lower lobe. On Thursday morning an exploring syringe was introduced in the right lower axilla and a sanguinolent fluid withdrawn; twelve ounces were at once evacuated by aspiration; after this the child, and the breathing, and the pulse were much improved, but towards the afternoon grew worse again, and it was evident from physical examination that air had gained access to the pleura, and that the lung had not expanded. Mr. Bilton Pollard then used the aspirator with marked temporary relief, and with the further withdrawal of a few ounces of the same sanguinolent fluid. But the relief was only temporary, and the next day it was decided to lay open the thorax and relieve the pressure caused by the pneumothorax on the lung and mediastinum. This was done with great benefit; the child recovered consciousness to a considerable extent, and the pulse and breathing were greatly improved. On Saturday (the 26th) vomiting and diarrhœa became more frequent, the brain again began to fail, the anterior fontanelle sank, and the child died at 3 P.M., in a state which Marshall Hall would have called "hydrocephaloid."

The necropsy was most instructive. The disease was limited entirely to the thorax, and there were no tuberculous formations either in the lungs or mediastinal glands; the pericardium and left pleura were healthy; the lower lobe of the lung was consolidated—*collapse-pneumonia* over its lower half; the right lung was much reduced in size, and occupied the groove by the side of the vertebræ; its

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substance was hard and collapsed in the upper half, but friable and evidently pneumonic in the lower half. On section, muco-pus was seen in the tubes, and several small collections of pus were seen in the periphery of the consolidated lower lobe; one of these was in direct communication with the pleura by means of a widely patent fistula. The whole of the pleura was lined with a greyish-yellow lymph, and the subcutaneous and muscular tissues of the thoracic wall were infiltrated with a sanguinolent serum.

The history of the case was most probably this: After a catarrh severe broncho-pneumonia set in, and in places proceeded to the formation of small abscesses; one of these burst into the pleura, and set up pyo-hæmothorax of fulminating intensity. Relief naturally followed the removal of the positive intra-thoracic pressure, but the bronchial fistula in the lung allowed of the development of a pneumothorax of such severity as to jeopardise life by its intra-thoracic pressure on the mediastinal contents.

Harley-street, W.

A CONTRIBUTION TOWARDS THE DISCUSSION ON THE EMPLOYMENT OF ALCOHOL IN MEDICINE.[1]

BY A. G. BARTLEY, M.D., M.R.C.S.

MY opinion is adverse to the use of alcohol, and I might proceed to give grounds for this opinion; statistics, quotations from authorities, as well as facts, I might supply myself, so as to make my paper more or less exhaustive. My aim is, however, less ambitious. I have called my paper a contribution merely. It is, in short, an account of certain incidents in my experience which bear upon the question; and these I relate as briefly as possible and in the order of their occurrence. I will begin by relating an incident which first directed my attention to this subject, and which will show that I had taken up a strong ground in this controversy even before I was aware there was such a controversy at all.

After I took my degree in medicine I passed at once into the army, and my first cases of independent medical practice were in a battery of artillery in the Punjab. After a year or so with this corps I served two years in an infantry regiment without a senior surgeon, all this time acting to the best of my lights, but entirely independent and uncontrolled. At the end of this period, and about my fifth year of service, a senior surgeon joined the regiment with power of superintendence. He was an able and a kind man, and it was not at all in a spirit of unfriendliness that, going into dinner one night, he said to me, "I was in your ward this afternoon and found a bad case of delirium tremens in which you had omitted to order stimulants; however, I have made it all right." I replied, "I have no case of delirium tremens at present." He said, "Yes, a bad case, which will probably not survive, and so you had better take care." After some consideration I at length made out the case he referred to, and replied, "That man has no delirium tremens and will certainly be at duty in a week." We thus had a difference of opinion. I begged him, however, to leave the case in my hands, which he did, and the man was at duty in fair health in a week. It was, in fact, a discovery to him, an old soldier, that delirium tremens could be treated successfully without stimulants; and, I must add, it was a discovery to me that, although I knew there was such a disease in the regiment, I had actually treated cases of the ailment myself without knowing it. That delirium tremens can be, and ought to be, treated without stimulants is now a commonplace of practice. I speak of the year 1866. At that time the treatment consisted chiefly in administration of stimulants and opium, and I take no great credit to myself for breaking away from the traditions of the profession. I simply did not treat the disease by name. It would now be called "alcoholic poisoning." I looked on recovery as a matter of course, recorded the case as debility, sometimes from drunkenness, but more generally omitted the remark as likely to draw down the attention of the commanding officer to the offender. On the occurrence of the above incident, however, my attention was directed to the subject. I continued my treatment. My two colleagues continued theirs, and, although we were seldom without a case of delirium tremens, no case of any severity occurred among my patients. I need not say that the matter was often warmly debated. In those days Aitken's Practice of Physic was, as it still is, the chief authority in the medical service, and it was with keen delight that in the new edition of that year I found the treatment of this disease laid down: that, as it proceeded from an irritation of the nervous system by alcohol, the first condition of cure was to remove the cause, to forbid alcohol, and to give food in all possible ways, as the patients were dying of starvation—in fact, the treatment I had been pursuing. Aided by this book, I had the pleasure of making a convert of my senior.

The next three years are barren of incident. I served in the Channel Islands the greater part of the time with a battery about one hundred strong, and quite isolated. After this I returned to India, and was put in medical charge of the Artillery Division at Mooltan. It was in this station that I studied the heat fever, in which I was led to adopt a modification of treatment, which included, I may add, an avoidance of alcohol. I early made observation of another troublesome and prevalent Indian ailment—diarrhœa. Patients admitted to hospital with diarrhœa very rapidly recovered by dietetic means alone, and without drugs. The climate of the Punjab is dry, very different from that of Bengal, where, we know, diarrhœa does not always tend to cure itself. In truth, the diarrhœa was curative, proceeding from some improper ingesta, very frequently a symptom of alcoholic poisoning. On coming to hospital, milk and arrowroot were given as diet, and, with rest and quiet, in a day or two the man was well. Similarly among the children diarrhœa, which was in any case rare, proceeded from something unwholesome they had eaten, or from fever. That arising from the former cause cured itself, and fevers in the hospital, cooled artificially, quiet, and darkened, seldom lasted over the second day. So that a child brought to hospital almost insensible with vomiting and diarrhœa would be quite lively next day, and without any special treatment other than cold applications. Thus, in addition to delirium tremens, which was very rare, two other important Indian diseases, diarrhœa and heat fever, were treated by sanitary measures, any drugs employed being mere adjuncts, and alcohol would only have marred the cure.

There were many cases of acute chest disease in the cold weather. On admission to hospital, they had plainly one thing in common with those suffering from alcohol; they were exhausted from sheer want of food. It was the first and main point of my treatment that this should be met by prompt feeding, most generally by repeated cupfuls of arrowroot and milk. I gave nitre or other neutral alkaline salt, and morphia for hacking cough. The tongue began to clean at once and the temperature to fall, and the haggard and worn patient got refreshing sleep and began to convalesce. In fact, the cases ran parallel with the former ailments I have mentioned, and I soon ceased to employ with them any form of alcohol. They usually passed through a crisis, sometimes extremely severe. The temperature became subnormal—at least, as evidenced by the thermometer; the face shrunken, with feeble pulse. My practice was, at first, to give hot wine-and-water in this stage. However, I found that the stage was very transitory, and that hot milk-and-water was quite as restorative; the patient soon went to sleep, and normal warmth returned.

Hepatic disease is not so frequent in the Punjab as it is found down country, nor by any means so severe. I cannot recollect any deaths due to it directly during my stay, or any case of hepatic abscess. Minor congestions and enlargements were a frequent cause of sickness and invaliding. The treatment a few years earlier consisted in blistering, stimulants, and a mercurial course. Some time in 1863 a surgeon in Burma, whose name I cannot now recall, recommended ammonium chloride. This I tried, and thought it acted very favourably. About 1866 an immense change for the better was brought about by the introduction of podophyllin. It was called the vegetable mercury, having quite supplanted that metal, which indeed became on all hands, in all diseases, quite decried. At the time I now refer to (1870) I began to discontinue the use of podophyllin in hepatic disease, finding Epsom salts far more active and rapid in effects. I remember getting the idea from a translation in the Sydenham Society series of some German researches on the effect of certain saline springs, and made for myself an artificial mineral

[1] A paper read before the Æsculapian Medical Society.

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water. This, the equivalent of the present white mixture, eased the pain and reduced the size of the liver, just as we are now familiar with, but which was then to me a real discovery. After a few days of this treatment the patients were very much the same as convalescents from chest disease. They needed time and rest and suitable food—in short, nursing,—and had a chance of regaining health. Hepatic disease is, however, ineradicable. It soon recurs in the great heat of the climate and in men not very abstemious, and few once ailing with it serve long in hot climates.

Thus in one after the other of these important diseases experience was altogether against the employment of alcohol. It must be borne in mind that I began with no theory. I gave alcohol in pneumonia and hepatitis, while rigidly withholding it in fever and diarrhœa. I delayed the alcohol, however, in those diseases to a later stage, until the temperature was nearly normal, and at length discontinued it altogether, finding that it retarded the cure and prolonged convalescence. I lost some cases of course, and among others one from delirium tremens, an old soldier who had frequently suffered before, and it was at first a matter of great pain to me to think that if I had followed the usual routine of treatment the cases might have ended differently. My colleagues, I knew, would probably have held so. However, my confidence revived in watching their practice. I had not the mortality or the severity of forms of disease in hospitals around me. I have seen two waiting men attending on delirious cases, holding the patients in their beds, and preventing their injuring themselves, just as I had seen in the old regiment typical cases of delirium tremens; but I had no such cases, and I had no doubt then, nor have I now, that the delirium arose from the free use of stimulants combined with want of food.

After the regimental system had been abolished I found myself superseded in charge of the corps of artillery with which I had served four years, and was attached to a regiment of infantry. The surgeon-major in charge went on leave soon after I joined, and as I was the next senior, according to the new regulations I assumed charge, although quite a new comer. It was then for the first time I became aware how much I had diverged from the ordinary practice—at least, as it was then in the service. The surgeon of the regiment next in rank to myself soon after I joined consulted me about a bad case of hepatitis, with high fever, foul tongue, and diarrhœa. He had given a variety of drugs which I do not remember. I found, however, that he was giving large quantities of food: jugged hare, strong soups, and six or eight ounces of port wine daily. I said I thought the man was getting too much food to digest, recommended milk diet, to stop the wine, and give salines. He replied, to my astonishment, in a nervous way, he would ask —— his opinion. Now this man he mentioned was only a short time in the country. He was ten years my junior, and six or seven years his junior. I said no more, and went about my business. A few days afterwards, however, the matter cropped up again, and he spoke with an astonishing degree of bitterness on the subject. He said he had once before met a man with these views, and he proceeded to refer to a case of mine which he had visited for me on the previous day as likely to die of hectic from want of support. I pointed out to him reasons why the ailment was not hectic, and assured him the man was not in danger. In truth, my case was severe Peshawur fever which resisted quinine, and the diagnosis was doubtful, as the man had originally come to hospital for treatment of a stricture. And, I may add, the man did not die. I saw him often years afterwards at Woolwich. I was greatly surprised at the degree of irritation this surgeon displayed, and became aware that the administration or withholding of alcohol was not merely a scientific question, but one for faith and belief, with strong feeling attached thereto. His case of hepatic disease died; so did at least one other in the two months I had charge of the regiment. My colleague did not again seek my advice in his difficulties, and he was clearly not converted, for, I regret to say, he died himself from the disease in the following hot weather.

A few months after my transfer to this regiment I came home in a troopship, and there again my divergence of treatment left me utterly isolated. I was third in order of seniority on board, and was put in medical charge of the women and children. It was the last troopship of the season, and carried only invalids and soldiers' families. Of the latter there were about seventy, with an average of perhaps two children in each. On the day after leaving Bombay a case of measles was found on board. I took the case into hospital, and every precaution to isolate it was adopted—unavailing, however. The sixth day afterwards six cases were reported. After another six days thirty more were found infected, and put under treatment; and I think that every child on board passed through the disease. The only number I can now recollect is that, after discharging all convalescents, thirty-six cases were sent to Haslar Hospital on arrival at Portsmouth. There must have been from eighty to one hundred cases in all. All these I treated myself in the hospital, restricting myself to this duty at first with the idea of isolation, afterwards in order to control the treatment, for which I was personally responsible. I gave no stimulants, and met every case of high temperature promptly by wet towels to the chest and abdomen, and by giving for food very dilute Swiss milk *ad libitum*. This treatment met with deep disapproval on the part of the mothers, who were all strangers to me, and accustomed to very different treatment. Towards the end of the voyage I found the women were not unsupported in their disapproval. They carried their complaints to the various officers commanding detachments, and thus officially to my senior, the surgeon-major in charge. Now this surgeon-major had been unlucky. He had treated only two children on board, one of them his own son. They were both dead, whereas I had lost no cases, and so, although there was a difference of opinion between us, I had not much difficulty in arranging that the treatment should be left entirely in my hands. I will summarise the result. I was the only medical officer on board who gave no alcohol. I treated personally the largest number of cases, and I alone lost no patients. Moreover, of three children who died on board, two, as I have said, were treated by the senior medical officer, and the third by my assistant. I will give particulars of this, as it is a most illustrative case. It was not a case of measles, and was treated by him in the women's quarters, and I first heard of it when he told me the child was dying. I asked him to let me try to save it, which he gladly did. I put it in hospital with my measles cases. I stopped the wine, very much to its mother's disgust, stayed with it almost an hour, feeding it with milk-and-water, which it took greedily, and left it fully assured it was out of danger. The child lived for a week, and was slowly improving. I gave it no drugs, as it had no symptoms. At the end of this time I told my assistant, whose patient it had nominally remained, to take it again to the quarters, as the hospital had become so crowded. He did so, and, notwithstanding all he had seen of my practice, he put the child at once on brandy, and it died in a few hours. I will make no further comment on these occurrences except to say that perhaps a more crucial experiment could not be devised.

I reached Portsmouth in April, and expected to find the alcohol question a matter of keen debate in England. I need not say I was in this disappointed. I found matters running in the old groove. This is several years ago. We know matters are now righting themselves. To continue. During three years' tour of duty at home I avoided discussion, and, as far as possible, all consultations. I have, however, one instructive instance to bring forward from that period. In the family of a sergeant of the commissariat two well-grown lads, the eldest about ten years old, had caught measles and were very ailing. The mother frequently suggested that the boys should have stimulants, which I refrained from. Now it happened that this sergeant was married without leave, and his wife and family were not recognised. My attendance on them was therefore voluntary; not only so, but her acceptance of my attendance was voluntary, and I found before many days that the children were taking stimulants under the direction of some private practitioner, and I ceased attending. The father, however, was displeased at this, and in a day or two begged of me to call. I did so, and found a great change for the worse, in the eldest especially. To me the cause was patent; besides that, the room smelt strongly of brandy. I did not mention this, but said to the mother as kindly as I could that the boy had no more chance of dying than she or I had if she would follow my directions. She was obdurate, however, and I did not call again. In a day or two afterwards the father came and told me the boy had died. This is the last instance I will bring forward from my military service.

I may mention a case which occurred since my coming to North London, a case of unusually large pleuritic effusion.

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In consultation with a physician, specialist in chest disease, the fluid was evacuated, and the patient made a rapid recovery. This physician some time afterwards remarked to me what an excellent case it was—what a remarkably rapid convalescence. I did not emphasise in my reply, as you may suppose, that which it is my duty now to do, that I had carefully omitted the six ounces of port wine daily he had prescribed for my patient. I did once succeed in converting a hospital physician to my views—a *rara avis in terris*. I one day undertook to stand in the middle of his largest ward, and from that position to point out every patient therein who had been taking stimulants for three or four days at least, and I succeeded. To me the paleworn aspect of the patient is unmistakable.

With this I end my paper. It is not for me to go into statistics on the point, such as may be found, I dare say, in books or hospital reports. I know that such statistics are scant, for the question has not yet become a matter of calm scientific investigation. It is still one of the "fads" of the day, which the practical physician has not time to trouble about. Nevertheless, the reform is irresistibly advancing. No one can overlook the unmistakable diminution of the consumption of alcoholic liquors in hospitals. This is probably due in great measure to the greater temperance of the general community—a change of fashion rather than a reform of practice. It has been said long ago that the evils wrought by a theory have never in history discredited the theory; and certainly this would seem to be true in the practice of medicine. The melancholy history of the use of calomel and of opium in India is a saddening illustration. A few men here and there question the theory, and gain adherents chiefly among the young. The older men are not so much converted. They die out, and by-and-by the world awakes and exclaims how foolish the last generation was.

Stoke Newington.

DISSECTING ANEURYSM OF THE TRANSVERSE AORTA RUPTURING INTO THE PERICARDIUM.

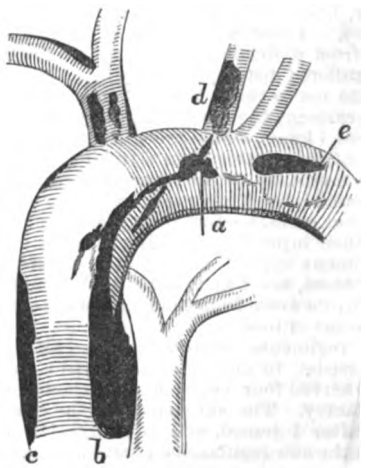
BY F. W. JOLLYE, M.R.C.S., L.R.C.P. LOND.

THE following case may be of interest, as showing that a dissecting aneurysm commencing in a part of the arch of the aorta beyond the pericardial sac may nevertheless travel backwards and burst into it, causing death.

J. P——, an old man of seventy-six, who was suffering from senile decay, with occasional attacks of bronchitis, but with no symptoms of cardiac mischief, was in his usual health until getting up about 8 A.M. on Feb. 13th, 1889, when he felt a sudden præcordial pain and was a little giddy. These symptoms passed off, and he felt as usual until about 9 A.M., just after drinking some tea, when he again complained of epigastric pain and faintness. He was held in the chair by two persons until I saw him, about twenty minutes afterwards, when he was collapsed, his pulse very feeble and irregular, hands cold and livid, and quite unconscious. He was immediately laid on the floor, hot-water bottles applied to his feet, and brandy administered in small doses gradually for twenty minutes, when consciousness returned. His heart sounds, on auscultation, were irregular, feeble, and muffled. I left strict orders that he was on no account to be allowed to move his head off the floor or to go upstairs (as he was constantly asking to do), and he obeyed these instructions until 2 P.M. (nearly five hours afterwards), when he suddenly sat up and said he would go upstairs, but immediately fell back dead.

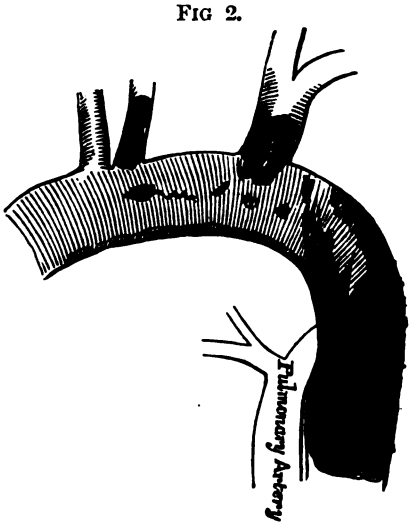
Necropsy.—Abdominal cavity natural. On opening the thorax, an immensely distended pericardium, triangular in shape, apex upwards, presented itself. On opening the pericardial sac, I should say about from half to three-quarters of a pint of blood-stained serum escaped, and a blood-clot covering the right auricle and ventricle, and extending round to the right and behind, was removed, and found to weigh ¾ lb. On looking at the heart and vessels from the front, there was seen to be a blood-clot under the outer coat of the aorta at the base, especially marked between the aorta and pulmonary artery, and from this a clot extended up to the base of the internal carotid and for an inch up its wall. There was also a small clot under the outer coat of the innominate and the third part of the arch. Looking from behind, the external coat of the arch was found ruptured close to its base, and blood-clot extended from the rupture upwards under the external coat nearly to the origin of the innominate. On opening the outer coat and washing away the blood-clot, no rupture of the inner wall could be found near the base; but, on splitting up the arch, a small clot was found protruding from a rupture of the internal coat, about three-quarters of an inch long, and lying obliquely on the anterior wall just below the origin of the internal carotid. This rupture was situated in a raised, calcareous, yellowish plaque; just beyond this there was another small stillate rupture in a similar calcareous patch. The whole arch was much dilated, and the inner surface was mottled with yellowish patches of various sizes, raised above the surface, some being calcified, others still soft. (See Figs. 1 and 2.)

FIG. 1.



Anterior view of the arch of the aorta, showing the staining by blood-clot between the external and middle(?) coats of the vessels. *a* Corresponds to the external coat seated over the rupture of the middle and internal(?) ones (the external coat is not ruptured here). The track the blood has taken can be traced downwards to the base of the aorta (*c b*); the blood-clot does not surround the whole of the anterior half. There are also effusions of blood staining the first inch of the internal carotid, slightly the innominate, and a few stains beyond the subclavian (*e*). The greatest collection of blood-clot in front was between the pulmonary artery and the aorta (*b*). (Reduced ½ diameter.)

FIG 2.



Posterior view of the arch of the aorta, showing the blood-clot surrounding the posterior half of the base of the aorta for about an inch, and also the internal carotid artery and a few other scattered clots. The external coat ruptured over the lower part of this blood-clot on the posterior surface, allowing the blood, to the amount of a pint, to collect in the pericardium. (Reduced ½ diameter.)

Remarks.—I think there can be little doubt that the internal coat gave way whilst getting up, and that the

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blood gradually dissected its way down to the base of the aorta under the external coat, and that under the increased pressure caused by the drinking of hot tea this coat gave way at its weakest spot—viz., near the base. In this case the dissecting aneurysm did not start from an atheromatous ulcer, as it may do in some cases, but from an erosion of the intima by the sharp edges of the calcareous lamellæ, which are brought to bear on this coat by the contraction of the atheromatous patch, due to the loss of some of its softened-down constituents. The primary lesion, as is usual, was in the anterior wall of the arch. According to Dr. Hayden,[1] a dissecting aneurysm of the first part of the arch usually bursts into the pericardium; but, on the contrary, when the second part of the arch or any point of the aorta beyond this point is the seat of the primary lesion, separation of the coats is usually found to extend along the remainder of the length of the vessel and over the whole or greater part of its circumference, whilst the blood has re-entered through an opening in one or both common iliac arteries. Dr. Duffin has kindly referred me to some similar cases published in the Pathological Transactions, but these I have not at hand to refer to.

Warminster.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

SUPPRESSION OF URINE FOR NINE DAYS AFTER PARTURITION; DEATH.

By F. F. BOND, M.D.

I WAS called to see Mrs. H——, aged twenty-seven, on Jan. 9th, at 2 P.M., and was informed that she had been delivered of a stillborn child at 5 A.M. the same morning, being attended by a midwife. She had advanced to seven months. It was her third pregnancy: the first had been normal, and the child living; the second was only seven months, and the child dead. The woman was subject to epileptic attacks, and had a very nervous temperament. The confinement had been very speedy, and was followed by rather severe flooding, which, however, soon abated. I found her suffering from very intense "after-pain," otherwise her condition was good. For the pain I prescribed a mixture of bicarbonate of soda and opium. The progress of the case was as follows:—Jan. 10th: Pain better; some vomiting; very little lochia. Pulse 82; temperature normal. Passed no urine. I sent a simple effervescing mixture, with instructions to let me know at night if no urine had been passed.—11th, morning: The patient had passed no urine. She had not sent because there had been no uneasiness. Pain and vomiting ceased; temperature and pulse normal; tongue clean. Passed catheter, but found only a few drops of urine in the bladder. Evening: Very intense pain over the loins; very little lochia (not offensive); per vaginam no tenderness or resistance to be felt. Again passed catheter; still no urine. Breasts rather full. Ordered hot fomentations to the loins and vulva, a strong calomel and jalap purge, a morphia and belladonna suppository, and an effervescing diuretic.—12th, morning: Has passed no urine; only one free stool. Pain over loins very intense; brown fur on tongue, rather dry; pulse 90, and temperature normal; restless; very little lochia. Passed cathether; still no urine. Ordered Simpson's bath; also to take ten minims of antimonial wine and thirty minims of tincture of jaborandi in effervescing draught every three hours. Evening: Much easier; perspiring profusely; no urine; a vesicular rash over the body.—13th: Pain over loins, but not very severe; passed fair nights; easy; no urine; one stool; tongue clean; pulse 80, and temperature normal; rash drying up; will take very little food or medicine. Ordered another Simpson's bath.—14th: Much the same as yesterday.—15th: Not so well; vomiting and retching; very restless; pulse and temperature as before; bath had acted well; tongue lightly coated with brown fur. Ordered a simple effervescent mixture, also counter-irritants to the epigastrium and loins, and to repeat the bath.—16th and 17th: Much the same; declines both food and medicine; very restless; still no urine; pain over loins continued, but not very severe. The bath was employed each day, which acted fairly well.—18th, 9 A.M.: Much worse; pulse 84; tension much increased; temperature normal; vomiting and retching; very drowsy; delirious occasionally; breath smells of urine for first time; sordes on lips and gums. She gradually became worse, convulsions set in at 2 P.M., and she died about 6 P.M.

Unfortunately very little could be done in this case; the patient would not take medicine, and only very little food. The Simpson's bath had acted very well indeed, and probably kept the patient from succumbing earlier than she did. The cause of the suppression of urine is very obscure; I am rather inclined to believe it was the result of impacted calculus in both ureters, though there was no history of any previous attack of the kind. If it were so, it must be very rare, and rarer still its coincidence with parturition. Unfortunately a necropsy was not allowed.

Rastrick, Yorks.

[1] Quain's Dictionary of Medicine: art. Diseases of the Aorta.

REMARKABLE ACTION OF ANTIPYRIN IN RENAL DISEASE.

By M. H. FEENY, M.R.C.S., L.R.C.P.E., L.M.

I REGRET that absence in continental travelling has compelled me to hold back, through so many months, the report of a case so striking and important as the following. It came under my care in the summer of last year, while acting as honorary medical officer to the Cottage Hospital at Clevedon, Somerset. On the card over the patient's bed was written "J—— B——, aged twenty-nine; Bright's disease." The matron informed me that the case was regarded as hopeless. The patient was admitted on March 3rd, 1888, with the following history. Her father, having enjoyed good health till a few days before his death, died of inflammation of the lungs at the age of sixty-eight. Her mother died at the age of sixty-six from chronic rheumatism and liver disease. She had had seventeen children, of whom five died in infancy, but the remainder grew up strong and healthy. The patient had been in good health till two months previously. She was then seized with a diphtheritic sore throat, and was soon after ordered to Clevedon for change of air. On the journey she caught cold, dropsy quickly supervened, and she was admitted into the hospital on March 3rd. From this date till the following June the case was carefully nursed, and the routine *rôle* of medication was adopted. Still the malady made steady progress, and on June 14th, when I saw her for the first time, I observed the following condition. There was extreme general dropsy—the abdomen, face, and extremities distended with dropsical effusion; great pain in the back, especially the lumbar region; intense headache; failing vision; heart action weak and irregular; difficulty of breathing, owing probably to a pushed-up diaphragm and pleural effusion; skin sallow, tense, and shining; urine scanty, of high specific gravity, and loaded with albumen; anæmia and general prostration. The condition of the eyes was very characteristic, the lower lids forming two distended translucent pouches. But the state of the ocular conjunctivæ was very striking. These were, to a large extent, raised from the sclerotic in transparent bladders of effusion, producing the condition called chemosis, and seriously endangering the circulation of the cornea. For some days I saw the case each morning, as a matter of form, as I passed through the wards. She took little notice of what passed, having evidently abandoned herself to despair. From previous slight but inconclusive evidence of antipyrin in renal cases, and with a view to relieve the distressing headache, I decided on the use of the drug. I ordered three grains twice a day, with strict injunctions to observe carefully the action of the heart. The need for this precaution was quickly demonstrated by increased irregularity, fainting, &c. On the third day the dose was reduced to three grains daily. From this date general amelioration of the symptoms was observed, and constant steady progress reported. After a few days a tonic supplemented this treatment, and in the course of three weeks a great change was observable; the dropsy was much less, the intense headache

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relieved, the appetite improved, and the patient much brighter and more hopeful. By the beginning of August she was up and about, visiting her friends. All traces of dropsy had disappeared, the general health was good, and there remained only a small quantity of albumen in the urine. On Aug. 13th she was discharged for a convalescent home. This was a very striking case, and it attracted much local attention.

Just a word about another case of a different type. While spending some of the winter months at Arcachon, a clergyman, aged sixty-four, consulted me. He had been in failing health for some time, and his French physician was treating him for diabetes. I found a large quantity of sugar in the urine. I again decided on the antipyrin treatment, and, strange to say, the same cardiac intolerance manifested itself. I reduced the dose to three grains daily. At the end of three weeks the patient's health was much improved, and the quantity of sugar reduced to one-fourth. Hurried away in my travels to the Riviera and Italy, I lost sight of the case. It afforded, however, another strong link to the chain of evidence in favour of antipyrin in renal disease.

Leinster-square, W.

SUCCESSFUL TREATMENT OF A CASE OF DYSENTERY BY STRONG ENEMATA OF ALUM.

BY JOHN HEPBURN, L.R.C.P., L.R.C.S., L.S.A. LOND.

IN the following case the above treatment proved so eminently successful that I have thought it worthy of publication.

On June 4th I was called in to see J. G——, aged twenty-seven, female, whom I found was suffering from a severe and well-marked attack of dysentery. The patient stated that she had that day returned from the country, where she was in service; her illness had lasted six weeks, during which time she was under the treatment of local medical men; but as her condition was gradually becoming worse, she had been advised by them to return to her home. She complained of violent purging (about twelve stools in the twenty-four hours), accompanied by pain and tenesmus, the stools being liquid, very offensive, and bloody; she also suffered from constant nausea and vomiting. Lead, opium, bismuth, ipecacuanha, Dover's powder, and many other astringents were tried in various combinations, but with very little success. On June 10th, as she was no better but gradually becoming weaker, I thought it advisable to try some other plan of treatment. Accordingly I ordered her two enemata daily, each containing half an ounce of alum to the half-pint of water. The first injection brought away a good deal of "dirty stuff," presumably shreds of tissue and sloughs, and caused a certain amount of smarting pain; this, however, subsided after a short interval, the patient reporting that she felt much more comfortable; her condition then began immediately to improve, the tenesmus becoming less, the stools not so frequent and more solid, and the sickness ceasing. The second injection caused less pain, and the improvement continued. The same treatment was followed on the next day (June 11th). She was now so very much better (the stools being only three in number in the twenty-four hours, with only streaks of blood) that on the ensuing day the enemata were omitted; but on the 13th she relapsed, the stools becoming more frequent. I then thought it advisable to resume the injections; accordingly two were administered on the 14th, the same good results following them as on the former occasion. This treatment was continued till the 17th, the patient improving day by day. From the 17th till the 21st one injection a day was found sufficient, and, finally, on the latter date they were left off altogether, the patient having made a perfect and uninterrupted recovery from the 14th.

That the favourable termination of the case was entirely due to the enemata I think is sufficiently proven: first, by the good result obtained from the first two injections and rapid relapse on leaving them off on June 12th and 13th; secondly, by the absolute recovery of the patient in seven days after an illness lasting over eight weeks, during seven of which purging, with tenesmus and bloody stools, nausea, and vomiting had existed in varying degrees of severity.

Hammersmith, W.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. MARY'S HOSPITAL.

TWO CASES OF NEPHRO-LITHOTOMY; RECOVERY; REMARKS.

(Under the care of Mr. PEPPER.)

IT is only during the last ten years that the operation of which the cases given below are examples has been performed, and calculi removed from a kidney when the symptoms of stone in it are subjective, and there is no evidence of abscess or fistula in the loin. During that time, however, our knowledge of the surgical treatment of renal diseases has advanced rapidly, and many patients formerly condemned as incurable have been restored to health. In the first of Mr. Pepper's cases there was no hæmaturia, to the absence of which he draws attention in his remarks. Although not a constant symptom, it is an important one in the diagnosis of renal calculus. Wright[1] says: "My own conclusion is that renal hæmaturia is the only single symptom of anything like cardinal importance, and that this, if the trouble is of more than a year's standing, and there is no evidence of nephritis, and there is no tumour to be felt, makes the diagnosis of calculus fairly certain." It will be also noted that the stone was not easily felt on exposure of the kidney, and that, although the opening through which it was extracted was made in the anterior part of the pelvis of the kidney, and not through the renal substance, there was considerable hæmorrhage. Jacobson[2] recommends the choice of this part of the kidney for the incision; he continues his remarks on the subject of hæmorrhage at the operation as follows: "Another and, I think, a preferable method of exploring in doubtful cases is to open the pelvis or the thinner kidney tissue close by, and to pass a finger into the organ," &c. The arrest of the hæmorrhage is usually accomplished by the means employed by Mr. Pepper, but has required plugging of the renal incision.

CASE 1.—Walter G——, aged twenty, a note-paper folder, was admitted into St. Mary's Hospital on Feb. 24th, 1888, for pain in the left side. He first commenced to have pain in this region four or five years ago. The pain was paroxysmal in character, and at first he used to have an attack about every three months. The attacks increased in frequency and strength, and a year ago he noticed the pain radiating to the left thigh and testicle. Shortly before admission the attacks had been of almost daily occurrence, each lasting about an hour. They were often brought on by carrying a heavy weight or running. At times there was a thick, light-brown sediment in the urine, which clung to the vessel. The pain when most severe was accompanied by violent attacks of vomiting. There was not known to have been hæmaturia at any time.

From the date of admission to Feb. 28th he was kept in bed, and during that time had one attack of pain. The urine was faintly acid in reaction, sp. gr. 1020, with a trace of albumen and slight deposit of urates, but contained no blood.

On Feb. 28th he was placed under ether and turned on his right side, with a large pad underneath him to render the left lumbar region prominent. An incision about five inches in length was then made, beginning just below the tip of the twelfth rib and extending backwards and slightly upwards towards the transverse process of the first lumbar vertebra. The different layers of the abdominal wall were then divided and the perinephritic fat exposed. The abdominal wall in front was pressed forcibly inwards to raise the kidney nearer to the surface of the wound. The perinephritic fat was next torn through, and the kidney, and with it the descending colon, exposed. The kidney was

[1] Med. Chronicle, vol. v., p. 462. [2] Operative Surgery.

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found to be very movable, and was explored with the fingers both in front and behind. No stone was detected, but the pelvis of the kidney was found to be dilated. The kidney was again manipulated with the fingers, and at last a hard nodule was made out at the upper end. This was the stone firmly fixed in one of the calyces. An opening was then made with the finger-nail through the pelvis in front and the finger introduced. Many ineffectual attempts were made to remove the stone with numerous forceps, but it remained firmly embedded. At last it was removed with the fingers and a director, the difficulty in its extraction being partly due to the close proximity of the last rib to the iliac crest. There was considerable hæmorrhage from the kidney substance, which was checked by pressure with hot sponges. The wound was irrigated with perchloride of mercury solution (1 in 2000), drainage-tubes inserted in front and behind the kidney, and the edges of the wound drawn together with silver sutures. Iodoform and wood-wool pads were used as dressing. The patient stood the anæsthetic well. The calculus was composed of uric acid. It weighed 70 grains, was oval in shape, measured 1 in. by 3 in., and was covered on the surface with splendid crystalline spicules.

After the operation the patient rapidly recovered. For the first few days there was blood and albumen in the urine, but this soon passed off. On April 1st the wound was nearly healed and the patient was allowed to get up; on the 5th the wound was quite healed; and on the 16th he left the hospital quite well. The temperature never rose above 99·4°. The patient was quite well twelve months after the operation.

CASE 2.—C. W——, aged thirty-four, a factory manager, was admitted on July 14th, 1889, into St. Mary's Hospital, under the care of Dr. Broadbent, for symptoms of renal calculus. The family history was good. The patient was unmarried, and, with the exception of rheumatic fever a year previously, had had no serious illness. He had lived a healthy life, and a few years ago went in extensively for athletics, but at last broke down whilst in training. Five years ago he was passed as a good life by an insurance company. The patient had suffered from attacks of pain in the left lumbar region ever since he was a boy. An attack would come on suddenly every two or three months, and in the intervals he would be quite well. A long walk would often bring on the pain. He never experienced pain in other parts than the left loin. He never noticed any blood in the urine, but his mother told him that he used to have attacks of pain when a child, and that then there was hæmaturia. Since last November, three months after he had rheumatic fever, the attacks of pain had become more frequent and severe, and had remained so. The last and most violent was on July 13th, 1889, and continued from 11 A.M. to 8 P.M., leaving him prostrated. He had noticed that he was free from pain whilst lying down.

On admission he was well nourished, but with an anxious expression. There appeared to be a slight fulness in the left lumbar region, which was tender on pressure. There was no undue frequency or difficulty in micturition. The urine was acid, sp. gr. 1020, and contained blood, pus, and one-fourth albumen.

On July 18th the man was placed under chloroform, and Mr. Pepper performed lumbar nephro-lithotomy. The kidney was easily exposed and the stone readily felt. Some difficulty was found in removing the calculus, which filled the pelvis of the kidney, and had one large spur firmly fixed in a calyx. The drainage and dressing were as in the preceding case.

After the operation the patient was troubled with sickness for two days, and on July 22nd he became slightly jaundiced. The urine for the first few days contained a good deal of blood. The drainage-tubes were removed—one on the 16th and the other on the 30th. The temperature was 100° on the 19th and 100·2° on the 20th; since then it had been normal. At the present time (Aug. 12th) the wound has nearly healed, there is no escape of urine from it, and he is practically well. The urine is normal, with the exception of a few pus cells occasionally.

The original calculus was oval, almost black, and with a mulberry-like surface, and was evidently composed of oxalate of lime; it subsequently became much enlarged and irregular in shape, from incrustation with phosphates. In neither case was there any suppuration in the wound.

Remarks by Mr. PEPPER.—In the first case the absence of hæmaturia is remarkable, considering the frequency of the attacks of pain and their violently paroxysmal nature. This seems to show that the pain is caused more by distension of the kidney, owing to the ureteral orifice being temporarily blocked by the calculus, than to the movement of the latter. In the second case it will be noted that the pain did not radiate. It may be further mentioned that in neither case was there any retraction of the testicle. (For the above notes I am indebted to the surgical registrar, Mr. Crowle.)

TOTTENHAM HOSPITAL.

A CASE OF HYDATID CYST OF THE LUNG; DEATH; NECROPSY.

(Under the care of Dr. ADOLPH RASCH.)

HYDATID OF THE LUNG is a disease very uncommon in this country, and the following is a typical example of it, both as regards situation—the lower part of the right lung—and local signs. Fagge[1] says: "Pulmonary hydatids are almost always migrated parasites of the liver. Clinically, hydatid disease of the lung is scarcely likely to be suspected until one or more of the daughter cysts have been expectorated." This applies more especially to those cysts which are deep seated, but, as regards the expectoration of the small cysts and portions of membrane, it must be recollected that it is much more common for a hydatid of the liver to be discharged in this way than for a hydatid having its primary seat in the lung. In either case the expectoration may be similar at first, but when derived from a hepatic cyst it usually becomes bile-stained. Thomas of Adelaide[2] states that he has observed in most cases of hydatid of the lung "an alteration of the percussion note, which becomes markedly tympanitic over a greater or less area around the tumour." In a case of hydatid of the lung recorded by Fagge, where the fatal result was due to hæmoptysis, the blood came from a branch of the pulmonary vein; this had become obstructed and dilated into a cylindrical tube as large as a lead pencil, and had afterwards opened into the cavity that had before lodged the hydatid, although this cavity was shrinking. For the account of the case we are indebted to the house surgeon, Mr. R. Philip Brookes.

T. L——, aged twenty-two, a coalheaver, was admitted into the hospital on Feb. 26th, 1889. He stated that four years ago he had pleurisy on the right side, but that his present illness commenced seven weeks before admission with shooting pain in the right side of his chest and cough. He had lost flesh of late, and had night sweats, but had never brought up any blood.

On admission he was a fairly nourished, muscular man. His lips were blue; he had dyspnœa and spasmodic cough, with copious muco-purulent expectoration. Urine acid; no albumen. Examination of the chest showed the movements on the right side to be diminished, and there was bulging of the intercostal spaces, with absolute dulness over the front and back, the dulness behind extending down to the level of the tenth dorsal vertebra, below which there was a narrow zone of resonance extending outwards, in which moist crepitation could be heard. The breath-sounds and vocal fremitus were absent over the dull area, but a distinct creaking synchronous with the respiratory movement could be heard all over. On the left side of the chest the movements were increased, the breathing was puerile, and there was no dulness over the lung. The apex beat of the heart was in the sixth interspace, in a line with the anterior fold of the axilla; no murmur was audible. The edge of the liver could be felt an inch and a half below the ribs.

During the ten days the patient was in the hospital there was no perceptible change in his condition. His temperature was of a hectic type, varying between about normal in the morning and 101° in the evening. On March 8th he had a sudden attack of hæmoptysis and died.

At the necropsy, on opening the thorax, a large hydatid cyst was seen occupying the right side of the chest, and extending for an inch beyond the sternum to the left. The pleural cavity, with the exception of the diaphragmatic surface, was entirely obliterated by dense fibrous adhesions, which formed the capsule of the cyst. Towards the apex this capsule became gradually thickened to the extent of about an inch, the thickened portion being composed of

[1] Principles and Practice of Medicine, vol. ii., p. 557.
[2] Australasian Medical Gazette, June, 1888. Sajous, vol. i., 1889.

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compressed lung of an ashy-grey colour and tough consistence. Against the vertebræ another portion of compressed lung was found; while covering the surface of the diaphragm was a layer of lung from half an inch to two inches deep, which was not airless, but contained several small suppurating cavities with ragged edges. It was from one of these cavities that the hæmorrhage had proceeded. The hydatid membrane had not been ruptured and was everywhere in contact with the fibrous capsule, no hæmorrhage having taken place between them. Numerous small apertures existed in the fibrous capsule, which communicated with the large bronchi. There were no daughter cysts. The clear fluid which the cyst contained showed a trace of albumen, and in the sediment hooklets and echinococcus heads were found. The left lung was hyperæmic; no cavities or tubercle. There were no signs of hydatid disease in any other organ.

EDINBURGH ROYAL INFIRMARY.

A CASE OF SUICIDAL PENETRATING WOUND OF THE NECK; TRACHEOTOMY; RECOVERY.

(Under the care of Mr. MILLER.)

THIS case is one of those which, requiring prompt treatment, usually come under the care of those resident in the hospital to which the patient may be admitted. There are so many elements which enter into the consideration of such cases that it is a matter of congratulation when the patient is discharged well after the infliction of a wound which penetrates the air passage. For not only is the wound a serious one as regards danger from hæmorrhage, and the lung complications which are apt to follow its infliction, but the man is usually in a bad state of health, and frequently suffering from chronic alcoholism, delirium tremens, or mental disease. In one of the earlier additions of a text-book on surgery (1870) we read of the treatment of wounds of the neck: "Plasters to the skin are inadmissible, and so are sutures." The treatment adopted in this case proves their utility, and also the advantage of early tracheotomy. There is a difference of opinion as to the advisability of employing sutures in wounds of the neck. Walsham[1] says: "The wound should not, as a rule, unless quite superficial, be approximated by sutures or strapping, but by position." Bryant[2] continues: "But it must be left to the surgeon's judgment to decide when they may be necessary according to the exigencies of the individual case." Keetley[3] writes: "If these sutures will not interfere at all with drainage, use them. In most cases sutures are not necessary." Erichsen[4] recommends a few stitches introduced at the sides, but not in the centre of the wound. Pick[5] says: "Sutures are in ordinary cases unnecessary, for the edges of the wound can be kept tolerably in apposition without them; and, as primary union can hardly be anticipated, there is no motive for sewing the edges together. They are therefore rarely used in such cases." He speaks doubtfully as to their usefulness when the windpipe has been opened, alluding to the "traditional horror" of them in such cases. There is now, however, with our present system of antiseptic treatment of wounds, much less risk of septic inflammation, and, provided escape for any air which may be expelled from the air passage be secured, with ready exit of discharges to the surface, the judicious application of sutures will do much to shorten the duration of treatment and diminish the size of the scar resulting from such injuries. Due attention must always be given to the position of the head, whether sutures be inserted or not, as this is an important aid to the treatment. We are indebted to Mr. Alexander Miles, the resident surgeon, for the account of the case, which was treated by him.

The patient, S. J——, a retired publican, aged thirty-six, was admitted into Ward 6, Royal Infirmary, Edinburgh, on June 19th, 1889, at 10.15 A.M., under the care of Mr. A. G. Miller. About an hour previously to his admission he had attempted to commit suicide by cutting his throat with a large, rather blunt bread-knife. The incision in the skin and superficial fascia measured about five inches from side to side. It was almost transverse, but more of it was on the left than on the right side of the middle line. At the left angle of the wound there were marks as if the knife had been drawn across the skin more than once. Only the anterior jugular vein and some branches of the superior thyroid vessels were injured. On the left side the sterno-hyoid and sterno-thyroid muscles were completely divided, and on the right the anterior belly of the omo-hyoid in addition. The thyro-hyoid membrane was completely severed and an opening made into the pharynx. The patient was seen soon after committing the deed by a surgeon, who introduced a small tracheotomy tube between the vocal cords through the opening in the pharynx, and then sent him to the hospital.

On admission the wound was thoroughly washed out with corrosive sublimate solution (1 to 2000), and all the bleeding points secured. The tube was removed from the larynx and the high operation of tracheotomy performed through an incision carried downwards at right angles to the self-inflicted wound. The opening into the trachea included the cricoid cartilage and the three upper rings. A middle-sized tracheotomy tube was introduced. The wound in the pharynx was then closed by stitching the several edges of the thyro-hyoid membrane and the muscles together with five or six catgut sutures, the margins of the wound being inverted. The superficial wound was brought together by horsehair stitches and a small tube introduced for drainage. The wound was afterwards dressed with wet boracic lint and corrosive wool. The patient was then put into a bronchitis steam tent, and fed by means of a nutrient enema of beef-tea, eggs, and brandy every three hours.

The man was very anxious that his life should not be saved, and threatened to renew the attempt to destroy it if he got an opportunity. He, however, remained very quiet during the day, and did not interfere with his dressings in any way. After the operation the pulse was fairly strong, 100, regular; temperature 98·8°. At night the temperature was 99·4°; pulse 96, still good. His urine had to be drawn off, as he had passed none since he came in.

June 20th.—The temperature remained about 100° all day. Pulse good, 96; respiration normal. The edges of the superficial wound are adherent.

21st.—Patient rather worse to-day. Breathing somewhat rapid and shallow. No cough. No pain in chest. No physical signs of pneumonia to be made out. Pulse weak and rapid, 140. Temperature 97·8° at night. As he could now breathe quite freely by the mouth, the tracheotomy tube was removed and the wound allowed to close up. Superficial wound in neck healed; some of the stitches and the drainage-tube removed. The patient was fed by the nasal tube. A dose of paraldehyde (ninety minims) given to produce sleep had little effect.

22nd (morning).—Patient rather better to-day. Pulse and respiration more satisfactory; temperature 100·2°. In the evening the temperature began to rise and went up to 102·4°; pulse very rapid (148), small and feeble; respiration 20, full and regular. The patient's general condition is worse than it has yet been. An ounce of brandy and five minims of tincture of strophanthus were given every three hours.

23rd.—Patient much improved to-day. Pulse slower, stronger, and fuller. The temperature came steadily down to subnormal. In the evening the patient was fed by the mouth for the first time.

24th and 25th.—Patient steadily improving.

26th.—Wounds in neck entirely healed up. Patient takes his food, and sleeps fairly well, but is still very melancholic and anxious that his life should be ended.

27th.—He was removed to-day to a lunatic asylum.

[1] Surgery, p. 360, 1889. [2] Vol. ii., p. 19.
[3] Index of Surgery, p. 105. [4] Science and Art of Surgery, vol. i.
[5] Holmes' Surgery, p. 194, 1889.

MORLEY HOUSE CONVALESCENT HOME.—This institution, situated at St. Margaret's Bay, near Dover, was founded for the sole benefit of London workmen, by members of which class it is also managed. It provides thirty-eight beds, four of which are maintained in the wing recently added for postmen by the gift of the salary accruing to Lord Wolverton when Postmaster-General. The Home is supported by collections at London workshops and grants from the Hospital Saturday Fund, in addition to the endowments arising from the gifts of the late Samuel Morley and the generosity of Lord Wolverton. On Saturday last about 400 working men from the metropolis visited the home, and, after inspecting the arrangements made for the comfort of the inmates, participated in various sports provided for their entertainment.

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Medical Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Diagnosis and Treatment of Small Submucous Fibro-myomata of the Uterus.

A MEETING of the Obstetrical Section was held on May 24th.

Dr. BAGGOT exhibited a Myoma of the Uterus which had been removed that morning in the Rotunda Hospital by Dr. Macan, the means of removal being supervaginal amputation. Also two Ovarian Tumours, which were removed in the same institution. In the last two cases the patients had made perfect recoveries.

Dr. HORNE exhibited an Ovarian Tumour removed by Dr. Coppinger from a woman in the Mater Misericordiæ Hospital. The patient was about eighteen years of age. About six months ago, while running, she tripped over a stone trough and fell, striking her left side against it. At the time she did not feel much inconvenience, but on the following day she had a good deal of pain in the left lumbar region, and was obliged to go to bed, where she remained three days. She sought no medical advice at that time. At the end of two months she began to suffer from pain immediately under the left ribs, for which she sought medical advice. The doctor who examined her found a tumour lying immediately below the spleen. But what she remarked about the tumour was that when she stood up it fell down; but when she lay down in bed at night it rose up out of the pelvis, immediately under the left ribs. She only had pain at night, which prevented her from sleeping. As there was some doubt whether it was an ovarian tumour or a displaced or cystic kidney, Dr. Coppinger made an incision in the abdomen so as to see the tumour, which was not very much larger than an orange. He first made an incision of about two inches long. The growth was then high up under the left ribs, and he (Dr. Horne) had to press it down to the wound, where it was punctured by Dr. Coppinger, and removed without difficulty. It had a very large pedicle, which had allowed it to move freely over the abdomen.

The President (Dr. W. SMYLY) remarked on the diagnosis and treatment of Small Submucous Fibro-myomata of the Uterus. So long, he said, as the rule was generally accepted that in every case of severe uterine hæmorrhage not connected with existing pregnancy the cervix should be dilated and the cavities explored with the finger, the diagnosis of these tumours presented no difficulty; but since the introduction of the curette had rendered this painful and somewhat dangerous preliminary in the larger number of cases superfluous, it became of much interest to ascertain whether these new growths could be diagnosed without previous dilatation. Four cases were detailed showing that this was the case. The necessity for dilatation was indicated partly by the condition of the cervix and partly by feeling the new growths by sound or curette. In his opinion, dilatation of the cervix uteri was necessary only in order to remove small tumours, polypi, or portions of retained ovum. Large tumours should not be removed per vaginam, and hæmorrhage alone was not an indication. The method of dilatation which he now adopts is to commence with iodoform gauze, and, if necessary, complete the process with Hegar's dilators. The iodoform gauze is easily employed; it may be left *in situ* for three or four days, and is, therefore, especially adapted to the wants of the busy practitioner. In all the cases the tumours were removed by means of Schultze's spoon forceps. With this instrument diseased tissue alone is attacked, and, with ordinary care, no harm can be done; enucleation, on the other hand, is much more dangerous and difficult.—Dr. J. BYRNE said the great difficulty was to dilate the external os, and, after that had been done, there was as great difficulty in dilating the internal os. Iodoform gauze was a great improvement as a gynæcological appliance for the purpose.—Dr. MACSWINEY said the paper had dealt with several points of great importance to the specialist. Dr. Smyly objected, apparently on good grounds, to the practice of frequently dilating the os or cervix, except where he recognised a submucous, fibroid, or other polypus, or where there was ovular membrane, and he wished to know how would Dr. Smyly determine that the hæmorrhage was due to a tumour or some other condition.—Dr. KIDD observed that Dr. Smyly had said that some authorities preferred the knife to Hegar's dilators. In the case of a woman who had not borne children, if the knife were used, the difficulty of the operation would be enhanced by the hæmorrhage. He said one of the advantages of Hegar's dilators was that they did not occasion anything like the amount of hæmorrage that would occur if the cervical canal and os were opened with a knife sufficiently to admit of fingers being introduced into the uterus.—The PRESIDENT, in reply, said that the difficulty there sometimes was of distinguishing between incomplete abortion and the existence of fibroid tumours was one of the things that had induced him to write the present paper. In the fourth of the cases that he had narrated, the woman had been fourteen months married, had had an abortion, and her uterus was large and flabby; and therefore it was natural to suppose that the case was one of incomplete abortion. As to treatment in such cases, if the abortion took place before the fourth month, he would not use the dilator, but would simply scrape and wash out the interior of the uterus, and then inject it with either perchloride of iron or liniment of iodine. If the placenta had formed, the best course was to dilate and remove the placenta with the finger. It was common to split the cervix as far as the vaginal junction; but the division of the internal os with a knife was not very popular. He had no doubt that there would be more hæmorrhage when a knife was used than with a dilator, but he had had no experience of the two cases. Hegar's dilator was an excellent instrument when the os was already somewhat dilated; but if the cervix was rigid, the dilator was very apt to lacerate it, and in such a case it was better to begin with iodoform gauze, which was a very simple thing to use.

Notices of Books.

Die Chirurgische Behandlung von Hirnkrankheiten. Von ERNST VON BERGMANN. Zweite, vermehrte, und umgearbeitete Auflage. Berlin, 1889. Verlag von August Hirschwald.—This is an enlarged and revised edition of an article which originally appeared in von Bergmann's "Arbeiten aus den Chirurgischen Klinik der Königlichen Universität, Berlin." Although only two years have elapsed since this article was first published, considerable additions have been made in this second edition. These consist in additional cases, and also in an enlargement of the scope of the article. The subject is divided into five parts. In the first the Operative Treatment of Encephalocele is discussed. Two good cases of the removal of nasal or sincipital encephaloceles are given, one by von Bergmann and one by Schmitz of St. Petersburg. From these cases and from general pathological and clinical considerations, von Bergmann is strongly of opinion that sincipital encephaloceles ought to be submitted to a radical operation. This section is entirely new. Then follows a valuable article on the Pathology, Symptoms, and Treatment of Cerebral Abscess, which is well up to date, and contains accounts of his own cases and of others recently published in this country, in America, and on the Continent. The third section is devoted to a similar discussion of the Surgical Treatment of Intra-cranial Tumours. Trephining for Epilepsy is the subject of the fourth section, and the fifth and last is a brief article on Puncture of the Lateral Ventricle and Operations for the Diminution of Intra-cranial Pressure. In a case of severe tubercular meningitis marked by coma, slow pulse, Cheyne-Stokes respiration, fixed dilated pupils, and twitchings in one arm, von Bergmann trephined the frontal bone and tapped the lateral ventricle. The immediate effects were excellent; consciousness returned, the pupils reacted to light, the pulse and respiration became more natural, and all went well as long as the cerebro-spinal fluid continued to escape through the puncture. But this drain ceased, the serious symptoms then recurred, and the child died. Although not successful in saving the patient's life, this case was a strikingly encouraging one, and it shows that there is some

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ground for hoping that tubercular meningitis even may be successfully dealt with by the surgeon. The whole pamphlet is admirably done and well worthy of careful study.

A *Guide to the Use of the Mineral Waters of Buxton.* By W. H. ROBERTSON, M.D. Twenty-third Edition, revised and enlarged. Pp. 65. Buxton: C. F. Wardley. 1889.—*Buxton: its Baths and Climate.* By SAMUEL HYDE. Pp. 134. Manchester and London: John Heywood. 1889.—The fact of Dr. Robertson's Guide having already gone through twenty-two editions, covering an issue of above 30,000 copies, may be taken as satisfactory evidence that it has been found to supply an acknowledged want. It contains full analyses of the waters and all the requisite information as to the means provided for their use, the cautions necessary to avoid injurious results from them, and the general regulations as to diet &c. which should be observed by persons taking a course of them. Dr. Robertson states briefly the diseases in which benefit may be expected, the cases in which the use of the waters is contra-indicated, and the means which should be adopted to fit the system, as far as possible, to derive the fullest benefit from them. It seems a useful guide, but a good index would add to its value.—Mr. Hyde's book seems more intended for the use of the public in general. It consists of two parts, the first giving a description of the locality in which Buxton is situated, its waters, and the several forms of bath in common use; and the second, a description of the town, its neighbourhood, and the excursions which may be made from it. As regards climate, Buxton appears to have a low average temperature, a high annual rainfall (about fifty-one inches); in winter much snow and frost, and no great amount of bright sunshine; but it is free from fog, and has a dry, pure air. Notwithstanding climatic drawbacks, Mr. Hyde is of opinion that it might be advantageously used as a winter health resort in cases of phthisis, instead of Davos-Platz and other Alpine resorts. The information he gives as to the various kinds of baths, and the chapter on "Massage, its Principles and Practice," may be found useful. But invalids and seekers after health should never forget that they are powerful for evil as well as good. "A popular notion prevails very widely that baths can be taken as a rule with impunity, and that it is not necessary to apply to them the usual principles which regulate the use of remedial agents. It must never be forgotten that baths follow the law as to action of all remedies for the relief of disease. They must be both prescribed and dispensed according to certain rules which should regulate the treatment of every case according to its individual merits." Mr. Hyde enumerates some of the diseases in which the waters are found beneficial, but we cannot find any caution as to those in which they may prove injurious. The book has the advantage of a good index.

Beiträge zur Pathologischen Anatomie und zur Allgemeinen Pathologie. Redigirt von Dr. E. ZIEGLER. Band V., Heft 1. Jena: G. Fischer. 1889.—With a new volume the editorship of this excellent publication passes solely into the hands of Professor Ziegler. It fully maintains its previous high quality, as shown by the contents of this first part:—1. C. Nauwerck and W. Barth (Tübingen): Pathological Anatomy of Landry's Paralysis. 2. C. Nauwerck and H. Eyrich (Tübingen): Verrucose Aortitis. 3. L. Caporaso (Modena): Regeneration of the Spinal Marrow of the Tail of the Newt (written in Italian). 4. W. Sachs (Königsberg): New Growths arising from Lymphatics in the Eye. 5. R. Schattenberg (Marburg): A Circumscribed Porencephalic Defect of the Brain in an Adult. 6. D. Fischer (Marburg): Lumbo-dorsal Rhachischisis with Spinal Curvature &c. 7. A. Kirchberg and F. Marchand (Marburg): So-called Fœtal Rickets (Mikromelia Chondromalacia).

Defects in Plumbing and Drainage Work. Described by FRANCIS VACHER. Illustrated; pp. 83. Manchester and London: John Heywood. 1889.—This volume, to a great extent a reprint of papers which have appeared in the *Health Journal*, treats of all questions relating to domestic sanitary fittings, drainage, and water service. It is divided into eight sections, in each of which Mr. Vacher first states the conditions under which the work treated of should be carried out with reference to sanitary considerations, and then gives a number of examples of the manner in which it too often has been, and still is, but never ought to be done. It contains many examples of what the author truly styles "perverted ingenuity," and curious particulars of ill-designed and scamped work. It makes one shudder to think of the risks to health and life people are compelled to run constantly from ignorance, carelessness and cupidity. Mr. Vacher has been careful to point out "what to avoid" in house construction, and, we may add, house-hiring. The book deserves to be studied by householders, medical officers of health, sanitary inspectors, and plumbers. One practical lesson we would deduce from it is: the imperative necessity for a careful skilled inspection of a house before coming under an obligation to rent it. It is difficult to estimate how much sickness and sorrow would be avoided were such a course invariably adopted

Die ersten zehn Jahre der Myringoplastik nebst Angaben verbesserter Methoden zur Heilung von alten Löchern im Trommelfell. Von Professor D. E. BERTHOLD im Königsberg. Berlin, 1889. Verlag von August Hirschwald.—It was in the year 1878 that Dr. Berthold first published an account of his attempts to close old perforations of the tympanum by a plastic operation. At that time he had used the rabbit's cornea for the purpose. Since then he has made two alterations in his method; first he substituted human skin for the rabbit's cornea, and now he uses the thin membrane lining eggs, and subsequently applies outside it spirits of turpentine. In this *brochure* he describes these different methods, refers to the cases published by other surgeons, and finally relates all his own completed cases. It is a method well worthy of the careful attention of aural surgeons, and they will no doubt be glad to have Dr. Berthold's facts thus put at their disposal.

MEDICAL CIVIL SERVANTS AND THE PENSION BILL.

To the Editors of THE LANCET.

SIRS,—The letter of your correspondent "Q" shows the need for a union of medical men holding civil appointments, and as I have been assured that a well-considered plan for such a union would be likely to find favour among those who are chiefly concerned, I should be glad if you would permit me to lay before the readers of THE LANCET the following outline of the proposed objects of such a union, and to state that I shall be glad to receive any suggestions or criticisms from those interested in the matter.

Proposed Association of Medical Civil Servants.

Objects.—1. To unite medical men holding office under the State as medical officers of health, Poor-law medical officers, medical coroners, police surgeons, post-office surgeons, also medical M.P.'s, in a society for mutual assistance. 2. To obtain the establishment of Poor-law dispensaries in towns wherever practicable, and the improvement of the position of medical civil servants generally. 3. To obtain the opening of Poor-law infirmaries and hospitals for purposes of medical study. 4. To advocate the appointment of a Minister of Health. 5. To watch all Bills brought before Parliament affecting the status or duty of medical civil servants.

I am, Sirs, yours faithfully,

H. NELSON HARDY.

Southville Park Villas, Dulwich-grove, S.E., August, 1889.

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THE LANCET.

LONDON: SATURDAY, AUGUST 31, 1889.

EVERY fresh contribution to the pathology of malignant new growths is to be welcomed, as enabling us to gain further insight into the manner of their propagation and the best means of dealing with them. It may be long yet before any tangible result can be realised, although it is obvious that the aid given by microscopical investigation has been very considerable. For it is now practically certain that in their origin these formations are emphatically local; that is, that they are the product of a disturbance in the normal cell-nutrition of the particular organ or part where they arise. We have been forced to abandon the notion once so widely held, that the appearance of cancer was the expression of a general, constitutional, or blood state, and must look now to determine what it is in the individual that predisposes the tissues to undergo this remarkable alteration. For, in rejecting "constitutionalism" as the full explanation of the cancerous manifestations, it seems impossible to ignore the existence in many cases of some "predisposition" or defect in growth or nutrition, if the origin of cancer is to be adequately explained. But there is another and most remarkable property possessed by malignant growths, which is special to them, and to which they owe their destructive and fatal character. This is the property of infectiveness within the body, so that parts distant from the primary centre may become the seat of formations similar in kind to those of the original growth. Many have been the hypotheses put forward to explain this "malignancy," some of them highly ingenious and suggestive. The latest endeavour to bring cancer under the prevalent bacteriological doctrines (which seem to have explained so much that has hitherto been obscure in the pathology of infectious disease) has not been successful. It is, however, conceivable that the cancerous cells themselves may be the actual parasites, but how and why they can come to be so transformed from the normal cells of the body are points which are quite inexplicable, and hardly reconcilable with what is known in biological science. The opinion held by Dr. NORMAN MOORE, as expressed in his Bradshawe Lecture, is evidently akin to this. At any rate, he sees in the secondary formations the direct descendants of the primary growth, and happily pointed his remarks on the colonising character of cancer cells by reference to the migrations of human families. We believe, too, that in this he was within the truth; for, in spite of some cases in which long intervals of time have elapsed between the total extirpation of the primary tumour and the appearance of distal visceral growths, the histological characters of such growths, which often far exceed in extent the primary formation, reproduce the features of the latter; and, remarkable as the existence of "latency" is, there is no escape from the conclusion that the two sets of new formations are genetically connected.

The Bradshawe Lecture was based entirely upon the facts in morbid anatomy gleaned by the lecturer from his experience at St. Bartholomew's Hospital. Necessarily, therefore, some of his conclusions respecting the mode of invasion of certain organs, and the proclivity to distal dissemination of certain growths, may be modified by the study of a larger number of instances than he was enabled to cite. But, in the main, especially as regards some varieties—e.g., cancer of the œsophagus and stomach,—his conclusions are, no doubt, concordant with general experience. His observations bear out the general belief that the liver is the organ which is the most frequently infected secondarily, no matter in what region the primary cancer occurs; but it is especially remarkable, as showing how limited such growths are, that in only one of his nine cases of cancer of the colon was this gland involved. The comparative infrequency of the association of calculi with cancer of the gall-bladder and of the kidney is remarkable. But what will most strike the pathologist is, perhaps, the large series of cases of primary cancer of the lung, and of those of the heart and pericardium, which he was enabled to record. Such experience is, we venture to think, wholly exceptional; but it must be remembered that some of the former class were more, strictly speaking, mediastinal than pulmonary in their origin. With respect to nomenclature, Dr. MOORE perfers to deal simply with the two great varieties—carcinoma and sarcoma,—holding that the former include epithelioma, and not apparently regarding the view that carcinoma is a perverted *glandular* growth rather than a mere epithelial one. There is more reason in his discarding the time-honoured subdivisions of scirrhus, medullary, and colloid, which belong, as he pointed out, to the pre-microscopic era of morbid anatomy. The great preponderance of carcinoma over sarcoma in visceral new growths is striking; and it would have been still more obvious had the lecturer been enabled to include uterine cancer in his series. His deductions at the close of the lecture as to the probable duration of malignant growths in various parts of the body were also of interest; but on this head allowance must always be made for the site involved, the local destruction of an organ essential to the maintenance of life leading, of course, to a shorter duration of the disease than when this is implanted in a less vital region. His calculation of the duration of growths, from the period of extirpation of external cancers to the time of death from secondary involvement of viscera, gave an average period of rather more than two years; but in rare cases a far longer immunity even than the fifty-one months (the longest noted by Dr. MOORE) has been observed. The facts adduced in this lecture are capable of ample confirmation, and it would not be difficult for a collective analysis to be made by the co-operation of hospital pathologists based on the lines laid down by Dr. MOORE. For the purpose of accuracy, however, such an inquiry would have to be, as in all his cases, based upon the histological examination of the growths observed. At any rate, the attempt is worth making, in order that our knowledge of the natural history of cancer should be as secure and definite as it is possible to make it.

THE surgery of fractures of the neck of the femur cannot be said to be in a satisfactory state. These injuries are very common, and their results are serious. Not uncommonly life itself is lost, and permanent weakness and

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lameness are a usual result. The progress noted in other departments of surgery has not reached this, and the want of special interest in the subject has no doubt been due to the difficulties besetting exact diagnosis and really successful treatment. The old classification of all fractures of the neck of the femur into intra-capsular and extra-capsular has been pretty generally given up. It is now recognised that, while such a classification may represent the actual facts in a minority of cases, it is inaccurate in the majority; and, further still, it fails to indicate the important and essential differences met with in these fractures. Instead of concentrating attention on the relation of the fracture to the capsule of the joint, the impaction or non-impaction of the fragments is now laid stress on, and this for an important clinical reason. Impacted fractures, unless becoming unimpacted, are found to unite by bone, and so to be attended with less serious results than the other kind. The great thing to avoid in such a case is any manipulation which can separate the two fragments, and therefore examination of the injured part should always be conducted in such a way that this accident cannot happen. Latterly Dr. SENN of Chicago has been trying to apply this knowledge to cases of unimpacted fractures. He first of all resorted to some experiments on animals. Having made subcutaneous fractures of the neck of the femur within the capsule, he drilled the fragments and fixed them in direct apposition by a steel pin and a bone nail. When this was done firm bony union was obtained. The attempt to apply this treatment to human subjects was felt to be an extreme measure, ill-adapted to the old and feeble patients in whom this accident is generally met; and it has now been shown to be wholly unnecessary, for the same end can be obtained by simpler and milder measures, to which no objection on the score of severity can be urged. The object aimed at is to reduce completely all unimpacted fractures, and to hold the fragments in such firm contact that a kind of slight impaction is produced and bony union obtained. For this purpose he fixes the limb in its corrected position by a plaster-of-Paris splint carried from the toes up the limb and the trunk as high as the eighth rib, and down the opposite thigh as far as the knee. An interval is left in the plaster case over the great trochanter, and a pad worked by a screw on a steel arch attached to the splint is applied over this interval. When the plaster is set, pressure is made in the line of the neck of the femur by screwing down this pad. By this pressure the two fragments, which by the perfect reduction of the fracture have been brought into apposition, are pressed together, and are held as securely as if they were transfixed by a pin. In the *Journal of the American Medical Association* for August Dr. SENN describes fully this mode of treatment, and he details several cases in which he has applied it. He recommends that the same means should be employed when the fracture is impacted, as a security against disimpaction under the influence of the rarefying ostitis which accompanies union. Only, in cases of impaction no manipulation should be made to separate the fragments, and no efforts made to restore the length or the position of the limb. By this treatment it is stated that bony union can be confidently anticipated, that patients can be got up within a few days of their injury and so avoid all risk of hypostatic pneumonia, and that in many cases complete restoration of the function of the limb can be secured in the minimum of time. In its present form it seems to be a method that deserves careful trial, and if in other hands it is found as practicable and as successful as in Dr. SENN'S, that enterprising surgeon will have conferred a great benefit upon a large class of aged sufferers for whom surgery has hitherto done but little.

THE Report of Lord CAMPERDOWN'S Committee has been published, and the *précis* of their recommendations, which has already appeared in the daily press, has been read, no doubt, with much interest by the medical officers of the Public Services. It would be premature to forecast, much less definitely pronounce, what their verdict will be. Meanwhile, we will endeavour to summarise as succinctly as we can the impressions that we have ourselves formed in regard to those recommendations. The recent history of the Army Medical Service can be put into a nutshell. The circumstances under which the Committee was appointed are pretty well known. Until the appearance of the Warrant of 1879 THE LANCET used to teem with communications of complaint from army medical officers, and the unpopularity of the service was attested by the fact that it was being emptied at one end by retirements, and no candidates could be obtained to fill their places at the other end. What would have been the result had become tolerably obvious: the Army Medical Service threatened to resemble a derelict ship. The authorities had to do something. A new and most satisfactory Warrant appeared. Coincidently with the publication of that Warrant the popularity of the service was restored, and for years subsequently complaints from medical officers were "conspicuous by their absence" as far as our columns were concerned; candidates were forthcoming in adequate numbers and of excellent quality. Then came the action of the military authorities in regard to the question of relative rank. It was abolished, for no possible reason that we can see; and why this was done has never been explained, and probably never will be. All that is known is that the head of the department was never consulted before that step was taken. The illogical and anomalous character of the proceeding was rendered more conspicuous by the fact that to this day the rank, position—all, indeed, that appertains to the Naval Medical Service—remains about what it was, and is regulated by "relative rank," and the officers are well contented.

On the action taken at the time by a considerable number of army medical officers there is no need to dwell. Our opinion was not apparently in accord with that entertained by the majority of those officers, especially by those of the junior rank. We have no desire to deny it. The question is, was the majority right? And will the recommendations of this Committee—probably appointed mainly to consider this rank question,—in respect of the hybrid military titles suggested by them, content the medical officers, improve their status in the service, add to the dignity of their professional calling, and enhance their prospects, material or social, or will they not? But let us suppose that these titles—by which we shall have surgeon-lieutenants and surgeon-captains, and a deputy surgeon-general will henceforth be known as a surgeon-colonel—are deemed satisfactory. What about the other recommendations? The Army Medical

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Service is not a corps, be it remembered; it still remains a department. For our own part we regard this Report as unsatisfactory and impracticable; and we think the Medical Service will regret that the Committee ever sat, for all the good it will do. The medical officers in the upper rank are, it is proposed, to serve for two years longer than they do now, by which the promotion of all the rest would be retarded in all grades of the department. A medical officer now enters with the rank of captain, whereas he would hereafter rank as lieutenant for the first three years of his service. This is to apply to the Army Medical Department, but not apparently to the Indian and Naval Medical Services! This, however, is probably simply an oversight on the part of the Committee, as such a regulation would cut off a supply of candidates for the army. It is recommended that medical officers should commence their service in, and be attached to, regiments for some definite period, a recommendation to which there can be no objection, except this—that it has hitherto been deemed financially impracticable; and the late reductions in the Medical Service have, it seems to us, rendered this still more so. If the civil medical element of this country is to be utilised to an increased extent, as suggested, it follows that this period of home service for medical officers will be shortened, instead of increased. Surgeon-General BALFOUR'S remarks in his protest on this subject are very pertinent. The substitution of officers on full pay to fill half-pay appointments will surely prove more costly. Some of the recommendations are no doubt fair and just enough, and meet with our entire approval; but they do not, after all, go to the root of the matter—at any rate, in this respect: that there is, literally, no reward for professional services, or for scientific attainments or professional culture, however conspicuous.

One word in conclusion. The Report of Lord CAMPERDOWN'S Committee is published; but what about the evidence on which the Committee drew up their recommendations? Is that to be published?

THE disclosures which have resulted from the appointment of a Commission of Inquiry into the Sweating System as carried out in this country must have prepared the public mind to receive with welcome any reasonable and effectual measure of reform. The Bill recently introduced into Parliament by Mr. BAUMANN does not therefore come altogether as a surprise, notwithstanding the drastic nature of some of its provisions. We may remind our readers that it proposes to extend the operation of the Factory and Workshops Act of 1878 to establishments hitherto exempted—namely, to domestic workshops (i.e., those in which members of the resident family are alone employed), and to workshops which do not give occupation to children and young persons. These it will at once be seen are the very shops in which sweating is most prevalent. Hitherto the right of mere entry by factory inspectors has been so carefully guarded by restrictions as to be of little real service, and the remedial power entrusted to these officials in dealing with any proved nuisance has consisted in an appeal to the local sanitary authority. By the terms of the new Bill it is proposed to allow the inspectors a right of free access to any dwelling used as a workshop, and authority to set in motion for themselves the legal machinery available for the correction of abuses. While deprecating the necessity for any such legislation as is contemplated by this Act, we confess that, in the absence of any spontaneous movement among tradesmen towards a voluntary adjustment of the existing difficulties, we can suggest no other alternative. We have repeatedly maintained, and we still maintain, that legislation in such matters, unless it be accompanied by active supervision, is of little value. It may seem to some that the Bill interferes unduly with the relations between employers and employed. This, however, is not the case. Its introduction is a simple consequence of existing mismanagement, and a protest which has long been called for in the mere interest of public health. Where the principle of "live and let live" is mutually recognised, the Bill will be practically inoperative, and employers who chafe at its restrictions will usually be found to be such as have rendered themselves liable to its needful control. A short Bill which proposes to limit the hours of underground work in mines to eight hours daily is likewise at present under consideration. The purpose of its promoters is good, but it is, perhaps, open to doubt whether a reduction of the nine hours' limit would result in any real advantage either to the health and well-being of the workmen or the interests of trade.

THE Infectious Diseases Notification Bill has been run through Parliament in a way that is not fit. The principles it involves and the details which it enacts were alike deserving of more consideration than it was possible for them to receive from members in the last weary days of a long session. It has been known for weeks that the Minister in charge of the Bill insisted on the dual notification, and that he would rather give up the Bill than pass it without making the medical attendant a party to notification. We have done our part to save the medical profession from this inconvenient and irksome duty. We have done this as much in the interest of the public as in that of the profession, believing that it was better to require of the medical man simply the certification of the nature of an infectious case, leaving the whole business of notification to be done by the householder. This plan should, at any rate, have been tried first. Had it failed, the profession would willingly have agreed to the dual system. But the Government have forced the Bill through in a way which we regret. Sir WALTER FOSTER, who raised the question of single notification, saw the way in which the Bill was to be passed, and abandoned the conflict, perhaps too quickly. Of course medical men will do their duty and obey the law, but it would have been better policy to have shown a little more regard for their feelings and their views of what is at once right and expedient. A minister at the tail end of a session is master of an obedient majority, but their obedience should not be abused; and it is within our knowledge that members of Mr. RITCHIE'S own party do not approve of this Bill or the way in which it has been passed. One suggestion of ours he showed himself willing to adopt, that it should be made of general obligation, and not dependent on the action of local authorities. But this concession, in the hurry scurry of legislation, had to be abandoned, and we have the anomaly of neighbouring communities being at liberty either to accept or reject this notification system, so that the good of notification in one place is largely neutralised

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by its absence in another. Mr. RITCHIE was willing to let off any place as regards adopting this measure, but he would on no account exempt the medical man from the duty of notification where it is adopted. This, we repeat, is much to be regretted.

One thing is remarkable in this legislation: the slight resistance which politicians of advanced views have been able to offer to its fundamental principle—viz., the right of the community to insist on knowing the affairs of individuals and families where these are likely to involve in any degree the health of others; in other words, the subordination of the individual to the community. This is of course the fundamental principle of society, but it is ever undergoing fresh development. National education, vaccination, isolation, and notification of disease are all illustrations of the same principle. Strange to say, the inhabitants of Leicester are quite ready to enforce notification and its consequence—isolation,—while they shrink from compulsory vaccination. We have ourselves no hesitation in accepting the principle that individual liberty must give way where such doubtful advantages as the freedom to have small-pox and scarlet fever are the only badges of liberty. And it will involve no misfortune to the world if many other rights claimed by well-meaning but discordant individuals are curtailed in the interests of society.

Annotations.

"Ne quid nimis."

THE STUDY OF THE HISTORY OF MEDICINE.

MR. LLOYD OWEN'S address on the Value of the Historical Study of Medicine (*Birmingham Medical Review*, July) points to the profit and pleasure obtainable from such a study, which assists in maintaining definitely the idea of continuity with the past, and he regrets the lack of opportunity afforded in our medical centres for the pursuit of this subject. A just estimate of the failures of the past would, he maintains, correct the "restless and unwholesome desire for novelty which is one of the weaknesses of the present age"; and we are inclined largely to agree with him. An infinity of trouble and ingenuity would be saved if the medical profession could take more to heart the lessons gained in bygone days, in matters of practice as well as in matters of theory. Even the Asclepiadæ (500 or so years B.C) were careful to select salubrious sites for their temples, where the treatment of the sick and clinical instruction were carried on. In very early times also the profession had to be protected by legal safeguards from unqualified practitioners; but Mr. Lloyd Owen thinks that the physicians of those days were less devoted to the service of man at their own risk than at present. He singles out from the writings of Hippocrates the statement that all diseases are "alike divine, for each has its own nature, and no one arises without a natural cause"—an idea which, had it been fully grasped by his successors, would have made the progress of medicine far more rapid. He alludes also to the advice given by Hippocrates to make the basis of preliminary education as wide as possible; so that in urging this now we are only following in the path of the ancients. Specialism, he shows, is as old as medicine itself, for "Herodotus tells us that among the Egyptians each physician applied himself to one disease only. All places abounded in physicians—some for the head, others for the eyes, others for the teeth, others for the parts about the belly, and others for internal diseases." The influence upon medicine of prevailing philosophies is illustrated by its association in mediæval times with alchemy, Rosicrucianism, and magic, which gave way to rational and experimental methods based on anatomy, physiology, and the natural sciences. Mr. Lloyd Owen deserves thanks for directing attention to this neglected subject, which he claims to have real, practical, and also moral advantages; and he urges the establishment in every University and every medical school of a professorial chair of the History of Medicine, suggesting that such a course might most fitly be taken by the student in his final summer session, or, failing that, that it should form part of a post-graduate course. The suggestion is one which merits the fullest consideration, and we would urge the universities to institute such professorships. There are several members of the profession who could most ably discharge the duties of such chairs.

DEATH OF A HOUSE SURGEON FROM DIPHTHERIA.

WE regret to have to record that another house surgeon, Mr. Charles Brown, M.R.C.S., L.R.C.P., has succumbed to an attack of diphtheria contracted during the course of his duty. He had held the post of house surgeon at St. Thomas's Hospital for nearly the full period of time for such appointment, and had become out of health in consequence of close application to the duties of his office, so that he fell a more ready victim to the disease, which assumed a very malignant type. He had assisted in the performance of tracheotomy in a case of diphtheria two days before his illness developed, and had been in attendance on the case afterwards. On the morning of the 21st he suffered from sore-throat, but was able to do his work, and assisted at another tracheotomy for diphtheria; about midday, however, he became suddenly very ill, with frequent vomiting, rigors, intense headache, and pains in the limbs. In the evening the temperature was 102·5°. On the 22nd there was great œdema of the palate and fauces, and membrane was visible in the pharynx. On the 24th he was unable to swallow on account of the pain and swelling in the throat. By the 25th the membrane was spreading across the palate, and there was a discharge from the nose. He coughed up a cast of the trachea and shreds of membrane. Air did not enter the lungs well; there was some lividity of the face, and a trace of albumen in the urine. In the evening he was better, and was able to swallow fluids well, but rapidly became worse at 11 P.M., and passed into a state of unconsciousness with stertor and laboured breathing. Early on the following morning (the 26th) laryngotomy was performed, but no improvement followed the operation, and he died at 3 A.M. The illness throughout was of a malignant character and attended with much loss of strength. He was under the care of Dr. Hadden, who, with Dr. Turney (house physician), was in constant attendance. Mr. Pitts performed the operation. Mr. Brown had been a prosector to the Royal College of Surgeons, and had held other offices at St. Thomas's Hospital, having been assistant demonstrator in Practical Surgery, clinical assistant in the Throat and Ear Departments, and assistant house surgeon. His death has cast quite a gloom over the hospital, in which he was so well known and highly esteemed for his excellent qualities, both professional and social. Our readers will recollect that last year we had to record the death of a house surgeon at Guy's from this cause. Diphtheria is a serious risk to men holding such appointments, who are necessarily exposed to the disease, and we would urge on those having authority the wisdom of sending the house surgeon away at once when evidently suffering from the effects of too close application to duty. A suggestion of rest and change

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of air, much as it may be needed, will not come from the house surgeon, who would rather go on as long as he is physically able to perform his duties.

A correspondent (C. T. Q.) writes in reference to the above sad event as follows:—"Other and weightier pens may bear their witness to the excellence in professional work of the late Charles Brown, to his steadfast, honest, and brilliant student career, and to his success as house surgeon to St. Thomas's Hospital, at which post he met his death. But as one very closely associated with him for many years I would speak of his character as a man. To all alike—staff, colleagues, and patients—he was the same, courteous, gentle, and sympathetic, and amidst the rivalries, fierce at times in a great hospital, was only regarded with friendship and admiration. His more intimate friends cannot yet realise that they are robbed of his genial presence, and that his voice, so often charming us with a wit peculiarly his own, is stilled for ever. He had exceptional musical talents, exercised first in the choir of the Chapel Royal, Whitehall, later on as organist at St. Mark's Church, Wandsworth, and quite recently in the same capacity in the Hospital Chapel. At one time Music had nearly claimed him as a student; but Medicine won him, heart and soul; for her for many years he lived, and for her he died."

WARM BATHS IN TYPHOID FEVER.

DR. ANUSCHAT advocates, in a communication to the *Deutsche Medicinal Zeitung*, the employment of warm baths in typhoid fever in place of the cold water, to which the patients often evince such a great objection that they refuse to re-enter the bath. He disputes Brand's doctrine that the good effect of the cold bath is due solely to the low temperature, as in that case it would be equally advisable in all acute fevers. Dr. Anuschat believes the beneficial effect to be due to the water rather than to its temperature, and his view is confirmed by the results of 150 cases which he has treated with the warm bath. He administers three baths daily, from fifteen to twenty-five minutes each, at 95° F. if the temperature of the body is between 100·4° and 100·2°, at 93° if the body temperature is 102·2° to 104°, and at 90·5° only if the temperature of the body is higher than 104°. In most cases a perceptible improvement takes place in three days, with decrease of fever, but the good effect of the warm-bath treatment is most plainly seen in the almost entire absence of secondary symptoms and the much shorter duration of the illness. Of 150 patients, 145 were less than four weeks confined to bed, and most of them less than twenty-one days. When the temperature of the body falls below 99·5° the bath is administered less frequently. The treatment—medicinal, dietetic, and stimulant—recommended is much the same as that generally prescribed.

THE CRUELTY TO CHILDREN BILL.

AFTER a somewhat uncertain course the Prevention of Cruelty to Children Bill has passed both Houses of Parliament, and has received the Royal sanction. The new Act, if administered with reasonable energy, should prove a most useful measure. It increases greatly the power of the law in dealing with the careless or wanton ill-treatment of children. A special and heavy fine and a term of imprisonment will be exacted in any case where the life of a child so used has been insured. The responsibility for any proved instance of cruelty will rest upon the temporary custodian of the child, whether a relative or not. On the other hand, it will be lawful to transfer children from the custody of a harsh guardian to various other persons defined by the Act. So much for the general treatment of the children. Another important section is that which deals with their occupation. Child-begging will be held to be an offence on the part of parents or guardians, and juvenile hawkers will be placed under the control of local authorities, the liability for offences against the terms of this Act resting upon the employers of these children. No child under ten years of age will be allowed to labour for profit, except in particular cases where the employment of younger children in theatres under the supervision of factory inspectors is permitted by special licence. Any person observed ill-treating a child in any way is liable to summary arrest, and incurs the statutory penalty. Children who are called upon to give evidence against their parents in respect of cruelty may be removed from their custody pending the hearing of their case. A statutory oath will not be required of them. The evidence of one parent against another will be accepted, and the accused may give evidence on his own behalf. This brief recapitulation will suffice to show that we have here an Act both temperate and effective, and one which cannot fail to add greatly to the now very stinted happiness of many young lives.

ACCIDENT INSURANCE.

THE two actions in which the Accident Insurance Company has successfully resisted claims made under its policies will redound, no doubt, to its immediate advantage, inasmuch as it escapes a present liability for sums amounting in the aggregate to £2000; but we should think that it will suffer, and not it alone, in public estimation, as the result of the exactitude with which it has stood upon its rights. In one case (Cornish *v.* the Accident Insurance Company, Limited) the claim was resisted on the ground that the policy-holder had incurred obvious risk, the fact being that he had incautiously crossed a railway passing over his land immediately in front of an approaching train which it is supposed that he did not see until too late. It is of course quite reasonable that the Company should refuse to take a risk of this sort if the limit of its responsibilty is clearly understood. The class of accidents to which the negligence of the sufferer contributes is perfectly distinct from that still larger class of such as arise from circumstances wholly beyond his own control, or as consequences beyond the range of calculation of his own acts. If the parties to the insurance contract choose to exclude the former class of accidents from their agreement, there can be no reason why they should not do so. But such a policy is probably a very undesirable one for ordinary purposes. Negligence is an item in so many accidents that the policy-holder who is not protected against its consequences is but very indifferently secured. On the other hand, wilful negligence or the fraudulent submission to personal injury is not only very rare, but generally capable of all the proof necessary to secure a company against any unreasonable risk. In the second case (Cole *v.* the Accident Insurance Company, Limited) death had ensued from the inadvertent drinking of a solution of corrosive sublimate. The accidental character of the occurrence was not disputed. The policy-holder had gone with a lighted candle into a stable for the purpose of taking a dose of some medicine kept there. The candle had been blown out by a gust of wind, and the deceased, groping in the dark for his medicine, took down a bottle of horse-lotion in mistake for it, and dosed himself, as already mentioned, with corrosive sublimate. The plea in this case was not obvious risk, but poisoning, for it appears that the Company's policies contain a proviso to the effect that the Company shall not be responsible in the case of death from poison. This seems to us to be an absurd condition, and one that no sensible person would knowingly accept. In delivering judgment in favour of the Company, the Master of the Rolls is reported (*The Times*, Aug. 10th, 1889) to have said that "he had a prejudice against this policy, and

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it was an honest, right, and judicial prejudice. When he saw a policy which ordinary people would consider insured them against accident, and when he saw that the policy was drawn in such terms that it would not secure them against almost every kind of accident, it was a policy not to be praised, and people ought to be warned against insuring under policies in that form. This policy was one that might deceive persons of ordinary intelligence." These are undoubtedly strong comments, and we notice that they called forth a disclaimer from Lord Justice Bowen, who said, "As he was unable to agree with the observations made by the Master of the Rolls upon this policy, he considered it a matter of justice to the Company to say so"; but, for our own part, we are bound to say that we strongly feel what the Master of the Rolls so forcibly expressed.

ENTERIC FEVER IN NEW SOUTH WALES.

MANY places in our Australasian colonies have for some years past suffered much from enteric fever—the disease which, of all others, is typical of an imperfect sanitary administration; and several colonies have decided that very stringent measures as to water-supply, sewerage, drainage, and excrement disposal must be taken in order to get rid of this highly preventable scourge, which is so fatal in its influence on life at the young adult period, when life can least be spared. One recent contribution dealing with this subject comes from Dr. Ashburton Thompson, deputy medical adviser to the Government of New South Wales, who, together with Mr. George H. Stayton, Government engineer, reports on enteric fever in New Town and Macdonaldtown. To those acquainted with the conditions which favour the spread of enteric fever the report will only cause amazement that, under conditions of life so different from those which we have in this country inherited from an ignorant age that is now passed, circumstances so obviously tending to the maintenance and diffusion of this filth-disease, can have been allowed to grow up in such abundance. It almost seems that the Government have not as yet even secured proper powers for dealing with such matters in a comprehensive and systematic manner. If this be so, it is to be hoped that the force of Dr. Thompson's trenchant and timely exposition and warnings will be recognised in such manner that preventive measures may be put into operation without further delay.

NO ONE RESPONSIBLE.

THE story elicited at a coroner's inquest at Grove Park, Lee, affords an illustration of the manner in which responsibility for conditions fatal to health and life is shifted about from one person to another. An infant has its milk mixed with water from a filthy pond; it has diarrhœa and dies. It then transpires that all the family drink the water, that all have been suffering from diarrhœa more or less, and that the water is used in other households also. Mr. Larkin, having frequently had to attend people who were sick and who used this water, very properly brought the matter under the notice of the coroner, and at the inquest no one seems to have regarded himself as the person responsible for a condition that ought to have been notorious to all concerned. The water was found to be green in colour, and full of tadpoles, animalculæ, and filthy impurities; but the sanitary inspector for Lewisham, who said he had been in office for ten years, knew nothing about it. Evidently no house-to-house inspection, with the corresponding record of local sanitary conditions, is made in this district. Then came the representative of the nobleman to whom the property belongs, and he, too, knew nothing about it; and, indeed, he disclaimed the intention of making any speech "of the nature of a defence." The medical officer of health had also apparently no knowledge of the matter, for it was announced that his attention should be drawn to it, and the inspector added that a sample of the water should now at last be submitted to an analyst. So far as our knowledge goes, the sanitary authority, their officers, and the landlord all have a very definite responsibility in the maintained use by cottagers of such a water-supply, and this the more so because of the occurrence taking place within a few miles of London-bridge, and in a place where the Kent company's service is available. The danger as to improper water-supply does not appear to have been limited to the cottages alone, for the attention of the inspector of dairies and cowsheds under the London County Council has now been directed to the matter, and it was only on this assurance, coupled with the promises made by the sanitary inspector and representative of the landlord, that the jury decided, on the advice of the coroner, to close the inquiry by finding a verdict in accordance with the medical evidence.

WILD FLOWERS BY THE (RAIL)WAYSIDE.

WE are pleased to notice in that bright and pleasant little periodical, the *Selborne Magazine* (for August), a contribution from our friend Mr. Henry Smith, who has frequently shown how devoted a lover he is of nature, and whose contributions to natural history are known in some circles as widely as his surgical performances are known amongst his professional brethren. The article in question is descriptive of the varieties of wild flowers to be seen on railway embankments, and contains some suggestive remarks as to the operation of the law of natural selection in the kinds of plants met with according to the nature of the soil and situation of the embankment or cutting. As Mr. Henry Smith observes, the tedium of a long journey may often be relieved by the observation of the floral display that passes before the traveller's eyes, and he is justified in his preference for the wild profusion of the "negligence of nature" to the trimly cultivated garden. Railway travellers cannot do better than follow his example, and cultivate their powers of observation in preference to limiting their range of vision to the pages of a book or newspaper. The same number of the *Selborne Magazine* also contains an instalment of "Reminiscences of Charles Waterton," by another well-known member of our profession, Dr. George Harley.

THE LUNGS AND LIVER IN PHTHISIS.

DR. PLESHIVTSEFF (*St. Petersburg Dissertations*, 1888–9, No. 85) has weighed and measured the lungs and liver in eighty cases, forty-eight of which had died of phthisis. These weights and measurements are, in the tables he gives, all reduced by calculation to a common standard of height—viz., 100 centimetres. Thus, in the body of a woman 150 centimetres in length, all the weights and measurements are reduced to two-thirds of their actual value. In this way a fair comparison may be made between bodies of different sex and size. The total volume of the lungs in phthisical subjects was found to bear to that of non-phthisical subjects the ratio of 2414·8 : 2107·5; the volume of the liver in the two classes of cases had a ratio of 1404 : 1270. The lumen of the aorta was greater in the phthisical cases than in the others in the proportion of 65 : 79, and the circumference of the bronchi in the proportion of 70·8 : 81·1. Another table gives the ratio of the circumference of the bronchi and pulmonary artery to the volume of the lungs, and of the circumference of the portal vein and of the hepatic artery to the volume of the liver. The mean results obtained were that, in the phthisical cases, the bronchi were 1·29th and the pulmonary artery

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1·34th of the lung volume. (The one measurement is linear, the other cubic, but this does not affect the comparison which the author wishes to draw.) In the non-phthisical cases the fractions were 1·25th and 1·29th respectively. The mean circumference of the portal vein was 1·36th of the volume of the liver in the phthisis cases and 1·30th in the others. The hepatic artery was also relatively smaller in the phthisis cases, being 1·46th in them and 1·32nd of the volume of the liver in the others.

REPUTED CASE OF HYDROPHOBIA.

THE great interest which has been taken in the subject of hydrophobia outside the medical profession was sure to lead to simulation of the disease, at all events as regards some of the more marked symptoms. A recent example of this was quoted as a real case, arising under circumstances of a peculiar character. The main facts appear to be that a man, who had taken "three two-penny-worths of gin, suddenly fell down in the hotel and became very violent." About half-past five he began to breathe heavily, when the sound resembled the growling and barking of an infuriated dog. He snapped at and tried to bite the persons surrounding him. He was then conveyed in an ambulance to St. Thomas's Hospital, where he continued violent, vomited, and had attacks of shivering. When admitted to that hospital there was slight inspiratory stridor, and falling water irritated him; once there was opisthotonos. After two days in bed and treatment with bromide of potassium he quite recovered. The possibility of hydrophobia was only suggested to the hospital authorities, as the man said that he had been bitten by a mad dog seven weeks previously. Six weeks before this there had been another similar attack treated in the infirmary. He appears to have been placed in the strong room, but left at the end of three days. He said that he had had three other fits at long intervals. We recollect having seen a man enter a crowded out-patient department on his hands and feet, barking like a dog; the other patients scattered themselves to the right and left to escape the supposed madman, and were much surprised to see him walk away in a few minutes, quite recovered from the attack.

SCOTTISH FISHERY.

THE seventh report of the Fishery Board for Scotland shows that this important industry continues to develop, and upon the whole satisfactorily. It may well be doubted, however, whether better improvement might not be looked for than the Board is able to report. The problem of feeding the multitudes cannot be solved without the help of the fisherman; and, though much has been done in recent years to aid and extend the fishery industry all round our coasts, we cannot but feel that, alike on the part of the public and of the Government, there is some lack of appreciation observable in reference to the inestimable boon of proffered food which the sea tenders on our shores. For example, reference is made in the present report to a systematic extension of the telegraph system to remote fishing districts which the present Board has undertaken, and the district of Barra is particularly mentioned by way of illustration. Here we read that in 1884 the cable was extended to Castle Bay, Barra, under a guarantee given to the Postmaster-General by Lady Caithness and the Board, "which has cost the Board upwards of £500 a year for their proportion of the loss consequent upon the extension." The report goes on to show that this cable has been invaluable to the fishermen at a time of emergency during the past year, as may well be supposed. With the fact stated, and with the substance of the comment upon it, we have no fault to find, but it does appear to us that the pointed reference to £500 a year in connexion with so necessary a part of the equipment of the fishing village betrays a little disposition towards cheese-paring, which is, indeed, characteristic throughout of the relations of the Government with the fishing community. Were fish a costly luxury, the men who win it would receive more respect and consideration than they do; but, since its cheapness is its greatest merit, there is something both ungracious and blind in the tardy and apathetic attention which the craft of fishery receives at the hands of the public and their official representatives.

FAITH CURES AT LOURDES.

MORE miraculous cures are reported from Lourdes. Two of these in particular have lately attracted attention; in one case a navvy paralytic in consequence of an accident, in the other a girl blind for two years, having, it is stated, recovered the use of their suspended functions. We are not disposed to deny the possibility of "miracles." On the contrary, we will venture to assert that in some sort or other they happen every day, and almost everywhere; for while the world endures we are certain to hear the true saying that "wonders will never cease," and a miracle professes to be nothing more than a wonder among the processes of nature. The wonders of the grotto at Lourdes are similar to those with which faith healers in this country have made us familiar. It will be noticed that they have arisen out of the same fertile soil—the mutability of a diseased nervous system. It must not be forgotten that nerve pathology includes many cases in which the distinction between functional and organic disease is by no means well marked. Yet the difference is an important one. Under the former title are included a variety of unstable morbid changes capable of rapid and even total transformation; under the latter, a group in which the possibilities of improvement are inversely proportional to the organic alteration. Such evidence as can be gleaned from the practice of the faith cure, equally with the clear testimony of scientific fact, forbids us to doubt that the wonders wrought at Lourdes owe their occurrence mainly to the influence of the sufferer's will, refreshed by hope and acting on the sources of non-organic paresis. Such an explanation is acceptable both by faith and science. It does not destroy the "miracle." The wonder still remains, but its mechanism is seen to be natural, and thus, in the words of the apostle, "the things which are invisible are understood by the things which are made."

PATHOLOGICAL CHANGES IN THE RETINA IN CEREBRAL AFFECTIONS.

DR. I. S. FELSER, late chief of Professor Adamiuk's ophthalmological clinic in Kazan, who has recently been engaged in researches on the pathological anatomy of the eye in St. Petersburg, publishes some of his results as a graduation dissertation (*St. Petersburg Dissertations*, 1888–9, No. 61). The cases he examined post mortem included examples of several cerebral affections. A number were cases of meningitis (tubercular and simple), and in all of these there was effusion into the sheath of the optic nerve, with œdematous neuro-retinitis. There were also cases of chronic meningitis, of arterio-sclerosis of the brain, and of cerebral hæmorrhage. The results of the examinations appeared to show that all diseases of the brain and its membranes, with impairment of its general structure, are accompanied by signs of acute inflammation with œdema of the optic nerve and retina. Chronic inflammations of the cerebral membranes were found to produce diffused chronic retinitis. Arterio-sclerosis of the cerebral vessels was found to extend to the vessels of the optic nerve and retina, and always to induce peripheral œdema of the latter,

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this œdema being considered by Dr. Felser to arise from chronic venous hyperæmia, on account of the general interference with the circulation. Where there was arteriosclerosis of the brain together with extravasation of blood into the substance of the brain, there was always found extravasation into the retina, due to the formation of capillary aneurysms of the branches of the central artery. The so-called "Stauungspapille" (choked disc) are to be explained by the compression exercised on the optic nerve at its exit by the accumulation of pathological fluid under its sheath.

ANATOMICAL APPEARANCES RESULTING FROM POISONING BY ARSENIC.

AT the close of a paper on the above subject, read before the Massachusetts Medico-Legal Society (*Boston Medical and Surgical Journal*, Aug. 8th), Assistant Professor F. W. Draper, M.D., makes the following instructive remarks:—

"Is post-mortem diagnosis of arsenical poisoning an easy matter? That is to say, assuming ..... that we are in the presence of a dead body of whose clinical history we know nothing, are the revelations of the autopsy sufficiently characteristic and unequivocal to warrant one in concluding readily that the death was by arsenic? The answer is in the affirmative, upon the single condition that the data are studied in their associated relation, and that their collective significance is the evidence which guides the examiner. There is no single organ whose testimony is sufficiently conclusive to control the diagnosis, with the possible exception of the finding of deposits of the poison upon the gastric mucosa, with a marked degree of inflammatory redness beneath and around them; but, short of this, the condition of the stomach, however striking its inflammatory character may be, is suggestive only, the various degrees of irritant effects being explainable by numerous causes other than arsenic. But when, in addition to the presence of gastritis, the pathologist finds fatty degenration of the heart, kidneys and liver, a fluid and dark condition of the blood, and subendocardial ecchymoses, he may with clear conscience testify in court that he is of the opinion that the death was by arsenic. In this conclusion he would probably be confirmed by the results of a properly conducted chemical examination of the viscera. Indeed, without the gastric and enteric data, or with only an insignificant and equivocal degree of inflammatory reddening of the mucous membrane of the digestive tract, the concurrence of fatty changes in the heart, kidneys, and liver should arouse the examiner's suspicions, and suggest to him the propriety of seeking the chemist's aid to verify his surmises."

CLIMATOLOGY AT THE VATICAN.

WITH an enlightened liberality not always associated with the tiara, the Pope has taken steps to put the Meteorological Observatory at the Vatican on a thoroughly scientific basis, and has entrusted the undertaking to the Padre Denza, one of the leading climatologists in Europe, who will also assume the direction of the establishment when completed. As subordinate coadjutor, the Padre Laix will take the next position on the effective staff of the Observatory, which will thus be entitled to rank as the best equipped institution of the kind in Italy. To enter on his new office, the Padre Denza must resign his post as Director of the Royal Italian Observatory at Moncalieri, near Turin, and in this transference of his services from King Humbert to Pope Leo "political meteorologists" have already found food for congenial speculation. The Pope, however, in matters of pure science has more than once evinced his absolute unconcern as to their presumable bearings on policy. In fact, he has just authorised the Padre Denza to represent him at the Meteorological Congress to be held next month in Paris, thus dissociating himself from other European potentates (Catholic as well as Protestant) who decline to recognise the claims of science when put forth concurrently with the celebration of the anniversary of the French Revolution.

TONGUE-TIE.

DR. TASSIUS of Berlin, in a communication to the *Memorabilien*, makes himself responsible for some novel views on the propriety or otherwise of incising the frænum of the tongue. He says in his introductory remarks that the little operation has often been performed without considering that other and deeper causes, especially those connected with the general development, may be accountable for the faulty development of speech than the mere size of the frænum. He considers that this tiny and admirably constructed organ is a correct regulator of the various movements of the tongue, and that, if the same be too hastily interfered with, the more delicate movements may be for ever destroyed—a momentous fact for those who are destined to become public singers. He advises his medical brethren, therefore, to proceed very cautiously, and not to operate at too early an age, as much improvement may result from the advancement of general development. Only in those cases in which the frænum is so abnormally large and tendinous as to cause a fissure in the tip of the tongue may the incision be made at once, but it should be calculated almost mathematically what proportion the depth of incision should bear to the fissure. The author deprecates, therefore, the use of scissors, as not to be depended on, but advocates the employment of a small knife, the incision to be made from below upwards. Where the frænum is of a fleshy character, and it is, consequently, certain that the child will never gain distinction in singing or elocution, there is, according to Dr. Tassius, no cause at all for immediate interference, unless the deformity causes a real impediment. It is far better to leave such cases—at any rate, for some time—entirely to the *vis medicatrix naturæ*.

THE DOCK STRIKE.

THERE seems to be a pretty general agreement of opinion that the present strike of dock labourers is not merely a fretful outburst of wanton discontent, but is founded to some considerable extent on the existence of real grievances. We have already shown, in the report of THE LANCET Special Commission, Dec. 8th, 1888, that the life of these men is, in a greater degree than that of many workmen, one of hardship, irregular employment, and insufficient pay. Accidents are exceedingly common, and often serious. In a good many cases they might, with better oversight of the modes of working and of the gear employed, be avoided; and they are often also the preventable consequences of sheer weakness in men irregularly occupied, underpaid, and therefore underfed. In these circumstances, it is easy to understand why the sympathy which is felt for this class of workmen exists as a general impression in different sections of the community. Many persons, who may not be able fully to appreciate the import of their specific demands, feel that, at all events, some substantial concessions are necessary. In this, doubtless, as in every question, the interests of both parties in the matter have to be considered. Some allowance is due to the dock companies as well as their *employés*. Neglect and accident will occur under the best management; irregularity in work may be a consequence of personal incapacity or sheer laziness; and wages must to some extent be regulated by considerations of a dividend. Still, after every allowance, it must be admitted that grievances do exist, and it is to be hoped, as much for the companies' credit as for the good of their workmen, that these will be remedied by adequate and

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early concessions on the part of the former. The one objectionable feature in all strikes—the practice of preventing by intimidation or by force the employment of substitute workmen—has not been so offensively prominent on this as on some other occasions. A tendency towards its adoption has, however, been more than sufficiently apparent, though, we may reasonably expect that, in view of the consenting attitude of public feeling, the purpose of legitimate combination will not be crossed by a method so violent and unjust, and so fruitful in ultimate failure.

DEATH OF DR. HABERSHON.

THE public, the profession, and the College of Physicians will deplore the loss of Dr. Habershon, whose death occurred at Brook-street on the 22nd inst. The illness to which he finally succumbed first made its appearance some twelve months ago in the form of repeated attacks of indigestion. In November last he was prostrated by a serious attack of hæmatemesis. In spite of this, he recovered sufficiently to resume work. In April, however, the close attendance upon and death of Mrs. Habershon led to a renewed period of ill health, which culminated in a return of gastric disturbance. Frequently recurring hæmorrhage, dislike of and inability to retain food, quickly reduced his strength, notwithstanding all that the kind care of his medical friends could devise. His death occurred from exhaustion, and within a few days of his sixty-fourth birthday. Thus has passed from us one whom we could ill afford to lose—one who had made his mark amongst his contemporaries, not only as a well-known writer and a shrewd and careful observer, but as a man whose high principle, rectitude of conduct, and sterling friendship gained him alike honour and respect throughout a long and brilliant career. We hope in an early issue to give further particulars of his life.

BILLROTH ON THE DANGERS OF CARBOLIC ACID.

THE following letter of Dr. Th. Billroth of Vienna has been published: "I have lately seen four cases, in which fingers which had suffered a most insignificant injury became gangrenous through the uncalled-for application of carbolic acid. Carbolic acid is now much less used in surgery than formerly; we have only gradually become acquainted with its dangers. The acid may not only cause inflammation and gangrene, but also blood poisoning, and so may even prove fatal. It is useful only in the hands of a skilful surgeon, and ought never to be used without his advice. The best lotion for recent injuries is the ordinary lead lotion, which can be bought at any chemist's. The best antidote in carbolic acid poisoning is soap, which should be taken immediately and repeatedly until all symptoms of poisoning have disappeared."

THE DERBY GUARDIANS AND THEIR MEDICAL OFFICER.

IT would be gratifying to be able to assure ourselves that the relations between boards of guardians and the gentlemen whom they have chosen to take charge of the medical interests of the parish poor were generally of so happy a kind as those which appear to subsist between the Derby board and their medical officer. At a recent meeting of this board, Mr. Gentles took occasion to refer to the lengthened period (twenty-one years) for which he had, with uninterrupted satisfaction to himself, served them in the capacity of medical officer. During that time, he said, he had paid no less than 110,000 visits. The Rev. W. H. Tetlow, with the hearty concurrence of his fellow-guardians, congratulated Mr. Gentles on the attainment of his majority in the service of the board, and expressed his confident hope that the cordial understanding which had heretofore reigned between themselves and their medical officer would be maintained in the future.

LEPROSY AT THE CAPE.

THE September number of *Blackwood's Magazine* opens with a short descriptive article upon Robben Island, near Cape Town, which is inhabited by a population that consists "approximately, of 130 lepers, 230 lunatics, 30 convicts, and 160 police and ward-masters." There are two resident medical men, the senior of whom is governor. The writer gives a somewhat too realistic description of the leper wards and their inmates, and, be it noticed, cites the opinion of the doctor who accompanied him in his visit—that he has "no shadow of doubt" as to leprosy being contagious. On the testimony of this writer, the "hospital" consists of nothing but crazy sheds, destitute of commonest furniture and fittings, and over-crowded with the sick from this dreadful disease. The article is headed "Wanted, a Father Damien"; but even a man of that devoted type would have hard work to secure the comfort and decency which the authorities of this colony of Great Britain seem according to the writer of the article to refuse to these poor outcasts. We are willing to believe that this may be only one of the many examples so common in our midst of the evil that is wrought by "want of thought," for it would be impossible that the sufferings of the leper should fail to awaken sympathy even in the official breast. Allowing, too, for the unconscious exaggeration of a visitor brought face to face with a leper colony, the article contains statements which should lead to immediate steps being taken to investigate the alleged deplorable conditions existing in the place.

GRAVES'S DISEASE.

A CASE of Graves's disease in the Academical Hospital at Upsala, under the care of Dr. I. Aug. Hammer, tends to confirm Benedikt's view that the cervical branch of the sympathetic is not affected in this disease. *A priori* it seemed probable enough, as exophthalmos had developed more rapidly on the left side, and at the same time sensibility over the superior cervical ganglion of the left side existed, together with long-standing headache affecting the left side, and partaking of the character of paralytic hemicrania. The result of microscopic examination was, however, quite negative. In twenty-two post-mortem examinations in Graves's disease published from 1860 to 1887, the sympathetic nerve was found quite normal in fifteen; in the other cases, either unilateral atrophy of the nerve elements—especially of the ganglion cells—was found, or the connective tissue was hypertrophied, or these two conditions coexisted.

SEA-BATHING FOR CHILDREN.

IT would be needless and vexatious alike to children and parents who yearly enjoy a holiday at the coast if we were to picture in graphic detail all the possibilities of injury which there, as elsewhere, abound. Sunstroke, the risk of catching cold, of falling into the sea from piers, rowing boats, or sailing boats, and many more accidents both within and out of doors, need not now receive from us a more than passing mention. Sea-bathing is in itself a fertile theme. There is in this connexion one point in particular to which we would direct attention. A contemporary writes at some length in condemnation of the common custom of ducking and forcibly bathing young children in the sea. He objects to this, not unreasonably, on the ground that the beneficial effect of bathing depends chiefly on its influence as

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a cardiac tonic. This advantage, he observes, is largely discounted by nervous depression when a child, already scared at the sight of what seems a wild waste of water, is further terrified by rough-and-ready immersion. There is truth in his argument that there need be no difficulty in bathing even such children if their education in the art be carried out by more persuasive methods. In cases of this kind any known constitutional timidity should have ample consideration. At the same time it is most necessary to distinguish between this and mere passionate disinclination. In the latter case a disappointment of the will is itself a useful lesson in obedience. More than this, there are even children of naturally diffident character, but otherwise healthy, for whom a prescribed sea-bath under moderately rigorous management provides an ultimately useful tonic. In all such cases much will depend upon the judgment of the persons immediately responsible. It follows, from the above remarks, that any who may be thus placed should study closely the characters of their children, and guide their conduct accordingly.

EFFECTS OF ALCOHOL IN MODERATE QUANTITY.

DR. MOGILIANSKI (*St. Petersburg Dissertations*, 1888-9, No. 87) has investigated, in a painstaking manner, the effects of alcohol as a beverage on persons who are and who are not accustomed to it. He selected as his subjects nineteen healthy young men, mostly students, and estimated the constituents of their food and also their urine and fæces for several days with and without alcohol. He found that the temporary use of moderate quantities of alcohol in those accustomed to it improved the appetite and increased the assimilation of nitrogenous principles; but that in persons not habituated to its use the assimilation of nitrogen decreased. Alcohol appeared to diminish the assimilation of fat. The destruction of the albuminoids in the body always decreased with moderate doses of alcohol, and frequently even with small ones. No diuretic action was observed; indeed, the amount of urine passed by the subjects while they were taking alcohol was less than when they did not take it. The quantity of alcohol given per diem—usually in the form of vodka—varied from 60 to 140 cubic centimetres.

BURIAL REFORM.

THE Rev. F. Lawrence, the indefatigable Secretary of the Church of England Burial Reform Association, informs us that it is their intention to ask for an interview with Lord Salisbury. The object of this is to urge upon the Prime Minister the importance of taking steps for the protection of the public against the dangers involved in the continued general use of such cemeteries as Brompton, Tower Hamlets, and others. The returns recently furnished of the numbers interred in these and other metropolitan cemeteries, which were obtained at the instance of the Association and published in THE LANCET of Aug. 17th, show that the dead lie in and around London to an extent which it is almost appalling to contemplate. Were they all properly buried it would be serious enough; but when it is remembered that a vast proportion are not really buried at all, but boxed up in lead coffins and deposited in vaults—in other words, entombed in such manner as to cause, sooner or later, noxious emanations of poisonous gases,—it becomes manifest that the subject is one for legislation. The Association has already done an excellent work in drawing attention to the evil, which is intensified in the cemeteries and other burial grounds near large centres of population. But, though intensified there, the evil is not limited to urban districts; over-crowded cemeteries, church- and chapel-yards, may be found in localities where they would be least expected. The Home Secretary has ordered the churchyard of Wetheral, a most picturesque village near Carlisle, to be closed at the end of this year; and it is an indisputable fact that in this same churchyard, so far back as thirty-five years ago, human remains were disturbed and turned up in reopening old graves and in digging fresh ones. It ought to be generally known that any disturbance of a human body once buried, except by an exhumation order from the Home Office, is contrary to law, and the appearance of bones in digging a grave is *primâ-facie* evidence that the burial ground is already full enough, and should be closed. We hope, therefore, that the Burial Reform Association will enlarge the sphere of its inquiries.

FAT IN THE FÆCES OF DYSPEPTIC CHILDREN.

DR. W. T. TSCHERNOW of Moscow publishes in the St. Petersburg *Medicinische Wochenschrift* his analysis of the fæces of dyspeptic infants, which he found to differ both physically and chemically from the fæces of healthy infants. Dyspeptic fæces contain 85 per cent. water and 15 per cent. solids, and nitrogenous, fatty, and inorganic salts. The solids of normal fæces consist of from 25 to 30 per cent. fat, 30 to 32 per cent. albuminous matter, 10 per cent. salts, and 28 per cent. carbo-hydrates; while the solids of dyspeptic fæces contain 45 to 60 per cent. fat, and 14 to 25 per cent. albuminous matter. The carbo-hydrates do not differ very much. In dyspeptic fæces fat increases at the expense of albuminous matters. This proportion was observed alike in children at the breast and in those fed on artificial food. All dyspeptic fæces contain, as above mentioned, more fat than normal fæces, and the quantity of fat does not depend on the degree of indigestion. Dr. Tschernow concludes from these results that Demme's and Biedert's so-called "fatty diarrhœa" was simple dyspepsia.

THE WEST-END FEVER OUTBREAK.

DR. CORFIELD has made a further report on this outbreak, in which he states that he has learned that a few more households have been attacked with enteric fever, but that no prevalence of the disease now exists. He adverts to the inspection being made by Dr. Barry of the Local Government Board, but apart from referring to the infection, which simultaneously affected a number of houses, as one brought from outside, he gives no clue to his opinion as to the vehicle through which the infection was communicated. It is significant that the vestry decided to discuss the report *in camerâ*.

SEWERAGE SCHEME FOR YORK.

WE are glad to learn that the Corporation of York have applied for a loan for £101,000 for the purposes of constructing an efficient system of sewerage for the city. York has long stood in need of this both as regards the defective nature of the existing sewers, their failure to reduce the subsoil water to a proper level, and the faulty method of sewage disposal. The scheme has been announced at the public inquiry which has been held to involve a process of chemical treatment at the outfall, with a view to passing a sufficiently purified effluent direct into the river.

CONGRESS OF DERMATOLOGY AND SYPHILOGRAPHY.

AMONGST the numerous Medical Congresses which have recently been held in Paris, that on Dermatology was one of the most successful. At its last session on Aug. 10th it was resolved that the Congress should be a triennial one, the motion being supported by Dr. Unna of Hamburg, Dr. E. Schwimmer of Buda-Pesth, and Mr. Malcolm Morris

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of London. A vote was also taken as to the place where this International Congress of Dermatologists should meet in 1892, when the choice fell on Vienna, for which fifty-two votes were given; London received thirty-seven votes, and Hamburg one. Another result of the meeting has been the formation of a French Dermatological Society, with M. Ricord as its President.

FOREIGN UNIVERSITY INTELLIGENCE.

Christiania.—Dr. Torup of Copenhagen has been offered and has accepted the chair of Physiology.

Halle.—Dr. Erich Harnack has been promoted to the post of Professor of Pharmacology.

Kharkoff.—Dr. Kulshiski has been appointed Extraordinary Professor of Embryology and Histology.

Kiel.—Professor Weber of Breslau has been offered the Professorship of Physics.

Montpellier.—M. Granel has been recommended by the Professorial Council for the vacant chair of Botany, and M. Imbert for that of Medical Physics.

Zurich.—Professor Lang of Jena has been offered the Professorship of Zoology.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. Arthur Böttcher, Professor of Pathological Anatomy in Dorpat, and formerly co-editor of the *St. Petersburger Medicinische Wochenschrift*, at the age of fifty-seven. Professor Böttcher had published many researches on the Pathology of the Liver, Kidney, and Gall-bladder, and had obtained the Baer prize of the St. Petersburg Academy of Sciences for an elaborate research on the Structure of the Labyrinth of the Ear.—Dr. P. Koch, Chief Medical Officer of the Congo Free State.

THE Government of New South Wales has appointed a committee, consisting of Sir Charles Nicholson, Bart., M.D., D.C.L., Sir James Crichton-Browne, M.D., LL.D., F.R.S., the Hon. H. N. MacLaurin, M.D., LL.D., and Sir Saul Samuel, to select designs for four large stained glass windows, which are to be placed in the Medical Hall of the University at Sydney. The windows are to contain sixteen full-length figures, and it is desired that these should represent the Fathers of Medicine and the most eminent members of the medical profession down to the present time, so that the youths of the colony entering on the study of medicine may be perpetually reminded that their science and art have had an illustrious history.

VENICE, to the great satisfaction of her population, resident and migratory, is to undergo a complete sanitary rehabilitation. The works to be commenced with this object will spread over ten years, and the first provisional estimate of the outlay amounts to some four millions and a half francs. In conjunction with this purely hygienic undertaking, a plan for remodelling the city architecturally will also be carried out, for which a period of thirty years is computed to be necessary.

CONGRESSES, for medical and surgical objects particularly, seem to multiply in Italy. On Sept. 1st will meet at Ancona the "Congresso Medico Marchigiano" (Medical Congress of the Marches), and the programme, an extensive and varied one, will occupy the remainder of the week. Other professional Congresses, also purely provincial in their objects and membership, are announced for the autumn months.

CATCHING AND "CRIMPING" FISH.

BY J. LAWRENCE-HAMILTON, M.R.C.S.

No. II.

AS compared with other vertebrates, it is stated that the relative proportion of myosin or muscle clot, one of the chief albuminoid bodies or proteids in muscle, is greater in fish than in land animals. The coagulation of the myosin causes the contraction of the muscular fibres in fish to be long retained even after death, and is supposed to give the flesh of fish transversely gashed or *crimped* a firmer and crisper taste, whilst some observers declare that the specific gravity of the muscular fibres is increased. During the post-mortem coagulation of the myosin acids are liberated and heat is evolved. Crimping is usually performed prior to death, and always previous to the subsequent cadaveric rigidity or rigor mortis. The most successful crimping is attained on capture by at once bleeding the fish whilst still alive, which bleeding immediately produces faintness, passing rapidly into insensibility. It is obvious that it is useless to resort to bleeding when blood-clotting has commenced. Except the red-fleshed, ham-like tunny, fish have generally comparatively little blood to lose. The pink colour of the salmon family is due to feeding largely on minute shell-fish, which its digestion turns red, as if boiled. The alimentary juices of the rock pouter, a kind of whiting, also convert the shells of crabs into a pink colour. In crimping, the sharp powerful blows on the head of the fish prevent the fish exhausting its muscles by convulsive efforts. When the flesh-gashing is finished, the animal is immersed in cold clean spring water. The larger and thicker the mass of flesh to be crimped, the longer the reaction of muscular contraction is delayed. Prior to crimping, after the bleeding, the fish should be gutted, and cleaned inside and out with abundant washing in fresh flowing cold water. British fishermen have an unfounded prejudice that bleeding injures crimping. Medical jurists have noticed that cadaveric rigidity occurs relatively early after severe hæmorrhage, and that from a corpse an amputated limb previously drained of all its available blood still shows post-mortem rigidity. Some physiologists consider crimping and rigor mortis to be both chiefly due to the contraction of muscular fibres caused by the coagulation of the contained myosin. Crimping fish by exposing an extended superficial surface, and that mostly deprived of its skin, to moisture, air, temperature, and bacteria, thus rapidly increases the tendency to putrefaction. Hence both the fish trades and the public would benefit by the abolition of this frivolous food-wasting fashion.

Ruining the fisheries, robbing the fishermen alike of their netted and hooked fish, the ever-hated dog-fish, on capture, without previous bleeding or gutting or being stunned, is sometimes crimped alive in writhing agony till death relieves the tortured but torturing animal of its sufferings. Where, however, there is no market for the dog-fish, then, on capture, often, its saleable liver is cut out and kept, and the mutilated fish thrown back into the sea, to die a lingering death. The dog-fish, perhaps, like its bigger brother the shark, may possibly also be kept ever hungry, ever feeding, and ever ferocious by the insatiable appetites of herds of various species of internal parasites, especially tapeworms, which cruelly torture and torment the digestions of their unwilling hosts. It is said that shoals of dog-fish will even attack and eat piecemeal the living whale.

As every schoolboy knows, live-bait fishing consists of inserting a collection of hooks through a small living fish, and then sinking it in the water. However much this sport may fascinate a professional angler, it is cruel martyrdom to the tortured little fish.

Some Kent fishermen having caught a big sturgeon, attached a rope to its tail, and thus towed their living prisoner up the Thames to sell it to an aquarium. The rope had cut its way down to the animal's backbone, who nevertheless speedily recovered in the aquarium, thus indicating, anyhow, that some kinds of fish recover from serious wounds with remarkable quickness, and even from wounds which would probably be fatal to most land animals.

In welled boats, halibuts are hung up by their tails, under the delusion that in these artificial conditions the fish will enjoy longer lives, and that their flesh will keep longer

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fresh for the market. These local injuries must not be mistaken for those caused by the alleged habit of halibuts at the bottom of the sea, arranged in parallel rows, waiting and watching for small fish and shell-fish. When failing such food-supplies, the hungry halibut attacks and eats the tail of its nearest neighbour, which explains the frequently injured and absent tail of freshly-caught halibut. Hake hooked near the surface vomit on board, but if hooked at a greater depth it vomits before reaching the surface. Pursued by bigger fishes, the smaller fish will sometimes vomit the contents of their stomachs, partly through fear, partly to lighten their load, so as to be able by quicker swimming to escape, but perhaps, also, like the sea-gull chased by the skua, or dung-bird, so as to appease the not over-fastidious appetite of its pursuer, who thus gets partly digested or naturally cooked food. Many of the sea-cucumbers (Holothuriæ) on injury or irritation eject part or all of their internal organs. Some fish disgorge for the pleasure of again eating their vomited food. Crabs attacked by sea-birds shed their claws and legs in succession. It is stated that sometimes hooked fish get their skins inflated by accumulated air between the skin and subjacent muscles, and that such fish rise to the surface unable to sink. A fish hooked in deep water and quickly drawn up to the surface is like an animal hunted up-hill to death, or like a man rushed up in a balloon, and hence the suddenly diminished pressure, to which fright and pain are added, frequently brings up such fish dead at the surface of the water. Frank Buckland stated that he believed that a fish held by a hook in a very rapid stream would be drowned by the rushing water holding it like a vice on each side, and thus not allowing the gill covers to expand.

A fish is said to drown in the air like a man drowns in the water or is strangled in the air. In each case the air is prevented from getting to the breathing apparatus. In man, because, in drowning, the water intervenes, though perhaps also to spasm of the glottis acting as a sphincter. Experiments by Sir Benjamin Brodie and Dr. Goodwyn with coloured fluids and quicksilver showed that in animals drowned under observation the small amount of fluid entering the lungs was not sufficient to account for death. In man also death by drowning may arise from exhaustion, shock, apoplexy, disease of the heart, concussion, injuries, or from mixed causes. The gorging with water of even the minute vessels of the lungs in certain cases of drowning may be chiefly due to post-mortem changes. In fish, the numerous minute bloodvessels composing the gills or fish lungs, rapidly drying, stick together and get choked up. Hence the familiar violent open-mouthed gasping of fish when landed. In the air, the fish strives in vain to separate its gill filaments, which it cannot do without the intervention of water. (There are exceptional families of fish which can breathe in air for long periods together.) Anglers often drown fish in the water. The moment the fish is hooked, it rushes about in frantic fright, rapidly running through the successive stages of undue energy, exercise, exertion, and exhaustion. The faster and more furious the fish fights or struggles, the faster it breathes and overworks its heart, till it is fully pumped out of breath, when the knowing sportsman pulls the captive fish's head to the surface of the sea or stream, "between wind and water," and finally, raising the fish's mouth out of the water, the exhausted animal becomes more and more faint, feeble, and giddy. Its gills adhere together, and virtually cease acting. The blood becomes over-carbonised, and hence the fish drowns or suffocates whilst still in the water.

It is said that at 100 fathoms, or 600 yards, the pressure of the sea water exceeds 265 lb. to the square inch, and hence securely corked empty glass bottles sunk by means of weights below 100 fathoms become crushed. If filled with water, the cork is driven inwards, and in drawing up the bottle to the surface, the cork is often found returned in an inverted position to the neck of the bottle. As a practical rough-and-ready approximation, it is estimated that for every 1000 fathoms, or 18,000 feet, the pressure may be considered as about one ton to the square inch. To haul up one of the deep-sea lines used in the *Challenger* deep sea dredging, it took the fishermen from twenty to thirty minutes; and to avoid such hooked fish being blown to pieces, and leaving only a small shred of their individual anatomy attached to the hook, these abyssal fishes must be withdrawn very slowly and gradually. Raised from these colossal depths, the diminished pressure distends the gases inside the fish, especially should it be provided with an air bladder, and causes the fish to get to the surface (if not dead, almost powerless) in a rigid cataleptic spasm, usually with its stomach inverted and inserted into or through its mouth. Its eyes are started and stalked from their natural sockets, protruding outwards like horns. Frequently such fish, each weighing from 25 lb. to 50 lb., on approaching the surface, will be shot out of the water at some distance beyond the boat, because the animal is sent upwards by the expansion of its contained gases, quicker even than the experienced deep-sea fisherman can haul in his prize.

In trawling, owing to the pressure of the net and its contents, fish, especially herrings, are often hauled dead into the fisherman's boat. Strangled and drowned in the meshes of the net in water, herrings putrefy even too rapidly to be serviceable to the professional fish-curer, who frequently cures fish which in their so-called "fresh" condition would be unsaleable and uneatable. It is said that if an elastic band be placed round the gill-covers of a fish in an aquarium it makes violent efforts to escape this strangling. It moves rapidly in hurried fear and excitement in its tank, and will at times attempt to leap out of the water. It soon dies with the rapid invasion of cadaveric rigidity and early putrefaction. Now, the herring strangled in the mesh of the fish-net is also much pressed upon and banged about, handled more or less with dirty hands, all being extra conditions to aid, advance, and accelerate rapid decomposition. If, before capture, the herring should have over-distended its stomach and intestines with undigested food, then putrefaction sets up so rapidly that such herrings are even useless to the fish-curers, who technically term this condition "gut-pock." Some American and Swedish fishermen, after an abundant catch of herrings, whose insides are over-distended with recent undigested food, pen up the herrings alive in the nets sunk in the water, to give the animals time to digest their food, and thus avoid the loss of the herrings from the invasion of subsequent "gut-pock," which I trust later to treat of purely from biochemical and microscopic researches.

Some twenty-four hours after capture, notoriously unbled and ungutted herrings are peculiarly prone to post-mortem spontaneous pouring out or extravasation of blood, which darkened, damaged, and bruised appearance is quaintly recognised in fish-trade slang as "over-day tarts." Medical jurists have pointed out that in drowned persons putrefaction usually begins about the head, whilst the rest of the body may remain normal. Post-mortem spontaneous bleeding is probably due to the softening of the vessels from early and incipient putrefaction, to the influence of gravity, and to the irregular post-mortem stagnation of blood in the capillaries (apparently some of the colouring matters and extractives pass into and remain in the tissues also as a putrefactive change). The process of the coagulation of the blood intensifies the appearance of these post-mortem effusions or extravasations. Possibly the cadaveric rigidity affecting the heart and the coats of the arteries prior to the post-mortem rigidity of the voluntary muscles forces blood into the venous capillaries, where it unequally stagnates, simulating the appearance of recent bruises during life. (In some fish the heart be at forcibly long after all other signs of life are apparently extinct. A frog's heart separated may be kept pulsating in certain nutrient solutions. A freshly decapitated eel's head will bite. Dead mackerel are said even to "turn somersaults" owing to excessive sudden rigor mortis. The post-mortem quivering of some snakes explains the popular belief that snakes never die till sunset.) On death the skin loses all its previous elasticity. Medical jurists lay special stress upon the fact that this cadaveric lividity is chiefly seen in those dying suddenly in full health or by a violent death (as hanging, drowning, strangling, apoplexy, &c.), and is but very rarely seen in those who have died of hæmorrhage—another proof why fish should be bled on capture. If a stout muscular person has died suddenly, and the body is then wrapped up closely and tightly in a sheet and allowed thus to cool, then post-mortem bleeding may make a zebra-like series of stripes or bands, suggesting recent flogging during life, from which it is distinguishable by the fact of the skin being unbroken. Now, the above phenomena happen to herrings drowned in the meshes of nets, who suffer squeezing and squashing both from the contents of the nets and from the heavy weights of their thoughtless

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captors. In the herring the chief post-mortem bleeding takes place first about its head, gills, gill-covers, and fins, and a little later internally along and around its backbone or spinal column. In the skate its mucous secretion continues for a time, apparently, after its death.

In fish, as in man, all contused or incised wounds and bruises during life, as well as post-mortem spontaneous bleedings, rapidly pass into early putrefaction. In fish these decompositions take place with much greater rapidity and energy, which natural putrefactive processes are terribly increased and accelerated by ignorant, wasteful, and unnecessary exposure to abundant air, moisture, heat, sun, rain, pressure, banging, bruising, wrenching, twisting, hammering, packing, and handling; to many varieties of solid, liquid, and bacterial filth, and to melted or melting ice. The consideration of these fish-spoiling combinations, wastefully sanctioned by chronic conventional custom, and the general indifference and apathy of the public and the medical profession to fresh fish preservation, I propose to treat of in my next contribution to THE LANCET, which has from the earliest traditions of its history always opened its columns for the discussion of all matters connected with a cheap, abundant, and healthy food-supply for the people.

THE IRISH PRISONS BOARD REPORT.

THE report made by the General Prisons Board of Ireland to the Lord-Lieutenant upon the operations under their supervision during the past year brings to light the welcome fact that in the sister island, as in Great Britain, the statistics of the past few years show a steady and marked reduction in the numbers of the convict population. In the short period of seven years past this reduction has amounted in the case of male convicts to 41 per cent., and in the case of females to 56 per cent. So pronounced an improvement has enabled the Board to recommend that the work of enlarging the convict prisons of Ireland should not at present be proceeded with, although a Royal Commission which sat only so lately as 1884 recommended a very considerable outlay of public money with that object. The Board, in discussing the question afresh, remark that a most material change of circumstances has ensued since that date, which was then probably not foreseen, and adduce the above figures in support of this view. The fact is certainly very remarkable, and, fitting in as it does with our own experience on this side of St. George's Channel, affords ground for a most encouraging hope that we are coming to a time of "sweeter manners, purer laws."

In another branch of their labours the Prisons Board have met, however, with less gratifying results. The number of commitments to prison for small offences shows, as compared with the preceding year, a very considerable increase, and this increase is largely made up, as we gather, of commitments for drunkenness. This one offence accounts, indeed, for nearly one-half of the total number of such imprisonments, and we have it on the authority of the Board that the criminal records show this great social evil to be extending.

One very important point in the theory of punishment is strikingly illustrated in the present report—that, namely, of the effect of short sentences upon habitual offenders. The remarks of the lady superintendent of the Grangegorman Prison upon this subject merit careful attention. She says: "I beg respectfully to inform you that the number of prisoners committed to this prison for the past year was excessively high, being over 8000, and to draw your attention to the fact that this number includes a great many old offenders, who were recommitted several times through the year, and generally for such short sentences as to deprive the imprisonment of the deterrent effect that longer ones might exercise. ..... I may refer to one (case), L. K——. This woman was committed to this prison thirty-four times last year, and never received a sentence for a longer term than fourteen days." A footnote adds that this particular offender had been committed 146 times in previous years, so that she has suffered 180 imprisonments in all. In such a case it is ridiculous to attempt to turn the offender into better courses by ordinary means. Our correctional appliances will continue to be absolutely helpless in a case like this until it is clearly recognised that persons of this class are not capable of regulating their own conduct. An asylum, not necessarily a lunatic asylum, but a place where they could be subjected to the exact amount of restraint necessary to keep them out of mischief, is the right place for such people. The confinement of the Bridewell is probably unnecessarily severe while it lasts, and it has the fatal defect of being intermittent. Not severity, but continuous care, is the remedy for such mental and moral disorder as this wretched creature exhibits.

MEDICAL OFFICERS OF THE ARMY AND NAVY.

THE report of the Committee of Inquiry into the pay, status, and conditions of service of medical officers of the Army and Navy has now been presented to both Houses of Parliament. Dealing first with the Army, the Committee consider the question of full pay, the rates of which were settled by the Royal Warrant of 1879, and the conclusion come to is that there is nothing to show that the pay is extravagant. The evidence received leaves it doubtful whether, if lower rates were offered, the same class of medical officers would be obtained. Careful inquiry has been made from those persons considered most likely to be able to suggest reductions, but without any success. As to retirement, it is pointed out that the large number of retired officers is owing to two causes: first, the compulsory age of retirement—namely, sixty for surgeons-general and deputy surgeons-general, and fifty-five for the executive ranks; and, secondly, to the right which every medical officer has to retire after twenty years' service. The Committee do not see their way to propose any alteration in the age for compulsory retirement in the case of the executive ranks; but, with reference to administrative officers, they see no reason why the surgeons-general should not continue to serve up to the age of sixty-two. No interference with the right to retire after twenty years' service is suggested, but the Committee are of opinion that, without altering the conditions of retirement or the rates of retired pay, more service might fairly be required from medical officers. It is believed that the financial saving must be chiefly effected by limiting as much as possible the establishment of officers, and it is recommended that at small home stations, where there is not more than two or three hours' ordinary daily work for the medical officer in charge, civil practitioners should, where practicable, be employed. Passing to the question of rank and title, the Committee point out that medical officers of the Army, especially the younger officers, are not contented with their present position, relative rank, which they contend was the only rank they ever held, having disappeared. The grievance of medical officers of the Army on this score appears to the Committee to have originated in great part from the abolition of the regimental system. On this question the conclusion of the Committee is as follows:—"We are of opinion that, in the Queen's Regulations and Army Pay Warrant, it should be stated that the officers of the Army Medical Department shall hold the following military ranks with relative army ranks, a table of which we append. We recommend that relative army rank, the abolition or omission of which has immediately caused the present discontent, should be restored in the following manner:—

Present Title—Medical Staff.	*Proposed Rank and Title—Royal Medical Staff.*	*Relative Army Rank.*
Surgeon-General ..	Surgeon-General ..	Major-General
Deputy Surg.-General	Surgeon-Colonel ..	Colonel
Brigade Surgeons, and Surgeons-Major now ranking as Lieutenant-Colonels	Surgeon Lieutenant-Colonel	Lieutenant-Colonel
Surgeon-Major	Surgeon-Major	Major
Surgeon	Surgeon-Captain. This rank to be given after three years' service as Surgeon-Lieutenant	Captain
Surgeon	Surgeon-Lieutenant	Lieutenant

The recommendation made with regard to service is that a plan should be devised whereby medical officers of the Army should not be changed from one duty to another as fre-

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quently as at present, and the Committee are of opinion that it would be an advantage to all concerned if, without reverting to the regimental system, a medical officer were on first appointment attached for a definite term to a regiment or other administrative unit. When medical officers are on leave in consequence of disease contracted in and by the service, the Committee consider that they ought to be entitled to the same privileges as combatant officers. With regard to foreign service, it is suggested that the term of continuous service abroad should not exceed five years, except in cases of emergency, while the employment of retired officers is strongly deprecated, excepting perhaps as a temporary measure; and with regard to service in India, the Committee pronounce it advisable that, so far as is practicable, the regulations which obtain as regards pay and allowances at home should extend to officers serving in India. On the question of admission into the service, the Committee believe that a certain number of desirable officers might be obtained by exercising the power already possessed by the Secretary of State of offering a certain number of vacancies to men who have filled the office of house-surgeon or physician at hospitals, without examination, and they also recommend that the commissions of medical officers entering the Army shall date from the time they enter the service and not, as at present, from the time they leave Netley. One other point is dealt with under this head—namely, the sufficiency of the diploma of the Society of Apothecaries, and the result arrived at is that there is no good reason for requiring candidates at the entry examination to produce a second diploma besides that of that Society, if obtained under the conditions of the Medical Act of 1886. The report on the subject of Army medical officers concludes with a strong condemnation of the short service proposal.

The Royal Navy forms the subject of the second part of the report. The Committee express their pleasure at finding the medical service of the Royal Navy in a satisfactory and contented condition. Relative rank which regulates the position of medical officers of the Navy is well understood, and the officers appear satisfied in all respects with their pay and position. With regard to service, it is recommended that inspectors of hospitals and fleets should not be compulsorily retired before the age of sixty-two, and that naval officers should have opportunities from time to time of improving themselves by professional and scientific study. As regards the period of voluntary retirement, now twenty years' service afloat, the Committee do not recommend any alteration; but as regards retirement on gratuity after eight and twelve years' service, they declare that there has at present been no opportunity of judging how the scheme will affect the retired list, and that therefore they are not in a position to recommend any alteration.

Some members of the Committee dissent from certain of the recommendations contained in the report.

THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

The International Congress of Forensic Medicine.—Railway Brain.—Hanging.—Rape on Children.—The Confinement of the Insane.—Morphiomania.—Simulation of Disease.—Wet-nurses and Syphilis.

FOLLOWING immediately the Congress on Criminal Anthropology came the Congress on Forensic Medicine. Though the attendance was small, the debates were well conducted and to the point. In this respect the Congress on Forensic Medicine was very superior to the Congress on Hygiene. The former had but a hundred members or thereabouts, while the latter had close upon seven hundred; but the members of the one Congress were all well versed in the subject, while the large majority of the members of the Hygiene Congress really knew very little about hygiene; they were learners rather than teachers. The Congress on Forensic Medicine was composed of medical men who have been witnesses or experts in criminal and other legal proceedings, and with them sat several celebrated barristers, magistrates, and judges. Thus every delegate had actually practised forensic medicine or dealt with it in one way or other, while many members of the Hygiene Congress had never attempted to practically enforce any rule of hygiene.

The Congress of Forensic Medicine was opened on the 19th inst., in the afternoon. Dr. Brouardel, as Dean of the Faculty of Medicine, was in the chair, and the sittings were held in the grand amphitheatre. He was seconded by Dr. Vleminckx, delegate of the Belgian Society of Legal Medicine, together with its secretary, Dr. Moreau. The University and the Bar of Brussels were represented, and also the New York Society of Forensic Medicine. There were also delegates from Brazil, Denmark, Hawaii, Italy, Mexico, Monaco, Paraguay, Peru, Roumania, and Switzerland. Dr. Brouardel, after a few graceful words of welcome, called upon Drs. Vibert and Gilles de la Tourette to read their papers on the Relation between Forensic Medicine and Cerebral Traumatism. Dr. Vibert insisted that the symptoms were not at once apparent. After a railway accident a man may very calmly walk to the next station, take a cab, do all that is necessary under the circumstances, and yet be perfectly unconscious. The injury to the brain where there is no outward sign, but which results from a violent shock, gives rise to considerable legal difficulties when railway companies and others are sued for damages. This is all the more complicated, as the symptoms do not always manifest themselves till a considerable time after the accident, and there is, further, a danger of the patient shamming what he does not feel, in the hope of getting heavy compensation. Again, it sometimes happens that a very severe injury is followed by slight consequences; while on other occasions a trifling traumatism is followed by general paralysis and insanity. Does hereditary predisposition account for this difference? In many instances no such evidence has been forthcoming, and, supposing it to be produced, ought it to lessen the claim for damages? The symptoms—sadness, loss of memory, &c.—are often attributed to a hysterical disposition; but how is it, for instance, that an old soldier, who had been through the hardships of a campaign and had never shown any such hysterical tendency, nevertheless displays the same symptoms after a railway accident? This is evidently due to a mechanical accident, and not to a predisposition. It is objected that women rarely suffer from "railway brain"; but women are not so often exposed to railway accidents. Dr. Gilles de la Tourette thought that traumatic patients invariably sought to hide their antecedents. Prof. Charcot had, on the contrary, often found hysterical antecedents with patients suffering from "railway brain." The expert called in by a railway company sees the patient two or three times; Professor Charcot keeps his patients for months, sometimes for years. The majority of cases are male patients, because the accidents occur to engine-drivers, stokers, &c., and the absence of hysterical predisposition cannot therefore be used as an argument. Dr. Lacassagne defined traumatisms as due to the organic injury resulting from a shock, whether caused by a railway collision, a fall from a scaffold, or a carriage accident. He had noticed, especially among workmen, men of great activity and industry, that after such an accident they became completely idle, and that with this idleness was manifested an enormous increase of appetite. Some friend takes the patient in charge, and promises to secure him liberal compensation. The man thereupon no longer dares to move, for fear of losing his compensation, for he feels that he is always being watched. But when once the verdict is given, the matter legally settled, these patients contrive to recover in an extraordinary manner. Dr. Motot protested that there were slight as well as serious cases. Another delegate considered it was a very great hardship that military pensions were not allowed unless the claim was accompanied by a statement that there was no predisposition; therefore this predisposition is carefully concealed. Sometimes also compensation or pensions were refused on the ground that traumatic hysteria is reputed to be curable. Pensions were refused even when it was demonstrated that the patient enjoyed the most perfect health before the accident, if it could be shown that there was predisposition. Dr. Penard urged that experts should be very reserved and moderate. The judges were always impatient for an immediate conclusion; medical men must, nevertheless, insist on having plenty of time for their observations. Dr. Brouardel thought that the word "hysteria" should be excluded from the discussion. The worst was that different doctors see the patient in different periods of the disease and of the judicial inquiry. Alluding to the symptoms described by Dr. Lacassagne, he said the same had been noticed among prisoners. Their dulness and silence were often due to

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change from active to idle life, combined with a change of diet. This caused troubles of nutrition, which produced a form of intoxication. The patient, practically, was poisoned, and got better again when he returned to more active life and to his normal diet. The predisposition to hysteria was an absurd excuse, enabling railway and other companies to escape from their just liabilities. Everyone was slightly predisposed to hysteria. Compensation was refused the other day because the sister of the victim had a little hysteria at a moment of great trouble, when divorced from her husband. Hysteria ought to be set aside. No one could say that there had never been hysteria in his family, and therefore everyone was liable to find his claims for compensation denied. M. Chaudet said that the companies very often negotiated with the individual and came to a private agreement, giving him or her a small sum. Then, in the course of time, the injury proved much more serious than had at first been anticipated. The case was consequently brought forward again, and an action entered, this time before the civil tribunals, where it takes a very long time to obtain a decision. It was urged that there ought to be some method in the legal proceedings by which a verdict could be altered if, in course of time, the injury proved altogether different in its effects from what had been anticipated.

The Congress then adjourned, and on Tuesday morning commenced a discussion on the question of Hanging. Dr. Gosse, of Geneva, described the experiments he had made on himself. On two occasions he had succeeded in so far hanging himself that he entirely lost consciousness. He found that the cord often did not squeeze the throat so as to stop the breathing. The rope formed a sort of triangle which pressed on the carotid but not on the larynx. In that case death was not painful, there was a buzzing sound in the head and unconsciousness at a very early stage. But if the rope pressed on the throat then the struggle for breath was very painful. On carefully examining criminals after hanging, it would be found that when convulsions occurred the lungs were empty. If the victim could fill his lungs with air before the rope tightened he would not suffer so much, if at all. When a person was found hanged and there were two marks showing that the rope had changed place, this might be considered as a suspicious sign. It, in all probability, meant that he had been hanged after having been strangled. This he had noticed in the case of a gendarme hanged on the Swiss frontier. There were two marks, so he made a more careful investigation, and then perceived that the rope was too short for the gendarme to have been able to hang himself. Ultimately what seemed a suicide was proved to be a murder.

Dr. Lacassagne was now called upon to read his interesting paper on the Detection of Rape on Little Girls. Assault on little girls constituted about a third of the total number of cases brought before the Assizes Court. In his opinion, a regulated method of proceeding should be prescribed for such investigations. This was not so necessary in great towns, but rather for small villages and rural centres where the local practitioners had but slight experience of such matters. They did once in ten years what to others was a matter of weekly occurrence. Medical and legal rules for the examination of the victims of such assaults should be drawn up. This would seem irksome to very able and experienced men, but the generality would benefit by the uniformity of the observations, and after the prescribed formula of questions had been filled up with the required answers, it would be always optional to add any further and special observations thought useful. The first thing was not to delay the examination of the victim. He did not fully understand all the exigencies of legal forms, but magistrates, on their side, were evidently not specially instructed in anatomy &c., otherwise they would not so often be the cause of delays. The second point on which he wished to insist was the necessity of the presence of a third person—the mother of the child, a relative, or, if no one else could be obtained, the policeman who had brought forward the case. Thirdly, it was indispensable to question the child—to let her tell her story. It was not necessary to believe the child's story, but it very often gave a clue to the truth. Children frequently had altogether false ideas as to what constituted an assault. Dr. Moreau of Charleroi suggested that very careful questions should be put as to the dirty habits of the child and her companions. It was surprising how vicious, how skilful and learned in vice, these little children proved to be. In his opinion, the presence of the mother or the magistrate during the examination would overawe the child; but the expert, if alone, by patience and kindness would very often obtain precious information. With regard to redness and other local signs, he thought that not only a second but very often a third examination was required. The man should be examined and his daily occupation ascertained, for it was proved that certain trades produce a greater proportion of crime of this description. In Belgium, for instance, a very large number of assaults on young girls were perpetrated by bootmakers. Also a great number of persons still believed they could cure gonorrhœa by coming in contact with a virgin, and this superstition often led to the detection of the criminal. Dr. Lacassagne closed the discussion by replying to several arguments adduced. There was a very great danger of extortion, and if the doctor did not have a witness with him he might certainly find himself accused. He had the right of self-defence, and the only effective defence was to have a witness in the room. Many of the children were thoroughly corrupt and vicious, and were seeking to obtain money by exaggerated or false accusations, and it would be more profitable to accuse the doctor than some workman or labourer living in their neighbourhood. Therefore, even if it rendered the inquiry more difficult, still he insisted on the presence of a witness.

At the afternoon sitting, Dr. Motet, secretary-general of the Congress, read a paper on the Removal and Confinement of the Insane. He dwelt at length on the difficulty due to the various degrees of imbecility. One, having lived the ordinary life of a healthy child, is seized at the age of puberty with desires which he seeks to satisfy in a brutal manner: there can be no doubt as to this case. Another in appearance is less brutal; he is less impulsive, but equally the victim of hereditary transmission: he will be treated differently, though his complaint is the same, his irresponsibility equal. Then, again, a person who is in a state of acute mania, who is violent, is often more easily cured than the quiet patient, who answers, on the whole, very reasonably to the questions put to him. The magistrate, in the face of such difficulties, is sorely puzzled. He calls experts to assist him. Dr. Motet insisted on the necessity of an independent medico-legal examination before any verdict was pronounced that in any way interfered with the freedom of the subject. This opinion was endorsed by the Congress.

Drs. Lutaud and Descoust presented a report on the Legal Questions arising from the Abuse of Morphia. Most practitioners had had opportunities of noting that the taking of morphia had become much more general during the last ten years. At first administered under the personal surveillance of the doctor, the patient too frequently learnt how to inject the drug without assistance. This was admissible for incurable and extremely painful diseases, such as cancer; but it was too often done on the smallest pretext. The question arose as to how morphiomaniacs procured the morphine. Of recent years there had been some severe sentences pronounced against dispensing chemists for illegally selling the drug in Paris and other parts of France. A very respectable chemist related to the reporter that he now sold in the course of the year only about eight pounds' worth of morphia, while formerly his sale amounted to about £40, yet his business in other respects had in no wise decreased. Dr. Brouardel had recently found in the house of a very fashionable lady a bottle containing no less than 200 grammes of morphine, and it was now ascertained that a great number of morphiomaniacs had found means of procuring the drug from wholesale druggists and commission agents. This was to them a triple advantage; they escaped the surveillance of the doctor, they could obtain unlimited quantities, and it cost them much less. The only legal restriction imposed on wholesale druggists was that of inscribing in their books the address of the person with whom the sale was effected. Other morphiomaniacs drew up prescriptions and signed them with the name of a doctor. This was, of course, illegal and could be punished, but would be avoided if doctors would draw up their prescriptions on paper with a printed heading, and sign their names more legibly. It was also urged that in his prescription the doctor should distinctly state how often the prescription was to be renewed. Dr. Motet urged that cocaine was even more dangerous. Dr. Brouardel confirmed this opinion. Cocaine was three times more rapid in its effect, and had the peculiarity of making the people who took it jump out of the window—a double danger, for it not only killed the victim of the drug, but might possibly kill some innocent

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pedestrian passing under the window at the time. Dr. Brouardel informed the Congress that a new project of law affecting dispensing chemists was now in course of preparation. It was proposed to draw up a list of drugs that could not be renewed without a fresh prescription from the doctor. There would be also a permanent revision committee, with power to alter this list. In the northern provinces of France it was becoming quite the fashion to give evening parties where the principal diversion was the administration of subcutaneous injections of morphia to the guests. Several speakers raised objections to a law preventing the renewal of an old prescription; this would be especially awkward for persons who were travelling. Finally, the Congress adopted the following resolutions: "Druggists and manufacturers of chemical or pharmaceutical products must not sell morphine or cocaine to others than dispensing chemists, and must only deliver these poisonous substances at the chemists' houses. A dispensing chemist must only make up a prescription once if it contain either of these two substances."

At the sitting held on Wednesday morning, Dr. C. Moreau of Charleroi, secretary-general of the Belgian Society of Legal Medicine, read a paper on the Simulation of Disease. One of the difficulties arose from the fact that the books on this subject instructed not only the doctors, but also the individuals who practised methods of deception. He thought the Congress should constitute an international committee to collect information as to the methods of detection that had been employed with advantage in different parts of the world. Dr. Vibert argued that, because a person shams with respect to one symptom, this did not prove that all the symptoms were fictitious. It was necessary to inquire what were the antecedents of the patient, and to see if there were not hysterical accidents. In the course of a desultory conversation, it was objected that a person who was really of unsound mind, or who was perfectly sincere in denying the authorship of some crime, might, in his desire to effect an escape, resort to some form of simulation, and might sham even in a ridiculous manner. A Belgian delegate gave the history of a case which, in Belgium, had caused a great sensation. A man was deserted by his wife, and he ultimately found that she was serving as a cook in a house of ill-fame. The husband approached her through a backyard and handed her a letter ordering her to come home, but she refused to do so. He thereupon drew his revolver and fired twice at her. The woman fled for her life. Another woman entered the kitchen to see what was the matter. The husband, though he had never seen this woman in his life before, and had nothing whatsoever against her, levelled his pistol, followed her movements, fired twice, and wounded her badly. Then the unfortunate man, acting as if in a dream, turned the barrel against himself, and again fired twice. This man, when arrested, frankly and without hesitation stated that he had shot at his wife, that he did so with deliberation, and had armed himself expressly for the purpose of shooting her if she refused to leave the house of ill-fame. But he utterly denied having shot at any other woman or having shot at himself. After discharging his weapon at his wife his mind became a blank, and he evidently had no sort of recollection of what happened subsequently. Dr. Vibert, on the strength of this story, inquired whether, in a great crisis and under the stress of great mental agony, anæsthesia does not often occur—a sort of mental trance which allows the automatic accomplishment of daily occupations without the patient having any knowledge or any consciousness of what he is doing. Dr. Duponchel complained that there were many errors in books treating the question of simulation. He related the case of a woman, who complained of such fearful pains in her left breast that it was amputated; but nothing was found. Shortly afterwards there were equal pains in the right breast, and this was amputated and also found to be perfectly healthy. It was only when the woman asked to have her wrist cut off that the possibility of her shamming occurred to the medical attendants. With regard to men, Charcot had largely contributed to show that what used to be attributed to simulation was in reality due to hysteria. Old authors, by their written works, proved how often they were mistaken. He related the case of a soldier who was repeatedly punished because, when at drill, he had cramps in the legs just at the moment he was ordered to march. This afterwards proved to be a genuine form of illness. Before attempting to detect simulation it was better to seek to discover real disease. People only imitated well what they had actually felt. The real means for detecting sham illness was to perfect the methods for discovering real illness. Was it possible now to sham heart disease or lung disease? When nervous diseases were better known they would be more easily detected. Some years ago a recruit feigned an attack of rabies, and the whole of the revising council drew their swords in self-protection. Nowadays this would be impossible. The first measure was isolation; a person who was shamming would hold out before witnesses, but he soon became wearied of the *rôle* when alone. Then the person should be examined very often and thoroughly fatigued. Dr. Duponchel did not advocate using cunning stratagems to make the patient contradict himself. The doctor had but a few moments to give to the case; the patient had all the twenty-four hours to think over it, and would very often turn the tables against the doctor. This was humiliating, and, if it happened in a dormitory before other patients, might have a very disastrous effect on the discipline of the establishment. It was necessary to be very sceptical, and not to believe even when a man confessed that he was shamming. This occurred in a Paris hospital recently. A man had a fit every Tuesday evening at 6.30 P.M. punctually, and never on any other occasion. Of course, he was suspected of simulation. One day, wearied possibly with his hospital life, he declared the whole thing was a sham. The director had the patient brought to his office and invited him, as he was only shamming, to simulate once again, and immediately, the attack. This the patient attempted to do, and so completely failed that the witnesses present were convinced his attacks were not simulation, though in the earlier stages they might have been an exaggeration of his malady. He was glad to note that simulation to escape military service was very much on the decrease in France. It existed only in the provinces. Every Parisian was thoroughly imbued with the sentiment that he owed his services to the mother country, and the attempt to avoid the military conscription by simulating disease, which was so frequent under the Empire, was unknown under the Republic. The Congress loudly cheered this assertion—an assertion, by the way, which was confirmed by several other speakers. Dr. Duponchel urged, on the contrary, that it would be very bad policy to doubt the word of a soldier who complained of illness; that it would be a source of great weakness, in action, to send ailing to the front. Dr. Lacassague suggested that one of the most effective methods of detection was to ask the patient to write something—his memoirs, his impressions, or a letter. This often disclosed more than mere conversation. As the doctor could not be with the patient all day, there was a great advantage in securing the assistance, as observers, of his guardians, or even his fellow-patients. One individual who was pretending to be insane, the better to prove his insanity, struck the speaker a very heavy blow. What was to be done in such cases? Where insanity existed or was feigned, the case could best be treated and watched in an asylum. The doctor must be very slow in his inquiry. He must not allow the patient to do everything he desires; a little restraint, a little discomfort, must be imposed; perhaps then the simulation would be abandoned. Dr. Motet proposed that in prisons there should be a special ward or section for the cure and observation of those who were supposed to be simulating disease, especially madness. A Belgian delegate thought that criminals who feigned to be mad should be taken to a madhouse, and then told they had been acquitted. After this, if the culprit were shamming, he would very soon show symptoms of recovery. Several members of the Congress rose and spoke against the practice of such deception, and thought that the mere transmission to an asylum without resorting to falsehood would often produce the desired effect. The discussion terminated by a general understanding that it would be well, when practical, to have prison asylums.

At the afternoon sitting, Dr. Morel-Lavallée presented a very important report on Syphilis among Wet-nurses. As the employment of wet-nurses is, fortunately, not so general in England as in France, the question is of more interest on the French side of the Channel; nevertheless, it is a very grave matter, and merits all the more careful attention as it is fraught with many complications. Medical men might and should in a large measure prevent the spread of syphilis by nurses. According to French law (Article 1382 of the Civil Code), a doctor may be sued for damages caused by his imprudence, and, according to the verdict of the Dijon Court on May 14th, 1868, because of his

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reticence. On the other hand, by the Article 378 of the Penal Code, the doctor is bound to respect professional secrecy. But, if the law is thus contradictory, his moral obligation is clear enough. The doctor's duty is evidently to prevent the spread of a contagious disease which is one of the most terrible scourges of humanity. The question presents itself under many different points of view. For instance, if the nurse is still healthy but the infant is discovered to be syphilitic, it is the duty of the doctor to prevent the nurse suckling the child, however great may be the inconvenience and loud the protest of the parents. Even if the nurse consents at her own risk to continue nursing the child, it would be necessary to draw up a legal document to that effect, countersigned by the nurse's husband, and no lawyer would consent to draw up such an act. Consequently, if the nurse falls ill, she will always be able to sue the parents of the child, and the doctor's responsibility and reputation will be involved. The doctor must therefore at once order the removal of the child. But, in doing this, the doctor must not mention the word syphilis to the nurse, for this would be a breach of the professional secrecy he owes to the parents, and would expose them to scandal-mongering, and perhaps even attempts at extortion from the nurse or others. Then, again, there is this other difficulty—that the nurse should not be sent away, for she may be in the period of the incubation of syphilis. The nurse should therefore be retained for six weeks or so, and render what service she can as a dry-nurse. The parents, however, may refuse to allow the separation of the child and nurse, but may allow the nurse to seek employment elsewhere. Then the doctor, as a last resort, must withdraw from the case, sending final instructions by registered letter, and keeping a duplicate of the same, so as to cover his responsibility. Sometimes, the infant having inherited syphilis, the wet-nurse is already contaminated before the mischief is noticed. It is then best to persuade the parents to confess the case to the nurse, to give her as handsome a compensation as they can afford, and get her to continue suckling the child. Discussing this portion of the report first, Dr. Brouardel thought that the only way to protect the nurses was to intimidate the father of the family. The saving point is that the milk of syphilitic nurses does not injure syphilitic children. At the hospitals it was easy enough to find syphilitic mothers who would gladly go out as nurses. Therefore, in view of preventing a nurse receiving the charge of a child likely to have inherited syphilis, the Congress passed the following resolution: "It is better that the child should be suckled by its mother; the consent of the father will frequently be obtained if he is made clearly to understand that the mother has nothing to fear from the infant; for if the infant is syphilitic, the mother will, in all probability, have been already contaminated before the accouchement." Some discussion followed with regard to the question of professional secrecy where abandoned children are concerned, it being argued that the State should be as jealous of the reputation of the child as its own parents. It was ultimately decided that the doctor should confidently entrust to the Director of the Public Assistance information concerning syphilitic lying-in cases, so that arrangements should be made to keep syphilitic infants and mothers together. Another question was put: A wet-nurse comes to consult a doctor. He finds that she is apparently in good health, but she has an infant in her arms who is syphilitic. If she says she is only nursing the child, the doctor has no right to examine the child or pronounce an opinion on its condition of health without the sanction of the child's parents. If the nurse, knowing this and wishing to obtain the doctor's opinion, tells a falsehood by pretending that it is her own child, then the doctor will tell her to continue suckling the child, on the ground that no further harm can be done. In that case the nurse will be the victim of her own falsehood; but still it would be more satisfactory if the spread of the disease could be stopped. Several speakers argued that the doctor only owed professional secrecy towards the person who came to consult him; and, if a nurse brought a child, he was justified in saying that the disease was syphilis. Another supposition arises. A nurse has suckled a syphilitic child, or a child suspected of syphilis; the parents refuse to keep this nurse. Is she to return to her home and perhaps infect her own family, or is she to try to get a place as wet-nurse elsewhere and there infect the second child entrusted to her care? She is in the period of incubation. No one can suspect the danger except the doctor of the family she has left, and his hands are tied by the bonds of professional secrecy. Again, if a chancre appears on the breast of a nurse some days after she has been suckling an infant, what shall be done? First remove the child, and if in five or six weeks there are no symptoms the child will have escaped contagion, and can then be given over to a healthy nurse. Till that time it must be fed from the bottle or from a goat. If the child shows, however, symptoms of syphilis, then it can be fed like all syphilitic children, and can be given back to its first nurse. In view of this probability, it would be well to keep the nurse, and to draw her milk by artificial means. This very probably need not be done for more than a fortnight, for by that time the labial chancre is likely to appear on the child. If the nurse has already contaminated the child before any discovery is made, then it is best to let her continue suckling, as no further harm can be done, and many complications might arise should the nurse be sent away. The possibility of instituting a system of certificates was then lengthily argued. Should all wet-nurses be called upon to obtain a certificate from the family medical practitioner—stating that they had not nursed a child affected with a contagious disease—before leaving and seeking a new place? Or should the parents, who applied for a wet-nurse, sign an engagement pledging themselves to give the wet-nurse a certificate, when she left, to the effect that the child she had suckled was not affected by hereditary contagious disease? Syphilitic parents, in that case, would not be able to apply for a nurse. A case was related where nine nurses had, in succession, been contaminated by one infant. As the reporter eloquently remarked, it is impossible to decide which is most surprising—the total absence of moral sense on the part of these parents, or the condition of the law which renders it possible for such disastrous and cruel facts to occur. M. Duvernet, who, at the Prefecture of Police, is entrusted with the inspection of wet-nurses, now adjourns for two months the granting of authorisation to wet-nurses to apply for service, when he finds that they have been sent away from a house without any reason being assigned by the family or by the doctor. This proceeding, confessedly most unjust to the nurses, is only done because it is feared that they may have contracted syphilis. The nurse is made to suffer, is deprived of her chances of employment, because the infant she had been nursing may perhaps have inherited syphilis from its parents. Thus is the nurse punished through no fault whatever of her own, and yet M. Duvernet does not dare act otherwise for fear of spreading syphilis in healthy families. Notwithstanding the painful situation here depicted, the Congress could not come to any decision as to a system of certificates. Dr. Brouardel, for instance, related that among his patients he had a client who was the father of five very healthy children, but the sixth and seventh child were both syphilitic. He was a man who thought himself absolutely cured, who could have obtained and have given all the certificates required. The sixth question in the report was thus worded: "A husband formerly had syphilis; a family doctor has followed the case throughout; how many years after he has been cured would it be safe to permit this person to give his child to suckle to a healthy nurse?" It was generally agreed that this question could not be answered; though, as a rule, it was thought that if, after three years' treatment, two years passed without any accident, then there was not much danger. Finally, it was inquired what was the position of a medical man summoned for an accouchement and asked to select a nurse. He knows nothing of the antecedents of the family. He cannot examine them; he can hardly question them on so delicate a question. In such a case it would be more prudent to urge that the family doctor should be consulted, and that the family doctor should decide which wet-nurse, if any, ought to be employed. With regard to the origin of syphilis, whether it began with the nurse or the child, this can generally be established by the date of the appearance of the first symptoms. Dr. Lacassagne suggested that the infant might be dead and buried before the chancre appeared on the breast of the nurse. In that case exhumation, and the examination of the liver and the bones, would probably decide whether the nurse had a right to claim damages. After some more general remarks the discussion closed. Dr. Morel-Lavallée may be congratulated on having fairly puzzled the Congress by his series of questions, which certainly illustrated in a very graphic manner the great difficulties of the subject.

Paris, Aug. 27th

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THE BRITISH DENTAL ASSOCIATION.

NOT the least interesting part of the meeting of the British Dental Association last week at Brighton was the demonstration day, and here, as in the papers read, a great deal of attention was devoted to anæsthetics, purely from a dental point of view. Dr. Frederick Hewitt anæsthetised several patients with a mixture of oxygen and nitrous oxide, one part of the former to seven of the latter, the gases being mixed at the time of operation in a gasometer supplied from compressed-gas bottles. The advantages Dr. Hewitt claims for the admixture of oxygen with nitrous oxide are: that it is even a safer anæsthetic than nitrous oxide alone, for the element of danger in the latter—asphyxia—is eliminated; that it gives the operator greater facility, owing to the flaccidity of the muscles and the absence of jactitations and stertor; and also, as a minor but still practical point, that lividity of the features—such an alarming feature to the patient's friends—is entirely absent. In watching the operations, the onlooker, used only to nitrous oxide, might be puzzled to know when anæsthesia was complete, as the stertorous breathing, his chief guide formerly, was not forthcoming. The average relative time of insensibility produced by the two methods—nitrous oxide, and nitrous oxide with 12·75 per cent. oxygen under pressure—has not yet been settled, as only from 200 to 300 cases have been observed; but in the particular cases which we saw, the time under the mixture was as long as, if not longer than, under gas alone. The objection that this method requires a gasometer and the apparatus, and is therefore not easily portable, should be overcome with no great difficulty. Time and an extended number of experiments will show whether this mixture will supersede gas alone, and the best proportions to use, as Dr. Hewitt himself says that some patients do not become insensible under its influence, and he has had then to go on with the nitrous oxide simply.

The production of an analgesic state by "rapid breathing" was also the subject of demonstration at the meeting by Dr. Bonwill of Philadelphia, who has for many years advocated and practised, and was the first we believe to suggest, this method. By getting a patient, he maintains, to breathe atmospheric air at the rate of 100 inspirations per minute, it is possible to render him insensible to pain for any operation not exceeding twenty or thirty seconds. The patient must be warned that he will know all that is going on, but will feel no pain, and must keep up the forced respiration during the whole time of the operation, and "the more energetically he breathes the more perfect the effect." His theory of its action is that there is (1) a diversion of will force; (2) an excess of carbolic acid set free from the tissues, due to the large amount of oxygen passed into the lungs; and (3) cerebral hyperæmia. Physiologically, objections can be made to both of the latter statements, and the effect, when produced, may be furthermore due to exhaustion. Unfortunately, the subjects upon whom Dr. Bonwill experimented would not act up to his instructions, and so no operation was performed, and one can readily understand that, where so much depends upon the voluntary action of the patients, a crowded room, by distracting their attention, may largely increase the difficulty. This shows that there is an insuperable objection to the method, as too much depends upon the patient. Dr. Bonwill was warmly received, and took part in other demonstrations.

THE ROYAL INFIRMARY, HULL.—The financial position of this institution has necessitated an appeal from the Committee for help for present needs and for additional future public support, amounting together to £6000. It appears that the Wilson Wing and the Bailey Out-patients' Departments (the erection of which was defrayed by the inhabitants of Hull and neighbourhood) have been in occupation for two or three years, and entailed an additional expenditure of £1000 per annum, whilst the yearly subscriptions have decreased by about £300 per annum. Moreover, failing the anticipated receipt of adequate funds for endowment, and to cover the increased cost of maintaining the inmates of the new buildings, a debt has accrued to the bankers amounting to £3665, and the Committee ask the public for funds to discharge this claim, and to provide further annual subscriptions to the extent of £2300.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Wolverhampton Urban District.—Dr. Henry Malet gives an interesting and detailed account of the measures taken by his department during 1888 to secure the isolation of cases of scarlatina, from which it would appear that, out of 194 cases heard of, 111 were removed to the borough hospital. But the existing arrangements for the isolation of infectious diseases have been found to be inadequate to the requirements of the borough; indeed it is stated that the authority would be utterly helpless if they were called upon to deal with two diseases simultaneously, besides which the accommodation in the administrative building is altogether inadequate for the staff. It is to be hoped that this matter will without delay be effectually dealt with. Another point of interest discussed in the report is the dangerous practice of trusting to so-called cleansing n the case of wells liable to pollution by soakage of filth. As Dr. Malet points out, the sewage that pollutes a well does not come from the inside but from the outside of the well, and therefore it is useless for an authority or an individual to be content with a process of cleaning out the interior of an excavation into which soakage from without has taken place, and into which the same soakage may again at any moment occur. It is the outside source of the contamination that must be detected, and the possibility of its recurrence should be altogether prevented before any satisfaction can be expressed. This is a point we have often adverted to, and it is one about which there is much ignorance, if we may judge by the action often adopted. The general death-rate for the borough last year was 19·5 per 1000 living.

Wandsworth District.—During 1888 the birth-rate for this district was 29·5, and the death-rate 13·4 per 1000; these statistics not taking account of Battersea, which, since the last annual report was issued, has been separated from Wandsworth. The infant death-rate under one year of age varied from 101 per 1000 registered births in the Streatham to 151 in the Putney sub-district. Measles was very prevalent, and it was also fatal, 53 deaths having taken place; and the medical officers of health jointly point out that, whereas in London during 1888 there were 1209 deaths from scarlatina, no fewer than 2401 deaths took place from measles, and they urge that much less attention than is called for is given to the prevention of this fatal infantile disease. Each of the four medical officers of health appends a separate report on that portion of the district for which he acts.

Bournemouth Urban District.—The general death-rate for Bournemouth during 1888 was 14·0 per 1000 living, and the amount of deaths from any of the infectious fevers was but small. The local infectious hospital is credited with doing much towards the prevention of such diseases, and Mr. Kinsey-Morgan speaks of it as being a model of its sort, as being supplied with a laundry and quarantine cottage, and as being resorted to by high and low, rich and poor. The so-called quarantine cottage seems to be an isolation ward for doubtful cases, such as is now attached to most well-conducted hospitals of this class. The use of salt water for the flushing of sewers, road watering, &c., has been put to the test, and it is stated in every way to answer its purpose. Salt-water baths can also be provided for every house.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5402 births and 3151 deaths were registered during the week ending Aug. 24th. The annual rate of mortality in these towns, which had been 18·8 and 19·2 per 1000 in the preceding two weeks, declined to 17·2 last week. During the first eight weeks of the current quarter the death-rate in these towns averaged 19·6 per 1000, and was 0·6 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 11·1 in Brighton, 12·4 in Bradford, 14·3 in Derby, and 14·6 in

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Huddersfield. The rates in the other towns ranged upwards to 25·5 in Cardiff, 26·5 in Preston, 29·2 in Newcastle-upon-Tyne, and 34·0 in Plymouth. The deaths referred to the principal zymotic diseases in these towns, which had been 785 and 811 in the preceding two weeks, declined again last week to 636; they included 394 from diarrhœa, 60 from whooping-cough, 50 from scarlet fever, 49 from diphtheria, 41 from measles, 41 from "fever" (principally enteric), and 1 from small-pox. These zymotic diseases caused the lowest death-rates in Brighton, Halifax, and Oldham, and the highest in Preston, Sunderland, and Plymouth. The greatest mortality from diarrhœa occurred in Plymouth, Wolverhampton, Newcastle-upon-Tyne, Preston, and Sunderland; from measles in Bradford, Sunderland, Wolverhampton, and Preston; from scarlet fever in Derby and Plymouth; from whooping-cough in Portsmouth, Oldham, Bradford, and Sunderland; and from "fever" in Sunderland and Birkenhead. The deaths from diphtheria included 37 in London, 3 in Plymouth, and 2 in Bolton. Small-pox caused one death in Leeds, but not one in any other of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and the London Fever Hospitals at the end of the week was 871, against numbers increasing in the preceding eight weeks from 559 to 822; 98 cases were admitted to these hospitals during the week, against 124, 98, and 90 in the previous three weeks. The deaths referred to diseases of the respiratory organs in London, which had been 149 and 162 in the preceding two weeks, declined again to 115 last week, and were 67 below the corrected average. The causes of 57, or 1·8 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Wolverhampton, Bradford, Leeds, Sunderland, and in three other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Sheffield, Huddersfield, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18·6 and 17·8 per 1000 in the preceding two weeks, rose again to 18·1 in the week ending August 24th; this rate exceeded by 0·9 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 14·0 and 14·6 in Greenock and Edinburgh, to 20·9 and 29·9 in Glasgow and Paisley. The 462 deaths in the eight towns showed an increase of 7 upon the number in the previous week, and included 48 which were referred to diarrhœa, 13 to measles, 11 to whooping-cough, 8 to diphtheria, 7 to "fever," 2 to scarlet fever, and not one to small-pox; in all, 89 deaths resulted from these principal zymotic diseases, against 107 and 87 in the preceding two weeks. These 89 deaths were equal to an annual rate of 3·6 per 1000, which slightly exceeded the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of diarrhœa, which had been 57 and 43 in the preceding two weeks, rose again to 48 last week, of which 24 occurred in Glasgow, 7 in Edinburgh, and 7 in Dundee. The 13 deaths referred to measles exceeded by 3 the number in the previous week, and included 5 in Leith, 3 in Aberdeen, and 3 in Glasgow. The fatal cases of whooping-cough, which had been 24 and 21 in the previous two weeks, further declined to 11 last week, of which 5 occurred in Glasgow and 3 in Edinburgh. Of the 8 deaths from diphtheria 3 were recorded in Glasgow, 3 in Dundee, and 2 in Edinburgh. The 7 fatal cases of "fever" included 2 in Glasgow, 2 in Edinburgh, and 2 in Paisley. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 60 and 57 in the preceding two weeks, further declined last week to 48, and were 27 below the number returned in the corresponding week of last year. The causes of 45, or nearly 10 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 24·8 and 24·4 per 1000 in the preceding two weeks, rose again to 25·1 in the week ending Aug. 24th. During the first eight weeks of the current quarter the death-rate in the city averaged 22·7 per 1000, the mean rate during the same period being 17·4 in London and 15·9 in Edinburgh. The 170 deaths in Dublin showed an increase of 5 upon the number in the preceding week; they included 20 which were referred to diarrhœa, 4 to "fever," 2 to whooping-cough, 1 to measles, 1 to scarlet fever, and not one either to small-pox or diphtheria. Thus the deaths from these principal zymotic diseases, which had risen from 15 to 34 in the preceding three weeks, were 33 last week; they were equal to an annual rate of 4·9 per 1000, the rate from the same diseases being 2·4 in London and 3·3 in Edinburgh. The deaths referred to diarrhœa, which had risen from 8 to 25 in the previous three weeks, were again 25 last week. The four fatal cases of "fever" showed a slight further increase upon those recorded in the preceding two weeks; while the two deaths from whooping-cough showed a decline of 2 from those in the previous week. The deaths of infants showed a decline from the high number in the preceding week, while those of elderly persons showed a slight increase. Eight inquest cases and 4 deaths from violence were registered; and 50, or nearly one-third, of the deaths occurred in public institutions. The causes of 22, or nearly 13 per cent., of the deaths in the city were not certified.

Correspondence.

"Audi alteram partem."

THE MAYBRICK CASE.

To the Editors of THE LANCET.

SIRS,—Having had some experience of criminal trials, I have had numerous letters and inquiries from professional and other friends asking my opinion on the Maybrick case. I have always answered that I believed Mrs. Maybrick to be guilty; and, having read all the evidence as reported in *The Times*, I should be glad to give a short account of my views in your columns.

It is not disputed that Mr. Maybrick died of gastro-intestinal enteritis, which might have been caused by an irritant poison such as arsenic or by some indigestible article of food. The evidence, however, failed entirely to show that Mr. Maybrick took any sort of food that was likely to make him ill or was subject to any natural causes which might produce enteritis. On the other hand, the evidence proved that arsenic was contained in food and medicine which he did take, and also in food which it was intended he should take but did not take. Now, it was not contended at the trial that anyone but himself or Mrs. Maybrick could have been the means of introducing this arsenic into the various articles referred to; and, further, Mrs. Maybrick stated that she, at her husband's request, put a white powder (which was suggested by the defence to be arsenic) into food in which arsenic was found. Now, after this clear evidence that arsenic was present both in his food and medicine, and with evidence that arsenic was found in the body after death, Drs. Tidy and Macnamara come forward and swear that in their opinion Mr. Maybrick did not die of arsenic. They do not know what caused the gastro-intestinal enteritis, but they do know it was not arsenic, because the whole series of symptoms of arsenic poisoning were not present, and the quantity found in the body after death was less than usual. They entirely ignored the fact that in the great majority of cases of arsenic poisoning, where the symptoms have been accurately observed and reported, solid arsenious acid has been used. It is well known that arsenic is usually administered feloniously in puddings or cakes or other solid or semi-solid articles of diet; but it would be very difficult for Mrs. Maybrick to give arsenic to her husband in this form, as she could not well mix it with solids, and in liquids it would not dissolve easily, but a solution from fly-papers would solve the difficulty; it could be quickly and easily dropped into the medicine or soup. Again, fly-papers were easy to procure, and five years ago two women used them for poisoning purposes, and *were not found out* till they had murdered four persons. Another circumstance which was not pressed home at the trial was the mystery about the arsenious acid found in Mrs. Maybrick's possession. Where and how did she get it? Surely, if it was got for an innocent purpose to

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kill cats, she might have said where she got it. She was ready enough to give a long account of the fly-papers.

With regard to the medical evidence, the doctors called for the defence appear to have overlooked the fact that a solution of arsenic administered frequently and in small quantities would not be likely to produce all the well-known sequence of symptoms which have been so often described as diagnostic of arsenic poisoning. Neither diarrhœa nor sickness would be so violent, and the presence of petechial spots in the stomach would depend in great measure on violent vomiting; also, inflammation of the eyelids would not be likely to occur except in a chronic case. Lastly, it is improbable that the internal organs would give on analysis the same quantity of arsenic as when administered in a solid or concentrated form.

Judging from the symptoms and analysis of the organs, I have no doubt that Mr. Maybrick died of arsenic administered in his food and medicine; but it was too ridiculous even for the defence to suggest that he himself added the arsenic; therefore, who could have done so but Mrs. Maybrick? She had the motive, she had the arsenic, and she was seen to tamper with the food in which arsenic was found.

I disagree entirely with the evidence given by Drs. Tidy and Macnamara, and how two gentlemen of such eminence as medical jurists could form an opinion that a man dying of gastro-intestinal enteritis, with symptoms of arsenic poisoning (with not a scrap of evidence that anything else caused the disease, and with arsenic found in his food and medicine, and in his body after death), did not die of arsenic passes my comprehension.

My conclusion is that the jury showed good common sense in declining to found their verdict on the evidence for the defence. I am, Sirs, yours obediently,

THOS. BOND, F.R.C.S., M.B., B.S. Lond.,
Late Lecturer on Forensic Medicine at Westminster
Aug. 28th, 1889. Hospital Medical School.

TREATMENT OF TUBERCULOUS GLANDS.

To the Editors of THE LANCET.

SIRS,—The leading article in THE LANCET of Aug. 24th on the treatment of tuberculous glands will be read with great interest by all those called upon to treat this important condition. The point that struck me most in the article was the happy absence of all allusion to "linseed poulticing, iodine, and other temporising local treatment." Margate is perhaps the Mecca sought by most pilgrims in search of a cure for tubercular glands, who do not come under the care of the limited number of surgeons who are specially interested in this branch of operative surgery. Patients arrive here from all parts, with their glands in all stages of disease (except the preliminary stages), with the hope that the Margate air will, unaided, dissolve their dead and dying glands and cause them to vanish. As a rule, they have been treated freely with iodine or prolonged poulticing, with the only result that the vitality of the skin has been impaired, while the glands beneath have passed through their stages of necrosis unaffected. Sometimes patients are even warned beforehand not to allow the Margate surgeons to interfere with the knife, our "gland-thirsty" reputation having been spread abroad. I am aware that there are many experienced surgeons who can relate instances in which enlarged glands of a few weeks' standing, or even a few months, have disappeared during the use of the usual local applications (in addition to tonics, change of air, &c.). But, I venture to think most of these cases are cures *post hoc* rather than *propter hoc*. In my own experience, I have never seen a case of enlarged glands of more than five or six months' standing the least bit benefited by local application, although on several occasions I have observed a temporary condition of peri-adenitis subdued by a lead lotion. I am quite sure if those surgeons who are in the habit of dallying with iodine and the old-fashioned unctuous masses of sodden decomposing linseed meal were to see the condition of the glands excised every operation day at the Royal Sea-bathing Infirmary, they would forgive me for throwing stones at the surgical procedure of a past generation, and treat dead glands as they would treat a piece of loose necrosed bone—i.e., with the knife. It is sometimes difficult to decide whether a gland is past recovery or not; in the majority of instances glands do not disappear if they have been persistently enlarged for about six months, though they may be destroyed in a few days or weeks. I might add that the temperature is, in my experience, almost useless as a guide, for in many instances of advanced disintegration it is perfectly normal. With regard to the operation of erasion or gland-scraping, I regret that my experience has not been the same as the writer of the article. For glands thoroughly broken down into an abscess, it is, of course, the best method; and there are cases in which the gland is throughout its extent a cheesy mass; these also admit of satisfactory scraping. But by far the greater majority of cases that come under one's care are those in which glands are enlarged and contain various quantities of cheesy débris. The cheesy part one can scrape away if one happens to hit it off, but the hard hypertrophied part cannot be removed without unjustifiable violence, and it has to be left, with the certainty of its following the fate of the rest of the gland, and eventually it will be discharged through the cicatrix of the original wound, or, more likely still, the wound will never heal up till it has gone. Having found out these facts by experience in my own practice and that of my colleagues, I invariably excise all glands that are enlarged. If by any chance a gland is left, it will surely need a further operation. Sometimes the operations are extensive, but one is less likely to have mischief with a free incision than in poking about deeply in the neck with a small puncture. A few weeks ago I removed over seventy glands from one side of the neck of a boy of twelve, and the wound was practically firmly healed in from eight to ten days; they had existed nearly all his life. It is perhaps a matter of opinion and taste as regards the scar. Personally, I think one long clean scar is better than a number of isolated and perhaps puckered ones. At any rate, it should not in these days be a matter of opinion as to the advisability of removing dead and dying glands with the knife or spoon. It is as idle and unsurgical to hide a permanently diseased gland under a poultice or film of iodine paint, and hope that the ordinary pathological laws may be suspended and that the dead gland may mysteriously vanish, as it is to foolishly tinker with an abscess without opening it, in the feeble hope that it may be one of those rare abscesses that are good-natured enough to cure themselves. Apologising for the length of this letter,

I remain, Sirs, yours truly,

BERTRAM THORNTON, M.R.C.S., L.R.C.P. Lond.,
Surgeon to the Royal Sea-bathing Infirmary,
Aug. 26th, 1889. Margate.

ANÆSTHETICS.

To the Editors of THE LANCET.

SIRS,—Of all the questions which have exercised the medical mind for the last forty years, probably that of anæsthetics has been the most constant, and, one might fairly say, the most vexed. Since Sir George McLeod's address at Glasgow last year the discussion has lulled perceptibly, and what has been written has been too theoretical and inauthoritative, and has borne too much the mark of the pen of the scribe to interest or satisfy practical inquirers. Sir George McLeod, however, spoke from a full and ripe and practical experience of anæsthetics, dating from their earliest introduction into surgical practice, and he spoke, "ὡς ἐξουσιαν ἐχων, καὶ οὐχ ὡς οἱ γραμματεῖς," and gave to the medical world a well-weighed, almost solemn, verdict in favour of chloroform. Perhaps there are a few, but there cannot be many, who can speak as he did from a practical experience of over forty years; but there must be many who, like myself, can speak from an experience of a daily administration of anæsthetics for five-and-twenty years or more. I think the time has come when we should no longer keep silence, for our experience has a peculiar value, inasmuch as it was, *quâ* chloroform, very extensive and well-founded, before nitrous oxide had left the side of the dentist's chair or had ever been exhibited in the operating theatre; before Sir Spencer Wells advocated bichloride of methylene as the very best of anæsthetics; and long before ether had struggled into use and fashion. By us, I can truly say, each new anæsthetic as it was brought out was eagerly and carefully weighed in the balance, our standard always being, of course, "chloroform *properly* administered." Nitrous oxide is still of great use to us; methylene is, I believe, but rarely employed. Clover soon taught us that ether was not the unmanageable and disagreeable agent that we at first took it to be. He

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removed for us some of its then-to-fore insuperable disadvantages, and now, of course, all good and competent anæsthetists recognise its use and value. We cannot admit, however, that it is either so safe, so convenient, so universally applicable or so agreeable, even when most skilfully administered, as its almost perfect sister, chloroform; and, I believe, we agree almost to a man entirely with Sir George McLeod. We have to thank Mr. Teale for reverting to the subject in his address in the Surgical Section at Leeds last week, and for giving us the result of his experience, though it took the form of a sort of counterblast in favour of ether.

The experiences of these two authorities are as widely different, as are their conclusions. Let me recall what Sir George McLeod said at Glasgow last year. He said, that "*for speed and energy, for ease of application and agreeableness, for rapid recovery with little subsequent trouble, and for safety when properly administered, chloroform is unrivalled.*" Mr. Teale this year, *ex eddem cathedrâ*, lays down that *ether, if properly administered,* can be given, *tute, cito, et jucunde;* but, quotes Mr. Teale, "non cuivis homini contingit adire Corinthum," and this he translates, for the benefit of his hearers, "*it is not every one who knows, and there are some who are incapable of learning, how to administer ether, even with a Clover's inhaler.*" Let me ask, if this quotation is so applicable to etherists, surely is it not much more applicable to chloroformists? And, in argument, ought it not to be applied, in justice, equally to both? Many times since ether became in vogue have I witnessed its administration at the hands of old and young. With few exceptions, and as a rule, the exhibition has been painful in the extreme, and to those who know how ether should be administered, and who know also the virtues of chloroform, it is not too much to say barbarous and reprehensible. *Tutus* it certainly is *not.* And I believe the patients when they tell me, as they almost daily do, that the process is very far indeed from *jucundus.* Nearly every day patients declare to me their aversion to ether and their preference for chloroform. In my own practice I very frequently come across those who cannot take ether, however carefully and skilfully administered. Perhaps I see more than my share of these, for it is well known that I never yet have refused chloroform to anyone. As to the *cito,* the "saving of time," I say, without fear of contradiction, that time is a factor which a competent anæsthetist never dares to take into consideration.

Mr. Teale speaks of the "comfort and convenience" it has been to him while operating since he allowed his assistants to give ether to his patients instead of chloroform. My only answer to this is that an operating surgeon has omitted part of his duty if he has failed to secure the services of a competent anæsthetist for an operation; and if he has done his duty to himself and patient in this respect, I fail to see where the question of "comfort and convenience" to him comes in. Dr. Joy Jeffreys in 1872, we are reminded by Mr. Teale, urged the "fearfully increasing fatality of chloroform." This, at the time, as reference to the medical journals of the date will show, was, to say the least, a great exaggeration, and each year's experience since has given it an ever-increasing refutation. The alarmists, who do such incalculable harm by their cry that "ether is safe, chloroform is dangerous," utterly ignore the fact that in this island alone chloroform is given every day to at least from 1500 to 2000 individuals, or, say, to about 600,000 per annum. And how rarely do we hear of a death *under* it; *from* it almost never. For five-and-twenty years I have never, on any one single occasion, refused chloroform to anyone, and I have given it to those suffering from all forms and conditions of bodily disease—of head, heart, lungs, kidneys, and all other viscera. With my own hands I have given it to not less than 5000 of my fellow-creatures, and have witnessed its administration by others hundreds of times. I give chloroform, or ether preceded by chloroform, as part of my everyday routine, where pain may be thereby remitted, on every possible occasion. It has not yet been my misfortune to witness a fatality under any anæsthetic, but I deem it right to be ever expectant that the dread disaster may one day befal me. Yet I venture in all humility to hope that, should it ever happen, neither I nor the drugs may be justly held blamable, and that my confidence in the use of my trusted agents for the relief of pain may be by such an accident in no degree impaired. Of the many advantages of chloroform, there is one, and not the least, which has received too little attention—namely, that with it we are enabled to rob ether of its terrors, terrors most real indeed to those (and they are not a few) whose nature revolts against its nauseous flavour, and to whom the sense of suffocation so frequently attendant on its inhalation, no matter how carefully or how skilfully administered, is absolutely unbearable.

I entirely agree with Sir George McLeod's verdict in favour of chloroform, yet on many main points I have little doubt that Mr. Teale and I would be found in perfect accord. My general view is, that the πραξις of all anæsthetic-giving is simple enough, and easily acquired. Not so the ἐπιστήμη and the τέχνη. As in all higher crafts, the first is easily *taught;* the second can be taught in part only; but the third, the τέχνη, cannot be taught, and can only be acquired by long experience and natural aptitude. Very easily, and with fairly diligent observance of detail and practice, the ἐπιστήμη of ether-giving may be attained, and the τέχνη is now acquired by not a few. But to become an artist in the administration of chloroform, more practice, sounder judgment, keener and more rapid power of observation, and more aptitude, are requisite and essential.

I am, Sirs, yours obediently,

Leeds, Aug. 17th, 1889. JOHN HORSFALL.

"FUNCTIONAL ALBUMINURIA."

To the Editors of THE LANCET.

SIRS,—By an apparently clerical, but still not unimportant, error in the report of the discussion on albuminuria at Leeds, you have made me say that "Dr. Gairdner was still unconvinced that we could talk of *functional* albuminuria." What I really said was that *physiological* albuminuria is, in my opinion, both an inaccurate and a misleading expression; but that I did not so much object to the provisional term *functional* albuminuria, subject to the construction of it given in your report. The essence of my remarks was contained in the phrase you have quoted in your leading article—viz., that albumen, meaning thereby serum-albumen cognisable by the heat and nitric acid tests, even when casually occurring in the urine, is to be regarded as a kind of danger-signal; but that the danger may vary indefinitely in different cases, and is to be estimated according to principles very well expounded by Dr. Pavy and other speakers, but implying always, in proposals of life insurance, a postponement at least, to allow of more detailed and, in some cases, frequently repeated observations, in respect of which the proposer's own medical attendant may often be advantageously informed of the facts.

I am, Sirs, yours truly,

Glasgow, Aug. 24th, 1889. W. T. GAIRDNER.

THE USE OF ROBURITE IN MINES.

To the Editors of THE LANCET.

SIRS,—Before Major-General W. H. Wardell had come to the following conclusion—namely, "while expressing my surprise that the writer of your article should have followed the miners' committee in misreading the report of the experts, &c.,"—it would have been well if he himself had not misread the same report, and had also searched for other reports of the poisonous nature of roburite or di-nitro-benzol. I need only here notice that he states it was proved at the inquest on the man who unfortunately met with his death at the Roburite Works at Gathurst "that the poor man died from the effects upon a weak heart, &c." He then goes on to say "that other healthy men had repeatedly done the same without receiving any sensible harm," whereas at the inquest there was no evidence of the deceased having a weak heart previously to the poisoning, and, again, that the other men had sensibly suffered from cleaning this very flue, and every precaution was laid down for them, and the men were paid double for doing this dangerous work, as well as only allowed to remain a short time in the flue, showing that the authorities knew of the danger the men were submitting to.

I would respectfully call the attention of Major-General Wardell to the following articles which have appeared lately in the medical papers:—On Poisoning by Roburite, by J. Ross, M.D., LL.D., F.R.C.P. Lond.; on Acute Poisoning by Nitro-Benzol, by Dr. Reynolds, M.R.C.P. Lond. (*Manchester Medical Chronicle* for May); on the Effects of Nitro-Benzol, by R. Prosser White, M.B. (*Practitioner* for June); Case of Poisoning by New "Sicherheit" Explosive, by William Sykes, M.R.C.S., and F. Gramshaw

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Twigg (*British Medical Journal*, July 20th, 1889, p. 127); Poisoning by "Sicherheit" Explosive, by H. J. Knight, M.R.C.S. (*Ibid.*, Aug. 3rd, 1889, p. 244)—Mr. Knight mentions that in Dr. Swaine Taylor's work a fatal case is reported; and Poisoning by "Sicherheit" (a new Explosive), by John Stokes, M.B., B.S, M.R.C.S. (THE LANCET, Aug. 24th, 1889). Surely, Sirs, no unprejudiced observer would compare the effects of di-nitro-benzol (or roburite) with the fumes of gun-cotton, nor would they find fault with your article for stating that it is "a very poisonous compound," after considering these papers.

I am, Sirs, your obedient Servant,

August, 1889. THE WRITER OF THE ARTICLE.

TASTE FUNCTION OF THE GLOSSO-PHARYNGEAL NERVE.

To the Editors of THE LANCET.

SIRS,—In your otherwise accurate report of the proceedings of Sections at the Leeds meeting I notice two errors in the paragraph referring to my paper on the above subject. I am reported to have said: "There was some pain and numbness, which might be due to the interference with the blood-supply to the descending tract on that side." This should be: "The partial hemiplegia was to be accounted for by the interference with the blood-supply of the descending tract." Your report also has: "The evidence of pressure on the nerve was the loss of taste on one side of the tongue." As the object of the paper was to show that loss of taste having occurred owing to pressure on the nerve, therefore the glosso-pharyngeal must be considered to be a nerve of taste in opposition to the view held by Dr. Gowers, the concluding paragraph as reported would be a begging of the entire question, and have no bearing on the object of the paper.

As the former of these two errors represents me as having made a mistake impossible even to a beginner in neurology, I trust you will be able to find room for this correction.

I am, Sirs, yours obediently,

Leicester, Aug. 26th, 1889. FRANK M. POPE, M.B., M.R.C.P.

ECTOPIC PREGNANCY.

To the Editors of THE LANCET.

SIRS,—Mr. J. N. Thomas's admirably narrated case is one of the many observations which are being rapidly accumulated to prove that "clear and decided teaching on the theory and practice of extra-uterine pregnancy" has at last been arrived at. There can be no doubt that Mr. Thomas's patient had a tubal pregnancy, and that on April 23rd the tubal expansion ruptured into the cavity of the right broad ligament, forming the extra-peritoneal hæmatocele, which requires no treatment as a rule. In the cataclysm the ovum died, and the whole thing was quietly absorbed, as extra-peritoneal hæmatoceles generally are. The case, in fact, forms a perfect illustration of variety *e* of tubal pregnancy in the scheme given on page 8 of my book on "Ectopic Pregnancy and Pelvic Hæmatocele."

I am, Sirs, yours obediently,

Birmingham, Aug. 22nd, 1889. LAWSON TAIT.

MR. WHEELHOUSE'S ADDRESS.

To the Editors of THE LANCET.

SIRS,—I hope the above address will be brought under the notice of the general public, and that the attention of members of Parliament will be especially called to those portions of it which have reference to pupilage as the best mode of commencing medical studies. The Privy Council is now medical king, and to it and not to the medical corporations must the mass of the profession look for the reform so ably advocated by Mr. Wheelhouse. Hence the necessity of putting the address in lay hands. I would suggest to Mr. Wheelhouse to republish it in pamphlet form and send a copy to each member of the Legislature and to each Privy Councillor. I would observe that in order to make pupilage a reality it should be registered from the commencement of the apprenticeship, otherwise practitioners would be found base enough to sign certificates for apprenticeships never served. There should also be some proof that the practitioner possessed opportunities for teaching, and possibly even the will and capacity to teach. The great English Colleges throw no obstacle now in the way. It is different with their obscure Irish rivals. Intending students and candidates for diplomas would best consult their own interests by turning their faces Londonwards, as three-fourths of them ultimately will find employment outside Ireland. Let me, in conclusion, call the attention of medical members of Parliament and of the whole profession to the new Dublin Hospitals Bill, and to ask them to insist that no hospital shall under that Bill be allowed to dip its hands into the pockets of the taxpayers which does not consent to throw open its medical appointments to public competition. Is it to be tolerated that our taxes are to maintain institutions which select their staffs by the system which prevails at present in Dublin? I am, Sirs, yours truly,

Cashel, Aug. 22nd, 1889. T. LAFFAN.

THE PREVENTION OF INFECTIOUS DISEASE.

To the Editors of THE LANCET.

SIRS,—Allow me to suggest to Mr. Ritchie through the medium of your columns that he should bring in a Bill to compel every landlord, on letting his house, to produce, under a heavy penalty in default, a certificate of recent date, from one holding a recognised public health diploma, stating that the sanitary condition of the house about to be let is in every way perfect. In those cases where the rent is below a certain figure the certificate might be granted by the qualified district inspector for a certain minimum amount. The necessity for some such law may be shown by the following case. I was a short time ago called to see a gentleman suffering from diphtheria, and, after going over the possible causes of the attack, asked him as regards the sanitary condition of his London office. This, he assured me, was all right, as he had had the place inspected by a builder a short time ago. However, I was not satisfied, and requested him to have a properly qualified man to look into the matter thoroughly. To this he consented, and the result was that the house was shown to be in a wretchedly unhealthy state, and the sewer gas to be constantly pouring into the room in which he sat. Now, I ask, what good dual notification would have brought about here? The *origin* of the disease would never have been traced out by it, and several cases might have arisen in other districts by means of the persons who occupied the other equally unhealthy chambers. If Mr. Ritchie will bring in a Bill of the character suggested, he will receive the thanks of all true sanitary reformers, and I do not hesitate to assert that more good will result to the public health in consequence than will ever be brought about by the system which is being so persistently urged upon him by certain members—viz., dual notification.

I am, Sirs, your obedient servant,

Surbiton, Aug. 24th, 1889. F. P. ATKINSON, M.D.

ANTIPYRIN IN CANCER OF THE CERVIX UTERI.

To the Editors of THE LANCET.

SIRS,—I find it highly advisable, for the benefit of patients and for further experiments, to communicate to the profession the favourable result I have obtained by the use of antipyrin in a case of cancer of the cervix uteri, the pain being immediately subdued after its administration. Though this beneficial effect was of short duration, still it was of great importance and satisfaction to the patient. Being summoned to see a European lady, from Port Natal, apparently under forty years of age, I found her suffering from cancer of the cervix uteri in an advanced stage. She complained of severe lancinating pain, worse at nights, disturbing sleep, and of intense fetor of the discharge, and of many other discomforts. She also stated that, having consulted several physicians, she had obtained no relief. The characteristic severity of the pain and fetor of the discharge had reduced the patient to a pitiful condition. It occurred to me that antipyrin perhaps would do her some good, so I prescribed ten grains of it to be given at once in my presence, and great was my surprise, and still greater the satisfaction of the patient, to find the pain, which was so severe before, immediately subdued. Now I repeat the same when the pain comes on, and have observed no unpleasant symptoms arising attributable to antipyrin. I shall communicate any further results.—I am, Sirs, yours faithfully,

M. V. C. MARQUIS, F.S.Sc. Lond., L.R.C.P., &c.

Bombay, July 30th, 1889.

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BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Medals to Nurses.

AN interesting ceremony was enacted at the General Hospital on the 23rd inst. The chairman presented on behalf of the committee a medal to each nurse who had been three years in training, and whose character and competence justified it. There were about twenty recipients. The medals are of silver in the shape of a Maltese cross; in the centre is a monogram "G. H. B.," surrounded by a wreath of oak and laurel leaves. On the back of each is the name of the nurse, with the dates on which she commenced and completed her training. The way in which the work and worth of the recipients are thus recognised will be a valuable incentive to others to do likewise.

The Eight Hours Movement.

A memorial from the gas workers employed by the Corporation has been drawn up, petitioning for the reduction of the hours of labour from twelve to eight per day. They set forth the arduous and unhealthy nature of their occupation, and the fact that in London, Liverpool, and some other places the request has been conceded. If this demand is granted it will make about £17,000 difference in the wages, a heavy item on the working expenses of the undertaking. The movement is not confined to this class of workmen, the tendency being general in favour of the eight hours system for the British workman.

Anti-vaccinationists.

A distraint upon the goods of some ill-advised people for non-payment of fines imposed for the neglect of vaccination has given the opportunity for a meeting to be held in order to protest against the law. As usual, there were fierce denunciations of the existing order. The audience was small, but this was atoned for by those who conducted the meeting. Even an adjourned meeting was insufficient to excite much enthusiasm, and, beyond the usual declamations, the proceedings may be regarded as having been very tame.

Birmingham, Aug. 28th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The late Railway Disaster at Ryhope.

IT now appears tolerably certain that at least fifty persons have been more or less injured by the accident to the Liverpool, Leeds, and Newcastle express train at Ryhope, near Sunderland, on the 19th. The more serious cases have been taken to the Sunderland Infirmary, where they are under treatment, and, I understand, doing well. Dr. Murphy, who was attending the Leeds meeting, was just too late for the unfortunate train, but, following by Durham, he was in time to attend to his cases in the Sunderland Infirmary which were brought in after the accident. We are beginning to hear of some of the remote effects of the accident. For instance, an elderly gentleman, retired from business, but residing at Ryhope, was amongst the first of a large number of people who rushed from the village to render whatever aid might be required by the unfortunate passengers. An additional source of excitement which seemed to add to the other was the fact that it came to his knowledge that one of his grandchildren was in the ill-fated train, and had narrowly escaped a violent death. On his return home he did not seem well, but was able to go about until an hour or so of his death, which took place two days after the accident, to the great surprise of his friends. Lieutenant-Colonel Hutchinson, as an inspector from the Board of Trade, has arrived at Ryhope, and is holding a private inquiry into the cause of the accident. The public will have to await the report of the Board upon the matter before they learn to what the court of inquiry ascribes the accident.

Death of Mr. C. Tennant, M.R.C.S.

The inhabitants of a wide district between Durham and Sunderland were grieved to hear of the death of Mr. Chas. Tennant, surgeon, of Newbottle House, on last Saturday. Mr. Tennant, who studied at Edinburgh, was an M.R.C.S. Eng., and had practised in the villages of the north-east of Durham for thirty years. He was a kind friend to the poor and courteous to all. In his earlier career he had acted as ship's surgeon in whaling expeditions off the coast of North America, and his narration of his experience there and amongst the frozen regions of the Esquimaux was a pleasure his friends were ever eager to enjoy. The writer of this notice has heard him, also, leave these ice fields, in conversation, and pass on to the pleasant hunting fields of Leicestershire; and here he was always at home, and in his day has often "ridden to hounds." "I was my brother's rough rider," he would assert, with pardonable pride, "when he owned six hunters." Mr. Tennant was a native of that far-famed hunting county, and his love of sport was in-bred. Mr. Tennant was also a remarkably fine shot, and regularly went every season to his shooting preserves in the north. He was a man of fine features and presence, standing over 6 ft. 3 in. in height, and proportionately built; and although he was about seventy years of age he looked much younger, and apparently likely to live many years when the writer of this saw him a few months ago. But since then his district has been ravaged by enteric fever, and "the old doctor," as he was affectionately called by the people, was severely worked day and night, the incessant toil making heavy inroads on his strength. He leaves two sons and one daughter. Mr. Tennant was always ready to take an active part in any movement likely to benefit the people of his district.

Death of Mr. J. Jobson, F.R.C.S.

Mr. John Jobson, F.R.C.S. (Bishop Auckland) died at his residence on Saturday last. Although he had reached the age of eighty, and his health was failing lately, his death was somewhat unexpected. Mr. Jobson was a nephew of the late Dr. Frost of Newcastle, with whom he served a portion of his apprenticeship, also with Dr. Leighton, a well-known practitioner at that time in Newcastle, where I believe he had Dr. Embleton as a fellow pupil. Mr. Jobson distinguished himself in the cholera epidemic in Newcastle and Gateshead in 1831, and shortly afterwards removed to Bishop Auckland, where he was some time a partner with Dr. Canney, senior. Mr. Jobson was for a long time the foremost surgeon in the district, being a good operator and all-round practitioner. He took an active interest in the Volunteer movement from its commencement, and rose to the rank of colonel. He was also a J.P. for the county, and one of the presiding magistrates on the Auckland bench for over twenty years. His funeral, which took place on Monday last, was attended by a large number of the local gentry and tradespeople as well as medical practitioners.

Newcastle-on-Tyne, Aug. 28th.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

The Dublin Hospitals Board Bill.

IT is satisfactory to learn that this Bill has been discharged, and therefore it will be unnecessary to give a *résumé* of its provisions; but a few observations on an unsatisfactory measure bearing on the objections which must strike the most casual observer may not be out of place. One very important objection to the Bill was the proposal that every hospital participating in any grant should contain not less than 80 beds, and after five years not less than 100 beds, in daily occupation throughout not less than nine months of the year, in respect of which a grant was made. This condition, however, did not apply to the two lying-in hospitals. Now, if we examine the last return of the hospitals which at present participate in the Government grant, we find that the average daily number of beds occupied in those institutions was as follows:—Steevens', 78; Meath, 84; Cork-street Fever Hospital, 43; St. Mark's Ophthalmic Hospital, 42; and the Hospital for Incurables, 167. It follows that the last-named institution and the Meath could only participate in a grant under the proposed Bill. Besides this, each institution obtaining a grant must have not less than fifty paying students on its books during the year, and as the majority of the Dublin hospitals are comparatively small institutions this proviso would disqualify, with few exceptions, every hospital in the city.

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Further, the Adelaide Hospital, one of the largest and best-managed institutions in Dublin, in consequence of an adverse clause in the Act, would not get a farthing; while, on the other hand, the Mater Misericordiæ Hospital, which does not at present participate in the Government grant), and which, I believe, is well endowed, would, under the Bill, take the lion's share of the suggested grant of £11,500. My last objection is that by the Bill it is proposed that the compensation (if any) to be given to those medical gentlemen who may be deprived of their offices by the closure of the institutions with which they are connected should be subtracted from the £11,500, the amount of the grant, instead of being paid by the Treasury out of a separate fund. If the Bill is ever to become law, it must be materially changed, otherwise the opposition against its passing must be fatal.

Royal Hospital for Incurables.

The Victoria Jubilee Wing is now completely finished, and in the four wards there are at present ninety-one patients. These wards are airy and cheerful, and possess every modern improvement which can ameliorate the condition of the inmates.

Royal University of Ireland.

The Marquis of Dufferin, the Chancellor of the University, will preside at the public meeting for the conferring of degrees, to take place on Monday, Oct. 28th.

Dublin, Aug. 27th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The International Congress on Hypnotism.

Of the many Congresses recently held in Paris, that on "Hypnotism, Experimental and Therapeutic," if not altogether the most interesting, was, at any rate, the most novel, for it was the first International Congress ever held on this subject, and, in fact, one of the rare attempts made by competent men assembled together to rescue it from the hands of charlatans, quacks, and conjurors. Speaking generally of the medical profession, and especially of the English section of it, the tendency hitherto has been to look askance on the whole surroundings of the alleged phenomena, associated with what is known since recent times under the name of "hypnotism." Nay, more: the inclination to look with dubious misgivings on anyone in the profession who meddled in the matter, or who claimed any therapeutic or other good effect, or even real existence, for the cerebral phenomena in question, has been manifestly the fashion; rather has the whole thing been condemned or passed over as deceptive or hysterical trickery. Enthusiasts have from time to time arisen in its defence, who, in claiming everything for it, have, like most enthusiasts, ridden their hobby to death, but who have, doubtless, in a large measure owing to this exaggerated faith, hitherto only succeeded in burning their fingers. Warned by such examples and the general suspicion pervading the whole hypnotic atmosphere, ordinary individual inquirers have, with comparatively rare exceptions, until now, rather suppressed the natural curiosity within them to probe the matter to the bottom, or have done so, as it were, by stealth; and hence, whatever there is, good or bad, false or true, in these mental phases has been entirely abandoned to mountebanks and showmen. This certainly seems, after all, a puerile attitude to adopt in reference to the question. It would appear better, instead of looking upon it as a double-edged tool and relegating it to the realms of doubt and suspicion, or putting it out of sight in the shade of some abstrusely written psychological and rarely read volume, to bring it manfully into the light of ordinary medical instruction and discussion, so that general experience and inquiry might elucidate it, and by so doing finally condemn or establish it in its claim to a respectable existence or its right to be admitted amongst our therapeutic methods. Now the Congress just held marks the first serious effort to bring together the scientific men of different nations for the express purpose of arriving at an international understanding on the subject. It held its sittings in the Trousseau lecture theatre of the Hôtel Dieu, which was tastefully decorated with the flags of the several European and American nations, but which proved much too small to contain the number of members and visitors. Over a hundred medical men, French and foreign, responded to the summons of the organising committee. Amongst the foreign were MM. Dekhterew of St. Petersburg, Delbœuf of Liège, Forel of Zurich, Ladame of Geneva, Masonin of Louvain, and Semal of Mons. M. Dumontpallier, the President, at the opening sitting, traced rapidly the history of scientific hypnotism, the progress of which was in a large measure due to the researches of the school of the Salpêtrière and of that of Nancy, but the popular knowledge of which in the profession dated back to very recent days only. The study of scientific hypnotism, said the speaker, began in 1876 only, when a commission was nominated by the Biological Society to report on the experiments in metallo-therapie of Burq. The recognition of certain effects produced by metals led the commission to the study of hypnotism, which produced analogous phenomena. M. Dumontpallier, at the Hôpital la Pitié, and M. Charcot, at the Salpêtrière, carried on this inquiry. Then the Nancy school, directed by Liébeault, Bernheim, and Liégeois, worked out one branch or factor in hypnotism—viz., suggestion,—which it made peculiarly its own. Indeed, M. Bernheim endeavours to show that under suggestion may be included nearly all the hypnotic phenomena. It is undoubtedly a powerful element, but many other procedures and physical agents may be used to bring about the hypnotic state independently of suggestion. Thanks to the works, then, of Ladame, Grasset, Voisin, Yung, Delbœuf, Forel, Mesnet, and Azam, hypnotism now finds its place in the academies, and no longer meets with opposition from scientific minds. It was still, however, necessary, in order to place this progress on a solid basis, that all experiments should be conducted with scientific reserve and closely criticised, and to consider nothing as a demonstrated fact unless it were confirmed by all or the majority of inquirers. Such in *résumé* was the opening address of the President. The first question which was put before the meeting for consideration was, "The prohibition of all public performances in hypnotism and the necessity of putting hypnotism under legal control." M. Ladame of Geneva strongly insisted on the necessity of interdicting all public displays of hypnotism. The discussion at the Academy of Brussels in 1888 sufficiently revealed the dangers to be apprehended from such displays. He himself had seen at Neuchâtel a veritable post-hypnotic epidemic. MM. Bourdon and Dekhterew supported M. Ladame, and added that the last Russian Psychological Congress had voted prohibition. Finally the proposition was put to the vote and carried, and to it was added the following resolution, which was also carried—viz., "That it is desirable that the study of hypnotism and its therapeutical applications be introduced into the curriculum of medical education." MM. van Renterghem and van Eeden of Amsterdam, next communicated the results obtained in the treatment of 414 cases made up of organic diseases of the nervous system, neurotic, mental, and neuralgic cases, &c. The method adopted was the Nancy one by suggestion. In 71 cases there was no result, in 92 slight amelioration, in 98 marked amelioration, and in 104 cases cure; 57 cases were not worked out. After this the Congress proceeded to the discussion of the second question—viz.: "What is the relative value of the different methods of bringing about the hypnotic state and of augmenting suggestion from a therapeutic standpoint"? M. Bernheim, in discussing these points, said that to define hypnotism as induced sleep was not sufficient, for all hypnotised subjects do not sleep. Some have profound sleep, with amnesia on waking; others also sleep deeply, but recollect their hypnotic period; a third category fall into a light sleep only; and, finally, there are others who do not sleep, or believe they do not. The degree of suggestibility varies with each one of these groups, and is very high in the first; the second are also subject to fairly complete suggestion, but in the remaining groups it is incomplete. For example, one can obtain suggestion of movements and sensation, but not hallucinations. A subject may, however, pass from one to another of these categories. The hypnotic condition, then, is not mere sleep, but a peculiar psychical state, the sleep indicating a profound condition of suggestibility only. The first method employed to bring about hypnotism is that known as Braid's, which consists of fixation by means of some brilliant object. This is the method employed, more or less modified, by the Salpêtrière school to bring about that which is called "le grand hypnotisme" and its three stages. The second method is that which is known as the "verbal suggestion" of

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Faria. Besides these, there are various other methods, all of which may be successful provided the subject is forewarned. All these methods sum themselves up under suggestion. The fatigue caused by the fixation of vision and the divers passes only acts by "suggesting" the idea of sleep. The so-called hypnotic zones do not exist providing suggestion is avoided. Since all resolved itself into suggestion, "verbal suggestion" was, in the speaker's opinion, the best method. Here he described in detail the methods and practice of verbal suggestion which are to be found in his book on hypnotism. The greatest difficulties experienced by a novice in operating came from "contre suggestions," which resulted from his own hesitations, none of which escaped the observation of the subject, but with practice one can in hospital service hypnotise nine out of ten patients. In order to awaken them, affirmation sufficed, provided it be done without hesitation. M. Bernheim went on to say that suggestion is possible even in a state of wakefulness in certain subjects, in whom every idea is immediately transformed into an act as if the cerebral initiative had not time to intervene. What he called suggestive psycho-therapeutics had for its object the cure of the patient by causing his brain, whether hypnotised or not, to be possessed of the persuasion of cure or the cessation of his symptoms. Suggestion, he declared, had always been exercised, although unconsciously, by physicians. The prescription of inert substances under scientific names was nothing less, and he would add his firm belief that the different methods of hydro-therapeutics, electro-therapeutics, and even the much-discussed suspension in tabes, acted in a like manner. Let us admit, then, concluded the orator, the importance of the *rôle* which the mind has in morbid phenomena, and allow that, as we had psychology, so we had also psycho-therapeutics.

The Levick Institution of English Nurses in Paris.

This is an institution, recently established to supply a want in this cosmopolitan city, which needs only to be known to be appreciated. Our medical *confrères* in the United Kingdom will be glad to know that when their patients come abroad they can, if needed, be provided with an English nurse who has received a thorough training in the hospitals of her own country. It will also be equally welcome to our *confrères* practising on the Continent, who, having received their medical education in British schools, carry with them into practice their British methods and traditions, which there is no gainsaying vary in those many little details which serve to differentiate continental from British medicine, and the sum of which details goes to make up the feeling of comfort, and therefore the greater prospect of recovery, which the English invalid abroad, accustomed to his national habits both in sickness and health, experiences when treated by a British graduate and tended by a British nurse. The institution is situated at 34, rue de Prony, close to the Parc Monceau. Competent nurses can be sent on the shortest notice to any part of the Continent, on receipt of letter or telegram. The registered telegraphic address is "Nurses, Paris."

Paris, Aug. 27th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Next Congress of German Naturalists.

THE next Congress of the German Naturalists is to be held in Heidelberg, and to last from Sept. 18th to the 23rd. Simultaneously with the Congress there will be an exhibition of scientific apparatus, instruments, and preparations in the Gymnastic Hall of the town. Meyer of Göttingen will lecture on the Chemical Problems of the Day; Volgar of Frankfort on the Life and Works of the Naturalist, Dr. K. Schimper; Hertz of Bonn on the Relations between Light and Electricity; Puschmann of Vienna on the importance of History to Medicine and the Natural Sciences; and Brieger of Berlin on Bacteria and Disease Poisons. A banquet, a ball, a *fête* in the old palace, and excursions in the lovely environs will relieve the graver labours of the Congress, and the palace will be illuminated on the last evening.

Prussian Statistics for 1887.

In 1887 there died in Prussia 358,028 males and 328,142 females, and 24,579 males and 19,327 females were stillborn. The death-rate was 23·9 per 1000—25·4 of males, and 22·5 of females. Since 1875 the death-rate had never been so low; 260·7 boys and 218·4 girls per 1000 died in their first year, 66·5 boys and 63·7 girls in their second. For the higher ages the death-rate was as follows:—

Years.	Males.	Females.	
From 3 to 5	20·2	19·9	per 1000
,, 5 to 10	8·1	8·4	,,
,, 10 to 15	3·6	4·1	,,
,, 15 to 20	4·7	4·3	,,
,, 20 to 25	6·6	5·5	,,
,, 25 to 30	7·3	7·3	,,
,, 30 to 40	10·6	9·4	,,
,, 40 to 50	16·1	11·3	,,
,, 50 to 60	26·3	19·0	,,
,, 60 to 70	50·6	43·4	,,
,, 70 to 80	107·4	101·0	,,
Above 80	228·2	217·8	,,

The following were the ratios of deaths per 10,000 from the various undermentioned causes:—Small-pox 0·05, scarlet fever 2·90, measles and rubeola 4, diphtheria and croup 17·64, whooping-cough 5·07, typhus 2·64, petechial fever 0·03, dysentery 0·35, rheumatic fever 0·59, tuberculosis 29·33, cancer 3·83, apoplexy 10·8, pneumonia and pleurisy 14·81, heart diseases 2·71, brain diseases 5·36, diseases of the kidneys 1·99, child-bed 2·09, consequence of accidents 3·96, murder and manslaughter 0·13, and suicide 1·77. In 1883, 6171 persons committed suicide in Prussia; in 1884, 5900; in 1885, 6028; in 1886, 6212; and in 1887, 5893. Of the suicides of 1887, 4703 were males and 1195 females. In 1559 cases the cause assigned was insanity, in 646 grief, in 606 vice, in 592 life-weariness, in 519 physical disease, in 455 shame and remorse, in 193 passions, in 181 vexation, anger, and quarrelling, and in 32 sorrow for bereavement. It is noteworthy that insanity was the cause, or is alleged to have been the cause, in 41·1 per cent. of the women and only in 22·7 of the men—a fact which may be partly explained by the circumstance that insanity is often alleged as the cause of suicide by relatives &c. to veil the real motives. It is also remarkable that grief, which is generally supposed to depress women more than men, is a much more frequent cause of suicide in men than in women. This cause is assigned in the cases of 11·6 per cent. of the men and only of 8·5 of the women. Under the heading of "passions," on the other hand, of which probably love is the chief, the women greatly preponderate, their percentage being 6·5 and that of the men only 2·5.

The Triumph of Medical Science in the Prussian Army.

In a speech at the celebration of the anniversary of the founding of colleges for the training of physicians and surgeons for the Prussian army, Surg.-General Dr. von Coler stated that the number of cases of illness in the Prussian army had sunk 46 per cent., the death-rate 54 per cent., the number of typhus cases from 10·9 to 4·4 per cent., and the loss to the army by typhus from 2·1 to 0·32 per cent., between 1868 and 1887. The reduction of the death-rate means a gain to the State of 1564 soldiers a year.

Cholera in Mesopotamia.

The *Allgemeine Zeitung* of Munich hears the following from Constantinople: "Cholera broke out in Mesopotamia on July 27th, in the same mysterious manner as in Egypt in 1883. That it came from Bombay, *vid* Bassora, is certain; how, has not yet been determined—perhaps, as in Egypt, in the persons of Arab stokers, who serve on board the English steamers of the Bassora-Bombay line, and go home on their arrival at Bassora. It appeared first at Sehatra, a place of 3000 inhabitants, two and a half days' journey from Bassora, on the canal Schate el Hay, which unites the Tigris with the Euphrates; 308 persons died between July 27th and Aug. 6th. On Aug. 1st it broke out at Nassrié, a place of 8000 inhabitants, south of Sehatra, and near the junction of the Schate el Hay with the Euphrates: 293 persons died there between Aug. 1st and 9th, of whom eighty-five died on the 8th alone. This town has a swampy flat, and consists of mere reed huts. Its main industries are rice-growing and, in a less degree, cattle-breeding. The epidemic broke out in Bassora on Aug. 6th, and its first victim was an Arab girl, who had arrived from Filie in Persia ten days before. The number of deaths on the 9th inst. was fifteen. The reports of the medical officer, Gazala, leave no room for doubt as to the diagnosis."

Dr. Robert von Helmholtz.

Dr. Robert von Helmholtz, a son of the famous scientist, died here two or three weeks ago, aged only twenty-eight.

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Though the time allotted him was so short, and his life much marred by delicate health, he has left behind him a series of scientific writings not unworthy of the great name he bore. They are almost all of a strictly scientific character, and treat of vapours and mists, the relations between the freezing-point and steam tension, and experiments with a steam jet. They are of practical value in meteorology. Only one of Robert von Helmholtz's writings penetrated to non-scientific circles. It was published in the *Deutsche Rundschau*, and contains the author's boyish reminiscences of the famous physicist, Gustav Robert Kirchhoff, when the latter and Hermann Helmholtz, then Professor of Physiology at Heidelberg, lived and worked in the same house in the beautiful town on the Neckar. Young Helmholtz's chief teachers were his own father and Robert Bunsen. It is sad to think that one who had gained so high a place among the younger scientists of the age has not been permitted to fulfil the brilliant promise of his youth, and add new lustre to a distinguished name.

Berlin, Aug. 21st.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Census of Mortality and Vital Statistics.

THE eleventh census of the United States is about to be taken, and the superintendent has issued a circular to the medical profession. As we have no national system of registration of vital statistics, our census affords the only opportunity of obtaining an approximate estimate of the birth and death rates of much the larger portion of the country, which is entirely unprovided with any satisfactory system of state or municipal registration. To secure the co-operation of medical men, the Census Office has issued a blank physicians' register of deaths to the entire profession, with the request that, commencing on June 1st, they will enter the death of each person coming under their own cognisance, with all the particulars of sickness, &c. When the year has expired, these registers will be returned to the central office for statistical reduction.

New Building for the Academy of Medicine.

The Academy of Medicine is about to erect a new and commodious building in a more central portion of the city. The allotted space measures 75 by 100 feet. The building will be five stories high. The interior arrangement provides a large audience room, a library room with a capacity for 230,000 volumes, section rooms accommodating respectively 160, 225, 275, and 110 persons, rooms for laboratory and microscopic work, and rooms for study, smoking, and conversation. Such a building has long been the great want of the profession in this city. When completed it will unite in one interest all of the now scattered societies.

Execution of Criminals by Electricity.

Although the law requiring the execution of criminals by electricity in this State came into operation on Jan. 1st last, the execution of the first criminal by this means has been stayed by judicial proceedings taken to determine the effectiveness of the method and the constitutionality of the law. A large amount of evidence is now being taken as to the power of electricity, when created by apparatus, to destroy human life. It now appears that the resistance of the human body is liable to be such that the electrical current will not destroy life, but will only temporarily paralyse. Edison, the inventor, takes strong grounds in favour of execution by electricity, and declares that death can be effected with the greatest precision; but many experts in the use of electricity disapprove the method. The final report of the referee will be awaited with interest. Meantime the preparations for the execution are steadily progressing.

Payment for Reports of Births.

There has been much complaint among medical practitioners of the injustice of being compelled to report births and deaths, and pay the postage on their reports, without compensation and under heavy penalties for neglect. This sense of wrong has led many physicians to neglect such reports, and the results of such neglect are seen in vitiated vital statistics. One State, Massachusetts, has applied the proper remedy—viz., the giving of a fee of a quarter of a dollar for every birth reported in proper form. The effect of this liberal law has been to greatly increase the number of cases reported.

Prevention of Quackery in the new States.

The rapid formation of new States, with complete forms of government, now in progress, is a remarkable feature in the civic history of the United States. The only restriction placed upon the organising bodies is that State governments shall be Republican in form. In most of these new States very advanced opinions prevail in regard to State Medicine. Stringent health laws are passed, and growing out of these are laws for the suppression of quackery. In this respect the new States are far in advance of the older ones, which are very slow to take this advanced step. In many of the new States there are no irregular practitioners.

New York, Aug. 8th.

THE SERVICES.

ARMY MEDICAL STAFF.—The undermentioned Surgeons to be Surgeons-Major, ranking as Major (dated Aug. 5th, 1889):—Francis Henry Swinton Murphy, M.D.; William Thomas Johnston, M.D.; Abraham Walker Browne; Robt. Doveton Hodson; Caleb K. Powell, M.D.; Hugh Cunningham Kirkpatrick, M.D.; John Armstrong; Wm. Wallace Kenny, M.B., F.R.C.S. Ireland; Philip Mackay Ellis; Patrick Joseph O'Sullivan, M.D.; and James FitzGerald Brodie, M.D.; Surgeon Phineas Barrett Tuthill, M.D., F.R.C.S. Ireland, to be Surgeon-Major, ranking as Major (dated Aug. 8th, 1889).

MILITIA (Infantry).—9th Battalion, the Rifle Brigade (the Prince Consort's Own): Surgeon-Major R. V. Kelly resigns his commission; also is permitted to retain his rank, and to wear the prescribed uniform on his retirement (dated Aug. 24th, 1889).

ADMIRALTY.—The following appointments have been made:—Surgeon William M. Lory to the *Penelope*, additional, for Ascension Hospital, and Surgeon Percy W. Bassett-Smith to the *Nankin* (both dated Aug. 28th, 1889); Fleet Surgeon George Kell to the *Wildfire*, for charge of medical duties of Sheerness yard, Naval Barracks, and ships of Steam Reserve, and Surgeon Vidal G. Thorpe to the *Belleisle* (both dated Aug. 26th, 1889).

VOLUNTEER CORPS.—*Artillery:* The Tynemouth: Acting Surgeon H. Bramwell, M.D., to be Surgeon (dated Aug. 24th, 1889).—*Engineers* (Fortress and Railway Forces): 1st West Riding of Yorkshire (Sheffield): Acting Surgeon C. H. Willey, M.D., to be Surgeon (dated Aug. 24th, 1889).—*Rifle:* 1st Volunteer Battalion, the Cheshire Regiment: Acting Surgeon A. Craigmile, M.D., to be Surgeon (dated Aug. 24th, 1889).—2nd (Berwickshire) Volunteer Battalion, the King's Own Scottish Borderers: Alfred Dorriforth Vardon, Gent., to be Acting Surgeon (dated Aug. 24th, 1889).—2nd Volunteer Battalion, the East Surrey Regiment: Acting Surgeon W. Gandy to be Surgeon (dated Aug. 24th, 1889). — *Memorandum* (Infantry Volunteer Brigade)—North Midland Brigade: Surgeon and Surgeon-Major W. Milligan, 2nd Volunteer Battalion, the Sherwood Foresters (Derbyshire Regiment) to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Aug. 24th, 1889).

THE NEW VICTORIA EYE AND EAR HOSPITAL, HEREFORD.—The ceremony of formally opening this institution was performed on the 20th inst. by Lady Bailey, the wife of the member for the city, Sir J. R. Bailey, M.P. The building is erected on the most approved sanitary plans, and contains excellent administrative accommodation, surgery, operating-rooms, &c. There are four wards, one large and one small, for each sex. For the present, the two larger wards will have four beds each and a child's cot or two, and the smaller two beds each. The cost of the hospital has been £2400, and towards the site and building fund £1610 has been subscribed or promised.

AMBULANCE WORK.—On Saturday last, at the People's Palace, Mile-end, Princess Frederica of Hanover distributed the medallions and certificates to the successful students of the St. John Ambulance Association classes in the metropolitan centre, which includes the city and Port of London and the East-end.

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Medical News.

ARMY MEDICAL SERVICE.—The following is a list of the successful candidates at the recent competitive examination for commissions in the above Service:—

	Marks.		Marks.
Waller, H. J.	3085	Stone, C. A.	2800
Bewley, A. W.	3080	Way, L.	2730
Mould, W. T.	3030	Moores, S. G.	2640
Hughes, M. L.	2910	Winter, H. E.	2630

NAVAL MEDICAL SERVICE.—The following gentlemen, who competed at the examination recently held at Burlington House for appointment as Surgeon in the Royal Navy, have been successful:—

	Marks.		Marks.
G. Allan, M.B.	3100	N. C. Ridley	2920
W. J. Maillard, M.B.	3065	A. H. L. Cox	2885
P. V. Jackson	3010	E. F. S. McKay	2880
O. M. Jones	2920	A. Maclean, M.B.	2880

INDIAN MEDICAL SERVICE.—The following is a list of the candidates for the above Service who were successful at the competitive examination held at Burlington House on Aug. 12th and following days:—

	Marks.		Marks.
A. L. Duke	3400	C. L. Williams	3190
H. B. Melville	3380	C. H. Bedford	3145
J. C. S. Vaughan	3380	W. C. Vickers	3115
H. F. Cleveland	3260	J. C. White	3105
J. B. Smith	3240	E. L. C. Smith	3060
T. W. Shaw	3205	H. W. Elphick	3050

Fifty-six candidates competed for twelve appointments; fifty-five were reported qualified.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates, having passed the qualifying examination in Medicine, Surgery, and Midwifery, have received certificates entitling them to practise in the same, and were admitted Licentiates of the Society on the 16th inst.:—

Greenwood, Samuel, Queen's College, Birmingham.
Jessop, Arthur Rowland, Guy's Hospital.
Rees, Edward Davies, King's College Hospital.

Passed on the 21st inst.:—

Bate, John, London Hospital.
Blewitt, Patrick Lyons, Dublin.
Buée, Kenneth Frederick Tooke, University College Hospital.
Case, William, King's College Hospital.

Passed on the 22nd inst.:—

Ilott, Arthur Talman, Charing-cross Hospital.
Walton, John Stamford, Newcastle-on-Tyne.

RABIES.—The *London Gazette* of the 23rd inst. publishes the usual returns of the number of cases of contagious or infectious disease under the Contagious Diseases (Animals) Act in Great Britain during the week ending the 17th inst. For the first time since the enforcement of the muzzling order no cases of rabies among dogs are reported.

NEW HOSPITAL AT ALDERSHOT.—On the 26th inst., at Aldershot, Lady Wood, the wife of Sir Evelyn Wood, the lieutenant-general commanding the division, formally opened the new buildings connected with the Female and Children's Hospital, which comprise three wards, named respectively the "Stanhope," the "Connaught," and "Dorothy."

FEVER HOSPITAL, HOMERTON.—On Tuesday night, a fire broke out at the ambulance station of this hospital. The furnace-room on the ground floor of the building caught alight. The flames burnt through the roof, but, after an hour's work by the fire brigade, were subdued. The roof of the laundry became also ignited, and some damage was done to the harness store. The cause of the fire is unknown.

NORTH DEVON INFIRMARY.—Dr. R. Budd presided at the sixty-third annual meeting held at Barnstaple on the 20th inst. A letter was read from Lord Fortescue offering to pay £150 odd, the cost of some sanitary improvements in the establishment, which was accepted. The report showed a falling off in the year's receipts of £184 4*s*. A new system of ventilation and some efficient drainage works had been carried out at an outlay of £426. During the year the Convalescent Home at Morthoe had been built and endowed by Mr. W. F. Rook and his sister and patients from the Infirmary sent there. The medical report stated that 512 in-patients and 2208 out-patients were admitted during the year.

THE ROYAL COLLEGE OF SURGEONS.—The library and museum of the College will be closed during the month of September for the purposes of cleaning.

FEVER AT CAIRO.—Recent advices announce the continuance of admissions of fever cases to the hospital at Cairo. There are said to be now 300 cases under treatment in the institution.

QUARANTINE.—According to the *London Gazette* the British representative at Alexandria has telegraphed as follows:—"Lohaya to Moka, inclusive, released from quarantine." The British representative at Constantinople has telegraphed that fifteen days' quarantine has been imposed at all Turkish ports against all ports in the Persian Gulf.

STRATFORD-ON-AVON HOSPITAL.—At the annual meeting of the governors and friends of this hospital on the 26th inst. a satisfactory statement was made as regards its financial position, an increased income being shown as compared with that of last year. Moreover, a debt of £282 had been paid off. The number of in-patients during the year had been 202, and of out-patients 509.

OPHTHALMIA AT HANWELL SCHOOLS.—At a meeting this week of the Board of Managers of the Central London District (Poor-law) Schools at Hanwell a tender was accepted for the erection of temporary dwellings for the isolation of 400 ophthalmic juvenile patients, at a cost of £19,600. These schools contain upwards of 1100 children from the unions of the City of London and St. Saviour's Surrey, &c., and of this number upwards of 300 children are affected more or less severely with ophthalmia. In addition to these buildings, it has become necessary to engage a special ophthalmic surgeon and a staff of nurses. These steps are the result of strong, urgent, and long-continued representations from the Local Government Board.

PRESENTATIONS.—On Tuesday, the 27th inst., a number of friends waited on Edward Stamer O'Grady, F.R.C.S.I., at his residence, Merrion-square, Dublin, and presented him with an address accompanied by a brougham and silver-mounted harness, and a handsome bracelet for Mrs. O'Grady. The address was read by Mr. Edward Hamilton, surgeon to his Excellency the Lord-Lieutenant. Mr. O'Grady afterwards entertained those present to luncheon.—Mr. T. A. Collinson, M.R.C.S., L.S.A., having decided to leave the Durham County Hospital, the term of his office as house surgeon for the past two years having expired, the nursing staff of the institution, in recognition of their appreciation of the harmony in which they had worked together, have presented him with a writing-table set of brass ornaments.

MEDICAL NOTES IN PARLIAMENT.

Cotton Cloth Factories Bill.

IN the House of Lords on Thursday, the 22nd inst., Viscount Cross in moving the second reading of this Bill, explained that it was a sanitary measure regulating the amount of acids to be used, so as not to oppress the workpeople. The Bill had been carefully considered, and was an excellent sanitary measure. The Bill was then read a second time. It passed through Committee, with some verbal amendments, on Monday, the 26th.

The Royal Assent.

On Monday, the 26th, the Royal Assent was signified by Commission to the following, amongst other Bills:—The Lunacy Acts Amendment Bill, the Prevention of Cruelty to and Protection of Children Bill, and the Local Government (Scotland) Bill

The Cholera Prevention Bill.

The Public Health (Cholera Prevention) Bill (which passed through Committee and was read a third time in the House of Commons on Saturday, the 24th) was read a first time in the Upper House on Monday, the 26th.—In moving the second reading, on the following day (Tuesday, the 27th), Lord Balfour explained that its object was to remove doubts in regard to regulations the Local Government Board were empowered to make under the Public Health Act, which had been in force for sixteen or seventeen years. It was of great importance that those doubts should be removed.—The Bill was read a second time, and subsequently passed through its remaining stages.

Typhoid in the West-end.

In the House of Commons on Thursday, the 22nd inst., Mr. Ritchie, in reply to Mr. Isaacson, stated that he had no authority to give any

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directions to the sanitary inspectors of St. George's, Hanover-square, who were in no way subject to the jurisdiction of the Local Government Board. He would, however, communicate with the Vestry of the parish with reference to the sanitary inspectors reporting upon the houses which had open cesspools, and advising as to their immediate removal.

Contagious Disease in India.

In answer to Mr. Cavendish-Bentinck, Sir J. Gorst (Under-Secretary for India) stated that the Cantonment Bill contained provisions for enabling the Government of India to deal with all contagious diseases within cantonments, and regulations for that purpose would be made by the Government of India as soon as the Bill became law.

The Royal Commission on the Blind.

In answer to Mr. Woodall, Mr. W. H. Smith stated that the important recommendations contained in the report of the Royal Commission on the Blind, the Deaf, and the Dumb, would be carefully considered during the recess.

Londonderry Prison Doctors.

On Friday, in Committee of Supply, on the vote for the General Prisons Board in Ireland, Mr. Blane said he was an inmate of Londonderry Gaol in 1888. At that time disease was prevalent. No attempt was made at isolation or at tracing the source, and destroying the cause of disease. The doctor, Sir William Miller, and the officials treated all complaints with indifference and contempt. The money voted for the medical officers of Londonderry Prison was, in the speaker's opinion, entirely thrown away. Mr. Conybeare had fallen a victim to the indifference of the doctors about separating prisoners who were suffering from disease. Prisoners were not put into hospital until they were in a dying state and past cure. The Chief Secretary had stated that the sick-rate of the prison was less than that of the town, but that was accounted for by the fact that sick prisoners were not in hospital. He had himself witnessed cases in Londonderry prisoners where warders had assaulted prisoners in order to provoke resistance, when the prisoners were summoned and sentenced to a further term of imprisonment. The Government could and ought to remedy these things.—Mr. Balfour, in reply, stated that he was accustomed and he was indifferent to attacks made upon himself by honourable members opposite; but when it came to the character of an official like the present medical officer of the Londonderry Gaol the matter became one of great importance. This doctor had been attacked for his want of humanity, especially in the case of M'Gee, who had died of acute tuberculosis. A more outrageous accusation had never been made. Sir William Miller had acted as a most humane and honourable gentleman. The medical arrangements of Londonderry Gaol were in a peculiarly satisfactory condition.—On the following day (Saturday) the subject was resumed, when Sir C. Lewis bore testimony to the high character of Sir W. Miller, the prison doctor, against whom in Derry no one could venture to say one word, such was the high esteem in which he was held by all classes. He challenged any hon. member opposite to say if that was so or not.—Mr. Leamy and Mr. T. Healy continued the attacks upon Sir W. Miller, after which Mr. Balfour again defended that medical officer against the undeserved abuse which had been heaped upon him. The privileges granted by Irish prison doctors to Crimes Act prisoners were enormously in excess of those granted to other prisoners, and the rate of mortality in English prisons was double that in Irish prisons.

The Professors of the Queen's Colleges.

On Saturday, the 24th, Mr. Pinkerton asked the Secretary to the Treasury whether, in view of the serious financial loss inflicted upon certain professors of the Queen's Colleges, by the passing of the Royal University (Ireland) Act, he was prepared to make the same concession to them as was given to medical officers and servants in the Dublin Hospital Board Bill, which he had recently introduced.—Mr. Jackson said he did not recognise any similarity in the circumstances between the two cases referred to.

Infectious Diseases Notification Bill.

The House went into Committee on this Bill. Mr. H. Stewart moved to report progress as many members were absent, and there were no medical men present. The motion was rejected after a discussion by 54 against 18. Clause 1 was agreed to, and a long discussion arose on Clause 2, which Mr. Healy moved to amend by omitting subsection A.—Mr. Ritchie explained that the Bill as it stood proposed to make the Act compulsory in London and optional throughout the country. The amendment would strike out the compulsion with reference to London. He added that the Government proposed to accept the principle of the amendment later on. The amendment was then withdrawn, and the clause agreed to, as were the clauses up to 9 inclusive. On Clause 10 Mr. Ritchie moved to add the words, "The managers shall send weekly to the London County Council such return of the infectious diseases of which they receive certificates in pursuance of this Act as the London County Council from time to time require."—The amendment was agreed to.—On the motion of Mr. Ritchie, the following new clauses were agreed to and added to the Bill:—"A payment made to any medical practitioner in pursuance of this Act shall not disqualify that practitioner for serving as member of the council of any county or borough, or as member of a sanitary authority, or as guardian of a union, or in any municipal or parochial office. Where a medical practitioner attending on a patient is himself the medical officer of health of the district, he shall be entitled to the fee to which he would be entitled if he were not such medical officer." "Where this Act is put in force in any district in which there is a local Act for the like purpose as this Act, the enactments of such local Act, so far as they relate to that purpose, shall cease to be in operation."—Some verbal alterations and modifications were made in the application of the Act to Scotland and Ireland, and the Bill as amended passed through Committee. The Bill as amended was considered and read a third time on Monday, the 26th.—The Bill was taken to the Upper House on Wednesday, the 28th inst., when Lord Balfour, in moving the second reading of this Bill, said that there were now fifty-two urban and rural authorities in whose districts the system proposed under the Bill was already enforced, and no fewer than three and a half millions of people were controlled by those authorities. Therefore the Bill could not be said in any way to introduce a novel principle. A large number of public bodies had petitioned in favour of the provisions of the Bill, and in 1887 a circular was sent to the sanitary authorities and medical officers in all the districts now under the system to which the Bill would give effect. The response to this circular was absolutely unanimous in favour of the Bill. One of the chief advantages of the notification of infectious disease was that it led to a more rapid discovery of the cause. In one town thirty cases of typhoid were notified at the same time, and the cause of the epidemic was at once traced to the milk-supply. The Bill was read a second time, and the Committee stage being dispensed with, the Bill was read a third time and passed.

Health of British Troops in India.

On Monday, the 26th, Mr. E. Stanhope, Secretary of State for War, stated that the ratio of admissions for venereal disease among British troops in India during the first four months of 1888 was 349 per 1000. Sir J. Gorst added that no report was made up with regard to native troops.

Health of Dublin Barracks.

General Fraser asked whether it was true that between the first week of July and the present date the number of cases of enteric fever in the Dublin Barracks had increased 300 per cent. Mr. E. Stanhope, in reply, stated that up to the end of June in the present year the number of cases had fallen far below the number last year, but he regretted to say that there had been a fresh outbreak in July. The works of improvement were being actively carried on, as well as the subsoil drainage which had been recommended. Much had already been done, although, owing to the state of the river, he despaired of eradicating enteric fever altogether at present.

The Fountains in Trafalgar Square.

In reply to Mr. Kimber, Sir H. Maxwell (Lord of the Treasury) denied that the water supplied to the fountains in Trafalgar-square was generally in a foul condition. The water is ordinarily supplied from the artesian well at the back of the National Gallery, and from repeated analyses has been found to be of excellent quality.

Dublin Hospital Board Bill.

On the order to go into Committee on this Bill, Mr. Jackson (Secretary to the Treasury) moved that the order be discharged and the Bill withdrawn, adding the hope that it might be passed next session. The motion was agreed to.

Movable Dwellings Bill.

On Tuesday, the 27th inst., the orders for the consideration, as amended, of this Bill were read and discharged, and the Bill was withdrawn.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on August 27th, 1889.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever	Other diseases.	Total.	
Eastern Hospital	233	57	..	36	5	331	400
North-Western Hospital	185	22	..	4	..	211	436
Western ,,	176	7	..	8	..	191	262
South-Western ,,	..	..	..	..	..	..	402
South-Eastern ,,	278	14	..	16	1	309	462
Northern ,,	..	..	..	..	..	..	480
Totals	872	100	..	64	6	1042	2441

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ABBOTT, F. C., L.R.C.P., M.R.C.S., has been appointed Resident House Physician to St. Thomas's Hospital.

ANDERSON, G. R., L.R.C.P., M.R.C.S., has been appointed Resident Accoucheur to St. Thomas's Hospital.

ANSON, G. E., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

BOYCOTT, A. N., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.

COWEN, T. P., L.R.C.P., M.R.C.S., has been reappointed Resident House Physician to St. Thomas's Hospital.

CROOKE, G. F., M.D. Edin., M.R.C.S., has been appointed Physician for Out-patients to the Queen's Hospital, Birmingham, vice Dr. Hogben, resigned.

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GERVIS, H., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

GUILDING, L. M., M.A. Oxon., M.R.C.S., L.S.A., has been appointed Assistant Surgeon to the Royal Berkshire Hospital.

HULBERT, H. H., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.

JERSEY, W. B. DE, L.R.C.P., M.R.C.S., has been appointed Assistant House Physician to St. Thomas's Hospital.

LAKE, R., L.R.C.P., M.R.C.S., L.S.A., has been appointed Clinical Assistant for Diseases of the Ear to St. Thomas's Hospital.

LAMBERT, T. W., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Skin to St. Thomas's Hospital.

MANNERS, W. F., M.R.C.S., L.S.A., has been reappointed Clinical Assistant for Diseases of the Throat to St. Thomas's Hospital.

MILTON, F. R. S., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.

MORRICE, G. G., M.A., M.B. Cantab., has been appointed Resident Medical Officer to the Metropolitan Asylums Board Hospital, Homerton.

SCOTT, D. W., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer, Borough of Flint, vice Hughes, resigned.

SPENCER, M. H., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Non-resident House Physician to St. Thomas's Hospital.

THOMSON, ANDREW, M.B. & C.M. Edin., has been appointed Medical Officer of the Criggletone District, Wakefield Union.

TUNSTALL, J. O., M.B. Lond., M.R.C.S., has been appointed Senior Resident Assistant Medical Officer at the Workhouse, Birmingham.

TURNEY, H. G., M.A., M.B., B.Ch. Oxon., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.

WALTERS, J. H., M.R.C.S., L.S.A., has been appointed Surgeon to the Royal Berks Hospital.

WOODWARD, WILLIAM, L.R.C.P. Lond., M.R.C.S., has been appointed Junior Assistant Medical Officer to the County Asylum, Bodmin.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BOROUGH HOSPITAL, Birkenhead.—Junior House Surgeon. Salary £60, with board, lodging, and washing, also fees for notifying infectious cases. No wine or beer.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. No salary, but board and residence provided.

COUNTY ASYLUM, Shrewsbury.—Junior Assistant Medical Officer. Salary £100 per annum, and £8 in lieu of beer, with board, lodging, and washing.

GLASGOW ROYAL INFIRMARY AND ST. MUNGO'S COLLEGE, Glasgow.—Curator of the Museum and Pathologist. Salary £50 per annum.

MACCLESFIELD ROYAL INFIRMARY.—Senior House Surgeon. Salary £100 for the first year, with an increase of £10 the second year, with board and residence.

MANCHESTER ROYAL INFIRMARY, DISPENSARY, AND LUNATIC HOSPITAL OR ASYLUM.—Honorary Assistant Surgeon.

NORTH LONDON CONSUMPTION HOSPITAL, Hampstead, N.W.—Resident Medical Officer. Honorarium £40 a year, with board, rooms, &c.

POPLAR HOSPITAL FOR ACCIDENTS, E.—Resident Assistant and House Surgeon. Salary £50 per annum.

ROTHERHAM HOSPITAL.—Assistant House Surgeon. In lieu of salary, rooms, commons, and washing provided in the hospital.

ROYAL ALBERT HOSPITAL, Devonport.—Resident Medical Officer. Salary £150 per annum, with board and lodging.

STAMFORD, RUTLAND, AND GENERAL INFIRMARY.—House Surgeon and Secretary. Salary £100 a year, with board, lodging, and washing.

UNIVERSITY OF ABERDEEN.—Six persons to be Examiners for Graduation in Medicine. Each will receive a grant of £30.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—House Physician (who will also be required to act as Chloroformist, Pathologist, and Medical Registrar). Salary £100 per annum, with board, lodging, and washing.

Births, Marriages, and Deaths.

BIRTHS.

BAMBER.—On July 29th, at Moultan, Punjab, India, the wife of Surgeon C. J. Bamber, of twins (sons).

CHRISTISON.—On Aug. 20th, at Whyte Knowe, Peebles, the wife of David Christison, M.D., of a son.

COMBE.—On Aug. 23rd, at Holly House, North Walsham, the wife of F. Orloff Combe, M.D., of a daughter.

GIMLETTE.—On Aug. 5th, at Ireland Island, Bermuda, the wife of Staff-Surgeon T. D. Gimlette, R.N., of a son.

JEWSON.—On Aug. 23rd, at Strathleven-road, Acre-lane, Brixton, S.W., the wife of Francis A. B. Jewson, F.I.C., F.C.S., of a son.

LAMB.—On Aug. 20th, at Moira House, Arnold, Notts, the wife of William Lamb, M.D., of a son.

WILKINS.—On Aug. 19th, at 1, Windsor-road, Ealing, W., the wife of H. G. G. Wilkins, L.R.C.P. Lond., M.R.C.S., of a daughter.

MARRIAGES.

BRAIDWOOD—CUNNINGTON.—On Aug. 21st, at St. John's Church, Devizes, P. Murray Braidwood, M.D., F.R.C.S., F.R.M.S., of Shirehampton (late of Birkenhead), to Lydia Mary, eldest daughter of the late Henry Cunnington, of Southgate House, Devizes.

HARRISON—ALLISON.—On Aug. 22nd, at St. Andrew's, Collumpton, Devon, by the Rev. Prebendary J. G. Davis, M.A., Edward Harrison, M.A., M.B. Cantab., F.R.C.S., of Hull, to Mary Jane Allison, widow of the late James Allison, R.N.

LEWIS—WASSELL.—On Aug. 22nd, at Zion Baptist Chapel, Bradford-on-Avon, B. Morgan Lewis, M.R.C.S., L.R.C.P. Lond., son of Benjamin Lewis, Abergavenny, to Marian, daughter of the late Rev. David Wassell, of Bradford-on-Avon and Bath.

MARTIN—HAMOND.—On Aug. 22nd, at the Roman Catholic Church, Spanish-place, Surgeon-Major P. R. Martin, eldest son of the late Richard Martin, Esq., Cro'cloney, Ireland, to Esabella Mary, only child of the late Lieut. William Carr Hamond, Royal Engineers.

MORGAN—EDYVEAN.—On Aug. 13th, at the Parish Church, Bodmin, William Lewis Morgan, M.A., of Exeter College, Oxon., M.R.C.S., to Lucinda Mary, daughter of the late Major Edyvean, of Windsor House, Bodmin.

SMITH—NICHOLLS.—On Aug. 17th, at St. Stephen's, Coleman-street, E.C., by the Rev. M. Lambrick, Fredk. J. Smith, M.B., M.R.C.P., F.R.C.S., of West-street, Finsbury-circus, to Janet May (Sister Talbot), widow of the late George Henry Nicholls.

DEATHS.

HABERSHON.—On Aug. 22nd, at Brook-street, Grosvenor-square, W., Samuel Osborne Habershon, M.D., F.R.C.P., aged 64.

JOBSON.—On Aug. 23rd, at Bishop Auckland, John Jobson, F.R.C.S. Eng., J.P., county Dublin, aged 79.

MILLER.—On Aug. 27th, at Ettrick Tower, Merchiston, Edinburgh, after a week's illness, William Cornfoot Strettell Miller, M.D. Edin.

TOMKINS.—On Aug. 22nd, at Norwood House, Whiteladies-road, Clifton, Bristol, Charles Joseph Tomkins, M.R.C.S., L.S.A., eldest son of the late Charles Tomkins, M.D., of Abingdon, Berks, after six years' paralysis, aged 67.

WYLLIE.—On Aug. 24th, at Homburg, Surgeon-General David Wyllie, of the Bombay Army, aged 69.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

ALLEN, W. H., & Co., Waterloo-place, London, S.W.

The Diseases and Disorders of the Ox. With some Account of the Diseases of the Sheep. By George Gresswell. With additions on Human and Comparative Pathology, by Dr. Albert Gresswell. 1889. pp. 755.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.

Cancer and its Complications. By C. E. Jennings, F.R.C.S. 1889. pp. 154.

Dermoids; or, Tumours containing Skin, Hair, Teeth, &c. By J. B. Sutton, F.R.C.S. 1889. pp. 131.

Anæsthetics, Ancient and Modern; their Physiological Action, Therapeutic Use, and Mode of Administration. By Geo. Foy, F.R.C.S. 1889. pp. 175.

BLAKISTON, SON, & Co., Philadelphia.

Transactions of the American Surgical Association. Vol. VII. Edited by J. Ewing Mears, M.D. 1889. pp. 225.

CHURCHILL, J. & A., New Burlington-street, London, W.

Outlines of the Clinical Chemistry of Urine. By C. A. Mac Munn, M.A., M.D. Dub. With 64 Woodcuts and Plate of Spectra. 1889. pp. 254.

The Goulstonian Lectures on Secondary Degenerations of the Spinal Cord. Delivered at the Royal College of Physicians, March, 1889. By Howard H. Tooth, M.D., F.R.C.P. 1889. pp. 71.

A Guide to the Alterations in the British Pharmacopœia (1885), comprising an Epitome of the Changes, and an account of the New Preparations, &c. By Prosser James, M.D. Third Edition. 1889. pp. 119.

FUNK & WAGNALLS, 44, Fleet-street, London.

Emergency Notes. What to Do in Accidents and Sudden Illness until the Doctor comes. By G. R. Butler, A.M., M.D. With 18 original Illustrations. 1889. pp. 102.

HENDERSON, JOHN, & Co., Kingston, Ontario.

Manual of Obstetrics, Gynæcology, and Pediatrics. By Kenneth N. Fenwick, M.A., M.D. 1889. pp. 251.

HEYWOOD, JOHN, Paternoster-buildings, London.

Buxton: its Baths and Climate; comprising a full account of the celebrated waters and climate of Buxton, and a description of "The Buxton Thermal Cure." By Samuel Hyde, L.R.C.P., M.R.C.S. 1889. pp. 134.

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HODDER & STOUGHTON, Paternoster-row, London, E.C.

Captain Lobe: A Story of the Salvation Army. By John Law 1889. pp. 281. Price 3s. 6d.

LEWIS, H. K., Gower-street, London, W.C.

Hygiene of the Nursery: Including the General Regimen and Feeding of Infants and Children, and the Domestic Management of the Ordinary Emergencies of Early Life. By L. Starr, M.D. Second Edition, with 25 Illustrations. 1889. pp. 280.

Gout and its relations to Diseases of the Liver and Kidneys. By Robson Roose, M.D., LL.D., F.C.S. Sixth Edition. 1889. pp. 179.

On the Physiology of the Vascular System. Three Lectures delivered at the Royal College of Surgeons. By Mark P. M. Collier, M.B., M.S. Lond., F.R.C.S. 1889. pp. 53.

A Practical Treatise on Materia Medica and Therapeutics. By Roberts Bartholow, M.A., M.D., L.L.D. Seventh Edition, revised and enlarged. 1889. pp. 802.

Gynæcological Electro-Therapeutics. By Horatio R. Bigelow, M.D. With an introduction by Dr. Georges Apostoli. With Illustrations. 1889. pp. 199.

LIVINGSTONE, E. & S., Teviot-place, Edinburgh.

Applied Anatomy: Surgical, Medical, and Operative. By J. M'Lachlan, M.D., B.Sc., M.R.C.S. Vols. I. and II. Illustrated. Third Edition. 1889. pp. 584 each volume.

MACMILLAN & CO., London.

A Treatise on Chemistry. By Sir H. E. Roscoe, F.R.S., and C. Schorlemmer, F.R.S. Vol. III.: The Chemistry of the Hydrocarbons and their Derivatives, or Organic Chemistry. Part 5. 1889. pp. 523.

STANFORD, EDWD., Cockspur-street, Charing-cross, London.

Algerian Hints for Tourists. By C. E. Flower. 1889. pp. 60.

Die Heilung der Schwindsucht auf diätetischem Wege; von Dr. Med. Alanus, prakt. Arzt. (Von Max Breitkreuz, 1889, Berlin).—Leprosy: a Communicable Disease; by C. N. Macnamara, second edition (J. & A. Churchill, London, 1889).—Recollections of a Nurse; by E. D. (Macmillan & Co., London, 1889).—Exposé du Traitement de l'Entorse au moyen du Massage; par le Dr. Gustave Delaunois, à Peruwelz (Henri Lamertin, Bruxelles, 1889).—American Working Men's Expedition: The Scripps League (John F. Eby & Co., Detroit, 1889).—Spinoza, the God-intoxicated Man; a short Account of his Life and Philosophy; by W. J. Collins, B.Sc. (Meyers, Brooks, & Co., Enfield, 1889).—Étude critique du Traitement des Salpingites et en particulier du Curettage de l'Utérus dans la Salpingite catarrhale; par Alexandre Rizkallah (Henri Jouve, Paris, 1889).—De la Diminution de l'Urée dans le Cancer: Valeur Séméiologique; Applications spéciales au Cancer de l'Estomac et aux Tumeurs Abdominales; par le Dr. G. Rauzier (G. Masson, Paris, 1889).—"Timehri," being the Journal of the Royal Agricultural and Commercial Society of British Guiana; edited by J. J. Quelch, B.Sc., C.M.Z.S. Lond. Vol. III., New Series, Part 1, June, 1889 (E. Stanford, London).—Manual of Swedish Drill, for Teachers and Students, compiled by George L. Mélio; with 110 illustrations and diagrams (Sampson Low, Marston, Searle, and Rivington, London, 1889), price 1s. 6d.—A Manual of Home Nursing, by Louisa Emily Dobrée (Swan Sonnenschein & Co., London, 1889).—Clinique de Psycho-Thérapie suggestive: fondée à Amsterdam le 16 Août, 1887, et dirigée par les Docteurs A. W. van Renterghem et F. van Eeden. Compte Rendu des Résultats obtenus pendant la première période bisannuelle 1887—1889; lu au Congrès International de l'Hypnotisme Expérimental et Thérapeutique réuni à Paris du 8 au 12 Août, 1889 (A. Manceaux, Bruxelles, 1889).—Diary for 1889: Sanitary Record, and London Medical Record (W. H. Allen & Co., London).—A Demonstration of Centres of Ideation in the Brain from Observation and Experiment; by Bernard Hollander (Harrison and Sons, London, 1889).—Yellow Fever: a new Treatment. A Forecast for 1889; Panama, Colon, and Havana, its Hotbeds and Distributers (New York, 1889).—Modern Cremation; par le Dr. Prosper de Pietra Santa (Bureau de la Société Française d'Hygiène, Paris, 1889).—The Early Diagnosis of Malignant Growths; by J. Collins Warren, M.D., Boston.—The Sturtevant System of Heating, Ventilating, and Moistening Textile Manufactories; by E. N. Foss, General Manager, B. F. Sturtevant Blower Works, Boston, Mass. (Sturtevant Blower Company, London).—List of Specialities and recently introduced Remedies; August, 1889, sixth edition, revised (J. Woolley, Sons, & Co., manufacturing pharmaceutical chemists, Manchester).—Index-Medicus: Authors and Subjects, Vol. XI., No. 7, July, 1889 (Trübner & Co., and Lewis, London).—Traitement par l'Electricité et le Massage; par le Docteur A. S. Weber (Alex. Coccox, Paris, 1889).—The Asclepiad, third quarter, 1889; No. 23, Vol. VI.; by B. W. Richardson, M.D., F.R.S. (Longmans, Green, & Co., London), price 2s. 6d.—Medical Guide to the Mineral Waters of Royat (Auvergne); by Dr. C. A. Pettit (Henry Renshaw, London, 1889).—The Animal Alkaloids, Cadaveric and Vital; or the Ptomaines and Leucomaines Chemically, Physiologically, and Pathologically considered in relation to Scientific Medicine; by A. M. Brown, M.D., with an Introduction by Professor A. Gautier (Hirschfeld Brothers, London, 1889), second edition, price 7s. 6d.—Magazines for September: Leisure Hour, Good Words, Sunday at Home, Boy's Own Paper, Sunday Magazine (Isbister), Girl's Own Paper, Blackwood's Edinburgh Magazine, Wit and Wisdom, Scribner's.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, August 29th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Aug. 23	29·97	N.W.	57	52	103	67	52	·04	Bright
,, 24	29·86	W.	55	54	95	67	53	·04	Raining
,, 25	29·90	N.W.	56	52	105	67	47	·60	Cloudy
,, 26	30·05	N.W.	57	53	95	63	52	..	Cloudy
,, 27	30·25	W.	57	52	109	70	47	..	Bright
,, 28	30·23	W.	61	56	114	73	54	..	Cloudy
,, 29	30·23	W.	60	57	114	76	53	..	Hazy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE STUDENTS' NUMBER OF "THE LANCET" will be published on Saturday next, Sept. 7th. Those gentlemen holding official situations connected with medical institutions in the United Kingdom who have not yet forwarded the necessary information to our Office for publication in that number are earnestly requested to send it *without the delay of a single post.*

"FALLING FROM A HEIGHT."

ON this subject a correspondent writes to us as follows:—

"With reference to your annotation in THE LANCET of Aug. 24th, on the subject of falling from a height, you say the 'feelings of any who have made such perilous journeys will probably long remain matter of conjecture.' I beg to inform you before studying for the medical profession I was a sailor for some years, and on one occasion, when I was about seventeen years of age, I fell from the topgallant yard of an East Indiaman, a height, I should imagine, of at least 120 ft. During my transit through the air sensation was entirely lost; it slightly returned on striking the water, but by the time I rose to the surface I was able to strike out (being a good swimmer) and seize the life-buoy which was thrown me. I believe, had I struck a hard substance, death would have been painless; but the assertion that people die in the act of falling is evidently wrong. During my time at sea I witnessed two deaths by falling from aloft; in one case the man struck the rigging, bounded into the sea, and never again rose to the surface; in the other case the man fell on the deck, death being apparently instantaneous."

W. B. H.—"Alcohol is the devil in solution," the phrase of Dr. B. W. Richardson in a memorable exposition of the evils of excessive drinking, seems to have been anticipated by poor Alfred de Musset when he inscribed on his bottle of absinthe the line from Dante's "Inferno," "Per me si va nella città dolente" ("Through me the path into the city of woe.")

VOLUNTEER MEDICAL SERVICE.

To the Editors of THE LANCET.

SIRS,—Could any of your readers who have recently passed the proficiency examination for acting surgeons of the Volunteer force give me information as to the extent of the examination, and advise as to the best books to study?—I am, Sirs, yours faithfully,

August, 1889. ACTING SURGEON.

MALCOLM MORRIS INDEMNITY FUND.

THE following additional subscriptions to the above fund have been received:—Mr. Marcus Allen (Brighton), £1 1s.; Mr. Lovell (Deal), £1 1s.

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"HEIL DIR, CARL THEODOR!"

UNDER this title ("Hail to thee, Charles Theodore!") we give a translation of the verses in which the eminent man of letters and poet, Oscar von Redwitz, congratulates His Royal Highness on the "fiftieth anniversary of his birthday." The "Duke-Doctor's" philanthropic work as an oculist and general consultant among the poor of the Bavarian and Austrian Tyrol we have already noticed, and von Redwitz's ode gives poetic form to the felicitations embodied by the peasantry of that lovely lake and hill country in bonfires and "feasts of lanterns." The translation reproduces the sense of the original as closely as a strict adherence to its double rhymes and metrical movement admits of:—

Five decades now have drifted
Since first beheld the light
A babe divinely-gifted,
To prove a "saviour knight."
How wise the life-revealer,
Who then and there could see
Bud forth the future healer
From that old warrior-tree!

Let courtier gossips prattle
Of some barbaric king,
Who from the field of battle
Could wreaths of laurel bring:
Far grander his achievement
Who toils among the poor;
The blind of their bereavement
With patient skill to cure.

Not his the work half-hearted
To while dull hours away;
On nobler errand started
He journeys through the day.
But first at matin service
He kneels in prayer, to ask
For grace of God to nerve his
Good genius to its task.

O all ye eyes, with lustre
And light by him endued,
Around, in starry muster,
Beam forth your gratitude!
All ye, who from his healing
Live longer, happier days,
Unite, with organ pealing,
Your voices in his praise!

"Heil dir!" from Tyrol's *châlet*
Floats down in choral chime;
"Heil dir!" from Tegern's valley
Beat all her waves in time.
And be your plaudits doubled
For her, his consort leal,
To whom the sick, the troubled,
Make never vain appeal.

While through the years ensuing
Thy name will be a word
For tender duty doing,
For light of life conferred;
If fulsome praise thou spurnest
As counterfeited ore,
Yet take, for once, this earnest
"Heil dir, Carl Theodor!"

"BITTEN BY A HYDROPHOBIC PATIENT."

To the Editors of THE LANCET.

SIRS,—In your issue of the 17th inst. is a small note, on page 348, with the above heading. The statements therein contained, that "the patient bit through the hand of the surgeon attending him so severely," &c., being quite unfounded, I hasten to state the simple facts of the case as follows:—A soldier suffering from hydrophobia was sent to the military hospital here, and the medical man in attendance on him injected subcutaneously some morphia with a Pravaz syringe. Upon his withdrawing the syringe he pricked himself with the needle, the point only raising the scarf skin. The surgeon went to the institute at Bucharest. He has since returned, and seems to have suffered more from the cauterisation &c. under which he went than from anything else. He is certainly now in the best of health and spirits. The soldier died after several days' severe suffering.—Yours faithfully,

A. IRWIN BOLTON, M.B., A.B.

Roumania, Kustendjie, Aug. 22nd, 1889.

To the Editors of THE LANCET.

SIRS,—In this week's LANCET there is an account of a doctor bitten by a hydrophobic patient, whose case is being watched with interest. I beg to state that while acting as clinical clerk for Dr. Langdon Down at the London Hospital, I, with Mr. Havens, the house-physician, had a severe struggle with a patient suffering from hydrophobia who died next day, in the course of which I was severely bitten in the thumb and through the palm of the hand. I went about in considerable dread until I learnt from Trousseau (*vide* Clinical Lectures, Sydenham Society) that hydrophobia was not communicable from man to man. What M. Pasteur has to say to this remark of Trousseau I do not know, but I am sure Trousseau would not have made the statement without good grounds. There is in the same paper an account of a man who died from hydrophobia without any bite. This is now the third well-authenticated case. One previously having occurred in Paris, one in the village of Putney, where it was seen by a number of medical men, all of whom had previous experience. I assisted at the post-mortem, and had previously seen three post-mortems of individuals dying from hydrophobia with similar appearances. In this case, an elderly woman who had not left her house for some long time, had an old dog with very foul teeth, which fed off the same plate; this dog was subsequently preserved until it died of a natural death some time after its mistress's decease from hydrophobia. These cases tally with a certain outbreak among an isolated herd of deer in Richmond Park, and all point to the possibility of a spontaneous or idiopathic form of hydrophobia, although it appears difficult to reconcile this with M. Pasteur's ideas on the subject; but facts are facts, and no doubt as further attention is paid to the subject more cases of spontaneous hydrophobia will be observed. For the present there have been at least three well-authenticated cases. I am, Sirs, yours faithfully,

Point House, Putney, S.W. ED. F. GRÜN, M.R.C.S., L.R.C.P.

TETANUS AFTER PARTURITION.

Dr. Benington, of Newcastle-upon-Tyne, asks to be allowed to refer Mr. Peacock and Mr. Cochrane, and others who may be interested in the above subject, to a paper written by him and published in the first volume of the Transactions of the British Gynæcological Society, 1885.

KERATOSIS.

G. B. W.—The disease is a rare one, and figures rather in treatises on teratology than in ordinary text-books. A remarkable case is that described by Joseph Hansard in his "History of the County and City of Waterford" (Dungarvan: 1870). Anne Jackson was born in Waterford city, of English parents, both of whom were sound in constitution and healthy. At three years of age horns began to grow on several parts of her body, till when about thirteen, her whole integument became so indurated that she could hardly move, and she was so stunted that five-year-old children were taller. On her knees and elbows and round the other joints horns projected—one on her arm being about four inches long and half an inch broad. She ate and drank heartily, slept well, and performed nature's offices like all healthy people. An analogous case of hypertrophy of the osseous tissue is recorded in Sir R. Christison's Memoirs, vol. i. It was operated on, but without success, by the great French surgeon Roux.

A Medical Student.—The plan of going to a colony without having obtained a qualification in the hope of getting a licence to practise is not at all a desirable one, and in Australia our correspondent would probably meet with disappointment. Many colonial universities might recognise his curriculum, but not the anatomical examination of one of the Irish colleges. The University of Otago would recognise the earlier M.B. examinations of Trinity College, Dublin, or the primary Fellowship of the English College of Surgeons. In New Brunswick and Nova Scotia an unqualified man can pass a qualifying examination, and in some portions of British territory—India, for example—any person may practise. In some of the Australian colonies there are numbers of unqualified men practising, but they are in much the same position as bonesetters are in this country.

Mr. Haynes Cory.—A notice of the instrument will appear shortly. Its merits are under observation.

Dr. McNeill (Lincoln).—We shall be pleased to receive the paper.

THE CÆSAREAN SECTION.

R. H. S.—Long before the historical advent of the Julian *gens*, the excision of the full-grown child from the gravid uterus was practised. Virgil (Æneid, X., 315), in describing the battle between the Latins and Trojans, says of Æneas: "Then he wounds Lichas, who had been cut out of the womb of his already dead mother, and was sacred to thee, Apollo." On this passage the commentator Servius writes: "All who are born by section of their mothers' womb are consecrated to Apollo as being the god of Medicine, through whom they are vouchsafed the light. In this way also Æsculapius was born. The family of the Cæsars, moreover, held in their keeping the sacred rites of Apollo, for the reason that the first of that family was brought forth by excision from the womb." See Dübner's edition of Virgil (Didot: Paris, 1858).

THE JONES FUND.

THE following additional sums have been received for the appeal made in our issue of July 20th to raise a sum to meet the legal expenses (over £60) of Mr. Jones of Edmonton:—Sums already acknowledged, £24 15*s.* 6*d.*; F. de Havilland Hall, M.D., £1 1*s.*; G. Henty, M.D., 10*s.* 6*d.*; W. H. Plaister, Esq., 10*s.* 6*d.* Further subscriptions will be gladly received by Dr. J. W. Hunt, 101, Queen's-road, Dalston, N.E. The list will close next week.

Astonished.—The action of Dr. B—— does not seem to show that dignified independence which is always desirable when a patient wishes to change his medical adviser. Some allowance may perhaps be made for feelings based on generations of professional attendance and possibly a conviction that the dismissal was not justified by any fault of which Dr. B—— was conscious.

Dr. Belcher (West Brighton).—The account, though interesting, lacks direct medical authentication, and is devoid of the details necessary to render it useful to professional readers.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. W. T. Gairdner, Glasgow; Dr. S. H. Habershon, London; Dr. A. E. Garrod, London; Mr. T. Bond, London; Dr. T. Acland, London; Mr. Mayo Collier, London; Dr. Maguire, London; Dr. S. Di-Giorgi, Mazzara del Vallo; Dr. de H. Hall, London; Mr. A. N. Lawrence; Dr. King Irwin, Dublin; Dr. Thomas Harris, Manchester; Dr. Norman Moore; Mr. Raywood, Cardiff; Mr. B. Thornton, Margate; Sir J. Crichton Browne, Dumfries; Mr. B. Waugh, London; Messrs. Wilkinson and Co., Newcastle-on-Tyne; Dr. F. M. Pope, Leicester; Messrs. Irvine and Co., London; Dr. White, Brentwood; Messrs. Hopkinson and Co., Notts; Dr. H. Belcher; Mr. Paterson, Dundee; Messrs. Lee and Martin, Birmingham; Dr. Bell Taylor, Nottingham; Mr. Harrison Cripps, London; Dr. W. W. Jones, Llanfairfechan; Messrs. Rankin and Borland, Kilmarnock; Mr. Willmore, London; Messrs. Godfrey and Cooke, London; Mr. Bolton, Roumania; Messrs. Thompson and

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Co., London; Mr. Cleland, Belfast; Mr. Paton, London; Mr. Nelson Hardy, Dulwich; Mr. Eaton, Birmingham; Mr. T. Laffan; Dr. James Little, Maryport; Mr. Branson, Tungamah; Messrs. Oetling and Co., Manchester; Dr. F. P. Atkinson, Surbiton; Messrs. Hirschfeld Bros., London; Mr. C. S. Jeaffreson, Newcastle-on-Tyne; Mr. Lawson Tait, Birmingham; Dr. A. J. Richardson, Hove; Messrs. Evans and Co., Liverpool; Dr. J. A. Thompson, Sydney; Messrs. Hunter and Gordon, Aberdeen; Mr. W. H. B. Brook, Lincoln; Dr. Smith, Herne Hill; Miss Keightley, Ascot; Mr. Gowan, London; Messrs. Bates and Co., London; Mr. McKinney, Nunhead; Mr. W. E. Hall; Dr. T. Savill, London; Dr. Allwright, Brighton; Dr. Bronner, Bradford; Mr. Dowie, Edinburgh; Mrs. R. Murray, Dublin; Dr. J. W. Hunt, Dalston; Mr. Horsfall, Leeds; Mr. Ainley, Halifax; Mr. Arrowsmith, Bristol; Mr. W. B. Simpson, Darlington; Dr. Brown, Westgate-on-Sea; Dr. O'Neill, Lincoln; Dr. Dupin, Toulouse; Messrs. Zimmermann, London; Dr. Browne, London; Dr. Humphreys, Portsmouth; Dr. Taylor, Norwich; Mr. Dallas, London; Mr. Lamond, Glasgow; Messrs. Johnston, Edinburgh; Mr. Shapcote, Devonport; Mr. Pentland, Edinburgh; Mr. J. B. Browne, London; Mr. Wens, Great Portland-street; Mr. Lacey, Portsmouth; Dr. Savile, Paddington; Mr. Essex, Pontypool; Dr. Needham, Gloucester; Dr. Bate, Kew; Mr. Pensloin, Birmingham; Mr. Jackson, Sheffield; Mr. Moross, London; Dr. Bell, Scatwell; Dr. Milne, London; Mr. Crassweller, Highbury; Messrs. Clay and Son, London; Mr. Hornibrook, London; Z. Y. X., London; A Medical Student; C. F. H.; The Director-General of the Army Medical Department; A. G. D.; The Director-General of the Navy Medical Department; A Subscriber; C. T. Q.; H. C. F.; Acting Surgeon; M. F., London; G. H. B., Carlisle; St. Patrick's Bitters Co., Liverpool; L. S., London; Dorset, London; L.S.A., London; An Enquirer; Examiner, London; T., London; Secretary, Shrewsbury County Asylum; Registrar, Yorks. Coll.; Secretary, Macclesfield Infirmary; M.D., Birmingham; M. B. B.; Secretary, Manchester Royal Infirmary; M. D. B., London; Holyrood, London; X. Y. Z., London; Matron, Bournemouth; Barbarosse, London; Indicus.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Tyte, Minchinhampton; Dr. Crutchley, Stoke-on-Trent; Dr. Pollard, North Devon; Dr. Wright, Halifax; Mr. Jones, Cardiff; Messrs. Duncan and Co., Edinburgh; Mr. Burgess, Manchester; Messrs. Griffiths and Millington, Worcester; Dr. Hitchman, Fairfield; Messrs. Burgoyne and Co., London; Mr. De St. Dalmas, Leicester; Mr. Nicholls, Bury St. Edmunds; Mr. Delaney, Burton-on-Trent; Mr. Clements, North Walsham; Mr. Gray, Bristol; Mr. Petter, Yeovil; Messrs. Rodgers and Co., London; Dr. Magauran, Southampton; Mr. Lawrence, Bury St. Edmunds; Mr. Anderson, London; Mr. Chorlton, Guisborough; Mr. Elliott, Galashiels; Mr. Beck, Leamington; Messrs. Rodgers and Co., Sheffield; Mr. Thornton, Birmingham; Messrs. Wright and Co., London; Miss Williams, Leamington; Mr. Purnand, Woolwich; Mr. Forsyth, Glasgow; Dr. Wood, Pontypool; Mr. Kennedy, Port William; Dr. Pavy, London; Dr. Riordan, Cork; Mr. Hall, Salford Union; Dr. Duncan, Glasgow; Mr. Annus, Leicester; Dr. Johnson, Skipton; Mr. Bagshaw, Salford; Mr. Grace, Bristol; Mr. Heywood, Manchester; Mr. Niven, Oldham; Mr. Cole, Hartland; Dr. Wood, Monmouth; Mr. Jackson, Bradford; Major Pead, Dulwich; Mr. Ford, Sittingford; Messrs. Ingram and Royle, London; Mr. Weary, Ryde, Isle of Wight; Dr. Wilkins, Ealing; Mr. Cannock, Derby; Dr. Bower, Bedford; Mr. McConaghy, Ireland; Mr. Williams, Aberystwyth; Mr. Jones, Rotherham; Mr. Palethorpe, Dudley; Mr. Ross, Glasgow; Dr. Currie, Acklington; Mr. Watson, Woolwich; Dr. Beale, Tiverton; Mr. Penivill, Gloucester; Mr. Harrison, Collumpton; Dr. Perkins, Manchester; Mr. Walker, Newport; Miss Hyde, Portsmouth; Clerk, Hartlepool Union; Medicus, London; Secretary, Hants County Asylum; Marmion, London; Medicus, Lancashire; B., Wandsworth-common; Alpha, London; Practice, London; F., Hull; Stethoscope, London; Thesis, Golden-square; Oxon., London; E., Blackfriars-road; B. M. S., London; Requisition, London; Medicus, Gateshead-on-Tyne; M.D., Birmingham; Medicus, Rutland; Medicus, Ambleside; Yorks, London; Q. G., London; Gamma, London; Colonial, London; M.B., Green-lanes; Mare, London; L. P., London; May, London; L. H. T., Bourton; Dr. X., London; Beta, London; North Sea, London; Medicus, Dublin; L.R.C.P., London; Eucalyptus, London; L. F., London; X. L., London; Deloraine, London; W. S., Edmonton; T. N. G., Worthing; Executors, London; C. H., Sheffield; Nolens, London; E. F., London; Miss L., London; A. B., Holland-park; Beta, Essex; A. B. C., London.

Hull Daily Mail, Weekly Free Press and Aberdeen Herald, Hertfordshire Mercury, Cork Examiner, Surrey Advertiser, Mining Journal, Madras Mail, Birkenhead and Cheshire Advertiser, Reading Mercury, Christian Commonwealth, City Press, &c., have been received.

Medical Diary for the ensuing Week.

Monday, September 2.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, September 3.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

Wednesday, September 4.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, September 5.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Friday, September 6.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, September 7.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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THE LANCET.

LONDON: SATURDAY, SEPTEMBER 7, 1889.

ADDRESS TO MEDICAL STUDENTS.

TIME, ever restless, is once again bringing us face to face with the commencement of a new medical year, and is bringing with it also its batch of aspirants to the wand of ÆSCULAPIUS. Men are coming forward, for the most part filled with the energy of youth and prompted by hope, some feeling even already the deeper thrusts of the keen needle of ambition, which would lead them to strive for higher things even before the first rung of the ladder has been surmounted.

Students, taken as a whole, possess a certain *facies*, a particular generic likeness, which a careful observer can find stamped upon them almost from the first, and year after year this likeness is found reproduced with surprising similarity. The first-year's man, for instance, is easy to be recognised; his walk, his manner, his conversation, all these mark him out as a beginner to be shaped and evolved into the finished product—a cultivated medical man. Last year we dealt more particularly with the student in this his chrysalis stage; we intend now to follow him further in his course, and to refer somewhat in detail to those points the cultivation of which appears to us most surely to lead to the production of the best samples of the Galenic butterfly. In dealing with generalisations on this subject it is almost impossible to avoid repetition, and much that we shall have presently to say has been dilated on previously; still a good lesson does not spoil for being twice told.

The choice of the profession of medicine should be made only after the most careful consideration of its aims and requirements, and after a diligent endeavour on behalf of the would-be student to discover whether he is fitted, mentally and physically, to undertake the responsibilities of the calling. Some men enter the profession who, though they succeed in obtaining a qualification and manage to eke out a livelihood by its practice, are yet unfitted for the work. They may possess a physical organisation incapable of withstanding the arduous bodily labour which every country practitioner is called upon to perform; their voice may contain not a single chord the vibration of which brings comfort to the ear of the restless sufferer; a mind, untrained to methods of comparison and devoid of judicial balance, may constantly lead their judgment astray; or a manner, brusque and abrupt, may make them out of place in a sick room. To such men the earning of the honourable competency within the reach of all capable practitioners is a matter of the hardest toil, and they find absolutely no delight in the exercise of a calling utterly unsuited to their tastes. It remains for them only to regret that before the commencement of their training a kind friend had not pointed out to them their incompatibility with their chosen vocation.

It must be remembered—and it deserves from us especial emphasis—that a good medical practitioner, like a genius, requires in his composition much that is innate, much that cannot be supplied by education alone; and it behoves those on whose shoulders falls the responsible task of deciding "what we shall do with our sons" to endeavour to discover if the candidate for medicine is naturally fitted for practice. Mere capacity for remembering is not sufficient, nor is simple diligence or power of application. Probably one of the most essential things is a sympathetic temperament—just that very quality in which the medical student of olden days was supposed to be deficient. And another essential is tact, for more patients are lost to a practitioner through want of tact than through assumed want of skill; tact, and tact alone, will often cause the most obstreperous and self-willed minds to bend to the will of the physician and carry out faithfully a line of treatment personally found most disagreeable: a trusted practitioner has constantly placed before him problems of perhaps only semi-medical nature, which require the most delicate manipulation to bring to a satisfactory solution, and the handling of which will make great calls on his tactical qualities. Then, again, it need hardly be said that the successful medical man must possess a large fund of common sense, a most subtle mental compound hard to define and to isolate, but in its absence making the need of it most keenly felt. The presence of such qualities as these, never created but always improved by education, furnishes a groundwork, a substratum, which under cultivation becomes the mind of the talented physician. The early recognition of these qualities is not always an easy task, though sometimes they are clearly marked.

Let us now take it for granted that the preliminary examination has been passed and that the medical school is selected, and let us follow the student as he enters on his work. He will find himself confronted with a long curriculum, and he will discover that he is expected to master many separate branches of learning. "What are the best methods of learning?" is a question always asked by the tyro when he sees the formidable list of subjects before him, and the still more formidable size of the volumes which serve as text-books of each. He feels that no mere intellectual effort, without system and unguided, will enable him to master even a minimum of the information required nowadays from candidates at the examining boards. We repeat here what has been often said before: there is no royal road to knowledge, and the method which one student finds to give him the best results for his mental labour will be utterly unsuited to another.

One of the first things to be cultivated is a proper habit of thought. Let the student think out for himself the problems put to him, and let him seek to discover a reason for everything. The confidence engendered by such a practice is one of the healthiest stimuli to further study. When he begins, the disappointments will of course be many, and the explanation of facts seem even more complicated and obscure than their bare statement; but this feeling will speedily wear off, and the pleasure experienced in the possession of rational knowledge will more than repay the extra labour expended in its thorough acquisition; he will with pride find himself becoming converted from a laborious reader of books into a student in the truest sense of the term.

Lectures should be attended diligently for several reasons:

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among others, because attendance on them is a duty required by the examining bodies, and every duty worth doing is worth doing well; because it is the business of a good lecturer to impress facts of importance which are easily overlooked by the casual reader; and because lectures serve to mark out the work of a session into regular stages, securing, if followed, diligence from the first, and preventing undue congestion towards the end. Notes at lectures should always be taken; the facts, the headings, recorded in brief, while the conclusions and the reasons leading up to them should be taken down more fully. There is no better mental exercise than the learning to make an intelligent abstract of this kind during the progress of a lecture; and to aid in the accomplishment of this sufficiently fully and satisfactorily stenography will be found most valuable. We believe the day to be not far hence when shorthand will be as commonly used in the class-rooms of a medical school as it is at a reporter's table.

It is an excellent plan to keep a separate note-book for each subject, and to write on one side only of the page, reserving the opposite for an abstract of a different kind, to be made after a diligent perusal of the lecture in the chosen text-book. These two abstracts standing side by side will be found invaluable as a means of impressing on the memory the subject matter to be learned; the one will be an epitome of the language of the lecturer, the other the concrete expression of the student's own cerebration on the subject, for the text-book abstract should never be copied direct, but should be compiled after the book is closed—it should be a true memory picture.

And this brings us to the subject of reading. Nearly every beginner is anxious to know how best to read. Here there is the greatest diversity. Some, not many, do their best work in the early morning; others prefer to labour before or after lunch; and others, again, reserve their energies for an evening spell. As to the attitude best to adopt in order to absorb knowledge, there is also wide divergency of opinion: one will sit bolt upright in a straight-backed chair; another will assume a position more nearly approaching the horizontal; while a few declare themselves incapable of doing good work unless they place themselves in a posture of partial inversion. As to the advisability of companionship, the same diversity still prevails: "reading in pairs" finds favour with many, the text-book being taken by each alternately and read aloud; others prefer to be left severely alone. With inanimate companionship, again, there is no common custom: those are to be found who, without the consolation of the fragrant weed, find thoughts flighty and attention unfixed; but once the calumet be lighted, then strings of "relations" and "equations" are eagerly garnered to the casket of the memory, fact following fact with the regular puff of the pipe, and ascending, like the smoke ring, to disappear in the intellectual firmament, but ready to be conjured up again by the wand of recollection. We would leave this portion of the subject with the statement of a few aphorisms: Good reading is not, as a rule, to be done at long stretches; read an hour and rest ten minutes, thinking carefully over the matter read; waste no time by copying long extracts from authors where the original is ever at hand in more legible form; mark particularly those paragraphs containing explanations and reasons, and those often given in the form of recapitulations; and finally, as above advised, when the section is ended, leave time sufficient to shape out a concise epitome for the note-book.

But, valuable as are notes and abstracts in assisting to fix permanently facts difficult of remembrance, they are not to be compared with drawings and diagrams in this respect. If a student can make a correct drawing of a dissection or of a pathological condition, it is an objective demonstration that he knows it; and a good drawing, occupying but a few inches of his manuscript, tells often more than pages of verbose explanation. In pathology particularly, the relations of organs to neighbouring parts are often so disturbed, and the appearances they present so irregular, that they almost defy description in words, whilst many of them lend themselves with peculiar aptness to pictorial illustration. An objection which the beginner at once puts forward is, "But I have no idea of drawing." Yet no one will be more surprised than he himself at the rapid progress he can make in this direction if he takes the pains to begin making diagrams, and his surprise will be the greater when there dawn upon him the multitudinous uses to which this diagram method can be put, for it can be made to delineate not only outlines of objects, but also skeletons of theories. It encourages, too, the development of a most valuable faculty, that of observation—a faculty which students, as a rule, are averse to commence to cultivate, because they find that it requires much pains, while the immediate benefit is not apparent to them. And from the first it is important to make single precise observations. The determination of the density of a tumour should be accomplished by a single well-directed act of manipulation, and multiple aimless examinations should be avoided. The same holds good with inspection, percussion, and auscultation. Let each individual act of examination be done with a purpose; the patient will then be spared much discomfort, and the investigator will have gained all the knowledge he seeks.

Throughout his ward training the student will find that the practical application of these principles will bring him the best results for his labour. It is quite impossible to over-estimate the value of confirming at every opportunity the truth of clinical facts. Here, again, in investigating the nature of a malady at the bedside, one should have a method, and should follow it closely. In every instance, unless there is some special reason for exception, the "instructions for case-taking" should be adhered to, for many collateral facts likely otherwise to be overlooked are thus brought to light. The questioning should not be confined to the patient, but any point not clear to the mind of the investigator should form the subject of an interpellation of the teacher. Get into the habit of asking questions. Many men from shyness walk away from a bed with an entirely wrong idea as to the illness or its treatment, when one or two simple queries would have cleared up the whole matter. Others, again, men perhaps old in years but young in knowledge, appear to evade the asking of questions for fear of discovering to others their want of familiarity with the subject. This is the worst form of pride, and is fatal to the acquisition of useful information. It is wonderful how the art of questioning improves

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with practice. Follow a distinguished physician or surgeon in his round through the wards, and surprise will be over and over again evoked at the rapidity with which he not only lays bare the whole history of a malady, but connects it with antecedents of inheritance, of climate, of occupation. He, too, will often show how events in a life-history of apparently no moment are really landmarks of important clinical significance.

As the asking of questions is valuable as a means of gaining knowledge, so is it most needful to study the art of answering them. The importance of this is clearly recognised by the examining bodies, who require not only evidence of attendance on lectures, but also of attaining to a certain standard of proficiency in the periodical examinations held in connexion with each class. The educational value of these is very great, for to the steady worker they serve as a means of discovering whether in the ground covered by the course of instruction the facts have become fixed, and they give the student opportunities of committing statements to paper in the form required in the more important examinations later on. They should therefore be diligently attended, and if the results attained indicate a weakness in this direction, it can be corrected without the annoyance and expense of a rejection by a public examining body.

Sufficient has probably been said with regard to the general work of the student to indicate the lines that should be pursued; but it remains to anticipate his experience by pointing out that, though some of the practical work will at first be disagreeable, much of it will call forth sensations of real pleasure. Practical microscopy, for instance, has now almost reached the position of a fine art, and, apart from the value of the acquisition of gentleness of touch which must be learnt in attending a course, the results of the work itself are beautiful. The art of staining has almost reached perfection, and tissues which formerly, being imperfectly coloured, appeared difficult of recognition, now cannot fail to arrest the attention when clothed in the glorious tints of a double or triple dye. The whole field of bacteriology, too, is now open, and the study is being followed with enthusiasm by many in what little leisure they can afford, and they care as tenderly for their crops of cultivations as the orchid grower does for his larger parasites.

Throughout the whole period of study the health should be attended to, and physical recreation should, equally with work, have its share of the day allotted. Many men keep a dog, which not only serves as a faithful companion, but to give it proper exercise a walk of at least a couple of miles a day must be undertaken by its master. For the organisation of sports there are attached to every hospital athletic clubs, and we note with pleasure that at two or three at least of them the clubs have been amalgamated; the advantages of this are obvious, for it not only tends to economy but ensures a community of interest.

Finally, let those preparing for the profession never forget the importance of developing the social side of their existence. Students, if left to themselves, are apt to fall into one of two grades. On the one hand, those who, almost continually at study, allow themselves no time for relaxation, but live their lives for the time being in and for their work. Their ideas become narrow, their countenances sombre, their complexion sallow, their gait stooping; they are absent-minded, and seem often offended at the trivialities of a joke. They become labelled "smugs," and are avoided by their class-mates, which renders their position even more isolated than before. Continuing their lonely course, they pass, usually with ease, their final examinations, and then find themselves face to face with a world they have for four years affected to ignore. Such men are embarrassed in the presence of their patients, and show obvious discomfort when endeavouring to participate in the pleasures of the social circle. The world, like their school, speedily tires of them; their patients, preferring a cheerful face and easy manner in their medical adviser, desert them, and their home becomes a hermitage. On the other hand, those are to be met with who, responding to the craving for a companionship not to be found in the sober temples of science, and dissatisfied with the monotony of mental labour—freed also, perhaps, but recently from the restraints of a school or the ties of a home circle,—plunge headlong into a whirlpool of gaiety, and time, passing unheeded, brings them all too soon to the end of their curriculum. And then follows the awakening; for even supposing they have been able, by the aid of skilled "coaches" and the forced marches of pernicious cramming, to reach the goal of qualification, they find themselves approaching the investigation of cases with nervous apprehension, and their life becomes one long round of regret at opportunities lost; they are ever impressed with a keen sense of their own incapacity, and ever fearful lest this private impression should become public knowledge. We have purposely sketched the extremes of each type; and our object is, not to intemperately recommend that neither should be followed in any point, but to insist on the truth of the old maxim, *in medio tutissimus ibis*—that the truly happy life is that which combines work and recreation in their proper proportions; that the model medical man is he who, possessing knowledge of the theory and skill in the practice of his profession, combines with these the attributes of a gentleman. For this very purpose, to encourage work and to give with it the advantages of cheerful companionship, collegiate life is to be strongly recommended. At a few of the medical schools residential colleges have been either some time existent or have been recently erected, and they open their doors not only to those who, having received at the older universities a preliminary training in arts and science, are desirous of entering upon practical clinical work in a wider field, but also to that larger number who come straight from school to begin their medical studies. Those who have at heart the moral welfare of their wards are not slow to avail themselves of the advantages offered by these institutions, where students can work under the guidance of a warden, and under comfortable conditions of life, in close association with men of their own standing. Thus, judiciously controlled, but not placed under vexatious restrictions, they avoid altogether the lonely lodging with its attendant temptations.

We who have chosen the profession of medicine have had handed down to us traditions of which we are most justly proud, and many who have gone before us have set noble examples of self-denying heroism and of unselfish courage. Upon our shoulders lies the burden of safeguarding the health of the community; to each of us may many times be

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entrusted the lives of breadwinners—may more than once be confided the secrets of a life; it behoves us, therefore, so to train ourselves that we may be capable of bearing these burdens, that we may prove worthy of the confidence reposed in us. The responsibility commences with the first hour of our lives as students, and, increasing as we go on, ceases not till the race is run. Let the knowledge of this responsibility stimulate us ever to the acquisition of fresh facts; let each endeavour to add his jot or tittle to the mass of information which, placed at our disposal by the labours of our predecessors and contemporaries, and applied by us in the practice of our art, may serve to alleviate human suffering. Then indeed, in our later years, contemplation of the time spent in the practice of a vocation dedicated to such noble objects can but be a pleasant retrospect, carrying with it the conviction that life's journey has not been undertaken in vain.

DEGREES FOR LONDON MEDICAL STUDENTS.

DURING the past twelve months the movement for granting degrees to the medical students educated in London, on conditions of examination similar to those on which they are awarded in the Scottish and Provincial Universities, has made an important step forwards. The Report of the Royal Commission appointed to inquire into the question has been issued, and its recommendations are entirely in accord with the proposals of the advocates of the movement. The Commissioners say that they are satisfied "that a great demand exists for medical degrees attainable in London more easily than at present, and that it may be desirable to provide for that want in some proper manner." This legitimate grievance of London medical students, on which THE LANCET has for so long insisted, is thus fully recognised; but, being admitted, a difficulty arises as to the best means for its removal. The Commissioners unanimously conclude that the granting of the degrees by "such a body as the Senate of Physicians and Surgeons proposed by the Royal Colleges would not be the best means by which that end could be attained," and hence the remedy must be found either in so changing the character of the existing University of London as to adapt it to this purpose, or in founding a new University. University and King's Colleges had presented a petition to the Privy Council, and the heads of those Colleges, who were heard before the Commission in favour of the latter alternative, urged that they were Colleges of great academic weight and character, and of sufficient standing to become the nucleus of a new degree-giving and examining University in all faculties. Of the constitution of the Medical Faculty, the medical schools separately, or as represented by the Royal Colleges of Physicians and Surgeons, were to form an integral part. If this scheme had been adopted, the University of London would have remained as at present an imperial examining board. The members of the Royal Commission were all agreed in the opinion that the general case for a real Teaching University in London is made out; but, unfortunately for the settling of the question, they were not similarly unanimous as to whether the establishment of this Teaching University should be brought about by the extension of the present University or by the creation of a new University, as proposed by University and King's Colleges. The practical educationists on the Commission—Sir WILLIAM THOMSON, Sir G. G. STOKES, and Mr. WELLDON—preferred "the establishment of a new Teaching University for London, leaving it to the London University to continue to discharge its present functions." The legal members of the Commission—Lord SELBORNE, Vice-Chancellor BALL, and Sir JAMES HANNEN, —however, attached more importance to the inconvenience of having two distinct Universities in London discharging totally different functions, and were therefore in favour of so altering the constitution of the existing institution as to unite the teaching and examining functions in a single University. With this object in view, they recommended the Senate and Convocation of the University of London to apply for a new Charter, "extending its functions and duties to teaching; associating with it teaching colleges and institutions; remodelling the constitution of its Senate; establishing as electoral bodies the teachers of its constituent and associated colleges and institutions in the several faculties of Arts, Science, Laws, and Medicine; establishing boards of studies, and otherwise granting new powers to the University"; and to this recommendation the other members of the Commission have consented, and "a reasonable time" has been given to the authorities of the University of London to consider and take action upon the suggestions laid down in a detailed scheme for its reorganisation by the Commissioners in their report. The Lord President of the Privy Council has told a deputation that he considers a year a "reasonable time," and this will expire on April 29th, 1890. As to the present examination standard of the University, it is significantly noted that, "as to medical degrees, we think that a standard of attainment appropriate for honours ought no longer to be required by the University for an ordinary or 'pass' degree," and a paragraph (33) is devoted to showing how this alteration in the standard can be effected. Considerable changes have been made during the past year in the examinations in the strictly medical subjects, and further alterations in the scientific curriculum are announced for next year; but although these will increase the facilities for obtaining medical degrees, they do not, to any great extent, affect the standard, and it is in this respect that the chief difficulty of the University in meeting the views of the Commissioners lies. A real lowering of the "pass" standard to that of other Universities will alone satisfy the just wants of the average medical student in London, but such a lowering of the present exceptionally high standard would completely alter the value of its degrees, and be opposed to the views of most of its graduates. The Senate is now engaged in working out a scheme on the lines suggested by the Royal Commissioners, and this must be presented to Convocation during the coming winter session. Until this has been done, and Convocation has decided on its acceptance or refusal, no further action can be taken by any of the bodies interested in the movement; but as the "period of grace" will expire before May next, it is to be hoped that a fair and suitable plan for giving the London student the advantages with respect to obtaining a degree which his fellow-students elsewhere now enjoy will be forthcoming, and be even advancing towards a satisfactory issue, before the commencement of the winter session of 1890.

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CHANGES IN THE MEDICAL EXAMINATIONS.

THE chief alterations in the Examinations of the various Licensing Boards during the past year have been made by the Senate of the University of London with a view to increase the facilities for obtaining degrees at the University without lowering the existing standard; and experience, so far, has shown that these alterations have been to the advantage of the candidates. At the Final M.B. Examination in May candidates obtained degrees who in previous years would have had to wait until November next; and at the recent Intermediate M.B. Examination a far larger number of students than usual passed in the first division. The changes in the regulations for the M.D. Degree have not yet come into force, but they are sure to lead to an increase in the number of graduates as soon as the conditions are fully known; and the contemplated division of the Preliminary Scientific M.B. Examination into two distinct parts must increase the number of those who pass, by lessening the difficulties of by far the most severe examination in the whole series.

The changes instituted and proposed are as follow:—At the Matriculation Examination Botany has been included as an optional subject. At the Preliminary Scientific M.B. Examination the syllabus in Biology and in Experimental Physics has been modified, and in 1890 a practical examination in the latter subject will be introduced. In July, 1890, and thenceforward, this examination will be divided into two sections: (1) Chemistry and Physics, and (2) General Biology. These may be taken separately or together, and candidates who take the two sections together will be credited with either section in which they may have passed, though they may have failed to pass in the other. At the Intermediate M.B. Examination the questions for Pass and Honours have been submitted to the candidate in the same paper, and a free choice has been given to him in selecting therefrom, so that he may answer one or more Honours questions with a view to Honours or to a mere Pass only; and thus there is now no restriction on his making a choice from a very extended range of questions. A revised syllabus in Organic Chemistry will take effect in July, 1890. A Final M.B. Examination for a "pass" only will be held on the first Monday in May, in addition to the usual examination in July. Candidates for the degrees of M.D. and M.S. now have the option of presenting a "Thesis," which, if approved, will exempt them from the greater part of the examination; and State Medicine has been introduced as an alternative branch to Medicine and Obstetric Medicine in the M.D. Examination. The following important alteration in the regulations has a more general bearing and should be widely known:—

"Registered medical practitioners of not less than three years' standing and twenty-five years of age, having passed the Matriculation and Preliminary Scientific Examinations, are now admissible to the subsequent examinations for Degrees in Medicine and Surgery without the intervals prescribed by the regulations, on producing certificates that they have gone through the required course of training *at any time* previously."

At the Conjoint Examining Board for England, all candidates are now required to present themselves in Anatomy and Physiology together, instead of having an option of taking them separately as heretofore, and if the candidate does not obtain a prescribed minimum in both subjects he will be referred in both, even if he has obtained the requisite number of marks for a "pass" in one of these subjects. Consequent on the introduction of Surgery into the final subjects at the Society of Apothecaries, the Final Examination at that Board has been subdivided into two distinct sections, which are held at different dates. The University of Aberdeen have under consideration certain changes which will effect a much-desired reform in the examination scheme. The examination in General Science will be placed at an earlier period of the course; one examination in Anatomy will replace the two now held in this subject; Surgery will take its proper place in the Final Examination; Pathology will form a new subdivision of the Final Examination; and in general a greater subdivision of the whole examination will be permitted.

DENTAL EDUCATION.

THE practice of the dental specialty presents many advantages to those who wish to follow some branch of the "healing art." Although now an overcrowded calling, yet, owing to the salutary action of the Dentists Act and the restrictions put upon non-qualified practitioners, the number of new additions to the Dental Register, as shown by statistics, does not approach the number yearly erased from death and other causes, and each year it has become a more desirable profession both from these limitations and the higher education of the men enrolled. That necessary qualification—a certain age—before anything like a large practice can be secured, appertaining to most branches of Surgery, does not at present apply to dental work, as the public generally have little objection to a young dentist. This may in part be due to the fact that the younger generation have had much greater facilities of special education than their fathers, owing to the good work of the members of the staff of the Dental Hospital and of the National Dental Hospital in London, and also of many provincial dental hospitals.

In the dental branch of the profession there are few arts and sciences which cannot be laid under contribution. Surgery Medicine, Chemistry, Mechanics (a very important part of dentist's work), and a multitude of others, might be cited. Though a profession of great antiquity, specimens of dental art being found in Egyptian mummies 2000 years old, it may yet be considered in its infancy. The rapid changes which have taken place in its practice during recent years, and to which there seems hardly a limit, mark it out as a good field for an energetic man. On the other hand, it is an exceedingly laborious profession, both mentally and physically, and the incidental expenses are large. The social status of "dentists" as a body has greatly improved since the passing of the Dentists Act, before which anyone could style himself "Dentist"; but the social status of the dentist himself depends upon his individuality. We strongly urge any of our readers intending to take up dental surgery, not to be content with the Licentiateship of Dental Surgery simply, but to add the L.R.C.P. and M.R.C.S. It entails only an extra two years' studentship, and the amount of practical knowledge of general surgery and medicine gained

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would in after-life more than compensate for the extra time spent, to say nothing of the advantage of being a member of the medical family, and not merely a distant relative. It is not absolutely necessary for a medical student who wishes to practise dental surgery to take the L.D.S. diploma, but at the same time it is to his interest to do so; for to gain a fair knowledge of the subject he must attend the special department of a general hospital (few of which—in London only Guy's—attempt to deal with the subject thoroughly), or at a special dental hospital; and, having done this, a little extra trouble will enable him to be admitted to the examination at the Conjoint Board, without whose diploma few dental appointments are available. Without going into the requirements of the L.D.S. candidate pure and simple, the special regulations for those taking the L.R.C.P. and M.R.C.S. and the L.D.S. are: Lectures upon Dental Anatomy and Physiology, Human and Comparative, two courses; Dental Surgery, two courses; Dental Mechanics, two courses; Metallurgy, one course; Practice of Dental Surgery, two years; apprenticeship to a competent practitioner in the details of Mechanical Dentistry for a period of not less than three years. And we cannot do better than quote the words of the Dean of the Dental Hospital of London on the subject of how best the student should distribute his time.

"During the mechanical apprenticeship, eighteen months of which is recognised by the College of Surgeons when taken previous to the preliminary examination, the student can receive instruction from any registered medical practitioner, or any pharmaceutical chemist, or at a public hospital, or infirmary, or dispensary, in Chemistry, including Chemical Physics, Practical Chemistry, Pharmacy and Materia Medica; and after the preliminary examination has been passed, he should register as both a dental and medical student, and present himself for examination in these subjects, before entering a hospital (or, if he prefers it, he may take the two latter later in his career—viz., at the second examination); then enter simultaneously at a general and dental hospital. At the expiration of his first winter session at a general hospital let him pass in Elementary Anatomy and Physiology; at the end of his second winter let him take Anatomy and Physiology. At the expiration of two years he may present himself for the dental licence; he will during these two years have been attending simultaneously both the general and dental hospital. During the remainder of his time he should devote himself to Surgery, Medicine, and Midwifery &c., in which subjects he may be examined at the expiration of two years from the time of passing the second examination. It is felt that the recent changes brought about by the amalgamation of the two Colleges have greatly increased the difficulty of obtaining these higher qualifications; such is not really the case, the curriculum being really simplified. For the convenience of reference the mode of procedure is tabulated as concisely as possible for the dental student to obtain the three diplomas: 1. Preliminary examination. 2. Apprenticeship. 3. Registration as a dental and medical student, or this latter can be postponed until entry at hospital. 4. During apprenticeship receiving instruction as above in Chemistry, Materia Medica, and Pharmacy, and passing in them at the Examination Hall. 5. Enter simultaneously at a dental and general hospital. 6. Pass in Elementary Anatomy and Physiology at end of first winter session. 7. Pass in Anatomy and Physiology at end of second winter session. 8. Take Dental Licence at end of second year. 9. Devote remainder of time to Medicine, Surgery, and Midwifery &c. 10. Pass, at expiration of two years from second examination, the final test of the two Colleges."

The requirements of the Colleges of Surgeons of Edinburgh, Glasgow, and Ireland are very similar.

WEAK POINTS IN MEDICAL EDUCATION.

IT will be no unkind thing to medical students to give them a hint in our present number of certain weak points in the present system of medical education, to which attention is being directed in various quarters, and which otherwise they might find out at a later stage of life and in a more unpleasant way. The Bill which has just passed through Parliament providing for the notification of infectious fevers by the medical attendant will accentuate a very serious duty on the medical profession—that of early and accurately diagnosing such diseases. And it serves this good purpose, if no other, that it reminds us that in the present system of medical education there is scarcely any opportunity of seeing these diseases throughout their whole course. This is a very grave defect, and one which must be met by the Medical Council and the Examining Boards. Meantime every student should make his own opportunities of seeing such diseases. An epidemic of measles or scarlet fever or small-pox should be utilised. There are few large towns in which those diseases cannot be seen and studied with a little management. Not to see them and to know them and how to treat them, is to labour under the disability and discredit of being unacquainted with every-day work—an ignorance which under the new law will be apt to be rudely and publicly disclosed.

Psychology and Mental Disease is another branch of medical education which is very much neglected. In connexion with the schools there is but little provision for seeing mental disease and studying the history of cases and of the early stages of such cases. Yet the early recognition of significant symptoms is all-important. Here, again, there are ways and means open to the diligent student of acquiring instruction in such branches of practice, and he will be the wisest man who does not wait for the pressure of the examining authorities.

The enormous development of the several branches of medical education of late has tended to diminish the attention paid to Medico-legal questions, and to leave them more absolutely in the hands of experts. This is almost inevitable. But we have been lately again reminded of the fact that at any moment the medical practitioner may be face to face with the gravest crimes and criminals, and that on his acuteness and accuracy of observation life and death and the detection of crime may turn. We believe with the late Dr. GRAVES that refined questions of toxicology must always be beyond the capacity of a practitioner immersed in the anxieties and duties of general and consulting practice. But it is important that medical education should include a sound knowledge, as far as it goes, of toxicology. Not only so; apart from toxicology there is a great range of knowledge pertaining to public health and morals which deserves systematic study from the medical man. Specially this constitutes what is known as State Medicine, and special degrees of such knowledge have henceforth to be guaranteed in those who are candidates for appoint-

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ments as medical officers of health. But it will not do for the medical practitioner of the future to be altogether at the mercy, in regard to such subjects, of the medical officer of health. Respect for his own dignity and usefulness, as well as for the interest of his patients, will incline him to give some attention to this great subject.

Among the most seriously weak points in medical education hitherto have been the subjects of Midwifery and Gynæcology. The great Scottish schools have—until very lately, at least—contented themselves with exacting an attendance on six cases of labour. True, they have made up for it by giving a six months' course of lectures. But midwifery and gynæcology are eminently subjects that cannot be taught by lectures, and must be taught by cases. This has been recognised by many students in schools where the requisite clinical instruction could not, in the very nature of things, be given, and they have gone to Ireland or the Continent to make up for the defect. It is probable that all the instruction needed could be got, and got well, at home, if teachers in larger towns once realised the demand for it. Be this as it may, let students remember that the day is not far distant—perhaps the night—when, in a lonely place, miles away from all help, they will find it an inexpressible advantage to be able to recognise presentations, to apply instruments, to meet hæmorrhages, and, in the more leisurely work of practice, to differentiate and deal with uterine and ovarian disease. Closely allied with this branch of medicine, and yet quite distinct from it, is the knowledge of Children's Diseases, which constitute so large a part of medical practice, but which are so little seen in the ordinary routine of hospital practice. The moral of all this is that students are to lose no opportunity anywhere of making their knowledge of disease more minute, especially of such diseases as are common. Rare cases are very interesting, but common diseases are of momentous consequence, and he will be the best and most successful practitioner who lays early a sound foundation in a knowledge of them, of their treatment, and of the treatment of those complications which tend most to the permanent injury of patients.

THE CHOICE OF A TEXT-BOOK.

THE selection of a text-book is a matter of great importance to the student, but the large number and variety of works of this class render the choice somewhat difficult. In the hope that it may be of some use as an indication of the course of reading best adapted for the curriculum, we reproduce (with certain additions) the advice given for some years past in these columns, arranging the works as a matter of convenience under the heads of the leading examining bodies in the metropolis—viz., the Examining Board for England (Royal College of Physicians and Royal College of Surgeons) and the University of London.

THE EXAMINING BOARD FOR ENGLAND.

For the *First* Examination of this Board the student will be required to have gained a fair knowledge of Elementary Anatomy and Physiology, of Chemistry, Materia Medica, and Pharmacy; and if he be diligent he should be able to pass both parts of the examination by the close of his first year. In *Anatomy*, he may have recourse to GRAY'S Text-book, and to the works on *Osteology* by WARD, HOLDEN, and NORTON. In *Physiology*, the Elementary Text-book of HUXLEY might well be mastered first. It will be enough for the first term of study. In *Chemistry*, ROSCOE'S Elementary book and ATTFIELD'S work. In *Chemical Physics*, FOWNES' Inorganic Chemistry edited by WATTS, or BALFOUR STEWART'S Elementary Physics. In *Materia Medica*, the works of MITCHELL BRUCE, WHITLA, ROBERTS, GARROD'S Essentials (edited by TIRARD), and BRUNTON'S or OWEN'S Elements.

For the *Second* Examination (corresponding to the Primary Membership at the College of Surgeons), the subject of *Anatomy* may be well studied in GRAY'S Anatomy, ELLIS'S Demonstrations, and HEATH'S Practical Anatomy. The anatomical plates of ELLIS and those of GODLEE, or the handier volume of MASSE, are very useful in supplementing practical work. In *Physiology*, the books most to be recommended are KIRKES' Handbook, G. YEO'S Text-book, H. POWER'S Elements, and MAPOTHER'S Manual: and *Histology*, apart from the sections devoted to it in the works of GRAY and KIRKES, may be studied in KLEIN'S Elements and SCHÄFER'S Essentials.

For the *Third* or Final Examination, in the subjects of *Surgery* and *Surgical Anatomy*, there are the Text-books of BRYANT, HOLMES, GANT, and ERICHSEN (edited by MARCUS BECK), the System of Surgery edited by TREVES, the Practical Manuals of BERKELEY HILL, CHRISTOPHER HEATH, PEARCE GOULD, and TREVES' Applied Surgical Anatomy. For *Surgical Pathology*, PEPPER, BOWLBY, or BILLROTH may be recommended. In *Diseases of the Eye*, LAWSON or NETTLESHIP. In *Medicine*, the Text-books of ROBERTS and BRISTOWE, preceded by the smaller works of CARTER or CHARTERIS. *Clinical Medicine:* FENWICK, FINLAYSON, or GRAHAM BROWN. GEE'S Auscultation and Percussion, and V. HARRIS'S Diseases of the Chest, are most valuable guides to physical diagnosis. *Pathology:* GREEN (edited by STANLEY BOYD), COATS, PAYNE, and ZIEGLER (MACALISTER'S translation), and WOODHEAD'S or STEVEN'S practical work. *Therapeutics:* BARTHOLOW, RINGER, NAPHEYS, and FARQUHARSON. *Medical Jurisprudence:* the Text-books of GUY and TAYLOR. *Public Health:* WILSON. *Midwifery:* PLAYFAIR or GALABIN, and HART and BARBOUR.

COLLEGE OF SURGEONS.

In addition to the anatomical and physiological works above mentioned, there may be read for the Primary F.R.C.S. (especially its histological and embryological sections)—QUAIN'S Anatomy, FOSTER'S Text-book of Physiology, LANDOIS' work edited by STIRLING, and GEGENBAUR'S Comparative Anatomy. Professor FLOWER'S Osteology of the Mammalia might also be read. For the Pass Examination, ERICHSEN'S work may be supplemented by chapters in the System of Surgery edited by HOLMES and HULKE. In *Operative and Practical Surgery*, there are works by STIMSON, FERGUSSON, and S. SMITH and HEATH'S Atlas. PAGET'S or BILLROTH'S Surgical Pathology and ZIEGLER'S Pathology may be profitably read in connexion with works mentioned under the Conjoint Examination.

UNIVERSITY OF LONDON EXAMINATIONS.

For the Intermediate M.B. Examination of the University of London, the subject of *Organic Chemistry* may be studied

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in the Text-books of WILLIAMSON and of FOWNES. *Materia Medica*, besides the books above mentioned, is more fully treated in the works of BRUNTON, PHILLIPS, BARTHOLOW, and H. G. WOOD. *Physiology* as for the Primary F.R.C.S., with perhaps the addition of such books as that of POWER and HARRIS for practical work and of SCHÄFER for practical histology. The anatomical text-books are those recommended above. For the M.B. Examination, the subject of *Medicine* may profitably be further studied in NIEMEYER'S Text-book, in the exhaustive and scientific treatise of the late Dr. HILTON FAGGE, in that of AUSTIN FLINT, in the admirable work of STRUMPELL, in REYNOLDS' System of Medicine, and in TROUSSEAU'S Lectures. The large System of Medicine by American authors edited by Dr. WM. PEPPER contains articles which may often be usefully consulted by those who are desirous of obtaining full and accurate information. Special monographs (see M.D. Exam.) may also be consulted. *Pathology*, which should be worked at practically, may be studied in GREEN'S, COATS', PAYNE'S, ZIEGLER'S, or HAMILTON'S Text-books, and also in the work of WILKS and MOXON (of which a new edition has lately appeared), and in that of CORNIL and RANVIER; *Midwifery*, in the writings of PLAYFAIR, GALABIN, LEISHMAN, LUSK, and BARNES; *Gynæcology*, in those of GALABIN, LOMBE ATTHILL, EDIS, M. JONES, and BARNES; *Dermatology*, in the Text-books of TILBURY FOX, LIVEING, DUHRING, R. CROCKER, and M. MORRIS; *Medical Electricity*, in DE WATTEVILLE or POORE; *Medical Ophthalmoscopy*, in GOWERS' Handbook. For the M.D. Examination, the candidate will do well to extend his reading to the better-known monographs, such as those of MURCHISON on Continued Fevers and on Diseases of the Liver; GOWERS, ROSS, CHARCOT, and WILKS on Diseases of the Nervous System; BALFOUR, BYROM BRAMWELL, and WALSHE on Diseases of the Heart; POWELL and WALSHE on Diseases of the Lungs; RALFE, W. ROBERTS, and DICKINSON on Diseases of the Kidney; E. SMITH, GOODHART, or the recent works of ASHBY and JONES and of A. MONEY, on Diseases of Children.

In the foregoing lists we have mostly indicated more than one work upon a subject, for it is of course impossible to make a single selection from among so large a number of excellent works. A certain amount of choice must be left to the student himself, who will do well to be guided in this respect by the opinion of his teacher in the particular subject. Since it is impossible as well as undesirable for him to be too discursive in his reading during his student days, he may well resolve to devote such leisure as may happen to him in the future to making the acquaintance of works which will afford not only instruction but pleasure in their perusal.

BRITISH QUALIFICATIONS ABROAD.

THOUGH, of course, the majority of newly-qualified practitioners look forward to spending their lives in Great Britain, a very appreciable minority, for one reason or another, find themselves, either from the very commencement of their careers or at some later period—perhaps towards the decline of life,—impelled to leave the mother country and to begin practice either in some one of the numerous British possessions or in foreign countries. As a British diploma cannot be expected, any more than the Queen's writ, to "run" quite all over the globe, and as a good deal of inconvenience is sometimes caused by uncertainty as to how far it is available, we propose to offer a short account of the regulations regarding the status of a British registered medical practitioner who may seek to practise in the colonies or in foreign countries. Speaking generally, it may be said that no difficulty need be anticipated in any of the colonies (Malta, perhaps, excepted) beyond the payment of a fee, and possibly a short delay.

Australia.—In all the Australian colonies the Medical Board must be first communicated with and the diplomas produced. It is generally necessary also to produce some evidence that the applicant for registration is really the person referred to in the diplomas, and the Board may take means of satisfying itself on this point. There is in some of the colonies a fee of £1 1*s.* to pay. In Western Australia the Board may examine and register an unqualified man.

Tasmania.—Here there is a Court of Medical Examiners, whose duty it is to examine the diplomas of applicants. The fee is not mentioned in the statute.

New Zealand.—There is no Medical Board here. The official to whom application must be made is the Registrar of Births, Deaths, and Marriages of any of the chief towns. The diplomas must be produced, and a copy certified to by a Justice of the Peace left with him. An advertisement must also be inserted in the *New Zealand Gazette*. The fees amount to £1 5*s.*

Fiji.—The Chief Medical Officer must be applied to for registering the name. There appears to be no fee.

Ontario.—Application has to be made to the Registrar of the Council of the College of Physicians and Surgeons, who must be satisfied with the genuineness of the diploma. An initial fee not exceeding $10 and an annual fee not exceeding $3 have to be paid, the applicant thus becoming a member of the College.

Quebec.—Application must be made to the Registrar of the Provincial Medical Board. The act of registration includes the entry of the name as a member of the College of Physicians and Surgeons. The regulations are much the same as in Ontario.

New Brunswick.—The Council of Physicians and Surgeons are applied to, and the diplomas &c. presented for inspection. There is a fee of $10, which also serves to cover the expenses of examination in the case of applicants without a diploma.

Nova Scotia.—Application to be made to the Secretary of the Provincial Board, who acts as Medical Registrar. The fee is $20.

North-West Territory.—Here the Lord-Lieutenant acts as Registrar. The fee is $5.

Prince Edward's Island.—There is a Board of Examiners, who examine diplomas and charge a fee of 30*s.*

Newfoundland.—There is no medical legislation.

Manitoba.—Application has to be made to the Registrar of the College of Physicians and Surgeons. The fee does not exceed $5.

British Columbia.—The diplomas and certificate of registration in Great Britain have to be produced to the Medical Council and an affidavit made before a justice of the peace. A fee of $10 has to be paid, and a yearly tax of the same amount. All persons not registered in Great Britain, even

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though they may have Canadian diplomas, have to pass an examination and to pay $100.

Barbadoes. — Application to be made to the Medical Assessors; fee 5*s.*

Trinidad.—The Secretary and Treasurer of the Medical Board acts as Registrar. Applicants have to prove their qualifications, and also to show that they bear a good character. All registered persons are members of the Medical Board. There is no fee.

St. Vincent.—Application to be made to the Registrar of the Medical Board. Fee £5.

St. Lucia.—Application to be made to the Chief Clerk in the Government Office. There is no fee.

British Honduras, the *Bahamas*, *Antigua*, *Dominica*, and *Tobago.*—No formality required.

British Guiana.—Application to be made to the Secretary of the Medical Board. Qualifications which have not been registered in Great Britain may be recognised.

Jamaica.—The Registrar-General acts as Medical Registrar. A declaration has to be made before a Justice of the Peace, and the diplomas are initialled by him. The fee is £1. Unqualified persons can be examined by the Medical Council. Fee £11 11*s.*

Grenada —Application has to be made to the Clerk of the Colonial Secretary. There is then a delay of a fortnight. The fee is £1.

Bermuda.—The Governor in Council gives permission to practise on the production of diplomas. There is no fee.

Hong Kong.—The Medical Board examines the qualifications of applicants. A declaration has to be made before a magistrate. The fee is $5.

Cape of Good Hope.—The Colonial Medical Committee examines the diplomas of applicants. The Colonial Secretary will then grant a licence to practise. There is no fee.

Natal.—There is a Medical Board, to which body application must be made and a copy of a declaration before a magistrate produced. The fee is £1 15*s.*

India, Ceylon, and the Straits Settlements.—Practice is free.

Gibraltar.—Diplomas must be produced to the Governor. There is no fee.

Mauritius.—No fees are required.

Sierra Leone.—Practice is free.

Turning now to the question of practice in foreign countries, it must of course be evident that in them more difficulties are likely to be thrown in the way of a British practitioner than in the colonies. Indeed, in the majority of the more important countries an examination of a tolerably strict character has to be passed before applicants, however well qualified, can obtain leave to practise. In most of the States of the American Union, however, British diplomas can be registered.

In *Italy* qualified men who confine their practice to their own countrymen are not interfered with, though, in order to practise generally, the M.D. of an Italian University must be taken.

Very different is the case in *Switzerland*, where an English doctor staying at a hotel for a night can scarcely prescribe for a fellow-traveller without contravening the law. A great deal of jealousy is evinced by Swiss medical men of English practitioners, and every effort is made to prevent their practising. In this feeling the Swiss hotel-keepers, who look largely to English physicians to send them guests, do not at all concur, so that there is a constant struggle between the doctors and the hotel-keepers regarding the exclusion of British practitioners. In order to obtain a licence, a tolerably severe examination—the State examination—has to be passed in French or German at one of the universities: Berne, Basle, Zurich, or Geneva.

In *France*, applicants must either pass the Doctorate at one of the Medical Faculties—Paris, Montpellier, Lyons, Bordeaux, Nancy, or Lille; or a simpler examination—that for qualification as "Officier de Santé"—at the medical school for the department in which he proposes to live, this minor qualification only holding good for the particular department, while the Doctorate holds good for the whole of the French dominions. Applicants should apply to the Minister of Public Instruction, forwarding their diplomas. Sometimes, especially when the applicant is an M.D. of high standing, he is given the diploma of "Officier," and usually he is exempted from portions of the examination. Although the practice of unauthorised persons is technically illegal, an English practitioner who confines himself to practising amongst his own countrymen is, we believe, if he does not obtrude himself in any objectionable way, very unlikely to run the same risk of prosecution as he would in Switzerland.

In *Germany* the State Examination, which is severe, must as a rule be passed. Occasionally exemption may be obtained.

In *Austria* it is necessary not merely to pass the examinations for the degree of Doctor of Medicine of an Austrian university but to become an Austrian subject. Strong influence at Court might perhaps succeed in getting an exception made, but, practically speaking, Austrian territory, which of course includes the Tyrol, seems to be shut off from foreign practitioners.

In *Russia* the State Examination for *Vrach* (medical practitioner) has to be passed. When the applicant holds a foreign M.D. of high value, the Minister of Education may permit the examination to be confined to reading and defending a somewhat elaborate dissertation or thesis.

In *Holland*, *Denmark*, *Sweden*, and *Norway*, a severe State examination must be passed at a university. Under very special circumstances exemption might perhaps be obtained—at least in Norway.

In *Belgium* an examination must be passed before a Central Board of Examiners by all who have not obtained the M.D. from one of the two State universities, Ghent or Liège.

In *Spain* recognition can usually be obtained for British diplomas, but there is frequently considerable delay. Application should be made through the British Minister.

In *Portugal* a State examination must be passed at one of the medical schools. This requires a good knowledge of the vernacular, but it is incumbent on those who wish to practise in Portugal or Madeira.

In *Greece* there is an examination, but it may be passed in English or French.

In *Roumania* there is a *vivâ-voce* examination.

In *Turkey* there is an examination, with a fee of £4 10*s.*, and there is frequently a good deal of delay.

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In *Chili*, *Brazil*, and the *Argentine Republic*, examinations have to be passed, the severity of which may be, under some circumstances, considerable.

A FEW WORDS OF WARNING.

THE introductory lectures usually place before the embryo doctor the dignity of thought and elevation of purpose that should be the aim of every member of the profession. It is well to be encouraged at times to realise that "man does not live by bread alone"; none the less, however, an aspirant should be allowed to see some of the shadows of the picture before making a choice. There is no disguising the fact that the medical profession is overcrowded, and becoming more so every day. In the Church the would-be curate must find a vacancy ere a bishop will ordain him; in the army and navy only as many candidates are selected as there are vacancies. To the practice of medicine there is no limit of numbers. Moreover, the mode of entering the profession seems to be designed on the plan of an elephant kraal, tapering from a broad beginning, in an easy Arts examination, to a narrow ending in difficult professional ones. This easy beginning lures many. For several years, year by year, 1200 doctors have stepped into the ranks, while only 600 have laid down their arms.

The natural result of over-competition has taken place. Pleasant practices and remunerative practices daily become harder to get and harder to keep. Even in these it is increasingly difficult to make a provision against the day of sickness and old age. Below the level of the successful ones are strugglers who barely keep their heads above water. The constant appeals in our columns bear sad record to the frequency with which wife and children are left utterly destitute. It is not merely—or even mainly, we would say—in lessened incomes that hard times have made themselves felt. In the lower ranks of the profession small incomes have been the rule all along, but now there is in addition a great change for the worse in the matter of status, personal comfort, and duration of work. Friendly societies combine, for instance, and pay a doctor. Formerly he accepted the club; now the club selects him. His remuneration is often very fair, but he is a servant instead of an independent man, and his comfort is never considered. He must work not only in the day, but every evening until ten or eleven, Sundays included. Life for him is one weary monotony of toil. The labouring classes, once accustomed to obtain such conveniences for a trifling payment of a penny a week or less, naturally become more exacting all round. Most of the discomforts of a medical man's life are quite unnecessary. Four-fifths of the late messages, which involve a second round in the same direction or an evening visit after a weary day, are not required because illness has supervened suddenly, but because the patient has postponed sending, hoping to avoid the necessity altogether. The same remark applies to Sunday work. Hardly any of it would be necessary if people took more pains to spare medical men. Perhaps the remedy for this state of things lies in a more efficient combination to protect common interests. Possibly, if medical men had offices, as is customary in America, people would learn to keep to business hours or pay accordingly for extra services No one expects a bank to keep open beyond its hours to save a careless customer from financial ruin. Let us hope that, as medicine becomes more honoured, these petty worries will be reduced to the minimum that is really unavoidable in so uncertain a calling. The remedy for the lack of financial prosperity is not so easy to see, especially as medical men are almost obliged to keep up appearances, and hence the public believe them to be better off than they really are. Nor have the members of any other learned profession to collect their income direct in driblets from the poor. The highest judge on the bench or the greatest general in the land is, of course, in part paid by the poor, but indirectly. No doubt both judge and general would often forego part of their income, as medical practitioners frequently do, if they had to go to poor houses in time of sickness for doles of half-a-crown instead of having a tax-gatherer to do it for them. Another difficulty of the medical career is the personal nature of any reputation enjoyed. If a schoolmaster makes a name, he can add to his staff of assistant masters; an architect can take apprentices, a lawyer articled clerks; a shopkeeper can multiply assistants; and in every case the juniors can add largely to their chief's income. To a member of the medical profession reputation merely means that extra income can be won, but solely by increased physical and mental efforts, under which too often he breaks down in a few years. Such are some of the dark shades in the picture.

SESSION 1889-90.

QUALIFICATION.

REGULATIONS AS TO THE GRANTING OF DEGREES OR DIPLOMAS BY THE MEDICAL EXAMINING BOARDS OF THE UNITED KINGDOM.

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GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION OF THE UNITED KINGDOM.

Registration of Medical Students.—The following are the General Medical Council's Regulations in reference to the registration of students in medicine:—

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Every medical student shall be registered in the manner prescribed by the General Medical Council. No medical student shall be registered until he has passed a preliminary examination as required by the General Medical Council, and has produced evidence that he has commenced medical study. The commencement of the course of professional study recognised by any of the qualifying bodies shall not be reckoned as dating earlier than fifteen days before the date of registration. The registration of medical students shall be placed under the charge of the branch registrars. Each of the branch registrars shall keep a register of medical students according to a prescribed form, and shall enter therein the name, the preliminary examination and date thereof, the date of registration, and the place and date of commencement of medical study, as certified by a master or a teacher, or an official in a medical school or hospital. Every person desirous of being registered as a medical student shall apply to the branch registrar of the division of the United Kingdom in which he is residing; and shall produce or forward to the branch registrar a certificate of his having passed a preliminary examination as required by the General Medical Council, and *evidence that he has commenced medical study*. The branch registrar shall enter the applicant's name and other particulars in the Students' Register, and shall give him a certificate of such registration. Each of the branch registrars shall supply to the several qualifying bodies, medical schools, and hospitals, in that part of the United Kingdom of which he is registrar, a sufficient number of blank forms of application for the registration of medical students. The several Branch Councils—and in England the Executive Committee, if its meeting be more convenient and the case be urgent — have power to admit special exceptions to the foregoing regulations as to registration, for reasons which shall appear to them satisfactory. A copy of the Register of Medical Students, prepared by each of the branch registrars, shall be transmitted on or before December 31st, in each year, to the registrar of the General Council, who shall, as soon as possible thereafter, prepare and print, under the direction of the Executive Committee, an alphabetical list of all students registered in the preceding year, and supply copies of such authorised list to each of the bodies enumerated in Schedule A to the Medical Act (1858), and through the branch registrars to the several medical schools and hospitals. The several qualifying bodies are recommended not to admit to the final examination for a qualification under the Medical Acts any candidate (not exempted from registration) whose name has not been entered in the Medical Students' Register at least forty-five months previously. In the case of candidates from other than schools of the United Kingdom, the Branch Councils—and in England the Executive Committee, if its meeting be more convenient and the case be urgent—have power to admit exceptions to this recommendation. The regulations for preliminary general education are as follows:—

No person shall be allowed to be registered as a medical student unless he shall have previously passed (at one or more examinations) a preliminary examination in the subjects of general education as specified in the following list:—1. English Language, including Grammar and Composition. 2. Latin, including Grammar, Translation from specified authors, and Translation of easy passages not taken from such authors. 3. Elements of Mathematics, comprising (*a*) Arithmetic, including Vulgar and Decimal Fractions; (*b*) Algebra, including Simple Equations; (*c*) Geometry, including the first book of Euclid, with easy questions on the subject-matter of the same. 4. Elementary Mechanics of Solids and Fluids, comprising the Elements of Statics, Dynamics, and Hydrostatics. 5. One of the following optional subjects:—(*a*) Greek, (*b*) French, (*c*) German, (*d*) Italian, (*e*) any other Modern Language, (*f*) Logic, (*g*) Botany, (*h*) Zoology, (*i*) Elementary Chemistry.[1]

W. J. C. Miller, B.A., Registrar of the General Council and of the Branch Council for England, 299, Oxford-street, London, W.—James Robertson, Registrar of the Branch Council for Scotland, 1, George-square, Edinburgh.—R. L. Heard, M.D., Registrar of the Branch Council for Ireland, 35, Dawson-street, Dublin.

[1] In the case of students in Universities with a prolonged curriculum, where the examination in Mechanics required for their degree is taken at a more advanced period of study than before commencing medical education, registration can be effected only on having passed the examination in Mechanics, but their registration may be then antedated to the period at which the Preliminary was passed.

I.—UNIVERSITIES IN THE UNITED KINGDOM.

The following is a list of Examining Bodies whose examinations fulfil the conditions of the Medical Council as regards preliminary education, and have been recognised as entitling to registration as a medical or dental student; provided that the Elementary Mechanics of Solids and Fluids, comprising the elements of Statics, Dynamics, and Hydrostatics, is shown to have been included in the examination:—

University of Oxford.—Junior Local Examinations; Certificate to include Latin and Mathematics, and also one of these optional subjects—Greek, French, German. Senior Local Examinations; Certificate to include Latin and Mathematics. Responsions. Moderations. Examination for a Degree in Arts.

University of Cambridge.—Junior Local Examinations; Certificate to include Latin and Mathematics, and also one of these optional subjects—Greek, French, German. Senior Local Examinations; Certificate to include Latin and Mathematics. Higher Local Examinations. Previous Examination. Examination for a Degree in Arts.

University of Durham.—Examination for Certificate of Proficiency. Examination for students at the end of their first year. Examination for a degree in Arts.

University of London.—Matriculation Examination. Preliminary Scientific (M.B.) Examination. Examination for a Degree in Arts or Science.

Victoria University.—Preliminary Examination; Latin to be one of the subjects. Entrance Examination in Arts, to include all the subjects required.

University of Edinburgh.—Local Examinations (Junior Certificate); Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects—Greek, French, German. Local Examinations (Senior Certificate); Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects—Greek, French, German. Preliminary Examination for Graduation in Science or Medicine and Surgery. Examination for a Degree in Arts.

University of Aberdeen.—Local Examinations (Junior Certificate); Certificate to include all the subjects required. Local Examinations (Senior Certificate); Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects—Greek, French, German. Preliminary Examination for Graduation in Medicine or Surgery. Examination for a Degree in Arts.

University of Glasgow.—Local Examinations (Junior Certificate); Certificate to include all the subjects required. Local Examinations (Senior Certificate); Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects—Greek, French, German. Preliminary Examination for Graduation in Medicine or Surgery. Examination for a Degree in Arts.

University of St. Andrews.—Local Examinations (Senior Certificate); Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects—Greek, French, German. Local Examinations (Junior Certificate), to include all the subjects required. Preliminary Examination for Graduation in Medicine or Surgery. Examination for a Degree in Arts.

University of Dublin.—Public Entrance Examination. General Examination at end of Senior Freshman year. Examination for a Degree in Arts.

Queen's University in Ireland.—Local Examinations for Men and Women; Certificate to include all the subjects required by the General Medical Council. Entrance or Matriculation Examination. Previous Examination for B.A. Degree. Examination for a Degree in Arts.

Royal University of Ireland.—Matriculation Examination.

Oxford and Cambridge Schools Examination Board.—Certificate to include the following subjects, an adequate knowledge of English Grammar and Orthography, as shown in the course of the examination, to the satisfaction of the examiners, being held as conforming to the requirements of the Medical Council in regard to those subjects: (*a*) Arithmetic, including Vulgar and Decimal Fractions; (*b*) Algebra, including Simple Equations; (*c*) Geometry, including the first two books of Euclid; (*d*) Latin, including Translation and Grammar; (*e*) Also one of these optional subjects—Greek, French, German.

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II.—OTHER BODIES NAMED IN SCHEDULE A TO THE MEDICAL ACT.

Apothecaries' Society of London.—Examination in Arts.
Royal Colleges of Physicians and Surgeons of Edinburgh. Preliminary (combined) Examination in General Education.
Faculty of Physicians and Surgeons of Glasgow.—Preliminary Examination in General Education.
Royal College of Surgeons in Ireland.—Preliminary Examination; Certificate to include Mathematics.

III. — EXAMINING BODIES IN THE UNITED KINGDOM, NOT INCLUDED IN SCHEDULE A TO THE MEDICAL ACT (1858).

College of Preceptors.—Examination for a First Class Certificate, or Second Class Certificate of First or Second Division, Algebra, Geometry, Latin, and either a Modern Language, or Greek or Chemistry, or Botany or Zoology, having been taken.
Queen's College, Belfast.—Matriculation Examination.
Queen's College, Cork.—Matriculation Examination.
Queen's College, Galway.—Matriculation Examination.
Intermediate Education Board of Ireland.—Junior Grade Examination, Middle Grade Examination, Senior Grade Examination (Certificate in each case to include all the subjects required).
St. David's College, Lampeter.—Responsions Examination, to include all the subjects required.
Educational Institute of Scotland.—Preliminary Medical Examination.
Pharmaceutical Society of Great Britain.—Preliminary and Minor Examinations (*pro tanto*).
Pharmaceutical Society of Ireland.—Preliminary Examination (*pro tanto*).
Scotch Education Department.—Leaving Certificates in each Grade and in Honours.

REGULATIONS OF THE MEDICAL EXAMINING BOARDS IN THE UNITED KINGDOM.

UNIVERSITY OF OXFORD.

There are two degrees in Medicine, B.M. and D.M., and two degrees in Surgery, B.Ch. and M.Ch., and a diploma in Public Health.

The B.M. and B.Ch. degrees are granted to those members of the University who have passed the Second Examination. Graduates in Arts (B.A. or M.A.) are alone eligible for these two degrees. After the degree of B.A. is obtained, the degrees of B.M. and B.Ch. may be obtained by passing the following examinations: — 1. Preliminary. 2. Professional. (*a*) First Examination: Subjects—Organic Chemistry, unless the candidate has obtained a first or second class in Chemistry in the Natural Science School; Human Physiology, unless he has obtained a first or second class in Animal Physiology in the Natural Science School; Human Anatomy. (*b*) Second Examination: Subjects—Medicine, Surgery, Midwifery, Pathology, Forensic Medicine with Hygiene, and Materia Medica with Pharmacy.

The degree of D.M. is granted to Bachelors of Medicine of the University—(1) who took the degree of B.M. previously to the end of Trinity Term, 1886, provided they have spent three years in the practice of Medicine after taking that degree, and have composed a dissertation on some medical subject approved by the Regius Professor of Medicine, before whom it must be read in public; (2) who took the degree of B.M. subsequently to the end of Trinity Term, 1886, provided they have entered their thirty-ninth term and have composed on some medical subject a dissertation which is approved by the professors in the Faculty of Medicine and examiners for the degree of B.M. whose subject is dealt with. A book published within two years of the candidate's application for the degree may be substituted for a dissertation. The degree of M.Ch. is granted to Bachelors of Surgery of the University who have entered their twenty-seventh term, who are members of the surgical staff of a recognised hospital, or have acted as Dresser or House Surgeon in such a hospital for six months, and who have passed an examination in Surgery, Surgical Anatomy, and Surgical Operations.

The diploma in Public Health is granted only to Bachelors of Medicine of the University who have passed an examination in Hygiene, Sanitary Law, Sanitary Engineering, and Vital Statistics.

The First Examination for the degrees of B.M. and B.Ch. and the Examination in Materia Medica and Pharmacy may be passed as soon as the Preliminary Examination in Medicine has been completed. Organic Chemistry may be taken on a separate occasion, but before Human Physiology and Anatomy. The two last-named subjects must be taken together. For exemptions see *ante*.

The Second Examination may be taken after the completion of the first. Materia Medica and Pharmacy, if not already passed, may be offered on a separate occasion, but before the remaining subjects, which must be taken together.

The Professional Examinations in Medicine are held once a year in Trinity Term, the second before the first.

Instruction in the subject-matter of Responsions, Moderations, and the various literary schools is given by the tutors and lecturers of the Colleges and Halls. In Natural Science, the professors of the University and their assistants deliver regular courses of lectures and conduct classes for practical instruction in the laboratories of the Museum and Botanic Garden in each term. In addition, several Colleges possess tutors in Science, and in two or three instances laboratories as well. In Medicine, instruction in Organic Chemistry is given once a year. Physiology, Physiological Chemistry, and Histology are taught by the Wayntlete Professor of Physiology and his assistants; Human Anatomy by the University lecturer in that subject, under whose control is placed the department for dissection. Provision for the teaching of Materia Medica is being made. Instruction and demonstrations in Physical Diagnosis and Regional Anatomy are given in each term at the Radcliffe Infirmary. Clinical lectures in Medicine and Surgery are also delivered by the two Lichfield lecturers of the University, a physician and a surgeon of the infirmary respectively; but as full provision does not exist for the teaching of the subjects for the Second Professional Examination (except Materia Medica), it is necessary for a student to obtain his knowledge elsewhere. The Radcliffe Library at the Museum contains a vast collection of scientific and medical literature, available for study and consultation by students.

Scholarships, &c.—Scholarships in some branch of Natural Science (Chemistry, Physics, Biology) of the average annual value of £80 per annum, tenable for four years and renewable under certain conditions for a fifth year, as well as Exhibitions of a less annual value, are awarded after competitive examination, every year by some, from time to time by other, Colleges. Notices of vacancy &c. are published in the *University Gazette*. In February there is competed for annually, by those who have obtained a first class in any school (Moderations or Final), or a Scholarship or Prize open to general competition in the University, one Radcliffe Travelling Fellowship. It is tenable for three years, and is of the annual value of £200. The examination is partly scientific, partly medical. The holder must travel abroad for the purpose of medical study, and take the degree of B.M. Oxon. A Rolleston Memorial Prize is awarded once in two years to members of the Universities of Oxford and Cambridge of not more than ten years' standing for an original research in some Biological subject, including Physiology or Pathology.

More detailed information may be obtained from the University Calendar; the Examination Statutes, 1887, which contain the official schedules of the several subjects of examination in both Arts and Medicine; from the Student's Handbook to the University; from the Regius Professor of Medicine; from the Professors in the several departments; and from the Secretary, Medical Department, University Museum.

UNIVERSITY OF CAMBRIDGE.

The student must enter at one of the Colleges, or as a non-collegiate student, and keep terms for three years by residence in the University. He must pass the Previous Examination in Classics and Mathematics, which may, and should if possible, be done immediately on coming into residence in October, or, what is better, obtain exemption through the Oxford and Cambridge Schools Examination Board or the Local Examinations, before commencing residence. He may then devote himself to medical study in the University, attending the hospital and the medical lectures, dissecting, &c. Or he may proceed to take a degree in Arts, either continuing mathematical and classical study

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and passing the ordinary examinations for B.A., or going out in one of the Honour Triposes. The Natural Sciences Tripos is the most appropriate, as some of the subjects are practically the same as those for the first and second M.B. examinations.

For the degree of *Bachelor of Medicine* (*M.B.*) five years of medical study are required. This time may be spent in Cambridge or elsewhere. The first three or four years are usually spent in Cambridge, the student remaining in the University till he has passed (say) the examination for the Natural Sciences Tripos and the first and second examinations for M.B. Cambridge being now a complete School of Medicine, all the requisite lectures and hospital practice may be attended here, and many students remain to attend lectures and hospital practice until they have passed the first part of the third examination for M.B. The supply of subjects for Dissection, &c., is unusually abundant.

There are three examinations for M.B. The *first* in Chemistry and other branches of Physics, and in Elementary Biology. These may be taken together or separately. The *second* in Human Anatomy and Physiology, and in Pharmaceutical Chemistry. These may be taken together or separately. The *third* may be also taken in two parts—viz., (1) Principles and Practice of Surgery (with Operative and Clinical Surgery) and Midwifery and Diseases of Women, and (2) Pathology, Principles and Practice of Medicine, Elements of Hygiene, and Medical Jurisprudence. The examinations are partly in writing, partly oral, and partly practical, in the hospital, in the dissecting-room, and in the laboratories.

Previously to the first examination, Lectures must have been attended on Chemistry (with manipulations). Previously to the second examination, the student must have attended Lectures on Human Anatomy and Physiology, have dissected for six months, and attended Hospital Practice six months. Previously to the first part of the third examination, he must have attended Lectures on Pathology, the Principles and Practice of Surgery and Midwifery, twenty cases of Midwifery, and produce a certificate of proficiency in Vaccination, and must also have acted as House Surgeon or Dresser for six months, and have gone through a course of instruction in Practical Surgery. Previously to the second part of the third examination, he must have attended Lectures on the Principles and Practice of Physic, the Physiological Action and Therapeutic Uses of Drugs, and Medical Jurisprudence; also the Medical and Surgical Practice of a Hospital, with Clinical Lectures, for three years, and have been Clinical Clerk for six months. Before proceeding to the degree of M.B. the candidate must compose an original thesis on some one of the subjects prescribed for the several examinations, and defend the same in public before the Regius Professor of Physic.

As Operative and Clinical Surgery now form parts of the third M.B. examination, candidates who have passed that examination are admitted to the degree of *Bachelor of Surgery* (*B.C.*) without separate examination, and without keeping an Act.

The degree of *Doctor in Medicine* may be taken three years after that of M.B. An Act has to be kept, consisting of an original Thesis sustained in the Public Schools, with *vivâ-voce* examination; and an extempore Essay has to be written on some subject relating to Physiology, Pathology, the Practice of Medicine, or State Medicine.

For the degree of *Master in Surgery* (*M.C.*) the candidate must have passed all the examinations for B.C. two years previously. He is required to pass an examination in Surgical Anatomy and Surgical Operations, Pathology, and the Principles and Practice of Surgery, and to write an extempore Essay on a Surgical subject.

An abstract of the Regulations and Schedules of the range of the examinations in Chemistry, Physics, Biology, and Pharmacy may be obtained upon sending a stamped directed envelope to the Assistant Registrar, Cambridge. Full information is contained in the *Cambridge University Calendar*.

UNIVERSITY OF LONDON.

The *Matriculation Examinations* take place on the second Monday in January and the second Monday in June. Candidates must be above sixteen years of age. The fee for the examination is £2. Provincial examinations are appointed by the Senate from time to time at specified centres. The examination appointed for January 13th, 1890, will be held at Birmingham, Cardiff, Glasgow, Leeds, and Portsmouth, as well as at London. That appointed for June, 1890, will be held also at Bangor, Birmingham, Cardiff, Edinburgh, Epsom, Leeds, Liverpool, Manchester, Newcastle-on-Tyne, Nottingham, and Sheffield. Several scholarships, exhibitions, and prizes are associated with these examinations.

The *Preliminary Scientific* (*M.B.*) *Examination* takes place twice in each year, once for Pass and Honours, commencing on the third Monday in July, and once for Pass candidates only on the third Monday in January.[2] No candidate will be admitted to this examination until he shall have passed the Matriculation Examination, nor unless he shall have given notice of his intention to the registrar at least one calendar month before the commencement of the examination. Fee for this examination, £5.

Candidates are examined for a Pass or for Honours or Inorganic Chemistry and Experimental Physics; and for a Pass, on General Biology. Candidates for Honours, who have entered for the whole examination, may also be examined for Honours in Botany and Zoology.

Bachelor of Medicine.—Every candidate for the degree of Bachelor of Medicine will be required—1. To have passed the Matriculation Examination in this University. 2. To have passed the Preliminary Scientific Examination. 3. To have been engaged in his professional studies during four years subsequently to passing the Preliminary Scientific Examination[3] at one or more of the medical institutions or schools recognised by this University, one year at least of the four to have been spent in one or more of the recognised institutions or schools in the United Kingdom. 4. To pass two examinations in Medicine.

Intermediate Examination.—The Intermediate Examination in Medicine takes place twice in each year, once for Pass and Honours, commencing on the second Monday in July, and once for Pass candidates only, commencing on the third Monday in January. No candidate shall be admitted to this examination unless he have passed the Preliminary Scientific Examination at least two years previously, and have produced certificates to the following effect:—1. Of having completed his nineteenth year. 2. Of having, subsequently to having passed the Matriculation Examination, been a student during two years at one or more of the medical institutions or schools recognised by this University, and of having attended a course of lectures on each of three of the subjects in the following list: Descriptive and Surgical Anatomy, Histology and Physiology, Pathological Anatomy, Materia Medica and Pharmacy, General Pathology, General Therapeutics, Forensic Medicine, Hygiene, Obstetric Medicine and Diseases peculiar to Women and Infants, Surgery, Medicine. 3. Of having, subsequently to having passed the Preliminary Scientific Examination, dissected during two sessions. 4. Of having, subsequently to having passed the Preliminary Scientific Examination, attended a course of Practical Chemistry, comprehending practical exercises in conducting the more important processes of general and pharmaceutical chemistry, in applying tests for discovering the adulteration of articles of the materia medica and the presence and nature of poisons, and in the examination of mineral waters, animal secretions, urinary deposits, calculi, &c. 5. Of having attended to Practical Pharmacy, and of having acquired a practical knowledge of the preparation of medicines. These certificates (as is the case also with all the certificates hereinafter mentioned) must be transmitted to the registrar at least four weeks before the commencement of the examination. Fee for this examination, £5.

Candidates at the July examination are examined for a Pass or for Honours in each of the following subjects: (1) Anatomy, (2) Physiology and Histology, (3) Organic Chemistry, (4) Materia Medica and Pharmaceutical Chemistry. The Pass and Honours questions at the July examination will be given on one and the same paper, and will be divided into (*a*) Pass questions and (*b*) Honours questions. Candidates will be allowed to answer questions out of either or both groups; but no credit will be given for more than half of the total number of questions, of which half, in the

[2] Candidates for the degree of M.B. are required by the Senate to pass the Preliminary Scientific Examination before commencing their regular medical studies, and are recommended to devote a preliminary year to preparation for it, according to the following programme:—Winter Session: Experimental Physics, Chemistry (especially Inorganic), Zoology. Summer Session: Practical Chemistry (Inorganic), Botany.

[3] Candidates who passed the Matriculation Examination in January, 1885, or previously, will be allowed to date the commencement of their professional studies, as heretofore, from that examination.

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case of candidates for Honours, one-third must be taken from group (*b*). Immediately after the written examination, candidates desiring to proceed in Honours in any subject or subjects must give notice to the Registrar, in order that, when necessary, special provision may be made for the practical examinations. A candidate who enters for, but fails to obtain, Honours in any subject, may be recommended by the examiners for a Pass in that subject, if they are satisfied that he has shown such a competent knowledge thereof as is required by the regulations for the Pass Examination.

M.B. Examination.[4]—The M.B. Examination takes place twice in each year—once for Pass and Honours, commencing on the last Monday in October; and once for Pass candidates only, commencing on the first Monday in May. No candidate will be admitted to this examination within two academical years of the time of his passing the Intermediate Examination unless he be a registered medical practitioner of not less than three years' standing, in which case he must produce a certificate of having gone through the required course of training at some time previously. Every candidate must produce certificates to the following effect:—1. Of having passed the Intermediate Examination. 2. Of having, subsequently to having passed the Intermediate Examination, attended a course of lectures on each of two of the subjects enumerated in Section 2 of the regulations for that examination, and for which the candidate had not on that occasion presented certificates. 3. Of having conducted at least twenty labours. Certificates on this subject will be received from any legally qualified practitioner in medicine. 4. Of having attended the Surgical Practice of a recognised hospital or hospitals during two years, with clinical instruction and lectures on Clinical Surgery. 5. Of having attended the Medical Practice of a recognised hospital or hospitals during two years, with clinical instruction and lectures on Clinical Medicine. 6. Of having, after having attended Surgical and Medical Hospital Practice for at least twelve months subsequently to passing the Intermediate Examination, attended to Practical Medicine, Surgery, or Obstetric Medicine, with special charge of patients, in a hospital, infirmary, dispensary, or parochial union, during six months, such attendance not to be counted as part of either the Surgical or the Medical Hospital Practice prescribed in Clauses 4 and 5. 7. Of having acquired proficiency in Vaccination. Certificates on this subject will be received only from the authorised vaccinators appointed by the Privy Council. The candidate must also produce a certificate of moral character from a teacher in the last school or institution at which he has studied, as far as the teacher's opportunity of knowledge has extended. The fee for this examination is £5.

Candidates will be examined in the following subjects: General Pathology, General Therapeutics and Hygiene, Surgery, Medicine, Obstetric Medicine, and Forensic Medicine. The examinations will include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry.

Any candidate who has passed the M.B. Examination, beginning in October, may be examined at the Honours Examination next following the M.B. Examination at which he has passed for Honours in (1) Medicine, (2) Obstetric Medicine, and (3) Forensic Medicine. The examinations commence in the week following that in which the Pass Examination terminated. Except in the case of Forensic Medicine, they are conducted by means of printed papers, but the examiners will not be precluded from putting *viva-voce* questions upon the written answers.

Bachelor of Surgery.—The examination for the degree of Bachelor of Surgery takes place once in each year, and commences on the Tuesday following the first Monday in December. Candidates must produce certificates to the following effect:—1. Of having passed the examination for the degree of Bachelor of Medicine in this University. 2. Of having attended a course of instruction in Operative Surgery, and of having operated on the dead subject. Fee for this examination, £5.

Any candidate who has passed the B.S. Examination may be examined at the Honours Examination next following the B.S. Examination at which he has passed for Honours in Surgery. The examination takes place on Tuesday in the week following the Pass Examination, and is conducted by means of printed papers.

Master in Surgery.—The examination for the degree of Master in Surgery takes place once in each year, and commences on the first Monday in December.

Candidates must produce certificates to the following effect:—1. Of having taken the degree of Bachelor of Surgery in this University.[5] 2. Of having attended, subsequently to having taken the degree of Bachelor of Surgery in this University, (*a*) to Clinical or Practical Surgery during two years in a hospital or medical institution recognised by this University; or (*b*) to Clinical or Practical Surgery during one year in a hospital or medical institution recognised by this University, and of having been engaged during three years in the practice of his profession; or (*c*) of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Surgery in this University. One year of attendance on Clinical or Practical Surgery, or two years of practice, will be dispensed with in the case of those candidates who at the B.S. Examination have been placed in the first division. 3. Of moral character, signed by two persons of respectability. Fee for this degree, £5. The examination is conducted by means of printed papers and *viva-voce* interrogation.

Candidates will be examined in Mental Physiology, especially in its relations to mental disorder, and in Surgery.

Any candidate for the degree of M.S. may transmit to the Registrar, not later than October 1st, a printed Dissertation, Thesis, or Commentary, written in view of candidature, or published within two academical years immediately preceding, treating scientifically some special department of Surgical Science, embodying the result of independent research, or showing evidence of his own work, whether based on the discovery of new facts observed by himself, or of new relations of facts observed by others, or generally tending to the advancement of Surgical Science. If the Dissertation, or Thesis, or Commentary, be approved by the examiners, the candidate will be exempted from the written and clinical examination in Surgery, subject to such examination upon the Thesis as the examiners at their discretion may think fit.

Doctor of Medicine.—The examination for this degree takes place once in each year, and commences on the first Monday in December.

Candidates must produce certificates to the following effect:—1. Of having passed the examination for the degree of Bachelor of Medicine in this University. 2. Of having attended, subsequently to having taken the degree of Bachelor of Medicine in this University, (*a*) to Clinical or Practical Medicine during two years in a hospital or medical institution recognised by this University, or, if he enter for State Medicine, during two years to State Medicine; or (*b*) to Clinical or Practical Medicine during one year in a hospital or medical institution recognised by this University, or during one year to State Medicine as above, and having been engaged during three years in the practice of his profession; or (*c*) of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Medicine in this University. One year of attendance on Clinical or Practical Medicine or two years of practice will be dispensed with in the case of those candidates who at the M.B. Examination have been placed in the first division. 3. Of moral character, signed by two persons of respectability.

Fee for this degree, £5. The examination is conducted by means of printed papers and *viva-voce* interrogation.

Candidates will be examined in Mental Physiology, especially in its relation, to mental disorder, and in Medicine.

The regulations with regard to Theses are similar to those obtaining in connexion with the examination for the M.S.

UNIVERSITY OF DURHAM.

Three Licences and four Degrees in Medicine are conferred—viz., Licences in Medicine, in Surgery, and in Sanitary Science; and the Degrees of Bachelor in Medicine,

[4] Any candidate for the M.B. Examination who has passed the Intermediate Examination under the former regulations will be required to have also passed the examination in Physiology at some previous Intermediate Examination carried on under the present regulations, at which examination he shall not be allowed to compete for Honours.

[5] Candidates who have obtained the degree of Bachelor of Medicine previously to 1866 will be admitted to the examination for the degree of Master in Surgery without having taken the degree of Bachelor of Surgery; and in the case of such candidates the attendance on surgical practice required by Regulation 2 may commence from the date of the M.B. degree.

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Bachelor in Surgery, Master in Surgery, and Doctor in Medicine.

For the degree of *Bachelor in Medicine* (*M.B.*) there are three professional examinations: the first being held in April (in 1890, commencing on the 14th) and September (in 1890, commencing on the 8th); the second in April (in 1890, commencing on the 21st) and September (in 1890, commencing on the 15th); and the third in December (in 1889, commencing on the 2nd) and June (in 1890, commencing on the 16th).

The subjects for the First examination are—Elementary Anatomy and Elementary Physiology, Chemistry with Physics, and Botany. Every candidate must produce the following certificates:—(1) Of registration as a medical student. (2) Of attendance on the following courses of lectures: Anatomy, Physiology, Chemistry with Physics, and Practical Anatomy (Dissections), each six months; Botany and Chemistry, each three months.

The subjects for the Second examination are—Anatomy, Physiology, and Materia Medica with Pharmacy. For it the following certificates are necessary:—Lectures, &c.: Anatomy, Physiology, and Practical Anatomy (Dissections), second courses of six months each; Materia Medica, Practical Physiology, and Practical Pharmacy, courses of three months each. The candidate must also produce a certificate of his having passed the first examination for the M.B., or the first examination of the Conjoint Board of the Royal College of Physicians of London and the Royal College of Surgeons of England, together with the extra examinations in Chemistry and Botany of the University of Durham.

The subjects for the Third examination are—Medicine, Surgery, Pathology, Therapeutics, Midwifery and Diseases of Women and Children, Medical Jurisprudence, and Public Health. For it candidates must produce the following certificates—viz.: 1. Of being not less than twenty-one years of age. 2. Of good moral character. 3. Of having passed one of the following examinations in Arts: (*a*) The Examination for Graduation in Arts at one of the following universities—Oxford, Cambridge, Durham, Dublin, London, Queen's (Ireland), Edinburgh, Glasgow, St. Andrews, Aberdeen, Calcutta, Madras, Bombay, McGill College (Montreal), Queen's College (Kingston), Victoria (Manchester), and Royal (Ireland). Or (*b*) the Preliminary or Extra-professional Examination for Graduation in Medicine at one of the following universities—Cambridge, London, Edinburgh, Glasgow, St. Andrews, Aberdeen, Queen's (Ireland), Victoria (Manchester), and Royal (Ireland), provided that the candidate in obtaining the certificate shall have satisfied the examiners in Greek. Candidates holding a certificate which does not include Greek may offer themselves for examination in that subject alone at the examination for the certificate for Proficiency in General Education at Durham, or at the Preliminary Examination in Arts for the degrees in Medicine above mentioned. This regulation will apply to all candidates entering for the degrees in Medicine on or after October 1st, 1888. Or (*c*) the Preliminary Examination in Arts qualifying for the Membership of the Royal College of Physicians of London or for the Fellowship of the Royal College of Surgeons of England. Or (*d*) the Preliminary Examination in Arts for the degrees in Medicine of the University of Durham (in 1890, commencing on April 1st and Sept. 30th). 4. Of attendance on the following course of lecurets—viz.: Medicine and Surgery, each two courses of six months; Public Health, one course; Forensic Medicine, Midwifery and Diseases of Women and Children, and Pathology, each one course of three months; Clinical Medical and Clinical Surgical Lectures, each two winters and two summers; Medical Hospital Practice and Surgical Hospital Practice and Post-mortem Demonstrations, each three winters and two summers; Medical Clinical Clerking and Surgical Dressing, each six months; Clinical Obstetrics, three months; attendance on not less than twenty cases of Midwifery, and instruction in Vaccination.

N.B.—It is required that one of the four years of professional education shall be spent in attendance at the University College of Medicine, Newcastle-upon-Tyne. Candidates for the First Examination who have passed the First Examination of the Conjoint Board in England, and candidates who hold a qualification from a recognised Licensing Body in the United Kingdom, will be exempt from the First Examination of the University, except in the subjects of Chemistry with Physics and Botany. Candidates who have passed the First and Second Examinations of the University will be exempt from the First and Second Examinations of the Conjoint Board.

For the degree of *Bachelor in Surgery* (*B.S.*) every candidate must have passed the examination for the degree of Bachelor in Medicine of the University of Durham, and must have attended one course of lectures on Operative Surgery, and one course on Regional Anatomy. Candidates will be required to perform operations on the dead body, and to give proof of practical knowledge of the use of surgical instruments and appliances.

For the degree of *Master in Surgery* (*M.S.*) candidates must not be less than twenty-four years of age, must have obtained the degree of Bachelor in Surgery of the University of Durham, and must have been engaged for at least two years subsequently to the date of acquirement of the degree of Bachelor in Surgery in attendance on the practice of a recognised hospital, or in the naval or military services, or in medical or surgical practice. The subjects of examination are: Principles and Practice of Surgery, Surgical Pathology, Surgical Anatomy, Surgical Operations, and Clinical Surgery.

For the degree of *Doctor of Medicine* (*M.D.*) candidates must not be less than twenty-four years of age, must have obtained the degree of M.B. at least two years previously, and in the interim have been engaged in Medical and Surgical Practice. Each candidate will be required to write an Essay on some Medical subject selected by himself and approved by the Professor of Medicine, and to pass an examination thereon.

Candidates for any of the above degrees must give at least twenty-eight days' notice to the registrar of the College.

THE VICTORIA UNIVERSITY.

Colleges of the University: Owens College, Manchester; University College, Liverpool; and Yorkshire College, Leeds.

Three degrees in Medicine and Surgery are conferred by the Victoria University—viz., Bachelor of Medicine and of Surgery (M.B. and Ch.B.), Doctor of Medicine (M.D.), and Master of Surgery (Ch.M.).

All candidates for degrees in Medicine and Surgery are required—(1) to have matriculated in the University; and (2) to pass (either *before* or *after* matriculation) an examination called the Entrance Examination in Arts, or to have passed such other examination as may be recognised by the University for this purpose.[6]

Degree of Bachelor of Medicine.—Before admission to the degree of M.B. candidates are required to present certificates that they will have attained the age of twenty-one years on the day of graduation, and that they have pursued the courses of study required by the University Regulations during a period of not less than four years subsequently to the date of their registration by the General Medical Council, two of such years having been passed in a College of the University, and one year at least having been passed in a College of the University subsequently to the date of passing the Preliminary Examination in Science. All candidates for the degree of Bachelor of Medicine are required, after matriculating, to satisfy the examiners in the several subjects of the following examinations: the Preliminary Examination in Science, the Intermediate Examination, and the Final Examination.

The Preliminary Examination in Science.—The subjects of examination are as follows:—(1) Chemistry; (2) Elementary Biology; (3) Physics; Candidates for the Preliminary Examination in Science must have attended during at least one year courses both of lectures and of laboratory work in each of the above-named subjects.

The Intermediate Examination. — The subjects of examination are as follows:—(1) Anatomy; (1) Physiology (including Physiological Chemistry and Histology); (3) Materia Medica and Pharmacy. Candidates for the Intermediate Examination are required to have passed the Preliminary Examination in Science, and to have attended courses of instruction in Anatomy for one winter session, in Physiology for two winter sessions (but one session will be

[6] The examinations at present recognised are:—1. The Preliminary Examination of the Victoria University, provided Latin and Mechanics have been taken up. 2. The Matriculation Examination of the University of London. 3. The Previous Examination of the University of Cambridge. 4. Responsions and Moderations of the University of Oxford. 5. The Leaving Certificate Examination of the Oxford and Cambridge Boards, provided that it include Latin, English, Mathematics, and Elementary Mechanics. 6. The Final Examination for Graduation in Arts of any University in Great Britain and Ireland.

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accepted provided that a full course has been attended by the candidate), and in Materia Medica and Pharmacy for one summer session. The certificates must show (1) that Dissection has been practised during two winter sessions and one summer session at least; (2) that laboratory instruction has been received in Physiology; (3) that practical instruction has been received in Materia Medica and Pharmacy.

The Final Examination.—The subjects of examination are: (1) Surgery—Systematic, Clinical, and Practical; (2) Medicine, Systematic and Clinical, including Mental Diseases and Diseases of Children; (3) Forensic Medicine and Toxicology, and Public Health; (4) Pharmacology and Therapeutics; (5) Obstetrics and Diseases of Women; (6) General Pathology and Morbid Anatomy. Candidates may present themselves for examination in all the above subjects on the same occasion, provided they have completed the *fourth year* of medical study, in accordance with the regulations of the University. Candidates may, however, present themselves for examination in two or three only of these subjects, provided they have completed the *fourth winter* of medical study in accordance with the regulations of the University, but must satisfy the examiners in *all* the subjects so selected before presenting themselves in the remaining subjects of examination. Before presenting themselves for the Final Examination, candidates are required to have passed the Intermediate Examination, and to furnish certificates of having attended courses of instruction approved by the University, in a college of the University, or in a medical school recognised for this purpose by the University, in the subjects in which they offer themselves for examination. The following certificates will be required:—1. In Medicine and Surgery, of having attended the medical and surgical practice of a hospital or hospitals, approved by the University, during at least three years, of which years two at least must be subsequent to the date of passing the Intermediate Examination, except when exemption has been granted by the General Board of Studies, after report from the Departmental Board of Medical Studies. 2. In Pathology and Morbid Anatomy, of having attended during at least twelve months demonstrations in the post-mortem theatre of a hospital. 3. In Obstetrics, of having attended, under proper supervision, at least twenty cases of labour. 4. In Diseases of Women, of having, during at least three months, received in either a general or a special hospital, approved by the University, such clinical instruction in the diseases peculiar to women as shall be approved by the University. 5. Of having acquired proficiency in Vaccination. 6. Of having acted as a dresser for six months in the surgical wards, and as a clinical clerk for six months in the medical wards, of a hospital recognised by the University. 7. Of having attended courses of instruction, approved by the University, in a college of the University, or in a medical school or hospital recognised for this purpose by the University, in the following subjects of examination:—(*a*) Systematic Surgery—one winter session; Practical Surgery—one winter session; Clinical Surgery—two years of Clinical Lectures. (*b*) Systematic Medicine—two winter sessions; Clinical Medicine—two years of Clinical Lectures. (*c*) Forensic Medicine—one summer session; Public Health—one summer session. (*d*) Pharmacology and Therapeutics—one winter or one summer session. (*e*) Obstetrics and Diseases of Women—two summer sessions or one winter session. (*f*) General Pathology and Morbid Anatomy—one winter and one summer session.

Degree of Doctor of Medicine.—Candidates are not eligible for the degree of Doctor of Medicine unless they have previously received the degree of Bachelor of Medicine, and at least one year has elapsed since they passed the examination for that degree. Candidates for the degree of Doctor of Medicine are required to present a printed Dissertation embodying the results of personal observations or original research, either in some department of medicine or of some science directly relative to medicine. No candidate will be admitted to the degree unless his dissertation, after report from the Departmental Board of Medical Studies, shall have been recommended by the General Board of Studies to the Council for acceptance in that behalf. Candidates may be examined on any subject connected with their dissertations.

Degree of Master of Surgery.—Candidates are not eligible for the degree of Master of Surgery unless they have previously received the degree of Bachelor of Medicine, and at least one year has elapsed since they passed the examination for that degree. The subjects of examination are as follows: (1) Surgical Anatomy; (2) Surgical Pathology; (3) Practical Surgery, including the performance of operations on the dead body; (4) Clinical Surgery; (5) Ophthalmology.

UNIVERSITY OF EDINBURGH.

Three medical degrees are conferred by the University of Edinburgh—namely, Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). The degree of Master in Surgery is not conferred on any person who does not also at the same time obtain the degree of Bachelor of Medicine.

No one is admitted to the degrees of Bachelor of Medicine and Master in Surgery who has not been engaged in medical and surgical study for four years—the medical session of each year, or *annus medicus*, being constituted by at least two courses of not less than one hundred lectures each, or by one such course and two courses of not less than fifty lectures each; with the exception of the clinical courses, in which lectures are to be given at least twice a week during the prescribed periods.[7]

Every candidate for the degrees of M.B. and C.M. must give sufficient evidence by certificates—(*a*) That he has studied each of the following departments of medical science—namely, Anatomy, Chemistry, Materia Medica, Institutes of Medicine or Physiology, Practice of Medicine, Surgery, Midwifery and the Diseases peculiar to Women and Children, and General Pathology, each during courses including not less than one hundred lectures; Practical Anatomy, a course of the same duration as those of not less than one hundred lectures;[8] Practical Chemistry, three months; Practical Midwifery—(1) that he has attended at least twelve cases of labour under the superintendence of a registered medical practitioner, or (2) that he has attended six such cases, and also has attended, for at least three months, the practice of a midwifery hospital in which practical instruction is regularly given; Clinical Medicine and Clinical Surgery,[9] courses of the same duration as those of not less than one hundred lectures, or two courses of three months' lectures, being given at least twice a week; Medical Jurisprudence, Botany, and Natural History (including Zoology), during courses including not less than fifty lectures. (*b*) That he has attended, for at least two years, the medical and surgical practice of a general hospital which accommodates not fewer than eighty patients, and possesses a distinct staff of physicians and surgeons. (*c*) That he has attended, during a course of not less than fifty hours' instruction, the class of Practical Materia Medica and Pharmacy in the University of Edinburgh, or a similar class conducted in a university or recognised school of medicine, or a similar class conducted at the laboratory of a hospital or dispensary, or elsewhere, by a teacher recognised by the University Court; or that he has been engaged by apprenticeship for not less than two years with a registered medical practitioner, or a member of the Pharmaceutical Society of Great Britain, or a member of the Pharmaceutical Society of Ireland, or a pharmaceutical chemist, or chemist and druggist, registered under the provisions of the Act for Regulating the Qualifications of Pharmaceutical Chemists, 1852, the Pharmacy Act, 1868, or the Pharmacy Act (Ireland), 1875, in the *bonâ-fide* compounding and dispensing of drugs, and the preparation of their officinal and other preparations under his superintendence. (*d*) That he has attended, for at least six months, by apprenticeship or otherwise, the outdoor practice of a hospital, or the practice of a dispensary physician, a surgeon, or a member of the London or Dublin Society of Apothecaries. (*e*) That he has attended, during courses of not less than fifty hours' instruction, classes of Practical Physiology and Practical Pathology in the University of Edinburgh, or in a recognised university or school of

[7] No course of lectures will be allowed to qualify unless the lecturer certifies that it has embraced at least one hundred lectures, or fifty lectures, in conformity with the requirements of this section. Three months' courses on Materia Medica, Pathology, and Midwifery do not qualify.

[8] Certificates of attendance on Practical Anatomy must express not only the number of months engaged in dissection, but the names of the parts dissected, and the degree of care with which the dissections have been made. Students are recommended not to appear for an examination in Anatomy with a view to a degree until they have dissected the human body at least once.

[9] The Medical Faculty recommend that medical students should not attend Clinical Surgery during their first six months' attendance on Clinical Medicine.

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medicine, or upon classes thereof, conducted by a teacher recognised by the University Court.

Students of Medicine in the London Schools, and in the school of the College of Surgeons in Dublin, can obtain there two *anni medici* out of the four required for the Edinburgh degrees in Medicine. Courses of lectures in these schools, and the courses of the medical teachers and of the science teachers in King's College and in University College, London, in the subjects of graduation, are regarded as equivalent to lectures on the corresponding subjects in this University, except Materia Medica and Midwifery, which when only three months' courses are not received as equivalent. One *annus medicus* may be constituted by attendance on Practical Anatomy and Hospital Practice during the winter session. Another *annus medicus* by attending either (*a*) full winter courses on any two of the following subjects—Anatomy, Physiology, Chemistry, Pathology, Surgery, Medicine, Clinical Surgery, Clinical Medicine; or (*b*) on one such course and two three months' courses on any of the following subjects—Botany, Practical Chemistry, Natural History, Medical Jurisprudence. If the student selects the arrangement prescribed in *a*, attendance on a third course, although unnecessary to constitute an *annus*, will also be accepted. The other subjects and the additional courses, not given in London or Dublin, necessary for the degrees of the University, require to be attended at this University. In provincial schools, where there are no lecturers recognised by the University Court, a candidate can only have one *annus medicus*, and this is constituted by attendance at a qualified hospital along with a course of Practical Anatomy. But in a provincial school where there are two or more lecturers recognised by this University, a second *annus medicus* may be made by attendance on at least two six months' or one six months' and two three months' recognised courses.

Every candidate must deliver, before the 31st day of March of the year in which he proposes to graduate, to the Dean of the Faculty of Medicine, a declaration in his own handwriting that he has completed his twenty-first year, or that he will have done so on or before the day of graduation, and that he will not be on the day of graduation under articles of apprenticeship to any surgeon or other master. This declaration, along with a statement of studies, accompanied with proper certificates, is appended to the schedule for the Final Examination, and must be signed before the schedule is given in.

Each candidate is examined, both in writing and orally, on Chemistry, Botany, and Natural History; on Anatomy, Institutes of Medicine, Materia Medica (including Practical Pharmacy and Prescribing), and Pathology; on Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; clinically, on Medicine and on Surgery in a hospital. The examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, Natural History, Materia Medica, and Pathology are conducted, as far as possible, by demonstrations of objects placed before the candidates. Students who have passed their examination on the first division of these subjects may be admitted to examination on the second division at the end of their third year. The examination on the third and fourth divisions cannot take place until the candidate has completed his fourth *annus medicus*. Candidates may, if they choose, be admitted to examination on the first two of these divisions at the end of their third year, or to the four examinations at the end of their fourth year.

The degree of Doctor of Medicine may be conferred on any candidate who has obtained the degrees of Bachelor of Medicine and Master in Surgery, and who is of the age of twenty-four years, and produces a certificate of having been engaged, subsequently to his having received the degrees of M.B. and C.M., for at least two years in attendance on a hospital, or in the military or naval medical service, or in medical and surgical practice. Provided always that the degree of M.D. shall not be conferred on any person unless he be a graduate in Arts of one of the universities of England, Scotland, or Ireland, or of such other universities as are above specified, or unless he shall, before or at the time of his obtaining the degrees of M.B. and C.M., or thereafter, have passed a satisfactory examination on *three* of the subjects mentioned in Section II. of the statutes relative to preliminary examination. Two of these must be Greek and Logic or Moral Philosophy, and the third is to be one of the following subjects, at the option of the candidate—namely, French, German, Higher Mathematics, and Natural Philosophy. And provided also that the candidate for the degree of M.D. shall submit to the Medical Faculty a thesis, certified by him to have been composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the Professional Examinations for the degrees of M.B. and C.M. which he may have made a subject of study after having received these degrees.

The fees for M.B. and C.M. are £22. Total fees and stamp for graduating as M.D. only, by regulations for students commencing before February, 1861, £25. The fees for examination must be paid at the secretary's office ten days before the dates thereof, and the fees for the degree of M.D. and the stamp duty for the latter must be paid on or before the 15th day of July in the year of graduation. In the event of the candidate not passing any one of the Professional Examinations, the fee is not returned; but he may appear at one subsequent examination without paying an extra fee, and at any future examination on paying one-half the fee.

UNIVERSITY OF GLASGOW.

Three degrees in Medicine are granted—viz., Bachelor of Medicine, Master in Surgery, and Doctor of Medicine. The curricula of study and the examinations for the several degrees conferred are nearly the same as in the University of Edinburgh. The annual term for conferring medical and surgical degrees is the 1st of August.

The fees for the degrees are £21 for M.B. and C.M., which are obtained together, and £15 for M.D.

The regulations under which the above degrees are granted and the notices of the subjects of examination may be obtained by application to the assistant clerk, Matriculation Office, the University.

The First, Second, and Third Professional Examinations are held in April and in October each year, and the Fourth or Final Examination is held annually in June and July.

UNIVERSITY OF ABERDEEN.

The curricula for the several degrees conferred are nearly the same as in the University of Edinburgh.

Professional Examinations will be held twice in each year—namely, in April and July, directly after the close of the winter and summer sessions.

The fees for graduation are the same as in the University of Edinburgh. Matriculation fee, including all dues, for the winter and summer sessions, £1; summer session alone, 10*s*.

Candidates who commenced their medical studies before November, 1861, are entitled to appear for examination for the degree of M.D. after four years' study, one of which must have been in the University of Aberdeen.

Besides the Royal Infirmary, students have the opportunity of attending the following institutions: Sick Children's Hospital; General Dispensary, and Lying-in and Vaccine Institutions, daily; Royal Lunatic Asylum; Eye Institution, in which is given clinical instruction on the Diseases of the Eye, and on the application of the Ophthalmoscope for their diagnosis.

A diploma in Public Health is granted by the University to its graduates in Medicine, after a special examination. The diploma can be entered on the Register of the General Medical Council.

Regulations for the Diploma in Public Health (*D.P.H.*).—Candidates for the diploma must have graduated in Medicine in the University before they receive the diploma; and they must give evidence of having attended a course of instruction in Analytical Chemistry or in Practical Hygiene. The diploma is conferred after an examination in Public Health, held in March and July of each year. Candidates desiring to appear for examination at either of these periods must send their names, with the necessary fee, to the Secretary of the Medical Faculty before the first day of the month in which the examination takes place. The fee for the examination is £3 3*s*. In the event of a candidate failing to pass the examination, a fee of £1 1*s*. will be charged for each subsequent examination for which he may enter. The examination is conducted by the examiners for the medical degrees. The examination is written, oral, and practical. The subjects and scope of the examination are as follows:—1. Physics and Meteorology: The general principles of Physics in so far as they relate to Heat and

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Ventilation, Water Supply and Drainage; the elements of Meteorology and Climatology; practical exercises in the use of Meteorological Instruments. 2. Chemistry and Microscopy: The Composition and Analysis of Air, Water, and Sewage; the Composition and Adulterations of the more common Foods and Beverages; Diseased and Putrid Food; practical exercises in the Chemical and Microscopical examination of Air, Water, and Foods. 3. General Hygiene: Duties of Medical Officers of Health; Nature and Construction of Dietaries; Construction and Sanitary Arrangements of Houses, Hospitals, Workshops, Factories, Towns, &c., including interpretation of plans; Ventilation, Water Supply, Sewerage, Disposal of Dead; Etiology, Prophylaxis (including Vaccination), and Control of Infectious Diseases; Unhealthy Occupations; practical exercises in examining and reporting on the Construction and Sanitary Arrangements of Houses, &c. 4. Sanitary Law and Vital Statistics: Laws relating to the Public Health of Scotland, England, or Ireland, at the option of the candidate; Laws relating to Vaccination, and Registration of Births, Marriages, and Deaths; Methods and Data of Vital Statistics, mainly in so far as they relate to the birth, marriage, and death rate of communities.

Application for further information should be addressed to the Dean of the Medical Faculty.

The degrees of B.Sc. and D.Sc. are now granted, after examination, in one of several specified departments of Science, to be selected by the candidate. For regulations apply to the Secretary of Science Department.

UNIVERSITY OF ST. ANDREWS.

Two degrees in Medicine are granted—namely, Bachelor of Medicine and Master in Surgery (M.B., C.M.), and Doctor of Medicine (M.D.). The curricula for these degrees, and the regulations under which they are conferred differ from those of the University of Edinburgh only in the particulars noticed below.

The degree of *Doctor of Medicine* may be conferred by the University of St. Andrews on any registered medical practitioner above the age of forty years whose professional position and experience are such as, in the estimation of the University, to entitle him to that degree, and who shall, on examination, satisfy the medical examiners of the sufficiency of his professional knowledge; provided always that degrees will not be conferred under this section on a greater number than ten in any one year. The examinations are held yearly towards the end of April. Candidates must lodge with the Dean of the Medical Faculty the following certificates, along with application for admission to examination:—1. A certificate of age, being a baptismal certificate or an affidavit of age. 2. Holograph certificates from at least three medical men of acknowledged reputation in the medical profession or in the medical schools, recommending the candidate to the Senatus for the degree, and testifying to his professional skill and position. As only ten can graduate yearly, candidates will be selected whose service and certificates seem to the Medical Faculty to present the highest professional claims; and where these seem equal, preference will be given to age and priority of application. 3. A portion of the graduation fee (viz., £10 10*s.*), which shall be forfeited should the candidate fail to appear or to graduate at the time appointed. A satisfactory examination, written and *viva voce*, must be passed in the following departments—viz., Materia Medica and General Therapeutics, Medical Jurisprudence, Practice of Medicine and Pathology, Surgery, Midwifery and Diseases of Women and Children.

No one will be received as a candidate for the degree of *Bachelor of Medicine and Master in Surgery* unless two years at least of his four years of medical and surgical study shall have been in one or more of the following universities or colleges—viz., the Universities of St. Andrews, Glasgow, Aberdeen, Edinburgh, Oxford, and Cambridge; Trinity College, Dublin; Queen's College, Belfast; Queen's College, Cork; and Queen's College, Galway.

Subject always to the condition here specified, the studies for candidates for the degree of Bachelor of Medicine and Master in Surgery will be under the following regulations. The remaining years of medical and surgical study may be either in one or more of the universities and colleges above specified, or in the hospital schools of London, or in the school of the College of Surgeons of Dublin, or under such private teachers of medicine as may from time to time receive recognition from the University Court. Attendance during at least six winter months on the Medical or Surgical practice of a general hospital which accommodates at least eighty patients, and during the same period on a course of Practical Anatomy, may be reckoned as one of such remaining years.

Every candidate for examination for the degree of M.B. and C.M. is required to lodge a declaration of age, a statement of his course of study, his inaugural dissertation, and all his certificates with the Dean of the Medical Faculty, on or before the 25th of March in each year.

UNIVERSITY OF DUBLIN (TRINITY COLLEGE).

Matriculation.—All students in the School of Physic intending to practise Physic must be matriculated, for which a fee of 5*s.* is payable. No student can be admitted for the winter course after Nov. 25th.

Previous Medical Examination.—Candidates for degrees in Medicine, Surgery, and Midwifery are required to pass an examination in Physics, Chemistry, Botany, Comparative Anatomy, Descriptive Anatomy, and Institutes of Medicine (Practical Histology and Physiology), previously to their degree examination.

Bachelor in Medicine.—A candidate for this degree must be a graduate in Arts, and may obtain the degree of Bachelor in Medicine at the same Commencements as that at which he receives his degree of B.A., or at any subsequent Commencements. The medical education of a Bachelor in Medicine is of four years' duration, and comprises attendance on a single course of each of the following lectures—Anatomy, Practical Anatomy, Chemistry, Materia Medica and Pharmacy, Physiology, Practice of Medicine, Botany, Medical Jurisprudence, Heat, Electricity, Magnetism, Comparative Anatomy; three courses of nine months' attendance on the Clinical Lectures of Sir Patrick Dun's or other metropolitan hospital recognised by the Board of Trinity College; a certificate of personal attendance on Fever cases, with names and dates of cases. Six months' Dissections, three months' Laboratory Instruction in Chemistry, three months' Practical Histology, and one month's instruction in Vaccination are required. Any of the above-named courses may be attended at any medical school in Dublin recognised by the Provost and Senior Fellows. Fee for the *Liceat ad Examinandum*, £5; for the M.B. degree, £11.

Doctor in Medicine.—A Doctor in Medicine must be M.B. of at least three years' standing, or have been qualified to take the degree of M.B. for three years, and must read a thesis or undergo an examination before the Regius Professor of Physic, in accordance with the rules and statutes of the University. Total amount of fees for this degree, £13.

Bachelor in Surgery.—A Bachelor in Surgery must be a Bachelor in Arts, and have spent four years in the study of Surgery and Anatomy. He must also pass a public examination in the Hall before the Professors of the School of Physic, having previously completed the prescribed curriculum of study, which includes the following additions to the courses named above for the M.B.: Theory of Surgery, Operative Surgery, Two Courses of Dissections, Ophthalmic Surgery.[10] Candidates are required to perform surgical operations on the dead subject. Fee for the *Liceat ad Examinandum*, £5; for the degree of Bachelor in Surgery, £5.

Master in Surgery.—A Master in Surgery must be a Bachelor in Surgery of the University of Dublin, of not less than three years' standing, and must produce satisfactory evidence of having been engaged for not less than two years from the date of his registration in the study, or study and practice, of his profession. He must then pass an examination in the following subjects:—1. Clinical Surgery; 2. Operative Surgery; 3. Surgical Pathology; 4. Surgery; 5. Surgical Anatomy (on the dead subject); and one of the following optional subjects:—1. Surgery, in one of its recognised branches—viz., Ophthalmic and Aural, Gynæcological, and Dental; 2. Mental Disease; 3. Medical Jurisprudence and Hygiene; 4. Advanced Anatomy and Physiology; 5. Comparative Anatomy. Fee for the degree of Master in Surgery, £11.

Bachelor in Obstetric Science.—The candidate for the

[10] Students in the School of Physic who matriculated before June 22nd, 1872, may obtain the degree of Master in Surgery according to the regulations in force previously to the creation of the degree of Bachelor in Surgery.

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B.A.O. Examination must be a Bachelor in Arts, having previously completed the prescribed curriculum of study. The curriculum comprises the following, in addition to the complete course for the M.B.:—Theory and Practice of Midwifery, one course (winter); Practical Midwifery, including Clinical Lectures, six months. The candidate is then required to pass an examination in Practical Midwifery, Gynæcology, and Obstetrical Anatomy. Fee for the degree of Bachelor in Obstetric Science, £1. There is no Liceat fee.

Master in Obstetric Science.—A Master in Obstetric Science must have passed the M.B. and B.Ch. examinations, and produce a certificate of having attended a summer course in Obstetric Medicine and Surgery.[11] He is then required to pass an examination in the following subjects—1. Practice of Midwifery. 2. Gynæcology. 3. Anatomy of Female Pelvis and Elementary Embryology. 4. Clinical Gynæcology. Fee for the degree of Master in Obstetric Science, £5.

University Diplomas.—Candidates for the Diplomas in Medicine, Surgery, or Obstetric Science must be matriculated in Medicine, and must have completed two years in Arts and four years in Medical Studies.

Diploma in Medicine.—The Medical Course and Examination necessary for the Diploma in Medicine are the same as for the degree of M.B., except that the candidate is not required to attend the Lectures on Botany and Comparative Anatomy, nor to pass the previous medical examination in those subjects. A Diplomate in Medicine, on completing his course in Arts, and proceeding to the degree of B.A., may become a Bachelor in Medicine by attending the Lectures on Botany and Comparative Anatomy, passing the previous medical examination in those subjects, and paying the degree fees. Fee for the *Liceat ad Examinandum*, £5. Fee for the Diploma in Medicine, £5.

Diploma in Surgery.—The Surgical course and examination necessary for the Diploma in Surgery are the same as for the degree of Bachelor in Surgery. Fee for the *Liceat ad Examinandum*, £5. Fee for the Diploma in Surgery, £5.

Diploma in Obstetric Medicine.—The course and examination for the Diploma in Obstetric Science are the same as that for the Bachelor in Obstetric Science. Fee for the Diploma in Obstetric Science, £1.

N.B.—Each candidate having completed the prescribed courses of study, passed the requisite qualifying examinations in Medicine, Surgery, and Midwifery, and had conferred on him the corresponding degrees, will obtain from the Senior Proctor a diploma entitling him to be entered on the Register of Medical Practitioners under the Medical Act, 1886.

ROYAL UNIVERSITY OF IRELAND.

All Degrees, Honours, Exhibitions, Prizes, and Scholarships in this University are open to students of either sex.

Candidates for any degree in this University must have passed the Matriculation Examination. Students from other Universities and Colleges are included in this rule.

The following degrees &c. are conferred by the University in this Faculty:—Bachelor of Medicine, Doctor of Medicine, Bachelor of Surgery, Master of Surgery, Bachelor of Obstetrics, Master of Obstetrics; in Sanitary Science, a special diploma; in Mental Disease, a special diploma.

The Medical Examinations, except that for the diploma in Sanitary Science, will be held twice yearly—viz., in April and in October. The examination for the diploma in Sanitary Science will be held in July.

The course for degrees in Medicine &c. is of at least four years' duration. Students who have commenced their medical studies since January 1st, 1884, must furnish evidence of having been registered by the Medical Council as students in Medicine for at least forty-five months before being admitted to the final examination for M.B. No one can be admitted to a degree in Medicine who is not fully twenty-one years of age. All candidates for these degrees are, in addition to attending the lectures and complying with the other conditions to be from time to time prescribed, required to pass the following examinations:—The Matriculation Examination, the First University Examination, the First Examination in Medicine, the Second Examination in Medicine, the Third Examination in Medicine, and the Examination for Primary Medical Degrees.

[11] Existing Graduates in Medicine, of the standing of M.D., are not required to attend this course.

The First Examination in Medicine.—Students may not be admitted to this examination until the lapse of two academical years from the time of their matriculation. They must also have previously passed the First University Examination. The subjects of this examination are: Natural Philosophy, Chemistry, Zoology, and Botany. The examination in each subject will comprise two parts: (1) A written examination; (2) practical work and oral examination. Particular weight will be given to the practical part of the examination. Candidates at the First Examination in Medicine who at the First University Examination in Arts did not obtain 30 per cent. of the marks assigned to French or German will be required to present themselves for a qualifying examination in French or German. Failure to obtain 30 per cent. of the marks assigned to either of those languages will involve the loss of the examination.

The Second Examination in Medicine.—Students will be admitted to this examination after the lapse of one academical year from the time of passing the First Examination in Medicine, provided they have completed the first period of the course of medical studies. The subjects for this examination are Anatomy, Physiology, and Materia Medica (Pharmacology).

The Third Examination in Medicine.—Students will be admitted to this examination after the lapse of one academical year from the time of passing the Second Examination in Medicine, provided they have completed the third year of medical studies. The subjects for this examination will be Anatomy and Physiology.

The Examination for the Primary Medical Degrees.—Students will be admitted to this examination after the lapse of one academical year from the time of passing the Third Examination in Medicine, provided they have completed the course of medical studies prescribed for the fourth year. The examination consists of three parts or divisions:—(*a*) Medicine, including Therapeutics and Pathology; Mental Diseases; Medical Jurisprudence; and Hygiene. (*b*) Surgery, Theoretical, Clinical, Operative; Surgical Anatomy, with Ophthalmology and Otology. (*c*) Midwifery and Gynæcology, with Diseases of Children. Each part of this examination must be passed as a whole. Upon completing satisfactorily his examination in all three divisions, the candidate will, in addition to the parchment diplomas recording his admission to the Primary Medical Degrees of M.B., B.Ch., and B.A.O., receive a certificate of having passed a qualifying examination in the subjects of Medicine, Surgery, and Midwifery. The fee for this certificate is £10, which must be paid prior to the candidate's admission to the Primary Medical Degrees.

M.D. Degree.—Candidates may be admitted to this degree after the lapse of three academical years from the time of obtaining the degree of M.B. Provided, however, that all persons who were students in Medicine in the Queen's University at the date of its dissolution shall be entitled, if they so desire, to be admitted to the degree of M.D., instead of the degree of M.B., upon passing the examination herein prescribed for the M.B. degree. Every candidate will be examined at the bedside, and required to diagnose at least six cases, medical and surgical, and prescribe treatment, and to write detailed reports on at least two cases to be selected by the examiners, and to discuss all the questions arising thereon. Every candidate is required to submit to the medical examiners, for their approval, a thesis certified by him (or her) to have been composed by himself (or herself). No thesis will be approved which does not contain some original or personal observations in practical Medicine, Surgery, Midwifery, or in some of the sciences embraced in the curriculum, or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted.

The M.Ch. Degree.—This degree will be conferred only on graduates in Medicine of the University. The examination for this degree will comprise Surgical Diseases and Surgery, both theoretical and operative; Surgical Anatomy; Ophthalmology and Otology; and will include—(*a*) a written examination; (*b*) a clinical examination; (*c*) an examination on Surgical Instruments and Appliances; (*d*) an examination in Operative Surgery.

The Mastership in Obstetrics.—This degree will be conferred only on graduates in Medicine of the University. The examination will comprise the Theory and Practice of Midwifery and of Diseases of Women and Children, and the use of instruments and appliances; and will include—

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(*a*) a written examination; (*b*) a clinical examination as far as practicable; (*c*) an oral examination, with practical illustrations; (*d*) an examination on Instruments and Appliances.

The Diploma in Sanitary Science.—This diploma will be conferred only on graduates in Medicine of the University. The examination will include the following subjects:—Physics, Climatology, Chemistry, Geology, Sanitary Engineering, Hygiene, Sanitary Law, and Vital Statistics. Proficiency in practical work and an adequate acquaintance with the instruments and methods of research which may be employed for Hygienic investigations are indispensable conditions of passing the examination.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

The licence of this College is a qualification to practise Medicine, Surgery, and Midwifery, and is recognised by the Local Government Board as a qualification in Surgery as well as in Medicine.[12]

Regulations.—Every candidate for the College licence (except when otherwise provided by the bye-laws) is required to produce satisfactory evidence to the following effect:—Of having attained the age of twenty-one years. Of moral character. Of having passed before the commencement of professional study an examination in the subjects of general education recognised by the General Medical Council. Of having been registered as a medical student in a manner prescribed by the General Medical Council. Of having been engaged in professional studies during at least forty-five months, of which at least three winter sessions and two summer sessions shall have been passed at a recognised medical school or schools, and one winter session and two summer sessions in one or other of the following ways:—1. Attending the practice of a hospital or other institution recognised by the College for that purpose; 2. Receiving instruction as the pupil of a legally qualified practitioner having opportunities of imparting a practical knowledge of Medicine, Surgery, or Midwifery; 3. Attending lectures on any of the required subjects of professional study at a recognised place of instruction. Of having attended, during three winter sessions and two summer sessions, the medical and surgical practice at a recognised hospital or hospitals.[13] Of having discharged the duties of a medical Clinical Clerk during six months, and of a Surgical Dresser during other six months; and of having been engaged during six months in the Clinical Study of Diseases peculiar to Women. Of having received instruction in Chemistry, Practical Chemistry, Materia Medica, and Practical Pharmacy. Of having attended a course of lectures on the following subjects:—Anatomy (with dissections), during twelve months; Physiology; a practical course of General Anatomy during a winter or a summer session, consisting of not less than thirty meetings of the class; Pathological Anatomy; Principles and Practice of Medicine; Principles and Practice of Surgery; Midwifery and the Diseases peculiar to Women; Forensic Medicine. Of having attended Clinical Lectures on Medicine during nine months, and also Clinical Lectures on Surgery during nine months, and of having been engaged during a period of three months in the Clinical Study of Diseases peculiar to Women. Of having passed the professional examinations, of which there are three, each partly written, partly oral, and partly practical. The subjects of the first examination are: Chemistry, including Chemical Physics—viz., Heat, Light, and Electricity; Materia Medica and Pharmacy; and Osteology. The subjects of the second examination are Anatomy and Physiology. The subjects of the final examination are: Medical Anatomy and Pathology, including Morbid Anatomy; the Principles and Practice of Medicine; Surgical Anatomy and Pathology, including Morbid Anatomy; the Principles and Practice of Surgery; Midwifery and Diseases peculiar to Women; Forensic Medicine; Public Health and Therapeutics.

Any candidate who shall produce satisfactory evidence of having passed an examination on Anatomy and Physiology, conducted by a university in the United Kingdom, in India, or in a British colony, or by the College of Surgeons in England, Scotland, or Ireland, or the Faculty of Physicians and Surgeons of Glasgow, shall be exempt from re-examination on those subjects. Any candidate who shall produce satisfactory evidence of having passed an examination on Chemistry and Materia Medica, required for a degree in Medicine at a university in the United Kingdom, in India, or in a British colony, will be exempted from re-examination on those subjects. Any candidate who shall have obtained a degree in Surgery at a university in the United Kingdom, after a course of study and an examination satisfactory to the College, shall be exempt from re-examination on Surgical Anatomy and on the Principles and Practice of Surgery. Any candidate who shall have passed the examination on Surgery conducted by the Royal College of Surgeons of England, or the Royal College of Surgeons of Edinburgh, or the Royal College of Surgeons in Ireland, or the Faculty of Physicians and Surgeons of Glasgow, after a course of study and an examination satisfactory to the College, shall be exempt from re-examination on Surgical Anatomy and on the Principles and Practice of Surgery.

[12] Candidates for the Licence of this College who shall have commenced professional study on or after Oct. 1st, 1884, are required to comply with the Regulations of an Examining Board for England formed by the Royal College of Physicians of London and the Royal College of Surgeons of England. These Regulations may be obtained on applying to F. G. Hallett, Esq., Secretary, Examination Hall, Victoria Embankment, W.C.

[13] A three months' course of clinical instruction in the wards of a recognised lunatic hospital or asylum may be substituted for the same period of attendance in the medical wards of a general hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The diploma of Member of this College is not now granted apart from the licence of the Royal College of Physicians except to students who commenced their professional studies prior to Oct. 1st, 1884. It does not seem necessary, therefore, to reproduce the regulations of the College at the present date. Students of such standing as to be subject to them may consult our second volume for last year, where they will be found fully set out on pages 474 and 475. Students of a later date will be subject to the regulations issued by the Joint Examining Board of the two Royal Colleges of Physicians and Surgeons.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Regulations relating to the several Examinations applicable to Candidates who commenced their Professional Education on or after the 1st of October, 1884.

Any candidate who desires to obtain both the licence of the Royal College of Physicians of London and the diploma of Member of the Royal College of Surgeons of England is required to comply with the following regulations, and to pass the examinations hereinafter set forth. Every such candidate who shall commence professional study on or after Oct. 1st, 1884, will be required, at the times prescribed for the respective examinations, to produce satisfactory evidence—1. Of having been registered as a medical student by the General Medical Council. 2 Of having been engaged in professional studies at least forty-five months, during which not less than three winter sessions and two summer sessions shall have been passed at one or more of the medical schools recognised by the two Colleges. 3. Of having received instruction in the following subjects: (*a*) Chemistry, including Chemical Physics; (*b*) Practical Chemistry; (*c*) Materia Medica; (*d*) Pharmacy. 4. Of having performed Dissections at a recognised medical school during not less than twelve months. 5. Of having attended at a recognised medical school—(*a*) a course of lectures on Anatomy during not less than six months, or one winter session; (*b*) a course of lectures on General Anatomy and Physiology during not less than six months, or one winter session; (*c*) a separate practical course of General Anatomy and Physiology during not less than three months. 6. Of having attended at a recognised medical school—(*a*) a course of lectures on Medicine during not less than six months, or one winter session; (*b*) a course of lectures on Surgery during not less than six months, or one winter session; (*c*) a course of lectures on Midwifery and Diseases peculiar to Women during not less than three months; (*d*) systematic practical instruction in Medicine, Surgery, and Midwifery; (*e*) a course of lectures on Pathological Anatomy during not less than three months; (*f*) demonstrations in the post-mortem room during the whole period of attendance on clinical lectures; (*g*) a course of lectures on Forensic Medicine during not less than three months. 7. Of having attended, at a recognised hospital or hospitals, the practice of Medicine and Surgery during three winter and two summer sessions. 8. Of having attended at a recognised hospital or hospitals during nine

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months' Clinical Lectures on Medicine, and during nine months' Clinical Lectures on Surgery, and of having been engaged during a period of three months in the Clinical Study of Diseases peculiar to Women. 9. Of having discharged, after he has passed the Second Examination, the duties of a Medical Clinical Clerk during six months, and of a Surgical Dresser during other six months. 10. Of having performed operations on the dead subject to the satisfaction of his teacher. 11. Of having received instruction in the practice of Vaccination.

Professional Examinations.—There are three Professional Examinations, called herein the First Examination, the Second Examination, and the Third or Final Examination, each being partly written, partly oral, and partly practical. These examinations will be held in the months of January, April, July, and October, unless otherwise appointed. Every candidate intending to present himself for examination is required to give notice in writing to Mr. F. G. Hallett, Secretary of the Examining Board, Examination Hall, Victoria Embankment, W.C., fourteen clear days before the day on which the examination commences, transmitting at the same time the required certificates.

The subjects of the First Examination are—Chemistry, Chemical Physics, Materia Medica, Pharmacy, Elementary Anatomy, and Elementary Physiology. A candidate may take this examination in three parts at different times, or he may present himself for the whole at one time. A candidate will be admitted to the examination on Chemistry and Chemical Physics, Materia Medica, and Pharmacy, on producing evidence of having been registered as a medical student by the General Medical Council, and of having received instruction in Chemistry, Materia Medica, and Pharmacy; or he may take Materia Medica and Pharmacy as part of the Second Examination; but he will not be admitted to the examination on Elementary Anatomy and Elementary Physiology earlier than the end of his first winter session at a medical school, or than the completion of his first six months' attendance at a recognised Medical School during the ordinary sessions—i.e., exclusive of the months of April, August, and September. A candidate rejected in one part or more of the First Examination will not be admitted to re-examination until after the lapse of a period of not less than three months from the date of rejection, and he will be re-examined in the subject or subjects in which he has been rejected. Any candidate who shall produce satisfactory evidence of having passed an examination for a degree in Medicine on any of the subjects of the first and second parts of this examination conducted at a University in the United Kingdom, in India, or in a British Colony, will be exempt from examination in those subjects in which he has passed.

The fees for admission to the First Examination are as follows: for the whole examination, £10 10*s.*; for re-examination after rejection in either of the parts, £3 3*s.*

The subjects of the Second Examination are Anatomy and Physiology. A candidate is required to present himself for examination in Anatomy and Physiology together until he has reached the required standard to pass in one or other of these subjects; but no candidate will be allowed to pass in one of the subjects without obtaining at the same time at least half the number of marks required to pass in the other subject. A candidate will be admitted to the Second Examination after the lapse of not less than six months from the date of his passing the First Examination, on producing evidence of having completed, subsequently to registration as a medical student, eighteen months of professional study at a recognised medical school or schools, and of having complied with the regulations prescribed in Section I., Clauses 4 and 5. A candidate rejected in either part or in both parts of the Second Examination will not be admitted to re-examination until after the lapse of a period of not less than three months from the date of rejection, and will be re-examined in the subject or subjects in which he has been rejected.

The fees for admission to the Second Examination are as follows: for the whole examination, £10 10*s.*; for re-examination after rejection in either of the two parts, £3 3*s.*

The subjects of the Final Examination are: Medicine, including Therapeutics, Medical Anatomy, and Pathology; Surgery, including Surgical Anatomy and Pathology; Midwifery and Diseases peculiar to Women. A candidate may present himself for examination in these three subjects or parts separately or at one time. A candidate will be admitted to the Third or Final Examination on producing evidence—(1) of being twenty-one years of age; (2) of having passed the Second Examination; and (3) of having studied Medicine, Surgery, and Midwifery, in accordance with the regulations prescribed in Section I., Clauses 2 and 6 to 10. The Colleges do not admit to either part of the Third or Final Examination any candidate (not exempted from registration) whose name has not been entered in the Medical Students' Register at least forty-five months, nor till the expiration of two years after his having passed the Second Examination. A candidate rejected in the Third or Final Examination, or in one or more of the three parts into which he may have divided it, will not be admitted to re-examination until after the lapse of a period of not less than six months from the date of rejection, and he will be re-examined in the subject or subjects in which he previously failed to pass. Any candidate who shall have obtained a colonial, Indian, or foreign qualification which entitles him to practise Medicine or Surgery in the country where such qualification has been conferred, after a course of study and examination equivalent to those required by the Regulations of the two Colleges, shall, on production of satisfactory evidence as to age and proficiency in Vaccination, be admissible to the Second and Third Examinations.

The fees for admission to the Third or Final Examination are as follows: for the whole examination, £15 15*s.*; for re-examination after rejection in Medicine, £5 5*s.*; for re-examination after rejection in Surgery, £5 5*s.*; for re-examination after rejection in Midwifery, £3 3*s.*

Notice.—A candidate referred at the Second Examination in either or both subjects is required, before being admitted to re-examination, to produce a certificate that he has pursued, to the satisfaction of his teacher, or teachers, in a recognised place of study, his Anatomical and Physiological Studies, or his Anatomical or Physiological Studies, as the case may be, during a period of not less than three months subsequently to the date of his reference.

A candidate referred on the Third or Final Examination, or on one or more of the three parts into which he may have divided it, will not be admitted to re-examination until after the lapse of a period of not less than three months from the date of rejection, and will be required, before being admitted to re-examination, to produce a certificate, in regard to Medicine and Surgery, of having attended the medical and surgical practice, or the medical or surgical practice, as the case may be, at a recognised hospital during the period of his reference; and, in regard to Midwifery, a certificate of having received, subsequently to the date of his reference, not less than three months' practical instruction in that subject by a recognised teacher.

Any candidate who withdraws from a part or parts of an examination for which he has sent in his name will not be admissible to such part or parts until the expiration of six months, without the special permission of the Committee of Management.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

These Colleges have made arrangements by which, after one series of examinations, held in Edinburgh or in Glasgow, or in Edinburgh and Glasgow, the student may obtain the diplomas of the three co-operating bodies.

The three co-operating bodies grant their single qualifications only to candidates who already possess another and opposite qualification in Medicine or Surgery, as the case may be. Copies of the Regulations for the single qualification of any of the bodies may be had on application to the respective secretaries.

Professional Education.—1. Candidates must have been engaged in professional study during forty-five months from the date of registration as medical students by the General Medical Council, which period shall include not less than four winter sessions' attendance at a recognised medical school. 2. The candidate must produce certificates or other satisfactory evidence of having attended the following separate and distinct courses of instruction: Anatomy, one course, during at least six months; Practical Anatomy, twelve months; Chemistry, one course, six months; Practical or Analytical Chemistry, one course, three months; Materia Medica, one course, three months; Physiology, one

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course, six months; Practice of Medicine, one course, six months; Clinical Medicine, nine months; Principles and Practice of Surgery, one course, six months; Clinical Surgery, nine months; Midwifery and the Diseases of Women and Children, one course, three months; Medical Jurisprudence, one course, three months; Pathological Anatomy, one course, three months. The six months' courses delivered in Scotland must consist of not fewer than 100 lectures. The three months' courses must consist of not fewer than 50 lectures. The number of lectures certified as attended at any school not situated in Scotland should not be less than three-fourths of the total number of lectures delivered in a course. 3. The candidate must also produce the following certificates:—(*a*) Of having attended not less than six cases of labour, three of these to be conducted personally under the direct superintendence of the practitioner who signs the certificate, who must be a registered medical practitioner. It is, however, strongly recommended that, where opportunity is given, the candidate should either attend for three months the in-door practice of a lying-in hospital, or attend personally not less than twenty cases of labour, and that at least the first six of these cases should be attended under the direct supervision of the practitioner. (*b*) Of having attended, for three months, instruction in Practical Pharmacy; the certificate to be signed by the teacher, who must be a member of the Pharmaceutical Society of Great Britain, or the superintendent of the laboratory of a public hospital or dispensary, or a registered practitioner who dispenses medicines to his patients, or a teacher of a class of Practical Pharmacy. (*c*) Of having attended for twenty-four months the Medical and Surgical practice of a public general hospital containing on an average at least eighty patients, and possessing distinct staffs of physicians and surgeons. (*d*) Of having attended for six months (or three months, with three months' hospital clerkship) the practice of a public dispensary specially recognised by any of the co-operating authorities; or the out-patient practice of a recognised general hospital, or of having acted for six months as pupil to a registered practitioner who either holds such a public appointment, or has such opportunities of imparting practical knowledge as shall be satisfactory to the co-operating authorities; this attendance should be made after the student has passed the First and Second Examinations. (*e*) Of having been instructed by a registered medical practitioner in the Theory and Practice of Vaccination, and of having performed operations under the teacher's inspection during a period of not less than six weeks.

Candidates will be subjected to three Professional Examinations, herein called the First Examination, the Second Examination, and the Final Examination, to be conducted at separate times, partly in writing and partly practically and orally.

First Examination.—The First Examination will embrace Chemistry,[14] Elementary Anatomy,[15] and Histology,[16] and will take place not sooner than the end of the first year, including the period of a winter and a summer session. The sum of £5 5*s.* must be paid to the inspector of certificates for this examination, not later than 4 P.M. of the Friday preceding it, after which no candidate will be entered. In the case of a candidate being unsuccessful at this examination, he will be readmitted to examination after a prescribed interval on payment of £3 3*s.* if he has failed in all subjects, and £2 2*s.* if he has gained an absolute pass in one or more subjects at this board. This rule will also apply to any subsequent rejection. Any candidate who shall produce satisfactory evidence of having passed an equivalent examination in any of the subjects of the first examination before any of the boards specified in the Regulations will be exempt from examination in such subject or subjects.

[14] The examination in Chemistry will embrace the following particulars: Chemical Physics (meaning thereby Heat, Light, and Electricity); the principal Non-Metallic and Metallic Elements, and their more common combinations; also the leading Alcohols, Organic Acids, Ethers, Carbohydrates, and Alkaloids. The candidate will also be examined practically in Testing.

[15] Elementary Anatomy will embrace: Anatomy of the Bones and Joints of the whole body, and of the Muscles, chief Bloodvessels, and Nerves of the Upper and Lower Extremities.

[16] Histology will be held to include a knowledge and recognition of the morphological elements and structure of Skin, Bone Cartilage, Fibrous Tissue, Hair, Nails, Teeth, Blood, Muscle, Nervous Tissue, and the appearance and distribution of all the different forms of Epithelium, along with a general knowledge of the properties of cells. The examination of the subject will be oral and practical.

Second Examination.—The Second Examination will embrace Anatomy, Physiology, Materia Medica and Pharmacy, and will not take place before the termination of the summer session of the second year of study, including two winters and two summers. The sum of £5 5*s.* must be paid to the inspector of certificates for this examination, not later than one week before the day of examination, after which no candidate will be entered. In case of failure, the candidate will be readmitted to examination after the expiry of the prescribed period, on payment of £3 3*s.* if he has failed in all subjects, and £2 2*s.* if he has obtained credit at this board for one or more subjects. Any candidate who shall produce satisfactory evidence of having passed in any of the subjects of the second examination before any of the boards specified in the Regulations will be exempt from examination in such subject or subjects; but no examination before such boards will be recognised as giving exemption unless it is coextensive in its scope with the equivalent examination of this board, and is the only or the final examination on the subject or subjects required by the board at which it was passed. When the candidate has not paid the fee of the first examination to this board, his fee payable in respect of the second examination shall be £10 10*s.*

Final Examination.—The Final Examination will embrace the Principles and Practice of Medicine (including Therapeutics, Medical Anatomy, and Pathology); Clinical Medicine; the Principles and Practice of Surgery (including Surgical Anatomy and Surgical Pathology); Clinical Surgery; Midwifery and Gynæcology; Medical Jurisprudence; and Hygiene; and shall not take place before the termination of the full period of study. The fee payable for this examination, which in the case of candidates who have passed the First and Second Examinations will be £15 15*s.*, must be paid to the inspector at Edinburgh or Glasgow, as the case may be, not later than one week prior to the examination day, after which no candidate will be entered. In case of a candidate being unsuccessful at this examination, £10 10*s.* shall be returned to him, the remaining £5 5*s.* being retained to meet the expense of conducting the examination. This rule will also apply to any subsequent rejection. Any candidate admitted to the Final Examination, on the footing of having passed in the subjects of the First and Second Examinations at a recognised board, shall, on entering, pay the full fee of £26 5*s.*; and in the event of his being unsuccessful, £15 15*s.* will be returned to him at his first and £21 at every subsequent rejection. Candidates will not be exempted from examination in any of the subjects of the Final Examination, though some of them may have formed part of Examinations passed before other boards.

Any Graduate in Medicine of a British or Irish University, and any Graduate or Licentiate in Medicine of any recognised Universities and Colleges in India and the British Colonies, who has passed at his University such an examination or examinations as comprise the subjects of the First and Second Examinations of this Board, and who has completed not less than four years' Medical Study, including all the subjects of the curriculum, is admissible to the Final Examination. Any candidate so admitted shall pay a fee of twenty-five guineas at the time of entering for the examination. The sum of £20 will be returned to unsuccessful candidates.

There are six periods of examination annually, four in Edinburgh and five in Glasgow, and candidates may present themselves at either examining centre irrespective of the place of the previous examination. The Registrar in Edinburgh is Mr. J. Robertson, 1, George-square; and the Registrar in Glasgow, Mr. A. Duncan, 242, St. Vincent-street, to whom fees and certificates must be sent.

KING AND QUEEN'S COLLEGE OF PHYSICIANS AND ROYAL COLLEGE OF SURGEONS IN IRELAND.

Two sets of regulations are at present in force, under which examinations take place for the conjoint diploma of these bodies. The older regulations, under which students who commenced their studies before Oct. 1st, 1889, may be examined, have appeared in our Students' Number in previous years, and will be found on pp. 477 and 478 of our second volume for last year. The following regulations are obligatory on all students commencing on or after the date already mentioned:—

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PRELIMINARY EXAMINATION AND REGISTRATION.

Every candidate for the Conjoint Examinations of the Colleges shall produce evidence—(*a*) of having, before entering on medical studies, passed a Preliminary Examination in general education recognised by the General Medical Council; and (*b*) of having been registered by that Council as a Student in Medicine. Each candidate before receiving his diplomas must produce a registrar's certificate or other satisfactory evidence that he has attained the age of twenty-one years.

Preliminary Examination.—The subjects of examination are identical with those prescribed for the Preliminary Examination by the General Council of Medical Education and Registration, except that it includes the additional subject Physics, which may be passed at the Preliminary Examination or at a subsequent Supplemental Examination, at an extra fee of £1 1*s*. In no case can Physics be deferred to the First Professional Examination.

PROFESSIONAL EXAMINATIONS.

Every candidate is required to pass four Professional Examinations, one at the end of each year of his professional studies. No candidate shall be admitted to the Final or Qualifying Examination within three months of his rejection at the Final or Qualifying Examination by any other licensing body. All examinations shall be conducted as far as possible by demonstration of objects placed before the candidates.

First Professional Examination.—Every candidate is required, before admission to the First Professional Examination, to produce evidence—(1) of having passed in the subjects of the Preliminary Examination, including Physics; (2) of having been registered as a medical student by the General Medical Council; and (3) of having attended in winter a course of (*a*) lectures on Practical Anatomy, (*b*) Demonstrations and Dissections, and (*c*) lectures on Theoretical Chemistry, (*d*) Practical Chemistry, three months' summer course, (*e*) Practical Pharmacy—(1) evidence of attendance for three months in the Compounding Department of a Clinical Hospital, which hospital shall have satisfied the Committee of Management that its means of instruction are sufficient, and shall return to the Committee the names of its students at the commencement of the course, together with a record of their attendance at its close; or (2) evidence of attendance on a course of Practical Pharmacy in a recognised Medical School, the course to consist of not less than twenty demonstrations; or (3) evidence of having served a full apprenticeship of three years, or of having acted as paid assistant for not less than one year in the establishment of a Licentiate Apothecary or of a registered Pharmaceutical Chemist.[17] The fee for this examination is £15 15*s*. The subjects of the First Professional Examination are the following:—1. Chemistry: Elementary Chemistry—Inorganic and Organic, as found in Roscoe's Lessons on Elementary Chemistry,—with a practical examination in the Laboratory. 2. Anatomy: Bones, with attachments of Muscles and Ligaments—Joints. 3. Pharmacy: Practical Pharmacy, Dispensing of Drugs, Methods of Administration of Medicines, Reading of Prescriptions.

Second Professional Examination.—Every candidate is required, before admission to the Second Professional Examination, to produce evidence of having passed the First Professional Examination; also certificates of having, in his second or a later year of professional study, attended—(1) A Medico-Chirurgical Hospital for nine months, together with evidence of having taken notes to the satisfaction of the physicians or surgeons in charge of the cases, and certified under their hands, of at least three Medical cases and three Surgical cases, in the wards of a recognised Medico-Chirurgical Hospital. (2) Courses of Lectures as follow:—Winter courses: Practical Anatomy; Demonstrations and Dissections. Summer courses (three months): Histology; Materia Medica. The fee for this examination is £10 10*s*. The subjects of the Second Professional Examination are the following—1. Anatomy: The Anatomy of the whole Human Body. 2. Histology. 3. Hospital Practice: Methods of Physical Diagnosis; Application of Urinary Tests; General Principles of the Treatment of Fractures, of Dislocations, of Wounds, and of Hæmorrhages; Bandaging; General Principles of Case-taking. 4. Physiology: Circulation; Respiration; Digestion. 5. Materia Medica. Candidates are examined on three separate days.

Third Professional Examination.—Every candidate is required, before admission to the Third Professional Examination, to produce evidence of having passed the Second Professional Examination; also certificates of having in his third, or a later, year of professional study attended—(1) A Medico-Chirurgical Hospital for nine months, or acted for six months as resident pupil, together with evidence of having taken notes to the satisfaction of the physicians and surgeons in charge of the cases, and certified under their hands, of at least three Medical cases and three Surgical cases in the wards of a recognised Medico-Chirurgical Hospital. (2) Courses of Lectures as follow:—Winter courses: Demonstrations and Dissections; Medicine; Surgery; Physiology. Summer course (three months): Medical Jurisprudence. The fee for this examination is £9 9*s*. The subjects for the Third Professional Examination are the following—1. Anatomy; Surgical Anatomy. 2. Surgery: Surgery as in the Second Professional Examination; also Inflammation, with its varieties and consequences; Fractures; Dislocations; Injuries, mechanical, chemical, physical—their immediate and remote effects; Hernia; Surgical Diseases of Bloodvessels; Diseases of Bones; Diseases of Joints; Pyæmia; Septicæmia. 3. Medicine: Medicine as in the Second Professional Examination; also Diseases of the Heart and Circulatory System, of the Respiratory Apparatus, of the Abdominal Cavity, of the Skin; the Exanthemata; and the Continued Fevers. 4. Physiology.

Fourth or Final Professional Examination.—Every candidate is required, before admission to the Final Examination, to produce evidence—(1) of having passed the Third Professional Examination; (2) of having in his fourth or a later year of professional study (*a*) attended a Medico-Chirurgical Hospital for nine months as extern pupil, or acted for six months as resident pupil, unless a certificate to that effect has been accepted in the third year; (*b*)[18] a winter course of lectures on Midwifery. Certificates will also be required—(1) Of having attended a recognised midwifery hospital or maternity for six months in the winter or summer of the fourth year, with evidence of having been present at thirty labours. (2) Of having for not less than three months, in either the third or fourth year, studied fever in a recognised clinical hospital containing fever wards, and recorded from daily personal observation at least five cases of fever to the satisfaction of the attending clinical physician, as attested by his signature. For the purposes of this regulation the word "fever" is held to include the following diseases only—viz., typhus, typhoid or enteric fever, scarlet fever, small-pox, and measles. (3) Of having attended a course of Operative Surgery in the summer session of either the third or the fourth year. (4) Of having attended, at a recognised ophthalmic and aural hospital, or at a recognised ophthalmic and aural department of a general hospital, clinical lectures on Ophthalmic and Aural Surgery during a period of three months. The fee for this examination is £6 6*s*. The subjects for the Fourth or Final Examination are the following—1. Medicine. 2. Surgery. 3. Therapeutics. 4. Pathology. 5. Midwifery and Diseases peculiar to Women. 6. Forensic Medicine in reference to Medicine, Surgery, and Midwifery; Hygiene. 7. Ophthalmic and Aural Surgery.[19] Candidates may present themselves for examination in *all* the subjects of the Final Examination at the *same* term; or, at one term, in Medicine, including Therapeutics and Pathology, and Clinical Medicine; at a second term, in Surgery, including Therapeutics and Pathology, Ophthalmic and Aural Surgery, Clinical Surgery, and Operations; at a third term, Midwifery, Gynæcology, Forensic Medicine, and Hygiene. Candidates must pay the full fee before being admitted to any part of the examination. Candidates may take the groups in any order they please. No candidate will receive any diploma till the entire examination is completed.

[17] Licentiate Apothecaries and Licentiates of the Pharmaceutical Societies of Great Britain and Ireland are exempt from attendance on Practical Pharmacy.

[18] On and after July 1st, 1891, a certificate of having attended a course of lectures on Pathology will be required in addition to the above-named lectures.

[19] Students who commenced study before July, 1879, are exempt from both the certificate for study and the special Ophthalmic Examination, but are liable to be examined by the surgical examiners in Ophthalmic Surgery. Those who commenced before February, 1882, are exempt from the special examination, on producing the certificate of three months clinical ophthalmology required before that date. Those who commenced after February, 1882, must pass the special examination.

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REJECTIONS AND RE-EXAMINATIONS.

Candidates at the First, Second, and Third Professional Examinations get credit for each subject in which they pass. In any subject in which they fail to pass they are "referred."

Immediate re-examination.—Candidates who pass in all subjects but one at the First, Second, or Third Professional Examination may, with the consent of the examiners in that subject, be re-examined in the same, if the Court of Examiners consider them deserving. The Court of Examiners decide at their conference whether or not a re-examination is to be granted, and if granted, it will be held as soon as may be before the Term Examination is concluded.

Subsequent re-examination.—Candidates who have been referred must present themselves at a subsequent examination in the subjects in which they have failed, but must satisfy the examiners in the same before proceeding to the examination of the year.

In the case of candidates so referred, the examiners are authorised to consider for what period, and in what subjects, each candidate is to be referred back to his studies, and to make a recommendation accordingly to the Committee of Management, who may authorise the re-examination of the candidate at such examination as they may think fit. The examiners are also empowered to recommend to the Committee of Management, in the case of candidates so referred, whether or not they should be allowed to continue attendance on lectures and obtain certificates as required for the next Professional Examination.

EXEMPTION OF CANDIDATES UNDER THIS SCHEME.

The following exemptions have been agreed to by the committee:—Primary Examination, Royal College of Surgeons, England, exempts from First, Second, and Third Examinations of Conjoint Scheme. Second Medical Examination, Royal University of Ireland, exempts from First Examination of Conjoint Scheme, with the exception of an examination in Pharmacy. M.B. Examination, Royal University of Ireland, exempts from First, Second, and Third Examinations of Conjoint Scheme. First Examination, English Conjoint Examining Board, exempts from First and Second Examinations of Irish Conjoint Scheme. Second Examination, English Conjoint Examining Board, exempts from First, Second, and Third Examinations of Irish Conjoint Scheme. First and Second Examinations, Scotch Conjoint Scheme, exempts from First and Second Examinations of Irish Conjoint Scheme. Primary Examination, Physicians and Surgeons of Glasgow, exempts from First and Second Examinations of Irish Conjoint Scheme. First and Second Examinations of Apothecaries' Society, London, exempts from First and Second Examinations of Irish Conjoint Scheme. The Intermediate Examination of the Victoria University, Manchester, exempts from the First and Second Examinations of Irish Conjoint Scheme. Provided that in each case the candidate shall have complied with the regulations laid down under this Conjoint Scheme for the examination at which he is about to present himself. No exemptions are made in respect of portions of examinations passed under other licensing bodies.

EXEMPTIONS OF CANDIDATES UNDER FORMER SCHEMES.

I. (*a*) Candidates who have passed the First Professional Examination, as hitherto conducted by the College of Surgeons, may present themselves for the Second Professional Examination under the Conjoint Scheme; (*b*) candidates who have passed the Second Professional Examination of the College of Surgeons may present themselves for the Third Examination under the Conjoint Scheme; (*c*) candidates who have passed the Third Professional Examination of the College of Surgeons may present themselves for the Fourth or Final Examination under the Conjoint Scheme. Provided that in each case the candidate shall have complied with the regulations laid down under the Conjoint Scheme for the examination at which he is about to present himself. But in the case of students registered as such prior to June 1st, 1887, the Committee of Inspection shall have power to vary the regulations when special circumstances shall appear to warrant it.

II. Candidates who have passed the first half of the Professional Examination at the College of Physicians or at the College of Surgeons under the old scheme may present themselves for the Final Examination under the Conjoint Scheme, provided they have complied with the regulations under the Conjoint Scheme for that examination.

III. The Committee of Inspection shall have power to exempt from certain examinations under the Conjoint Scheme candidates who previously to July 1st, 1887, would be exempt from equivalent examinations at the College of Physicians or College of Surgeons, under the Regulations of the Colleges as existing prior to the operation of the Conjoint Examination Scheme. Provided that in each case the candidate shall have complied with the regulations laid down under this Conjoint Scheme for the examination at which he is about to present himself.

SOCIETY OF APOTHECARIES OF LONDON.

Every student purposing to study Medicine must previously pass a Preliminary Examination in Arts qualifying for registration as medical student. Such examination is held quarterly in the Hall of the Society on the first Friday and following day in March, June, September, and December, and is conducted by means of printed papers. Candidates will be examined in English, Latin, Mathematics, Elementary Mechanics, and one of the following subjects at the option of the candidate: Greek, French, German, Logic, Botany, and Elementary Chemistry. The subjects may be passed at one or more examinations, and no subject in which a candidate has passed before any examining body recognised by the Medical Council can be taken up again except as a special subject. Notice must be given to the Secretary, and the fee of 1 guinea paid a fortnight prior to the day of examination. Medical study before registration as medical student is not recognised, with the exception of Chemistry, Materia Medica, Pharmacy, and Dispensing. Candidates can present themselves for examination in special subjects; the fee for each subject is 1 guinea. A pass-list is published and sent to every candidate.

The examinations to be passed for the Diploma in Medicine, Surgery, and Midwifery, which is registrable under the provisions of the Medical Act, 1886, are Primary and Final, all being written, oral, and practical. The Primary Examinations are held quarterly on the first Wednesday and on the Monday and Thursday of the same week in the months of January, April, July, and October. The Final Examinations are held monthly, and consist of—(1) the examination in Surgery on the second Wednesday and following days; (2) the examination in Medicine, on the third Wednesday and on the Monday and Thursday of the same week. The course of medical study must extend over four years, and not less than three winter and two summer sessions must be passed at a recognised hospital and school of medicine. Candidates intending to present themselves for examination must give fourteen days' notice. A form for the purpose will be sent on application. The fee must be forwarded at the same time, with all required certificates, to the Secretary. The fee for the examinations is £10 10*s.*, which in the event of failure is not returned. A fee of £3 3*s.* is required for every re-examination.

The course of study required to qualify for the Primary Examinations is as follows:—Lectures on Chemistry and Chemical Physics, not less than six months; Practical Chemistry in a laboratory, three months; Materia Medica, three months; Practical Pharmacy and Dispensing, three months, instruction in which must be given by a registered medical practitioner, or in a public hospital, infirmary, or dispensary. Evidence of having received instruction in these subjects before registration as medical student will be received. This first part of the Primary Examination may be passed at any period after registration. The second part includes Anatomy, Physiology and Histology, with an examination on the dissected body: to qualify for this the candidate must have received instruction in Anatomy, not less than six months; Practical Anatomy with Demonstrations, twelve months; Physiology, six months; Histology with Demonstrations, three months. Candidates will be excused any or all of the subjects of the Primary on producing evidence that they have passed equivalent examinations before an examining body recognised by the Medical Council

To qualify for the Final Examination the following course of study must be observed: Hospital Practice, Surgical and Medical, with Post-mortem Examinations, not less than three winter and two summer sessions. No hospital is recognised for this purpose which is not in connexion with an established medical school. Lectures on the Principles and Practice of Surgery, six months; Practical Surgery, three months; Clinical Surgical Lectures, nine months; Surgical Dresser, three months; Lectures on the

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Principles and Practice of Medicine, six months; Pathology, three months; Clinical Medical Lectures, nine months; Medical Clinical Clerk, three months; Forensic Medicine, Toxicology, Hygiene, and Insanity, three months; Lectures on Obstetric Medicine, including Gynæcology, three months; Clinical Instruction in the same, three months; a Course of Practical Midwifery; personally conducted Twenty Midwifery Cases. The offices of Dresser and Clinical Clerk may be discharged at a hospital, infirmary, or dispensary where sufficient opportunities are afforded for the acquirement of practical knowledge.

The above form the subjects of the Final Examination, which cannot be passed before the expiration of forty-five months after registration as medical student. There is no exemption from any portion of the Final Examination. The first part, besides the Principles and Practice of Surgery and an Examination of Surgical Cases, includes Surgical Pathology, Surgical Anatomy and Operative Manipulation, and Surgical Instruments and Appliances. The second part of the Final includes an Examination of Medical Cases, and, besides the subjects named, a Microscopic Examination of Morbid Structures and Obstetric Instruments and Appliances. Part II. may be taken before Part I. if desired. The following certificates must be produced prior to the Final Examination: 1. Certificate of birth. The candidate must be twenty-one. 2. Certificate of moral character. 3. Certificate of the Course of Medical Study, which must be signed by the Dean of the Medical School or other authority. A schedule for this purpose can be obtained at the Hall. 4. Certificate of having performed operations on the Dead Body. 5. Certificate of Proficiency in Vaccination, signed by a teacher recognised by the Local Government Board.

The Examination for a Certificate to act as an Assistant in Compounding and Dispensing Medicines is held on the third Thursday of every month, and will be as follows: In Translating Prescriptions; in the British Pharmacopœia; in Materia Medica and Botany; in Pharmacy and Pharmaceutic Chemistry. The fee is 2 guineas. A week's notice must be given.

Prizes.—A Gold Medal and a Silver Medal are given annually by the Society for proficiency in Materia Medica and Pharmaceutic Chemistry. All students, prior to the close of their third year of study, dating from registration, may compete, provided they have not been candidates before. The examination, which is written, oral, and practical, is held in the month of August. The required standard must be attained.

A Gold and a Silver Medal are also given for proficiency in Botany. The examination will take place in the month of June. Female candidates can compete.

Due notice of these examinations will be given in the medical journals.

Tickets of admission to the Lectures on Botany, given by J. G. Baker, Esq., F.R.S., F.L.S., of Kew, at the Society's Garden, at Chelsea, during the months of May, June, and July, can be had on application.

Attendance is given daily at the Hall of the Society, Blackfriars, E.C., from 10 to 4 o'clock, Saturdays excepted.

ROYAL COLLEGE OF SURGEONS, IRELAND, AND THE APOTHECARIES' HALL OF IRELAND.

Every candidate for the Conjoint Diplomas is required to pass a Preliminary Examination and four Professional Examinations.

First Professional Examination.—Candidates will be required, before admission to the First Professional Examination, to produce evidence—1. Of having been registered by the Medical Council as medical students at least nine months before examination. 2. Of having attended (*a*) Practical Anatomy, (*b*) Chemistry, (*c*) Demonstrations and Dissections, (*d*) Practical Chemistry, (*e*) Physics, (*f*) Practical Pharmacy for three months in the Compounding Department of a Clinical Hospital, or a School of Pharmacy, or in the Compounding Establishment of a Licentiate Apothecary. The fee for this examination is £12 12*s*. Candidates will be examined on Physics, Chemistry, and Anatomy (Osteology).

Second Professional Examination.—Candidates must produce evidence of having passed the First Professional Examination; also certificates of having subsequently attended—(*a*) a Medico-Chirurgical Hospital for nine months, and of having taken notes of at least three Medical cases and three Surgical cases, or a certificate of Clinical Clerkship; (*b*) the following courses of Lectures: (1) Demonstrations and Dissections; (2) Physiology; (3) Surgery, winter courses, six months; (4) Materia Medica; (5) Practical Physiology, including Histology, summer courses, three months. The fee for this examination is £7 7*s*. Candidates will be examined in Anatomy, Physiology, Materia Medica and Pharmacy.

Third Professional Examination.—Candidates must produce evidence of having passed the Second Professional Examination; also certificates of having subsequently attended—(*a*) a Medico-Chirurgical Hospital for six months as resident pupil, or for nine months as extern pupil, and, in the latter case, notes of at least three Medical and three Surgical cases, or of having acted as Clinical Clerk at any period; (*b*) the following courses of Lectures: (1) Demonstrations and Dissections; (2) Medicine; (3) Midwifery and Diseases peculiar to Women, in winter courses (may be deferred to the fourth year); (4) Pathology;[20] (5) Medical Jurisprudence, Forensic Medicine, and Hygiene, in summer course. The fee for this examination is £7 7*s*. Candidates will be examined in Anatomy, Surgery, Medicine, and Medical and Surgical Pathology.

Fourth Professional Examination.—The candidate must produce evidence—(1) of having been registered as a medical student by the Medical Council at least forty-five months previously; (2) of having passed the Third Professional Examination; (3) of having subsequently attended—(*a*) a Medico-Chirurgical Hospital for nine months as extern pupil, or six months as resident pupil; (*b*) Lectures on Midwifery, a winter course (unless taken in the third year); (*c*) a recognised Midwifery Hospital, or Maternity, for six months in the winter or summer of either the third or the fourth year, with evidence of having been present at thirty labours; (*d*) of three months' study of Fever in a Clinical Hospital containing fever wards, and of having taken notes of at least five cases of fever (attendance at a fever hospital will not be recognised if concurrent with that on Practical Midwifery); (*c*) Operative Surgery in the summer session of either the third or fourth year; (*f*) Clinical Lectures in Ophthalmic and Aural Surgery (three months) at a recognised Ophthalmic Hospital, or at an Ophthalmic Department of a General Hospital. The fee for this examination is £7 7*s*.

Candidates will be examined on Medicine, Therapeutics, Surgery, Midwifery and Diseases peculiar to Women, Ophthalmic and Aural Surgery, and Forensic Medicine and Hygiene.

THE ARMY, NAVY, AND INDIAN MEDICAL SERVICES.

Admission into the Army and Indian Medical Services is gained as the result of competitive examination. Candidates for both services must, before being admitted to examination, possess the double qualification to practise Medicine and Surgery, and be registered under the Medical Act, and must also furnish satisfactory certificates of moral character. Candidates for the Army must be between the ages of twenty-one and twenty-eight, in good health, and both parents of unmixed European blood; for the Indian Service, between twenty-two and twenty-eight, of sound bodily health, and natural-born subjects of Her Majesty. Both are examined as to physical fitness by a Board of Medical officers. These conditions being satisfied, the candidate is admitted to the competitive examination, which is usually held in London twice a year, in the months of February and August. The subjects of examination are divided into *compulsory* and *voluntary*. The former comprise Anatomy and Physiology, Surgery, Medicine, including Therapeutics and the Diseases of Women and Children, Chemistry and Pharmacy, and a practical knowledge of Drugs. The eligibility of the candidate for admission into the service is determined by the result of this part of the examination. The *voluntary* subjects are French, German, Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with especial reference to Materia Medica, and for the Indian service Hindustani. Although the results of the examination on voluntary subjects do not affect the question of the eligibility of the candidate for a commission, they influence his position on the lists, which is determined by the numbers obtained under the two heads conjointly. After having passed this examination, the successful candidates for both services are

[20] The certificate in Pathology will not be required until further notice.

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sent to the Army Medical School at Netley as "surgeons on probation," with the rank of lieutenant and the daily pay of 8*s*., to go through a four months' course of special instruction in the duties required of them in the service. The staff of the school consists of four professors, all of them men of acknowledged ability and high standing in their special departments. The Professorship of Military Medicine is at present vacant. Surgeon-General Sir T. Longmore, Kt., C.B., is Professor of Military Surgery; Surgeon-Major J. L. Notter, M.D., of Military Hygiene; and Sir W. Aitken, F.R.S., of Pathology. To each of these an Army Medical Officer is attached as Assistant Professor. The lectures on Military Surgery include gunshot and other wounds, transport of sick and wounded, duties of army medical officers in the field, during sieges, and on board troopships and transports, &c. Those on Military Medicine treat of tropical and other diseases to which soldiers are exposed in the course of their service, the mortality and invaliding by disease, in peace and war, at home and abroad. The course of Hygiene comprises the examination of water and air, the general principles of diet, with the quality and adulterations of food and beverages, the sanitary requirements of barracks, hospitals, and camps, the clothing, duties, and exercises of the soldier, and the circumstances affecting his health with the best means of preventing disease, and instruction in the mode of preparing the various statistical and other returns required of the medical officer. The surgeons on probation are detailed for duty in the wards of the hospital, under the Professors and Assistant Professors of Medicine and Surgery, and receive practical instruction in the mode of examining recruits. The surgeons on probation are provided with quarters, and are members of the excellent mess established at Netley. After having passed through the course of instruction they are examined on the subjects taught in the school, and their position on the list recommended for commissions is determined by the combined results of the competitive and final examinations. At the close of each session five prizes are awarded: the Herbert Prize of £20 to the surgeon on probation who has obtained the highest number of marks at the London and Netley examinations conjointly; the Parkes Memorial Bronze Medal to the one who gains the highest number of marks in the examination on Hygiene at Netley, combined with those given for the answers to a special question set on the same subject; the Martin Memorial Gold Medal to the highest number of marks in the final examination on Military Medicine, with the addition of those gained for a special question connected with it; the Montefiore Gold Medal and £21, awarded in the same manner for Military Surgery; and the Montefiore Second Prize, consisting of works on Military Surgery, to the surgeon on probation who obtains the second highest numbers in this branch.

Surgeons are promoted to be Surgeons-Major on completing twelve years' full-pay service, of which three must have been abroad. Before being promoted they will be required to pass an examination intended to test their progress and proficiency in all those branches of knowledge which are essential to their continued efficiency as medical officers, which may be taken at any time between the fifth and tenth year of service. It will embrace the following subjects: *a*. Surgery, operative and practical, including field surgery and transport of sick and wounded. *b*. Medicine and Pathology, including practical pharmacy and modes of prescribing and administering remedial measures, food, drink, &c. *c*. Hygiene, within the limits treated of in "Parkes' Practical Hygiene." *d*. Duties of executive medical officers during peace and war at home and abroad, and at sea, as defined in the various codes of regulations issued for their guidance. Medical officers possessing the following qualifications will be exempted from examination in Medicine, Surgery, and Hygiene respectively: *a*. The degree of Doctor of Medicine or Master in Surgery of any University in Great Britain or Ireland granting such degrees under a higher standard of examination than that for M.B. or B.Ch.; or the Membership of any Royal College of Physicians or the Fellowship of any College or Faculty of Physicians or Surgeons of Great Britain or Ireland granted under similar conditions in regard to their respective Licentiates, will be accepted in lieu of an examination in Medicine and Surgery. *b*. The diploma in Hygiene and State Medicine, or any corresponding diploma of any University in Great Britain or Ireland, such diploma being granted after examination, will be accepted in lieu of an examination in this subject. A certificate will be required from a recognised teacher of Surgery in any medical school at home or abroad in which operative surgery is taught, showing that the medical officer has gone satisfactorily through a complete course of operative surgery during the period within which the examination must be taken, and that he is a competent operator. A report on any subject of a practical professional character to be selected by the officer himself, and certified to be his own composition, and in his own handwriting, will also be required.

The selection of Surgeons-Major for advancement to the grade of Brigade Surgeon is made on the grounds of ability and merit, in determining which the following points will be considered:—The officer to be so selected must have been favourably reported on by the several military and departmental officers under whom he may have served, as set forth in their Annual Confidential Reports. He must be physically fit for general service, and have the necessary qualifying foreign and Indian service under existing rules. He must, before he can be selected for promotion to the grade of Brigade Surgeon, establish before an examining board, appointed for the purpose by the Director-General, his efficiency in the following subjects:—*a*. Hospital organisation and administration in peace and war. *b*. The administration, interior economy, command, and discipline of the Medical Staff Corps and bearer columns. *c*. The relations of the medical to all other departments and corps of the army, as defined by the various Codes of Regulations in force. *d*. Recruiting and invaliding. *e*. The management of sick and wounded in war. *f*. Field medical organisation. *g*. The transport of the sick and wounded by land and sea. *h*. The medical and surgical equipment and hospital arrangements for an army corps. *i*. The duties and responsibilities of medical officers, quartermasters, and non-commissioned officers and men of the Medical Staff Corps in regard to the charge and supervision of stores and equipments, and the nursing, dieting, and general management of the sick. *k*. The sanitary duties of medical officers in charge of camps and hospitals in the field and at the base of operations. *l*. The sanitary inspection and equipment of hospital ships and troop transports, and all other sanitary duties in camps, garrisons, and quarters. *m*. The origin, progress, and best methods of dealing with outbreaks of epidemic disease among troops under any given circumstance. *n*. The most approved methods of securing the sick, and especially the wounded, against pyæmia, septicæmia, and all other forms of blood poisoning, and the management and treatment of such outbreaks when they occur. *o*. Questions on Operative Surgery and Practical Medicine will also form part of this examination. A medico-topographical report will be required of any district or country in which British troops have been, or are likely to be, actively employed, as well as a sketch of the medical arrangements suitable for an army corps operating in such a district or country, compiled by the officer, and certified to be his own composition and in his own handwriting.

Brigade Surgeons, to be eligible for selection as Deputy Surgeons-General, must have served abroad at least ten years, of which three must have been in India. All officers under the rank of Deputy Surgeon-General are placed on the retired list at the age of fifty-five, and those of that rank and Surgeons-General at the age of sixty.

The regulations above noted respecting the promotion of Surgeons and Surgeons-Major are equally applicable to the Indian Medical Service.

The Report of a Committee appointed to inquire into the pay, status, and conditions of service of the Medical Officers of the Army and Navy has just been presented to Parliament. It is not yet known to what extent the authorities may adopt the recommendations of the Committee, but we have little doubt that the examination of Surgeons-Major before promotion to the grade of Brigade Surgeon will be dispensed with. It is probable also that some modification may be adopted in the mode of conducting the examination for promotion from the rank of Surgeon to that of Surgeon-Major, and that the exemption from a portion of it on the grounds stated above may be abolished.

The conditions of admission into the Naval Medical Service are the same as those for the Army; but the candidate is also required to declare his readiness to engage for general service, and to proceed on duty abroad whenever required to do so. After having passed the competitive examination in London the successful candidate will receive a commission as surgeon in the Royal Navy, "and will undergo a course of practical instruction in Naval Hygiene at Haslar Hospital."

Surgeons are promoted to Staff Surgeons after twelve

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years from date of entry, provided they pass the requisite examination; and Staff Surgeons to Fleet Surgeons after twenty years' service, if recommended by the Director-General. Deputy Inspectors-General are promoted by selection from the Fleet Surgeons, and Inspectors-General from the Deputy Inspectors-General having three years' foreign, four years' mixed, of which not less than two have been abroad, or five years' home service in such appointments as preclude foreign service, provided they have not refused to go abroad when called upon to do so. Inspectors and Deputy Inspectors-General are retired compulsorily at sixty, and other grades at fifty-five years of age, and all ranks at any time if they have not served for five years. In calculating service for retired pay, time on half-pay will be taken as equivalent to one-third service on full-pay.

The following tables, showing the rates of pay and half-pay of the three branches, will probably be acceptable to students who entertain any intention of entering the public service:—

ARMY.

Rank.	*Rates of Pay.*	*Gratuities.*	*Ranking with*
	Daily.		
Surgeon on probation ..	£0 8 0 ..	— ..	Lieutenant
	Annual.		
Surgeon	200 0 0 ..	.. ..	Captain
„ aft. 5 years' service	250 0 0 ..	— ..	
	Daily.		
„ 10 „ ..	0 15 0 ..	£1250 ..	
Surgeon-Major	1 0 0 ..	— ..	Major
„ aft. 15 years' service	1 2 6 ..	£1800 ..	
„ 18 „	— ..	£2500 ..	
	Half-pay.		
Surgeon-Major:			
„ aft 20 years' service	1 5 0 ..	£1 0 0 ..	Lieut.-Colonel
„ 25 „	1 7 6 ..	1 2 6 ..	
„ 30 „	— ..	1 5 0 ..	
Brigade Surgeon	1 10 0 ..	— ..	Lieut.-Colonel
„ aft. 5 years in rank	1 13 0 ..	—	(but always
„ aft. 20 years' service	— ..	1 7 6	senior to
„ 30 „	— ..	1 10 0	Surgeon-Major)
Deputy Surgeon-General ..	2 0 0 ..	1 15 0 ..	Colonel
Surgeon-General	2 15 0 ..	2 0 0 ..	Major-General

ROYAL NAVY.

Rank.	Daily pay.	Half-pay.	Gratuities and retired pay. Rank.	Gratuity.
	£ s. d.	£ s.		
Surgeon	0 11 6	0 6	Surgeon and Staff	
aft. 2 years' f. p. in rank	..	0 7	Surgeon:	
4 „	0 13 6	0 8	aft. 8 years' f. p.	£1000
6 „	..	0 9	12 „	1500
8 „	0 15 6	0 10	16 „	2250
10 „	..	0 11		
Staff-Surgeon:				
on promotion	1 1 0	0 12		
aft. 2 years' f. p. in rank	..	0 13		
4 „	1 4 0	0 14		
6 „	..	0 15		
Fleet Surgeon:			Fleet-Surgeon.	Daily.
on promotion	1 7 0	0 17	aft. 20 years'	£1 0 0
aft. 2 years' f. p. in rank	..	0 18	24 „	1 2 6
4 „	1 10 0	0 19	27 „	1 5 0
6 „	..	1 0	30 „	1 10 0
8 „	1 13 0	..		
Deputy Inspector-General:				
on promotion	2 2 0	1 5	..	1 15 0
aft. 2 years' f. p. in rank	..	1 7		
4 „	..	1 9	..	2 0 0
Inspector-General	2 15 0	1 18		

INDIAN MEDICAL SERVICE.

From date of leaving Netley till embarkation, 10*s.* per diem. Pay and allowances in India.

Rank.	*Monthly pay.*	*If in charge of a Native Regiment.*	*Pension, annual.*
	Rs. a. p.	Rs.	£
Surgeon under 5 years' service ..	286 10 0	450	—
„ after 5 „ ..	304 14 2	600	—
„ 6 „ ..	392 5 2		
Surgeon-Major & Brigade-Surgeon:			
after 10 years' service	410 9 5	800	—
„ 12 „	640 14 6		
„ 15 „	677 6 11		
„ 17 „	..		292
„ 20 „	852 3 7	1000	365
„ 25 „	888 12 0		500
„ 30 „	..		700
Deputy Surgeon-General, 2 at ..	2250 0 0	aft. 5 yrs.' service in rank addtnal. to service pension.	250
„ „ the rest at ..	1800 0 0		
Surgeon-General	2500 0 0		350
„ in Bengal	2700 0 0		

THE COST OF EQUIPPING A MEDICAL PRACTITIONER.

IN deciding upon the path to be selected for a lad whose calling in life is under consideration, the cost attending his due equipment for the profession or avocation of his choice is often a question of prime importance. It is, moreover, a question by no means easy to determine, especially in the case of the medical profession, and we have to-day presented our readers with the fullest materials available in the most perspicuous form. For this purpose we have produced, either by revision or compilation, the tables occupying pages 511 to 524 of the present impression, in which may be found collected in a comparatively small compass a large body of facts relating to this important topic. It will, however, be useful here to prefix a few remarks dealing with the subject in a general way, and adapted to aid the parent or intending student himself, as the case may be, to find his somewhat devious way through these voluminous details.

The cost of equipment, by which we mean the whole expense incidental to the education and legal qualification of a medical man may be conveniently distributed under three main heads:

1. Cost of maintenance.
2. Cost of education.
3. Cost of qualification.

Of these three items the first is by far the most considerable. It is, of course, quite true that a lad must be maintained somewhere, and it even happens in some fortunate cases that the student can live at home, and thus not only enjoy the comforts and amenities of home life while passing through his curriculum, but also minimise the expense of his support in the meantime. This, however, can only happen in a minority of cases. Commonly, the student must remove from home to take up a temporary residence at some educational centre for the purpose of prosecuting his studies, and then the present question assumes very important practical bearings.

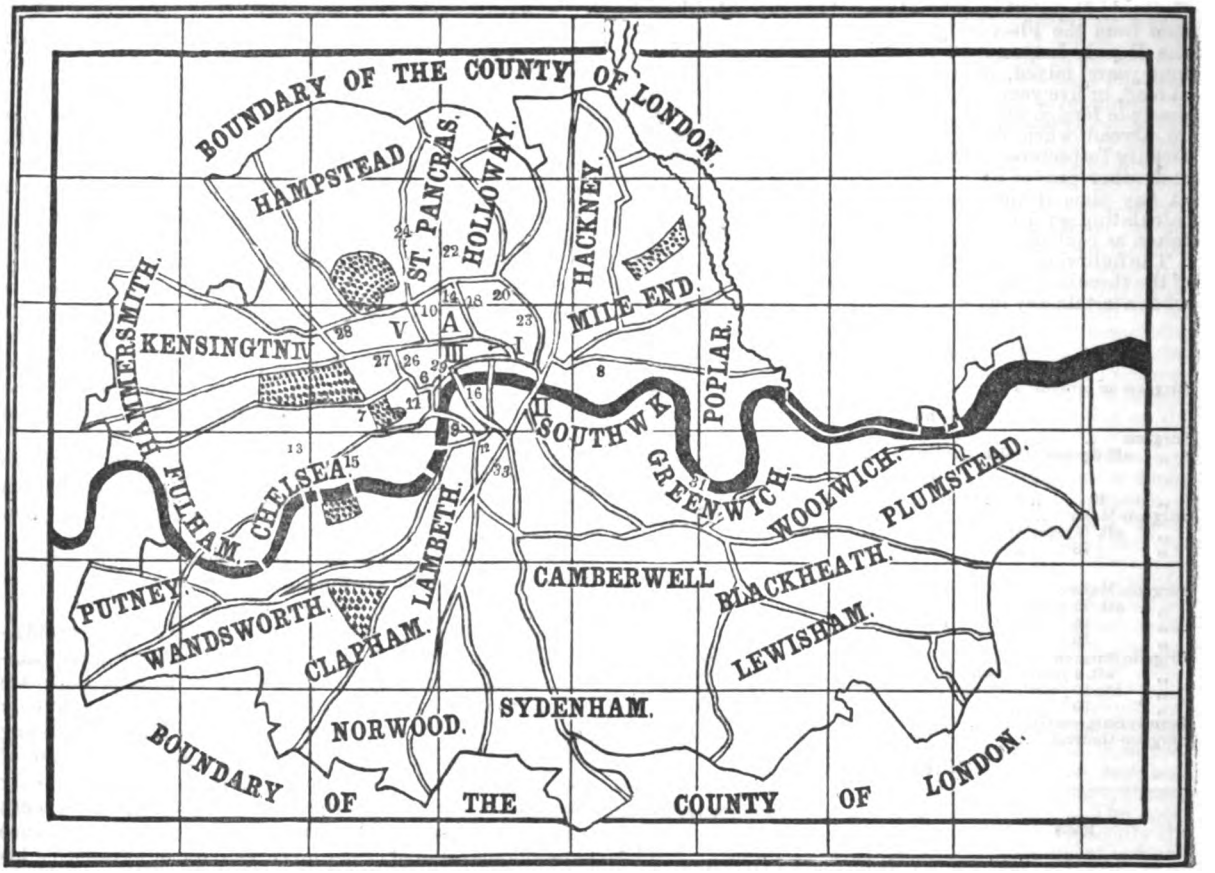
To meet this case, arrangements have been made at some of the medical schools to provide board and lodging at cheap rates for a certain number of students. This is, of course, a part of the scheme of all the teaching universities, and it may be assumed that in the case of a student destined for one of these establishments the solution of this question will be well understood, and therefore present no difficulty. The difficulty does, however, arise in a very pronounced form in the case of students coming from the provinces to attend upon some one of the many London schools. To the illustration of this subject, therefore, we have devoted the map which accompanies this article. The London Schools of Medicine will be found indicated there in such a manner as to distinguish those which do afford residential facilities from those which do not; and, as the map is self-explanatory, it is perhaps unnecessary to refer more particularly at this point to its contents.

Dealing first, then, with the schools which do afford board and residence, it will be found that the rates charged vary within limits, which may be placed at £1 and £1 10*s.* a week. A mean between these figures may perhaps be taken to represent very fairly the bare cost of living in London to a young man in the position of a medical student of quiet habits and simple tastes.

The accommodation so provided is, however, very limited by comparison with the large number of men who are always pursuing medical studies in the metropolis. The great majority, therefore, must be received in private lodgings, and in such a case it may be a matter of considerable importance to find such accommodation in the near neighbourhood of the school at which a student proposes to attend. It will perhaps be useful for readers in the

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MAP OF THE COUNTY OF LONDON, SHOWING MEDICAL SCHOOLS.



EXPLANATION.

I. *Medical Schools with a Complete Curriculum.*

A. With Residential Colleges.
- I. St. Bartholomew's Hospital.
- II. Guy's Hospital.
- III. King's College.
- IV. St. Mary's Hospital.
- V. Middlesex Hospital.

B. Without Residential Colleges.
- 6. Charing-cross Hospital.
- 7. St. George's Hospital.
- 8. London Hospital.
- 9. St. Thomas's Hospital.
- 10. University College Hospital.
- 11. Westminster Hospital.

II. *Ancillary Medical Schools affording instruction in particular subjects, &c.*
- 12. Bethlem Hospital.
- 13. Brompton Hospital for Consumption.
- 14. Central London Throat and Ear Hospital.
- 15. Hospital for Women, Chelsea.
- 16. Royal Hospital for Children and Women.
- 17. Hospital for Women (included in Group A).
- 18. Mr. Thomas Cooke's School.
- 19. Dental Hospital of London (included in Group A).
- 20. Royal Hospital for Diseases of the Chest.
- 21. Royal Ear Hospital (included in Group A).
- 22. Great Northern Central Hospital.
- 23. Royal London Ophthalmic Hospital.
- 24. London Temperance Hospital.
- 25. National Hospital for Paralysed and Epileptic (included in Group A).
- 26. Normal School of Science.
- 27. Royal Orthopædic Hospital.
- 28. Queen Charlotte's Hospital.
- 29. St. Peter's Hospital for Stone.
- 30. School of Pharmacy (included in Group A).
- 31. Seamen's Hospital.
- 32. Hospital for Sick Children (included in Group A).
- 33. South London School of Pharmacy.
- 34. College of State Medicine (included in Group A).
- 35. Royal Westminster Ophthalmic Hospital.

country to glance at our map for the purpose of realising how large a place London is. The map represents the newly constituted County of London—that is to say, the area commonly known as "London and suburbs." The scale of the map is a little larger than three miles to the inch; that is to say, the lines by which it is divided represent distances of two miles and cut it up into four-mile areas. It will readily be perceived, therefore, that it is quite possible without going out of London to be at a considerable distance from any one of the London schools. It should be borne in mind in this connexion that between many parts of the metropolis the means of communication are singularly deficient. Thus in going across London—as, for example, from east to west, or from north to south—the traveller will find no convenient railway communication. His most expeditious way of performing the journey will probably involve much deviation from the straight course, and many changes of vehicle if he confines himself to public conveyances, so that in point of fact he will occupy as long in going, for example, from Hampstead to Lewisham, or from Poplar to Kensington, as it would take to get from King's-cross to Peterborough, or from Paddington to Reading.

Happily, almost all this large area is covered by residential neighbourhoods, and there would be no actual difficulty about securing suitable accommodation within easy distance of any one of the medical schools.

Speaking very roughly, it may be said that the cost of bachelor lodgings with a respectable family ranges at about from 25*s.* to 30*s.* a week. A great many medical men are prepared to make homes for medical students, and such an arrangement presents obvious advantages to a young man

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who is zealously affected in the cause of his studies. The cost is, in these circumstances, rather heavier, of course, but an addition of 10s. a week might fairly be expected to cover it in an ordinary case. A plan that London students often adopt, and sometimes with very happy results, is to share rooms with one another—two students, for instance, occupying one sitting-room. The saving is considerable, and if the society is congenial the advantages of company are superadded.

So much may suffice upon this first head—unless, indeed, we add, what probably the reader already understands, that the educational course extends practically over a period of four years. It is over such a period, therefore, that the student must be maintained.

As to the cost of education—that is to say, of the college course—it will obviously vary with the school selected and the studies pursued. The schools enumerated in our Class Guide on pp. 511–518 provide every one of them a more or less complete curriculum, and it will be seen that the fees payable vary very considerably. It will, however, be found that these variations are more matters of appearance than of reality. In the case, for example, of the Universities the charges are individually light, but they form items in a more comprehensive scheme of education, and in the case of some provincial schools the curriculum is better adapted to a part of the students' course than to the whole of it. Allowance must of course be made for such points as these; and then it will be found that, after all, the cost at various schools is not very materially different, and that it is fairly represented by a sum not greatly exceeding in the aggregate a hundred guineas. In reference to this matter, however, it is of very little use to generalise. The whole question is one of detail, and can only be adequately illustrated by a tabular statement, to which accordingly our readers may best refer.

In addition to the cost of the education properly so called, there is the item, too easily lost sight of in a general survey, of examination fees, which, though not in any case very considerable in amount, should be taken into consideration if precision is desired. These fees also vary, as a matter of course, with the various qualifications sought, and they are collected in the second of our tabulated statements, which occupies p. 519. This, again, is a matter of detail which no disquisition can make plainer than it appears in the tabular statement.

Having fairly considered these three heads of expense, the intending student or his guardian will be in a position to arrive at a safe judgment upon the all-important questions whether he can afford the outlay incidental to a medical education, and if so how the money is to be found.

When he has thus faced the worst he may turn to what will be the more attractive consideration of the very liberal pecuniary aids to medical study which are set out in some detail in the third of our tabulated statements, which occupies pp. 519–524. This is by no means an exhaustive list of scholarships maintained in support of medical education, and it may even be feared that it is not in all details quite accurate. The labour of compiling it from the heterogeneous and often inadequate materials which we have had at command has been considerable, and the difficulty of guarding against all the numerous possibilities of error has been proportionately great. We trust that our readers will bear this fact in mind, and, while making due use of the facilities of reference which such a table is adapted to afford, that they will be at the pains to verify any details culled from this collection of which they may intend to make use. The probability of securing some one or another of these many prizes may be quite reasonably taken into account in the case of an exceptionally clever lad, especially if his career at school has been marked by distinction. But it is hardly necessary to add a word of warning that "the best laid schemes of mice and men gang aft agley": and the only way of being secure is to have laid one's account with the worst that can happen.

METROPOLITAN MEDICAL SCHOOLS HAVING A COMPLETE CURRICULUM.

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE. — The clinical practice of the hospital comprises a service of 750 beds, of which 676 are in the hospital at Smithfield, and 75 are for convalescent patients at Swanley.

Eight house physicians, ten house surgeons, and a midwifery assistant are appointed annually, each of them holding office for one year, and provided with rooms by the hospital authorities. The ophthalmic house surgeon is appointed for six months, and is eligible for re-election for a second term of six months. The senior assistant chloroformist and junior assistant chloroformist are appointed annually, and are provided with rooms. Two qualified assistant electricians are appointed every three months. No fee is paid for any of these appointments, and each receives a salary of £25. The clinical clerks, the obstetric clerks, the clerks to the medical out-patients, the dressers to the surgical out-patients, and the dressers in the special departments are chosen from the diligent students. Forty ward dresserships are given annually to the students who pass the best examination in the subjects of study of the first year. Other ward dresserships may be obtained by payment of the usual fees.

A college is attached to the hospital, in which students can reside, subject to the college regulations.

Foundation and other Prizes.—Two Lewis Open Scholarships in Science of the value of £65 each, tenable for one year, will be competed for in September. Candidates must not be more than twenty-five years of age, and must not have entered to the medical or surgical practice of any metropolitan medical school. The subjects of examination are Physics and Chemistry for one, Physiology and Biology for the other.—Two Junior Open Scholarships in the subjects of the Preliminary Scientific Examination of the London University will be competed for at the same time. Candidates must be under twenty years of age, and must become regular students.—The Jeaffreson Exhibition, of the value of £20, is awarded at entrance after examination in the subjects of general education. It is now an Open Exhibition.—A Senior Scholarship, £50, in Anatomy, Physiology, and Chemistry.—Kirke's Scholarship and Gold Medal in Clinical Medicine, value 40 guineas.—Lawrence Scholarship and Gold Medal, of the value of 40 guineas (founded in 1873 by the family of the late Sir William Lawrence). — Two Brackenbury Scholarships in Medicine and Surgery, £30 each.—Four Junior Scholarships in the subjects of study of the first year: 1st, £40; 2nd, £30; 3rd, £20; 4th, £10.

A prize of £15 for Anatomy has been founded by the late Mr. Henry Skynner in memory of his brother; a Scholarship of £50 confined to Cambridge graduates in Arts, by Miss Shuter in memory of her brother, formerly assistant surgeon to St. Bartholomew's Hospital; and a prize of £10 10s. by Sir F. A. Burrows, Bart., in memory of his father, Sir George Burrows.

CHARING-CROSS HOSPITAL AND COLLEGE.—Total fees, £94 10s. if paid in a single sum on entry, or £105 if paid in five instalments. General students pay proportionately lower fees, and are admitted without additional fee to the courses of Clinical Medicine and Surgery, to the new classes of systematic practical instruction in Medicine and Surgery, and to the practice of the Royal Westminster Ophthalmic Hospital. They alone are entitled to compete for the Scholarships, Gold Medal, and Pereira Prize.

Preliminary Science Instruction.—Arrangements have been made for students desirous of undergoing a course of instruction in science, such as that required for the Preliminary Scientific (M.B.) Examination of the University of London, to attend at the Normal School of Science, South Kensington.

Two Entrance Scholarships, of the value of 100 guineas and 50 guineas respectively, are awarded annually at the commencement of each winter session after a com-

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petitive examination in the following groups of subjects:—(1) English, including Language, Literature, History, and Geography; (2) Latin and Greek; (3) French and German; (4) Mathematics, including Arithmetic, Algebra, and Geometry; and Mechanics, including Statics and Dynamics; (5) Chemistry (Inorganic) and Physics, including Acoustics, Heat, and Electricity; and (6) Animal and Vegetable Biology. The value attached to each group of subjects is 1000 marks. No candidate may offer himself for examination in more than three of the above groups of subjects, the selection of the groups being left entirely to the candidate. The Scholarships will be awarded by the School Committee to the two candidates who, on the report of the examiners, have shown the highest degree of excellence; but no Scholarship will be awarded unless, in the opinion of the examiners, a satisfactory standard has been attained. In the first four groups the subjects (as regards extent and the authors selected) will be the same as those chosen for the Matriculation Examination of the University of London in the June immediately preceding; in the fifth and sixth, the same as those for the Preliminary Scientific Examination of the same University. Candidates must give notice to the Librarian of their intention to compete, and of the groups in which they offer themselves for examination, on or before Saturday, Sept. 21st, 1889. The examination will commence at the School on Monday, Sept. 23rd, at 10 A.M. The successful candidates will be required to enter for their complete medical education at Charing-cross Hospital, either immediately or at the commencement of the next following summer session.

A Scholarship of the value of 50 guineas is open to students from the University of Oxford who have passed the First M.B. Examination, and to students of the University of Cambridge who have passed the Second M.B. Examination, and who have not entered at any London medical school. Subjects: Anatomy and Physiology, including Histology. The examination for this Scholarship, which will be largely practical, will be held on Sept. 23rd and 24th. Notice to compete must be sent in on or before Saturday, Sept. 21st, 1889. The successful candidate will be required to complete his curriculum at Charing-cross Hospital.—The Llewellyn Scholarship of £25, for students who have just completed their attendance on lectures; and the Golding Scholarship of £15, for students who have just completed their first year. The Pereira prize of £5 is open to all general students, and is awarded annually for the best clinical reports. The Governor's Gold Medal is given for excellence in clinical work. Silver or Bronze Medals, or an equivalent in Books, are awarded to the most distinguished students in all classes; and special prizes in the classes of Dental Surgery, Pathology, and Practical Histology. The Medical School is being considerably enlarged, and, in addition to other improvements, new Physiological and Pathological Laboratories will be erected, and an additional reading and writing room provided for the use of the students.

ST. GEORGE'S HOSPITAL.—Perpetual pupils, by payment of £130 in three instalments, or £125 in one sum, are entitled to admission to the medical and surgical practice; to compete for prizes and exhibitions; to hold the appointments of house physician and house surgeon, assistant house physician and assistant house surgeon, ophthalmic assistant, registrar's assistant, and to become clinical clerks for two periods of three months each, and dressers for similar periods, free of any charge. Gentlemen are admitted to the hospital practice and lectures required by the Colleges of Physicians and Surgeons and the Society of Apothecaries on payment of £45 at the commencement of the first year of study, £45 at the commencement of the second year of study, £20 for the third, and £20 for each subsequent year of attendance. On payment of the third instalment the pupil may become perpetual, provided that the Dean can certify that his conduct has been satisfactory. These payments entitle the pupil to hold the offices of clinical clerk and dresser for three months each, and to become a candidate for the offices of house physician and house surgeon. Perpetual pupils are eligible for the offices of curator of the museum, medical and surgical registrar, demonstrator of anatomy, and obstetric assistant. These are all salaried offices. The obstetric assistant is resident, with a salary of £100.

Entrance Scholarships.—£125, open to sons of medical men; two of £50 each, open to all students commencing their medical studies; £90, open to students who have passed the Cambridge First M.B.; £65, open to students who have been signed up for or passed the Oxford First M.B. or Cambridge Second M.B.

Prizes.—The William Brown Exhibition of £100 per annum, tenable for two years, open to any perpetual pupil of St. George's who is under twenty-five years of age, and who shall have obtained a diploma or licence entitling him to be registered as a practitioner of medicine or surgery in England within two years previously to the period fixed for the examination (July). The examination is to test the proficiency of the candidate in Medicine, Midwifery, and Surgery, including Ophthalmic Surgery.—The William Brown Exhibition of £40 per annum, tenable for three years, for general fitness for the exercise of the medical profession and for moral conduct, open to perpetual pupils in their fourth year of study.—Sir Charles Clarke's Prize (interest of £200 consols) for good conduct; the Brackenbury Prize in Medicine, value £32; the Brackenbury Prize in Surgery, value £32; the Treasurer's Prize, £10 10*s.*; the Thompson Medal; the Brodie Prize for Clinical Surgery; the Acland Prize for Clinical Medicine; the Pollock Prize in Physiology; the Henry Charles Johnson Prize in Anatomy; and General Proficiency Prizes, value £10 10*s.* each, for students of each year.

GUY'S HOSPITAL. — *Appointments:* House physicians, house surgeons, assistant house physicians and assistant house surgeons, obstetric residents, clinical assistants, surgeons' and assistant surgeons' dressers, surgical ward clerks, clinical clerks, post-mortem clerks, extern obstetric attendants, and dressers and clerks in the special departments, are appointed from among the students, upon the recommendation of the medical staff, according to merit, and without extra payment. The house physicians, of whom there are four, hold office for six months each. The assistant house physician attends in the Out-patient Department three afternoons in the week, and sees all the cases not seen by the assistant physician of the day. The house physicians have the care of the patients in the Medical Wards, and attend to all emergencies arising in the absence of the physicians. They are provided with board and lodging in the college free of expense. The house surgeons, of whom there are four, hold office for six months each, and are provided with board and lodging in the college free of expense. The Surgical Casualty Department is in charge of two assistant house surgeons. The surgeons' dressers are selected from those students who have completed their third winter session, and have been most diligent in the junior appointments. They usually hold office for six months each. Six are attached to each surgeon, and during their weeks of special duty they are provided with board and lodging in the hospital free of expense. The obstetric residents, two in number, are provided with board and lodging in the hospital free of expense.

Scholarships, Prizes, &c.—Entrance Scholarships in Arts (£131 5*s.* and £52 10*s.*). Subjects: Latin, Greek, French, German, and Mathematics. — Entrance Scholarships in Science (£131 5*s.* and £52 10*s.*). Subjects: Inorganic Chemistry, Zoology, Botany, and Physics. The examination begins on Wednesday, Sept. 25th.—For first-year students: First prize £50, second prize £25, for Anatomy, Physiology, Materia Medica, and Chemistry.—For second-year students: First prize £25, second prize £10, for Anatomy and Physiology. The Sands Cox Scholarship of £15 (tenable for three years) for Physiology. The Michael Harris prize of £10 for Anatomy.—For third-year students: First prize £25, second prize £10, for Medical and Surgical Anatomy, Midwifery, and Therapeutics.—For fourth-year students: First prize £25, second prize £10, for Medicine, Surgery, Midwifery, and Medical Jurisprudence. The Golding Bird prize of £33 for Methods of Diagnosis in Disease.—For senior students: The Treasurer's Gold Medal for Clinical Medicine; the Treasurer's Gold Medal for Clinical Surgery; the Gurney Hoare prize of £25 for Clinical Reports and Commentaries; and the Beaney prize of 30 guineas for Pathology. The Physical Society awards two prizes, each of £5, to the authors of the best Essays on selected subjects, prizes of £10 and £5 for the best papers read before the Society, and a prize of £5 to the member who has most distinguished himself in the debates of the session.

Fees.—1. A perpetual ticket, including admission to lectures, demonstrations, and hospital practice, competition for prizes, and eligibility for hospital appointments, may be

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obtained—(*a*) by the payment of 125 guineas on entrance; (*b*) by two payments of £66, one on entrance, the other at the commencement of the ensuing session; (*c*) by the payment of three annual instalments, at the commencement of each academical year: first year, £50; second year, £50; third year, £37 10*s*. 2. A reduction is made in the fees for a perpetual ticket in the case of students who have spent one or more years at another medical school. Students entering as second-year students are charged for their first year at Guy's Hospital, £50; second year, £40; third year, £20; or 95 guineas in one sum on entrance. Students entering as third-year students are charged for their first year at Guy's Hospital, £50; second year, £20; or 65 guineas in one sum on entrance. Students entering as fourth-year students are charged for their first year at Guy's Hospital, £50; second year, £5; or 50 guineas in one sum on entrance.

The College.—The College stands upon a site fronting the east gate of the hospital, and is connected with it by a subway. The building has been planned to serve as a Residential College for Students, and at the same time to provide accommodation for the Students' Club. The residential portion consists of rooms for the house physicians, house surgeons, and obstetric residents, together with the following accommodation for other students:—1. Thirty-four sets, each consisting of a sitting-room and bedroom; the rent of each set is 16*s*. a week, if taken for a period of not less than three months, or £39 for the whole year. 2. Two sets, each consisting of a large sitting-room and two bedrooms; the rent of each set is 27*s*. a week, if taken for a period of not less than three months, or £66 for the whole year. 3. Eight single sitting-rooms, with an alcove for the bed; the rent of each room is 12*s*. a week, if taken for a period of not less than three months, or £30 for the year. 4. Four bedrooms and a common sitting-room for the externs, at a charge to each of 10*s*. a week. The rooms are comfortably furnished, and the above charges include attendance, but are exclusive of fire, lighting, and washing. Rents are payable in advance. In the allotment of rooms regard will be had to the length of time for which the student proposes to occupy them, and preference will usually be given to those applying for the longer periods. Every student on coming into residence in the College will be required to become a member of the Students' Club, and to make a deposit of 5 guineas with the Warden, which will be returned to him in full on his leaving the College, unless wilful or careless damage has been done to his rooms or furniture, in which case the whole or a part of the deposit will be retained to make good the damage done. The rooms for the use of members of the Students' Club, in common with the residents in the College, comprise a dining-hall, two large reading-rooms, and ample lavatory accommodation. The Club, which is managed by a committee consisting of members of the medical staff and representatives of the students, is open to all students of the hospital upon payment of an annual subscription of 12*s*. 6*d*., or of a composition fee for life membership of 50*s*. The dining-hall is open from 8 A.M. to 8 30 P.M., and breakfasts, luncheons, and dinners are provided at moderate charges. Residents in the College may either take their meals at the ordinary tariff, or by arrangement with the steward at a charge of 1 guinea a week, payable in advance. In this charge wine and beer are not included. No meals will be served in the students' private rooms. The reading-rooms, which are open from 8 A.M. to 10 P.M., are provided with daily papers, and scientific and other journals. The students residing in the College are under the supervision of a resident Warden, and are required to conform to the rules and regulations made by the College Committee. All inquiries with respect to residence in the College should be addressed to the Warden, The College, Guy's Hospital, S.E.

KING'S COLLEGE.—The physicians' assistants, the physician-accoucheur's assistant, the ophthalmic clinical assistant, the clinical clerks, and the house surgeons and dressers, are selected by examination from among those matriculated students of the College who are pupils of the hospital. Rooms are provided within the walls of the College for the residence of matriculated students. Rooms and commons are provided at the hospital for the resident officers free of charge.

Scholarships.—Warneford Scholarships: Two of £25 per annum for three years for Literature. Three additional Scholarships of £25 per annum each for two years will be awarded this year. Science: One of £50 and one of £25 each for two years. Sambrooke: One of £60 and one of £40 for Science. Rabbeth Scholarship of £20 per year for Science. College Scholarships: One of £40 per annum for two years; one of £30 for one year; three of £20 for one year. The Daniell Scholarship for Chemistry, of the annual value of £20. Sambrooke Registrarships, of the annual value of £50 each, and tenable for two years, are open to all matriculated students who have filled any one of the higher appointments of the hospital, or who have become Associates. The Leathes Prizes, value £7, and the Warneford Prizes, value £40, are given annually amongst the matriculated medical students. Two Surgical Clinical Prizes, of £3 each, are given. The Todd Medical Clinical Prize consists of a bronze medal and books to the value of £4 4*s*. The Tanner Prize for Obstetric Medicine, value £10, and the Carter Gold Medal and Prize for Botany, value £15, are given annually in July. Class Prizes, value £3 3*s*. each, are awarded annually in every subject. A Warneford Scholarship of £25 per annum for two years for third-year subjects is awarded annually to resident students only.

LONDON HOSPITAL AND COLLEGE.—The Medical School of the London Hospital has lately been entirely remodelled and rebuilt. The present buildings were opened by their Royal Highnesses the Prince and Princess of Wales on May 21st, 1887, the accommodation now afforded being more than double that which was provided in the old buildings. The hospital, which is the largest in Great Britain, contains nearly 800 beds. Last year the number of in-patients was 8873, out-patients 101,548, and the number of accidents 9769.

The following Scholarships and Prizes will be offered for competition during the ensuing winter and summer sessions:—Two Entrance Scholarships in Natural Science, of the value of £60 and £40 respectively, will be offered for competition on September 25th, 26th, and 27th, 1889. The subjects are Physics, Botany, Zoology, and Inorganic Chemistry. The successful candidates must forthwith become full pupils of the hospital and school, if not already entered, and are not eligible to compete for the Buxton Scholarships.—The two Buxton Scholarships, value £30 and £20, will be offered for competition on October 2nd, 3rd, and 4th, 1889. The subjects are those appointed by the General Council of Medical Education and Registration as the subjects of the Preliminary Examination.—A Scholarship, value £25, in Anatomy, Physiology, and Chemistry, will be competed for at the end of the winter session by first and second-year students.—A Scholarship, value £20, in Anatomy and Physiology, for first-year students. (At the commencement of the summer session.) The Letheby Prize, value £30, for proficiency in Chemistry. (At the end of the summer session.) Open to all full students who have completed their second summer session up to the termination of their fourth year from entrance.—A Hospital Scholarship, value £20, for proficiency and zeal in Clinical Medicine. (At the end of the winter session.)—A Hospital Scholarship, value £20, for proficiency and zeal in Clinical Surgery. (At the end of the winter session.)—A Hospital Scholarship, value £20, for proficiency and zeal in Clinical Obstetrics. (At the end of June.)—The Duckworth Nelson Prize, value £10, will be offered biennially for competition at the end of the winter session, and be open to all students on similar conditions to those of the Hospital Scholarships. The subjects of examination will be Practical Medicine and Surgery.—The Hutchinson Prize, value £35, will be given triennially to the author of the best essay upon a subject in Clinical Surgery. Candidates must be full students of the hospital who have not been registered more than ten years.—Out-patients' Dressers' Prizes. Six prizes, of the aggregate value of £60, will be offered for competition at the end of the winter session. Candidates must pass an examination in Minor Surgery, have dressed diligently for twelve months, and have passed the Primary Examination of the Royal College of Surgeons.—Two Dissection Prizes, value £6 and £4.

Special classes are held throughout the year for the Preliminary Scientific Intermediate M.B. Examinations of the University of London and for the Primary and Pass Examinations for the Fellowship of the Royal College of Surgeons. Special entries can also be made for Medical and Surgical Practice, the Operative Surgery classes, &c.

In addition to the regular courses of lectures, there will be given during the winter and summer sessions a course of

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lectures on Clinical Medicine by Sir Andrew Clark, Bart., F.R.S., Emeritus Professor of Clinical Medicine, and a course of lectures on Clinical Surgery by Mr. Jonathan Hutchinson, F.R.S., Emeritus Professor of Clinical Surgery.

During the summer session a course of lectures will be delivered on Pathological Chemistry by Dr. C. H. Ralfe, Physician to the Hospital, on Mondays, at 4 P.M.

ST. MARY'S HOSPITAL.—There are three House Physicians and three House Surgeons, each appointed for six months, and two Obstetric Officers, each appointed for six months. They board free of expense in the hospital, except that the obstetric officer resides outside the hospital at his own expense for the first three months. These appointments are awarded after competition, without additional fee. Two Demonstrators of Anatomy are appointed annually, with a salary of £70 and £50 respectively; and a Demonstrator of Physiology, at £120 a year. All these officers are eligible for re-election. There is also a Demonstratorship in Pathological Anatomy, of the value of £15, and tenable for six months; the holder of this scholarship will assist the pathologist in the discharge of duties in the museum and deadhouse. Two Prosectors of Anatomy and two Assistant Demonstrators of Physiology are appointed annually, and receive a certificate and £5 each for satisfactory service in their respective departments. All students are required to perform the duties of clinical clerk and dresser during the last two years of their curriculum. Students of the third year and of subsequent years are also appointed as clerks and dressers to assist the physicians and surgeons in charge of the out-patients. In addition to the instruction given in the wards daily, special Clinical Lectures are given on Fridays throughout the academical year, at 4 P.M. The hospital contains 281 beds. Two wards are appropriated to the Diseases of Children, and one to those of Women; beds are also provided for Ophthalmic, Aural, and Cutaneous cases. There is an out-patient department for diseases of children.

Scholarships, Prizes, and Appointments: Scholarships offered for open competition previously to entering at the Medical School.—Entrance Scholarships: The following will be offered for competition on Sept. 26th and 27th, at 10 A.M.—One Scholarship in Natural Science, of the value of 100 guineas, open to any gentleman who has not completed a winter session of study at a medical school. Three Scholarships in Natural Science, each of the value of 50 guineas, under the same conditions. One Scholarship of the value of 100 guineas, open to students from Epsom College, being sons of medical men, and who have not completed a winter session of study at a medical school. This Scholarship is not given by competition. Two Scholarships, each of 50 guineas, open to students from the Universities of Oxford, Cambridge, or other University, who have not entered at any London medical school. The examination for the Scholarships will be conducted according to the syllabus of the Preliminary Scientific Examination of London University. A Scholarship in Mathematics and one in Classics, each of the value of £50, will be open to competition on April 30th, 1889, to students who enter in May, 1889.

In addition to the Open Entrance Scholarships, Class Prizes, and usual Appointments, Scholarships will be offered for competition at the end of each year, open to all pupils. These Scholarships are of the value of £20, £25, and £30, for the first, second, and third years respectively.

A residence for students, 33 and 35, Westbourne-terrace, W., in connexion with the hospital, is under the charge of a warden, Dr. Luff, who is prepared to receive applications from students desiring to enter upon residence during the ensuing session. Terms: 90 guineas for the academical year, to *include special instruction by the Demonstrators on three evenings a week.*

MIDDLESEX HOSPITAL.—There is a special Cancer Department, affording accommodation for thirty-three in-patients, whose period of residence in the hospital is unlimited. Classes, open to all the students, are held for practical instruction in Medicine, Midwifery, in the microscopical examination of Healthy and Diseased Tissues, and also in the application of Bandages and other surgical apparatus. Students are allowed to take out to read at their own homes the books from the large and carefully selected medical library of the School. The museum has recently been rearranged, and a complete catalogue prepared of the various specimens. Two Entrance Scholarships, of the annual value of £50 and £30, and tenable for two years, are offered for competition at the commencement of the winter session. An Exhibition in Elementary Anatomy, Osteology, and Physiology, value £10 10*s.*, is awarded to students at the end of their first year. The Lyell Medal is awarded annually for proficiency in Surgical Anatomy and Practical Surgery. The Hetley Prize is awarded annually for Clinical proficiency. Two Broderip Scholarships, of the annual value of £30 and £20, tenable for two years, are awarded to those students who pass the best examination at the bedside and in the post-mortem room. The Murray Medal and Scholarship, founded in connexion with the University of Aberdeen, is awarded every third year to a student of this hospital; it will be next awarded in May, 1892. The Governors' Prize of 20 guineas is also awarded annually to the student after his third winter session who shall pass the best clinical examination in the out-patient departments. Valuable class prizes are also given, and sixteen resident clinical appointments are annually awarded, after competitive examination, to students who have completed their education and complied with the regulations of the School.

Arrangements have been made for students desirous of undergoing a course of instruction in Science, such as that required for the Preliminary Scientific (M.B.) Examination of the University of London, to attend such a course at the Normal School of Science, South Kensington. Fee for the whole course, £35. Students who enter for this course will be allowed a deduction of £20 on the fees for the medical curriculum.

The *Residential College*, which can accommodate about thirty students, adjoins the Medical School. The resident warden assists the students in their studies.

The following are the regulations of the College relating to the residence and board of the students: Students are received for residence at a charge of 10 guineas per term, exclusive of fire, lights, and washing. Students are required to dine in the Hall, and the charge for dinner (not including beer) is 10*s.* 6*d.* per week. Breakfast and luncheon can be obtained in the College Hall at the daily tariff, which will be found on the breakfast and luncheon lists. N.B.—There are a few rooms on the fourth floor, for which the charge is 8 guineas per term.

During the past year the School has lost two of its oldest and warmest friends in the deaths of Dr. Headlam Greenhow, consulting physician, and Major A. H. Ross, chairman of the Weekly Board of the Hospital. Dr. Greenhow retired from the acting staff about nine years ago, but he continued to take a keen interest in the institution which he had served for many years. Major Ross had been chairman for nearly twenty years, and had carried out many improvements in the management of the hospital. To him is owing the foundation of a Trained Nurses' Institute in connexion with the Middlesex Hospital, whilst the construction of the Residential College was largely owing to his personal influence and support. The vacancy created by Major Ross's death has been filled by the election of Lord Sandhurst to be chairman of the Board. A new feature is the formation of classes in Advanced Physiology (Mr. Lowne) and Morphology (Mr. Bland Sutton) for those students who are engaged in preparing for the Higher Examinations.

ST. THOMAS'S HOSPITAL.—*Prizes and Appointments for the year 1889-90.*—For First-year students: Two Entrance Scholarships in Natural Science of the value of 125 guineas and £60 respectively, open to all first-year students, will be awarded during the first week in October, after an examination in Physics, Chemistry, and either Botany or Zoology, at the option of the candidate; the William Tite Scholarship, the proceeds of £1000 consols, is awarded each year; also prizes of £20 and £10; summer, £15 and £10. For Second-year students: The Peacock Scholarship of £38 10*s.*, and the Musgrove Scholarship of £38 10*s.*, are awarded biennially to the students who shall take the highest place in the first-class list in the examinations at the end of the second winter session; they are tenable for two years, provided the holder obtains a place in the first class in the subsequent examinations: making the winter prizes £38 10*s.*, £20, and £10; summer, £15 and £10; with the dresserships and the clinical clerkships. For Third-year students (winter): Second tenure of Scholarship, £38 10*s.*, and

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prizes of £20, £15, and £10; summer, £15 and £10. Clinical clerks and dressers are selected according to merit. The Grainger Testimonial Prize of £15 annually is awarded to students, who must be from three to six years' standing, for the best Anatomical or Physiological Essay, to be illustrated by preparations and dissections. The Cheselden Medal for Surgery and Surgical Anatomy, and the Mead Medal for Practical Medicine, are awarded annually to fourth-year students. The Solly Medal, with a prize of from 10 to 20 guineas, will be awarded biennially to a student of the third, fourth, fifth, or sixth year, for the best report of surgical cases. The Treasurer's Gold Medal, for general proficiency and good conduct, is awarded annually to a fourth-year student.

Classes in Practical and Operative Surgery are held four times a week for six weeks prior to the final examinations of the Examining Board in January, April, and July. In connexion with these classes, Clinical Instruction is given in the wards by the resident assistant surgeon, and a course of Demonstrations on Museum Specimens is given by the curator, Mr. Shattock.

UNIVERSITY COLLEGE, LONDON.—*Composition Fees.*—1. For the entire medical education required by the Examining Board in England and the Society of Apothecaries, 120 guineas, if paid in one sum at the commencement of the course; 125 guineas, if paid by instalments, as follows—first year, 55 guineas; second year, 50 guineas; third year, 20 guineas. 2. For those students who do not require to attend Chemistry, Pharmacy, and Materia Medica at a medical school (under the regulations of the Examining Board in England) the fee will be—100 guineas, if paid in one sum; 105 guineas, if paid by instalments, as follows—first year, 50 guineas; second year, 35 guineas; third year, 20 guineas. 3. For the whole course of instruction for the Intermediate Examination in Medicine of the University of London, 50 guineas. 4. For the course of instruction for the Final M.B. Examination of the University of London, 70 guineas, if paid in one sum; 72 guineas, if paid by instalments, as follows—first year, 40 guineas; second year, 32 guineas. 5. Composition fee for Dental Students, 60 guineas. 6. Composition fee for the whole course of instruction for the Preliminary Scientific (M.B.) Examination of the University of London, 35 guineas.

Exhibitions, Prizes, &c.—Three Entrance Exhibitions, of the respective values of £100, £60, and £40 per annum, tenable for one year, are annually awarded, upon examination by printed papers, to gentlemen who are about to commence their first winter attendance in a medical school. The subjects of the examinations are—Chemistry, Physics, Botany, and Zoology. The Atkinson Morley Surgical Scholarship of £45, tenable for three years, is annually awarded to the student who, upon examination, is found to possess the greatest proficiency in the Theory and Practice of Surgery. The Sharpey Physiological Scholarship of about £105 per annum, tenable for three years, for proficiency in Biological Science. Filliter Exhibition: a prize of £30 is awarded annually, in July, to the most proficient student in the class of Pathological Anatomy. An Atchison Scholarship, value about £55 per annum, tenable for two years. The Cluff Memorial Prize, value about £15, every second year to the most proficient in Anatomy, Physiology, and Chemistry. The Erichsen Prize: a surgeon's operating case of the value of £10 10*s.*, awarded yearly to the student of the class of Practical Surgery who shall most distinguish himself by manipulative skill. The Morris Bursary of £25 a year, tenable for two years. Besides the above, gold and silver medals and other prizes are awarded in each class.

Several professors and other gentlemen connected with the College receive students to reside with them; and in the office of the College there is kept a register of persons unconnected with the College who receive boarders into their families; among these are several medical gentlemen.

The annual dinner of the old and present students of the Faculty of Medicine will be held in the General Library of the College on Tuesday, Oct. 1st, at 6.30 P.M. William Cadge, Esq., F.R.C.S., will preside.

WESTMINSTER HOSPITAL.—The hospital contains upwards of 200 beds. There are separate departments for Diseases of the Eye, Ear, Skin, Teeth, and Throat, and for Diseases of Women, and a special ward for Children. The Anatomical Museum is constantly open to the students. There are also a Pathological Museum and a Materia Medica Museum.

A curator of the museum and a pathologist, each with a salary of £50, and a medical and surgical registrar, each with a salary of £40, are appointed annually. Two house physicians, two house surgeons, and a resident obstetric assistant are appointed for six months after examination, and are provided with rooms and commons. Clinical assistants to the physicians and surgeons, and to the officers in charge of special departments, are appointed from among qualified students of the hospital.

Scholarships and Prizes.—A Science Scholarship, value £100, is offered annually; the Guthrie and Entrance Scholarships, on alternate years, value £80; and two Entrance Scholarships, value £40. Entrance Scholarship, summer session, value £40. A £20 Entrance Scholarship is offered annually to Dental Students. The Treasurers' Prize, an Exhibition in Anatomy, Physiology, and Chemistry, value £10 10*s.*, tenable for one year for first-year men. The President's Prize, a Scholarship in Anatomy, Histology, and Physiology, value £21, given by his Grace the Duke of Westminster, President of the Hospital, to a student of the second year (to be styled Assistant Demonstrator). At the end of the fourth winter session, prizes of £5 each (books or instruments) in Clinical Medicine and Clinical Surgery, Frederick Bird Medal and Prize, value £15. Subjects of examination: Medicine, Midwifery, Diseases of Women and Children, and Pathology. Chadwick Prize for General Proficiency, £21 (books or instruments), to the most meritorious student or students of any year not exceeding the fifth. In most of the classes special prizes, value about 2 guineas each, are given by the lecturers.

METROPOLITAN ANCILLARY SCHOOLS OF MEDICINE.

The following institutions offer a partial curriculum in the form of classes dealing with particular subjects, or adapted to special circumstances.

BETHLEM HOSPITAL.—This hospital is open for the admission of two Resident Clinical Assistants who have recently obtained their diplomas to practise Medicine and Surgery. They will be permitted to reside in the hospital for a term generally not exceeding six months, and will be provided with such apartments, rations, and attendance as the Committee shall consider reasonable. They will be under the direction of the Resident Physician, and will be elected by the Committee from candidates whose testimonials appear to be most satisfactory.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Four House Physicians reside in the hospital for a period of six months. Pupils are admitted to the practice of the hospital: terms £3 3*s.* for three months; six months, £5 5*s.*; perpetual £10 10*s.* Lectures and Clinical Demonstrations are given throughout the year by members of the medical staff. The medical practice of the hospital is recognised by the University of London, the Apothecaries' Society, and the Army and Navy and Indian Medical Boards. The hospital contains 321 beds in the two buildings.

CENTRAL LONDON THROAT AND EAR HOSPITAL.—The hospital contains accommodation for seventeen in-patients, and has a very extensive out-patient department, which is open to all medical practitioners and students for the purpose of clinical demonstration and instruction during the hours of the surgeons' visits. During the past year 6257 out-patients and 230 in-patients were treated. Fee for three months' attendance, 2 guineas; for six months', 3 guineas. A course of lectures on the special diseases treated at this hospital will be delivered during the winter months by members of the staff. The date of these lectures is announced in the medical journals prior to their commencement. They are free to qualified practitioners and advanced students of medicine. Consulting Surgeon: Mr. Sydney Jones. Surgeons: Mr. Lennox Browne, Dr. Arthur Orwin, Dr. J. Dundas Grant, and Mr. Percy Jakins. Assistant Surgeon: Mr. T. W. Carmalt Jones. Dental Surgeon: Mr. George Wallis. Defects of Speech: Mr. William Van Praagh. Secretary: Mr. Richard Kershaw.

HOSPITAL FOR WOMEN, CHELSEA.—Established 1871. The hospital contains sixty-three beds. Qualified medical men are admitted to see the practice of this hospital, and post-graduate course of lectures is delivered.

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ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo-bridge-road. (Instituted 1816.)—Consulting Physicians: Dr. Wilks, Dr. John Williams, Dr. G. V. Poore, and Dr. Geo. Roper. Consulting Surgeon: Arthur Durham. Physicians: Drs. W. A. Duncan, Alex. Haig, Septimus Sunderland, and W. R. Dakin. Surgeon: Mr. H. C. Jacobson. Assistant Surgeon: Mr. E. Overman Day. Surgeon-Dentist: Mr. Alfred Barnard. Resident Medical Officer: Mr. Henry B. Brackenbury. Secretary: Mr. R. G. Kestin. Advanced students in Medicine, and such practitioners as may desire it, are permitted to attend the practice of this hospital gratis. If a certificate signifying such attendance be required, the sum of £5 5*s.* must be paid to the physicians and surgeons in ordinary conjointly.

HOSPITAL FOR WOMEN, Soho-square, W. — In connexion with this institution there has been for some years a well-organised Clinical Department, which has lately been enlarged under the title of the London School of Gynæcology. To meet the want increasingly felt by medical men of an accurate knowledge of the ordinary diseases of women, gentlemen are appointed every three months to act as clinical assistants to the physicians and surgeons seeing out- and in-door patients. The appointments are nominally "open to qualified medical men and to students of medicine after their third year," but in the selection of candidates preference is naturally given to gentlemen already engaged in practice. The large numbers of out-patients afford quite unrivalled opportunities for practical instruction in the use of gynæcological instruments, and for the study of diseases peculiar to women. A course of lectures on the Anatomy and Physiology of the Female Pelvic Organs is given during each quarter by a member of the Staff. Clinical lectures are given in the Operating Theatre on alternate Thursdays, throughout the winter and summer sessions. Valuable prizes are given, after examination, annually, open to past and present clinical assistants. Fee for the three months' course, £8 8*s.* Any further information can be obtained by letter, addressed to the Dean at the hospital.

MR. THOMAS COOKE'S SCHOOL OF ANATOMY, PHYSIOLOGY, SURGERY, &c.—By decision of the Royal Colleges of Physicians and Surgeons, gentlemen rejected at their Anatomical and Physiological Examinations (Primary R.C.S., or Second Conjoint) can get "signed up" from this school for the three or six months' work they are now required to put in before re-examination. This school is intended to meet the requirements of two classes of students: 1. Qualified practitioners and advanced students—i.e., gentlemen wishing either to obtain some of the higher qualifications, or to compete for appointments in Her Majesty's Army, Navy, and Indian Medical Services. 2. Students preparing for the usual Primary and Pass Examinations of any of the licensing bodies. The instruction is given on the dissected and undissected body, with normal and pathological specimens, microscopical preparations, chemical, physiological and surgical apparatus, splints, &c. The school possesses a good collection of physiological apparatus, allowing of the demonstration to the class of the great bulk of the usual practical exercises in Physiology; also chemical apparatus, allowing every student not only to see, but to repeat for himself, the analysis of the principal food-stuffs, and fluids and solids of the body, and also all the usual reactions, tests, &c. Gentlemen preparing for the Higher Examinations receive special instruction in the more difficult subjects, and have the advantage of personally repeating the practical exercises in Physiology above alluded to. The operations of Surgery are performed by the students on the dead body. Private address: 40, Brunswick-square.

DENTAL HOSPITAL OF LONDON MEDICAL SCHOOL, Leicester-square. — Lectures are delivered, in winter, on Mechanical Dentistry, by Mr. David Hepburn, on Wednesdays, at 5 P.M.; in summer, by Mr. Storer Bennett, on Dental Surgery and Pathology, on Tuesdays and Fridays, at 8 A.M., and by Mr. Arthur Underwood, on Dental Anatomy and Physiology (Human and Comparative), on Wednesdays and Saturdays, at 8 A.M. *Fees:* General fee for special lectures required by the curriculum, £15 15*s.*; fees for two years' hospital practice required by the curriculum, £15 15*s.*; total fees for lectures and practice, £31 10*s.*; perpetual fees, £36 15*s.* Hospital Surgeons: Messrs. Canton, Gregson, Truman, Storer Bennett, Claude Rogers, and Woodhouse. Assistant Surgeons: Messrs. Hern, Matheson, Parkinson, Read, Rogers, Paterson, and E. Lloyd Williams. Anæsthetists: Messrs. Braine, Bailey, Bird, and Mills. Assistant Anæsthetists: Drs. Buxton and Hewitt. Medical Tutor: Mr. H. Baldwin. All communications to be addressed to Mr. Morton Smale, Dean.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road. (Established 1814.)—This hospital has recently been enlarged by the addition of a very complete out-patients department, and also by the erection of a new wing, which provides accommodation for 80 in-patients.

ROYAL EAR HOSPITAL, Frith-street, Soho-square, W. (Founded 1816, for the special treatment of Diseases of the Ear.)—During 1888, 94 in-patients and 2760 out-patients were treated. The clinique of the hospital is open to medical practitioners and advanced students by previous arrangement with the Secretary. Surgeons: Dr. Urban Pritchard and Mr. Farquhar Matheson. Secretary: Mr. M. C. Puddy.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road. Consulting Physician: Sir Andrew Clark, Bart., M.D. Consulting Surgeons: Frederick le Gros Clark and W. S. Savory. Physicians: Drs. Cholmeley, Burnet, Beale, Beevor, Syers, and Galloway. Obstetric Physicians: Drs. W. S. A. Griffith and Dakin. Surgeons: Messrs. W. Adams, Macready, Lockwood, H. W. Allingham, and C. E. H. Cotes. Ophthalmic Surgeon: Mr. Jonathan Hutchinson, jun. Aural Surgeon: Mr. W. R. H. Stewart. Throat Department: Mr. W. Spencer Watson. Skin Department: Dr. Cook. Dental Surgeon: Mr. E. Keen. The new buildings in the Holloway-road have recently been completed, and the practice of the hospital is open to qualified practitioners and senior students. Clinical assistants are appointed in the wards and out-patient department. Further information can be obtained on application to the Hon. Secretary of the Medical Committee, 57, Welbeck-street, W.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields.—The hospital founded in 1804, and considerably enlarged in 1876, now contains 100 beds for patients, which were occupied during last year by 2196 persons. The out-patients are yearly over 25,000; attendances, 126,305 in 1887. Operations are performed daily from 10.30 to 1 o'clock, and three surgeons attend on each day. Students are admitted to the practice. Fee for six months, £3 3*s.*; perpetual, £5 5*s.* Classes, demonstrations, and lectures are periodically given, to which perpetual students are admitted free. Students of the hospital are eligible for the office of house surgeon, or may be appointed clinical assistants. The Secretary, Mr. Robert Newstead, will furnish further information, as may be desired.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W. (Established 1873.)—Physicians: Dr. James Edmunds, M.R.C.P., Dr. J. J. Ridge. Surgeon: Dr. W. J. Collins, F.R.C.S. Dental Surgeon: Mr. A. Alexander. The hospital contains 70 beds. The in-patients average 700 and the out-patients 3000 a year. The medical and surgical practice of the hospital is open to students and practitioners. Special departments for Ophthalmology and Gynæcology. Classes will be held during the winter and summer sessions for students preparing for the final examinations at the Colleges and the Universities. Fees for courses in all subjects from £5 5s. a month. Appointments, vacancies for which are advertised in the medical journals: Registrar and Pathologist, senior and junior House Surgeons. For particulars as to hospital practice and classes apply at the hospital to Dr. W. J. Collins.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Albany Memorial), Queen-square, Bloomsbury.—The new hospital, with the Finchley branch, contains 170 beds and cots. The physicians attend every Monday, Tuesday, Wednesday, and Friday, at 2.30 P.M. In- and out-patient practice and electrical-room treatment at that hour. Physicians: Drs. Ramskill, Hughlings Jackson, Buzzard, and Bastian. Physicians for Out-patients: Drs. W. R. Gowers, D. Ferrier, Ormerod, and Beevor. Assistant Physicians: Drs. James Anderson and Tooth. Surgeons: Messrs. W. Adams and Victor Horsley. Ophthalmic Surgeons: Messrs. R. Brudenell Carter and Marcus Gunn. Aural Surgeon: Mr. A. E. Cumberbatch. Laryngologist: Dr. Felix Semon. Anæsthetist: Dr. Silk. Pathologist and Registrar: Dr. W. S. Colman. House Physicians: Drs. I. Risien Russell and James Taylor. Medical practitioners and senior students may attend the practice after signing their names in the clerk's office.

NORMAL SCHOOL OF SCIENCE AND ROYAL SCHOOL OF MINES, Jermyn-street.—Biology: Professor Huxley, Mr. Howes, and Dr. Scott. Chemistry: Dr. Thorp and Dr. Jupp. Physics: Professor Rücker. The course of this

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school is especially adapted to assist students preparing for the Preliminary Scientific (M.B.) Examination of the University of London.

ROYAL ORTHOPÆDIC HOSPITAL, 297, Oxford-street.—Surgeons: Messrs. B. E. Brodhurst, H. A. Reeves, Charles Read, and William E. Balkwill. Assistant-Surgeon: Mr. H. F. Baker. House-Surgeon: Mr. A. Lyndon. Secretary: Mr. Maskell. Operations on Mondays at 2 P.M. The hospital is open to all legally qualified practitioners. Pupils are admitted to witness the practice of the hospital on the following terms: six months, £3 3*s.*; twelve months, £5 5*s.*; perpetual, £10 10*s.*

QUEEN CHARLOTTE'S LYING-IN HOSPITAL AND MIDWIFERY TRAINING SCHOOL, Marylebone-road, N.W.—Consulting Physician: Dr. Brodie. Consulting Surgeons: Mr. H. Lee and Sir William MacCormac. Physicians to In-patients: Dr. W. Hope and Dr. W. C. Grigg. Physician to Out-patients: Dr. W. S. A. Griffith. This hospital, which has been recently enlarged, receives nearly 1000 patients annually, besides having a large out-patient department. Medical pupils are received at all times of the year. Pupils have unusual opportunities of seeing obstetric complications and operative midwifery, on account of the very large number of primiparous cases—upwards of three-fourths of the total admissions. Clinical instruction is given on the more important cases which present themselves. Certificates of attendance at this hospital are recognised by all universities, colleges, and licensing bodies. Midwives and Monthly Nurses are trained. The Midwives are specially prepared for the examination of the Obstetrical Society, and the fees are paid by the hospital for those who obtain the Society's diploma and have previously passed an examination by the physicians of the Hospital. Fees: Medical Students, £3 3*s.* for one week; £5 5*s.* for two weeks; £6 16*s.* 6*d.* for four weeks, exclusive of board and lodging. Pupil Midwives, £26 5*s.* for three months; Pupil Nurses, £15 15*s.* for twelve weeks, and £11 0*s.* 6*d.* for eight weeks; these include board and lodging. For further particulars, application should be made to Mr. G. Owen Ryan, Secretary, at the hospital.

ST. PETER'S HOSPITAL FOR STONE (established 1860).—This hospital contains 24 beds and 3 private wards. Medical men and advanced students are admitted free of charge to see the practice.

SCHOOL OF PHARMACY OF THE PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.—Chemistry and Physics: Professor Dunstan, M.A., F.I.C., F.C.S. Practical Chemistry: Professor Attfield, Ph.D., F.R.S., F.I.C., F.C.S.; F. W. Short, Demonstrator; H. D. Fuge, Assistant Demonstrator. Botany: Professor Green, M.A., B.Sc., F.L.S. Materia Medica: Mr. Holmes, F.L.S. Practical Pharmacy: Joseph Ince, F.L.S., F.C.S. The session commences on Wednesday, Oct. 2nd, at 10 A.M. Medical students, or pupils intending to enter the medical profession, are admitted to the lectures &c., and to a course of practical chemistry of any length in the laboratories. Application for admission to the school, or for further information, may be made to the professors or their assistants, 17, Bloomsbury-square, London, W.C. Professor Marshall, F.R.S., F.R.C.S., will deliver an introductory address on Wednesday, Oct. 2nd, at 8 P.M.

SEAMEN'S HOSPITAL (late *Dreadnought*), Greenwich, S.E.—This institution is established for the relief of seamen of all nations. Casualties are received at all hours. Apartments are provided in the house of the Principal Medical Officer for students. Honorary Consulting Physicians: Dr. Robert Barnes, F.R.C.P., and Dr. Richard Quain, F.R.C.P. Visiting Physicians: Dr. John Curnow, F.R.C.P., and Dr. John Anderson, C.I.E., M.R.C.P. Honorary Consulting Surgeon: Mr. J. N. Davies-Colley, F.R.C.S. Visiting Surgeon: Mr. G. Robertson Turner, F.R.C.S. Principal Medical Officer: Mr. W. Johnson Smith, F.R.C.S. House Physician: Dr. Otto J. Kauffmann, M.R.C.P. House Surgeon: Mr. R. Ritson, M.R.C.S. Secretary: Mr. P. Michelli.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury, W.C., and Cromwell House, Highgate.—There are now 121 beds in the hospital, Great Ormond-street, and 52 beds at the country branch; total, 173. In-patients last year, 1100; out-patients, 17,156. Particulars as to the times of Medical and Surgical Visits and the Practice of the Hospital can be had on application to the Secretary.

SOUTH LONDON SCHOOL OF PHARMACY, LIMITED.—This School was established in 1868, and incorporated in 1888 as a public company. The whole institution is now under the control of the managing director, Dr. John Muter, M.A., F.R.S.E., F.C.S., F.I.C., who lectures on Chemistry, Physics, and Botany. The other lecturers are: Mr. W. H. Dodd, F.C.S. (Materia Medica and Pharmacy); Mr. L. De Konnigh, F.I.C., F.C.S. (Analytical Chemistry); and Mr. T. Townsend, A.P.S., and Lond. Matric. (Classics, Mathematics, and Mechanics); assisted by a staff of competent demonstrators. The department most valuable to medical students is the Medical and General Science Tutorial Department. The subjects taught are:—For Matriculation and Medical Preliminaries: all subjects. For First B.Sc. and Preliminary Scientific: Inorganic and Practical Chemistry. For First M.B.: Organic Chemistry, Analysis, and Pharmaceutical Chemistry and Materia Medica. For Apothecaries' Hall and Royal Colleges of London and Edinburgh: Chemistry, Botany, and Materia Medica. For Pass M.B. Lond.: Practical Toxicology and Forensic Medicine. For Sanitary Science qualifications: Practical Chemistry, Physics, and Microscopy. Particulars as to fees may be had from the Secretary, 325, Kennington-road, London, S.E.

THE COLLEGE OF STATE MEDICINE, London.—The objects of the College, which was founded in 1886 and incorporated in 1887, are—(*a*) to found, establish, and maintain in or near London an institution to aid the theoretical and practical investigation and study of sanitary science, and of all matters relating thereto; (*b*) to aid the theoretical and practical investigation and study of other branches of State Medicine; (*c*) with a view to effecting these objects, to appoint professors, to institute lectures and demonstrations, to issue publications of the Transactions of the Association, and to found chemical and pathological laboratories and a library; (*d*) to do all such other things as may from time to time be incidental or conducive to the attainment of the objects above set forth or any of them. The importance and necessity of such an institution have been forcibly impressed upon the notice of the Council—(1) by the increasing demand for Public Health qualifications; (2) by the fact that possession of such a diploma is of great value to army medical officers, as it gives exemption to this subject in the qualifying examinations for promotion; (3) that the possession of such a diploma is, in accordance with the provisions of the County Government Act, compulsory in the future upon those seeking appointments as medical officers of health. Further particulars as to the courses of lectures &c. may be obtained from the Hon. Secretary, at the College, Great Russell-street, Bedford-square.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, West Strand.—The hospital contains 50 beds; and the patients, who number 10,000 annually, are seen at 1 o'clock, and operations performed daily at 2 o'clock. The following are the days of attendance of the surgeons: Mr. Power (Consulting Surgeon); Mr. Rouse, Tuesday and Saturday; Mr. Macnamara and Mr. Frost, Monday and Thursday; Mr. Cowell, Mr. Juler, and Mr. Wainewright, Wednesday and Saturday; Mr. Hartridge, Tuesday and Friday. The practice of the hospital is open to students. Fees for six months, £3 3*s.*; perpetual, £5 5*s.* Students of the hospital are eligible for the post of house surgeon. Special demonstrations and lectures will be given during the session. Secretary: Mr. T. Beattie-Campbell.

The following hospitals afford facilities for Clinical observation:—

ALL SAINTS CHILDREN'S HOSPITAL, 4, Margaret-street, and 59, Mortimer-street, W.—Founded by the All Saints Sisterhood in 1882 for Chronic Joint Diseases. Twelve beds for boys and eight for girls under the age of ten years.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—Physicians: Dr. Eustace Smith, Dr. Horatio B. Donkin, and Dr. H. Radcliffe Crocker. Surgeons: Mr. R. W. Parker and Mr. L. A. Dunn. Assistant Physicians: Dr. J. A. Coutts and Dr. Dawson Williams. Assistant Surgeon: Mr. W. H. Battle. Administrator of Anæsthetics: Mr. Thomas Bird. Resident Medical Officer: Mr. E. B. Hastings. Secretary: Ashton Warner. Lady Superintendent: Miss F. A. Davies. Matron: Mrs. Fisher. The hospital maintains 102 cots, and on an average 100 out-patients are seen daily.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—Consulting Physicians: Dr. W. S. Playfair and Dr. James F. Goodhart. Consulting Surgeons: Mr. W. Morrant Baker and Mr. H. G. Howse. Physicians:

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Drs. Fred. Taylor, Nestor Tirard, Fred. Willcocks, and G. A. Carpenter. Surgeons: Messrs. R. Clement Lucas, G. H. Makins, F. S. Eve, and J. H. Targett. Ophthalmic Surgeon: Dr. W. A. Brailey. Dental Surgeon: Mr. R. Denison Pedley. House Surgeon: Mr. G. H. Pennell. Registrar and Chloroformist: Mr. L. A. Bidwell. Hon. Secretary: Dr. I. Dobree Chepmell.

VICTORIA HOSPITAL FOR CHILDREN, Chelsea, S.W., and Churchfields, Margate.—The hospital contains 70 beds and 12 at the home at Margate, and has a large out-patient department (over 500 weekly). Consulting Physician: Dr. W. H. Walshe. Consulting Surgeons: Mr. Erichsen and Mr. Cowell. Physicians: Dr. Ridge Jones and Mr. T. Colcott Fox. Physicians to the out-patients: Drs. F. D. Drewitt, Henry Philpot, M. Murray, and Walter Carr. Surgeons: Messrs. Pick and Clutton. Surgeons to the out-patients: Messrs. Walter Pye and D'Arcy Power. Ophthalmic Surgeon: Mr. W. A. Frost. Dental Surgeon: Mr. Francis Fox. House Surgeon: Mr. W. H. C. Staveley. House-Physician: Mr. W. W. Ord. Secretary: Captain W. C. Blount, R.N. Out-patients are seen daily as under:—Medical cases: Monday only at 9 A.M.; and every afternoon at 1.30. Surgical cases: Daily, except Wednesday and Saturday, at 9.30 A.M. Dental cases: Saturdays, at 9 A.M.

WEST LONDON HOSPITAL, Hammersmith-road, W.—This hospital has 101 beds. About 1300 in-patients and 16,000 out-patients, whose attendances number nearly 50,000, are treated annually. There are appointments for a House Physician and two House Surgeons, with board and residence tenable for six months. Also appointments for a limited number of Clinical Assistants. Physicians: Drs. D. W. C. Hood, F. G. D. Drewitt, and W. P. Herringham. Physician for Diseases of Women: Dr. Albert Venn. Surgeons: Messrs. C. B. Keetley, F. Swinford Edwards, and W. Bruce Clarke. Surgeon for Diseases of the Eye: Mr. B. J. Vernon. Assistant Physicians: Drs. J. B. Ball, Seymour Taylor, and A. E. Garrod. Assistant Physician for Diseases of Women: Dr. J. A. Mansell Moullin. Assistant Surgeons: Messrs. C. A. Ballance, H. F. Weiss, and S. Paget. Assistant Surgeon for Diseases of the Eye: Mr. H. P. Dunn. Surgeon-Dentist: Mr. H. L. Albert. Pathologist: Mr. H. P. Dunn. Physician in charge of Throat and Nose Department: Dr. J. B. Ball. Aural Surgeon: Mr. S. Paget. Physician to Skin Department: Dr. F. G. D. Drewitt. Surgeon to Skin Department: Mr. H. F. Weiss. Surgeon in charge of Orthopædic Department: Mr. C. B. Keetley. Physician in charge of Electrical Department: Dr. W. P. Herringham. Administrators of Anæsthetics: Messrs. T. Gunton Alderton and Rickard W. Lloyd. Secretary: Mr. R. J. Gilbert.

ENGLISH PROVINCIAL HOSPITALS AND MEDICAL SCHOOLS.

QUEEN'S COLLEGE, BIRMINGHAM.—The Sands Cox Prize, of the value of £20, is offered annually in the Medical Department. It is open to students who have completed their curriculum, and is awarded after examination in Medicine, Surgery, and Midwifery. Two Ingleby Scholarships are offered annually after examination in Obstetric Medicine and Surgery and Diseases of Women and Children. The Scholarships are open to students who have completed two years of their curriculum in this College. One or more Sydenham Scholarships will be offered annually, of the value of 30 guineas each. The orphan sons of former students of the Birmingham Medical School have priority of election. No Sydenham scholars are elected whose age exceeds twenty-three years on the day of election. The Scholarships are held for three years, subject to good behaviour. One or more Queen's Scholarships will be offered annually, of the value of 30 guineas. They are held for three years, one-third being paid each year, subject to good behaviour. The Russell Memorial Prize is awarded annually after examination in Nervous Diseases. Students of Queen's College are qualified to compete for all scholarships, gold medals, and other prizes offered by the University of London, the Royal College of Surgeons, and the Apothecaries' Society.

GENERAL AND QUEEN'S HOSPITALS, BIRMINGHAM.—*General Hospital:* Consulting Physician: Dr. Fletcher. Consulting Surgeons: Mr. Crompton and Mr. Baker. Physicians: Drs. Wade, Foster, Rickards, and Saundby. Surgeons: Messrs. Pemberton, Bartleet, Jolly, and Chavasse. Obstetric Officer: Dr. Malins. Assistant Physicians: Drs. Simon and Foxwell. Assistant Surgeons: Messrs. Haslam and Barling.—*Queen's Hospital:* Consulting Physician: Sir Jas. Sawyer. Consulting Obstetric Surgeon: Mr. John Clay. Consulting Surgeon: Mr. Furneaux Jordan. Physicians: Drs. Carter and Suckling. Surgeons: Messrs. Wilders, Bennett May, Jordan-Lloyd, and Marsh. Obstetric Surgeon: Vacant. Ophthalmic Surgeon: Mr. Priestley Smith. Dental Surgeon: Mr. Charles Sims. Casualty Surgeons: Messrs. Clay and Morrison.

MASON COLLEGE, BIRMINGHAM. (Founded 1875. Opened 1880.)—The session will commence on October 1st. Instruction is given in Arts and Science, and students are prepared for the various examinations of the University of London. Entrance and other Scholarships and Prizes are offered for competition. This College is associated with Queen's College, Birmingham, for the purposes of medical education, all students of the latter College attending in the Physical, Chemical, Zoological, Botanical, and Physiological Departments of Mason College. The Library contains upwards of 19,000 volumes. A syllabus containing full information as to the various courses of instruction, fees, &c., will be forwarded on application to the Secretary.

BRISTOL SCHOOL OF MEDICINE (affiliated to University College, Bristol).—Students can complete in Bristol the entire course of study required for the Medical and Surgical Degrees of the University of London, and for the Diplomas of the Royal College of Physicians of London and the Royal College of Surgeons of England, the Apothecaries' Society of London, and the Army and Navy Boards. The lectures and instructions given at University College, Bristol, are adapted to the various Preliminary Arts Examinations above referred to, and also to the Matriculation and Preliminary Scientific Examinations of the University of London; while the Medical School, the Royal Infirmary, and the General Hospital together provide for every detail of the professional curriculum required by the University of London and the above examining boards. All necessary information may be obtained from the Dean of the Bristol Medical School, Dr. Markham Skerritt.

BRISTOL ROYAL INFIRMARY (founded 1735).—264 beds. Physicians: Drs. Shingleton Smith, Waldo, Shaw, and Prowse. Surgeons: Messrs. Board, Prichard, Greig Smith, Harsant, and Bush. Ophthalmic Surgeon: Mr. Cross. Obstetric Physician: Dr. Wedmore. Dental Surgeon: Mr. Ackland. Assistant Physician: Dr. Williams. Assistant Surgeon: Mr. Munro Smith. House Surgeon: Dr. Swain. House Physician: Mr. Hill. Secretary: Dr. Shekelton.

Scholarships and Prizes.—Two Entrance Scholarships, 35 guineas and 10 guineas, awarded annually in October, after examination in general subjects; Surgical and Medical Suple Gold Medals, 5 guineas each, with 7 guineas added in money; Clark Prize, 15 guineas; Crosby Leonard Prize, 7 guineas; Tibbitts Prize, 9 guineas; Midwifery Prize, 3 guineas in books; Six Pathological Prizes, 3 guineas each.

Dressers reside in the house in weekly rotation, and have charge of all casualties under the supervision of the house surgeon. Special instruction (including dresserships) for first-year students in the out-patient department. Class instruction in the wards by the physicians and surgeons on five days a week, in addition to the regular clinical lectures. Clinical Clerkships and Dresserships, 5 guineas for each six months. Perpetual Medical and Surgical Practice, 35 guineas in one sum. Special departments for Diseases of Women, the Eye, Ear, &c., with Clerkships and Dresserships attached. One or two Pathological Clerks are appointed every four months, who perform all post-mortem examinations. There is a large museum and well-stocked library.

Further information can be obtained from Dr. Arthur B. Prowse, Dean of the Faculty.

BRISTOL GENERAL HOSPITAL.—200 beds. Physicians: Drs. Markham Skerritt, Harrison, and Baron. Physician-Accoucheur: Dr. Lawrence. Surgeons: Messrs. Lansdown, Dobson, and Pickering. Dental Surgeon: Mr. Parson. Assistant Physician: Dr. Clarke. Assistant Surgeon: Mr. Barclay. House Surgeon: Dr. Newnham. Physicians' Assistant: Mr. Hill. Assistant House Surgeon: Mr. Griffiths. Clinical Clerkship, six months, £5 5s. Dresserships, six months, £5 5s. Obstetric Clerkship, three

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months, £3 3s. Special clinical instruction is given in Diseases of the Skin, Eye, Ear, and Throat, also in Diseases of Women and in Dental Surgery. Further information may be obtained of the Secretary, at the hospital, or from Dr. Markham Skerritt, Dean of the Hospital Faculty.

Scholarships and Medals. — Lady Haberfield Entrance Scholarship: This scholarship, founded in 1875, of the value of 30 guineas, the interest of £1000, bequeathed for the purpose by the late Lady Haberfield, is awarded annually at the commencement of the winter session, after a competitive examination in subjects of general education. Second Entrance Scholarship: An additional Entrance Scholarship of the value of £20 is awarded when more than six candidates present themselves. Clarke Scholarship: A Surgical Scholarship, of the value of £15, founded by H. M. Clarke, Esq., of London, is awarded annually at the end of the winter session, after an examination in Surgery. Sanders Scholarship: A Scholarship founded by the late John Nash Sanders, Esq., of the value of £22 10s., is awarded annually at the end of the winter session, after examination in Medicine, Surgery, and Diseases of Women. Martyn Memorial Pathological Scholarships, founded in 1878, by public subscription, in memory of the late Dr. Samuel Martyn, Physician to the Hospital. Two Scholarships, each of the value of £10, are awarded annually; one at the end of the summer session, and one at the end of the winter session. A student may, at the option of the Faculty, hold both these Scholarships. After a competitive examination in Pathology and Morbid Anatomy, the successful candidate is appointed Pathological Clerk to the hospital for the term of six months. Committee Gold Medal: This medal, presented by the committee of the hospital, is awarded annually at the end of the winter session to the student of the fourth year who has most distinguished himself during his career at the hospital and medical school. Committee Silver Medal: This medal, presented by the committee of the hospital, is awarded annually at the end of the winter session to the next most distinguished student of the fourth year. The rules relating to the several Scholarships may be had on application.

ADDENBROOKE'S HOSPITAL, Cambridge.—Clinical Lectures in Medicine and Surgery, in connexion with the Cambridge Medical School, are delivered at this hospital twice a week during the academical year; and practical instruction in Medicine and Surgery in the wards and out-patients' rooms is given by the physicians and surgeons daily, during the vacations as well as term time. Instruction is also given in all the special modes of medical and surgical investigation. Clinical Clerks and Dressers are selected from students according to merit, and without payment.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, Newcastle-upon-Tyne.—The following Scholarships and Prizes are awarded annually:—A University of Durham Scholarship, value £100, for proficiency in Arts, awarded to full students in their first year. The Dickinson Scholarship, value £15, and a Gold Medal, for Medicine, Surgery, Midwifery, and Pathology. The Tulloch Scholarship, value the interest of £400, for Anatomy, Physiology, and Chemistry. The Charlton Scholarship, value the interest of £700, for Medicine. The Gibb Scholarship, value the interest of £500, for Pathology. The Goyder Memorial Scholarship (at the Infirmary), value the interest of £325, for Clinical Medicine and Clinical Surgery. The Luke Armstrong Memorial Scholarship, value the interest of £680. At the end of each session a Prize of Books and Honours Certificates are awarded in each of the regular classes. Assistant Demonstrators of Anatomy, receiving each an honorarium of £5, an Assistant Curator of the Museum, Prosectors, and Assistant Physiologists are elected yearly. Pathological Assistants, Assistants to the Dental Surgeon, Assistants in the Eye Department, Clinical Clerks, and Dressers are appointed every three months

ROYAL INFIRMARY, Newcastle-upon-Tyne.—Physicians: Drs. Philipson, Drummond, Oliver, and Limont. Surgeons: Drs. Arnison and Hume, Mr. Page and Mr. Williamson. Assistant Surgeons: Mr. T. A. Dodd and Mr. James Rutherford Morison. Pathologist: Dr. Drummond. Dental Surgeon: Mr. R. L Markham. House Physician: Dr. W. Baigent. The infirmary contains 280 beds. Clinical Lectures are delivered by the Physicians and Surgeons in rotation. Pathological Demonstrations are given as opportunity offers by the Pathologist. Practical Midwifery can be studied at the Newcastle Lying-in Hospital. Instruction is given in Psychological Medicine at the Coxlodge Lunatic Asylum. A Special Course of Instruction is given in the City Hospital for Infectious Diseases by the Superintendent, the City Officer of Health, Mr. H. E. Armstrong. Secretary, Mr. J. Henry Rutherford.

LEEDS GENERAL INFIRMARY AND MEDICAL DEPARTMENT OF THE YORKSHIRE COLLEGE.—The Leeds General Infirmary has accommodation for 320 in-patients, surgical and medical, and during the last year 4428 in-patients and 30,985 out-patients were treated; these numbers show a remarkable increase if compared with statistics of ten years ago, when only 11,500 out-patients were seen. Clinical teaching takes place daily in the wards, and Clinical Lectures are given in the operating-room. There are Medical, Surgical, Ophthalmic, Aural, and Electrical Departments, in each of which special instruction is imparted to students. A Gynæcological and Extern Obstetric Department, together with Laryngeal and Skin Clinics, are in operation. The Public Dispensary, the Fever Hospital, and the West Riding Lunatic Asylum are other medical institutions which are made use of by the Leeds students.

The Leeds Medical School, now the Medical Department of the Yorkshire College, occupies a central position in the town, close to the General Infirmary, and a few minutes' walk from the buildings of the Science and Art Departments situated in College-road. The teaching in Chemistry and Physics, Practical Chemistry, Practical Toxicology, Biology, Practical Pharmacy, and Botany is given in the College-road buildings, the lecture-rooms and laboratories of which are amongst the most commodious in the kingdom. The accommodation for teaching comprises all the conveniences necessary for the various branches of study. All the other courses required by the examining boards are given by Professors and Lecturers. The Museums and Library offer special advantages. Two Entrance Scholarships are offered: one, of the value of 60 guineas, covering admission to all requisite lectures; and the other, of the value of 40 guineas, covering the cost of admission to the medical and surgical practice of the infirmary. Several valuable prizes are given at the end of each session. The following appointments at the infirmary are annually open to students: Resident medical officer, resident surgical officer, resident obstetric officer, appointed for twelve months and eligible for re-election; two house physicians, holding office for twelve months; four house surgeons, for twelve months; twenty-four physicians' clerks, for three months; twenty-four surgeons' dressers, for six months; eight ophthalmic and aural surgeons' dressers, for three months; eight gynæcological ward clerks, for three months; eight gynæcological out-patient clerks, for three months; twenty-four assistant physicians' clerks, for three months; twenty-four assistant surgeons' dressers, for three months; forty-eight dressers in the casualty-room, for three months; twelve post-mortem room clerks, for three months.

There are appointments open to students in other medical institutions in the town, and also in the West Riding Lunatic Asylum.

UNIVERSITY COLLEGE, LIVERPOOL, MEDICAL FACULTY: VICTORIA UNIVERSITY.—The Infirmary attached to the School contains 300 beds, with 40 special beds for the treatment of Diseases of Women. Lock, Lying-in, and Eye and Ear Hospitals are in the immediate vicinity, and their practice is open to the students of the Medical Faculty.

The composition fee for lectures and classes is £23 14s. for Preliminary Scientific Classes, and 60 guineas for the Medical Classes required for Victoria and London degrees; 55 guineas for the classes for the London diploma, or 50 guineas without Chemistry. The composition fees are payable in two instalments, with an interval of twelve months. The fee for hospital practice is 40 guineas, which may be paid in the same way.

Two house physicians and three house surgeons are appointed from the qualified pupils every six months, also clinical clerks, dressers, and post-mortem clerks.

Two Holt Tutorial Scholarships, each of the value of £100, are awarded annually by the Medical Faculty to senior students. Also an entrance Lyon Jones Scholarship of £21 for two years for students proceeding to the Victoria degree, and another of the same value open to all students

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who have completed their second year. The Derby Exhibition of £15 for Clinical Medicine and Surgery. The Torr and School Gold Medals for Anatomy and Physiology, and the class prizes.

MEDICAL DEPARTMENT OF OWENS COLLEGE, VICTORIA UNIVERSITY.—This medical school is located in a large new building, which forms a part of Owens College. It is provided with a very large dissecting-room, physiological laboratory, private laboratories, and work-rooms, besides lecture-rooms, a museum, and a library. In order to give the fullest possible opportunities for teaching and investigation in the departments of Anatomy, Physiology, Pathology, and Materia Medica, a great extension of the school buildings has been made. The more strictly practical departments of medical study are taught partly in the Medical School and partly in the Royal Infirmary, to which are attached a fever hospital, a lunatic asylum, and a convalescent home. Medical and Surgical Clinical Classes are conducted in the infirmary, and separate instruction is afforded in the elements of Medical and Surgical Physical Diagnosis, in Obstetric Medicine, Ophthalmic Surgery, and Pathological Anatomy by the different members of the staff of the Medical School and Infirmary. The following scholarships and prizes are open to students of the medical school:—A Dauntesey Scholarship of the value of about £100 is offered annually for competition at the beginning of October to persons who have not been students in any medical school in the United Kingdom, and whose age does not then exceed twenty-five years. The subjects of examination are—(*a*) General and Comparative Anatomy; (*b*) Physiological Botany; (*c*) Chemistry; (*d*) Mathematics or Latin. Prizes are awarded at the end of each academic year to students of the first, second, and third year. A Platt Physiological Scholarship of £50 a year for two years is offered annually to the student who, having studied for one entire session in the Physiological Laboratory of Owens College, has prosecuted the best original investigation in Physiology, and has passed a satisfactory examination in Physiology. Two Platt Exhibitions of the value of £15 each, to be competed for by first and second year students in the class of Physiology. A Dumville Surgical Prize of £20 is offered annually for proficiency in Clinical Surgery. The Turner Medical Prize of £25 is awarded. Medical and Surgical Clinical Prizes, each of the value of 6 guineas, are open to competition each year for the best reports (with comments) of cases which have occurred in the wards of the infirmary.

MANCHESTER ROYAL INFIRMARY (300 beds).—Consulting Physicians: Drs. R. F. Ainsworth, Frank Renaud, H. Browne, Sir Wm. Roberts, Henry Simpson, and John E. Morgan. Consulting Surgeons: Mr. George Bowring and Mr. E. Lund. Physicians: Drs. D. J. Leech, J. Dreschfeld, James Ross, and Graham Steell. Assistant Physicians: Drs. Thomas Harris and J. S. Bury. Obstetric Physician: Dr. Lloyd Roberts. Surgeons: Messrs. F. A. Heath, Walter Whitehead, Thomas Jones, and James Hardie. Assistant Surgeons: Messrs. Fred. A. Southam and G. A. Wright. Ophthalmic Surgeon: Dr. D. Little. Dental Surgeon: Mr. G. W. Smith. Resident Medical Officer: Dr. Ernest S. Reynolds. Resident Surgical Officer: Mr. E. T. Milner. Medical Registrar: Dr. R T. Williamson. Surgical Registrar: Mr. W. Thorburn. Pathological Registrar: Dr. R. B. Wild. Assistant Medical Officers: Drs. Isaac Blore and Joseph Clegg. Administrator of Anæsthetics: Mr. Alexander Wilson. General Superintendent and Secretary: Mr. W. L. Saunder.

BARNES CONVALESCENT HOME, Cheadle, Cheshire (in connexion with the Manchester Royal Infirmary; 136 beds).—Resident Medical Officer: Dr. Alexander Johnston. Secretary: Mr. W. L. Saunder.

MONSALL FEVER HOSPITAL, Newton Heath (in connexion with the Manchester Royal Infirmary; 306 beds).—Resident Medical Officer: Dr. H. Falconer Oldham. Assistant Medical Officer: Mr. R. O. Bowman. Secretary: Mr. W. L. Saunder.

RADCLIFFE INFIRMARY, OXFORD.—This infirmary is open to students for Medical and Surgical work in the wards and out-patients' departments. Clinical lectures are given by the Lichfield Clinical Lecturers in Medicine and Surgery. Also tutorial instruction and demonstrations are given in special Regional Anatomy (medical and surgical), methods of Medical Diagnosis, and Surgical Manipulation. Practical Pharmacy is taught in the Infirmary Dispensary. The whole course of study at the museum and infirmary combined is intended for students until they have passed the Second Conjoint Examination or the 1st Oxford M.B.

SHEFFIELD SCHOOL OF MEDICINE.—The infirmary contains 200 beds, a Museum of Pathology, Library, and Post-mortem Theatre, with microscopes and all the appliances for clinical research. The Public Hospital and Dispensary contains 101 beds, and is recognised by the examining bodies. Perpetual fee for attendance on all the lectures required by the Royal College of Surgeons and the Apothecaries' Hall, £45. A tutor's fee of £2 2*s.* is required from students entering for Anatomy and Physiology.

JESSOP HOSPITAL FOR WOMEN, Gell-street, Sheffield.—The hospital is devoted to Diseases peculiar to Women. There is also an Obstetric Department for the admission of a small number of cases. A staff of midwives connected with the hospital attend lying-in women at their own homes, and in case of need are assisted by the members of the medical staff. Out-patients are attended daily. Students can attend the practice of the hospital, and be supplied with cases of midwifery.

ENGLISH PROVINCIAL HOSPITALS HAVING SPECIAL CLASSES AND FACILITIES FOR CLINICAL STUDY.

BATH ROYAL UNITED HOSPITAL (120 beds).—Honorary Consulting Physician: Dr. Coates. Honorary Physicians: Drs. Goodridge, Cole, and Fox. Honorary Surgeons: Messrs. Stockwell, Fowler, and Freeman. Honorary Assistant Medical Officers for Out-patients: Dr. Field, Mr. Cowan, and Mr. Craddock. Honorary Assistant Surgeons: Messrs. Green, Scott, and Ransford. Dental Surgeon: Mr. Gaine. Pathological Registrar and Curator: Mr. H. Culliford-Hopkins. The hospital is recognised by the Royal College of Physicians, Surgeons, &c., and licensed for dissections. It contains a library and an excellent museum, in which are a large number of interesting specimens, both in Pathology and Comparative Anatomy. Fees for attendance: twelve months, £10 10*s.*; six months, £5 5*s.* (Temporary pupils can also, by permission of the Honorary Staff, attend the practice of the hospital by the payment of £1 1*s.* for each month.) Instruction in Practical Pharmacy for three months, £3 3*s.* Number of patients admitted during the past year, 1004; out-patients, 7879. Operations performed, 130. Anæsthetics recorded, 115. For further particulars apply to the Registrar and Curator.

DEVON AND EXETER HOSPITAL, Exeter.—Medical and Surgical Staff: Consulting Physician: Dr. Drake. Physicians: Drs. Lewis Shapter, H. Davy, and Arthur G. Blomfield. Consulting Surgeons: Messrs. A. J. Cumming and T. W. Caird. Surgeons: Messrs. Bankart, Harris, Domville, and Bell. House Surgeon: Dr. Russell Coombe. Assistant House Surgeon: Mr. Reginald Martyn. The hospital contains 218 beds (including special children's wards). There is a good library, museum, dissecting and post-mortem rooms. Attendance on the practice of this hospital qualifies for all the examining boards. Arrangements can be made by which students can attend Midwifery. For further particulars as to fees &c., apply to the House Surgeon.

WEST OF ENGLAND EYE INFIRMARY, Exeter.—Surgical Staff: Messrs. Bankart and Toswill. Registrar: Mr. Roper. The infirmary contains fifty beds. Students of the Exeter Hospital can attend the practice of the Eye Infirmary. Patients for the year ending Michaelmas, 1888, 1852. Total number of patients since the opening of the Infirmary in 1808, 73,656.

GENERAL KENT AND CANTERBURY HOSPITAL.—Opened for the reception of patients April 26th, 1793. 51,118 in-patients and 91,585 out-patients have been admitted since the hospital was open. The hospital contains 102 beds. Pupils of the staff are admitted to the practice of the hospital, and have the use of the library of the East Kent and Canterbury Medical Society, for £7 7*s.* Operation day, Thursday, 11 A.M. Consulting Physician: Dr. Alfred Lochee. Physician: Dr. Henry Alex. Gogarthy. Consulting Surgeon: Mr. James Reid. Surgeons: Messrs. Charles Holttum, Frank Wacher, T. Whitehead Reid, and John Greasley. Dentist: Mr. Martin L. Bell. House Surgeon: Mr. Z.

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Prentice. Assistant House Surgeon and Dispenser: Mr. W. F. A. Clowes. Secretary: Mr. Charles H. Read. Over 800 in-patients, 3000 out-patients, and 1000 dental cases are attended in a year.

LIVERPOOL NORTHERN HOSPITAL (150 beds).—There is a special ward for the treatment of children. Clinical lectures are delivered by the physicians and surgeons during the summer and winter sessions. Clinical clerkships and dresserships are open to all students without additional fee. Consulting Surgeons: Mr. W. H. Manifold; Dr. Henry Lowndes; Dr. W. Macfie Campbell. Physicians: Dr. E. H. Dickinson, M.A.; Dr. James Barr. Surgeons: Messrs. Chauncy Puzey, Damer Harrisson, and G. Gibson Hamilton. Fees for hospital attendance: perpetual, £26 5*s.*; one year, £10 10*s.*; six months, £7 7*s.*; three months, £4 4*s.*; Practical Pharmacy, £2 2*s.* Students can enter to the medical or the surgical practice separately on payment of half the above fees.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.—Physicians: Drs. Cameron, Carter, and Williams. Surgeons: Messrs. Paul, Rawdon, and Alexander. Pathologist and Clinical Tutor: Mr. C. J. Macalister. Senior House Surgeon: Mr. W. C. Helme. Junior House Surgeons: Messrs. W. H. C. Davey and W. B. Paterson. There are 200 beds. Clinical Lectures are given by the physicians and surgeons during the winter and summer sessions. Clinical clerkships and dresserships are open to all students. Special wards for accidents and diseases of children. Resident students received.

NORFOLK AND NORWICH HOSPITAL (220 beds).—One year's attendance recognised by the examining boards. Fees: For the physicians' practice, 5 guineas for six months; £10 10*s.* perpetual. For the surgeons' practice, including dresserships, £10 for three months; £15 for six months; £20 for one year; £30 for two years; £40 perpetual. Pupils resident and non-resident. Consulting Physician: Sir P. Eade, M.D. Consulting Surgeon: Mr. T. W. Crosse, F.R.C.S. Physicians: Dr. Barton, Dr. Bateman, and Dr. Taylor. Surgeons: Mr. Cadge, Mr. Williams, and Dr. Beverley. Assistant Surgeons: Mr. H. S. Robinson and Mr. S. H. Burton. House Surgeon: Mr. H. Chester Nance. Secretary: Mr. Howard J. Collins.

NORTHAMPTON GENERAL INFIRMARY (Established 1743; rebuilt 1793).—In-patients, 1693; out-patients, 8223. The number of beds is 160. Out-pupils are received, and have every opportunity of acquiring a practical knowledge of their profession. Instruction is also given in Anatomy and Materia Medica and Practical Pharmacy. Pupils' fee £25 per annum, or a perpetual fee of £50.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—The New Infirmary, opened in 1869, is built on the pavilion plan, has accommodation for over 200 patients, including Children's wards, special Ovarian wards, and a special department for the treatment of Diseases of the Eye. In-patients last year, 1690; out-patients, 9603. The attendance of pupils at this infirmary is duly recognised by all the examining boards; and there are unusual facilities for acquiring a practical knowledge of the profession. Physicians and Medical Officers: Dr. J. T. Arlidge and Messrs. M. Ashwell and J. G. U. West. Surgeons: Messrs. W. H. Folker, J. Alcock, and W. D. Spanton. Dental Surgeon: Mr. W. Bartlett. House Physician: Mr. A. Knight Holt. House Surgeon: Mr. A. S. Barling. Secretary: Mr. R. Hordley, Hartshill, Stoke-on-Trent, from whom particulars as to fees &c. may be obtained.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL (founded 1848; beds, 230).—A preparatory school of Medicine and Surgery. The pupils have the advantage of seeing the whole of the practice of the physicians and surgeons, and are trained in clinical work by the medical and surgical staff. The attendance of pupils at this hospital is recognised by all the examining boards. Operations are performed every Thursday at 11 o'clock, and practitioners are welcomed.

MANCHESTER GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury and Gartside-street.—The hospital contains 140 beds, including 28 for scarlet fever. The medical staff visit the hospital daily at 10 A.M. Clinical instruction is given by the medical staff at the Hospital and Dispensary. Out-patients are seen daily at 9 A.M. at the Dispensary, Gartside-street, Manchester. Physicians: Drs. Ashby and Hutton. Surgeon: Mr. G. A. Wright. Assistant Surgeon: Mr. Joseph Collier. During 1888 there were 1344 in-patients and 10,468 out-patients under treatment at the Dispensary.

SCOTTISH MEDICAL SCHOOLS.

The following schools provide a more or less complete curriculum of medical study.

SCHOOL OF MEDICINE, EDINBURGH.—The lectures qualify for the University of Edinburgh and the other Universities; the Royal Colleges of Physicians and Surgeons of Edinburgh, London, and Dublin, and the other Medical and Public Boards. In accordance with the Statutes of the University of Edinburgh, any four of the medical classes required for graduation, or two complete *anni medici*, may be attended in this school, each of which *anni medici* may be constituted by attendance on two of the six months' courses, or on one of these and two three months' courses. The regulations require that the fee for any class, taken for graduation in Edinburgh, shall be the same as that for the corresponding class in the University. The whole education required for graduation at the University of London may be taken in this School.

Fees.—For a first course of lectures, £3 5*s.*; for a second, £2 4*s.*; perpetual, £5 5*s.* To those who have already attended a first course in Edinburgh the perpetual fee is £2 4*s.* Practical Anatomy (six months' course), £3 3*s.*; course of demonstrations, £2 2*s.*; perpetual, £4 4*s.* Practical Anatomy, with course of demonstrations, £4 4*s.* Practical Chemistry, £3 3*s.* Analytical Chemistry, £2 a month, £5 for three months, or £10 for six months. Practical Materia Medica, including Practical Pharmacy, Diseases of the Ear, Diseases of the Skin, Diseases of Children, and Diseases of the Tropics and Climatology, each £2 2*s.* Vaccination, £1 1*s.* For summer courses of Clinical Surgery and Clinical Medicine, each £2 4*s.*; Practical Anatomy, including Anatomical Demonstrations, Operative Surgery, and Practical Medicine and Medical Diagnosis, each £2 2*s.* Insanity, £1 1*s.*

EDINBURGH SCHOOL OF MEDICINE AND PHARMACY, Marshall-street, Nicolson-square.—The classes of this School will be resumed for the winter session on October 1st next. Chemistry, Theoretical and Practical, Midwifery, Surgery, and Medicine. From the Dispensary attached to this institution, Pharmacy, Practical and Theoretical. Practical Midwifery. Out-door Practice. Medical and Surgical Diagnosis. Attendance at this institution qualifies for the University of Edinburgh and all other licensing boards. Tutorial classes in all the branches of the medical curriculum. Preliminary Medical Classes, 11 A.M. to 4 P.M., and in the evening. Particulars of R. Urquhart, Secretary.

ANDERSON'S COLLEGE MEDICAL SCHOOL, GLASGOW.—The following courses are given, which qualify for all the licensing boards:—In winter: Anatomy, Chemistry, Physiology, Surgery, Medicine, Materia Medica, Midwifery and Diseases of Children, &c. In summer: Anatomy, Practical Chemistry, Practical Physiology, Diseases of Women, Medical Jurisprudence, Botany, Hygiene, &c. The Chemical Laboratory is open daily from 10 to 5. Students of the School are admitted to the Lectures and Clinique at the Ophthalmic Institution free of charge.

Fees.—Each course of lectures (except Anatomy), first session, £2 2*s.*; second session, £1 1*s.*; afterwards free. Anatomy (including dissecting-room), first session, £4 4*s.*; second session, £4 4*s.*; third session, £1 1*s.*; summer (including Practical Anatomy), £2 2*s.* Practical Anatomy only, £1 1*s.*; Osteology, £1 11*s.* 6*d.* Students who have attended classes at other schools will be admitted to such classes as they may have attended elsewhere at the reduced fees. Fees for all the Lectures and Hospital practice required of candidates for triple qualification, about £48.

The new buildings are situated in Dumbarton-road, immediately to the west of the entrance to the Western Infirmary, within *two* minutes' walk of it, and *four* minutes' walk of the University. Extensive accommodation is provided for Practical Anatomy, Practical Chemistry, Practical Physiology, Practical Pharmacy, Operative Surgery and Hygiene, and Public Health. There are also provided a large library and reading-room, and a students' recreation room. The Professor of Anatomy is assisted by four Demonstrators and three Assistant Demonstrators.

ST. MUNGO'S COLLEGE AND GLASGOW ROYAL INFIRMARY.—The Medical School, which has been carried on for the last fourteen years at the Glasgow Royal Infirmary has been absorbed by, and is to be continued as, the Medical Faculty in St. Mungo's College. This College was incorporated in the spring of the present year. Its objects are not limited to Medicine, but embrace Law, Science, and

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Arts. Both the Medical and Law Faculties will commence work at the beginning of the present winter session. The Medical Faculty, by arrangement with the managers of the infirmary, who have a representation of nine on the College governing body, will obtain possession of the buildings belonging to them, in which are suitable laboratories, museums, and lecture-rooms, fully equipped for the purposes of a medical college. The Royal Infirmary, which is at the service of the College for teaching purposes, is one of the largest general hospitals in the kingdom. It has 582 beds, and it has special wards for Diseases peculiar to Women, for Venereal Diseases, Erysipelas, Burns, and Diseases of the Throat. At the Dispensary, special advice and treatment are given in Diseases of the Eye, Ear, Teeth, and Skin, in addition to the large and varied number of ordinary medical and surgical cases—over 40,000 per annum—which in a great industrial centre daily require attention. Students of the College and Hospital get the benefit of dispensary experience free of charge. All appointments are open. There are four Physicians and six Surgeons' Assistants, who board in the hospital, and act in the capacity of House Physicians and House Surgeons. These appointments are made for six months, and are open to students who have completed their curriculum and passed all their examinations except the last, or to gentlemen who have a legal qualification in Medicine or Surgery, to whom preference will be given. Clerks and Dressers are appointed by the visiting Physicians and Surgeons. From the large number of cases of acute disease and accidents of varied character received into this hospital, these appointments are numerous, and valuable to students. In the Pathological Department Assistants are also appointed by the Pathologist. The session will open on Wednesday, Oct. 23rd, at the College buildings.

The fee for each class is £2 2*s*., except for Anatomy, which is £4 4*s*.; but the governors have arranged a sessional fee, payment of which entitles the student to attendance not only on the curriculum classes, but all the classes—nearly as many more as the curriculum classes,—and this sessional fee is only slightly greater than the sum total of the fees required for the curriculum classes. Students are strongly recommended to begin their course on the sessional fee plan. Students who have already taken part of their course at this School, or in other schools, can learn, on application to the Secretary, what in their case the sessional fee would be.

GLASGOW WESTERN MEDICAL SCHOOL.—The School is situated close to the University and Western Infirmary, in which latter students obtain their Hospital Practice and Clinical Lectures. Lectures and Demonstrations are given on Surgery, by Dr. D. N. Knox; on Practice of Physic, by Dr. D. C. McVail; on Midwifery and Gynæcology, by Dr. J. K. Kelly; on Diseases of the Ear, Throat, and Nose, by Dr. Walker-Downie; on Diseases of the Eye, by Dr. F. Fergus; and on Public Health, by Dr. P. C. Smith.

The Lectures qualify for the University of Glasgow, in accordance with the regulations, the Faculty of Physicians and Surgeons, Glasgow, and the other corporations.

Class Fees.—For each course of Lectures, except in the special courses, the fee for the first session is £2 2*s*., second session £1 1*s*. Students who have attended a first course elsewhere pay £1 1*s*. For the following three special courses, the fee for each is £1 1*s*.: Diseases of the Ear, Throat, and Nose, Diseases of the Eye, and Public Health.

UNIVERSITY COLLEGE, DUNDEE.—The courses of Lectures and Practical Classes in Chemistry, Natural History, Botany, and Anatomy are recognised for graduation in Medicine by the University Court of the University of Edinburgh. The first year of medical study can thus be overtaken at University College. In accordance with the statutes of all the Scottish Universities, another *annus medicus* can be taken in Dundee by means of attendance during the winter session on Practical Anatomy, and on the Medical and Surgical Practice of the Royal Infirmary.

Fees.—Chemistry: Professor Percy Frankland, Ph.D., B.Sc., &c.; lectures, £4 4*s*.; practical class, winter, £3 3*s*.; summer, £2 2*s*. Anatomy: Professor Paterson, M.D., M.R.C.S., &c.; lectures, £3 3*s*.; practical class, winter, £3 3*s*.; summer, £2 2*s*.; demonstrations and tutorial class, £1 1*s*. Natural History: Professor D'Arcy W. Thompson, B.A., £3 3*s*. (including practical class). Botany: Professor Patrick Geddes, £3 3*s*. (including practical class). Operative Surgery: Dr. MacEwan, £2 2*s*.

Royal Infirmary.—The Infirmary contains 250 beds. There is a special ward for the treatment of children. In addition, during last year there were 3790 out-patients and 5893 home patients. Appointments: Two qualified resident medical assistants are appointed annually; clinical clerks and dressers will be attached to the physicians and surgeons. Students may also be appointed to assist in the post-mortem room. Fee, £2 2*s*. per annum.

Royal Asylum.—Appointments: a qualified resident assistant and resident clinical clerk. Clinical instruction is given at the asylum.

SCOTTISH ANCILLARY SCHOOLS OF MEDICINE.

The following hospitals provide instruction in special branches of medical education and facilities for clinical study:—

ROYAL INFIRMARY, EDINBURGH.—Beds are set apart for clinical instruction by the professors of the University of Edinburgh. Courses of Clinical Medicine and Surgery are also given by the ordinary physicians and surgeons. Special instruction is given in the medical department on Diseases of Women, Physical Diagnosis, and on Diseases of the Skin; and in the surgical department on Diseases of the Eye, the Ear, the Larynx, and the Teeth. Separate wards are devoted to Venereal Diseases, Diseases of Women, Diseases of the Eye, also to cases of Incidental Delirium or Insanity. Post-mortem examinations are conducted in the anatomical theatre by the pathologists, who also give practical instruction in Pathological Anatomy and Histology. The fees for hospital attendance are as follows—viz.: Perpetual ticket, in one payment, £12; annual ticket, £6 6*s*.; six months, £4 4*s*.; three months, £2 2*s*.; monthly, £1 1*s*. Separate payments amounting to £12 12*s*. entitle the student to a perpetual ticket. No fees are paid for any medical or surgical appointment. The appointments are as follows:—1. Resident physicians and surgeons are appointed, and live in the house free of charge. The appointment is for six months, but may be renewed at the end of that period by special recommendation. 2. Special non-resident clerks are appointed for six months. The appointment may be renewed for a like period by special recommendation. 3. Clerks and dressers are appointed by the physicians and surgeons. These appointments are open to all students and junior practitioners holding hospital tickets. 4. Assistants in the pathological department are appointed by the pathologists.

EDINBURGH EYE, EAR, AND THROAT INFIRMARY, 6, Cambridge-street, Lothian-road. Clinical Lectures and Instruction are given in this institution, which is open at 1 o'clock daily for out-door patients for Eye Diseases; Mondays, Thursdays and Saturdays at 12 noon for out-door Ear Patients; and Tuesdays and Fridays at 4 P.M. for out-door Throat Patients. Those whose diseases require operations or more than ordinary care are accommodated in the house. Consulting Surgeon: Dr. Joseph Bell, F.R.C.S. Surgeons: Dr. J. J. Kirk Duncanson, Dr. G. Hunter Mackenzie, Mr. J. Maxwell Ross, and Dr. William George Sym. Treasurer and Secretary: Mr. A. P. Purves, 12, Queen-street.

GLASGOW HOSPITAL AND DISPENSARY FOR DISEASES OF THE EAR, 28, Elmbank-crescent.—The hospital, which contains twelve beds for in-door patients, is always open for urgent cases. Hours of surgeons' visits 2 P.M. daily; clinical teaching daily. Out-patients are seen on Mondays, Tuesdays, Wednesdays, Thursdays, Fridays, and Saturdays, at 2 P.M., by Dr. Barr and assistants; and operations and special demonstrations to students and practitioners take place on Thursdays from 3 to 4 P.M.

GLASGOW WESTERN INFIRMARY.—This hospital adjoins the University of Glasgow. Number of beds upwards of 400. Special wards are set apart for Diseases of Women and for Cutaneous Affections. In the out-patient department there are special cliniques for Diseases of Women and for Diseases of the Throat, Ear, and Teeth. The Clinical Courses are given by the Physicians and Surgeons, each of whom conducts a separate class, and students may attend whichever they select at the beginning of the session. Special instruction is given to junior students by tutors or assistants, and clinical clerks and dressers are selected from the members of the class. All the courses of clinical instruction are recognised by the University of Glasgow and the other boards in the kingdom. In the Pathological Department the course is both systematic and practical, and extends through the winter and following summer; these are likewise recognised by the University for graduation.

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Eight resident assistants are appointed annually, without salary, from those who have completed their course. The fee for the hospital practice, including the various courses of clinical instruction, is 20 guineas in one payment, or in two equal instalments for the first and second year; for six months, 7 guineas; and for three months, 4 guineas.

ROYAL HOSPITAL FOR SICK CHILDREN, Glasgow, situated at Garnet-hill. This hospital was opened in December, 1882, and is now available to medical students for clinical instruction in the diseases peculiar to childhood. The hospital includes 70 beds for non-infectious cases only. A specially designed Dispensary, or Out-patient Department, was opened in October last.

GLASGOW OPHTHALMIC INSTITUTION, 126, West Regent-street. (40 beds.)—Clinical and systematic course of lectures for students during the winter and summer seasons. In-patients, 481; out- or dispensary patients, 3254. Operations on Wednesdays and Saturdays. Consulting Physician: Samuel J. Moore, Esq., M.D. Acting Surgeon: J. R. Wolfe, Esq., M.D., F.R.C.S.Ed. Acting Physician: J. S. Cumming, Esq., M.D. Assistant Surgeons: J. M'Gregor Robertson, M.A., M.B., C.M., and A. T. Thomson, M.D.

ABERDEEN ROYAL LUNATIC ASYLUM.—Contains about 580 beds. Medical Superintendent: Dr. William Reid. Consulting Physician: Dr. Robert Jamieson. Secretary: Mr. W. Carnie. Clinical instruction is given to students during three months in summer.

ABERDEEN ROYAL INFIRMARY.—Contains about 250 beds. Consulting Physician: Dr. A. Harvey. Physicians; Drs. J. W. F. Smith-Shand, R. Beveridge, Angus Fraser, and P. B. Smith. Surgeons: Messrs. A. Ogston, J. O. Will, R. J. Garden, and J. Hall. Ophthalmic Surgeon: Mr. J. McKenzie Davidson. Pathologist: Mr. David James Hamilton. Dental Surgeon: Mr. Williamson. Treasurer and Secretary: Mr. W. Carnie.

IRISH SCHOOLS OF MEDICINE.

LEDWICH SCHOOL OF SURGERY AND MEDICINE, Peter-street, Dublin (formerly original School of Anatomy, Medicine, and Surgery).—There are endowments in favour of students, subject to conditions prescribed by the founder, in the following departments:—Two in Anatomy and Physiology; two in Minute Anatomy; two in Practical Anatomy; one in Surgery. Certificates of attendance on these lectures are received by the various examining boards; by the Apothecaries' Halls of Dublin and London; by the King and Queen's College of Physicians in Ireland; by the Royal Colleges of Physicians, London and Edinburgh; by the Royal University, the Universities of Dublin, London, and Glasgow; by the Glasgow Faculty of Physicians and Surgeons; and by the Queen's University in Ireland. The Senate of the Royal University having recognised the lectures of this School, arrangements have been made to educate students for its Medical and Surgical Degrees in accordance with its requirements. This School is in a central situation, and is replete with every convenience for study and successful instruction. By its teachers it is connected with nine hospitals, four of which are Medical and Surgical hospitals, one for Fever, one for Midwifery and Diseases of Women and Children, one for Diseases of the Eye and Ear, &c.

Returns for the session 1889-90 have not been received from this School.

CARMICHAEL COLLEGE, Aungier-street, Dublin.—The following scholarships &c. are awarded to Students entering for an *annus medicus* for the current year:—The Carmichael Scholarship, value £15; the Maine Scholarship, value £15; also Lecture Prizes, value £3 and £2 each; £97 being given annually in prizes.

QUEEN'S COLLEGE SCHOOL OF MEDICINE, Belfast.—Eight Junior Scholarships have been founded in the Faculty of Medicine, of the annual value of £25 each. Two are tenable by Matriculated students, of the first, second, third, and fourth year of their course respectively. The examinations for Junior Scholarships in the Faculty of Medicine take place at the commencement of the session. Matriculated students in Medicine intending to compete for Medical Scholarships of the second year must be of not more than one year's standing as students of Medicine, and must have attended, in some of the Queen's Colleges, or in a University capable of granting degrees in Medicine, two at least of the following courses—viz.: Chemistry, Botany, and Zoology, Anatomy and Physiology, Materia Medica and Pharmacy, Practical Chemistry, Practical Anatomy. Matriculated students in Medicine intending to compete for Medical Scholarships of the third year must be of two years' standing and not more, and must have attended, in some of the Queen's Colleges, or in a University capable of granting degrees in Medicine, four at least of the following courses—viz.: Chemistry, Botany, and Zoology, Anatomy and Physiology, Materia Medica and Pharmacy, Practical Chemistry, Practical Anatomy. Matriculated students in Medicine intending to compet for Medical Scholarships of the fourth year must be of three years' standing and not more, and must, in addition to the qualifications prescribed above, have attended, in their third year, two at least of the following courses—viz.: Theory and Practice of Medicine, Theory and Practice of Surgery, Midwifery, and Diseases of Women and Children.

QUEEN'S COLLEGE SCHOOL OF MEDICINE, Cork.—The building is provided with a very large, well-ventilated dissecting-room, with physiological and toxicological laboratories, materia medica, anatomical and pathological museums, as well as a room for surgical and obstetrical instruments and appliances. There are well-appointed physical and chemical laboratories, and a large natural history museum in the adjoining building, and part of the College ground is laid out as a botanical garden. The plant houses are now completed and well filled with plants, and are open to the students in the class of Botany.

Fees.—For Practical Anatomy and for Practical Chemistry, £3 each course; for Anatomy and Physiology, £3 first course, and £2 for each subsequent course. Other medical classes, £2 first course, and £1 each subsequent course. Eight scholarships (value about £30 each), as well as several exhibitions and class prizes, are awarded every year.

IRISH ANCILLARY MEDICAL SCHOOLS.

THE ADELAIDE MEDICAL AND SURGICAL HOSPITALS, Peter-street, Dublin.—Fee for nine months' hospital attendance, £12 12*s.*; six months', £8 8*s.* Summer, three months, £5 5*s.*

A resident surgeon is elected yearly, and three resident pupils half-yearly. At the termination of the session, prizes in Clinical Medicine and Surgery, and in Obstetric Medicine, will be awarded.

Hudson Scholarship.—In addition to the junior prizes, the Hudson Scholarship, £30 and a gold medal, as well as a prize of £10, together with a silver medal, will be awarded at the end of the session for proficiency in Clinical Medicine and Medical Pathology, Clinical Surgery and Surgical Pathology, Pathological Histology, Surgical Appliances, including instruments and bandaging, Ophthalmology, and Gynæcology.

The certificates of attendance are recognised by all the universities and licensing bodies in the United Kingdom.

COOMBE LYING-IN HOSPITAL, AND GUINNESS DISPENSARY FOR THE TREATMENT OF DISEASES PECULIAR TO WOMEN.—The hospital contains 65 beds, and has also a large extern maternity attached. Nearly 3000 confinements are attended annually by the pupils of the hospital. A special dispensary for Diseases peculiar to Women is held daily, and clinical instruction given. The certificates of the hospital are recognised by all licensing bodies, and its diploma is accepted by the Local Government Board, &c. Further particulars can be learned from the Master at the hospital.

SIR PATRICK DUN'S HOSPITAL.—Fees for attendance of students—nine months, £12 12*s.*; six months, £8 8*s.*; three months, £5 5*s.* The hospital is open to extern students as well as to the students of Trinity College, and the certificates are recognised by all the licensing bodies in the kingdom. Dr. Ball, Secretary to the Medical Board, will give any further information.

MATER MISERICORDIÆ HOSPITAL, DUBLIN.—Consulting Physician: Dr. Francis R. Cruise. Physicians: Dr. Christopher J. Nixon, Dr. Joseph M. Redmond, Dr. Michael A. Boyd, Dr. John Murphy. Surgeons: Dr. Patrick J. Hayes, Dr. Charles Coppinger, Dr. Arthur Chance, Dr. John Lentaigne. Obstetric Physician: Dr. Thos. More Madden. Ophthalmic Surgeon: Mr. Louis Werner. Dental Surgeon: Mr. Daniel Corbett, jun. Pathologist: Mr. Edmond J. McWeeney. House Physician: Dr. Louis Buggy, L.K.Q.C.P., L.R.C.S.I., L.M. House

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Surgeons: Mr. Wm. R. Morris, M.B., B.Ch., B.A.O.; Mr. John W. Fogarty, M.B., B.Ch., B.A.O. This hospital, the largest in Dublin, at present containing 300 beds, is open at all hours for the reception of accidents and urgent cases. Fifty beds are specially reserved for the reception of patients suffering from fever and other contagious diseases. Instruction at the bedside will be given by the Physicians and Surgeons daily. Clinical Instruction will commence on Tuesday, October 1st, at 9 o'clock A.M. A course of Clinical Instruction on Fever will be given during the winter and summer sessions. A certificate of attendance upon this course, to meet the requirements of the licensing bodies, may be obtained. Opportunities are afforded for the study of Diseases of Women in the ward under the care of the Obstetric Physician, and at the Dispensary held on Tuesdays and Saturdays. Ophthalmic Surgery will be taught in the Special Wards and Dispensary. Surgical Operations will be performed on Mondays, Tuesdays, Thursdays, and Saturdays, at 10 o'clock. Connected with the hospital are extensive Dispensaries which afford valuable opportunities for the study of general Medical and Surgical Diseases, Accidents, &c. Junior Appointments: A House Physician and two House Surgeons will be appointed annually. Eight resident pupils will be elected from the most attentive of the class to hold office for six months. For the current session the election will take place on Friday, Nov. 1st, at 11 o'clock A.M. Dressers and Clinical Clerks will be appointed, and certificates will be given to those who perform their duties to the satisfaction of the staff. Leonard Prizes: One Gold and one Silver Medal will be offered for competition annually, in the subject of Medicine, and one Gold and one Silver Medal in the subject of Surgery. They will be awarded on the aggregate of marks gained for Reports of Cases and at a Clinical Examination to be held at the close of the summer session. For further particulars see prospectus. Certificates of attendance upon this hospital are recognised by all the Universities and licensing bodies in the United Kingdom.

Terms of attendance.—Nine months, £12 12*s.*; six winter months, £8 8*s.*; three summer months, £5 5*s.* A prospectus containing in detail the arrangements for Clinical Instruction, Prizes, &c., may be obtained from the Registrar, Surgeon Chance, 15, Westland-row; from the Secretary, Dr. Redmond, 8, Clare-street; or from any of the Physicians or Surgeons.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS, North Brunswick-street, Dublin.—These hospitals contain 312 beds—110 for Surgical cases, 82 for Medical cases, and 120 for Fever and other epidemic diseases.

ROTUNDA HOSPITAL, Rutland-square, Dublin.—This institution consists of two distinct hospitals—namely, the Lying-in Hospital and the Auxiliary Hospital, the latter for the reception of patients suffering from Uterine and Ovarian Diseases. There is also a large extern maternity in connexion with the hospital, and a dispensary for Diseases peculiar to Women, which is open daily. Clinical instruction is given daily (Saturdays excepted) in Midwifery and the Diseases peculiar to Women, special attention being directed to the application of antiseptics in midwifery, and lectures on these subjects are delivered regularly throughout the session. Accommodation is provided for a limited number of intern pupils.

DR. STEEVENS'S HOSPITAL.—This hospital, containing beds for 250 patients, is situated close to the Kingsbridge Terminus of the Great Southern and Western Railway, occupying a position in the centre of one of the busiest manufacturing districts of the city, otherwise unprovided with medical institutions. Immediately adjoining is St. Patrick's (Swift's) Asylum for the Insane. The hospital is easily accessible by two lines of tramways, and, owing to its position, affords exceptional advantages for clinical instruction. There is a ward entirely devoted to Syphilitic Disease, a detached building for Fever Cases, and an extensive Out-patient Department, with separate Clinics for Diseases of the Skin, Throat, and those peculiar to Women.

The hospital is visited daily at 8.30 A.M. by the resident surgeon, and at 9 A.M. by the physicians and surgeons. The surgical wards are also visited each evening. Clinical Lectures are given by the physicians and surgeons during the session. There is accommodation in the hospital for two medical and six surgical resident clinical assistants, who, in addition to their rooms and furniture, are provided with coals and gas.

Fees.—Hospital Practice: Nine months, £12 12*s.*; six months, £8 8*s.*; three months, £5 5*s.* Dressership: £10 10*s.* each three months.

COMPETITIVE EXAMINATION OF CANDIDATES FOR HER MAJESTY'S ARMY, INDIAN AND NAVAL MEDICAL SERVICES.

MEDICINE.

1. A case for commentary having been given, explanation is required of what is meant by (1) "spasm"; (2) "tonic spasm"; (3) "clonic spasm"; (4) "co-ordinated spasm"; (5) "Jacksonian epilepsy"; (6) the method of analysing the convulsive symptoms in this case which point to lesion in a definite region of the brain; (7) define by an ink line on the accompanying brain charts the motor region of the cerebral cortex, and mark with a X on the same chart the probable site of the tumour. [Chart supplied.] 2. Explain the meaning of lithæmia, and nature of the ailment it designates; describe the symptoms and treatment of the condition. 3. Discuss the pathology of typhlitis and perityphilitis as regards:—(1) the origin; (2) the course of these affections. Describe how these conditions are diagnosed from other affections; and lastly, give details as to treatment. 4. Acquired diseases of the heart in children (as distinguished from congenital affections) present certain peculiarities of practical importance. Write what you know regarding these peculiarities as to (1) the parts of the heart involved, and character of the pulse in children; (2) the causes of the lesions and the principles which ought to guide the treatment. 5. Discuss the principles by which you would be guided as to the use of acids or alkalies in the treatment of chronic dyspeptic conditions; and as regards the time for the administration of such remedies.

SURGERY.

1. Describe the symptoms by which syphilitic eruptions may be distinguished from those of a non-syphilitic origin, and the treatment to be adopted in the different varieties of the former. 2. Describe the dislocations common to the elbow joint, the complications which frequently attend them, the modes of reduction, and subsequent treatment of the limb. 3. A patient is the subject of femoral hernia. Describe the symptoms indicative of its becoming strangulated, the operation for its relief, and the general and local after treatment. 4. What are the usual causes of retention of urine in old age, and the best measures for its relief? What subsequent conditions are likely to arise which require the attention of the Surgeon? 5. Describe the symptoms which would indicate fracture of the base of the skull, and the treatment to be pursued under the varying circumstances of such an injury. 6. A patient is the subject of a punctured wound in the groin, attended by arterial hæmorrhage, what treatment should be adopted in such a case?

ANATOMY AND PHYSIOLOGY.

1. Describe the fibula, the origin and insertion of muscles connected with it, and the ligaments which enter into the formation of the ankle-joint. 2. Describe the origin, course, distribution, and anatomical relations of the great sciatic nerve. 3. Describe the small intestine from the pylorus to the ileo-cæcal valve, giving an account of its structure, anatomical relations, vascular supply, and innervation; as also of its functions and the processes carried on in different portions of the length of the tube. 4. Describe the parotid and submaxillary glands, giving an account of their anatomical relations, structural innervation, and blood-supply, the functions they perform, and the chemical and physiological character of the fluid they secrete. 5. Describe the dissection by which you would expose the subclavian artery, mentioning the parts of importance which would be also exposed, and their anatomical relations.

NATURAL SCIENCE

ZOOLOGY.

1. Enumerate in their order from without inwards the fundamental germinal layers of the vertebrate embryo. Which of these gives origin to the brain and spinal cord, and which to the vascular system? 2. What is meant by a water vascular system? Name one or more examples of its occurrence in the animal kingdom. 3. Name the animal defined by the following characters: Notocord persistent; spinal cord not presenting at its anterior extremity a distinct brain; respiratory organ in the form of a dilated pharyngeal sac; the place of the heart taken by pulsatile vascular trunks.

BOTANY.

4. By what anatomical characters may such flowerless plants as present a distinct stem and foliage be divided into two main groups? Give one or more examples of each of these groups. 5. What phenomenon in the life of plants admits of the closest comparison with the respiration of animals? 6. Refer to its natural order a plant with the following characters, and give one or more examples: Corolla gamopetalous, with the lobes imbricate in æstivation, bilabiate; calyx with five, more or less, united sepals, persistent; stamens inserted on the tube of the corolla, didynamous; ovary, superior two-celled, with the placentæ in the axis; fruit, a two-valved capsule; seeds numerous, albuminous.

PHYSICS.

7. A stone dropped into a well strikes the water at the end of three seconds, at what depth in feet is the surface of the water from the mouth of the well? 8. At what angle must a ray of light be incident on a plane reflecting surface in order that the reflected ray be at right angles with the incident ray? 9. To what degrees of Fahrenheit's thermometer do the following degrees of the centigrade respectively belong: 100°, 96°, 29°.

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The Medical Student's Class Guide.

TABULAR LIST OF THE CLASSES, LECTURERS, AND FEES AT THE LONDON HOSPITALS AND MEDICAL SCHOOLS FOR THE SESSION 1889–90.

LECTURES, &c.	ST. BARTHOL. HOSP. & COLL.			CHARING-CROSS HOSP. & COLL.			ST. GEORGE'S HOSPITAL.		
	LECTURERS.	FEES. One Course.	FEES. Unlimited.	LECTURERS.	FEES. First Course.	FEES. Second Course.	LECTURERS.	FEES. One Course.	FEES. Unlimited.
WINTER SESSION.		£ s. d.	£ s. d.		£ s. d.	£ s. d.		£ s. d.	£ s. d.
PHYSIOLOGY	Dr. Klein	9 9 0	13 2 6	Dr. Mott	7 7 0	4 4 0	Dr. Buckmaster	7 7 0	8 18 6
							Ditto, *Phys. Chem.*	3 3 0	
ANATOMY	Mr. Walsham Mr. Bruce Clarke	9 9 0	13 2 6	Mr. Boyd	7 7 0	4 4 0	Mr. Bennett Mr. Ross	7 7 0	8 18 6
ANATOMICAL DEMONSTRATIONS	Messrs. Lockwood, Herringham, and Jessop	7 7 0	...	Mr. Boyd Mr. Wallis Mr. Woollett	7 7 0	3 3 0	Dr. Lancaster Ditto, *Osteology* *Histology*	... 3 3 0	...
CHEMISTRY	Dr. Russell	6 16 6	9 9 0	Mr. Heaton	6 6 0	6 6 0	Dr. Rideal	6 6 0	7 17 6
MEDICINE	Dr. Andrew Dr. Gee	6 16 6	9 9 0	Dr. Pollock	7 7 0	7 7 0	Dr. Dickinson	7 7 0	8 18 6
SURGERY	Mr. Willett Mr. Marsh	6 16 6	9 9 0	Mr. Bellamy	7 7 0	7 7 0	Mr. Pick	7 7 0	8 18 6
HOSPITAL PRACTICE:									
Physicians	Dr. Andrew Dr. Church Dr. Gee	3 mths. 10 10 0 6 mths.	33 1 6	Dr. Pollock Dr. Green Dr. Bruce	3 mths. 5 5 0 6 mths.	Full period 21 0 0	Dr. Dickinson Dr. Whipham	12 mths. 10 10 0	31 10 0
	Sir D. Duckworth Dr. M. Duncan (*Obstet.*)	15 15 0 2 years 23 12 6		[*To out-patients:* Dr. Abercrombie Dr. Lubbock.]	7 7 0 12 mths. 10 10 0		Dr. Cavafy Dr. Ewart *Obst. Phys.:*	2 years 21 0 0	
Assistant-Physicians	Dr. Hensley Dr. Brunton Dr. Norman Moore Dr. S. West	...	...	...	...	...	Dr. Champneys Dr. Owen Dr. Penrose	...	...
				Dr. Willcocks Dr. Murray					
Surgeons	Messrs. Savory, Willett, Smith, Langton, and Baker	3 mths. 13 2 6 6 mths. 19 19 0	33 1 6	Mr. Bellamy Mr. Bloxam Mr. Morgan	3 mths. 5 5 0 6 mths. 7 7 0	Full period 21 0 0	Mr. Rouse Mr. Pick Mr. Haward Mr. Bennett	12 months 10 10 0 2 years	31 10 0
Assistant-Surgeons	Messrs. Marsh, Butlin, Walsham, Cripps, and Bruce Clarke	12 mths. 26 5 0	...	Mr. Stanley Boyd Mr. Sheild Mr. Wainewright	12 mths. 10 10 0		*Ophth. Surg.:* Mr. B. Carter Mr. Dent Mr. Turner	21 0 0	
	Ophth.-Surgs.: Mr. Power Mr. Vernon						*Assist. Ophth.:*		
PRACTICAL SURGERY	Mr. Bowlby Mr. D'Arcy Power	6 16 6	9 9 0	Mr. Bloxam	5 5 0	5 5 0	Mr. Frost	4 4 0	...
SURGICAL PATHOLOGY	Dr. Andrew	...	...	Mr. Morgan	...	...	...	...	...
CLINICAL MEDICINE	Drs. Church, Gee, & Sir D. Duckworth	...	...	The Physicians and Assistant-Physicians	...	...	The Physicians	...	...
CLINICAL SURGERY	Messrs. Savory, Smith, Willett, Langton, and Baker	...	...	The Surgeons and Assistant-Surgeons	...	...	The Surgeons	...	...
CLINICAL MIDWIFERY, &c.	Dr. M. Duncan	...	...	Drs. Black & Routh	...	...	Dr. Champneys	...	...
DENTAL SURGERY	...	...	...	Mr. Fairbank	...	...	Mr. Winterbottom	...	...
PUBLIC HEALTH	Dr. Thorne	2 12 6	*	Mr. Heaton	...	...	...	...	...
SUMMER SESSION.									
MATERIA MEDICA, &c.	Dr. Brunton	6 16 6	7 17 6	Dr. Willcocks	4 4 0	4 4 0	Dr. Gamgee (*dem.* Mr. J. Woodiane)	4 14 6	5 15 6
MIDWIFERY, &c.	Dr. M. Duncan	6 16 6	7 17 6	Dr. Black	4 4 0	4 4 0	Dr. Champneys	4 14 6	5 15 6
BOTANY	Rev. G. Henslow	4 4 0	5 5 0	†	...	...	...	...	...
MEDICAL JURISPRUDENCE	Dr. Hensley	4 4 0	5 5 0	Dr. Abercrombie Mr. Heaton (*Tox.*)	4 4 0	4 4 0	Dr. Owen	4 14 6	5 15 6
THERAPEUTICS	...	...	...	Dr. Bruce	4 4 0	4 4 0	...	4 4 0	...
PATHOLOGICAL ANATOMY	Dr. Norman Moore (& in Winter)	2 12 6	4 4 0	Dr. Murray	4 4 0	4 4 0	Dr. Delépine	...	*
PRACTICAL CHEMISTRY	Dr. Russell	3 3 0	...	Mr. Heaton Mr. Vasey	5 5 0	5 5 0	Dr. Rideal Dr. G. B. Howes	4 4 0 4 4 0	...
COMPARATIVE ANATOMY	Dr. Shore	2 12 6	4 4 0	Dr. Garson	3 3 0	3 3 0	Dr. Delépine (in Winter)	4 4 0	...
OPHTHALMIC SURGERY	Mr. Power Mr. Vernon (in Winter)	2 12 6	4 4 0 *	Staff of Royal West. Oph. Hosp.	...	...	Mr. B. Carter *Pract. Med.:*	...	...
PSYCHOLOGY	Dr. Claye Shaw	2 12 6	4 4 0*	...	...	...	Dr. Whipham	4 4 0	...
DENTAL SURGERY	Mr. Mackrell	2 12 6	4 4 0*	Mr. Fairbank	...	...	...	...	...
PRACTICAL SURGERY	Mr. Bowlby Mr. D'Arcy Power (and in Winter)	6 16 6	9 9 0	Mr. Boyd	...	...	Mr. Winterbottom Mr. Dent	... 4 4 0	... ...
PRACTICAL PHYSIOLOGY	Dr. Harris Dr. Lewis Jones (and in Winter)	7 7 0	...	Dr. Mott (& in Winter)	6 6 0	6 6 0	Dr. Buckmaster	...	...
PRACTICAL PHARMACY	Dr. Brunton	...	...	Mr. Pearce	2 2 0	2 2 0	...	...	...
OPERATIVE SURG. (Demonstr.)	Mr. Lockwood	3 10 0	...	Mr. Boyd	‡	...	Mr. Turner	2 2 0	...
							Pract. Midw.: Dr. Champneys		
DISEASES OF THE EAR	Mr. Cumberbatch	...	...	Mr. Sheild	...	...	Sir W. Dalby	...	...
DISEASES OF THE SKIN	Mr. Cripps	...	...	Dr. Sangster	...	...	Dr. Cavafy	...	...
ORTHOPÆDIC SURGERY	Mr. Walsham	...	...	...	...	...	Mr. Bennett	...	...
DISEASES OF THE THROAT	Mr. Butlin	...	...	Dr. Willcocks	...	...	Dr. Whipham	...	...
Fee for all Lectures and Hosp. Med. and Surg. Practice	£131 5s.; or, 1st Winter, £42; 1st Summer, £48 6s.; 2nd Winter, £48 6s.			£94 10s.; or, 1st Win., £30 9s.; 1st Sum., £18 18s.; 2nd Win., £17 17s.; 2nd Sum., £18 18s.; 3rd Win., £18 18s.			£125; or, 1st year, £48 13s. 6d.; 2nd year, £48 13s. 6d.; 3rd year, £40 10s. 6d.		

* Free to general students of the hospital. † Included in Materia Medica. ‡ Included in Practical Surgery fee.

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TABULAR LIST OF THE CLASSES, LECTURERS, AND FEES, AT THE LONDON HOSPITALS AND MEDICAL SCHOOLS, FOR THE SESSION 1889-90—(CONTINUED.)

LECTURES, &c.	GUY'S HOSPITAL.			KING'S COLLEGE AND HOSPITAL.		
	LECTURERS.	FEES. First Course.	FEES. Subsequent Course.	LECTURERS.	FEES. One Course.	FEES. Perpetual.
WINTER SESSION.		£ s. d.	£ s. d.		£ s. d.	£ s. d.
PHYSIOLOGY	Mr. Golding-Bird	7 7 0	7 7 0	Dr. Gerald Yeo	8 8 0	11 11 0
ANATOMY, DESCRIPTIVE & SURGICAL	Mr. Clement Lucas & Mr. Jacobson	7 7 0	7 7 0	Dr. Curnow	6 6 0 or 9 9 0 inc. Prac. Anatomy	9 9 0 or 12 12 0 inc. Prac. Anatomy
ANATOMICAL DEMONSTRATIONS	Mr. Dunn, Dr. Washbourn, & Mr. Targett	7 7 0	7 7 0	Dr. Curnow Mr. A. S. Kenny	7 7 0	
CHEMISTRY	Dr. Debus, Dr. Stevenson, & Mr. Groves	7 7 0	7 7 0	Mr. Thomson, Mr. Johnson, & Mr. Jackson	8 8 0	11 11 0
MEDICINE	Dr. Pye-Smith Dr. Taylor	7 7 0	7 7 0	Dr. Beale	8 8 0	9 9 0
SURGERY	Mr. Howse & Mr. Davies-Colley	7 7 0	7 7 0	Mr. W. Rose	8 8 0	9 9 0
PRACTICAL SURGERY	Mr. Symonds & Mr. Lane	4 4 0	4 4 0	Messrs. Barrow & Carless	3 3 0	...
HOSPITAL PRACTICE:						
Physicians	Dr. Pavy, Dr. Pye-Smith, Dr. Taylor, & Dr. Goodhart Dr. Hicks (*cons. obst.*) Dr. Galabin (*obst.*)	3 months 10 10 0 6 months 15 15 0	Perpetual 36 15 0	Dr. Beale, Dr. Duffin Dr. Playfair (*acc.*) Dr. Burney Yeo Dr. Hayes (*accou.*) Dr. Ferrier,‡ Dr. Curnow§	Summer 8 8 0 Winter 14 14 0 1 Year 18 18 0	42 0 0
Assistant-Physicians	Drs. Hale White, Pitt, Perry, & Shaw Dr. Horrocks (*obst.*)	1 year 24 3 0	...	Dr. Tirard Dr. Dalton		
Surgeons	Mr. Durham, Mr. Howse, Mr. Davies-Colley, & Mr. Lucas Mr. Bader (*consult. oph.*) Mr. Higgens, Mr. Bailey (*oph.*) Mr. Pedley (*dent.*) Mr. L. Purves (*aural*)	3 months 10 10 0 6 months 15 15 0 1 year 24 3 0	Perpetual 36 15 0 ...	Mr. Wood Sir Joseph Lister, Bart. Mr. W. Rose & Mr. Cheyne Mr. A. S. Underwood (*surg.-dentist*) Mr. McHardy (*ophthalmic*)	Summer 8 8 0 Winter 14 14 0 1 Year 18 18 0	42 0 0
Assistant-Surgeons	Mr. Golding-Bird Mr. Jacobson Mr. Symonds Mr. Lane	...	...	Mr. Barrow Mr. Carless	...	...
CLINICAL MEDICINE	Drs. Pavy, Pye-Smith, Taylor, & Goodhart *In Summer:* Drs. Hale White, Pitt, Perry, & Shaw	...	...	Dr. Duffin Dr. Beale Dr. B. Yeo Dr. Ferrier Dr. Curnow	Winter 1 Prof. 6 6 0	
CLINICAL SURGERY	Messrs. Durham, Howse, Davies-Colley, & Lucas *In Summer:* Mr. Golding-Bird, Mr. Jacobson, Mr. Symonds & Mr. Lane	...	...	Mr. Wood Sir Joseph Lister, Bart.	2 Prof. 8 8 0 Summer 1 Prof. 4 4 0 2 Prof. 5 5 0	8 8 0 11 11 0 5 5 0 6 6 0
CLINICAL MIDWIFERY	Dr. Galabin Dr. Horrocks	...	...	Dr. Playfair	...	...
SUMMER SESSION.	[*Surgical Classes:* Mr. Symonds & Mr. Lane]			[*Bacteriology:* Mr. Crookshank]		
MATERIA MEDICA & THERAPEUTICS	Dr. Hale White	5 5 0	5 5 0	Dr. Tirard	5 5 0	6 6 0
MIDWIFERY &c.	Dr. Galabin	5 5 0	5 5 0	Dr. Playfair	5 5 0	6 6 0
BOTANY	...	...	...	Mr. Groves	4 4 0	6 6 0
BIOLOGY	Mr. Beddard & Mr. Campbell	7 7 0	7 7 0	Dr. G. Yeo,§ Mr. Groves‡	...	...
MEDICAL JURISPRUDENCE	Dr. Stevenson	5 5 0	5 5 0	Dr. W. R. Smith	5 5 0	6 6 0
DISEASES OF WOMEN	Dr. Galabin	...	...	Dr. Playfair	...	...
PRACTICAL CHEMISTRY	Mr. Groves	5 5 0	5 5 0	Messrs. Thomson, Johnson, & H. Jackson	6 6 0	...
PRACTICAL PHYSIOLOGY	Mr. Starling & Mr. Tubby	7 7 0	7 7 0	Dr. G. Yeo & Mr. Herroun	6 6 0	...
NEURO-PATHOLOGY	...	...	...	Dr. Ferrier	...	...
PRACTICAL BIOLOGY	Mr. Beddard	...	...	Mr. Martin	8 8 0	...
NATURAL PHILOSOPHY	Mr. Reinold	5 5 0	5 5 0	Mr. W. G. Adams	2 2 0	...
COMPARATIVE ANATOMY	...	...	...	Mr. F. J. Bell (in Winter)	4 4 0	6 6 0
PATHOLOGY AND MORBID ANATOMY	Drs. Goodhart, Pitt, Perry, & Shaw	3 3 0	3 3 0	Dr. Duffin Dr. Dalton	3 3 0	4 4 0
OPERATIVE SURGERY	Mr. Symonds	5 5 0	5 5 0	Mr. W. W. Cheyne	2 9 6	...
MORBID HISTOLOGY	Dr. Pitt & Mr. Lane	5 5 0	5 5 0	Dr. Dalton	...	...
OPHTHALMIC SURGERY	Mr. Higgens	...	...	Mr. McHardy	3 3 0	...
PSYCHOLOGICAL MEDICINE	Dr. Savage	3 3 0	3 3 0	Dr. Sheppard	...	...
DENTAL SURGERY	Mr. Pedley	...	...	Mr. A. S. Underwood	...	...
AURAL SURGERY	Mr. L. Purves	...	...	Dr. Pritchard	...	...
DEMONST. OF CUTANEOUS DISEASES	Dr. Perry	...	...	Dr. Duffin	...	...
VACCINATION	...	...	...	Mr. Webb	...	...
PUBLIC HEALTH	Mr. Turner	3 3 0	3 3 0	Dr. Kelly	1 1 0	...
PRACTICAL PHARMACY	Mr. Collier	...	...	Mr. Wilmot	3 3 0	...
				[*Clin. Therap.:* Dr. B. Yeo]	...	...
				[*Pract. Pathol.:* Dr. Dalton]	5 5 0	...
Fee for Lectures, and Hospital Medical and Surgical Practice	£131 5s.; or by two instalments of £66; or by three instalments of £50, £50, and £37 10s.			£126 11s. 6d.; or in two annual instalments of £66; or three of £46 each.		

* Elementary Course. † Advanced Course. ‡ In summer. § In Winter.

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TABULAR LIST OF THE CLASSES, LECTURERS, AND FEES, AT THE LONDON HOSPITALS AND MEDICAL SCHOOLS, FOR THE SESSION 1889-90—(CONTINUED.)

LECTURES, &c.	LONDON HOSPITAL.			ST. MARY'S HOSPITAL.			MIDDLESEX HOSPITAL.		
	LECTURERS.	FEES. One Course.	FEES. Perpetual.	LECTURERS.	FEES. One Session.	FEES. Perpetual.	LECTURERS.	FEES. One Session.	FEES. Perpetual.
		£ s. d.	£ s. d.		£ s. d.	£ s. d.		£ s. d.	£ s. d.
WINTER SESSION.									
PHYSIOLOGY	Mr. M'Carthy	4 4 0	...	Dr. Waller	7 0 0	...	Mr. Lowne	8 8 0	...
EXPERIMENTAL PHYSIOL.	Mr. M'Carthy	...	...	...	...	...	Messrs. Lowne & Karop (in Summer)	5 5 0	...
PATHOL. & MORBID ANAT.	Dr. Sutton	3 3 0	...	Mr. Silcock Dr. Maguire	4 0 0	...	Dr. Fowler (in Summer)	4 4 0	...
ANATOMY, DESCRIPTIVE & SURGICAL.	Mr. F. Treves	5 5 0	...	Mr. R. Lane	8 0 0	...	Mr. Heusman	10 10 0	...
ANATOMICAL DEMONSTRATIONS.	[*Pract. Anat.*: Mr. C. M. Moullin]	5 5 0	...	Mr. Hill Mr. Clarke Mr. Cagney	...	...	Messrs. Heusman, Sutton, Brodie, and Carwardine	6 6 0	...
CHEMISTRY	Dr. Tidy	7 7 0	...	Dr. Wright	6 0 0	...	Mr. W. Foster	6 6 0	...
MEDICINE	*Practl.*: Mr. Page *Dr.* Stephen Mackenzie	5 5 0	...	Dr. Cheadle Dr. Lees	8 0 0	...	Dr. Cayley	8 8 0	...
SURGERY	Mr. Rivington	5 5 0	...	Mr. Owen Mr. Page	8 0 0	...	Mr. H. Morris	8 8 0	...
PRACTICAL SURGERY	Mr. Reeves	...	...	Mr. Pepper Mr. Pye	4 0 0	...	Mr. A. Clark	6 6 0	...
HOSPITAL PRACTICE:		6 mths.	26 5 0	Dr. Broadbent	3 mths.	24 0 0	Dr. W. Cayley	3 mths.	...
PHYSICIANS	Drs. Down, H. Jackson, Sutton, Fenwick, Mackenzie, Herman (*obst.*), Sansom, Turner, Smith, Warner, Ralfe	10 10 0 1 year 15 15 0		Dr. Cheadle Dr. Lees Dr. Hicks (*obs.*) *To Out-patients:* Drs. Phillips, Maguire, & Pearce	4 0 0 6 mths. 7 0 0 1 year 12 0 0		Dr. Coupland Dr. D. Powell Dr. Finlay Dr. W. Duncan (*obst.*) Dr. Pringle (*skin*)	5 5 0	
ASSISTANT-PHYSICIANS	Dr. Anderson	...	...	Dr. M. Handfield Jones (*obs.*)	...	...	Dr. Fowler Dr. Biss Dr. Pringle Dr. W. Pasteur Dr. Boxall (*obst.*)	...	...
SURGEONS	Mr. Couper Mr. Rivington Mr. W. Tay (*Oph.*) Mr. M'Carthy Mr. F. Treves Mr. C. Mansell Moullin Dr. Woakes & Mr. T. M. Hovell (*Aur.*) Mr. Barrett (*Dent.*)	6 mths. 10 10 0 1 year 15 15 0	26 5 0	Mr. Norton Mr. Owen Mr. Page *To Out patients:* Mr. Pye Mr. Pepper Mr. Silcock Mr. Critchett & Mr. Juler (*ophth.*)	3 mths. 4 0 0 6 mths. 7 0 0 1 year 12 0 0	24 0 0	Mr. Hulke Mr. G. Lawson Mr. Morris Mr. Andrew Clark Mr. S. Bennett (*dental*) Mr. Lang (*oph.*) Mr. Heusman (*aural*)	3 mths. 5 5 0	...
ASSISTANT-SURGEONS	Mr. Reeves Mr. Hurry Fenwick Mr. Eve (*Ophthal.*)	...	...	Mr. Field (*aur.*) Mr. Morris (*skin*) Mr. Hayward (*dental*)	...	...	Mr. Pearce Gould Mr. J. B. Sutton Mr. W. Hern (*assist. dental*) [*Pract. Med.*: Dr. Coupland.]	... 6 6 0	... ...
CLINICAL MEDICINE	The Physicians and Asst.-Phys.	...	...	Dr. Broadbent	...	...	The Physicians	...	...
CLINICAL SURGERY	The Surgeons and Asst.-Surg.	...	...	Mr. Norton	...	...	The Surgeons	...	...
SUMMER SESSION.	[*Exp. Phys.*: Mr. Page]			[*Orthopædic Dep.*: Mr. Pye]			Superintend. of P.-M. exam.: Mr. Hudson		
MATERIA MEDICA	...	3 3 0	...	Dr. Phillips	4 0 0	...	Dr. Biss	2 2 0	...
THERAPEUTICS	...	...	...	Dr. Phillips	...	...	Dr. Powell	..	...
MIDWIFERY, &c.	Dr. Herman	4 4 0	...	Dr. Braxton Hicks Dr. M. H. Jones	5 0 0	...	Dr. W. Duncan Dr. Boxall	5 5 0	...
BOTANY	Dr. Warner	3 3 0	...	Rev. J. M. Crombie	3 0 0	...	Dr. Biss	2 2 0	...
MEDICAL JURISPRUDENCE	Dr. Sansom	3 3 0	...	Mr. Luff	4 0 0	...	Dr. Finlay	4 4 0	...
TOXICOLOGY	Dr. Tidy	...	...	Mr. Luff	...	...	...	...	...
PRACTICAL CHEMISTRY	Mr. Page	5 5 0	...	Dr. Wright	4 0 0	...	Mr. W. Foster [*Psycho. Med.*: Dr. Mickle]	4 4 0	...
COMPARATIVE ANATOMY	Mr. C. M. Moullin	3 3 0	...	Mr. Bottomley	3 0 0	...	Mr. J. B. Sutton	2 2 0	...
PATHOL. HISTOLOGY	Mr. Eve	...	...	...	...	...	...	...	...
PATHOLOGY AND MORBID ANATOMY.	Dr. Sutton	3 3 0	...	Mr. Silcock Dr. Maguire	2 2 0	...	Dr. Fowler	4 4 0	...
OPERATIVE SURGERY	Mr. Rivington	3 3 0	...	Mr. Pepper	...	...	Mr. A. Clark	...	...
PRACTICAL PHYSIOLOGY	Mr. M'Carthy	3 3 0	...	...	...	...	Messrs. Lowne & Karop	4 4 0	...
HISTOLOGY AND THE MICROSCOPE.	Mr. M'Carthy (& in Winter)	3 3 0	...	Dr. Waller	...	...	...	...	...
OPHTHALMIC SURGERY	Mr. Waren Tay	2 2 0	...	Mr. Juler	2 2 0	...	Mr. Lang	2 2 0	...
ANÆSTHETICS	Dr. Hewitt	...	...	Mr. Davis	...	...	...	...	...
AURAL SURGERY	Dr. Woakes	2 2 0	...	Mr. Field	3 0 0	...	Mr. Heusman	...	...
DENTAL SURGERY	Mr. Barrett	2 2 0	...	Mr. Hayward	3 0 0	...	Mr. Storer Bennett (in Winter)	...	...
DISEASES OF THE SKIN	Dr. Stephen Mackenzie	...	...	Mr. Morris	3 0 0	...	Dr. Pringle.	...	...
DISEASES OF THE THROAT	Mr. Mark Hovell	2 2 0	...	Dr. Spicer	...	...	Mr. Heusman	...	...
PRACT. PHARM. & DISPENS.	Mr. Robertson	...	...	Mr. Mylins	3 3 0	...	Mr. Fardon	3 3 0	...
				[*Pub. Health*: Mr. S. Murphy.]			[*Pub. Health*: Dr. Finlay]		
FEE for all the Lectures required by the Colleges and Hall, and Hospital Medical and Surgical Practice	£94 12s.; or £105 by 3 instalments.			£100; or, 1st year, £40; 2nd year, £40; 3rd year, £25.			£100 0		

* St. Mary's Hosp.: Med. Tutor, Dr. Pearce; Obst. do., Dr. H. Jones; Surgical do., Mr. Crowle—throughout year thrice weekly.

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TABULAR LIST OF THE CLASSES, LECTURERS, AND FEES, AT THE LONDON HOSPITALS AND MEDICAL SCHOOLS, FOR THE SESSION 1889-90—(CONTINUED.)

LECTURES, &c.	ST. THOMAS'S HOSPITAL AND SCHOOL.			UNIVERSITY COLLEGE AND HOSPITAL.			WESTMINSTER HOSPITAL.		
	LECTURERS.	FEES. One Course.	FEES. Perpetual.	LECTURERS.	FEES. One Course.	FEES. Perpetual.	LECTURERS.	FEES. First Course.	FEES. Subseqt. Course.
WINTER SESSION.		£ s. d.	£ s. d.		£ s. d.	£ s. d.		£ s. d.	£ s. d.
PHYSIOLOGY	Dr. Sherrington	7 7 0	10 10 0	*Professor E. A. Schafer	5 gs. & 7 gs.	...	Dr. Abraham	6 6 0	2 2 0
PRACTICAL PHYSIOLOGY AND HISTOLOGY	Dr. T. C. Charles (in Summer)	6 6 0	...	*Professor E. A. Schafer	...	...	Dr. Abraham and in Summer	3 3 0 6 6 0	... 1 1 0
PHYS. DEMONSTRATIONS	Dr. Copeman	...	...	Dr. Halliburton	...	...	...	...	...
ANATOMY, DESCRIPTIVE AND SURGICAL	Mr. Reid Mr. Anderson	7 7 0	10 10 0	Prof. Thane Mr. Pollard	10 10 0	...	Mr. Black	7 7 0	3 3 0
ANATOM. DEMONSTRATIONS	Mr. Reid, Mr. Anderson, Dr. Taylor, & Mr. Makins	4 4 0	10 10 0	Dr. P. Flemming Mr. Pollard	8 8 0	...	Mr. Hebbert [*Morbid Histology:* Dr. Hebb]	5 5 0	...
PATHOLOGICAL ANATOMY	Dr. Payne & Dr. Sharkey	4 4 0	5 5 0	Prof. Horsley (*Pract. Path.*)	2 2 0	...	...	...	...
CHEMISTRY	Dr. A. J. Bernays	7 7 0	10 10 0	Drs. Ramsay and Plimpton	6 6 0	...	Dr. Dupré and Dr. Wilson Hake	6 6 0	2 2 0
MEDICINE	Dr. Bristowe Dr. Ord	7 7 0	10 10 0	Prof. H. C. Bastian	9 9 0	11 11 0	Dr. Sturges Dr. Allchin	6 6 0	...
SURGERY	Mr. S. Jones Sir W. Mac Cormac	7 7 0	10 10 0	Prof. Marcus Beck	7 7 0 ...	8 8 0 ...	Mr. Cowell Mr. Macnamara	6 6 0	...
GENERAL PATHOLOGY	...	...	...	Prof. Horsley	6 6 0	7 7 0	Dr. Allchin	4 4 0	2 2 0
NATURAL PHILOSOPHY	Dr. Stone (*with Physics*)	4 4 0	5 5 0	[*Chem. Physics:* Prof. Foster]	1 11 6	...	Mr. Ogilvie	3 3 0	...
HOSPITAL PRACTICE: PHYSICIANS	Dr. Bristowe Dr. Stone Dr. Ord Dr. Harley Dr. Payne Dr. Cullingworth (*obst.*)	3 mths. 15 0 0 6 mths. 26 0 0 9 mths. 35 0 0 1 year	55 0 0	Drs. Ringer, Bastian, Roberts, Poore, Barlow, Williams (*obst.*), & Crocker (*Skin*)	12 mths. 21 0 0	36 15 0	Drs. Sturges, Allchin, Donkin, Potter (*obst.*), & Fox (*Skin*) [*Neur. & Alienism:* Dr. Mercier, £2 2s.]	3 mths. 4 4 0 6 mths. 7 7 0	5 5 0
ASSISTANT-PHYSICIANS	Drs. Sharkey, Gulliver, Hadden, and Acland Cory (*obst.*) Semon (*Throat*)	40 0 0		Drs. Money Bradford and Spencer (*obst.*)	...	...	Dr. Bennett Dr. Murrell Dr. Hebb Dr. Grigg (*Obst.*) Dr. Hall (*Throat*)	...	...
SURGEONS	Mr. S. Jones Mr. Croft Sir Wm. Mac Cormac Mr. MacKellar Mr. Nettleship (*ophthal.*)	...	...	Profs. B. Hill, C. Heath, & M. Beck Mr. A. E. Barker Mr. R. J. Godlee Prof. J. Tweedy Mr. Hutchinson (*dent.*)	...	...	Mr. Cowell Mr. Davy Mr. Macnamara Dr. Walker (*dent.*) Mr. M. Smale (*dent.*) [*Ophth. Prac.:* Mr. Cowell] [*Orthopædic:* Mr. Davy] [*Aural:* Mr. Buck]	3 mths. 4 4 0 6 mths. 7 7 0	5 5 0
ASSISTANT-SURGEONS	Messrs. Clutton, Anderson, Pitts, & Makins	...	...	Prof. V. Horsley & Mr. Bilton Pollard	...	...	Messrs. Cooke, Bond, Stonham, & Spencer	...	...
CLINICAL MEDICINE	The Physicians	...	...	The Physicians	...	...	Dr. Sturges Dr. Allchin Dr. Donkin	...	...
CLINICAL SURGERY	The Surgeons in rotation Mr. Croft	...	...	By the Surgeons	...	...	Mr. Cowell Mr. Davy Mr. Macnamara	...	...
CLINICAL MIDWIFERY, &c.	Dr. Cullingworth [*Vac.:* Dr. Cory]	...	...	Dr. Williams Dr. H. Spencer	...	...	Dr. Potter [*Path. Dem.:* Dr. Hebb, weekly] [*Minor Surg. & Bandaging* in Summer]	...	...
SUMMER SESSION.									
MATERIA MEDICA, &c.	Dr. Stone and Mr. Plowman	4 4 0	5 5 0	Prof. Roberts	6 6 0	7 7 0	Dr. Murrell	3 3 0	...
MIDWIFERY, &c.	Dr. Cullingworth	5 5 0	6 6 0	Prof. Williams	6 6 0	7 7 0	Dr. Potter	4 4 0	1 1 0
BOTANY	Mr. A. W. Bennett	4 4 0	5 5 0	Mr. Oliver	3 13 0	...	Mr. Worsley Benison	4 4 0	...
MEDICAL JURISPRUDENCE	Mr. Clutton, Drs. Bernays & Cory	4 4 0	5 5 0	Prof. G. V. Poore	5 5 0	6 6 0	Dr. Hall		
PRACTICAL CHEMISTRY	Dr. Bernays	6 6 0	...	Dr. Ramsay	5 5 0	...	Dr. Dupré (*Tox.*)	3 3 0	1 1 0
STATE MEDICINE	Dr. E. Seaton	...	...	Prof. Corfield	...	...	Dr. Wilson Hake	4 4 0	1 1 0
MENTAL DISEASES	Dr. Rayner	2 2 0	3 3 0	Dr. Mickle	2 2 0	...	...	...	...
HYGIENE AND PUB. HEALTH	...	2 2 0	3 3 0	Prof. Corfield	3 3 0	...	Dr. Mercier	2 2 0	...
CLINICAL MEDICINE	The Physicians	...	...	As in Winter	...	...	Dr. Hall	...	...
							As in Winter	...	...
COMPARATIVE ANATOMY	Dr. Gulliver (with Zoology)	4 4 0	5 5 0	†Prof. Lankester	6 6 0	...	...	...	...
PATHOLOGY & MORB. ANATOMY	Drs. Sharkey, Gulliver, & Hadden	6 6 0	...	Prof. Horsley	6 6 0 2 2 0	...	Dr. Allchin	3 3 0 4 4 0	... ...
OPHTHALMIC SURGERY	Mr. Nettleship Mr. Lawford	2 2 0	3 3 0	†Prof. J. Tweedy	2 2 0	...	Mr. Cowell	1 1 0	‡
DENTAL SURGERY	Mr. Truman	...	...	†Mr. S. J. Hutchinson	...	...	Dr. Walker	2 2 0	‡
PRACTICAL SURGERY	Messrs. MacKellar, Clutton, & Pitts	6 6 0	...	†Mr. Bilton Pollard †Mr. R. J. Godlee †Mr. Barker	6 6 0	...	Mr. Davy Mr. Stoneham Mr. Spencer	5 5 0	...
OPERATIVE SURGERY	Mr. Clutton Mr. Pitts	...	...	*Mr. R. J. Godlee	5 5 0	...	Mr. Davy	4 4 0 6 6 0	...
PRACTICAL PHARMACY	..	...	...	Mr. Gerrard	3 3 0	...	Mr. Tanner	1 1 0	...
FEE for Lectures and Hospital Practice	£125; or by two instalments, £75 and £63; or by three instalments, £65, £50, and £30.			£126; or by instalments, £57 15s., £52 10s., and £21.			£105; or two instalments of £55 each; or five instalments of £24 each.		

* In Summer. † In Winter. ‡ Free to students of the hospital.

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TABULAR LIST OF THE CLASSES, LECTURERS, AND FEES, AT THE PROVINCIAL SCHOOLS OF MEDICINE, FOR THE SESSION 1889-90.

LECTURES, &c.	BIRMINGHAM QUEEN'S COLLEGE.		BRISTOL MEDICAL SCHOOL.		CAMBRIDGE UNIVERSITY.		LEEDS SCHOOL OF MEDICINE.	
	Lecturers.	Fees. One Course.	Lecturers.	Fees. One Course.	Lecturers.	Fees.	Lecturers.	Fees.
WINTER SESSION.		£ s. d.		£ s. d.		£ s. d.		£ s. d.
PHYSIOLOGY	Mr. F. J. Allen	6 6 0	Mr. G. M. Smith Dr. Clarke	5 5 0	Prof. Macalister Prof. Foster	...	Prof. Birch and Demonstrator	5 5 0
ANATOMY, DESCRIPTIVE & SURGICAL	Dr. B. C. A. Windle	6 6 0	Mr. Harsant	5 5 0	Prof. Macalister Prof. Humphry	...	Prof. Griffith and Mr. Robinson	5 5 0
ANATOMICAL DEMONSTRATIONS	Messrs. Jordan Lloyd, Haslam, Marsh, & Kempe	5 5 0	Dr. Williams	...	Prof. Macalister and Demonstrators	...	Dr. Oliver	...
PRACTICAL PHYSIOLOGY	Mr. Allen	2 2 0	...	...	Prof. Foster (and in Summer)	...	..	6 6 0
CHEMISTRY	Dr. W. A. Tilden	5 5 0	Mr. Coomber (in Summer)	3 3 0	Prof. Liveing Prof. Dewar	...	Prof. Smithells	5 5 0
MEDICINE	Sir B. W. Foster & Sir Jas. Sawyer	6 6 0	Drs. M. Skerritt and R. S. Smith	5 5 0	Prof. Paget, Dr. MacAlister	...	Prof. Eddison and Dr. Churton	6 6 0
THERAPEUTICS	...	...	...	...	Prof. Latham	...	Dr Barrs	...
SURGERY	Mr. Pemberton Mr. B. May	6 6 0	Mr. Dobson and Mr. J. G. Smith	5 5 0	Prof. Humphry	...	Prof. McGill Mr. Robson	6 6 0
HYGIENE	...	...	Dr. Davies	2 2 0	Dr. Anningson	...	...	...
HOSPITAL PRACTICE:	General Hospital and Queen's Hospital.	3 months 5 0 0	Bristol Royal Infirmary, and Bristol General Hospital.	...	Addenbrooke's Hospital.	Perpet. 12 12 0	Leeds General Infirmary.	
Physicians	...	6 months 7 0 0		..	Prof. Latham Dr. Bradbury	.. ...		...
Surgeons	(*See Additional Information on Schools.*)	1 year 10 10 0	(*See Additional Information on Schools.*)	...	Dr. MacAlister Prof. Humphry	...	Dr. Eddison Dr. Churton	
SUMMER SESSION.					Mr. Carver Mr. Wallis, Mr. Wherry		Messrs. Jessop, Atkinson, McGill, & Robson	...
MATERIA MEDICA, &c.	Dr. Rickards Dr. C. W. Suckling	4 4 0	Dr. Prowse	3 3 0	Prof. Latham Mr. Robinson		Dr. Barrs	4 4 0
MIDWIFERY, &c.	Mr. Clay	5 5 0	Dr. Swayne and Dr. Lawrence	4 4 0	Dr. Ingle		Prof. Wright	5 5 0
GYNÆCOLOGY	Mr. Lawson Tait	...	...	...	...		Dr. J. Braithwaite	...
PRACTICAL SURGERY	Mr. Bartleet	...	Mr. Prichard	3 3 0	} Mr. Wherry		Mr. Robson	...
OPERATIVE SURGERY	...	...	Mr. Penny	3 3 0				
BOTANY	Mr. W. Hillhouse	4 4 0	Prof. Leipner	3 3 0	Prof. Babington Mr. Darwin		Prof. Miall	4 4 0
MEDICAL JURISPRUDENCE	Mr. Wilders Dr. A. B. Hill	4 4 0	Dr. Eager Dr. Harrison	3 3 0	Dr. Anningson		Mr. Scattergood & Dr. Chadwick	5 5 0
MENTAL DISEASES	Mr. Whitcombe	...	...	...	Dr. Rogers		Mr. Lewis	...
PRACTICAL CHEMISTRY	Dr. W. A. Tilden	4 4 0	Mr. Coomber	3 3 0	Prof. Liveing		Prof. Smithells	4 4 0
PRACTICAL PHYSIOLOGY & HISTOL.	Mr. Allen	4 4 0	Mr. G. F. Atchley	4 4 0	Prof. Foster Dr. Hill		Prof. Birch and demonstrator	...
COMPARATIVE ANATOMY	Mr. Bridge	...	Prof. Morgan	4 4 0	† Prof. Newton (Winter, Mr. Sedgwick)		Prof. Miall	...
PATHOLOGY AND MORBID ANATOMY	Mr. Barling	4 4 0	Dr. Baron Dr. Baron	3 3 0 4 4 0	Prof. Roy		Dr. Jacob	4 4 0
PRACTICAL HISTOLOGY	Mr. Allen	...	...	...	Dr. Hill		...	...
DENTAL SURGERY	Mr. Sims	3 3 0	...	3 3 0	Dr. Cunningham		...	...
DENTAL ANATOMY & PHYSIOLOGY	Mr. Humphreys	...	...	3 3 0	Dr. Cunningham		...	...
DENTAL METALLURGY	Dr. W. A. Tilden	...	...	3 3 0	...		...	...
DENTAL MECHANICS	Mr. Elliott	...	...	3 3 0	...		...	...
CLINICAL MEDICINE	The Physicians of the two Hospitals.	...	...	...	The Physicians		Physicians of the Infirmary	...
CLINICAL SURGERY	The Surgeons of the two Hospitals. [*Hon. Curat. Mus. & Hon. Sec.*: Dr. Windle]	...	...	...	The Surgeons		Surgeons of the Infirmary [*Hygiene:* Mr. Hartley]	...
Fees for all the Lectures required by the College and Hall	} ...	63 0 0	...	{ 63 0 0 or 52 10 0	...		...	63 0 0
Composition Fee for Hospital Medical and Surgical Practice	...	42 0 0	...	36 15 0	...		...	42 0 0

The fee for each course of lectures or demonstrations is one or two guineas per term.

† With Zoology.

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TABULAR LIST OF THE CLASSES, LECTURERS, AND FEES, AT THE PROVINCIAL SCHOOLS OF MEDICINE, FOR THE SESSION 1889-90.

LECTURES, &c.	UNIVERSITY OF DURHAM COLL. OF MED., NEWCASTLE-UPON-TYNE.		UNIVERSITY COLLEGE, LIVERPOOL.		OWENS COLLEGE (VICTORIA UNIV.) SCHOOL OF MEDICINE.		SHEFFIELD SCHOOL OF MEDICINE.	
	LECTURERS.	FEES. One Course.	LECTURERS.	FEES.	LECTURERS.	FEES. One Course.	LECTURERS.	FEES. One Course.
WINTER SESSION.		£ s. d.		£ s. d.		£ s. d.		£ s. d.
PHYSIOLOGY	Mr. Williamson, Prof. Oliver	5 5 0	Dr. Caton	5 5 0	Prof. Wm. Stirling (*with Histology*)	5 5 0	Dr. Sinclair White	3 3 0
PRACTICAL PHYSIOLOGY	Prof. Oliver (*in Summer*)	5 5 0	Mr. Leigh (Demonstrator)	5 5 0	Prof. Stirling, Dr. Stewart, Mr. Kent	...	Vacant Mr. Frank Harrison	3 3 0
ANATOMY, DESCRIPTIVE & SURGICAL	Dr. Howden	5 5 0	Mr. Banks	5 5 0	Prof. A. H. Young	5 5 0	Mr. E. Skinner	4 4 0
ANATOMICAL DEMONSTRATIONS	Dr. Howden	5 5 0	Mr. Thomas	3 3 0	Mr. Robinson	1 1 0	Mr. Chas. Atkin Messrs. Atkin, Kilham,	2 2 0
CHEMISTRY	Prof. Bedson	5 5 0	Dr. Brown	5 5 0	Mr. Smith Prof. Dixon	3 10 0	& Dr. S. Roberts At Firth College	4 4 0
MEDICINE	Prof. Philipson	5 5 0	Dr. Glynn	5 5 0	Prof. Schorlemmer Prof. Morgan, Prof. Ross	5 5 0	Drs. Bartolomé, Dyson & Porter	4 4 0
SURGERY	Prof. Heath, Dr. Arnison	5 5 0	Mr. Parker	5 5 0	Prof. Hare (*with Operat. Surg.*)	5 5 0	Mr. A. Jackson	4 4 0
PRACTICAL SURGERY	...	...	...	4 4 0	...	2 2 0	Mr. R. J. Pye-Smith	...
PATHOLOGY	Dr. Drummond (*in Summer*)	5 5 0	Dr. Barron	4 4 0	Prof. Dreschfeld	4 4 0	...	...
EXPERIMENTAL PHYSICS	Prof. Stroud	2 2 0	Dr. Lodge	4 4 0	Prof. Young, *Surg. Path.* Prof. Schuster	3 10 0	...	...
PUBLIC HEALTH	Mr. Armstrong	5 5 0	Dr. Hope	2 2 0	Dr. Ransome‖	2 2 0		
HOSPITAL PRACTICE:	ROYAL INFIRMARY, NEWCASTLE.		LIVERPOOL ROYAL INFIRMARY.	6 mnths.	[*Zoology*: Prof. Marshall] ROYAL INFIRMARY.	Composition fee, full period, £43 0 0	SHEFFIELD GEN. INFIRMARY.¶	Perpet. £15 15; £21; 12 mths' prac., £10 10; 6 mnths, £6 6s.
PHYSICIANS	Drs. Philipson, Drummond, Oliver, & Limont	6 mnths. 8 8 0	Dr. Glynn, Dr. Davidson	6 6 0 12 mnths.	The Physicians		Dr. Bartolomé, Dr. Dyson Messrs. Favell, A. Jackson, & Shaw	
SURGEONS	Dr. Arnison, Mr. Williamson, Dr. Hume, Mr. Page	12 mnths. 12 12 0	Dr. Caton Mr. Harrison, Mr. Banks, Mr. Parker	7 7 0 6 mnths.	The Surgeons		PUBLIC HOSP. & DISPENSARY *Phys.*: Dr. S. Roberts & Dr. Burgess	
ASSISTANT-SURGEONS	Mr. T. A. Dodd Mr. J. R. Morison	Comp. †26 5 0 ...	...	7 7 0	...	...	*Surgs.*: Dr. Keeling, Mr. Thorpe, & Mr. Pye-Smith	
			[*Dental Anat. & Phys.*: Mr. Paul, £3 3s.—*Dental Metallurgy*: Mr. Royston, £3 3s.]	12 mnths. 10 0 0	[*Dent Mech.*: Mr. Tanner] [*Dent. Anatomy*: Mr. Hooton] [*Dental Metallurgy*: Dr. Burghardt]	3 3 0 3 3 0 3 3 0	[*Medical Tutor*: Mr. Lee]	
SUMMER SESSION.								
MATERIA MEDICA	Dr. McBean	5 5 0	Dr. Carter	4 4 0	Prof. Leech	4 4 0	Dr. Young	3 3 0
MIDWIFERY, &c.	Dr. Nesham,‡ Dr. Gibson*‡	5 5 0	Dr. Wallace‡	5 5 0	Prof. Sinclair	4 4 0	Dr. Keeling, Messrs. R. Favell, & Laver	3 3 0
BOTANY	Dr. Murphy	5 5 0	Dr. Gee (*child. dis.*)	2 2 0	Dr. Ashby (*Dis. Chil.*)	2 2 0		
MEDICAL JURISPRUDENCE	Mr. Page	5 5 0	Mr. H. Gibson	4 4 0	Prof. Williamson	2 12 6	Mr. Birks	3 3 0
MENTAL DISEASES	...	...	Mr. Paul	4 4 0	Dr. Dixon Mann	4 4 0	Dr. S. M. P. Roberts	3 3 0
PRACTICAL CHEMISTRY	Prof. Bedson	5 5 0	...	...	Dr. Mould	1 11 6	...	...
COMPARATIVE ANATOMY	Prof. Brady	2 2 0	Dr. Brown	4 4 0	Prof. Dixon	4 4 0	At Firth College	3 3 0
SURGICAL PATHOLOGY	...	...	Dr. Herdman	3 3 0	Dr. Marshall‡ (*with Embryology*)	2 12 6	...	...
PATHOLOGY & MORBID ANATOMY	Dr. Drummond	5 5 0	...	...	Prof. Young	2 2 0	...	...
			Dr. Barron (*Path. Histol.*)	2 2 0	Prof. Dreschfeld Mr. Brooke (*Skin Diseases*)	2 2 0	Dr. Burgess	3 3 0
OPHTHALMIC SURGERY	Mr. Williamson	...	Mr. Browne‡	1 1 0	Dr. Little	3 3 0	Mr. Snell	...
DENTAL SURGERY & MECHANICS	Mr. Fothergill	...	Mr. Phillips	3 3 0	Mr. G. G. Campion	3 3 0	...	...
			Mr. Councell	3 3 0		...		...
OPERATIVE SURGERY	Dr. Armstrong	5 5 0	Mr. Parker	4 4 0	Prof. Hare	4 4 0	Mr. Pye Smith	3 3 0
CLINICAL MEDICINE	Physicians and Surgeons of Infirmary	...	Physicians and Surgeons of Royal Infirmary	...	Physicians and Surgeons of the Royal Infirmary	...	Phys. & Surg. of Gen. Infir. & Pub. Hosp. & Dispensary	...
CLINICAL SURGERY					[Comp. fee, Dental course, £50]			
FEES for all Lectures required by the College and Hall	...	63 0 0	...	57 15 0	...	63 0 0	...	45 0 0
Ditto for Hospital Medical & Surgical Practice	...	†32 11 0	...	42 0 0	...	42 0 0	...	18 18 0

* Diseases of Women and Children. † In addition to the above, £2 2s. yearly up to three years. ‡ In Winter. ‖ In Summer.
¶ Assistant-Physicians: Drs. Porter & Cocking. Assistant-Surgeons: Messrs. Hallam & Atkin.

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TABULAR LIST OF THE CLASSES, LECTURERS, AND FEES, AT THE MEDICAL SCHOOLS OF SCOTLAND, FOR THE SESSION 1889-90.

LECTURES, &c.	ABERDEEN UNIV.		EDINBURGH UNIV.		SCHOOL OF MEDICINE, EDINBURGH.		GLASGOW UNIV.		ST. MUNGO'S COLL. & SCHOOL OF MEDICINE.		GLASGOW, ANDERSON'S COLL. MED. SCHOOL.		GLASGOW WESTERN MEDICAL SCHOOL.	
	LECTURERS.	FEES. One Course.	LECTURERS.	FEES. —	LECTURERS.	FEES. First Course.	PROFESSORS.	FEES. One Course.	LECTURERS.	FEES. One Course.	LECTURERS.	FEES. One Course.	LECTURERS.	FEES. One Course.
WINTER SESSION.		£ s.		£ s.		£ s.		£ s.		£ s.		£ s.		£ s. d.
ANATOMY	Va an't.	3 3	Sir William Turner	4 4	Messrs. Symington & M. Brown	7 9	Dr. J. Cleland	6 6	Dr. Clark	4 4	Dr. A. M. Buchanan	4 4	...	...
PRAC. ANAT. & DEMONS.	...	2 2	...	...	...	...	...	...	...	...	...	...	...	...
CHEMISTRY (PRACTICAL, &c.)	Prof. Carnelley	3 3	Dr. Crum Brown (Adv. Class in Sum.)	4 4	Dr. S. Macadam, Messrs. King, Ivison, Macadam, Drinkwater, Rymer Paterson, & Aitken	3 5	Dr. J. Ferguson	3 3	Dr. Milne	2 2	Mr. J. R. Watson	2 2	...	...
PHYSIOLOGY (INST. OF MED.)	Dr. MacWilliam	3 3	Dr. Rutherford	4 4	Dr. Noël Paton & Mr. J. Hunter	3 5	Dr. McKendrick	3 3	Dr. Barlow	2 2	Dr. Christie	2 2	...	...
GENERAL PATHOLOGY, &c.	Dr. Hamilton	3 3	Dr. Greenfield	4 4	Drs. Bruce & Russell	3 5	...	3 3	...	2 2	(In Infirmary)	...	...	...
MEDICINE	Dr. Smith-Shand	3 3	Dr. Grainger Stewart	4 4	Drs. Wyllie, Affleck, Bramwell, & Gibson	3 5	Dr. Gairdner	3 3	Dr. Robertson	2 2	Dr. Gemmell	2 2	Dr. McVail [Eye]	2 2 0
SURGERY	Dr. Alex. Ogston	3 3	Dr. Chiene	4 4	Dr. MacGillivray, Messrs. Cathcart, Caird, Hodsdon, & Scott-Lang [ma	3 5	Sir G. H. B. Macleod	3 3	Dr. K. ox	2 2	Dr. Dunlop	2 2	Dr. Fergus (Dis. of Mr. Knox [*Dis. of Ear, Throat, & Nose*: Dr. Walker Downie]	2 2 0
MATERIA MEDICA, &c.	Dr. Cash	3 3	Dr. T. R. Fraser	4 4	Drs. Craig & Stock-	3 5	Dr. Charteris	3 3	Dr. Dougall	2 2	Dr. A. Napier	2 2	...	...
MIDWIFERY, &c.	Dr. Stephenson	3 3	Dr. Simpson (Dis. Wom. & Child.)	4 4	Drs. M lne	3 5	Dr. Leishman	3 3	Dr. Stirton	2 2	Dr. W. L. Reid	2 2	Dr. Kelly	2 2 0
MED. JURISPRUDENCE, &c.	Dr. Hay (In Summer)	3 3	Sir D. Maclagan (in Summer only)	4 4	Murray, Mathison, Young, Brewis, & H. Croom Dr. Littlejohn	3 5	Dr. Simpson,‡	3 3	Dr. Glaister	2 2	Dr. Eben. Duncan (In Summer)	2 2	Dr. P. C. Smith ‡	1 1 0
NATURAL HISTORY	Dr. Nicholson	3 3	Dr. Ewart	4 4	Mr. Thomson	...	Dr. Young	3 3	...	...	...	...	...	...
NATURAL PHILOSOPHY	...	...	Mr. Tait	3 3	...	...	Sir Wm. Thomson	4 4	...	...	...	...	...	...
HOSPITAL PRACTICE:	ABERDEEN R. INF.		EDIN. ROYAL INF.		EDIN. ROYAL. INF.		GLASGOW ROY. INF AND WEST. INF.				GLASGOW ROY. OR WESTERN INF.			
PHYSICIANS	Drs. Smith-Shand, A. Fraser, and Blaikie Smith Daily [*Assist.-Phys.*: Dr. Rodger]	One year, £3 10s. Perpetual, £6.	...	Perpet. ticket, £12 12s.	Drs. Muirhead, Brakenridge, Wyllie, Affleck, & Halliday Croom	1 year, £5 5s.	The Physicians and Surgeons of the Infirmaries (and in Summer)	1st year, £10 10s.; 2nd year & perpetual, £10 10s.	The Physicians and Surgeons of the Glasgow Royal Infirmary	Perpetual, including Clin. Lectures, £21	The Medical and Surgical Staffs.	1st year, £10 10s.; 2nd, £10 10s.; afterwards free; 6 months, £6 6s.; 3 months, £4 4s.	The Physicians & Surgeons in the Western Infirmary.	
SURGEONS	Drs Ogston, Ogilvie, Will, & Garden, Williamson (*dental*) Daily		...		Mr. Duncan Mr. Miller		...		...		...		...	
ASSISTANT-SURGEONS	Dr. Hall Dr. McK. Davidson (*ophth.*)	...	...	...	...	...	...	...	...	...	...		...	...
CLINICAL MEDICINE	Drs. Smith-Shand A. Fraser, and Blaikie Smith	3 3	Drs. G. Stewart, Fraser, & Greenfield, & Dr. Simpson, for Dis. of Women,	4 4	Drs. Muirhead, Brakenridge, Wyllie, Affleck, & Halliday Croom	3 5	Drs. McCall Anderson & Gairdner (and in Summer)		Dr. McVail	...	The Physicians	...	...	...
CLINICAL SURGERY	Drs Ogston, Ogilvie, Will, and Garden	3 3	Dr. Annandale	4 4	Mr. Duncan and Mr. Miller	3 5	Dr. Buchanan & Sir G. H. B Macleod (and in Summer)	...	Dr. Macewen [*Throat and Nose*: Dr. Newman]	...	The Surgeons	...	...	...
SUMMER SESSION.														
PRAC. ANAT. & DEMONS.	Vacant.	2 2	Sir Wm. Turner	3 3	Messrs. Symington & M. Brown	2 2	Dr. Cleland and Demonstrators	2 2	Dr. Clark	2 2	Dr. Buchanan	2 2	...	...
BOTANY	Dr. Trail	3 3	Dr. Bayley Balfour*	4 4	Mr. A. N. McAlpine	2 2	Dr. Bower	3 3	...	...	...	1 11 6	...	...
HISTOLOGY	Dr. MacWilliam	3 3	...	...	Dr. Noël Paton & Mr. James Hunter	2 2	Dr. McKendrick	3 3	Dr. Barlow	2 2	Dr. Christie	2 2	...	...
COMPARATIVE ANATOMY	...	...	...	...	...	...	Dr. Young	3 3	...	...	...	...	...	...
PRACTICAL CHEMISTRY	Mr. Carnelley	3 3	Dr. Crum Brown	3 3	(As in Winter)	3 3	Dr. J. Ferguson	3 3	...	2 2	Mr. J. R. Watson	2 2	...	...
DISEASES OF THE EAR	Dr. McKenzie Booth	1 1	...	...	Drs. Duncanson & A. P. McBride	2 2	[*Pract. Mat. Med.*: Dr. Charteris]	3 3	Dr. Macfie	1 1	Dr. Barr	Free	Mr. Walker Downie	1 1 0
DISEASES OF THE EYE	Dr. Davidson	1 1	Dr. A. Robertson,	3 3	Robertson & Berry	2 2	Dr. T. Reid	1 1	Dr. Wolfe	2 2	Dr. Wolfe	Free	Dr. Fergus**	...
DISEASES OF CHILDREN	Dr. Stephenson	...	Drs. Carmichael & Un	1 1	Mrs. Bell & Playfair	2 2	...	...	Drs. Black & Adams	...	...	...	...	...
NATURAL HISTORY	Dr. Nicholson	3 3	Dr. Ewart [derhill*	4 4	Mr. Thomson	...	...	...	...	...	...	...	...	...
MED. PSYCHOL. & INSANITY	Dr. Reid	1 1	Dr. Clouston,†	3 3	Dr. J. Tuke [Brewis	1 1	Dr. Yellowlees	2 2	Dr. A. C. Clark	2 2	(With Jurisprud.)	...	...	...
GYNÆCOLOGY	Dr. Stephenson**	2 2	Dr. Simpson	4 4	Drs. Croom, Young,	...	Dr. Leishman	2 2	Dr. Kelly	...	Dr. W. L. Reid	...	Dr. Kelly	2 2 0
MIDWIFERY, &c.	[*Prac. Hygiene*: Dr. Hay]	...	[*Pr M. Anat. & Path* Dr. Greenfield]	4 4	Drs. Croom, Hart, & Barbour	3 5	...	...	Dr. Stirton	2 2	...	...	Dr. Kelly	
OPERATIVE SURGERY	Dr. Alex. Ogston	3 3	Dr. Chiene*	3 3	... §	2 2	Sir G. H. B. Macleod	2 2	Dr. Whitson	2 2	*Pb. H.*: Dr. Christie Dr. Dunlop	Free 2 2	Mr. Knox	2 2 0

* Also in Winter. † With Clinical Instruction at an Asylum, £3 3s. ‡ In Summer. § Dr. MacGillivray, Mr. C. W. Cathcart, Mr. F. M. Caird, Mr. Hodsdon, and Mr. Scott Young. ** In Winter.

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TABULAR LIST OF THE CLASSES, LECTURERS, AND FEES, AT THE MEDICAL SCHOOLS OF IRELAND, FOR THE SESSION 1889-90.

LECTURES, &c.	DUBLIN UNIVERSITY.	DUBLIN R. C. OF SURGEONS.		‖ LEDWICH SCH. OF SURG. & MED.	DUBLIN, CARMICHAEL COLL.		‖ DUBLIN, CATHOLIC UNIVERSITY.		BELFAST, QUEEN'S COLLEGE.		CORK, QUEEN'S COLLEGE.		GALWAY, QUEEN'S COLLEGE.	
	LECTURERS.	LECTURERS.	FEES.	LECTURERS.	LECTURERS.	FEES.	LECTURERS.	FEES.	LECTURERS.	FEES. First Course.	LECTURERS.	FEES. First Course.	LECTURERS.	FEES. First Course.
										£ s.		£ s.		£ s.
ANATOMY AND PHYSIOLOGY	Dr. Cunningham (*chirurgery*)	Dr. Mapother	For each Course, £3 3s.; except Dissections, £5 5s.; Practical Chemistry and Practical Surgery, £5 5s.	Mr. T. Mason Mr. M. A. Ward	Dr. J. A. Scott*		Dr. Nixon Dr. Coppinger	£3 3s. each Course, except Dissections and Pract. Chem., which are £5 5s. each.	Dr. P. Redfern	3 0	Dr. J. J. Charles	3 0	Dr. Pye	3 0
ANATOMY, DESCRIPTIVE & SURGICAL	Dr. Cunningham Dr. Little	Prof. Stoker & Fraser		Dr. T. P. Mason and Mr. Ledwich	Dr. Heuston		Dr. R. Cryan Dr. Hayden		Dr. P. Redfern	...	Dr. J. J. Charles	...	Dr. Pye	...
PRACTICAL ANATOMY AND DISSECTIONS	Dr. Cunningham Dr. Little	...		...	Dr. Heuston Demonstrators: Drs. McVittie, McHugh, Barton, Atock, Craig, McAulay, Graves, Drury, & Grandy		Dr. Redmond Dr. M'Callagh Dr. M'Ardle Dr. Chance Dr. O'Carroll		Dr. Campbell	3 0	Dr. Charles and Demonstrators	3 0	Dr. Pye and Demonstrators	4 0
CHEMISTRY	Dr. Reynolds	Prof. Sir C. Cameron		Mr. E. Lapper	Dr. Tichborne		Dr. Campbell		Dr. Letts	2 0	Dr. Maxwell Simpson	2 0	Dr. Rowney	2 0
PRACTICAL CHEMISTRY ...	Dr. Reynolds			Mr. E. Lapper	Drs. Tichborne & Piel†		Dr. Campbell†		Dr. Letts‡	3 0	Dr. Maxwell Simpson	3 0	Dr. Rowney	3 0
MATERIA MEDICA AND PHARMACY	Dr. W. G. Smith	Mr. Macnamara		Mr. R. D. Pursefoy	Dr. Duffey†		Dr. Quinlan†		Dr. J. S. Reid	2 0	Dr. C. Y. Pearson	2 0	Dr. Colahan	2 0
BOTANY AND ZOOLOGY ...	Dr. Wright Prof. Mackintosh	Dr. Minchin		Mr. Robinson	Dr. Cosgrave†		Dr. Sigerson†		Dr. R. O. Cunningham§	2 0	Professor Hartog	2 0 each	Dr. R. J. Anderson	2 0
INSTITUTES OF MEDICINE AND PATHOLOGY	Dr. Purser	...		Mr. T. Mason	[*Practical Histology:* Dr. J. A. Scott†] Dr. Beatty		Dr. Lyons		...	...	...	...	Dr. Lynham [*Exp. Physics:*	...
NATURAL PHILOSOPHY ...	Prof. FitzGerald	...		Mr. Lapper			Rev. G. Molloy†		Dr. J. Everett (*in Winter*)	2 0	Mr. J. England	2 0	Prof. Anderson]	2 0
HOSPITAL PRACTICE	Sir P. Dun's or other Dublin Hospital.	...		Various Dublin Hospitals.	House of Indust., Adelaide, Meath Jervis-st., City of Dublin, Cork-street (Fever).		...		Belfast Royal, Ulster, Un., and other Hospitals.	...	North and South Infirmaries.	...	Galway Infirmary & Town Hospital.	Sess 4 4
CLINICAL LECTURES	...	...		...	... [*Ophthal. Surg.:* Dr. Fitzgerald,		...		...	...	...	...	Dr. Pye Dr. Colahan Dr. Lynham	...
SURGERY	Dr. E. H. Bennett	Profs. Sir W. Stokes and Hamilton		Mr. Nixon Mr. Stoker	Mr. Corley		Mr. J. P. Hayes		Dr. Sinclair	2 0	Dr. S. O'Sullivan	2 0	Dr. W. Brereton	2 0
MIDWIFERY, &c.	Mr. Macan	Dr. Roe		Mr. S. R. Mason	Dr. Macan		Dr. Byrne		Dr. Dill	2 0	Dr. Corby	2 0	Dr. Kinkead	2 0
MEDICINE	Dr. Finny	Dr. Foot		Dr. Knight Mr. Redmond	Dr. Moore		Dr. R. D. Lyons		Dr. Cuming	2 0	Dr. E. R. Townsend	2 0	Dr. Lynham	2 0
MEDICAL JURISPRUDENCE	Dr. Bewley	Dr. Davy		Mr. R. Travers	Mr. Auchinleck		Dr. Macswiney†		Dr. Hodges†	2 0	Dr. C. Yelverton Pearson	...	Dr. Rowney Dr. Kinkead	2 0
COMPARATIVE ANATOMY...	Prof. Mackintosh	...		...	...		...		...	...	...	2 0	[*Modern Languages:*	..
PRACTICAL PHARMACY ...	Dr. W. G. Smith	[*Hygiene:* Prof. Sir C. Cameron]	Course, £3 3s., in all Classes, ex. Descr. Anat. (£3 3s.), Pract. Chem. (£5 5s.), Oph. & Aur. Surg. & Hygiene, which are free.	...	...		...		...	...	...	...	Prof. Steinborger]	2 2
LOGIC	The College Tutors	[*Ophth. and Aural Surg.:* Prof. Jacob]		...	...		... [*Ophthalmology:* Dr. D. D. Redmond]		...	...	Professor Stokes	1 0	Dr. T. W. Moffett	...

* Prac. Phys. in Summer. † In Summer. ‡ In Winter and in Summer. § Zoology in Winter; Botany in Summer. ‖ No returns from these Schools.

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TABULATED STATEMENT OF EXAMINATION OR GRADUATION FEES PAYABLE TO THE VARIOUS BODIES IN THE UNITED KINGDOM GRANTING REGISTRABLE QUALIFICATIONS.

Name of Examining Body.	Matriculation or other Entrance Examination.	Preliminary Scientific or First Prof. Examination.	Intermediate Scientific or Equivalent Examination.	First Degree or other Registrable Qualification.	Second Degree or Equivalent Registrable Qualification.
UNIVERSITY of OXFORD	About £5 (including fees to University and College).	....	About £12 (including fees to University and College).		
UNIVERSITY of CAMBRIDGE	£5 (not including College fees, which vary.	....	....	M.B., £2 (in addition to £7 for B.A.)	M.D., £10.
UNIVERSITY of LONDON	£2 0 0	£5 0 0	£5 0 0	M.B. or B.S., £5.	M.D. or M.S., £5.
UNIVERSITY of DURHAM	£2 0 0	....	....	L.M., £3; M.B. or B.S., £6.	M.D. or M.S., £6.
VICTORIA UNIVERSITY	£2 0 0	....	£1 0 0	....	....
UNIVERSITY of EDINBURGH	£1 0 0	£5 5 0	£5 5 0	M.B. & C.M., £11 10s.	M.D., £5 5s.
UNIVERSITY of GLASGOW	£1 0 0	....	....	M.B. and C.M., £21.	M.D., £15.
UNIVERSITY of ABERDEEN	£1 0 0	£5 5 0	£5 5 0	M.B. & C.M., £10 10s.	M.D., £5 5s.
UNIVERSITY of ST. ANDREWS ..	£1 0 0	....	....	....	M.D., £52 10s.
UNIVERSITY of DUBLIN (TRINITY COLLEGE).	£0 5 0	....	....	M.B., £16; B.Ch., £10 (in addition to M.B. & B.A. fees); Lic. Med., £10; Lic. Surg., £10; Lic. Obs. Sc., £1.	M.D., £13; M.Ch., £11; M.A.O., £5.
ROYAL UNIVERSITY of IRELAND..	£0 10 0	£1 0 0	£1 0 0	M.B., B.Ch., & B.A.O., £10.	M.D., £5; M.Ch. £5; M.A.O.
ROYAL COLLEGE of PHYSICIANS, LOND., AND ROYAL COLLEGE of SURGEONS, ENG.	....	£10 10 0	£10 10 0	L.R.C.P. & M.R.C.S., £15 15s.	F.R.C.P. F.R.C.S., £15 15s.
ROYAL COLLEGES of PHYSICIANS AND SURGEONS of EDINBURGH and FACULTY of PHYSICIANS and SURGEONS of GLASGOW.	....	£5 5 0	£5 5 0	L.R.C.P.Ed., L.R.C.S.Ed., & L.F.P.S.Glas., £26 5s.	
KING and QUEEN'S COLLEGE of PHYSICIANS, and ROYAL COLLEGE of SURGEONS, IRELAND.	....	£15 15 0	£5 5 0 and for Third Prof. Exam., £5 5 0	L.K.Q. Coll. Phys., L.R.C.S. Irel., £15 15s.	
OCIETY of APOTHECARIES, LOND.	....	£4 4 0	....	L.S.A., £6 6s.	
ROYAL COLLEGE of SURGEONS, IRELAND, and APOTHECARIES' HALL, DUBLIN.	....	£12 12 0	£7 7 0 and for Third Professional Examination, £7 7 0	L.R.C.S. Irel., L.A.H. Dub., £7 7s.	

SCHOLARSHIPS GIVEN IN AID OF MEDICAL STUDY.

THE following list is as nearly complete as the Editors have been able to make it, and gives such prizes as would enter into a Student's calculation of the cost of Medical education. It does not contain prizes of less value than £10, or prizes of greater than this value which are given in any form except money or necessaries of medical study and research :—

INSTITUTION.	TITLE OF SCHOLARSHIP &C.	ANNUAL OR TOTAL VALUE.	HOW LONG TENABLE.	HOW OBTAINABLE.	CONDITIONS ATTACHED TO TENURE.
OXFORD UNIVERSITY ..	....	£80 per annum.	4 years.	Competitive Examination.	....
	Radcliffe Trav. Fellowship.	£200 ,, ,,	3 years.	Ditto.	Foreign Travel for purpose of Medical Study.
	Rolleston Prize.	....	....	Original Research.	
LONDON UNIVERSITY ..	....	£40 per annum.	2 years.	By first place with distinction in ANATOMY at July Intermediate M.B. Examination.	M.B. taken within 3 years.
		£40 per annum.	2 years.	By first place, with distinction in PHYSIOLOGY AND HISTOLOGY at July Intermediate M.B. Examination.	Ditto.
		£30 per annum.	2 years.	By first place with distinction in ORGANIC CHEMISTRY at July Intermediate M.B. Examination.	Ditto.
		£30 per annum.	2 years.	By first place with distinction in MATERIA MEDICA and PHARMACEUTICAL CHEMISTRY at July Intermediate M.B. Examination.	Ditto.
	University Scholarship in Medicine.	£50 per annum.	2 years.	By first place with distinction in MEDICINE at M.B. Honours Examination.	Ditto.
	University Scholarship in Obstetric Medicine.	£30 per annum.	2 years.	By first place with distinction in OBSTETRIC MEDICINE at M.B. Honours Examination.	
	University Scholarship in Forensic Medicine.	£30 per annum.	2 years.	By first place with distinction in FORENSIC MEDICINE at M.B. Honours Examination.	
	University Scholarship in Surgery.	£50 per annum.	2 years.	By first place with distinction in B.S. Honours Examination.	

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SCHOLARSHIPS GIVEN IN AID OF MEDICAL STUDY—*continued.*

INSTITUTION.	TITLE OF SCHOLARSHIP &c.	ANNUAL OR TOTAL VALUE.	HOW LONG TENABLE.	HOW OBTAINABLE.	CONDITIONS ATTACHED TO TENURE.
EDINBURGH UNIVERSITY	Syme Surgical Fellowship.	£105 16s. 6d. per annum.	2 years	Competitive Thesis by M.B. of not more than three years' standing.	None.
	Leckie Mactier Fellowship.	£70 per annum.	3 years.	Competitive Examination among M.B.'s of not more than three years' standing.	
	Sibbald Scholarship.	£40 per annum.	3 years.	Competitive Examination among University Students.	None.
	Hope Prize.	£25.	....	Distinction in MINOR CHEMICAL CLASS.	None.
	Vans Dunlop Scholarship.				
	,, No. 1.	£100.	3 years.	First place in MEDICAL PRELIMINARY EXAMINATION.	None.
	,, No. 2.	£100.	3 years.	Highest marks in Class Examinations in PHYSIOLOGY and SURGERY.	None.
	,, No. 3.	£100.	3 years.	Competitive Examination in ANATOMY, PHYSIOLOGY, MATERIA MEDICA, and PATHOLOGY.	One year's study at the University, and 2 years' original research.
	Murchison Memorial Scholarship.	Interest on £1000.	1 year.	Competitive Examination in CLINICAL MEDICINE among registered Students of Medicine.	None.
	Buchanan Scholarship.	Interest on £1000.	1 year.	Competitive Examination and Class Work in MIDWIFERY and GYNÆCOLOGY.	None.
	James Scott Scholarship.	£45 per annum.	1 year.	Competitive Examination and Class Work in MIDWIFERY.	None.
	Ettles Scholarship in Medicine.	£20.	....	Distinction in M.B. and M.S. Examination.	None.
	Mackay Smith Scholarship in Chemistry.	£25 per annum.	2 years.	Competitive Examination in CHEMISTRY among University Students.	None.
	Sibbald Bursary.				
	,, No. 1.	£30.	....	....	....
	,, No. 2.	£30.	....	....	....
	Heriot Bursary.				
	,, No. 1.	£30 per annum.	3 years.	Competitive Examination among Matriculating Students.	None.
	,, No. 2.	£30 per annum.	3 years.	Ditto.	None.
	Thomson Bursary.				
	,, No. 1.	£25 per annum.	4 years.	Distinction in Preliminary Medical Examination.	None.
	,, No. 2.	£25 per annum.	4 years.	Distinction in Preliminary Medical Examination.	None.
	Grierson Bursary.				
	,, No. 1.	£20 per annum.	1 year.	Distinction in Preliminary Medical Examination. (Holder must be native of Crawford or Leadhills.)	None.
	,, No. 2.	£20 per annum.	1 year.	Competitive Examination in CHEMISTRY, BOTANY, and NATURAL HISTORY among Second-year Students. (Holder must be native of Crawford or Leadhills.)	None.
	,, No. 3.	£20 per annum.	1 year.	Ditto.	None.
	,, No. 4.	£20 per annum.	1 year.	Competitive Examination in ANATOMY and PHYSIOLOGY among Third-year Students. (Holder must be native of Crawford or Leadhills.)	None.
	,, No. 5.	£20 per annum.	1 year.	Competitive Examination in MATERIA MEDICA and PATHOLOGY among Fourth-year Students. (Holder must be native of Crawford or Leadhills.)	....
	Dr. J. A. Carlyle Bursary.				
	,, No. 1.	£28 per annum.	1 year.	Proficiency in Class Examinations in ANATOMY and CHEMISTRY.	None.
	,, No. 2.	£28 per annum.	1 year.	Proficiency in Class Examinations in ANATOMY and PHYSIOLOGY.	None.
	Mackenzie Bursary.				
	, No. 1.	£21 5s.	....	Industry and Skill in Junior Class work of PRACTICAL ANATOMY.	None.
	,, No. 2.	£21 5s.	....	Industry and Skill in Senior Class work of PRACTICAL ANATOMY.	None.
	Beaney Prize.	£37 10s.	....	Highest Marks taken in ANATOMY, SURGERY, and CLINICAL SURGERY, by University Student in M.B. and C.M. Examinations.	None.
	Hope Chemistry Prize.	£100.	....	Competitive Examination among University Students.	None.
	Neil Arnott Prize.	£42.	....	Distinction in Natural Philosophy in the M.A. Examination.	None.
	Wightman Prize.	£10 10s.	....	Competitive Reports on Cases by Clinical Students.	None.
ST. BARTHOLOMEW'S MEDICAL SCHOOL	Entrance Scholarships No 1.	£65.	....	Open Competitive Examination in PHYSICS and CHEMISTRY.	Full Course at St Bartholomew's Hospital.
	, No. 2.	£65.	....	Open Competitive Examination in BIOLOGY and PHYSIOLOGY.	Ditto.
	,, No. 3.	£130.	....	Open Competitive Examination in PHYSICS, CHEMISTRY, and BIOLOGY.	Ditto.
	Preliminary Scientific Exhibition.	£50[1]	....	Open Competitive Examination in PHYSICS, CHEMISTRY, and BIOLOGY.	Ditto.
	Jeaffreson Exhibition.	£20.	....	Open Competitive Examination in LATIN, MATHEMATICS, and GREEK, FRENCH, or GERMAN.	None.

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SCHOLARSHIPS GIVEN IN AID OF MEDICAL STUDY—*continued.*

INSTITUTION.	TITLE OF SCHOLARSHIP &C.	ANNUAL OR TOTAL VALUE.	HOW LONG TENABLE.	HOW OBTAINABLE.	CONDITIONS ATTACHED TO TENURE.
ST. BARTHOLOMEW'S MEDICAL SCHOOL—*continued.*	Shuter Scholarship.	£50.	....	Competitive Examination among Cambridge Graduates in ANATOMY, PHYSIOLOGY, and MATERIA MEDICA.	None.
	Junior Scholarship.				
	,, No. 1.	£40.	....	Competitive Examination among Students in ANATOMY and PHYSIOLOGY.	None.
	,, No. 2.	£20.	....	Ditto.	None.
	Senior Scholarship.	£50.	....	Competitive Examination among Students in ANATOMY, PHYSIOLOGY, and CHEMISTRY.	Study at St. Bartholomew's Hospital.
	Kirkes' Scholarship.	£30 and Medal.	....	Competitive Examination among Students in CLINICAL MEDICINE.	
	Brackenbury Scholarships.				
	,, No. 1.	£30.	....	Competitive Examination among Students in MEDICINE.	
	,, No. 2.	£30.	....	Competitive Examination among Students in SURGERY.	
	Lawrence Scholarship.	£42 and Medal.	....	Competitive Examination among Students in SURGERY, MEDICINE, and MIDWIFERY.	None
	Sir Geo. Burrows' Prize.	£10 10s.	....	Competitive Examination in PATHOLOGY among Students.	
	Skynner Prize.	£15.	....	Competitive Examination in REGIONAL and MORBID ANATOMY among Students.	
CHARING-CROSS HOSPITAL AND COLLEGE	Entrance Scholarships.				
	,, No. 1.	£105.	....	Open Competitive Examination in ENGLISH, LATIN, and MATHEMATICS, or alternative subjects.	Full Course Charing-cross Hospital.
	,, No. 2.	£52 10s.	....	Ditto.	Ditto.
	,, No. 3.	£52 10s.	....	Competitive Examination among Oxford and Cambridge Students in ANATOMY and PHYSIOLOGY.	Completion of Curriculum at Charing-cross Hospital.
	Llewellyn Scholarship.	£25.	....	Competitive Examination among Second-year Students in ANATOMY, PHYSIOLOGY, MATERIA MEDICA, MEDICINE, SURGERY, THERAPEUTICS, and MIDWIFERY.	None.
	Golding Scholarship.	£15.	....	Competitive Examination among Second-year Students in DESCRIPTIVE ANATOMY, PHYSIOLOGY, and CHEMISTRY.	
T. GEORGE'S HOSPITAL..	Entrance Scholarships.				
	,, No. 1.	£125.	....	Competitive Examination among First-year Students, being the sons of medical men, in LATIN, FRENCH, or GERMAN, and ELEMENTARY PHYSICS.	Course at St. George's School
	, No. 2.	£90.	....	Competitive Examination among Students who have passed First M.B. at Cambridge, in PRACTICAL CHEMISTRY, ELEMENTARY BIOLOGY, ELEMENTARY ANATOMY, and ELEMENTARY PHYSIOLOGY.	Ditto
	, No. 3.	£65.	....	Competitive Examination among Students being First M.B.'s of Oxford and Second M.B.'s of Cambridge, in ANATOMY and PHYSIOLOGY.	Ditto.
	,, No. 4.	£50.	....	Competitive Examination among Students in the same subjects as Entrance Scholarship No. 1.	Complete Course at St. George's School.
	,, No. 5.	£50.	....	Ditto.	Ditto.
	Wm. Brown Exhibition.	£100 per annum.	2 years.	Competitive Examination among Perpetual Students having registrable qualification in the PRACTICE OF MEDICINE, MIDWIFERY, and SURGERY.	None.
	,,	£40 per annum.	3 years.	Competition among Third-year Students in respect of fitness for Medical Profession.	None.
	Brackenbury Prize in Medicine.	Interest on £1077.	....	Competitive Examination among Students of not more than four years' standing.	None.
	Brackenbury Prize in Surgery.	Interest on £1077.	....	Competitive Examination among Students of not more than four years' standing.	None.
	Treasurer's Prize.	£10 10s.	....	Proficiency in Clinical Examination of three Medical and three Surgical Cases.	None.
	H. C. Johnson Memorial Prize.	£10 10s.	....	Competitive Examination among Second-year Students in PRACTICAL ANATOMY.	None.
	Pollock Prize.	Interest on £372.	....	Competitive Examination among Second-year Students in PHYSIOLOGY, PHYSIOLOGICAL CHEMISTRY, and HISTOLOGY.	None.
	General Proficiency Prizes.				
	,, No. 1.	£10 10s.	....	Competitive Examination among First-year Students in ELEMENTARY ANATOMY and MATERIA MEDICA, ELEMENTARY PHYSIOLOGY, and CHEMISTRY.	None.

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SCHOLARSHIPS GIVEN IN AID OF MEDICAL STUDY—*continued.*

INSTITUTION.	TITLE OF SCHOLARSHIP &C.	ANNUAL OR TOTAL VALUE.	HOW LONG TENABLE.	HOW OBTAINABLE.	CONDITIONS ATTACHED TO TENURE.
ST. GEORGE'S HOSPITAL—*continued.*	General Proficiency Prizes. No. 2.	£10 10s.	....	Competitive Examination among Second-year Students in ANATOMY, PHYSIOLOGY, and PHYSIOLOGICAL CHEMISTRY.	
	,, No. 3.	£10 10s.	....	Competitive Examination among Third-year Students in the PRINCIPLES and PRACTICE of MEDICINE and SURGERY, PATHOLOGY, and MIDWIFERY.	None.
GUY'S HOSPITAL..	Entrance Scholarships. No. 1.	£105.	....	Open Competitive Examination among Candidates under twenty years of age in LATIN, GREEK, FRENCH, GERMAN, ARITHMETIC, EUCLID, and ALGEBRA.	Course at Guy's Hospital.
	,, No. 2.	£52 10s.	....	Under twenty-five years of age, ditto.	Ditto.
	,, No. 3.	£131 5s.	....	Open Competitive Examination among Candidates under twenty-five years of age in INORGANIC CHEMISTRY, GENERAL BIOLOGY, and EXPERIMENTAL PHYSICS.	Perpetual Course at Guy's Hospital.
	Arthur Durham Prize.	£15	....	Dissection done by Students of more than one year's standing.	
		£50.		Competitive Examination among First-year Students in ANATOMY OF BONES, LIGAMENTS, and MUSCLES, PHYSIOLOGY, and CHEMISTRY.	None.
		£25.		Ditto.	Ditto.
		£25.		Competitive Examination among Second-year Students in ANATOMY, PHYSIOLOGY, and MATERIA MEDICA.	Ditto.
		£10.		Ditto.	Ditto.
	Michael Harris Prize.	£10.		Competitive Examination among Second-year Students in HUMAN ANATOMY.	Ditto.
	Sands Cox Scholarship.	£15 per annum.	3 years.	Competitive Examination among Second-year Students in PHYSIOLOGY, HISTOLOGY, and PHYSIOLOGICAL CHEMISTRY.	Course at Guy's Hospital.
		£25.		Competitive Examination among Third-year Students in ANATOMY (Medical and Surgical), DIAGNOSIS, OPERATIVE and MINOR SURGERY, MIDWIFERY, and THERAPEUTICS.	None.
		£10.		Ditto.	Ditto.
		£25.		Competitive Examination among Fourth-year Students in MEDICINE, SURGERY, DISEASES OF WOMEN, and MEDICAL JURISPRUDENCE.	None.
		£10.		Ditto.	Ditto.
	Golding Bird Prize.	£20 and Medal.		Competitive Examination among Fourth-year Students in DIAGNOSIS.	Ditto.
	Gurney Hoare Prize.	£25.		ORIGINAL REPORTS on Three Medical and Three Surgical Cases.	None.
	Beaney Prize.	£31 10s.		Competitive Examination among Students in PATHOLOGY.	Ditto.
KING'S COLLEGE	Warneford Scholarships. No. 1.	£25 per annum.	3 years.	Competitive Examination among Matriculated Medical Students in DIVINITY, ENGLISH, HISTORY, LATIN, GREEK, FRENCH, GERMAN, and MATHEMATICS.	Perpetual Course at King's College.
	,, No. 2.	£25 per annum.	3 years.	Ditto.	Ditto.
	,, No. 3.	£25 per annum.	2 years.	Ditto.	Ditto.
	,, No. 4.	£25 per annum.	2 years.	Ditto.	Ditto.
	,, No. 5.	£25 per annum.	2 years.	Ditto.	Ditto.
	,, No. 6.	£25 per annum.	2 years.	Competitive Examination among Matriculated Medical Students in the third year.	
	Sambrooke Exhibitions. No. 1.	£60.	....	Competitive Examination among Matriculated Students in MATHEMATICS, ELEMENTARY PHYSICS, INORGANIC CHEMISTRY, BOTANY, and ZOOLOGY.	Course either as Science or Medical Student at King's College.
	,, No. 2.	£40.	....	Ditto.	Ditto.
	Rabbeth Scholarship.	£20.	....	Competitive Examination among Matriculated Students in Science.	None.
	Science Exhibitions. No. 1.	£50 per annum.	2 years.	Competitive Examination among Candidates under nineteen years of age in MATHEMATICS, MECHANICS, PHYSICS, &c., or alternative Subjects.	None.
	,, No. 2.	£25 per annum.	2 years.	Ditto.	None
	Medical Scholarships. No. 1.	£40 per annum.	2 years.	Competitive Examination among Third- and Fourth-year Students	
	,, No. 2.	£30 per annum.	1 year.	Competitive Examination among Second- and Third-year Students.	
	,, No. 3.	£20 per annum.	1 year.	Competitive Examination among First-year Medical Students.	
	,, No. 4.	£20 per annum.	1 year.	Ditto.	
	,, No. 5.	£20 per annum.	1 year.	Ditto.	
	Sambrooke Registrarship. No. 1.	£50.	1 year.	Competitive Examination among Matriculated Medical Students who have filled certain appointments at hospitals.	
	,, No. 2.	£50.	....	Ditto.	
	Daniel Scholarship.	£20 per annum.	2 years.	Open Competitive Examination among six months' Laboratory Students.	

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SCHOLARSHIPS GIVEN IN AID OF MEDICAL STUDY—*continued.*

INSTITUTION.	TITLE OF SCHOLARSHIP &C.	ANNUAL OR TOTAL VALUE.	HOW LONG TENABLE.	HOW OBTAINABLE.	CONDITIONS ATTACHED TO TENURE.
KING'S COLLEGE—*continued.*	Tanner Prize.	£10.	....	Competitive Examination in OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.	None.
LONDON HOSPITAL	Entrance Scholarships. No. 1.	£60.	....	Competitive Examination among Students in subjects of Preliminary Scientific M.B. Examination at University of London.	
	,, No. 2.	£40.	....	Ditto.	
	Buxton Scholarships. No. 1.	£30.	....	Competitive Examination among Students in subjects of Preliminary Examination.	
	,, No. 2.	£20.	....	Ditto.	
		£20.	....	Competitive Examination in CLINICAL MEDICINE.	
		£20.	....	Competitive Examination in CLINICAL SURGERY.	
		£20.	....	Competitive Examination in CLINICAL OBSTETRICS.	
	Duckworth Nelson Prize.	£10.	....	....	
	Letheby Prize.	£30.	....	Competitive Examination in CHEMISTRY.	
		£25.	....	Competitive Examination in ANATOMY, PHYSIOLOGY, AND CHEMISTRY.	
		£20.	....	Competitive Examination in ANATOMY and PHYSIOLOGY.	
	Dressers' Prize ,, No. 1.	£15.	....	ZEAL, EFFICIENCY, and KNOWLEDGE OF MINOR SURGERY.	
	,, No. 2.	£15.		Ditto.	
	,, No. 3.	£10.	....	Ditto.	
	,, No. 4.	£10.	....	Ditto.	
ST. MARY'S HOSPITAL	Natural Science Scholarship. No. 1.	£105.	....	Competitive Examination among Students in NATURAL SCIENCE.	
	,, No. 2.	£52 10s.	....	Ditto.	
	,, No. 3.	£52 10s.	....	Ditto.	
	,, No. 4.	£52 10s.	....	Ditto.	
		£105.	....	Competitive Examination among Students from Epsom College being sons of Medical Men.	
		£52 10s.	....	Competitive Examination among University Students in SUBJECTS OF PRELIMINARY SCIENTIFIC EXAMINATION AT LONDON UNIVERSITY.	
		£52 10s.	....	Ditto.	
		£50.	....	Competitive Examination among Students entered in MATHEMATICS.	
		£50.	....	Competitive Examination among Students entered in CLASSICS.	
		£20.	....	Competitive Examination among First-year Students.	
		£25.	....	Competitive Examination among Second-year Students.	
		£30.	....	Competitive Examination among Third-year Students.	
MIDDLESEX HOSPITAL	Entrance Scholarship. No. 1.	£50 per annum.	2 years.	Open Competitive Examination.	Course at Middlesex Hospital.
	,, No. 2.	£30 per annum. £10 10s.	2 years.	Ditto. Competitive Examination among First-year Students in ELEMENTARY ANATOMY, OSTEOLOGY, and PHYSIOLOGY.	
	Broderip Scholarship. No. 1.	£30 per anuum.	2 years.	Competitive Examination among Students in CLINICAL SUBJECTS.	
	,, No. 2.	£20 per annum.	2 years.	Ditto.	
	Governor's Prize.	£21.	....	Competitive Examination among Third-year Students in CLINICAL SUBJECTS.	
ST. THOMAS'S HOSPITAL.	College Prizes. No. 1.	£15.	....	Competitive Examination among First-year Students.	
	,, No. 2.	£10.	....	Ditto.	
	,, No. 3.	£15.	....	Competitive Examination among Second-year Students.	
	,, No. 4.	£10.	....	Ditto	
	,, No. 5.	£15.	....	Competitive Examination among Third-year Students.	
	,, No. 6.	£10.	....	Ditto	
	Entrance Science Scholarship.		....		
	,, No. 1.	£131 5s.	....	Competitive Examination in PHYSICS, CHEMISTRY, BOTANY, or ZOOLOGY.	{Perpetual Course.
	,, No. 2.	£60.	....	Ditto.	Ditto.
	Wm. Tite Scholarship.	£27 10s.	....	Competitive Examination among First-year Students	
	College Prize.		....		
	,, No. 7.	£20.		Ditto.	
	,, No. 8.	£10.	....	Ditto	
	Musgrove Scholarship.	£38 10s.	2 years.	Competitive Examination among Second-year Students.	
	Peacock Scholarship.	£38 10s.	2 years.	Ditto.	
	Grainger Testimonial Prize.	£15.	1 year.	Series of Preparations and Dissections.	
	College Prize. ,, No. 9.	£20.	....	Ditto.	
	,, No. 10.	£10.	....	Ditto.	
	,, No. 11.	£20.	....	Com. Exam. among 3rd-year Students.	

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SCHOLARSHIPS GIVEN IN AID OF MEDICAL STUDY—*continued.*

INSTITUTION.	TITLE OF SCHOLARSHIP &C.	ANNUAL OR TOTAL VALUE.	HOW LONG TENABLE.	HOW OBTAINABLE.	CONDITIONS ATTACHED TO TENURE.
ST. THOMAS'S HOSPITAL—*continued.*	Coll. Prize, No. 12.	£15.	....	Com. Exam. among 3rd-year Students.	
	,, No. 13.	£10.	....	Ditto.	
UNIVERSITY COLLEGE, LONDON.	Entrance Exhibitions. No. 1.	£100.	....	Ditto. Open Competitive Examination in CHEMISTRY, PHYSICS, BOTANY, and ZOOLOGY.	Perpetual Course at University College.
	,, No. 2.	£60.	....	Ditto.	Ditto.
	,, No. 3.	£40.	....	Ditto.	Ditto.
	Atkinson Morley Scholarship.	£45 per annum.	3 years.	Theory and Practice of Surgery.	
	Atchison Scholarship.	£55 per annum.	2 years.	Competitive Examination among Medical Students.	
	Sharpey Physiological Scholarship.	£105.	3 years.	Proficiency in Biological Science.	
	Filliter Exhibit'n.	£30.	1 year.	Competitive Examination among Students in PATHOLOGICAL ANATOMY.	
	Clough Mem. Prize.	£15.	....	Competitive Examination among Students in ANATOMY, PHYSIOLOGY, and CHEMISTRY.	
	Erichsen Prize.	£10 10s. and instruments.	....	Practical Surgery.	
	Morris Bursary.	£25.	2 years.	....	
WESTMINSTER HOSPITAL.	Natural Science Entrance Scholarship.	£100.	....	Competitive Examination in subjects of Preliminary of London University.	
	Entrance Scholarship. No. 1.	£40 per annum.	2 years.	Open Competitive Examination among Candidates under twenty-five years of age in LATIN, MATHEMATICS, EXPERIMENTAL PHYSICS, CHEMISTRY, and FRENCH or GERMAN.	Perpetual Course at Westminster Hospital
	Guthrie Scholarship.	£40 per annum.	2 years.	Ditto.	Ditto
	Entrance Scholarship. No. 2.	£40 per annum.	2 years.	Ditto.	
	,, No. 3.	£20 per annum.	2 years.	Ditto.	
	,, No. 4.	£20 per annum.	2 years.	Ditto.	
	,, No. 5.	£10 per annum.	2 years	Ditto.	
	,, No. 6.	£10 per annum.	2 years.	As above, save that Dental Students only can compete.	
	Rutherford Alcock, Governors.	£20 per annum.	2 years	Open Competition in CHEMISTRY and EXPERIMENTAL PHYSICS.	
	Senior Scholarship. ,, No. 1.	£20 per annum.	2 years.	Competitive Examination among Oxford and Cambridge Students in ANATOMY and PHYSIOLOGY.	
	,, No. 2.	£20 per annum.	2 years.	Ditto.	
	Treasurer's Prize.	£10 10s.	....	Competitive Examination among First-year Students in ANATOMY, PHYSIOLOGY, and CHEMISTRY.	
	President's Prize.	£21.	....	Competitive Examination among Second-year Students in ANATOMY, PHYSIOLOGY, and HISTOLOGY.	
	Chadwick Prize.	£20 in books or instruments.	....	Competitive Examination among Medical Students in ANATOMY, PHYSIOLOGY, HISTOLOGY, MEDICINE, SURGERY, and MIDWIFERY.	
QUEEN'S COLLEGE, BIRMINGHAM.	Sands Cox Prize.	£20.	....	Competitive Examination among Students who have completed their curriculum in MEDICINE, SURGERY, and MIDWIFERY.	
	Sydenham Scholarship.	£10 10s. per annum.	3 years.	Award of Council to orphan sons of Medical Practitioner.	
	Queen's Scholarship.	£10 10s. per annum	3 years.	Competitive Examination among sons of Medical Practitioners under twenty years of age in ARTS SUBJECTS and CHEMISTRY and OSTEOLOGY.	
BRISTOL MEDICAL SCHOOL.	Entrance Scholarship. No. 1.	£36 15s	....	Competitive Examination among Medical Students in Subjects of GENERAL EDUCATION.	Perpetual Students.
	No. 2.	£10 10s.		Ditto.	
	Clark Prize.	£15 15s.	....	Class Work of Third-year Students.	
LEEDS SCHOOL OF MEDICINE.	Entrance Scholarship	£63.		Competitive Examination among Medical Students who have passed Preliminary Scientific Examination at London or Victoria University.	Perpetual Course at Leeds School.
		£42.	....	....	
	Hardwick Prize.	£10.	....	Competitive Examination among Clinical Clerk Students of two years' standing in CLINICAL MEDICINE.	
UNIVERSITY COLLEGE, LIVERPOOL.	Holt Tutorial Scholarship.	£100.		Vote of Faculty to Student of not less than two years' standing.	Teaching and Original Research.
	Lyon Jones Scholarship. No. 1.	£21 per annum.	2 years.	Open Competitive Examination among Students in ARTS SUBJECTS.	Perpetual Course at Victoria University.
	, No. 2.	£21.	....	Competitive Examination among Third-year Students in ANATOMY, PHYSIOLOGY, CHEMISTRY, and MATERIA MEDICA.	
	Derby Exhibition.	£15.	....	Competitive Examination among Third or Fourth-year Students in CLINICAL SUBJECTS.	
ANDERSON'S COLLEGE, GLASGOW.	Kerr Bursary.	One-third of Income from £1000.		Competitive Examination among Students of the JUNIOR ANATOMY CLASS.	

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CHANGES IN THE MEDICAL SCHOOLS.

DURING the past year there have been few changes in the constitution of the working staffs of the various London hospitals, while there have been some deaths amongst those on the consulting staffs. Guy's Hospital has suffered in this respect more than the others, having lost Dr. G. Owen Rees, cousulting physician, Dr. Habershon, a former physician, and Dr. Wooldridge, an assistant physician; the vacancy thus caused in the assistant staff was filled by the appointment of Dr. Shaw. St. Mary's has lost its senior consulting physician, Dr. Chambers; Middlesex a consulting physician, Dr. Headlam Greenhow; Westminster a consulting physician, Dr. C. B. Radcliffe. Dr. Gowers has resigned at University College Hospital, and Dr. Bradford has been appointed on the assistant staff. Dr. Gamgee, Assistant Physician to St. George's, has also resigned, and has been succeeded by Dr. Penrose. Dr. Hebb has been appointed Assistant Physician to Westminster Hospital. Mr. Henry Smith was succeeded on his resignation as Surgeon to King's College Hospital by Mr. Rose, and Mr. Penny was appointed Assistant Surgeon, but resigned later, Mr. Carless succeeding him.

At *St. Bartholomew's Hospital* there have been various changes in the lecturers. Mr. Savory resigned the lectureship in Surgery at the close of the last session, and Messrs. Willett and Howard Marsh have been appointed Joint Lecturers on this subject. Mr. Walsham and Mr. Bruce Clarke are the new lecturers on Anatomy, instead of Messrs. Langton and Howard Marsh. Mr. Bowlby takes the subject of Practical Surgery, and Mr. D'Arcy Power that of Surgical Pathology; these gentlemen also conduct the course of Practical Surgery during the summer session, instead of Messrs. Butlin and Walsham. Mr. Lockwood takes the class in Operative Surgery during the Summer. Dr. Herringham has been appointed one of the Anatomical Demonstrators, and Dr. Lewis Jones will share with Dr. Harris the Demonstrations in Practical Physiology.

At *Charing Cross* there have been no changes in the medical staff. In the school some new lectures have been commenced, those on Surgical Pathology to be given by Mr. Morgan, on Therapeutics by Dr. Bruce, and on Public Health by Mr. Heaton. Mr. Boyd takes charge of the classes on Practical Surgery and Operative Surgery, Mr. Pearce giving demonstrations in Practical Pharmacy instead of Mr. Sandall. Messrs. Wallis and Woolett have been appointed Demonstrators in Anatomy.

At *St. George's Hospital*, Dr. Penrose has been elected Assistant Physician in the vacancy caused by the resignation of Dr. Gamgee. Mr. Rideal lectures on Chemistry in the Winter Session, and takes the course on Practical Chemistry in the summer. Mr. Lancaster has been appointed a Demonstrator in Anatomy.

Guy's Hospital has suffered loss in the deaths of a consulting physician—Dr. G. Owen Rees; an assistant physician—Dr. Leonard Wooldridge, who was also a lecturer on Physiology; and one who, though formerly a physician and at the time of his decease holding no appointment at the hospital, was ever a sincere friend to Guy's—Dr. Habershon. The vacancy caused by the death of Dr. Wooldridge has been filled by the appointment of Dr. Lauriston Shaw, who becomes one of the Demonstrators in Pathology and Morbid Anatomy. Mr. Davies-Colley has become Joint Lecturer on Surgery with Mr. Howse, in the place of Mr. Durham; and is succeeded as Joint Lecturer in Anatomy by Mr. Jacobson. Mr. Golding Bird lectures on Physiology, the practical demonstrations during the summer session being given by Messrs. Starling and Tubby. Mr. Symonds conducts the classes in Operative Surgery, and is joined by Mr. Lane in the course of Practical Surgery. These gentlemen also conduct the Surgical classes. The lectures on Biology are shared with Mr. Beddard by Mr. Campbell. Mr. Targett has been appointed a Demonstrator of Anatomy in the place of Mr. Poland. It will also be recollected that this school has added a special Dental to its other teaching departments.

At *King's College Hospital*, a vacancy occurred on the surgical side, owing to the resignation of Mr. Henry Smith, who was made Consulting Surgeon to the hospital and Emeritus Professor of Surgery. Mr. Rose was appointed Surgeon, and the vacancy caused in the assistant staff filled up by the appointment of Mr. W. J. Penny. A new professorial post has been instituted (that of Neuro-pathology), and Dr. Ferrier has accepted the responsibilities of the chair; and Dr. W. R. Smith has been appointed to the chair of Forensic Medicine, vacated by Dr. Ferrier. Mr. Carless has been appointed Assistant Surgeon in the place of Mr. W. J. Penny (who has gone to Bristol), and assists Mr. Barrow in the course on Practical Surgery. Mr. A. S. Underwood has been appointed Dental Surgeon and Lecturer on Dental Surgery. Dr. Dalton shares with Dr. Duffin the lectures on Pathology and Morbid Anatomy, and is also Demonstrator of Morbid Histology and Practical Pathology. Mr. W. K. Dale has been appointed Demonstrator of Bacteriology. Mr. Webb gives practical teaching in Vaccination.

At the *London Hospital* Mr. C. Mansell Moullin has been appointed Surgeon to Out-patients, otherwise there have been no changes. No one has been nominated to fill the post of Lecturer on Materia Medica and Therapeutics, vacant by the resignation of Dr. James.

St. Mary's Hospital.—With the exception of the recent death of Dr. Thomas King Chambers, senior consulting physician, there have been no changes either in the constitution of the visiting staff or the appointments of lecturers. A new out-patient department for children has been instituted, to which Dr. Phillips and Mr. Owen are Physician and Surgeon respectively. Mr. J. J. Clarke has been appointed Curator of the Museum, and Mr. Roughton, one of the Senior Demonstrators of Anatomy. Mr. Herbert W. Page has been appointed Dean of the School in the place of Mr. Field, resigned; the office of Sub-dean has been abolished, and in place thereof a School Secretary has been appointed.

Middlesex Hospital.—This hospital has to mourn the loss of Dr. Headlam Greenhow, consulting physician, whose death took place on Dec. 22nd of last year. Dr. Edis has resigned the posts of Obstetric Physician and Lecturer on Midwifery, and has been succeeded in these by Dr. William Duncan. Dr. Robert Boxall has been appointed Assistant Obstetric Physician and Lecturer on Practical Midwifery. Dr. Wynter has been appointed Medical Registrar in succession to Dr. W. Pasteur, and to him has been given the charge of the Electrical Department. Mr. Carwardine has been appointed Third Demonstrator in Anatomy, in the place of Mr. Vickery. Mr. Laurie takes charge of a class in Advanced Physiology, and Mr. Bland Sutton of one in Morphology for the higher examinations.

At *St. Thomas's Hospital* there have been no changes in the medical staff. Much regret is felt at the departure of Mr. Sidney Plowman for Australia. He was a very popular lecturer, and succeeded in making the subjects of Materia Medica and Practical Pharmacy interesting, as was proved by the large attendance at his lectures. Dr. Hadden and Dr. Acland have been appointed Medical Tutors, and will hold classes weekly.

At *University College Hospital*, Dr. Gowers has resigned the appointment of Physician and been made a Consulting Physician. Professor V. Horsley will lecture on General Pathology as well as on Pathological Anatomy. Mr. Bilton Pollard returns to the Anatomical Department as a Demonstrator with Professor Thane.

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At *Westminster Hospital*, the consulting staff has lost one of its physicians, Dr. C. B. Radcliffe. Dr. Hebb has been appointed Assistant Physician. Dr. Mercier succeeds Dr. Sutherland as Lecturer on Mental Diseases. In the course on Practical Surgery, Mr. Davy will be assisted by Messrs. Stonham and Spencer.

At *Birmingham* (Queen's College), Mr. Claye succeeds Dr. Bassett in the lectureship on Midwifery, and Mr. Lawson Tait lectures on Gynæcology.

At *Bristol*, Mr. Penny has returned as surgeon to the General Hospital, and takes charge of the class in Operative Surgery in the Medical School, where Dr. Williams has followed Mr. Whishaw as Demonstrator in Anatomy.

At *Cambridge* there have been no changes either in the medical staff of Addenbrooke's Hospital or in the University lectures.

At *Leeds* there are no changes.

At *Newcastle-on-Tyne*, Mr. Williamson has been appointed surgeon in succession to Mr. Armstrong, and Mr. J. R. Morrison to the vacancy on the assistant staff. At the University of Durham School of Medicine, Dr. Howden lectures on Anatomy and takes charge of the Anatomical department.

There are no changes in the *Sheffield School of Medicine*.

At *University College* (Liverpool), Mr. Leigh succeeds Mr. Larkin as Demonstrator in Practical Physiology, and Dr. Thomas has been appointed Demonstrator in Anatomy.

At *Owens College* (Victoria University) *School of Medicine* Professor Hare now occupies the chair in Surgery and also takes the course in Operative Surgery. Mr. Brooke takes the new department of Dermatology. Mr. Smith has been appointed a Demonstrator in Anatomy. Mr. Tanner takes a class in Dental Mechanics, and Mr. Hooton one in Dental Anatomy.

At the *University of Edinburgh* there have been no changes.

At the *Edinburgh School of Medicine*, Dr. A. Bruce takes the entire course in General Pathology. Dr. Gibson has succeeded Dr. James as a Lecturer on Medicine. Dr. Stockman becomes Joint Lecturer with Dr. Craig on the subject of Materia Medica. In the department of Midwifery and Diseases of Women Drs. Bell and Milne Murray are joined by Drs. Matheson, Young, Brewis, and H. Croom; while Messrs. Avison, Rymer, Paterson, and Aitken strengthen the department of Practical Chemistry. Mr. Morrison lectures on Natural History.

At the *University of Aberdeen*, Professor Struthers has resigned the chair in Anatomy, and the vacancy thus created has not yet been filled. Dr. Blaikie Smith is recognised as a teacher in Clinical Medicine. Dr. McWilliam takes the course in Histology, and Mr. Carnelley that in Practical Chemistry. At the *Aberdeen Royal Infirmary*, Dr. Hall has been elected Assistant Surgeon, and Dr. McK. Davidson, Assistant Surgeon in the Ophthalmic Department.

Glasgow.—At Anderson's College Medical School, Dr. W. L. Reid has succeeded Dr. Wallace as Lecturer in Midwifery and Diseases of Women. Mr. J. R. Watson has been appointed Lecturer on Chemistry in place of Dr. Dittmar, and conducts the course of Practical Chemistry during the summer session.——At the Western Medical School in Glasgow, Dr. Kelly succeeds Dr. Reid in the Lectureship on Midwifery and the Diseases of Women. Dr. P. C. Smith lectures on Medical Jurisprudence.

At *Dublin University*, Mr. Macna has been appointed Lecturer on Midwifery and the Diseases of Women. There is no change in the appointments at the Royal College of Surgeons, Dublin, and the same statement applies to the appointments in the Ledwich School of Surgery and Medicine.

At the *Carmichael College* (Dublin), Dr. Macan takes the lectures on Midwifery and the Diseases of Women. Dr. Tichborne lectures on Practical Chemistry (assisted by Dr. Piel), also on General Chemistry. Messrs. Barton, Acock, Craig, McAulay, Graves, Drury, and Grandy are appointed Demonstrators in the Anatomical Department.

There is no change in the *Dublin Catholic University*.

At *Queen's College*, Belfast, Dr. Campbell succeeds Dr. Sinclair in the department of Practical Anatomy; and Dr. Sinclair has been appointed Lecturer on Surgery.

At *Queen's College*, Cork, Dr. E. R. Townsend succeeds Dr. D. C. O'Connor in the post of Lecturer on Medicine.

At *Queen's College*, Galway, there is no change.

A TABULAR VIEW OF THE DAYS OF OPENING OF SESSION, AND HOURS OF THE INTRODUCTORY LECTURES

To be delivered at the different Medical Schools.

	Lecturers.		Days and Hours.
St. Bartholomew's Hospital	(No Lecture) ...	Oct.	1st
Charing-cross Hospital	(No Lecture) ...	,,	1st
St. George's Hospital	Dr. T. C. Allbutt	,,	1st 4
Guy's Hospital	(No Lecture) ...	,,	1st
King's College	(No Lecture) ...	,,	1st 4
London Hospital	(No Lecture) ..	,,	1st
St. Mary's Hospital	Dr. Maguire ...	,,	1st 4
Middlesex Hospital	Mr. J. B. Sutton	,,	1st 3
St. Thomas's Hospital	Mr. W. Anderson	,,	1st 3
University College	Mr. R. J. Godlee	,,	1st 4
Westminster Hospital	Dr. P. S. Abraham	,,	2nd 4
Sheffield School of Medicine	Mr. Chas. Atkin	,,	1st 5
St. Mungo's College and Glasgow Royal Infirmary Sch. of Medicine	(No Lecture) ...	,,	23rd
School of Pharmacy of the Pharmaceutical Soc. of Great Britain	Professor Marshall	,,	2nd 8

MEDICAL TEACHERS.

Dr. ALTSCHUL has made Stuttering, Lisping, Falsetto, recent or of long standing, due to Nervousness, &c., irrespective of age or sex (without any mechanical appliances), his special, life-long study. The voice developed and strengthened.—9, Old Bond-street, W.; and at Brighton and Hastings.

Messrs. BAILLY and COATES prepare candidates for Matriculation, and the Preliminary Examinations at Apothecaries' Hall and College of Preceptors. Careful preparation in Theoretical and Practical Chemistry, Physics, Botany, Materia Medica, and Practical Pharmacy for professional examinations. Laboratory fitted with every requisite.—Preliminary Medical School, 30-32, Ludgate-hill, London, E.C.

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Mr. A. H. DAWES, 1st B.A. Lond., gives lessons privately, in class or by post, (in preparation for the London Matriculation and Medical Preliminary Examinations.—31, Southampton-street, Strand, W.C.

Mr. JOHN EVANS, M.A. (in co-operation with his son, J. RHYS EVANS, B.A., Lond., B.A. Cantab., Sen. Opt. and late Scholar of Christ's College, Cambridge), prepares candidates for all Examinations.—Queen's-park, Oswestry.

Mr. J. GIBSON, M.A., prepares candidates for the London Matriculation, and Preliminary Medical and Legal Examinations.—Quernmore, Bromley, Kent, and 24, Chancery-lane, E.C. Mr. Gibson brings out directly after each examination a "Guide" containing the questions set at the examination, followed by solutions in full.

Mr. A. ENT. GOOCH, B.A.Lond., prepares for Matriculation and Preliminary Medical Examinations.—33, Alfred-place, Gower-street, W.C.

Dr. CRESSWELL HEWETT prepares for the San. Science Cert, and all Examinations.—50A, Lincoln's-inn-fields, W.C.

Mr. THOMAS LYLE, M.A., F.R.Hist.S., of the London and Dublin Universities, prepares gentlemen, resident and non-resident, or by correspondence, for the various Preliminary Arts Examinations and Matriculation at the London and Cambridge Universities.—Grove House, Shacklewell-lane, London, N.E.

Mr. A. J. MAINWARING, M.A., prepares candidates for all Preliminary Examinations.—115, Edith-road, West Kensington.

Mr. H. SERGEANT, B.A.Lond., holds special classes, morning and evening, for London University Matriculation, the Preliminary Medical Examinations, &c.—University Institute, 192, Euston-road.

Mr. V. BUTLER SMITH assists pupils in reading up for the London Matriculation, and Legal, Medical, and Pharmaceutical Preliminary Examinations.—Polytechnic, 309, Regent-street, W.

Mr. W. H. VERNON, M.P.S., prepares candidates for Medical and Pharmaceutical Preliminary Examinations and Matriculation.—72, Aubert-park, Highbury, N.

Mr. HENRY WAITE prepares pupils for Matriculation, Preliminary Scientific, and the Examinations for Medical Registration of all the licensing bodies.—342, Strand, W.C.

Mr. H. W. WHITE educates Deaf and Dumb Children of the higher classes on the Pure Oral system; also deals with cases of Defective Speech, and has many testimonials from parents.—115, Holland-road, Kensington.

Mr. J. WOODLAND, F.L.S., F.C.S., holds classes and demonstrations in Practical and Theoretical Chemistry, Chemical Physics, Materia Medica, and Pharmacy. These classes are held for candidates for the Primary L.R.C.P. and the M.B. degree of the different Universities, at the Central School of Chemistry.—173, Marylebone-road, N.W.

Mr. W. VAN PRAAGH has made the cure of all Defects of Speech, both acquired and congenital, his special study.—11, Fitzroy-square, W.

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Annotations.

"Ne quid nimis."

THE BRITISH ASSOCIATION AT NEWCASTLE-ON-TYNE.

APPEARANCES augur well for a large meeting of the British Association next week at Newcastle. At a meeting of the Hospitality Committee last week, the Mayor in the chair, one of the hon. secretaries, Professor Merivale, reported that over 1000 strangers had signified their intention of being present, and, as the majority of the members do not usually send in their names until the first day, the attendance thus promises to be very large. The first draft programme of the contemplated proceedings has been prepared, and sets forth that there will be eight sectional meetings. These, for the most part, will be held in a convenient group of buildings between the Newcastle College of Medicine and the Durham College of Physical Science, which, it should be remembered, is also in Newcastle. Besides the sectional meetings there will be various evening meetings. The first will take place on Wednesday, the 11th inst., when Sir F. J. Bramwell will resign the chair, and Professor W. H. Flower, president-elect, will assume the presidency and deliver a lecture. On Friday, Sept. 13th, the first evening lecture will be given by Professor W. C. Roberts-Austen on "Hardening and Tempering of Steel." The second evening lecture will be given by Mr. Walter Gardener on Sept. 16th, the subject being "How Plants maintain themselves in the Struggle for Existence." All the evening meetings will be held in St. George's Hall. The concluding general meeting will be held in the College of Physical Science on Wednesday, Sept. 18th, at half-past two o'clock. On Saturday, Sept. 14th, the University of Durham will give an invitation luncheon in the Castle, Durham, which will be followed by Convocation, when degrees will be conferred on several distinguished visitors. Mrs. Newall has consented to allow members to inspect the large refraction telescope made for Alderman Newall. It is the largest instrument of the kind belonging to any private individual, and, having been presented to the University of Cambridge, it will be removed after the meeting. Musical services will be held in Newcastle Cathedral, and a grand choral and orchestral concert in the Town Hall. Besides, Lord Armstrong will invite the Association to his banqueting hall at Jesmond Dene, as he did on its last visit. A large number of works in Newcastle and neighbourhood will be thrown open to visitors, which, as they are now in full manufacturing swing, must be replete with interest. The North of England Microscopical Society will assist at the *soirées*. Messrs. Barkas and Son, the lessees of the Central Exchange Art Gallery, will throw open their very fine exhibition of local art to members. The gallery itself is one of the finest pillared rooms in England. The week will finish up with various well-planned and interesting excursions.

DEATH OF MR. WALTER COULSON.

WE have much regret in having to announce the death of Mr. Walter Coulson, F.R.C.S. Eng., which occurred somewhat suddenly on Friday, the 30th ult., at the age of fifty-five. The following are the principal facts regarding the melancholy event, so far as we have been able to ascertain:—On Wednesday, Aug. 21st, Mr. Coulson, having suffered a long while from chronic rhinitis and exostoses in the external auditory meatus on both sides, underwent cauterisation treatment at the hands of Mr. Lennox Browne, who at the same time removed the uvula. On the Saturday following, Aug. 24th, Mr. Coulson complained of intense pain in the right ear. This became excessive by Sunday night, when the tympanic membrane burst and discharged pus through the external meatus. The pain was referred by Mr. Coulson to the back of the head. No symptoms of mastoiditis presented themselves. On Monday, the 26th, he had a slight rigor, and then commenced the grave nervous symptoms. On Thursday, Aug. 29th, Dr. Hughlings Jackson saw him and found him nearly comatose, hemiparetic, and with a high temperature. Diagnosing cerebral abscess in a preliminary stage, he strongly urged trephining. Mr. Victor Horsley saw Mr. Coulson the same day, two hours later, and found left graduated hemiplegia from the face downwards, conjugate deviation of the head and eyes to the right; diminution of the deep reflexes on the left side, exaggeration of those on the right, temperature ·6° higher on the paralysed side, &c. Mr. Horsley therefore made the diagnosis of suppurative meningitis extending over the motor area. Trephining as an exploratory measure was then resorted to. The temporo-sphenoidal lobe was exposed, and the dura mater opened. Very little clear cerebro-spinal fluid escaped, and the brain bulged, but repeated tappings failed to strike pus anywhere. Trephining over the middle of the fissure of Rolando revealed a large area in which the membranes were infiltrated with pus to the depth of a quarter of an inch, and the brain was softened beneath for a considerable distance. It was clearly impossible to do more, especially in view of the patient's critical condition. During the night Mr. Coulson recovered consciousness so far as to give rational answers to questions, and he evidently understood the conversation in the room. However, the progress of the malady could not of course be arrested. The temperature rose to 104°, pulse to 140, and respiration to 50 per minute, and he died at a few minutes to 5 on Friday afternoon. Mr. Walter Coulson, who was practically the founder of St. Peter's Hospital for Stone, was nephew of the late Mr. William Coulson, Surgeon of St. Mary's Hospital.

IMPORTANCE OF BUSINESS HABITS.

MANY a professional man, be he clergyman, lawyer, or medical practitioner, has had reason to be thankful that he was first of all put into "business," and was thus given some knowledge of accounts and of business habits. On the other hand, how frequently have professional men—men perhaps of great ability and learning—had to deplore the loss of money, of reputation, or of friends, through carelessness and ignorance in matters of business. In the old days of apprenticeship, not by any means the least of the advantages of the early work in the surgery was that the pupil learned to "keep the books." Now, fortunately, the system of charging by the visit, rather than by the number and size of the bottles of medicine ordered, is so general that "keeping the books" need not necessarily be nearly so arduous and complicated a matter as it used to be. Still, if not done accurately, and if the posting of the ledger and the sending out of the accounts be not done regularly, very serious loss and discredit are likely to accrue. The simplest plan, by the way, is to put down all the work done in the visiting-list, and either to jot down the weekly amount after the Sunday column, and post that into the ledger, or to arrange some intelligible system of signs, by combining crosses and letters, or figures, so that the visits, medicines, and other items can simply be counted up at the end of the month or of the attendance, and their number posted in the ledger, the operation there being then chiefly multiplication rather than addition. If, for example, a patient has had 16 visits and 10 medicines, the charge being 2*s.* 6*d.* per visit and 1*s.* 6*d.* per medicine, it is far easier to calculate $16 \times 2s.\ 6d. = £2$, and $10 \times 1s.\ 6d. = 15s.$,

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total £2 15*s.*, than to add up the daily amounts in a long column, consisting, as they would probably, of items of 2*s.* 6*d.*, 1*s.* 6*d.*, and 4*s.* Again, many an account which ultimately becomes a bad debt would be promptly paid if the practitioner could, when asked about it, take out his visiting-list and satisfy the inquiry of his client.

THE TEACHING OF SANITARY SCIENCE.

THE teaching of subjects relating to the Public Health is now undertaken at several of the medical schools, and students are there prepared for examination for the several diplomas in Sanitary Science and for holding the appointment of medical officer of health. The result of the passing of the Local Government Act has been a considerable increase in the number of candidates for these diplomas, and necessarily the teaching of this branch of professional knowledge has been carried on more actively in the metropolis than heretofore. But for the efficient education of Public Health officials it is very necessary that some effort should be made to combine the teaching in the several schools in some central institution. The difficulty of maintaining a sufficient laboratory and of arranging for a systematic course in a school where only a limited number of students are intending for themselves a public health career must necessarily militate against the efficiency of the teaching. It would be well if some agreement could be come to among the medical schools for the purpose of putting public health education in the metropolis on a better footing.

DEATH OF DR. M. PERRIN.

OUR Paris correspondent writes:—"I regret to have to report the death of Dr. Maurice Perrin, President of the Academy of Medicine. He was an Inspector-General of Health on the retired list, formerly Director of the School of Val-de-Grâce, Principal Medical Officer of the Army of Marshal de Macmahon in 1870, and Commander of the Legion of Honour. Dr. Perrin was a native of Vezelise (Meurthe), and went through his medical studies at Paris. He soon distinguished himself, and was appointed Professor of Operative Surgery and Director of Ophthalmology and Optometry at the Military School of Medicine and of Pharmacy. Dr. Perrin has published, among other works' "The *rôle* of Alcohol and of Anæsthetics in the Organism,' a "Treatise of Surgical Anæsthesia," and a "Treatise of Ophthalmoscopy and of Optometry." Dr. Perrin, who was sixty-three years of age, died on Sunday last at his native town, after a short illness. His funeral took place at Vezelise.

THE UNIVERSITY OF BERLIN AND POOR STUDENTS.

IT is reported that the Senate of the University of Berlin deprecates the substitution of free study for poor students in place of the present system of allowing such to obtain instruction and attend lectures on credit. The Senate believes that such an innovation might make it impossible for the poorer men to matriculate, as they might have too much pride to accept as a gift what they now merely get on credit.

POST-GRADUATE CLASSES IN LONDON.

WE would draw attention to the scheme, of which full details appear in our advertising columns, for establishing a complete course of post-graduate instruction in connexion with some of the hospitals in the metropolis which have no medical schools attached to them. Each of these institutions has already done much to promote the clinical study of the class of disease to which it is devoted. The co-operation of the several staffs in still further extending their sphere of usefulness is a new departure, which will, we trust, be justified in the success of the project. The courses which have been carried on during the past few years at Charing-cross Hospital have shown that there is a demand for such classes; and the present scheme is likely to be attractive to the practitioner.

VARYING CUSTOMS IN PRACTICE.

A GOOD deal of annoyance is sometimes experienced by a practitioner who, when about to take a holiday, omits to explain to his locum tenens a few minor matters regarding the way his practice is worked; for example, the fees for people who come to the surgery, whether medicine is sent or is to be sent for, the vaccination arrangements, &c. In some practices it is usual to visit confinement cases daily for nine days, and to give a bottle or two of medicine, however well they are doing, and however small a fee they pay. In others, "guinea cases" are only given three after-visits, and no medicine is supplied for mother or child without extra charge. "Locums" who forget that they have the latch-key in their pockets until they are in the train sometimes cause their late principals a considerable amount of annoyance.

FOREIGN UNIVERSITY INTELLIGENCE.

Kiel.—The names of Drs. Anschütz of Bonn and Gabriel of Berlin are mentioned for the vacant chair of Chemistry.

Prague (German University).—Dr. Rudolf Ritter Jaksch von Wartenhorst, Extraordinary Professor of Children's Diseases in the University of Graz, has been appointed Professor of Special Medical Pathology and Therapeutics, with charge of the Second Medical Clinic.

Vienna.—Dr. Rudolf Chrobak has been promoted to the second chair of Obstetrics, with charge of the Second Obstetric Clinic.

AT a meeting of Aberdeen University Court, a few days ago, the resignation of Dr. John Struthers as Professor of Anatomy in the University was formally accepted. The Court also acquiesced in Dr. Struthers' petition that the year which he served in Edinburgh as *locum tenens* for a professor there should be reckoned with the period of his tenure of the Aberdeen chair. The Principal and others passed high tributes on Dr. Struthers' long and honourable services in the cause of medical education in connexion with the University.

THE first International Congress of Physiologists will be opened at Basle on Sept. 10th next, and will sit for three days.

SMYRNA and CONSTANTINOPLE are reported to be suffering from an outbreak of febrile disease.

Correspondence.

"Audi alteram partem."

THE M.D. DEGREE OF THE UNIVERSITY OF BRUSSELS.

"F.R.C.S., L.R.C.P. Lond.," writes as follows:—

Having felt the want myself of some definite information about the examination for this degree, I venture to submit the following notes in reference to the style and the questions asked, which will be of use to those who intend to present themselves for examination.

As regards the subjects in the First Doctorate, Pathology is most important, the examination in this subject requiring very complete answers, as it is not sufficient to have a

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general idea of the microscopic appearances of the morbid tissues. Last time the following questions were asked:—Tænia solium: Describe its life-history and minute structure of head and segments—viz., uterus, testes, penis, and ovaries. Acarus scabei: Give a description of its three stages. Trichnia spiralis: Describe its life-history and stages. Make a sketch of these parasites, showing the shape of their different organs. Describe the structure of sarcomas, also amyloid disease of different organs (these require a very minute description to satisfy the examiner). Draw the shape and describe the process of staining the more important bacilli—such as tubercle, leprosy, &c.; also the structure of tubercle, epithelioma, and carcinoma. For this part of the examination, Green's Pathology is a book worth reading carefully, and also that of Woodhead. Medicine in the first examination is rather stiff, as the examiner requires a complete answer to his question, and he generally keeps to the one question. The questions asked were: What is Hydræmia, and in what diseases is it found? Glycosuria, including volumetric tests for sugar; enteric fever, with symptoms and treatment during the different stages; hæmoptysis, with all the causes and treatment; acute pneumonia, with the physical signs and their value. In Therapeutics, Mitchell Bruce's book will supply all the necessary information. Mental diseases are asked, but only a general idea is required: such as delirium of persecution, with its prognosis; primary symptoms of melancholia and its varieties; amentia, dementia, and acute and chronic mania. The same examiner asked questions on general pathology and physical signs. The First Doctorate is certainly the most difficult, owing to the fact that generally only one question is asked by each examiner and that a very complete answer is required. Out of twelve qualified candidates who presented themselves five were rejected.

In the Second Doctorate, questions were asked on General Midwifery and Gynæcology, such as abortion, placenta prævia, development of ovum and fœtal circulation, puerperal eclampsia, thrombosis, and white leg. In Hygiene, the student was questioned on impurities in air, different kinds of ventilation, carbonic oxide poisoning, impurities in water, with description of the principal tests; bad meat and its detection; atmospheric pressure, with its effect on disease; and on the precautions to be taken in cases of contagious disease. In Forensic Medicine, the questions were classification of hermaphrodites, laws in reference to contagious diseases, vaccination, &c.,—all very commonsense questions. Surgery is a rather exhaustive examination, the questions being on strangulated hernia, including surgical anatomy and different methods of treatment; and on necrosis of bone, its causes, symptoms, pathology, and treatment.

In the Third Doctorate a thorough practical knowledge is required. The cases given in Clinical Surgery at the hospital were as follows:—Oblique inguinal hernia: surgical anatomy of the parts; treatment and different operations for radical cure. Paronychia: on this subject the questions were very exhaustive, the student being questioned in reference to the connexions of the different synovial sheaths, with the pathology of caries and necrosis. Questions relating to a case of severe contusion and sprain of both ankles were asked, and a classification of sprains required. Concussion of the spine was gone into minutely, questions being asked on the symptoms and diagnosis of fracture and dislocation of the vertebræ, and the methods of localising the position of the injury, with their value in such cases. Clinical Medicine was decidedly the stiffest, the cases being rheumatic fever; hypertrophic cirrhosis of liver; obscure case of enteric fever; phthisis, with heart disease; pleurisy, with effusion, &c. The examiner requires a candidate to examine the case in a systematic manner—first by a series of questions to the patient, then by a general examination of all the organs, and finally of the organs affected. The diagnosis must then be given, the condition of the organs explained, and full directions written as regards food, drugs, and general management of the case suitable for the stage which the patient is in. It is difficult to please the examiner unless the case is gone through systematically. In Operative Surgery the candidate has to perform operations, such as the following:—(1) Syme's amputation; resection of portion of clavicle; tie ulnar artery in middle of forearm. (2) Tie femoral in Hunter's canal; removal of fifth metatarsal bone; resection of portion of rib. (3) Tie brachial at bend of elbow; removal of second and third toes together; suturing a cut in lip. (4) Amputation at wrist; tie brachial in first stage; tie radial in upper third. (5) Amputation of arm and through knee-joint. The operations must be done well, and questions are asked on the relations of the arteries. The examination in Anatomy is not purely regional, as one would imagine from the prospectus, as dissections are required to be done neatly, and the student is asked everything about the parts, including muscles with their nervous supply, and the course of the nerves and arteries. The subjects are not injected. The following parts were given: (1) Dissect parts behind external malleolus and sole of foot; (2) dorsum of foot; (3) palm of hand; (4) popliteal space; (5) front of forearm; (6) bend of elbow. Questions were also asked relating to the parts pierced by a needle passing through the eye from before backwards, and the parts and their order passing through the sphenoidal fissure. Obstetrical operations on the mannikin were—craniotomy; application of forceps in different presentations; transverse presentations, with different methods of turning; mechanism of labour in vertex and face presentations; breech presentations, their complications and treatment; treatment of prolapsed funis, with the methods of using the repositor. Numerous instruments were shown at the Maternity Hospital. This part of the examination is not at all difficult to a man accustomed to midwifery practice.

For the First Doctorate four candidates are examined each evening, fifteen minutes being allowed on each of the four subjects. The same applies to the Second Doctorate, but of course with new examiners. In the Third Doctorate there is no fixed time in the clinical examination, the cases being gone into very fully. Most of the examiners understand English, and some of them speak it fluently; but Dr. L. Wharnot, the interpreter, has the happy knack of putting candidates quite at their ease when his services are required, so that there is no necessity for the candidate to understand French. Anyone wishing to do so can take out a course of Operative Surgery in Brussels some days before the examination for a fee of about 3 or 4 guineas. The examinations are open to the public, and anyone can hear the questions and answers of the candidates, so that I have been present with the other candidates throughout the entire examination.

HINTS TO STUDENTS BEGINNING.

To the Editors of THE LANCET.

SIRS,—As so many freshmen will begin their studies shortly, a few hints from a past student may be opportune. Under the existing regulations far too much of the student's time is sacrificed to mere theory, book-knowledge, and listening to a long series of useless class lectures, and the really important practical knowledge necessary for carrying on his future professional work occupies only a very short period towards the close of his curriculum, and even then the instruction imparted at cliniques is one-sided and of only partial benefit. The result is that, after finishing his course and qualifying, the student finds himself *minus* the experience requisite for starting a practice, and is obliged to spend a year or two as assistant with a general medical practitioner, learning the routine duties of private practice, and the manner and tact &c. necessary for conducting it successfully. Owing to this defective system, the average student has to spend about ten years (one for preliminary and five for professional studies, two as assistant, one at continental schools, and one on a ship) to gain a fairly comprehensive knowledge of his profession before settling down to begin his practice. This is felt to be far too long a curriculum, and requires to be reformed by the General Council. Until then every student should make the most of his time by gaining full experience of private practice during his student days. This can be done by the student strenuously endeavouring to reside as a boarder with a physician engaged in private practice in the city where his medical school is situated. A suitable residence cannot be difficult to secure, as at all important educational centres some private physicians can be found willing to receive one or two boarders during each term. Such a student is indeed fortunate; for he will gain a species of knowledge, confidence, experience, and insight into private practice quite unrivalled, and found to be of lasting benefit for guiding him in his future work.

I am, Sirs, yours truly,

Aug. 31st, 1889. EXPERIENTIA DOCET.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, September 5th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Aug. 30	30·16	W.	62	58	118	85	56	..	Hazy
,, 31	30·15	N.E.	65	61	109	81	60	..	Hazy
Sept. 1	30·24	N.E.	61	60	107	74	59	..	Hazy
,, 2	30·07	E.	63	61	109	73	57	..	Overcast
,, 3	29·99	S.W.	64	63	87	71	62	·55	Overcast
,, 4	30·14	N.E.	62	61	100	71	58	..	Overcast
,, 5	30·24	N.E.	60	60	69	63	58	..	Overcast

Notes, Short Comments, & Answers to Correspondents.

OUR CURRENT NUMBER

Being almost exclusively devoted to information especially interesting to Students, we are necessarily compelled to defer the publication of communications on other important subjects. We regret also to be obliged to hold over till next week an article on Hospital Athletics and the list of prize-winners at the various medical schools and hospitals during the past winter and summer sessions.

We tender our best thanks to those gentlemen who have kindly supplied us with the returns and prospectuses upon which the information given in this Students' Number of THE LANCET *relative to the various medical examining bodies, hospitals, and medical schools of the United Kingdom is based.*

MICRO-ORGANISMS IN SOIL AND WATER.

THE article on the above subject, about which a correspondent inquires, is to be found in Zeitschrift für Hygiene, Band 6, Heft 3 (published by Veit and Co., Leipzig).

Dr. Clibborn (Bridport).—1. Five medical officers and a dispensary assistant.—2. Salaries from £1000 to £180.—3. The Postmaster-General.

A Subscriber.—We cannot see what offence was committed by our correspondent, or for what he is to be prosecuted.

M.D. B.Sc., &c., is referred to an article on the subject in our current number.

POST-PARTUM SUPPRESSION OF URINE.

To the Editors of THE LANCET.

SIRS,—Dr. Bond's case of suppression of urine after parturition reminds me of a precisely similar case which occurred in my practice in London a few years since. The patient was a healthy young married woman in comfortable circumstances, whom I had attended in a previous confinement. The labour was a natural one, but two days afterwards suppression of urine came on, and in spite of everything that could be done death followed in eight or nine days, preceded by symptoms of uræmic poisoning, stupor, and convulsions. There was not the slightest indication of septicæmia. I am, Sirs, yours faithfully,

Northampton, Sept. 1st, 1889. J. HAWKES, M.D.

"AN ULTRA-CENTENARIAN SURGEON."

THE *Patria* of Buenos Ayres affirms that there is now in Bolivia a surgeon, Luca Silva by name, whose age is no less than 129 years. He was born in Cochabamba in 1760, and devoted himself, after graduating in medicine, to the practice of surgery. He rendered important service to his country, when, after the famous manifesto of June 16th, 1809, she entered on her struggle for independence. His treatment of the wounded, particularly his operations on the field of battle, won him high distinction. He also earned signal honour in the combatant ranks. The other day he was brought to the house of Señor Jose Ramallo, President of the Dramatic College of La Paz, and gave a lucid and animated account of the revolution which, begun in 1809, resulted in the emancipation of his country from the Spanish yoke. Our contemporary would add greatly to the interest of its notice of the "ultra-centenarian surgeon" if it had produced some trustworthy details as to his birth and parentage, certified by the public registrar. As it is, the fact of Dr. Silva's having been old enough in 1809 to practise as a duly qualified surgeon argues a longevity little short of one hundred years.

Mr. F. Treves.—Yes, very soon.

HERNIA AS A RESULT OF DIRECT VIOLENCE?

To the Editors of THE LANCET.

SIRS,—I send the following case for the consideration of your readers. D. C——, aged sixty-two, met with an accident by coming in collision with a steam tram while driving. This occurrence took place on July 11th. I saw him on that night, and, with the exception of a severe shaking, could not find anything particularly wrong with him. Three days after the accident he complained of pain in the left groin, which, on examination, I found was caused by a hernia. Now, was this hernia produced by direct violence? I have no idea of the nature of the accident, as the man cannot tell his own story, having been unconscious for some time. A suitable truss soon relieved the rupture. On Aug. 17th I was called again to see the same patient; he told me that "dropsy" had supervened. I examined his left thigh, and found a large quantity of fluid in or about the sheath of the vastus externus. This I ascertained by exploring with a hypodermic syringe. On recent examination I find that the fluid is now absorbed. Can this be called a hydrocele? I am, Sirs, yours truly,

Stamford-hill, N., Sept. 2nd, 1889. J. J. STACK, L.R.C.P.E., &c.

"DIFFUSION OF SMALL-POX BY HOSPITALS."

To the Editors of THE LANCET.

SIRS,—I have to thank you for your notice of my papers on small-pox and tuberculosis in THE LANCET of July 27th, though your reviewer has mistaken me about winds. All that I assumed in that paper was that when the wind was blowing in a contrary direction to the district affected, cases could not well occur in consequence of infection from the hospital. I was well acquainted with Mr. Power's work, and had given a close scrutiny to the meteorological conditions at Oldham, but came to the conclusion that I could make nothing of them, and therefore did not touch on that subject. I am, Sirs, yours truly,

Oldham, Aug. 26th, 1889. JAMES NIVEN.

THE FOOD OF THE CHILDREN OF THE POOR.

To the Editors of THE LANCET.

SIRS,—If your correspondent, "Parish Doctor and M.O.H.," will communicate his address to me, I shall be very pleased to send him a copy of a card I had printed some years ago for distribution among poor people, entitled, "How to Bring Up Children." It might be of some help to him. I am, Sirs, yours faithfully,

Sept. 1st, 1889. JULIUS CÆSAR.

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Clinical Lecture
ON
STRICTURE OF THE URETHRA AND ITS TREATMENT.

By WALTER RIVINGTON, B.A., M.B., &c.,
SURGEON TO THE LONDON HOSPITAL, LECTURER ON SURGERY AND TEACHER OF OPERATIVE SURGERY AT LONDON HOSPITAL MEDICAL COLLEGE.

GENTLEMEN,—The wards of a surgeon to a large hospital like ours are seldom destitute of cases of stricture of the urethra, and in the course of a few years he cannot fail to acquire experience of this serious affection in all its various degrees and phases. As there are few surgical diseases whose safe, speedy, and, if possible, pleasant relief is more essential to the welfare and satisfaction of patients and to the credit of the practitioner, I think I may usefully occupy your time by imparting this experience to you. In the present lecture I propose not to take the history of an individual case or individual cases as a peg on which to hang my remarks, but to lay stress on a few points which I regard as of fundamental importance in the treatment of stricture, and which I have often insisted on during my visits to the wards.

My first point is that no pains should be spared by the practitioner, be he student, house-surgeon, or surgeon, to avoid making false passages. This may seem only a special application of the cardinal rule that the first duty of a medical man is to abstain from doing harm to his patients, but I propose to go beyond the mere inculcation of a general maxim by pointing out the way in which its violation may be prevented. The presence of a false passage augments the difficulty of treating a severe case of stricture of the urethra to a degree which it is scarcely possible to exaggerate. However severe a stricture may be, the surgeon will, as a general rule, succeed in passing a fine bougie by perseverance, gentleness, and tact; but if a false passage exists, the bougie can with difficulty be prevented from entering it, and it is often more by good luck than merit that the orifice of the stricture is penetrated. If we disregard the few cases of traumatic stricture, the ordinary history of a case of stricture admitted into the hospital is this. The patient has had gonorrhœa, and generally more than one attack. His stream of urine has been narrowed for some time, but he has been able to pass it fairly, and has not troubled the doctor, or, if he has, he has not submitted to treatment long enough to be cured. He indulges in unusual conviviality, and becomes the subject of retention of urine. Then he applies at the hospital. Perhaps he declines to stay in—only comes for temporary relief,—and the house-surgeon or dresser must resort to the catheter. The strictured part of the urethra being now congested, the passage is closed, and it is impossible to pass a catheter of a fair size, and a No. 1 or 2 silver catheter is tried. The mucous membrane in the neighbourhood of the stricture in its congested state is unduly soft, and consequently the point of the fine catheter readily penetrates it and makes a false passage, although the operator himself may remain unconscious of having used any force. As a catheter cannot be passed, the patient is sent into the wards, an anæsthetic is given, and another and perhaps a prolonged attempt is made to pass the catheter, but without avail. The instrument only enters the false passage and aggravates the mischief, and thus the false passage is established which entails so much subsequent trouble on both the patient and the surgeon, and interferes with the cure of the stricture. False passages are so frequently made in this manner that I do not hesitate to recommend abstention from catheterism, wherever it is practicable to abstain from it, in dealing with retention, and abstention especially from the employment of the finer instruments. If a No. 5 or 6 silver or flexible olivary catheter can be gently passed, well and good; if not, the patient should be taken in, ordered a warm bath, a drop or two of croton oil or a dose of house medicine, and afterwards some tincture of opium or the liquor opii sedativus, whilst warm fomentations are applied to the abdomen. Retention generally yields to these measures within twenty-four hours, and there is no danger of rupture of the bladder from over-distension within that period, or, according to Mr. Hancock, within forty-eight hours from the time of its commencement. If the surgeon is afraid of this accident, he can aspirate the bladder or tap it above the pubes, but the latter measure and puncture per rectum, which was popular some years back, are operations to which I have not had occasion to resort for a long time. No after-trouble has arisen in the few cases in which I have directed the employment of aspiration, although I am bound to mention that abscesses, extravasation of urine, and even rupture of the bladder have followed it or been attributed to it. Notwithstanding these impeachments, I regard aspiration as a valuable aid in exceptional cases of retention. One or two of the other sources of false passages in former years are now, I think, almost exhausted. One was the practice, and the inculcation by teachers of the necessity for the practice, of the *tour de maître* in passing a catheter. An instance of this came within my cognisance when I was a student at the London Hospital Medical College and was attending the lectures of Mr. John Adams, my predecessor in the anatomical chair. Mr. Adams' lectures were distinguished by a terse and graphic style of description, an Abernethian humour, and an application of anatomical facts to surgery, which always secured the attention of his class. One day when he was discoursing on the urethra and its flexures in the dependent posture of the penis, he demonstrated the mode of introducing a silver catheter, and impressed on his hearers the advisability of mastering the turns of the *tour de maître*. At the conclusion of his lecture an attentive auditor resorted to one of the house surgeons with whom he was acquainted and asked to be allowed to practise catheterism. A patient with rather a large prostate, requiring regular catheterism, was assigned to him, and at his first attempt the student triumphantly accomplished the *tour de maître*, but at his second essay he made the final depression of the handle either too soon or too late, and the point of the catheter hitched against the prostate and caused hæmorrhage, which had to be arrested by the pressure of lint round the penis. It happened to be Mr. Adams' visiting day, and, finding his patient *hors de combat*, he had to be informed of the cause of the misadventure. Curiously enough, Mr. Adams was less gratified with the attention of the student to his lecture and adoption of his advice than might have been expected, for he took occasion to observe to those around him that Mr. —— might be a very clever man, but he trusted that he would not pass any more catheters on his cases. A second cause of the diminution of false passages is the more general preference for the flexible instruments now so extensively made and used, but false passages are still so common in severe cases of stricture as to need all the words of caution which I have uttered concerning them. In congestive conditions of the mucous membrane and in children the urethra is readily penetrated, and there are certain parts of the urethra where obstacles to the passage of instruments present themselves. Sir Henry Thompson lays special stress on three spots in the urethra where this hindrance commonly occurs. The first source of obstruction is close to the external meatus, and is constituted by the *lacuna magna;* the second is where the bulb joins the membranous portion, and the canal, from being wide or dilatable, becomes less so; and the third and last is at the neck of the bladder—the so-called "stricture at the neck of the bladder," which does not ever exist, but "which was a household word some years ago." The *lacuna magna* is to be avoided by following the floor of the canal; the narrow membranous portion at the bulb is to be avoided by keeping the point well against its roof; and the same arrangement or the use of the coudée catheter will overcome an obstacle at the neck of the bladder. Whilst agreeing in the main with these observations, I attach more importance to the passage of the urethra through the triangular ligament combined with the narrowing at that spot than to the narrowing itself. Special difficulty sometimes presents itself in children at this point. A sound, a catheter, or a grooved staff, depressed by its own weight below the level of the orifice, is apt to hitch against the urethral wall as it passes through the triangular ligament, and if the instrument be incautiously pushed against the obstruction, instead of being withdrawn slightly and passed in an altered direction, it may penetrate the passage, perhaps without the cognisance of the operator, and glide

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beneath the urethra and the prostate gland; it may even reach the recto-vesical pouch of peritoneum. The long sounds with large curves of equal thickness as far as the point, and the long staffs which used to be employed for lithotomy in children, where the length of the instrument supplied a dangerous amount of leverage, were particularly liable to occasion false passages. Most surgeons of experience must have noticed this difficulty in passing instruments, especially, but not exclusively, in children, at the site of the triangular ligament. The utmost gentleness, allowing the instrument to find its way almost by its own weight, perhaps the injection of oil into the urethra before using catheters, staffs, or sounds, constitute the best means of overcoming and avoiding obstacles; and whenever obstruction occurs, either at the triangular ligament or in the prostate gland, the greatest assistance may be derived, both in children and in adults, by passing the left forefinger into the rectum and raising the end of the instrument. There is an old man now in the wards with chronic cystitis, in whom this difficulty exists at the site of the triangular ligament. The point of the sound or catheter sinks below the orifice in that structure, and is arrested by it, but when the forefinger is placed in the rectum, and the extremity of the instrument raised, it passes through readily enough. I believe, therefore, that, so far as false passages are concerned, the neighbourhood of the triangular ligament must certainly be regarded as "the dangerous region." Of late years sounds have been greatly improved by shortening and enlarging the beaks, and lithotomy staffs for children have been lopped of their unfair proportions, so that the danger of making false passages has been minimised. Nevertheless, the danger still exists, and any word of caution that can be given to the inexperienced must be opportune. I have sometimes thought that the veru montanum, when swollen, constitutes an obstacle, and that a small instrument may catch in the sinus pocularis. At all events, I have obtained from the post-mortem room a specimen in which a false passage ran beneath the prostatic mucous membrane from a point in front of the veru montanum to the trigone of the bladder.

My second point will be the value of rest in the treatment of stricture. Most strictures present three elements combined in each instance in different proportions. There is the congestive or inflammatory element, shown by the ready bleeding; there is the spasmodic element, shown by the catheter being gripped and held; and there is the organic, organised, or fibrous element. The organic element is the foundation or the fundamental element of a stricture, and it is doubtful whether either of the other elements alone can constitute a stricture. There must, I think, be at all events a tincture of the organic element. Now, for the removal of the congestion and the spasm accompanying an organic stricture after that alcoholic indulgence which is the source of so many injuries and diseases, and without which death might oftener result from the decay of nature only, the use of instruments is not only not necessary, but may be positively detrimental. And this is the justification of rest in the treatment of stricture. The great apostle of rest, Mr. John Hilton, has treated of many parts of the body in his fascinating volume on Rest and Pain, but has said nothing of the application of rest to the treatment of stricture of the urethra. This omission, however, has been supplied by another philosophical surgeon. Recoiling from the mischief and mishaps due to too assiduous instrumentation of the urethra, Mr. Savory advocated a much more prolonged resort to rest in the treatment of stricture than other surgeons have usually either recommended or adopted. Confinement to bed and the exhibition of opium were, if I rightly remember, the main agents by which rest was to be secured. To a considerable extent I agree with Mr. Savory's remarks; for it is an undoubted fact that when patients are admitted into a hospital suffering from stricture which has been aggravated by congestion and spasm, the treatment which Mr. Savory recommended will suffice ordinarily to remove both the congestion and the spasm, and to restore the patient to the condition in which he existed prior to the attack. Rest for a week or a fortnight is very beneficial, and at the end of that period the surgeon may find that he can pass a bougie, perhaps as large as No. 6 or No. 5, with little trouble, and with no danger of making the patient bleed or creating a false passage. Rest is also very advantageous when false passages have been made. I am therefore never in a great hurry to begin catheterism. On the other hand, there are cases of great severity, very tight and narrow strictures after all the congestion and spasm have gone, which will only admit a fine bougie when you have carried rest to its utmost limit short of an inactivity which could not appropriately be designated as masterly. I remember a stricture case, in which the patient died from bladder and kidney mischief not long after admission, in which no instrument could be passed. At the post-mortem examination we found in the membranous portion of the urethra an organic stricture, consisting of a kind of septum, across the urethra, having at one spot the finest pin-hole aperture, and through this the urine had dribbled. In his admirable teaching in the post-mortem room, Dr. Sutton used often to lay it down as a general rule that in cases of stricture in which it has been found impossible to pass a bougie from before backwards the surgeon would have been able to do so from behind forwards, and that this could almost always be done at the necropsy. This is undoubtedly true in many cases. It is the foundation of the plan suggested by Mr. Furneaux Jordan, of cutting into the membranous urethra, or even the bladder, from the rectum, and introducing a flexible bougie from behind forwards. Another operation based on this fact consists in tapping or incising the bladder above the pubes, and passing a catheter from the internal meatus to the stricture as a guide to a perineal incision. This procedure originated with John Hunter, and in recent years has been practised by the late Mr. Callender, and in 1878 by Mr. Howse in a very difficult case of traumatic stricture. My own case was an exception to the rule that an instrument can be passed through so-called impermeable strictures from behind forwards, for not the finest filiform bougie could be passed either from the front or from behind, even when the specimen was removed from the body. In such a case rest till doomsday would not have altered the stricture one iota. By all means, then, employ rest as far as it may avail for the abolition of the congestive and spasmodic elements of a stricture, and for the avoidance and healing of false passages, but when you have reached the limit of forbearance, at once commence the use of instruments in a regular, persevering, and systematic way, for without instrumental aid an organic narrowing cannot be removed.

My third point is the necessity of eclecticism in the use of instruments. For a long period our insular prejudices and preference for silver catheters, made on an irregular scale, prevented surgeons from profiting by the great improvements introduced by the ingenuity of our Gallic neighbours, who were much in advance of us in regard to the treatment of stricture. This state of things was fostered by our ready submission to authority. There is not a body of men existing anywhere who more blindly follow authority than the members of the medical profession, and in this instance authority emanating from University College inculcated the superior value of the silver catheter and metal instruments. Now, however, the scientific pendulum has swung to the opposite side, and it is recognised that everyone who has experienced the passage both of a silver and a soft flexible instrument on his own person will give so decided a preference to the latter that it may be enunciated as an axiom that a metal instrument should never be employed when a soft instrument will suffice. It is not possible always to adhere to one description of catheter. Surgeons of large experience must have met with cases in which it was difficult to pass a flexible instrument, whilst a silver or metal instrument glides in easily; and other cases in which silver or metal instruments may be arrested, whilst flexible instruments are admitted with facility. Then there are cases which seem, indeed, to be cases of stricture, for a small catheter cannot be passed, and the surgeon is told by his house surgeon: "This is a very bad case of stricture, sir; I cannot get in a No. 1 or ½"; and the surgeon takes a full-sized silver catheter and passes it into the bladder without a hitch. These are the kind of cases which have been diagnosed as stricture, and which from some other urinary trouble have reached the post-mortem table, where the cynical pathologist, not without an incompletely veiled note of exultation, after acquainting himself with the diagnosis entered on the ward paper, announces that he cannot find a trace of stricture throughout the urethral tract. The explanations of the three kinds of cases which I have just mentioned comprise such conditions as spasm (and this is a very real condition now and then); slight obstruction, which suffices to arrest a flexible instrument; tortuosity of the canal, which may stop a silver instrument; a slight bar in the prostate, or at the neck of the bladder; large follicles,

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like the *lacuna magna* and others, which all look towards the meatus, and which are avoided when an instrument is passed from behind forwards, but often hinder the progress of fine bougies and catheters; the narrowing of the urethra at the junction of the bulbous and membranous portions; the passage of the urethra through the triangular ligament; and some difficulty in micturition due to other causes than stricture, but hastily set down as due to stricture itself. The surgeon of experience is alive to all these sources of fallacy, and runs them over in his mind when a difficulty occurs. Hence he almost intuitively adapts his means to the end in view; and it is this superiority in experience and judgment which may enable the older man, perhaps even the old fossil, to cope with the brilliancy of youth, a little too confident in its own opinions and powers. There is a further fallacy, to which Mr. Berkeley Hill has directed attention; and that is, that a narrowing near the meatus may give rise to the semblance of a stricture some inches down; with the division of this narrowed part the suppositious stricture at or near the bulb entirely disappears. Another instance of varying our means is afforded by a simple expedient recommended by authorities in using fine bougies. Our treatment of the tightest strictures consists in endeavouring at first to introduce the finest bougie, and when this is accomplished (*ce n'est que le premier pas qui coûte*) the stricture may almost be regarded in the generality of cases as cured. The bougie is retained and the patient passes urine by the side of it. As soon as the stricture is dilated sufficiently, a bougie or catheter a size larger is passed, and then the French catheters (much superior to the English variety) are resorted to till the full size is attained. Now, in passing a fine bougie, success is much more likely to be secured if it is turned up a few lines from the point. By this means it is lifted from the floor of the urethra or turned away from contact with the urethral wall, and more readily avoids follicles, and enters the orifice of a stricture which may be placed in any position in relation to the circumference of the canal. I have often succeeded by practising this simple manœuvre, when subordinates, not initiated into this trick of the trade, had failed. Larger catheters and bougies also pass more readily when turned up at the point, and the French coudée catheter is one of the most useful instruments, especially for employment by the patient himself, in cases of enlargement of the third lobe of the prostate. When you have selected a filiform bougie, whether flexible or of catgut or whalebone, and bent it up at the point, it is a good plan to inject oil into the urethra. The bougie is then introduced, and a rotatory movement given to it whenever it is arrested, and when it arrives at the stricture. By twirling it round between the finger and thumb as it is pressed onwards, the tip is enabled to enter the strictured part. If it becomes engaged in a lacuna or a false passage, you may either withdraw it a little and then twirl it on again, or leave it there and pass a second, and if this also gets into another lacuna or false passage you may pass a third and repeat the process until all the lacunæ or false passages are filled, when another is passed, and will probably traverse the stricture unless it becomes bent upon itself. Success, however, does not always attend this ingenious method, and I generally prefer persevering with a single filiform bougie. Whalebone is the best material if the stricture resists penetration, but, being stiff, it may make a false passage without proper care. If the stricture admits a filiform bougie the surgeon has open to him more than three courses. He may leave the bougie in for two or three days and thus obtain what may be called physiological dilatation of the stricture. This course I prefer very much to resorting to any variety of physical force, open or disguised. A covert way of applying physical force is to employ tapering bougies, and long ones, with a fine or filiform extremity, are made for this purpose. The objection to this wedge-like pressure is that the stricture resents it, and on removal of the bougie swelling takes place and the canal becomes blocked. A bougie that is left in a stricture ought to pass quite easily through it. If you try to hurry the dilatation of a stricture, you soon find out the truth of the proverb, "The more haste the less speed." *Festina lente*, as Mr. Harrison advises, is an excellent maxim. The wedge-like method of dilatation may be carried out by means of other instruments now before us. There is the American plan of screwing on to the small bougie one of larger size, or a catheter, and pushing forward the small bougie so as to double it up inside the bladder. Either a flexible or a metal instrument may be screwed on to the bougie. Then there is the plan of sliding catheters over the filiform bougie. I will not undertake to say when the sliding principle was first introduced, but Dr. Andrew Buchanan and Mr. T. Wakley introduced instruments of this kind. Here is a very long tube sliding over a bougie which, I am told, is used sometimes by one of my colleagues, and may be applied indifferently to the urethra and the œsophagus. I have not had any experience of it, but I have employed with advantage Gouley's tunneled catheter on the recommendation of Mr. Reginald Harrison. This catheter which I have in my hand is threaded near the point on to this whalebone bougie, which is first introduced into the bladder through the stricture. By exercising a little pressure Gouley's catheter can generally be induced to slide along the bougie through the stricture into the bladder, and seems to me to be the best instrument of the kind for retention cases. Again, Holt's dilator may be screwed on to a filiform bougie, which is pushed before it into the bladder, and rapid dilatation or disruption practised. Holt's dilator has been loudly extolled by some and as loudly condemned by others. It may be employed in one of two ways—either for forcible splitting of the stricture, or quite gently, persuasively, and almost lovingly, after the manner of a glove stretcher. In this latter way the tube is insinuated along its guide, and the stricture sufficiently stretched to permit a larger instrument than before to be introduced. When employed for disruption the tubes are pushed rapidly and forcibly along the guide. Most surgeons, I think, prefer internal urethrotomy to splitting; for splitting, it is said, is not a truly scientific method. The surgeon does not know precisely what he is doing. Not only does he tear through the stricture, but the rent is liable to invade the healthy urethra to an extent which the surgeon can neither regulate nor foresee. The rent is ultimately repaired by fibrous tissue, which contracts, and a bad traumatic stricture is added to the original narrowing. Mr. Teevan used to say that he had a black list of bad cases to bring against the splitting method, whilst the supporters of the plan aver that they never saw any harm result from it. Internally urethrotomy has been equally lauded and condemned. I have used both methods sparingly, and, so far as my experience has gone, with no other than good results. But there are special dangers from all instruments and operations, and occasionally from internal urethrotomy. You may have undue hæmorrhage, extravasation, rigors, and suppression of urine, which will be a set-off against the ill effects sometimes following splitting a stricture. Even simple catheterism has its fever, and, without any fault of the surgeon, may be attended by a fatal issue when the kidneys are unsound.

The last point to which I ask your attention to-day shall be the necessity for an accurate diagnosis of strictures—their size, shape, position, number, and nature. For this purpose we can scarcely dispense with the bulbous instruments which are known as the bougies or sondes à boule, and the bougies or sondes à demi-boule. "The shape of the bullet of an exploring sound best suited to its purpose," says Mr. Berkeley Hill, "is that of a turkey's egg, which is a little more pointed than that of the common hen. The circumference of the big end corresponds to the number of the sound. The bullet is attached to a slender stem no thicker than No. 5 French. When made of flexible material the stem should be marked in inches and half-inches by white rings, the fifth inch from the point having a wider ring than the rest to serve as a landmark. The position of any obstruction can at once be noted by observing how many rings have passed the meatus. Again, the bulb at the end of a slender stem transmits impressions from only that part of the canal against which it is pressed, and as it passes along the canal it is checked by an unyielding point, or gives slight pain to the patient whilst it traverses an inflamed area. Directly the wide bulb has passed these situations of disease and reached a healthy part of the urethra, no sense of resistance is felt and no discomfort experienced by the patient until the bulb arrives at the next diseased locality, because the slender stem does not distend the urethra. Thus the bulb and graduated stem enable the surgeon to ascertain the number, length, and exact position of the indurated or inflamed patches of the urethra. When no stricture is present, no difficulty checks the passage of the bulb to and fro in the urethra if the triangular ligament be not passed. At that point the change of direction and often a slight diminution in calibre

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of the urethra through the orifice in the anterior layer of the perineal fascia to twenty-seven or twenty-six millimetres usually check and sometimes stop the passage of a bullet bougie, and pain is felt by the patient. But it is seldom, if ever, necessary to pass the triangular ligament to discover unyielding parts of the urethra. Old well-marked strictures do invade the membranous part, it is true; but such have so greatly altered the form of the urethra in front as well as behind the perineal fascia that their detection is easy, and the bullet sound is not needed to discover such indurations." Three sizes of these flexible bullet sounds are generally made, corresponding to about Nos. 8, 12, and 14 or 15 English catheters, or 17, 22, and 25 or 26 French catheters. There are several advantages to be gained from the use of the bougies à boule, which, as Mr. Teevan was constantly insisting, must be distinguished from the bougies olivaires. By their aid you can detect slight and commencing strictures which would be overlooked by the mere use of ordinary flexible or gum-elastic or silver catheters or sounds. If one of these catheters or sounds passes a stricture on entrance without detection, it will pass it on its exit; but a bougie à boule of proper size, if it passes the stricture on entrance, will detect it on withdrawal, for the shoulder catches against the narrowed part owing to the contraction of the urethra behind the bulb of the instrument. A second advantage of the bullet sounds is that you can ascertain the number and exact position of the strictures present. I have used them for the last ten years, and by their means have become acquainted with a fact which I should never have ascertained by the use of tapering or cylindrical sounds or catheters, and that is that urethral stricture is very often multiple. There are generally two, three, and sometimes four strictures in an affected urethra. As these strictures are of different degrees of severity, it is quite easy to overlook all but the worst contraction. There may be a contracted meatus, a narrowing in the glandular portion, a stricture two or three inches down, and a fourth, and perhaps the worst, at or near the bulb. If the less conspicuous narrowings are overlooked, the patient does not not derive the full benefit from treatment, and is more likely to relapse. Thirdly, the bougie à boule is most useful in discovering congested patches in the urethra which will become the site of stricture, and whose presence is the cause of a gleety discharge after local excitement now well recognised as indicative of commencing stricture. The flexible bullet sounds should be made of all sizes on the French scale like Otis's metal bulbs, and I regard them and the Otis urethrometer or expanding bulb as most valuable for the measurement and discovery of pathological narrowing of the urethral canal. On this point, therefore, I cannot agree with the sweeping condemnation passed upon them by Sir Henry Thompson in his excellent Clinical Lectures on Diseases of the Urinary Organs. After advocating for diagnosis the employment of a No. 10 or 11 flexible English gum-elastic bougie slightly curved towards the point with a blunt end (since a tapering point of course will not mark distinctly the site of the stricture), he shows that a stricture will be detected by the bougie "being grasped somewhat as it is withdrawn." He then passes this judgment on the bougie à boule. "Now, with the common exploring instrument, which is formed of a long small flexible bougie, terminated by a bulb of considerable size, nothing is more easy, especially with an unpractised hand, to deceive oneself with respect to the existence of stricture. If not drawn out accurately in the axis of the passage you may feel a check, and readily find what you believe to be a stricture in the most healthy urethra. And that is precisely what I am so anxious to guard you against, for in the hands of designing persons these instruments may be turned to most unworthy purpose. For men outside the ranks of our profession, or holding a questionable position on its outskirts, these instruments are the very things. That is an additional reason why we should be careful not to encourage their unnecessary use. I have for twenty years past used small bulbous instruments in metal for the diagnosis of narrow and confirmed stricture on which it is desirable to operate, but for slight stricture never; and I have protested against their use on the two grounds already named: first, that for such the instrument inflicts needless pain; secondly, that it is liable to deceive a young operator not too adroit or familiar with its use." Neither can I agree even with Mr. Harrison, who thinks that the best instrument for exploration is "the plain bougie, with the end slightly rounded (not bulbous) to facilitate its introduction. If a surgeon cannot by this obtain all the information he requires about the urethra, I am sure," he says, "he will not be assisted by any of the bulb or olive-headed instruments which are vaunted for this purpose. It is a matter of touch and of handling. What is wanted is the *tactus eruditus*, the acquisition of which requires as much practice as is needed to detect fluctuation. To the unpractised hand the whole length of the urethra is a stricture, which no form of instrument renders otherwise." Most unquestionably a practised hand will detect by an educated touch far more than a beginner even with an ordinary sound or catheter; but the practised hand will discover more with a suitable than an unsuitable instrument. And, as regards the bullet sounds, I cannot do better than quote the teaching of a former colleague of Sir Henry Thompson's, who is on the Court of Examiners at the College of Surgeons, and will not therefore, I presume, be regarded either as a designing person, or as outside the ranks of the profession, or holding a questionable position on its outskirts. In November, 1879, in some excellent lectures on stricture of the urethra, published in the *British Medical Journal*, Mr. Berkeley Hill took a view of the comparative diagnostic value of the bougie à boule diametrically opposed to that of Sir Henry Thompson. He then said "the size and shape of the instruments employed in the examination of the urethra are of great importance; indeed, unless you provide yourself with suitable instruments, you will not gain any precise knowledge of the condition of the urethra you are asked to treat, and will probably bungle in your treatment. Bullet sounds with slender stems (sondes à boule), some flexible, some rigid, are requisite in addition to the urethrometer. In searching for stricture I discard instruments with tapering points or of equal calibre throughout—the ordinary so-called French and English bougies or sounds; they are deceptive in several ways. For example, an instrument of which the stem and point are of equal thickness is gripped the whole time it is passing through the stricture, and the presence of other non-expanding points behind the first, notified by the sound, is not perceptible, unless indeed they be narrower than the first, when they stop the further progress of the instrument." With these remarks I fully coincide, and can only add that the fact that a valuable and necessary instrument may be abused is no argument against its legitimate use. If it were, the female speculum, the laryngoscope, and even the clinical thermometer would have to be discarded. As to the disagreement of surgeons in their estimates of surgical procedures and instruments you need not be surprised or troubled, for we constantly find that even within a brief space of time a surgeon will disagreewith himself.

THE INFREQUENCY OF CANCER AMONG FEMALES IN THE ENGLISH LAKE DISTRICT.

BY ALFRED HAVILAND, M.R.C.S.,
LATE LECTURER ON THE GEOGRAPHICAL DISTRIBUTION OF DISEASE AT ST. THOMAS'S HOSPITAL, ETC.

AT a time of the year when the facilities for enjoying one of the most beautiful and interesting districts in England are yet in full career, the readers of THE LANCET may not think inopportune the following notes, made during a recent visit to Kendal, with the view of supplementing my remarks published last year in that journal on some of the causes coincident with the low mortality from cancer among females in the Lake District.[1] As the copies of THE LANCET containing the articles referred to may not be at hand, it will perhaps be well to give a brief summary of the facts connected with the distribution of this disease in Great Britain.

In 1868, in a paper read before the Medical Society of London, illustrated by a large coloured map, I first demonstrated that cancer among females had a well-defined geographical distribution throughout England and Wales, and that when the cancer map was studied in connexion with a geological map of this country the following disease

[1] The Geographical Distribution of Cancerous Disease in the British Isles. THE LANCET, vol. i. 1888, pp. 314, 365, 412, and 465.

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and geological facts were coincident:—(1) That among the 630 registration districts into which England and Wales are divided, those low-lying districts which were either traversed by, or were contiguous to, fully formed rivers that seasonally flooded the country through which they flow were characterised by the *highest* mortality from this cause of death. (2) That, on the other hand, those districts which had the *lowest* mortality had a high average level, were situated on or near the water-partings where rivers derived their sources, and where the rock-base under their soils consisted of the older geological formations, such as the Cambrian, Silurian, old red sandstone, and mountain limestone, or of the more recent chalk, and where floods were either impossible or only temporary.

Such were the simple facts which I announced nearly twenty-one years ago, based upon the deaths that took place from cancer among females during the ten years 1851–60. Since then I have added the facts which the succeeding ten years (1861–70) have afforded me, gathered from the late lamented Dr. William Farr's second decennial supplement to the late Major Graham's (Registrar-General) thirty-fifth annual report. Owing, however, to the supplement for the last decennial period (1871–80) being defective, the present Registrar-General having incontinently and confusedly mixed up the male with the female deaths, further addition to my twenty years' facts is impossible until this report is amended and published in the form established by Dr. Farr. This defective report is fully discussed in the articles in THE LANCET already mentioned, to which I must refer the reader, only adding that the defects in this perfunctory report have been brought to the notice of the Government, and it is hoped that before long the work will be placed in competent hands, and reissued in accordance with Dr. Farr's models.

The facts of the second decennial period (1861–70) confirming in every respect those which I announced in 1868, and have just briefly repeated, the question then arose, How did river floods affect the local climates of those districts wherein for twenty years cancer proved itself most deadly? In the first place, it was discovered that in some oft-flooded river valleys, such as that of the Thames, remarkable exceptions were to be found—namely, that in four of the riparial districts of this river a comparatively low mortality from cancer among females obtained; two of these districts, Wycombe and Cookham, were above London, and two below, Orsett and Dartford. These districts were found in pairs, one lying on the right and the other on the left bank of the Thames, and separated only by the river. Coincident with the low mortality of these two pairs of districts was the fact that at both these points in the river's course chalk came to the surface and formed the rock base of the soil of these four riparial districts, whilst underlying the gravel and alluvium of all the high-mortality riparial districts were the Oxford clay, the Kimmeridge clay, Gault clay, plastic clay, and London clay, all retentive strata, and calculated, as will be presently seen, to intensify the evils of floods and their sequels—dead vegetation and vegetable decomposition,—resulting in the formation of numerous gases and acids, which not only render the soil sour, but injuriously affect the atmosphere that lies above it, and therefore the local climate of the district where floods occur, and far beyond their high-water mark. It is a well-known fact that by the retention of the acid products of vegetable decomposition consequent on river floods the superficial soil is rendered sour, and the subsequent herbage rank and deleterious, especially to young cattle and sheep. It is also well known that the grass which covers the soil overlying chalk or limestone is sweet, even when these rocks are covered to a considerable depth by sands and gravels, whether of post-glacial or of recent fluviable origin; whereas, when the chalk or limestone underlies a considerable deposit of boulder clay or recent alluvial clay, their neutralising powers are barred from taking effect by the intervening obstructing layer of retentive soil.

It has been shown in my work on the Geographical Distribution of Heart Disease,[2] and in my more recent lecture on the Distribution of the Wheat-yield in Great Britain,[3] how the configuration of the country influences the free access of the prevailing winds; how when access from the sea is aided by the direction of the trend of the valley systems coinciding with that of the atmospheric currents; and how it is obstructed when the river valleys are at right angles to them, in the latter case causing them to blow over instead of up through them, as in the former system. In England and Wales the prevailing winds are either south-westerly or north-easterly. In the case of free and unobstructed access, the valleys are swept clean of all residual air, and are thus purged of atmospheres contaminated either by emanations from the soil or human habitations. On the other hand, when free access is barred, and the winds are forced over the water-partings, all that is deleterious in the atmospheres in the valleys below is rendered still more deleterious by accumulation; hence it is that in such pent-up stuffy valleys the local climates not only engender diseases, but intensify those that are imported into them. Two thousand five hundred years ago Hippocrates pointed out the different effects on health experienced in "stuffy hollows and in fresh uplands." Knowing these facts, it will not be difficult to understand why, in the case of cancer among females, we find those districts where the soil favours the intensification of the evils of floods varying in their death-rates from this cause, according to the configuration of the land in which they lie; in fact, why the more pent-up inland districts should have a higher death-rate, as a rule, than the more open ones, exposed to the free access of the winds and their air-flushings and oxidising properties. With this introduction I will now give a brief account of my late investigations in the English lake district.

At the International Geological Congress held in London in September, 1888, I pointed out to the members the fact above narrated with regard to the coincidence of low mortality in the Thames valley with out-crops of chalk in the districts where it occurred. That the vegetable acids, the result of vegetable decomposition after floods, were neutralised by the chalk I have not the slightest doubt; neither had those around me who were at the time looking across the Thames at the chalk at Purfleet, in the Orsett district, whilst standing on the chalk of the Dartford district, and admiring the chalk flowers that bloomed around us. The soft nature of the rock precluded the permanence of the effects of acid erosion on its surface. Moreover, the permeability of chalk allowed the rain to enter its structure rather than run over it laden with the acids, and etching channels as it flowed. In the harder limestone, however, the acids leave permanent records behind of their having been neutralised by the carbonate of lime.

Whilst visiting Kendal this year, with the view of comparing the limestone of the southern Lake District with that in the Isle of Man, and of studying the relation of these rocks to the fully-formed rivers of this district, through the courtesy of the honorary secretary of the Westmorland Natural History Society, Mr. Severs, I made part of an excursion to the limestone escarpment of Lyth Fell, where are to be seen on a gigantic scale the records of vegetable decomposition and vegetable acid etching of the tilted limestone slabs, on which the dead leaves of the shrubs and trees of the wood had fallen and decayed. The limestone dips at an angle varying from 5° to 20° towards the east, and forms a bold escarpment looking towards the west. The joints are all enlarged by "weathering" and the erosion of the vegetable acids, so that they are often dangerously deep, and remind one of the Chasms in the Isle of Man; the surfaces of the tilted slabs are carved into long, deep, and tortuous watercourses. The upper margins of the slabs are entire, but the lower are eaten through, forming, in fact, the outlets or mouths of the strangely serpentine channels. In each channel lies dead and dying vegetable matter, creating fresh acids for the next rain to wash out of its mass and thus enlarge and deepen the channel in which the mass rests, which in many places completely covers the stone. This "weathering," as it is termed, has been ascribed to rain alone, which, by means of the carbonic acid it contains, is said to dissolve the carbonate of lime by converting it into the soluble bicarbonate; but anyone who at a glance can see scores of acres of tilted slabs all sculptured into serpentine channels as I have described, and these channels filled with decaying acid vegetation, will not find it difficult to understand that the rain finds powerful allies in the sour masses on which it falls in its work of erosion, nor will he hesitate to accept the evidence before him of the power of neutralising the acid products of vegetable decomposition in carbonate of lime in the form either of limestone or of chalk. These limestones have been described

[2] The Geographical Distribution of Heart Disease, Cancer, and Phthisis. Folio. Smith, Elder, and Co., 1875.

[3] "The Farmer," 1886; "Bell's Weekly Messenger," ib.; and "The Mark Lane Express," ib.

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by Mr. A. Strahan in his memoir on the Geology around Kendal. "In the Kendal area," he says, "they dip to the east, and present an unusually precipitous and continuous face to the west; on the east they are cut off by a fault. This limestone forms the most northerly projection from a much-faulted range of carboniferous rocks, which fringes the Lake District on its south side." In fact, at and below Kendal as far as Duddon Mouth they underlie the superficial and permeable sands and gravels traversed by all the rivers that fall into Morecambe Bay. Again, on looking at a geological map of this part of England, it will be found that these limestone rocks are continued on the north-east of Kendal at Orton, whence, as the same author remarks, they form part of a prolonged escarpment of these rocks, which fringes the Lake District on its north and east sides. These limestones form a crescentic belt around the Lake District, which can be traced from Duddon Mouth through Kendal, and through out-liers at Skelsmergh and Gray Rigg to Orton, whence it continues in an unbroken line onward by the north to the Whitehaven district. I must, however, remind the reader that whilst in the south, below Kendal, this limestone crescent underlies those parts of the rivers where floods may most frequently occur, and therefore where its influence would be most required, along the remainder of its course by the east and north to Whitehaven it crosses the higher parts of the many rivers which radiate from the central water-parting of the Lake District, consequently where floods are either impossible or rare. These facts should be remembered when the statistics of cancer among females are discussed. The distribution throughout Great Britain of phthisis being so markedly the reverse of that of cancer, it is always instructive to study the two causes of deaths together whenever possible.

The English Lake District.—The seven registration districts that constitute the English Lake District belong to three different counties: (1) Cumberland, including Penrith, which may be said to share Ulleswater with Westmoreland; Cockermouth, in which are Thirlemere, Derwentwater, and Bassenthwaite; Buttermere, Crummock, and Lowes Waters; Whitehaven with Ennerdale, and Bootle with Wastwater. Two belong to (2) Westmoreland West Ward, sharing Ulleswater with Penrith, and containing also Haweswater and Brotherswater; and Kendal, which includes Kentmere, Windermere, and Grasmere. One district belongs (3) to Lancashire — Ulverston, — which includes Coniston-water, and may be said to share Windermere with Kendal. All these lakes average a level of 326 feet above the Ordnance datum.

The Distribution of Cancer and Phthisis in the Lake District compared.—In 1868, in a paper read before the Medical Society of London, I first pointed out the significant fact that throughout England and Wales the distribution of these two diseases greatly differed from each other; so much so, in fact, that the *high* mortality districts in one map were, as a rule, represented by *low* mortality in the other, and that when low mortality from these two causes of death were coincident, the districts were found to be the healthiest, as indicated by their death-rates from "all causes." In 1887, in a lecture delivered at the Edinburgh School of Medicine, embodying the results of recent investigations throughout Scotland, I showed that these diseases had a similar distribution in North Britain. With regard to the Lake District, I have shown that throughout the twenty years 1851–1870 it had a low mortality from cancer among females as the rule. In Great Britain the districts having the highest death-rates from phthisis are invariably those that are most exposed to the full force of prevailing winds, which I have explained in my work on "The Distribution of Heart Disease, Cancer, and Phthisis," and again in the one on "Scarborough." We shall therefore be prepared to find that the most exposed lake districts have a higher death-rate from this cause than the more protected ones. Thus the exposed lake districts are Cockermouth (28·53), Whitehaven (26·54), Bootle (35·88), Ulverston (28·61); the mean annual death-rate from phthisis to every 10,000 females living being 28·61. On the other hand, the sheltered lake districts have a less though still high death-rate: thus, Penrith (26·71), West Ward (25·95), Kendal (28·07), mean, 26·91. When, however, we take the cancer death-rates a great difference is seen. Taking the districts in the same order, the annual death-rates from cancer among females are as follows:—The coastal: Cockermouth (4·58), Whitehaven (2·93), Bootle (3·23), Ulverston (2·88), mean 3·40. Inland: Penrith (5·11), West Ward (4·67), Kendal (3·12), mean 4·30. If we take the mean cancer and phthisis death-rates among females for the seven lake districts during the twenty years 1851-70, we find the following—cancer 3·80, and phthisis 28·38, the latter very high and the former very low, but strictly in accordance with the rule stated above. Again the coastal lake districts have a mean death-rate for cancer of 3·40, and phthisis 29·49, the former below and the latter above the lake standard. Whilst in the inland districts the reverse obtains: the cancer death-rate, although low when compared with that of England and Wales for the same period (4·78), is higher than the local standard (3·80), amounting as it does to 4·30. This, too, is in perfect harmony with what I have taught prevails throughout Great Britain. Of the inland districts Kendal (3·12) was the lowest cancer death-rate, and this agrees with its double character, for, independently of its geological features, which are all in favour of a low cancer death-rate, an important section of its population (55 per cent.) is exposed to the full influence of the prevailing winds from Morecambe Bay, which thoroughly air-flush the lower valley of the Ken and thus keep its local climate free from stagnation and the consequent accumulation of injurious emanations from the soil. Coincident with this free exposure of the lower valley to the full force of the winds from the sea, we find that, whilst it has the lowest death-rate from cancer, it has the highest from phthisis amongst the inland lake districts.

The Increase of Cancer.—In 1886 I read a paper before the Collective Investigation Committee appointed in accordance with the suggestion of the Berlin Medical Congress with the view of reporting upon my works on the distribution of disease, in which I drew attention to the fact that, whilst undoubtedly cancer was increasing and phthisis decreasing in this country, the latter disease had been found to be increasing in some districts where cancer was actually decreasing. In the Lake District cancer has increased very little indeed among females. In the north Lake District it has actually decreased, the death-rate in 1851–1860 being 4·15, whilst in 1861–70 it only amounted to 3·99. In the south Lake District in 1851–60 it was 2·75, but in 1861–70 it rose to 3·63; whilst for the whole of the Lake District the rates were 3·52 for 1851–60, and 3·82 for 1861–70. During the same periods the districts of Cumberland and Westmoreland outside the lakes had a mean death-rate in 1851–60 of 3·63, whilst in 1861–70 it amounted to 5·58. It may therefore be said that, among the female population living within the influence of the English lakes, cancer during the twenty years 1851–70 pursued a steady low course, whilst generally throughout England and Wales it had been increasing in its ravages, and that this increase was evident even in the districts immediately outside the lakes.

There is yet a more certain and useful test of the accuracy of the above statement—namely, the elimination from the mean female populations and the deaths of cancer occurring among them of all women above thirty-five years of age, and of the deaths that took place at and above that age during the twenty years 1851–1870. During those twenty years the mean female population in the Lake District amounted "at all ages" to 98,580, amongst whom 729 died of cancer. At the same time there was a mean population of women living, amounting to 30,757, at and above thirty-five years of age, of whom 693 fell victims to cancer, so that over 95 per cent. (96·06) of the deaths from this cause among females occurred at and above thirty-five years of age.

Now, if we take the annual death-rate from cancer to every 10,000 women living at the above age-period, we shall find that, whilst in England and Wales it amounted to 14·31, in the Lake District it reached only 11·50, equal to an annual saving of 2·81 to every 10,000, which, in round numbers, among the 30,000 women, would equal a saving of 170 lives during the twenty years. In other words, the death-rate in the Lake District being 11·50 instead of 14·31, nearly 20 per cent. (19·63) of valuable lives are saved from succumbing to this terrible cause of death.

When it is proved that a fell disease like cancer claims victims in every district of South and every county of North Britain at an increasing rate, and whilst the natural history of such a long-torturing cause of death is still quite unknown, it is a gain at least to discover where certain conditions of soil and local climate exist that are proved to be coincident from one end of this country to the other, with its least power to torture and destroy; it is satisfactory also

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to know that the conditions favourable to the lowest form of mortality from cancer are well defined, of certain character, and admit of a simple description and an explanation which appeals to the understanding and common sense of all. To know where those should go or be sent who are threatened with this disease, with the best chance of arresting its development, is a gain in preventive medicine; and it is a relief to know that the most beautiful part of our country—the English lakes—not only possess the conditions of soil and climate found to be the least conducive to the growth of this disease, but that these conditions have during the twenty years taken been effective in keeping it at bay, whilst in other parts, and closely around, cancer has been gaining ground.

I first studied the physical configuration of the Lake District in relation to local climate and disease distribution from Windermere, where every facility for investigating the northern Lake District is at hand during the season. During my last investigation I selected Kendal as the centre, and found it an admirable station, the neighbourhood being full of interest for the naturalist, the archæologist, the geologist, and the medical geographer. The beautiful drive from Kendal over the Windermere Ferry at Bowness, by Esthwaite, Tarn Hawes, through Hawkshead to Coniston-water, and back by Ambleside, Windermere, and Staveley, will give the student a better idea how local climates are formed, and how much they are dependent upon the geological structure and physical configuration of the district, than any written description, especially if he make on his way graphic notes in his sketch-book. From Kendal, too, the limestone country around the rivers which flow into Morecambe Bay can well be studied, as well as the superficial drift deposits, forming *drumlins* of sand and gravel over 300 feet high sometimes, as the Castle Hill. The "Concangium" at Water Crook, south of the town, is highly interesting to the visitor, and has much to tell the medical geographer. This old Roman Castrum, the flocks of gulls that fly around and feed in the river around it, and even the stormy petrels found sometimes in the streets of Kendal, are all regarded with interest by those who study local climates with the view of tracing their connexion with local flora and local diseases.

NEW ANTISEPTIC ARTIFICIAL TYMPANIC MEMBRANE.

BY JOHN WARD COUSINS, M.D. LOND., F.R.C.S.,
SENIOR SURGEON TO THE ROYAL PORTSMOUTH HOSPITAL AND TO THE PORTSMOUTH AND SOUTH HANTS EYE AND EAR INFIRMARY.

THE essential qualities of a good artificial drumhead are numerous. 1. It must, first of all, decidedly improve the hearing power. 2. It must be so constructed that it can be easily placed in the right position and easily removed; it ought also to be especially adapted for self-application. 3. It must be extremely light and delicate in structure, so that it causes no sensation or irritation in the meatus by its presence. 4. The artificial drumhead ought also to be an efficient protector to the injured organ, and a screen for maintaining the moisture of the exposed tympanic cavity. 5. It should be capable of fitting the varying capacity of the external meatus, so that, when once placed in position, it is not liable to displacement. 6. It ought to be a convenient vehicle for the application of local astringent and deodorising remedies. 7. The contrivance should be obtainable at a trifling cost, so that a new artificial membrane may be used as often as necessary.

The new membrane which I desire to submit to the criticism of my professional brethren is represented in Fig. 1. In shape it is exactly like a hat with a very high and tapering crown and a broad and flat brim, having a short ribbon attached to the edge. It is just firm enough in substance to retain its shape in the ear, and yet the material is so soft and flexible that it causes no sensation by its presence. It is stained a delicate flesh colour, and is made in several sizes to suit the varying capacity of the external meatus. When in position the crown rests near the tympanic membrane, the brim upon the meatal wall, and the little ribbon or handle behind the tragus. The method of manufacture has been worked out by a series of experiments. The material is composed of compressed cotton fibre, swollen by prolonged immersion, and saturated in an antiseptic oil and ether. The soft material is then firmly compressed in a little machine that I have designed for the purpose, and afterwards dried by artificial heat.

One marked feature of the new antiseptic membrane is its extreme lightness. The weight varies a little according

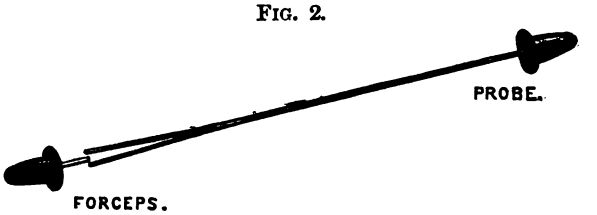
FIG. 1.



to the size, and this has a range from one-sixth to one-quarter of a grain. I have often introduced it without the patient being aware that anything had been put into the meatus.

Another special quality consists in the facility with which it can be introduced and removed by the patient himself. The little instrument for the self-application of the artificial membrane is depicted in Fig. 2. The probe end is

FIG. 2.



inserted into the crown of my little hat, and in this way it can be accurately placed in the meatus, and then detached from the instrument by the aid of the sliding collar. Patients very soon get into the way of adjusting it and slipping it into position, with just the right amount of pressure for securing the best result. The forceps is intended to be used for the removal of the artificial membrane, and in doing this patients are guided by their tactile sensibility. Traction is made upon the handle, which ought always to be easily found resting just behind the tragus.

It is a matter of great practical importance in every case that the artificial membrane should be selected to suit the shape and capacity of the external ear. It is my practice to regulate the height of the crown by the sensations of the patient and the breadth of the brim by the size of the meatus. It must not fit too tightly, but simply rest in contact with the meatal wall, so that after it has been put into the right position it does not get easily displaced. It is not necessary to place the crown upon the perforation or in contact with the remnants of the tympanic membrane. The surgeon cannot select the point of contact by any internal scrutiny of the organ; but, in every case he must be guided by the sensations of the patient and the improvement produced in the hearing power.

The artificial drumhead may be regarded also as an ear protector and a local antiseptic remedy. I have recently made some impregnated with the oils of eucalyptus globulus and pumiline pine in combination with other aromatic substances, and their agreeable fragrance renders them extremely grateful to some patients, especially those who have suffered from offensive discharge. Other patients with perforation of the tympanic membrane, but without serious deafness, have used them as ear protectors with great comfort. In such cases the artificial membrane forms a screen between the middle ear and the external meatus, and acts as an efficient shield during rough and cold weather.

With reference to the length of time an artificial membrane can be retained in the ear, I recommend a fresh one to be introduced every day, and of course this is absolutely necessary in all cases of otorrhœa. It should be taken out

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during the night, and put in directly after the local treatment is finished in the morning. Some patients make one of the drumheads do for two or three days. A medical friend, who has been using my little hat for several months, informs me that he has often kept one in his ear for a week without removing it. Of course this is a detail which must vary in different cases, and patients soon learn to arrange it for themselves.

The antiseptic artificial membrane does not require to be moistened before introduction. If the passage is dry, it should be wiped out with a weak solution of boracic acid or any deodorising lotion. On two occasions only patients have complained of some temporary irritation from its presence in the meatus. One was a case of gouty eczema of the auricle, and in the other the external ear was particularly tender and irritable from chronic inflammation. Under these circumstances a morsel of lanoline containing cocaine can be used with great relief just before the introduction of the artificial drumhead, and I always direct that the membrane should only be retained for a few hours at a time until the sensibility of the meatus has subsided.

The new antiseptic artificial membrane and aural probe can be obtained from Messrs. Burroughs, Wellcome, and Co., Snow-hill Buildings, E.C., at a very trifling cost.

Southsea.

HAIR PASSED IN THE URINE.

BY WILLIAM O'NEILL, M.D., M.R.C.P. LOND.,
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ON May 5th. 1887, I was consulted by Mr. A—— for disease of the bladder, one very remarkable feature of the complaint being that he passed hair in the urine. The patient was fifty years of age, rather short and stout, and regular and temperate in his habits. Twelve months before he called upon me he began to suffer from irritability of the bladder; three months after this he noticed blood in his urine; and about five months subsequently to the hæmorrhage he discovered hairs in that fluid. The hairs at the outset were single and not very numerous; but as time went on they increased in number, and some of them formed little tufts. The patient sometimes felt a sense of weight and uneasiness in the region of the bladder, but he did not seem to have suffered much pain, excepting occasionally when in the acts of micturition the flow of urine was interrupted by clots of blood. The hæmorrhage from its commencement recurred every five or six weeks, but the bleeding was not very profuse at any time. In the attack preceding his calling upon me, he thought, however, that he had lost more blood than on any other previous occasion; nevertheless, he was still a ruddy-faced, healthy-looking man. He had declined in weight, but this he accounted for by recently defective appetite, and from being frequently disturbed in the night by the irritability of the bladder. The patient's urine was abundant, averaging about four quarts a day, but then he indulged in copious draughts of milk, to which he was rather partial. The specific gravity of the urine ranged from eight to ten degrees; the reaction of the urine inclined to alkalinity, and when free from blood it contained merely a trace of albumen, but no renal casts, mucus, or pus. Floating in the urine, or lying on the bottom of the chamber-vessel, now and again could be seen particles of matter which the patient called "skins," and which to my unassisted eye looked like little bits of coagulated albumen or fibrin stained more or less with blood. Also in the urine at all times could be seen hairs, more or less numerous, of various shades of dark and light colour, and varying in length from half an inch to two inches and a half, and I have seen a few hairs not less than four or five inches in length, which he assured me he had drawn out of the urethra. On looking at some of the ordinary hairs that I chanced to have preserved, I find the majority of them are light in colour, and that the thick and thin ends are well marked, even in the most downy specimens. When the urine contained blood, the hairs assisted in forming little clots, which the patient had sometimes difficulty in voiding; indeed, it was this fact that first drew his attention to the hair. As might be supposed, some specimens of urine contained more hair than others. On one occasion I fished out of a chamber-vessel not quite full of urine a small ball of hair. The patient, who was a clever man, frequently looked at the hairs through a microscope, and was familiar with their appearances and peculiarities. I have had the urine microscopically examined by two young medical men, who in addition to the hair only found some blood-corpuscles, epithelial scales, and on one occasion pus-cells. To prevent any extraneous matter finding its way into the urine I ordered the chamber-vessels to be always washed with pure water before the patient passed urine into them, and to be kept closely covered till examination took place. In the carrying out of these commands it was not an uncommon thing to see a row of six or eight vessels arranged along the wall of the patient's bedroom; the arrangement frequently excited a little mirth in some of his relatives, who could not see any use for "such a display of crockery."

I may say that with the exception of the bladder complaint Mr. A—— considered himself in fairly good health. His pulse was regular, his heart and lungs were sound, and there was little or no increase of temperature. On account of the hæmaturia he was ordered gallic acid and hamamelis virginica, and when the hæmorrhage was subdued he took nitric acid, buchu, uva ursi, and strychnine. In this way he went on slightly improving until the sultry weather of August, when he was attacked by most violent diarrhœa and vomiting, and whilst in this state he was suddenly seized with apoplexy, which carried him off in a day or two. I was told that the patient's family is peculiarly susceptible to bowel affections, which in its members generally assume a grave character, for two of his sisters and a brother had died of intestinal diseases of some kind.

In the absence of a post-mortem examination, it is impossible to say what the state of the bladder was that gave origin and growth to the hair which constantly appeared in the patient's urine. It may have been that the hæmorrhage, the hair, and the so-called "skins" came from the same diseased surface, or from a tumour of some sort in the bladder. I have an impression that the blood proceeded from a villous or papillomatous tumour, and that the hairs grew on the mucous membrane, from which they were constantly shed. Hair passed in the urine must be a very rare phenomenon for, on referring to Dr. Neale's "Digest," that valuable work gives only two examples of it—one published in THE LANCET in the year 1860, and the other in the *British and Foreign Medico-Chirurgical Review* for 1874. I regret that on neither of these papers am I able to lay my hands. Infrequent as the disease is, it has been heard of by some of the vendors of quack nostrums. Before I had seen the patient, he had been taking for several months a mixture which an accompanying advertisement stated would cure many and various maladies, and among the rest the disease which caused hairs to grow in the bladder.

Lincoln.

ON THE PATHOLOGY OF RENAL DROPSY.

BY A. G. AULD, M.D.

THE pathology of dropsy, and of renal dropsy in particular, has excited considerable interest and discussion since the experimental inquiry which is chiefly associated with the name of Cohnheim.[1]

With respect to the œdema of hydræmia, Cohnheim, and with him Lichtheim, found in their experiments that a simple hydræmia or even hydræmic plethora was insufficient for its production. It was necessary that a change in the capillary wall of a paralytic nature be superadded, tending in all probability to cause a loosening of the attachments of the endothelial cells of which it is composed. In one experiment, Cohnheim and Lichtheim ligatured the iliac vein of a dog, yet this was not followed by œdema of the corresponding limb. Ranvier repeated the experiment, and in addition divided portions of the sciatic nerve. It was found that while section of the motor fibres of the nerve gave negative results, section of the vaso-motor fibres was followed by œdema of the limb. Salvioli obtained similar effects in dogs rendered artificially hydræmic. With respect also to the lymphatics, it is found that their complete occlusion is, at least for a time, un-

1 Virchow's Archiv, vol. lxix., p. 106: "Ueber Hydrämie und Hydrämisches Œdem."

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attended by œdema of the pertaining parts. In another experiment Cohnheim depleted a dog, and injected salt solution till hydræmic plethora ensued. The result was a great increase of the natural secretions—e.g., saliva, bile, urine, and intestinal fluid; but not until the hydræmic plethora was of the most extreme kind was any dropsy manifested, and then in the form of ascites only. Not only so, but Fleischer,[2] after tying the ureters and adding urea to the injected liquid, failed to obtain anasarca, nor was the blood pressure permanently raised.

On the strength of these and such-like experiments, Cohnheim came to the conclusion that dropsy occurring in the human subject was caused, not so much by a hydræmia or hydræmic plethora, as by a morbid alteration in the walls of the capillaries favourable to an increased transudation of their fluid contents. This alteration he considered to be due to the direct action of a particular poison existing in the blood, the nature of which is problematical, but defined by some in the case of renal dropsy as the same specific agent which affects the kidney. It is, however, suggested by Brunton[3] that it may be sarco-lactic acid, which, in conditions of imperfect oxygenation, may be formed instead of carbonic acid, he and Cash having discovered that the addition of dilute acids to the blood not only causes increased permeability of the vessels, as observed by Gaskell, but also œdema of the surrounding tissues. In reference to this question, it may be said that, apart from inflammatory conditions, there is but scant evidence to maintain the proposition that the existence, and even the prolonged existence, of a poison in the blood has any direct influence in the production of dropsy. Were it so, this symptom would be much more frequent, and at the same time much less significant, than it really is. Quite an exceptional instance, however, is found in the case of arsenic, which causes an œdema of obscure origin said by Feitelberg[4] to be the outcome of defective oxygenation. It could hardly be justifiable to adduce the malignant œdema of Koch in this connexion, which is due to the action of a bacillus, though Bienstock,[5] indeed, states that a somewhat similar organism can be cultivated from the fæces of man. On the other hand, there can be no doubt whatever that there are poisonous substances which by reason of their deleterious action on the blood act as remote causes in the production of dropsy. This is well illustrated in the case of the œdema of chlorosis, there being every reason to believe that this cachexia is intimately related to the absorption of ptomaines and leucomaines from the stomach and intestinal tract, as declared both on pathological and clinical grounds by Bouchard, Duclos, Sir Andrew Clark,[6] and others.

Again, with respect to the locality of the œdema, it is found in disease, and especially in renal disease, that hydræmic plethora is chiefly associated with symptoms the very reverse of those occurring in Cohnheim's experiment—with œdema, namely, of the skin and superficial tissues of the body, and with a diminution of the natural secretions and excretions. Pathologists have been much troubled over this very decided though instructive contrast, for the explanation of which various opinions have been advanced. Cohnheim himself supposed the skin in renal disease to be in a morbid state, its vessels debilitated, and more susceptible to the action of the poisonous agent which he believed to exist—a condition which, indeed, demonstrably obtains in the case of scarlatinal dropsy. Coats,[7] commenting on this, imagines that a special vulnerability of the skin, is, from its physiological relationship, to be apprehended in kidney disease, and he further considers it probable that it is injured by the same irritant which attacks the kidney. Hamilton,[8] in his search for an explanation, goes almost the length of contradicting himself. He believes the œdema to be induced by a long-continued stretching of the skin, for the production of which there was not sufficient time in the experiments on dogs, and yet elsewhere he states truly that the superficial œdema commences where the tissues are very lax. The most striking negation to the theory that the œdema of the skin is owing to a special participation of this texture in the disease is that afforded by the similarly distributed œdema which results from retention of urine, independently of any renal disease. This curious phenomenon has been particularly investigated and described by Trousseau.[9] Its symptoms consist in an enormous distension of the bladder, with frequent or continuous dribbling of healthy urine and anasarca. Trousseau imagines that a flow of urine may take place backwards by the ureters into the kidneys, distending these organs and impeding their functions. It has suggested itself to me that part of the urine may be absorbed by the distended bladder; but, anyhow, the fact remains that the anasarca is unattended by any disease of the kidney.

The very fact that the results of experiment on healthy animals bring into such bold relief the results of disease in the human subject suggests the greatest caution in dealing with them as standards of reference in pathological questions. Such ingenious theories as those referred to, which have been constructed to reconcile the dissimilar phenomena, are thus *a fortiori* liable to be impeached as tending only to obscure the light which these experiments convey. And such truly I believe to be in great measure the case. When critically examined, the chief value of these experiments seems to consist in their leading to the reflection that disease does not shoot out its phenomena in an hour or two, but that it works long and often silently, is recondite in its nature, complex in its affinities, and usually fertile in its resources; that is to say, they indicate that in the elucidation of the phenomena of disease it is necessary to look deeper and more antecedent. And with respect to renal dropsy, I think there can be little doubt that its chief vital predisponent is that condition of the blood to which the term "anæmia" is conveniently applied. Clinical experience confirms this. "How is it," says Sutton, "that œdema is so prevalent in some cases and not in others? Frequently the renal symptoms—albuminuria, hæmaturia, giddiness, and shortness of breath—have come on, but with no appreciable dropsy. The dropsy is augmented with the increasing loss of red corpuscles, the coloured respiratory organs;[10] and it may be plausibly suggested that to the anæmia of Bright's disease as to chlorosis certain retained products of the organism, or their toxic derivatives, stand in a causal relationship. But, however originated, one of the most palpable facts in connexion with anæmia is failure of the blood adequately to carry on the circulation. Then, when to anæmia an hydræmic plethora is added, the conditions for the production of renal dropsy are fulfilled, whilst its distribution is regulated by physical laws. Consider the condition of matters. The blood, as already stated, is suffering intrinsically in progressive deterioration of its vital energy, particularly from progressive diminution of its corpuscles, which, by their mutual actions in the normal state, materially assist in the propulsion of the blood stream; it is, moreover, as Hamilton very appropriately insists on, signally impeded in its functions by alteration of its specific gravity. The plasma has become specifically lighter than the red corpuscles, which consequently cease to float with ease in the centre of the stream. Hereby the corpuscles, instead of assisting, only serve to retard the blood current, leading to increase of tension and the pressing out of a greater quantity of fluid than usual. But further than this, the specific gravity of the blood as a whole, from the advancing attenuation of its proteid constituents, is altered relatively to that of the plasma in the surrounding lymph-canalicular system, which will constitute another condition favourable to the transudation of the fluid within the bloodvessels; and such transudation will be rendered still greater by the loss of tonicity which the vessel wall shares in common with the rest of the tissues in this cachexia.

Now, in this hydræmic plethora, with its attendant difficulties of circulation, it is in accordance with dynamical principles that in those parts most remote from the heart—in the periphery of the body, namely—will the impediment be greatest; and, in accordance with the law of gravitation, the most dependent and the most lax of these parts will be specially involved. There the *vis a fronte* is greatest and the circulation is slowest; the venules become over-distended, and are unable to absorb and transmit the lymph which pours forth excessively from the capillaries. Should this state of matters continue, the circulation will fail nearer and nearer to the heart, until the fluid accumulates internally, in the serous cavities, lungs, and other organs, when death is imminent.

On the other hand, with regard to the phenomena which appeared in the subject of Cohnheim's experiment, their

[2] Sitzungsb. d. Physik. Medic. Societät. zu Erlangen, July, 1885.
[3] Pharmacology and Therapeutics, third edition, p. 337.
[4] Quoted by Brunton, ibid., p. 337.
[5] Centralb. f. Med. Wiss., 1883, p. 949.
[6] THE LANCET, vol. ii. 1887, p. 1003. [7] Manual of Pathology, pp. 55-56.
[8] Text-book of Pathology, vol. i., p. 327 et seq.
[9] Clinical Medicine, vol. v., p. 388. [10] Medical Pathology, p 167.

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explanation may not be so far to seek when it is considered that the blood and internal organs were vigorous and healthy to begin with. A continuous effort would naturally be made by the healthy organism to rid itself of the superabundant fluid by means of the natural channels. This would lead to venous engorgement in and around those organs whose functions were exalted. Such would notably take place in the abdomen where excretion has its seat, and hence the resultant ascites. But in disease these conditions are reversed, and the organism perforce seeks relief through other channels, for the excretory organs are appealed to in vain towards the riddance of a foreign element whose invasion they have been powerless to resist, and under whose yoke they are paralysed.

Glasgow.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

THE INHALATORY TREATMENT OF PHTHISIS BY MEANS OF SUPERHEATED AIR.

By ALEX. BOWIE, M.D., M.S.

IN order that the bacilli of tubercle may abundantly flourish, a temperature of 99° is a necessity. If the temperature be lowered to 84° or raised to 107·6° they are rapidly killed, their vitality diminishing as we recede in either direction from their normal point. Such a trivial rise as 3° above the normal temperature is sufficient to markedly retard their developmental energy. With these facts in mind, it is somewhat strange that, until recently, no one should have suggested a method by which diseases of the human being associated with or dependent upon the bacillus of tubercle might be treated by exposing the diseased surface to a temperature necessary for their destruction. The inhalatory treatment of phthisis is as old as Hippocrates, and apparently every conceivable method has been freely used, with the exception of superheated air. We have had fumigations with aromatic and stimulating substances, ranging from sea air to sulphurous waters, from pine cones to elaborated combinations of balsamic herbs. With the birth of chemistry the physical properties of the air received attention, and Henshaw crystallised the thought of the time by erecting, in 1664, his *Domicilium*, where acute chest diseases were treated by condensed, and chronic by rarefied, air. The inhalation of oxygen was followed by treatment with diluted air; and, finally, phthisical patients were recommended to spend a considerable portion of their lives in diving-bells, to obtain the advantage of compressed air. The introduction of sprays of medicated and natural thermal waters marked another advance, but each system fell more or less into disuse from insufficiently satisfactory results. My experience with the inhalation of superheated air has, so far, yielded results of a very favourable nature. The apparatus used was Weigert's, in which the temperature expired by the patient after a few trials may reach from 120° to 140°. The inspired air, according to the thermometer in the tube, may be as hot as 570°, but I do not think the actual inspired air is ever hotter than from 280° to 300°.

In February, 1889, I was consulted by a married man aged twenty-seven, who had been ill since 1885. He had suffered from recurrent attacks of hæmoptysis, and had expectorated as much as thirty ounces of blood in three days. He had cough and profuse muco-purulent expectoration, containing abundance of tubercle bacilli. There were loss of appetite, nausea, and vomiting in the morning, marked wasting of the body, and shortness of breath, with inability to lie down in bed. Both apices gave the physical evidence of phthisis. The first effects of the inhalations were a slight rise in temperature, generally about half a degree, increased rapidity of the pulse rate, and diminished frequency in breathing. These lasted from one to three hours after the inhalation. The cough and expectoration were increased, but showed signs of abatement after four weeks' treatment. His morning nausea and vomiting from the first disappeared, the appetite improved, his rest was less disturbed, and his sleep was more refreshing. His sputum, as it diminished in quantity, contained relatively less of the bacilli. At the present time there is no regular cough, and expectoration is absent. He complains of no shortness of breath; there is an increase of 4lb. in body weight, and the chest girth is believed to be larger. His appetite and digestion are good, he can lie down just as before his illness, and he performs the ordinary work of a shopman without any particular discomfort or consequent exhaustion. There are still present slight consolidation of his left apex, with slightly prolonged expiration, but these have diminished in a continuous line. During the treatment no medicine was prescribed. Cod-liver oil had previously been abandoned on account of gastric intolerance, but this was resumed three months ago, and has always been retained.

Since the improvement in the above case became marked, I have not hesitated to advise the treatment in several others, in each of which improvement in the disease and comfort of the patient have occurred. But the one case is, I believe, a sufficient reason for calling attention to a new and most hopeful means of treating an intractable disease.

Harley-street, W.

COLOTOMY SUCCESSFULLY PERFORMED FOUR DAYS AFTER CHILDBIRTH AND EIGHTEEN OF TOTAL OBSTRUCTION.

By H. GEARY DYER, L.R.C.P. EDIN., M.R.C.S.

THE following case, which I will report as briefly as possible, is, I think, of sufficient interest for publication.

On April 2nd I was sent for to see Mrs. S——, who was in daily expectation of being confined with her first child. She was then complaining of constant vomiting and constipation, for which I prescribed liq. bismuthi co. and hydrocyanic acid, telling her it was in all probability due to her condition, and that her symptoms would be relieved as soon as she was delivered of her child. I also gave her three grains of calomel for the constipation; but she experienced no relief to either symptom. At 3 A.M. on April 5th I was again called to her, as she was in labour. Nothing unusual occurred in the parturition, except that it was (as might have been anticipated in a primipara of thirty-five) a little lingering; no instrumental aid, however, was required, and the child was born in the ordinary manner at 9.30 A.M. No fæces escaped with the child, though there had been twelve days' total obstruction, and, on examining the rectum, I found it, to my surprise, perfectly empty. I could find no hernia in any of the usual positions for such swelling. On visiting her that night, I found the sickness still proceeding, but not stercoraceous; bowels still confined; temperature 101°; pulse 120; commencing swelling of the abdomen, which was tympanitic. The next morning (April 6th) I administered a warm soap-and-water enema, which, however, brought nothing away. I then introduced a long tube, and gave another enema with turpentine, the result being the same. I saw her again that night, and found the vomiting stercoraceous, the abdominal swelling greatly increased, the temperature 103°, the pulse 130, and the countenance most anxious. The next day (the 7th) Mr. Wyke-Smith, of Wimborne, kindly saw the case with me, and, finding my patient becoming rapidly worse, we administered chloroform and made a thorough rectal examination with hand and forearm introduced. The rectum was perfectly empty. An attempt made to pass the tube into the sigmoid flexure failed. A growth from the sacrum was distinctly felt pressing on the bowel, but there was no evidence of abdominal or uterine tumour. We both agreed that nothing could save the patient's life but operation, and made arrangements for performing this the next day. On visiting her then (April 8th) we found her anxiously looking forward to our arrival, but, although her "pluck" and sound common sense kept her up, her condition was most critical. The abdomen was so enormously distended that the intestine could be clearly mapped out on it; constant stercoraceous vomiting was still going on, and the pulse was so rapid that we could hardly count it. Dr. Batterbury, who had kindly accompanied his partner, Mr. Wyke-Smith, fully coincided with us as to the urgent need of an operation, and entirely agreed with our diagnosis as to a growth from the sacrum, causing obstruction by pressure on the rectum. My assistant, Mr. Hiley, was also present, and rendered me most valuable aid. I need not describe the operation I performed, which was that of left lumbar colo-

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tomy. Suffice it to say that I had no difficulty in reaching the bowel, and, after stitching it to the skin in the usual manner and opening it, I was rewarded by witnessing the most enormous escape of semi-fluid fæces that I should imagine can ever have occurred, filling as it did upwards of three chamber vessels. From a temperature of 105° that night and a pulse of 145, both fell to normal within a week. The wound united splendidly. The patient was up in ten days, out of doors in a fortnight, and at the present time frequently walks four and five miles a day. She removes the plug night and morning, and keeps the motions perfectly inodorous with charcoal. There is a strong family tendency to cancer, but, as far as I can make out, there is at present no appreciable increase in the growth.

Ringwood.

ACUTE EPIGASTRIC PAIN IN PREGNANCY ASSOCIATED WITH ALBUMINURIA.

BY H. F. BAILEY, M.R.C.S., L.S.A.

THE following case presents so many points of interest that I venture to relate it in detail, trusting it may act as a warning to any brother practitioner who may meet with a similar condition.

The patient, a primipara, aged twenty-seven, was expecting her confinement on or about Feb. 24th. Her friends had noticed that she was unusually "fat" about the face and hands, and she was aware that her feet and ankles were swollen. Her chief complaint was of pain in the epigastrium, and was attributed to indigestion. I saw her on Jan. 23rd, and found œdema of the feet and legs up to the knees, but not well marked; the hands were certainly swollen, and there was puffiness about the eyes and face. She complained bitterly of the great pain at the epigastrium, passing through to the back; this characteristic was very marked later on in the progress of the case. On inquiry, I ascertained that she had partaken of oysters and spiced beef for luncheon, and hence rather acquiesced in the dyspepsia theory; but, on examining the urine, I found a trace of albumen. The pain was not always present; indeed, there would be none for some hours, and she would take a walk; but it invariably returned, and became more intense as time went on, reaching an acme and then declining. There was no desire for food, and her condition was one of absolute misery. The pain was so severe that often she writhed and sobbed with it. She assured me afterwards that the labour pains were nothing compared with those of the epigastrium; she always described them as cutting in character and passing through to the spine. At first I gave the ordinary remedies for dyspepsia, and regulated the diet; but these things entirely failed to relieve her, and all the symptoms became worse. In face of the albumen I did not much like giving opium; but to relieve her I sacrificed my scruples and administered good doses, which utterly failed. By Feb. 8th the sickness had become a marked feature of her case, and the pain was much increased in severity. Her mental condition was one of great depression. I found that the albumen had reached one-eighth. It was now evident I had an unusual and dangerous case to encounter, which might necessitate the induction of labour if eclamptic symptoms supervened. In casting about for guidance, I met with a paper by Dr. John Phillips[1] on this subject, where he draws attention to this rare and serious complication. Mr. Raven more recently has quoted from the same paper, and added a case of his own.[2] While deliberating on my plan of action, to my great relief labour came on prematurely on Feb. 10th. All went well, the os dilating, and the head descending rapidly. Suddenly the patient was seized with general rigidity, the hands taking the attitude of extreme extension, and the fingers being bent backwards. I gave a little chloroform, and delivered rapidly with the forceps. The child was starved and decrepit-looking, but thrived ultimately. The mother did well, all albumen disappearing on the second day. She had absolute immunity from pain after the labour terminated. The only drug of any use was cocaine, which, however, I only discovered to be of service just before labour began.

The above case seems a typical one in its course and symptoms, and for this reason I have felt it right to add it to those already placed on record.

Blackheath, S.E.

[1] THE LANCET, April 2nd, 1887. [2] Ibid., Oct. 13th, 1888.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

WEST LONDON HOSPITAL.

FIVE RECENT CASES ILLUSTRATIVE OF CEREBRAL SURGERY; REMARKS.

(Under the care of Mr. C. B. KEETLEY and Drs. DONALD HOOD, J. B. BALL, and COLMAN.)

THIS group of cases, the first of which we give this week, are worth recording, owing to the difficulty which still attends accurate diagnosis and correct judgment in the treatment of cerebral cases. Case 1 illustrates the value of operating mainly with the object of cleansing and asepticising the wound. Without the use of the trephine (or of some substitute such as the chisel and mallet) the bullet track could not possibly have been thoroughly cleansed of bone-splinters, "grime," and the piece of loose bullet found and removed. This case is also one of those extremely rare ones in which recovery, probably permanent (as nearly a year and a half has now passed safely by), with a bullet, or at all events the major part of it, remaining in the cranial cavity. In Case 2 the diagnosis of cerebral abscess may not be absolutely proved, as no pus appeared until three or four days after the trephining. But there are several considerations which point to this pus having come from an abscess opening itself through the trephine hole: (1) Under the microscope the pus cells were found extremely granular, and accompanied by a great deal of granular débris; (2) it came suddenly in comparatively large quantity, and a small stream overflowed from beneath the dressing for a short distance down the neck; (3) the pain in the head, the tenderness of the right orbit, the optic neuritis, and, in fact, the very symptoms which had preceded the operation and led to it, suddenly abated, and the patient was at once convalescent; (4) the suppuration did not continue; (5) the whole of the disc of bone, which had been replanted in small pieces, lived—not one necrosed; (6) the symptoms had so strongly pointed to cerebral, or at all events intra-cranial, abscess. There is a case reported by Sir William Stokes,[1] in which he only missed, "by the twentieth part of an inch," a traumatic subdural abscess "containing fully two and a half or three ounces of healthy, cream-coloured pus"; in fact, just the kind of pus which escaped from my case. Had Sir William Stokes' patient not died the day after operation, it is surely likely that in a few days the abscess would have opened itself, as in this case. It is not unlikely that in Elizabeth W——'s case the abscess was subdural and traumatic, and that each exploratory puncture of the trocar used passed internal to it. Two of the five cases illustrate a method of preserving a button of bone destined for replantation. A small longitudinal incision is made in the skin of the outer side of the thigh (other parts would do very well). With strict antiseptic precautions, including the previous preparation of the part of the thigh selected, the button is pushed through this incision into a subcutaneous pocket, and there retained with an antiseptic sponge or bandage until wanted. It is finally chipped into small pieces with bone forceps over the trephine hole and beneath a sponge. Mr. Keetley wishes to express his great obligations to Dr. Colman for assistance in the management of Case 2. The primary diagnosis was due to that gentleman. Cases 2, 3, and 4 were watched and reported by Dr. Sidney Bontor, Case 5 by Dr. Arkwright, and Case 1 by Dr. S. S. Sprigge. Dr. Percy Lush, as house physician, reported the first part of Case 3.

CASE 1. *Bullet wound of brain: trephining, partial extraction of bullet, drainage, recovery.*—E. H——, aged fourteen, was admitted into the accident ward on March 22nd, 1888. He accidentally shot himself in the left temple with an old

[1] Annals of Surgery, vol. viii., p. 243.

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revolver about nine o'clock that evening. The wound ran diagonally from about the centre of the temple backwards, outwards, and a little upwards—i.e., towards the upper part of the left temporal fossa. With the probe metal could be distinctly felt at no great distance from the point of entry. There were no cerebral symptoms, except vomiting.

March 23rd.—The operation was performed at 1.30 A.M. One-fifth of a grain of morphia was administered subcutaneously and chloroform commenced ten minutes afterwards. A horseshoe-shaped flap was turned downwards, exposing the bullet wound in the skull and the bone to the left of it. The track of the bullet was very oblique and towards the left. A small piece of lead was found immediately beneath the periosteum at the opening in the bone. A circle of bone, the size of a shilling, was removed from the left side of the bullet wound, and the first inch of the bullet track thus exposed. It was grimy and contained splinters of bone. It was carefully cleansed. A silver probe found its own way along the track till its point impinged on the inner surface of the cranium in the temporal region. There an irregularity could be felt. A fine pair of bullet forceps was passed down to this, which proved immovable, and was therefore left alone. A fine drainage-tube was passed in (for about four inches and a half), having a double loop of catgut in it. The soft parts of the wound were scraped and cleansed of grime. Iodoform crystals and gauze dressings were applied. The patient vomited frequently during the dressing and several times during the night.

24th.—Sick again this morning. Quite sensible. Bandage relaxed. Morning temperature 99°, evening 101·2°.

25th.—A little headache. No vomiting since noon yesterday. Quiet night. Morning temperature 100°, evening 100·6°.

26th.—Bowels freely opened after enema. No more vomiting. Continues sensible. Temperature normal. Wound dressed in the evening. Not much oozing into dressing. Wound looks well, but there is a little puffiness over the forehead and eyelids. Catgut loop withdrawn from inside the drainage-tube (which was not blocked). Tube drawn out a little and shortened three-quarters of an inch. Same dressing repeated with a small sponge over it. Ice-bag continued. No pain. Morning temperature normal, evening 99·8°.

27th.—No pain. Taking milk and beef-tea freely. Morning temperature 99·8°, evening 99·8°.

April 4th.—Distinct pulsation can be felt over the trephine wound; dressed for the third time and drainage-tube removed. A sponge was strapped over the dressing, the strapping encircling the whole head. Low diet still continued.

16th.—Dressing felt a little uncomfortable. Temperature rose in the evening to 100° for the first time since the second day after operation.

17th.—A drop of atropine having been placed in the left eye preparatory to ophthalmoscopic examination, the patient became angry and much disturbed, probably through misunderstanding and fright, and would not permit anything further to be done.

On the 23rd meat diet was given for the first time, and on the 28th he was discharged.

Remarks by Mr. KEETLEY.—He has been seen many times since both by myself and Dr. Gardner of Mill-hill Park, who attends his family. There of course remains a cutaneous scar and a deficiency in the bone, but otherwise he is well. The operation, including the trephining itself, was done as much with a view to cleansing and asepticising the track as with the hope of extracting the bullet. The result was that, instead of there being left a narrow, dirty, perhaps inflamed and sloughing canal, containing burnt powder and bone splinters, and ending at one extremity in the brain, there was a perfectly clean and aseptic tube of flesh and blood conducting a small soft drainage-tube down the bullet track in the brain, perhaps to its termination. A second point to be noticed is that the patient was kept over a month in bed on milk and beef-tea diet. The importance of keeping such a case quiet and unexcited for a long time is obvious. No one hesitates to keep a case of typhoid fever on prolonged milk diet. This boy was suffering from a condition much more dangerous and incomparably less exhausting than typhoid fever. Next to asepsis the prime indication was to secure quiet, physically and physiologically, and, especially in a healthy boy of fourteen, an unstimulating diet is not only antiphlogistic, but also helps to keep the patient tame and obedient. Where is the part of the bullet (almost the whole of it), and is it likely to cause future mischief? I would first ask—Is it possible for a narrow revolver bullet to pass through the motor centres in the cerebral cortex, or through the subcortical fibres radiating to them, without causing either paralysis or spasms? I should like to hear the opinions of Professors Horsley and Macewen on this point. I myself think it may be possible, but that it is not likely. I therefore think that the bullet in Edward H——'s case lies anterior to the motor area, and that it is lodged near the base of the left middle frontal convolution, I hope partly embedded in the dura mater and frontal bone there, and encysted. If the bullet had not been fixed, would it not before now have gravitated downwards during the day and backwards during the night? Such gravitation should have produced symptoms. Ten months have now passed over in safety. The bullet may by this time have slipped down to the roof of the orbit, and there become fixed and harmless. But if it continues to move backwards and downwards, sooner or later symptoms should appear, especially aphasia, and (much less likely) facial paralysis of cortical origin, or else some affection of the cerebral nerves at the base of the brain. The patient has the advantage of being under the continued observation of Dr. W. T. Gardner; he can be easily and promptly returned to the hospital at any time should any symptoms occur to localise the bullet, and I hope he is in a fair way to remain one of the few cases in which a bullet has lodged in the brain and practically complete recovery taken place without extraction of the missile. I should add that the left temporal fossa and its neighbourhood have been repeatedly examined, with negative results.

MARGATE COTTAGE HOSPITAL.

AMPUTATION OF FOOT, WITH RAPID UNION, IN SPITE OF SYPHILIS, GOUT, AND DELIRIUM TREMENS; REMARKS.

(Under the care of Mr. BERTRAM THORNTON.)

THIS case presents an example of recovery from amputation of the leg when many constitutional conditions unfavourable to rapid healing were present. Mr. Thornton attributes the success chiefly to the antiseptic treatment employed.

The patient, a debilitated man, aged thirty-eight, was admitted early in February, suffering from disease of the right tarsus, which eventually turned out to be of a tertiary specific origin. Mr. Treves, who first had charge of the case, made incisions into the foot and got away some necrosed bone on Feb. 22nd. In spite of the operation, the foot remained swollen and inflamed, and the evening temperature varied between 100° and 101°. As the man was rapidly going to the bad, and the foot began steadily to get worse, it was decided to amputate in spite of the man's unfavourable condition, for already he had characteristic gouty inflammation of several joints. On March 3rd, in Mr. Treves' absence, Mr. Thornton amputated the foot three inches above the joint by Teale's method, using the ordinary antiseptic precautions; two small drainage-tubes were inserted at the angles of the wound, and iodoform oil and liberal absorbent wool dressings applied. The amputated foot was totally disorganised, and had the horribly offensive odour so often met with in syphilitic bone disease. The amputation wound healed steadily and well, and by the eighth day was firmly healed, with the exception of two small superficial places at the angles of the wound.

Remarks by Mr. THORNTON.—The interesting features are—firstly, the extreme debility of the patient; secondly, the syphilitic condition leading to the operation, which condition was proved by the history of the patient and the evidence of scars about the legs; thirdly, the gouty inflammation of various joints before the operation and for a fortnight afterwards; and, fourthly, the onset of alcoholic delirium, with visions of a big black dog &c., two days after the operation, lasting more or less for a week or ten days. To add to the patient's danger there had just been a very bad case of erysipelas in the adjoining ward, from which he was mercifully spared. It is rare that an amputation should heal so readily under such extreme and varied pathological difficulties. In this case there were two more interesting features which are worthy of note, the first being the formation of an abscess extending from the head of the fibula to within two inches of the operation wound, with which it had no connexion whatever. It appeared to me

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that it might be due to the pressure of the Esmarch's india-rubber tourniquet, which was used with the ordinary amount of tightness at the operation over the old specific scars. Eighteen days after the amputation the patient was anæsthetised, and I opened the abscess above and below, and, as a second interesting feature, I pulled out a firm pyogenic membrane, which had the appearance and consistency of the fœtal membranes. A drainage-tube was passed through the cavity of the abscess, and membrane was discharged for about a week afterwards; and in another ten days the abscess cavity was obliterated and the two wounds quite healed. The case presented so many features of interest that I thought it worth recording. The surgeon has frequently to risk operation in syphilitic and alcoholic cases, but he is rarely called upon to operate in acute gout, and more rarely still in the presence of all three, to say nothing of the dread shadow of erysipelas in the background. The fact that this man successfully ran the gauntlet of all these foes speaks well for the blessings of antiseptic surgery, or at any rate for the vitality of the human race at the close of the nineteenth century.

Notices of Books.

A Treatise on Chemistry. By Sir H. E. ROSCOE, F.R.S., and C. SCHORLEMMER, F.R.S. Vol. III.: The Chemistry of the Hydrocarbons and their Derivatives, or Organic Chemistry. Part V. London and New York: Macmillan and Co. 1889.—This is the eighth volume of the great English work so well known to and so highly valued by English chemists. It is hard to guess when it will be completed, as there are still many important groups of compounds to be described; and we trust that a final volume, or at any rate an appendix, will give more detailed information in regard to physical and particularly to thermal chemistry, than has yet been afforded. The great merits of the treatise are its convenient classification and lucid style, the numerous references to original memoirs with which it is illustrated, and the admirable historical sketches, sometimes extending backwards to Ancient Egypt, Assyria, India, Arabia, Greece, and Italy, with which every important substance is introduced. This last feature gives constant interest as well as additional value to the book, and a good example is afforded in the present volume, where the history of discovery in regard to the terpenes and camphors is traced from Dioscorides and Pliny to Tilden and Shenstone in our own day. Each part—that is, each volume—of the organic portion of the book is complete in itself, and forms a monograph on some important series of compounds. The last two volumes (Parts 3 and 4) have been devoted respectively to the derivatives of benzene and of toluene and xylene. The present volume (Part 5) begins with ethyl-benzene and the styrolene group, in which amygdalin and isatin are included. It would perhaps have been more convenient if this group could have found a place in the previous volume. Then follows the cumene group. Nine hydrocarbons having the formula C_9H_{12} are now known, and they, as well as their leading derivatives, are sufficiently described. Cinnamic acid is at present the most interesting member of the group. About half way through the book we are introduced to the aromatic hydrocarbons containing more than nine atoms of carbon—the cymenes, of course, coming first. They are chiefly interesting because they almost certainly include the highly important terpenes and camphors, as well as caoutchouc and gutta-percha. The volume ends with an account of the last-named bodies and one or two allied substances.

Lessons in Gynæcology. By WILLIAM GOODELL, A.M., M.D. Third Edition. Philadelphia. 1887.—The review of a third edition of this book concerns principally the question of its revision to the level of present knowledge. This cannot be said to have been accomplished, notably in the case of pathology; for we find the old and incorrect statements as to the effects of flexions on the uterine circulation, as to the pathology of uterine cancer, and as to many other important diseases. Since practice must be based on pathology, our criticism is not merely pedantic. Some of the earlier chapters, being apparently clinical demonstrations on minor ailments, are graphic and practical, and there is much that is good in the work. No book, however, can be a sound guide for the student and practitioner unless it is abreast of the times; and in this respect the present work shares the fate of many others, when the author becomes too busy to read.

The Neuroses of the Genito-urinary System in the Male, with Sterility and Impotence. By Dr. R. ULTZMANN, Professor of Genito-urinary Diseases in the University of Vienna. Translated by GARDNER W. ALLEN, M.D., Surgeon in the Genito-urinary Department, Boston Dispensary. Boston: Cupples and Hurd. 1889.—The title of the work fully describes its scope, and the name of the author is ample guarantee for its thoroughness and systematic completeness. The translation is very poor, and the reader never loses the consciousness of reading a German book. It is not divided into chapters, there are no page headings, no table of contents, no index, and what may be called the editing of the book is extremely faulty. This will quite prevent its ever being a popular book.

Spinoza, "the God-intoxicated Man": a Short Account of his Life and Philosophy. By WILLIAM JOB COLLINS, B.Sc., M.D., &c. Enfield: Meyers, Brookes, and Co. 1889.—This little pamphlet contains an interesting sketch of the life, character, and teachings of a philosopher whose history and writings are still comparatively little known in this country. The author is probably right in attributing much that is distinctive in the nature and utterances of Spinoza to the influence of early personal and hereditary associations. Born of a Jewish family domiciled in Spain under the Moors, but afterwards exiled and established among the free and energetic Hollanders, he had on his side many circumstances favourable to the development of a mind at once artistic and philosophical, not wanting in worldly shrewdness, but remarkably sincere and disinterested. His frugality was conspicuous, and his unselfish devotion to principle came out in a pleasing light in his refusal, not only of honours which involved a retraction of his opinions, but of emoluments, like the legacy of De Vries, which he felt to be superfluous. In the treatise before us his religious and philosophical views, derived from his "Ethics" and the "Tractatus Religio Politicus," are explained with considerable clearness. His idea of the nature of God as an essence pervading all things, if its very vagueness proclaims that nature to be unfathomable, at all events frees him from the imputation of atheism. Christ is to him a singularly perfect man, and something more. He is the Eternal and embodied Wisdom of God to whom the Divine Mind directly and habitually revealed itself. There is a good deal of truth in his observation respecting the separate but mutually compatible spheres of faith and philosophy. The same might be said of his assertion that prophecy is a sort of skilled and often truthful imagination, and that miracles form a group of peculiar natural or not contra-natural phenomena. He justifies free thought in religion and in politics, and reasonably enough when we consider that he was himself most cautious in his freethinking and most free from dogmatism. This moderation in thought and statement is a mark of the sense of order which rules the mind of every great thinker; and it is, in our opinion, not the least notable point brought out by Dr. Collins in this brief history of a remarkable man.

Sinonia Chimico-farmacotecnica di Salvatore Di-Giorgi, Chimico-farmacista in Mazzara del Vallo. Milano, a spese dell' autore, 1889.—This little dictionary of chemical and pharmaceutical synonyms, though it does not refer to terms

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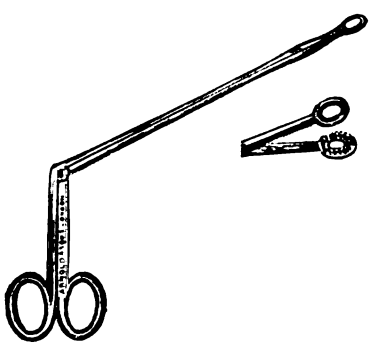
in other languages than Italian and Latin, will be of use to medical men and chemists who have occasion to look at or to make up prescriptions coming from several parts of the Continent, many of the terms in Italian being similar to those used in Spanish, and a good many Latin terms being inserted which are used in several continental countries, though almost unknown here, and therefore likely to puzzle an Englishman somewhat. For example: "Cianuro" in both Italian and Spanish is cyanide—a perfectly obvious fact after one is told it, but not quite so easy to evolve from one's inner consciousness without any hint to go upon. "Electuarium thericale magnum" is not a preparation of which most of us know anything, but by looking it out in Signor Di-Giorgi's work we at once become aware that it must be treated with caution, as one of its synonyms is "elettuario d'oppio composta," which would convey to the mind of any medical man or chemist, even though he might be entirely innocent of any knowledge of the Italian language, that he had an opiate to deal with. The work of course makes no attempt to give the strengths of the various preparation, nor does it say to what Pharmacopœias the different terms belong, so that the preparations grouped together as synonymous must only be taken as approximately so. This is, however, a defect which it would have been impossible to have avoided without very largely increasing the bulk of the little volume.

Mechanics and Experimental Science, Magnetism and Electricity. By ED. AVELING, D.Sc., Fellow of University College. London: Chapman and Hall.—Dr. Aveling's books, as we have already remarked, would seem to be designed to subserve the purpose of cramming, and even of cramming for the London University examinations. Hence they are very fragmentary, and although some of his expositions are highly successful, other parts of his work are of such unequal quality that, upon the whole, it attains only a modest standard of excellence.

New Inventions.

A NEW AURAL FORCEPS.

THE instruments which mark the growth of a specialty have a clumsiness directly as the development of such specialty. The instrumentation of aural surgery forms no exception to this rule. Many forceps designed for the removal of small polypi and granulations are so bulky as to obscure, on their introduction into the auditory meatus, the structure to be removed. Aural forceps have been constructed with the handles at various angles to the blades to obviate this difficulty, but the elements of delicate workmanship, strength, and appropriate shape are only met with in a comparatively small number of cases. These qualities, in my opinion, exist in an aural forceps which Messrs. Arnold and Sons of Smithfield have constructed for use. It is a modification of one which these makers supplied me with. The instrument consists of two blades placed at an angle of about 45° to the handles. The lower blade and handle consist of one piece, and are thus the fixed point of the instrument; the upper blade, together with the handle, consists of three portions. On separating the handles, the fine fenestrated end of the forceps is made to gape and grasp the object to be removed, and on approximating them the seizure is effected. The freely mobile portion of the blades is only about half an inch long; the entire blades to the angle, about four and a half inches. The accompanying woodcut reveals the above details; and after a considerable experience of such instruments, I have no hesitation in stating that this is the most convenient and efficient I have ever used.



ALEXANDER MORISON, M.D., F.R.C.P.E.

TREATMENT OF SCROFULOUS GLANDS.

To the Editors of THE LANCET.

SIRS,—I have read in THE LANCET of Aug. 24th an article on the Erasion of Scrofulous Glands, and in your issue of this week a letter from Mr. Thornton on the same subject. Surgeons interested in the treatment of scrofulous glands seem to be divided into three classes: (1) those who advise leaving the infected glands to the curative efforts of nature, or who advocate various medicinal remedies or local applications rather than operative measures for removal; (2) the advocates of erasion, amongst whom I may include the writer of the article; and (3) those surgeons who recommend excision. I have excised scrofulous glands for many years, and certainly, if I were compelled to limit myself to one of these three lines, I should take the last—viz., excision. But, fortunately or unfortunately, the matter does not lie in so narrow a compass; scrofulous glands present infinite variety, and the treatment which is best for one case may be the worst for another. It appears to me that each is right or wrong according to the individual character of the particular case, and that to lay down a line of treatment, whether expectant or operative, without seeing the patient is to take a leap in the dark and to formulate a general rule which has no general application. It is a nice point to determine the exact moment when a gland becomes scrofulous, and, this matter settled, the line of treatment depends so much on the patient and the state of his glands that no universal rule can be given. It is useless to say in a general and positive manner that scrofulous glands should be left to nature or treated with drugs, or that they should be scooped or cut out. Many glands cannot be scooped; others it is equally impossible from their attachments or position to excise; and fewer, if any, are amenable to drug treatment. Often it is better not to interfere for a time, but rather to wait till the general health has become established, till the disease has quieted down, and till such inflammatory products as can be absorbed have disappeared. In other instances, a softening gland may be causing so much irritation, and so rapidly infecting other glands, that it must be dealt with at once. Occasionally glands which have uniformly softened may be scooped, with the rosy results described by the writer of the article. In other cases the glands are such that they must either be excised or left alone. All that can be suggested generally is that it is not well to leave scrofulous glands for an indefinite time to increase and infect healthy glands; that scooping is often the best method for cases of small or moderate enlargements with general and uniform softening; and that excision, combined or not with some scooping, is the only method available for big enlargements, or for cases in which the glands have not softened, or for those in which caseation or softening has only taken place in limited portions of the glands. I am an advocate for excising scrofulous glands, but I should be very sorry to recommend excision as a universal practice, or, in fact, to lay down any general rule for the treatment of this troublesome affection. Each case must be judged on its merits and treated accordingly.

I am, Sirs, yours obediently,

Margate, Sept. 1st, 1889. WM. KNIGHT TREVES, F.R.C.S.

THE PROPOSED INFECTIOUS DISEASE HOSPITAL AT BLACKBURN.—Energetic opposition is being offered by prominent citizens of Blackburn against the erection on the site proposed by the Health Committee of a hospital for the reception of patients suffering from infectious disease. Last week a meeting was held in the Audley district, at which a resolution was carried condemning the committee's proposal.

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THE LANCET.

LONDON: SATURDAY, SEPTEMBER 14, 1889.

THE recent localised outbreak of enteric fever at the West-end of London has produced an abundant crop of complaints as to the prevalence of nuisance from the metropolitan drains and sewers, and there can be but little doubt that the complaints are, in the main, fully justified. One of the evils under which Londoners suffer is a divided jurisdiction as regards sewers and drains. The main sewers belong to the County Council, whereas the state of the drains leading from the houses to the sewers, as also of the street gullies, comes within the jurisdiction of the several vestries, and a remedy applied by one authority to one set of conduits often leaves an evil connected with the other set altogether untouched. As to the sewers themselves, it is well known that some of the main underground culverts are in a very defective state—as, for example, in the somewhat low-lying districts of Westminster; and it is notorious that no system of ventilation can be adequate in the face of faultily constructed sewers. Then again, when sewer ventilators have been found to constitute a nuisance, they have simply been closed. This, however, as some correspondents point out, is no remedy; for, unless some alternative means of ventilation is provided, the risk of forcing foul air into houses, where it will do even more harm than in the streets, is greater than ever.

House drains should, of course, be so constructed as to prevent any such evil result, and this consideration brings us to a second evil from which London suffers in a very special way. Throughout the country generally excellent codes of bye-laws of modern date have, during the last ten or fifteen years, been adopted on a wide scale; and these provide, amongst other things, for such arrangement of house drains, and for such means of connexion between house drains and the public sewers, as practically to prevent risk of foul air passing from the sewers into dwellings. But in London no such regulations exist, and whilst a few of the more intelligent are having their house drains reconstructed on the modern principles, which include disconnexion and through-ventilation, hundreds of houses are annually being newly constructed which involve nearly all the evils attaching to the old ones of a past generation. And not only is there no power to prevent this, but the officials employed on behalf of the authorities to look after new buildings are often incompetent even to advise builders and others how they may, without noteworthy increase of cost, avoid for their future tenants many of the evils now so loudly complained of.

Mr. F. WOOTTON ISAACSON has given notice that at an early moment next session he will bring in a Bill making it illegal for house agents or for anyone else to let or sell a house unless a certificate is produced, furnished by a Government inspector, notifying that the premises are in a perfectly sanitary condition and fit for occupation. Without entering into the question as to whether the House of Commons will consent to pass such a Bill into law, we may note that, if such a law applied to the country as a whole, which it certainly should do if adopted at all, a very large number of experts will be required, and it is only necessary to read the recent correspondence as to the complaints referred to, to learn that amongst architects and surveyors who now advise local authorities the number whose claim as to expert knowledge on the subject would be accepted is a very small one. And it may be further noted that, as regards new dwellings, this is the wrong way to go to work. Legislation is required as to the construction of new buildings; and nowhere is this more needed, in so far as healthiness of houses is concerned, than in the metropolis, where the regulations are in many important respects antiquated and quite insufficient to meet the demands of modern requirements. Mr. ISAACSON'S Bill will, we fear, only touch the fringe of a subject that needs to be dealt with in a comprehensive manner.

THE clinical significance of the presence of albumen in the urine is a subject which has recently reappeared in our pages, and its great importance, as well as its great difficulty, more than justify all the attention that has been bestowed upon it. There can be no doubt that, without prejudging questions which are still *sub judice*, some real change has taken place in professional opinion upon the subject. A decade or two ago, if the question had been put, "What is the significance of the persistent presence of albumen in the urine, and what is the prognosis in such cases?" but one answer would have been forthcoming—viz., that such cases were instances of organic disease of the kidneys, and that the most probable outlook was death within two years. This answer can no longer be given with safety. That it would be true of a very large number, possibly the vast majority, of such cases is very probable; but we have come to recognise that there are exceptions, and that it is our business to determine how these may be recognised with reasonable certainty. In fact, albuminuria, which was long regarded as absolutely diagnostic of grave disease, is now recognised as only a symptom—usually a most serious symptom, but nevertheless one that does not exclude the necessity of further inquiry, or relieve us from the obligation of doing our utmost to interpret it correctly. As has been well said, we may compare albuminuria with hæmoptysis. If a patient spits blood frequently, there is a very high probability that he has tubercle in his lungs; but it is a question of probability, not of certainty, and in exceptional cases even frequent blood-spitting is not followed by any evidence of tubercular mischief. So with albuminuria. Its presence most strongly suggests the existence of organic renal disease; but we have to abandon the attitude of dogmatism with regard to this symptom, and admit that it may coexist with perfect health.

Dr. PAVY has well emphasised the cardinal distinction, without regard to which all discussion of this question must be dangerously misleading. The distinction is this—that it is only in cases in which albuminuria has existed for some considerable time, *without the development of any other symptom whatsoever*, that we are justified in seriously entertaining the idea that its presence may be free from grave danger. If any other symptom usually associated with Bright's disease—such as vertigo, dyspnœa, anæmia,

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persistent dyspepsia, high tension in the arteries, serous inflammations, or retinal changes—coexists with albuminuria, the case at once passes out of the category of mere functional disorder, and becomes of the gravest character. It is obvious, therefore, that in dealing with a case of albuminuria our first duty is to exhaust all our methods of diagnosis in order to determine whether any of the symptoms enumerated above are present, even very slightly, and not to rest satisfied until the fact of their absence is assuredly determined. Nothing can be more vexatious or injurious to the practitioner than to diagnose a case of albuminuria as one of the rare exceptions, when the development in a few days of some symptom shows to demonstration that, on the contrary, it comes under the very common rule.

It seems to us that rather too much has been made of those cases of albuminuria appearing under forced and unnatural conditions in health. Extreme physical fatigue, intense mental excitement, and some other causes have been shown to be capable of producing temporary albuminuria, and this fact has been much relied upon by those who advocate what may be regarded as the newer views upon the subject. It is doubtful, however, if we are justified in drawing any definite conclusions from symptoms appearing under conditions entirely without analogy to those usually prevailing. A person ascends an Alpine peak, and has an attack of hæmoptysis. This only proves, what no one ever doubted, that a sudden and extreme alteration in the conditions of blood-pressure may cause hæmorrhage, but it helps us little, if at all, to determine when hæmoptysis occurring under normal conditions is due to organic disease and when it is independent of such. A parallel reasoning may possibly apply to those cases of albuminuria occurring under peculiar and highly abnormal conditions. The fact is interesting and worthy of careful note, but we must be very chary of reasoning confidently from it.

The abstruseness of the subject is shown by the fact that even the presence of casts, so long relied upon as absolutely diagnostic of organic disease, does not justify any final conclusion. Their presence is very noteworthy. If they are numerous and constant, the probability of Bright's disease becomes almost a certainty. Their character is capable of affording important guidance. But the remarks already made upon albumen apply almost without alteration to casts—viz., that while their presence is highly significant, we must note that presence as only a most important element in our diagnosis, and not as conclusively determining the whole question.

Cyclic albuminuria, or cases in which albumen appears in considerable quantities at intervals, the urine being free from it in the interim, has attracted much attention since it was first described by Dr. PAVY. It would appear, as might almost have been conjectured, that such cases are somewhat favourable relatively, and perhaps approach nearest to meriting the designation of "functional." This term reminds us how much this question has been one of nomenclature. Whether "physiological" albuminuria is a justifiable expression has been hotly debated, and it has been argued with much force that we might as well talk of physiological epistaxis or physiological hæmoptysis because bleeding from the throat and lungs may occur under abnormal conditions in health. The correctness of the analogy may be contested, but probably Dr. GAIRDNER is right in preferring the expression "functional" albuminuria. This, we presume, involves no hypothesis beyond the assumption that albuminuria occurs apart from discernible organic disease, and that this occurrence must be due to some aberration of function. These assumptions are hardly any longer contested.

We may sum up the present state of medical opinion on this most difficult question by saying that the persistent presence of albumen in the urine is a most grave symptom, and in the great majority of cases is indicative of organic renal disease; that, nevertheless, this rule has some rare exceptions; that we are only very slowly seeing our way to the detection of these exceptions, but that we may best hope to avoid error by invariably taking a comprehensive view of each case, by allowing each symptom its due weight and avoiding the drawing of conclusions from one symptom only, by postponing any important decision until time may have helped to the clearing up of difficulites, and by deriving all the help we can from considerations of history and etiology.

FOR some reason or reasons the Scotch people seem to take their lunacy quietly, and with much less show of obstreperous and litigious resistance than do the English people. It would be highly interesting, if it were possible, to work out how far this difference is referable, on the one hand, to characteristics and peculiarities of race, and to the influence of domestic life, habits, and education; and how far it is referable, on the other hand, to the action of the lunacy laws in each country, and to the system of management and the nature and quality of the supervision. Certain it is that there is a "happy-family" sort of air about lunacy affairs in Scotland which appears to be but vainly sighed for in England.

The thirty-first Annual Report of the Commissioners in Lunacy for Scotland is a record, not only of the state of the insane in the various establishments, but also of the relations which lunacy bears to the social and domestic life of the country during the year 1888. The Commissioners state that on Jan. 1st last they had official cognisance of 11,954 insane persons in Scotland, and that the proportion of all lunatics to the population reached in this year its highest record of 289 per 100,000. This is a proportion of 1 lunatic in every 346 of the population—a proportion which is only slightly less than that for England, which is 1 in 344 for the same year. Of the 11,954 Scotch lunatics, 1893 were maintained from private resources, 10,004 by parochial rates, and 57 at the expense of the State. There was a total increase of 309 in the number of registered lunatics in asylums and other establishments, and an increase of 26 in the number of registered lunatics accommodated in private dwellings. The number of voluntary patients admitted into asylums in 1888 was 55, and the Commissioners continue to be of opinion that it is a useful provision of the law which permits persons who desire to place themselves under care in an asylum to do so in a way which is not attended with troublesome or disagreeable forms, but which nevertheless affords sufficient guarantee against abuse. The recoveries (discharged) per cent. of admissions in the different classes of establishments were as follows:—In Royal and district asylums, 38; in private asylums, 25; in

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parochial asylums, 45; in lunatic wards of poorhouses, 7. But it is to be observed that in this statement private and pauper patients are not distinguished, nor is the effect of transfers eliminated so as to afford a just appreciation of the comparative proportion of recoveries in the different classes of establishments. The death-rate per cent. of the number resident was for private patients 6·4 and for pauper patients 8·1. The number of escapes in 1888 was 209, being rather less than the average proportion for the last ten years. The reported accidents numbered 95. Of these, 9 (including 4 suicides) ended fatally. In 40 cases the accidents involved fracture of bones or dislocation of joints.

While referring the progress made to beneficial changes introduced during the year in some of the institutions, the Commissioners speak in highly favourable terms of the management and administration of the various asylums under their supervision.

With regard to private patients in private dwellings, the Commissioners state that it is not required by the Statutes that all of them should be under their supervision. The circumstances which bring under their supervision an insane person who is not a pauper and who is not placed in an establishment are the following: 1. If he is kept in a private house for profit, and suffers from mental disorder of a confirmed character. 2. If, whether kept for profit or not, he has been insane for more than a year, and is subjected to compulsory confinement to the house, to restraint or coercion, or to harsh and cruel treatment. 3. If he possesses property which has been placed under curatory by a court of law. The Commissioners state that they do not regard it as desirable that any class of persons should be brought under their official supervision unless such supervision appears to be necessary to guard against abuse.

The Commissioners embody in their report some valuable information supplied by their deputies on the important subject of the boarding-out of pauper patients in private houses, and show the advantages derivable therefrom.

The report deals at length with the following instructive subjects: the influence of season on asylum statistics, the length of time during which patients remain in establishments, and the ages of the insane; and it concludes with a brief summary of the statistics of lunacy in Scotland from 1858 to 1889. From this summary it appears that the number of lunatics officially known to the Board and on their registers has increased in the thirty years from 5823 to 11,954—i.e., the number has more than doubled itself. The increase of the population during the same period has been only 34 per cent., and the Commissioners go on to say that they have frequently pointed out that the difference in these rates of increase does not necessarily indicate an increasing amount of mental disease, and that it is probably due in a large measure to what is only an increasing readiness to place persons more or less disordered in mind as lunatics in establishments. The use of the term "increasing readiness" in this relation, and as applied to what is really a decreasing unwillingness, is not free from a risk of being misconstrued into meaning more than (we believe) it is intended to mean. But apart from this, there is a vagueness in the expression of opinion here stated which leads us to believe that our information, as given by the Commissioners in Lunacy for Scotland, is not yet completed on this all-important topic. Surely, after so many years of methodical consolidation of our lunacy systems, we have a right to expect that before long we may be able to have a more definite answer as to whether the proportional increase of registered lunatics to population is merely the outcome of our present methods of dealing with the insane, or whether it is to be taken as implying that insanity is really on the increase in our midst. The adjustment of the evidence in the matter is no easy one; but if our lunacy legislation and developments have in any sense attained their object, and if our progress in the working of lunacy departments has been at all commensurate with the trouble taken, the old stock explanations of twenty-five years ago, as to accumulations of chronics and the like, ought sooner or later to wear themselves out.

HABITUAL DRUNKENNESS may be decreasing, but it is still a painfully common disease, as every practitioner of any experience could tell. True, he does not tell. It would astonish the public if medical men were to reveal all they know of this class of cases. But there is one document which year by year brings this subject into public notice, and imposes on ourselves the duty of some criticism. We refer to the Annual Report of the Inspector of Retreats acting under the Habitual Drunkards Act, or, to use the new title, given in the amended and permanent Act of 1888, the Inebriates Act. The present report is the ninth, and may perhaps be considered, on the whole, satisfactory; though, as we read it, and in the light of the great frequency of habitual drunkenness, it admits of being very differently regarded. There were only seven establishments or retreats for England licensed by the justices in 1888, the same number as in 1887. It is significant of the small grip of the evil which this legislation has that so small a number of retreats should meet the demand, and that this does not show much tendency to increase. The inspector, however, is able to report an increase in the number of patients admitted, in 1888 it being 99 as against 66 in the previous year. The admissions were distributed as follows:—Colman-hill House, near Halesowen, 19; Dalrymple House, Ricksmansworth, 16; High-shot House, Twickenham, 13; Montague House, Brook-green, Hammersmith, 10; Old Park Hall, Walsall, 10; Tower House, Westgate-on-Sea, 31; Amesbury House, Amesbury, none. It is gratifying to find an increase of 33 in the admissions, though we must all admit that 99 is a very inadequate proportion of the inebriates of England, for whose recovery the only reasonable chance is to be found in the discipline of institutions of the kind we have named; and, judging from the tenor of the reports from the licensees of the retreats which the inspector gives in his report, it is clear that most of them are of opinion that legislation will have to go much further than it has done if much good is to be effected for this most pitiable class. Liberty is one of our idols; but the liberty of an habitual drunkard is a very questionable and limited quantity. How can the word be applied to a human being without the slightest power to resist taking that which he knows is ruining his business, and destroying all the finest tissues in his body, brain-cells, and liver-cells, and kidney-tubes. Parliament has just passed an Act which asserts that the liberty of an

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infected person shall not secure him from having his case reported to public authorities who have the power by other Acts to require his confinement under strict conditions of isolation. But the liberty of an habitual drunkard is still so far sacred that, apart from his own consent, he is not to be restrained in the use of alcohol, though it be apparent to everyone that he is not a free agent in regard to it, and in spite of the probability that his indulgence in it will bring him and his family ere long as a burden on to the rates. Parliament has no such compunctions about persons affected with other kinds of unsoundness of mind, and in the era of social legislation which is said to be setting in, when the great miseries which ruin families and individuals will have to be considered, this class of cases will have to be met by something more than the miserable legislation which requires the assent of an habitual drunkard to his own proper treatment. There are only two objections of any force to the improvement in legislation demanded by those who study these cases, and to the introduction of the principle of compulsion. One is the interference with personal liberty, with which we have dealt already. It does not exist in the real habitual drunkard. It is gone, and such legislation is an attempt to recover it. Let any reasonable precautions be taken to verify that it is so. Let magistrates as well as medical men be required for this verification. But thereafter facts should be accepted, and the habitual drunkard treated in a serious manner. The other objection is the length of time required for treatment, and the costliness of interference with liberty for such a time. The answer to that is this—that the precautions we presuppose would exclude all but very real cases. The alternative in most such cases to proper treatment is ruin and pauperism at a still greater cost to the parish or the State. And we should expect this further advantage from a strong compulsory measure — that the very dread of it would operate beneficially in a large number of cases before they reached an extreme form, and prevent the occurrence of such a stage. With these views we endorse the statement of the licensee of the Hammersmith Retreat, who says: "I cannot help wishing that more could be done in the way of legislation, as it is often impossible to induce those really the most in need of control to enter a retreat." The work of Dr. DALRYMPLE, Dr. CAMERON, and others will remain unaccomplished till such legislation is obtained.

OF the many studies pursued by the busy medical practitioner, medical geography seems to offer the greatest variety as regards the subjects it embraces; and as a change of work often acts as a rest and a recreation, so do these many subjects offer frequent opportunities of the main investigation being constantly pursued with little chance of the student being wearied by sameness or fatigued by monotony. Medical climatology, which is a necessary part of medical geography, is in itself a comprehensive branch of science, embracing as it does not only the study of the great factors of general climate, but the almost innumerable phenomena of the minor factors which share in the formation of local climates, so important in relation to disease and its geographical distribution. We all know that the physical configuration and the geological structure of a district greatly influence its local climates, not merely physically and chemically, but in a variety of ways, the intricacies of which require investigation on the spot before their functions can be known. A single instance will suffice: without local knowledge it would be impossible to appreciate the effect of aspect, soil, and subsoil, of solar and terrestrial radiation, or of the rainfall and atmospheric currents, in determining the specific forms that characterise the local flora, indigenous and cultivated alike. The flora of a district is the most faithful and reliable exponent of its local climate, far surpassing in delicacy the most delicate of meteorological instruments. Whoever would study medical geography must be familiar with plant life, the soil in which plants grow and thrive, the rock-base supporting that soil, and the aspects of the land where these ornaments of nature enjoy perfect health, as evidenced by their form, colour, and vigour. In the pursuit of this delightful part of the medical geographer's work, he may leave behind him for a while vital statistics and other severer studies, and whilst enjoying his vacation rambles gather fresh stores of facts amidst the beauties of the lakes, the mountains, the dales, and the sea-shores of his country, the collection of which will tend not only to create a fresh interest in natural history, but enhance the pleasures of his wanderings and their healthful influence on his mind and body.

We have been led to these remarks by an article which appears in our columns to-day on the "Infrequency of Cancer among Females in the English Lake District," by Mr. ALFRED HAVILAND, as a supplement to his former articles published in THE LANCET last year on the "Distribution of Cancerous Diseases in the British Isles." Mr. HAVILAND has been engaged in this investigation for more than twenty years, and each fresh addition to the facts that he made public in 1868 seems to corroborate the propositions he then laid down. The author has always avowed himself to be no theorist, but simply a collector of facts relating to the distribution of disease in this country, and to these disease-facts he adds those pertaining to the several factors of local climates. Whilst acting in this capacity, he claims, however, the right to place certain constantly recurring coincident facts together, and leaves his readers to draw their own conclusions. In this way some highly interesting and important suggestions are placed at the disposal of those who make the natural history of disease their study. And the practical outcome of such investigations is evident; for at a time, when all are seeking health and sites for homes some guide is required, the questions which are at the bottom of the search not being at present easily answered either by the medical profession or by scientists generally. A large sum of money has, however, been paid by the public for the collection of the disease-facts, and for making them known by means of reports. These facts have never been utilised until now in such a manner as to show their distribution throughout the country side by side with those connected with local climates, local geology, and local configuration of land.

The facts connected with the English lake district will be interesting to the dwellers in that delightful part of England, as well as to those who either have visited it, or are about to enjoy its beauties.

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Annotations.

"Ne quid nimis."

ARMY MEDICAL OFFICERS.

THE Army Orders of Sept. 1st promulgate a Royal Warrant amending in certain respects the regulations relating to the retirement of officers. It contains an important modification of the rules affecting the pay of medical officers placed on the retired list at their own request. "An officer of our Medical Staff who on voluntary retirement has served for less than three years in the rank from which he retires shall be only entitled to the gratuity or retired pay assigned to the next lower rank." This Warrant appears to have anticipated the recommendation of Lord Camperdown's committee that "a certain term of service should be required from officers after promotion to a higher rank before they are permitted to retire upon the rates attaching to the higher rank, except in cases of permanent ill-health contracted in and by the service." From the short time which has elapsed since the presentation of the report, we can hardly suppose that the regulation has been adopted in consequence of it, but it is satisfactory to find that it is in accord with it. It gets rid of the absurdity of selecting officers for promotion on account of their special fitness for administrative duties, and then permitting them to retire on the higher rate of pension attached to the rank before they have for any reasonable time discharged those duties for which they were specially selected. The regulation does not apply to officers under the rank of brigade-surgeon, nor does it affect any who are retired on account of ill-health, or of having attained the age laid down by regulation for compulsory retirement.

BRAIN FUNCTION AND HUMAN CHARACTER.

IN a paper read before the Anthropological Section of the British Association, Mr. Bernard Hollander of Vienna brings forward some interesting observations on the possible connexion between the areas allotted to various brain functions and the evidences of human character. He draws a suggestive parallel between the conclusions of Ferrier and other geographers of the cortex cerebri and the less exact investigations of the early phrenologists. He reminds us, for example, that the territory assigned as the source of the facial nerve (the ascending parietal and mid-frontal convolutions) nearly coincides with the position of Gall's "organ of mimicry." A similar agreement exists between the supposed centre for taste in the temporo-sphenoidal lobe and the organ of "gustativeness"; between that for mental attention (the first occipital convolution) and Combe's area of "concentrativeness"; that for the facial elevators (the posterior frontal area) and imagination; for the platysma, "the muscle of fright" (ascending parietal) and Gall's apprehension area; for angry expression (superior temporo-sphenoidal) and destructiveness. The parallel here drawn certainly wears an aspect suggestive of reality. At the same time, however, we must receive it with a considerable degree of caution. It must not be forgotten that the question of brain localisation has two sides. What the localisers, on the one hand, take for solid ground, Goltz has, after careful examination, pronounced to be only a mirage. The functions located in a given area, according to him, are easily assumed by another, as if they were due in each case merely to a transient excitation of the will. It behoves us, therefore, to accept with reserve even such attractive coincidences as those above mentioned; though the mere fact of their independent recognition by observers in little or nothing allied to each other should at least obtain for them what Mr. Hollander asks—a fair consideration.

EDINBURGH AND THE UNIVERSITY EXTENSION SCHEME.

FOLLOWING the successful example set by Oxford, the University of Edinburgh has arranged for a series of summer gatherings, which will be inaugurated by a conversazione to be held in the Museum of the Science of Art on Tuesday, the 24th inst., and will conclude on Friday. Oct. 5th. The fortnight's programme will be a varied and interesting one, consisting of courses of lectures by eminent professors and scientists, together with excursions, conversaziones, social entertainments, &c. Amongst the forty or so lecturers may be mentioned the following University professors—Messrs. Baldwin Brown, Crum Brown, Calderwood, Cossar Ewart, Ewing, Geddes, Geikie, Haycraft, Kirkpatrick, Mackinnon, Masson, Nicholson, Steggall, and Tait; whilst Lord Moncreiff and others are also set down for one or more lectures. The subjects treated will come under the headings of Physical Science, Biological Science, History and Ethics, Political and Economic Science, Literature and Art, Music, and Elocution; whilst the lectures themselves, numbering over fifty, will cover a very wide ground. The recreative portion of the programme will include excursions to places of historical, artistic, and scientific interest in and near Edinburgh—all personally conducted by gentlemen qualified to explain the beauties and peculiarities of the particular place visited. In addition, several gentlemen have expressed a desire to invite to social entertainment at their residences those who attend the gathering. The price of tickets for the whole fortnight's gathering seems almost absurdly small—viz., 10*s.* 6*d.*, ranging down to as low as 2*s.* 6*d.* for those who are only able to attend during a portion of the fortnight. Tickets and full information can be obtained from the secretaries, David Philip, S.S.C., and John Arthur Thomson, M.A., 41, Charlotte-square, Edinburgh. The University gathering has been good-humouredly described as "Education by Picnic." Whilst we may believe it to be an effective, we cannot possibly doubt its being a pleasant, way of making good one's educational deficiencies.

THE EMOLUMENTS OF GENERAL PRACTICE.

IT is very easy for junior practitioners to fall into the error of over-estimating the value of practice in general, or of a particular practice with which they may happen to have some acquaintance, by making rough calculations based on the amount of work done in a day and the value of each item as put down in the various medical tariffs that have been published, or as mentioned in a general way as the usual charges of the particular practice in question. Thus, to take a rough example. The average number of visits paid per diem is sixteen, a dozen patients are seen in the surgery, there are fifty midwifery cases a year, and there are some clubs which bring in £40. If the visits averaged 4*s.*, the surgery patients 2*s.* 6*d*, and the confinements £2 2*s.*, the practice would be worth almost £1500, and could probably be worked even in the busiest times, when the visits per diem might be expected to reach to twenty-five or even thirty a day, without an assistant; it is, in fact, exactly the sort of practice which most men would like to have. Doubtless such practices exist, but they are few and far between, and the young man fresh from the hospital who expects to be able either to buy or to make such a one will run a very great chance of being disappointed. In a practice implying the amount of work mentioned, it would probably be found that four of the visits were either paid to club patients or to obstetric cases; that two more were paid to persons for charity or for some other reason which prevented them being remunerative; that the remaining ten, instead of averaging 4*s.*, would not average more than 3*s.*; that eight

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out of the twelve surgery cases were unremunerative, and that the other four paid only 1*s.* 6*d.* each. The midwifery, again, would probably not average more than £1 11*s.* 6*d.*, and the bad debts would be very moderately computed at 10 per cent. Added to all this, there must be taken into account the fact that, in most practices, a good many of the patients, while able and willing to pay 2*s.* or 2*s.* 6*d.* a visit during a short attendance, are utterly unable to meet a bill of from £7 to £8, such as would necessarily be run up by attendance in the course of a long and serious illness, and these, therefore, have to be charged, say, £2 or £2 10*s.*, or some such sum as may be supposed to lie within their means, however long the attendance may have been. These considerations and corrections will be found to have brought the actual yearly income of the supposed practice down to about £700, and it is by no means a bad representative of a practice of that amount. At all events, we will venture to say that it is a much more common type than the utopian example given above. Beginners who make their bills out by the published tariffs not unfrequently find that, valuable as these documents are in the hands of experienced practitioners, they are apt to prove pitfalls if relied on too absolutely. Artisans cannot pay 2*s.* 6*d.* a visit for long, however small a house they live in; and tradespeople who live in £50 houses will very frequently show a practitioner the door if he charges them anything like 5*s.* a visit. Again, mercantile and professional people will rarely pay 7*s.*, even if they do live in £100 houses. In how many practices, too, are surgery patients charged 1*s.*, or indeed any smaller sum which they seem willing to pay; and how often, from the stress of competition, is midwifery taken at 15*s.*, or even at 10*s.* or less. These little matters are not always thought worthy of mention in the tariffs, as the system of low fees is not to be commended; but they should, nevertheless, not be ignored by a young and inexperienced man who is commencing.

LEPROSY IN BRITISH GUIANA.

WRITING in *Timehri*, the journal of the Royal Agricultural and Commercial Society of British Guiana (June 1889), Mr. J. D. Hilles, F.R.C.S., says that to the most casual observer the increase of leprosy in Demerara must be apparent, that the asylum cannot be enlarged fast enough to contain the cases seeking admission, and that the increase has been greatest in the last decade. The earliest accounts point to the disease having been introduced into the colony by slaves from Africa, and the colonists took measures to isolate them. But, as a result of immigration, leprosy was introduced from India in 1842 and 1858, and from China in 1861 and 1862. In 1831 there were some 431 leper *negroes* in Demerara; at the present time, says Mr. Hilles, "it is calculated that there must be more than 1000 cases of leprosy here, or 1 in every 250 of the population, and this notwithstanding the large number that die annually from the disease—over 16 per cent." He relates how an Indian tribe—the Warrans—which 50 years ago was brought into contact with the leper colony, became infected with the disease, no other tribe having it. He also points out that leprosy occurs in largest amount in the vicinity of the Leper Asylum than elsewhere. So that Mr. Hilles is convinced the disease is communicable—(1) by intermarriage or cohabitation, and (2) by inoculation or contact. In dealing with each of these points, he states that the late Dr. Gavin Milroy, who was chiefly responsible for the report of the Royal College of Physicians in 1867, paid a short visit to the West Indies, but had not time to make himself acquainted with both sides of the question. In more than one instance he says that Dr. Milroy was misled. In Mr. Hilles' own experience, he has seen cases which had undoubtedly arisen by contagion. British Guiana now possesses well-appointed Leper Asylums, each with a resident medical superintendent. But the difficulty is to prevent the inmates absconding. Mr. Hilles thinks that it is not too much to ask them to submit voluntarily to strict segregation—the only arrangement at all likely to stamp out the disease. But he thinks that the West Indies should combine and form a large leper community in an island (e.g., of the Caribean Sea), and by insisting on strict isolation succeed in eradicating the disease.

THE BACILLI OF CHOLERA, TYPHOID FEVER, AND TUBERCULOSIS IN MILK, BUTTER, AND CHEESE.

THE experiments of Dr. L. Heim in the laboratory of the German Imperial Health Department on the vitality of germs in certain kinds of nutriment, have led to the following results: In non-sterilised new milk the germs of cholera bacillus remain as long as the milk has not become very acid. A somewhat high temperature, which accelerates the acidity, accelerates the destruction of cholera bacilli. Occasionally they could be seen for two or three days even in acid milk. Their extreme vitality was six days. In butter they could in favourable circumstances live a month; but in butter that had become caseous and in cheese-curds they could barely live a day. The bacilli of typhoid fever had a much greater power of resistance in milk; in non-sterilised milk which had become acid, they were still visible after twenty-one and thirty-five days, but could not be found at the end of forty-eight days; in butter their vitality lasted three weeks; in whey and natural cheese, only three days. Milk which contains tubercle bacilli may produce the disease. These bacilli may live for three days in decomposing substances. Milk to which tubercle bacilli had been added was after ten days still infectious, but not so in four weeks, especially if decomposition had taken place in the meantime. In butter the vitality of tubercle bacilli lasted four weeks. In whey and cheese they were able to communicate the disease for a fortnight, and they remained visible for thirty-two days.

A CRY AGAINST CYCLISTS.

THE *Ladies' Pictorial* has issued a bitter and angry cry against the world of cyclists, on the ground that the cyclist is a public danger to the pedestrian traveller and a danger also to himself. "The medical profession," adds our contemporary, "can testify to the danger of cycling, yet it goes on unchecked by tax, by the common sense of those seeking recreation, or by public opinion, which is so often clamorously expressed against a far less grave nuisance and danger." This is indeed a grave charge, but we are happy and generous enough to say that an appeal to the profession of medicine would hardly bear out the statement of danger which the writer above quoted assumes. There are dangers from the excessive race riding and what is called "record breaking" of cyclists; dangers we were amongst the first to point out, and which our good friend *Mr. Punch* has lately most amusingly, and not one bit too severely, criticised. But these dangers are confined to a peculiar and, we are glad to think, very limited class of young enthusiasts, who, full—too full—of energy, want to carry all before them, to beat the horse out and out, and to come in little less than second best with the penny-a-mile train. When this is admitted and deplored by all true friends of the art of cycling, the worst is told, in so far as the medical profession can tell; for, probably, of all strong exercises this is the one which, considering the vast numbers who carry it out, either for recreation or for business, brings the smallest amount of grist to the professional mill. Even in hospital practice it is astonishing to observe how very few cases of accident

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from the cycle are brought in—a fact the more remarkable when we recall the crowded streets through which the wayfarers, on two or three wheels, wend their course. Whether it may be advisable to make the law more stringent than it now is against cyclists is a question which may have to be reconsidered. The cyclists themselves consider that already the regulations under which they are placed, and the restrictions which apply to them, are too severe, and they would resist, we may be sure, any attempt to lay a tax on them. As to the attempt to suppress them by any arbitrary measures, the very idea is absurd. A mode of locomotion which gives to man twice the rapidity of progress on foot could no more be prevented, now that it has been established, than the use of carts and carriages.

RECURRENCE OF CANCER OF THE BREAST AFTER AMPUTATION.

FROM microscopic examinations of carcinomatous mammæ amputated by Professor Küster, Dr. Heidenhain predicted a return of the cancer in twelve cases, because parts of the morbid growth had remained in the wound. In the other cases he diagnosed a radical cure, which diagnosis had proved correct up to the date of the publication of his paper, because the operation had removed the whole of the morbid growth. The usual cause of the recurrence is that only microscopic parts of the gland or the tumour remain on the surface of the pectoralis major. In thin women the whole mamma is firmly attached to the muscle, but in obese subjects small glandular lobules are generally attached to the fascia between the mamma and the muscle, so that in amputation above the muscle small particles of the gland may easily be left. Every mamma in which a single cancer node is found, according to Heidenhain, is largely, perhaps *in toto*, diseased. He found the epithelial cells of the acini proliferating in all parts of the mamma, and observed hypertrophy of the peri-acinous connective tissue, and he believes that these acini remaining in the wound form the origin of late secondary growths. In the retro-mammary fat there are, side by side with the bloodvessels, lymphatics leading from the mamma to the subjacent fascia, and the latter were, in two-thirds of the cases, full of metastatic cancerous masses. The pectoralis major itself is only affected when a metastatic cancer-node invades the muscle from the fascia, or the original tumour attacks it by its own simple growth. Heidenhain concludes that, to make amputation of the mamma more successful, it is necessary, even in freely movable carcinomata, not only to remove the whole mamma, but also a superficial layer from the whole of the pectoralis major, and, in tumours which are closely connected with the muscle, to entirely extirpate the latter.

SOUTH AFRICAN PRACTICE.

SOME excellent advice to those who propose to practise in South Africa is given in the last number of the *South African Medical Journal*—advice which applies equally well to other colonies. First of all, the immense importance of clinical training in a school where there is abundance of material, as in London or Vienna, is insisted on, as the colonial practitioner, having no consultants to apply to, must himself be equal to all emergencies. An assistancy for six months to a general practitioner at home is also recommended, in order to learn how to treat those slight ailments which form so large a proportion of private practice, and how to study the foibles of patients and the principles and practice of medical ethics. Again, after landing, it is most advisable to take a post as *locum tenens* before settling, in order to gain experience as to the ins and outs of colonial practice, and to have time to make up one's mind as to where to settle. The difficulty of gaining accurate information about a field of practice is extremely great, the solicitations of local residents and their magniloquent delineations of the openings and opportunities for practice not being to be trusted in the least. A man must judge for himself, and he can only do this by gaining experience in South African practice. "Then, again," pursues the *South African Medical Journal*, "and this is to the young men—do drop the *Veni, vidi, vici* style so common in new arrivals. It will be knocked out of you by-and-by in any case, and for the honour of your profession and for the sake of good fellowship with your fellow practitioners, doff it at once. Half the dissensions between established practitioners and new beginners result, not from what the latter do, but from the irritating way they do it. Never neglect the minor morality of professional life—etiquette. This, read between the lines of professional routine, may be described as a code of laws designed to secure the greatest good for the greatest number. If you are settling in a town where there are already *confrères*, call on each and everyone before you prescribe for a patient. Ascertain their fees and mode of doing practice, and conform thereunto as closely as possible. Then in all respects begin as you intend going on. If you intend doing your own book-keeping, do it from the beginning; if you mean to place it in the hands of an agent, commence that course concurrently with practice. The same rule applies to the decision between quarterly or annual accounts, between abridged or detailed bills, between charging on medicine or not. Changes in any of these respects invariably irritate patients. And, lastly, make up your mind to pursue your practice with an honourable professional ideal always before you, and never allow yourself to be tempted into the devious by-ways so common in South African life."

THE ETIOLOGY OF GOITRE.

THE causation of endemic goitre has for a very long time excited the interest of physicians and surgeons, and many investigations have been made into the soil, the water, the air, the habits, and the food of those dwelling in goitrous regions. But it cannot be said that the matter has been cleared up, or that we have advanced much from the position our forefathers held a century or even centuries ago. Dr. Th. Kocher of Berne, who has a great reputation for the successful excision of enlarged thyroid bodies, and who was the first to point out and to establish the ill results of complete removal of the thyroid body in children and adolescents, has recently conducted some careful investigations into the causation of this disease. He first of all determined accurately in what parts of his own canton goitre was common. On comparing the water of these regions with that of goitre-free neighbourhoods, he finds that the one striking difference is that where goitre is abundant the water contains a considerable quantity of organic or organised material, and he concludes that it is this factor which determines the prevalence of goitre in any district. He finds that in certain goitrous parts particular families who have access to special water-supplies in which there is not this quantity of organic matter remain free from goitre, although breathing the same air, living on the same soil, engaging in the same occupations, and eating the same food as their very goitrous neighbours. On comparing the chemical composition of goitrous and non-goitrous water in the Berne canton, the only other difference he found was that the quantity of sulphate of lime was less in the goitrous; but, as it is well known that goitre is often found in those who drink water richly laden with this salt, this difference cannot explain the great pathological fact. Dr. Tovel has found that the water in goitre-free parts contains a very minute quantity of mitro-organisms. And it has further been shown that if goitrous water is injected into rabbits the thyroid gland is very

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prone to swell, although in dogs the injections have no effect. Kocher's investigations do not certainly completely clear up this difficult subject, but they throw some light upon it, and as such are to be heartily welcomed.

DIABETES MELLITUS AFTER EXTIRPATION OF THE PANCREAS.

DRS. V. MERING and O. MINKOWSKI report a large number of experiments from their laboratory at Strasburg, all showing that extirpation of the pancreas results in true diabetes mellitus with all its ordinary symptoms. A dog whose pancreas had been removed secreted after forty-eight hours' fasting from 5 to 6 per cent. of sugar in his urine. Another dog weighing 15 lb. secreted under an exclusive meat diet two pints of urine daily, with 6 to 8 per cent. of sugar. Introduction of grape sugar into the food resulted in an increase of this by 6 per cent., by far the greatest part of the grape sugar being excreted without having undergone any modification. The urine also contained appreciable quantities of "acetone." The percentage of sugar in the blood was likewise much increased, being in one case 0·30, in another 0·46. Glycogen at the same time disappeared altogether. In a dog, for instance, which had been diabetic for four weeks, and which was killed while being fed on full flesh diet, neither liver nor muscle contained glycogen. Transfusion from a diabetic dog caused no secretion of sugar in a healthy dog.

RAILWAY AMBULANCE.

THE ambulance movement is universally accepted as one of the most useful influences called into action by the spirit of social reform. It has gathered its promoters and assistants from every class, and there can be no doubt that it has in a multitude of cases minimised, if not removed, the danger primarily arising out of sudden illness or injury. The history of its past achievements fully justifies the claim put forward a few days ago by Mr. Waynman Dixon for a further great extension of its operations. This is no less than the formation of an efficient corps of railway ambulance men. First aid, Mr. Dixon reminds us, is now to a large extent available in case of need in the mining districts, while throughout our extensive railway system, where the danger of accident is hardly if at all less, the means of skilled and ready help are hardly to be found. It is not alone for the rare occasions of great disaster, but even more for the succour of numerous isolated cases of injury, that he now proposes to recruit the ranks of the modern hospitallers. In this connexion it will be profitable to note that during last year the number of fatal accidents on railway lines amounted to 1 per 807 men employed, and of injuries more or less serious, but not fatal, to 1 in 157. The help required is of two kinds, intelligent and material. The latter would be represented by simple apparatus, a few bandages, slings, and the like to be placed in the guard's van of each train; the former by the necessary instruction of *employés*. This could not be more efficiently carried out than it now is by means of voluntary instructors, and for this purpose it is needless, as Mr. Dixon says, to seek for better methods or machinery than those afforded by the St. John Ambulance Association. The cost of training would be trifling. It is estimated that an annual payment of sixpence per man would suffice to educate 5 per cent. of the *employés* annually. An entrance fee of another sixpence might be required to launch the undertaking. In consideration of the end in view, its practical effect as a form of workmen's insurance, its utility to passengers, and the probability of its diminishing the accident claims now paid by the companies, the project is equally worthy of its modest maintenance at the hands of the men and their masters, while the travelling public may reasonably assist it with at least an occasional *douceur*. Workmen in other callings have shown much interest and even enthusiasm in ambulance training. The railway men might safely be relied upon to show an equal willingness to learn; and this means much towards ultimate success. Apparatus are most useful, but knowledge of what to do is the first necessity. The former may in emergencies be extemporised; the latter must be stored before it is available for work.

DR. VON NUSSBAUM'S JUBILEE.

A KINDLY TRAIT of professional life among our Teutonic kinsmen is their punctual observance of the jubilee days of those who have done them service or honour in the practice or teaching of the medical art. Hardly a month passes without some such display of pious feeling on the part of the younger generation towards those whose day is far spent. Privy Councillor Dr. von Nussbaum is the latest recipient of the jubilee congratulations of old pupils, patients, and friends, and his noble career sufficiently explains the cordiality of the celebrants and the world-wide extent of their participation. He was born at Munich in 1829, and having selected medicine, especially its surgical department, as his profession, he qualified so brilliantly for it in his undergraduate years that in 1852 he was appointed assistant in the surgical wards of the General Hospital at Munich, graduated in 1857, became member of the teaching staff of the same University, and in 1860 was made Professor in Ordinary of the Surgical Clinique. It was in 1870–71, however, that he most distinguished himself, and his self-sacrificing devotion to the wounded in the sanguinary campaign of that period, the skill and success of his operations, often performed under fire, and his contributions, under circumstances the most trying, to the efficiency of the field ambulance department, will form a bright page in the medico-military annals of our century. The attainment of his sixtieth birthday was the occasion that evoked the loyal, the well nigh filial demonstration of the 2nd inst., and the messages by telegram and letter, often from far beyond sea and from either hemisphere, the laurel wreaths, the bouquets, and addresses that greeted him on the morning of that day must have been to him recompense more than sufficient for his life-work. Except for the injury to the lower extremities, contracted in the Franco-German war, Dr. von Nussbaum enjoys the soundest health and vigour of all his faculties, physical and mental, and, as in 1880, when he celebrated his Doctor-jubilee, so now, on the festive recurrence of his sixtieth birthday, there is every prospect that many years of beneficent activity are yet in store for him, whether in the operating theatre or in the surgical wards, whether in the academic chair or in the Privy Council chamber.

FEVER IN LONDON.

THE autumnal increase of scarlet fever is engaging the attention of the Metropolitan Asylums Board, who have found that the accommodation in the hospitals now occupied is likely to be insufficient for the wants of London. It has therefore been determined to prepare the Northern Hospital for occupation by convalescents. The managers were not unanimous on this point, the opinion being held by some that the South-Western Hospital should be opened for acute cases. The Northern Hospital will so far relieve the other institutions that it may be hoped it will meet all the requirements of the managers. It may be anticipated, however, that the cases will increase in number until the end of October, and it is possible that the South-Western Hospital will be required later. No anticipations can be formed as to the effect a new Notification Act may have in

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throwing work upon the managers; that it will lead to an increased demand for hospital accommodation, however, is a certainty, but to what extent experience only can show.

ABNORMAL OR CONTRARY EFFECTS OF ANTIPYRETICS.

PROFESSOR S. E. HEUCHEN, of Upsala, has frequently observed in the academical hospital the so-called contrary effect of antipyretics, mostly of chinolin, but also of antipyrin, antifebrin, and phenacetin. He believes the increase of temperature on administering these drugs to be due to a variety of causes. In some of his observations there might have been a spontaneous rise of temperature, while in others the symptom is explained as being due to an irritation communicated from certain parts of the body. Professor Heuchen mentions several cases in which the administration of chinolin resulted in vomiting or diarrhœa. In these, however, the doses had been large enough to be considered toxic. A similar explanation is suggested of a case mentioned by Laache, in which an extensive rash was produced, the temperature sank, and the patient became collapsed. A rash was observed by Heuchen only in cases in which chinolin had no abnormal action on the temperature. The best explanation of this singular occurrence is, however, probably to be found in the observation of Geigel of Würzburg, who states that on administering antipyrin or antifebrin the temperature always first rises and then rapidly falls upon the appearance of diaphoresis. He thinks that in those cases in which the diaphoresis is slow in appearing the rise in temperature has probably also lasted longer, so that this contrary effect is due solely to the absence of diaphoresis.

LUMBAR CHOLECYSTOTOMY.

IN March, 1885, Mr. Wright of Manchester recorded in our columns a case in which, after an exploration of the right kidney for stone with a negative result, an enlarged gall-bladder was opened through the same (lumbar) incision, and a large stone removed from its interior. Dr. Mears of Philadelphia has recently had a somewhat similar experience, which is published in the last volume of the Transactions of the American Surgical Association. The patient was a woman twenty-nine years of age, who was admitted to hospital for the operation of nephrorraphy. She was found to have a rounded tumour, about the size of the kidney, lying a little to the right of the middle line and at the junction of the umbilical and hypogastric regions. This tumour was freely movable in all directions. A vertical lumbar incision was made, the right kidney exposed, and its capsule divided and stitched to the edges of the wound. The tumour was uninfluenced by this procedure, for, pressing it towards the loin, it was made to bulge in the wound covered by parietal peritoneum. The serous covering was divided, and then the nature of the tumour—a distended gall-bladder—was clearly recognised. The fundus was incised, and a gall-stone was found impacted in the cystic duct. As it was impossible to extract the stone, it was crushed *in situ*, and the fragments were pushed on into the intestine, "the freedom of the passage being announced by the passage of intestinal gas." The patient made a perfect recovery. The case is interesting rather as a warning than as a guide. There is no advantage in opening the gall-bladder in the loin; on the other hand, there are serious disadvantages in doing so. The case is a good example of the drawbacks of the lumbar incision in those instances in which the nature of the case is doubtful. Had an abdominal exploration been made, the nature of the tumour would have been at once apparent, and the treatment would have been carried out in the most advantageous manner.

A RESCUE RACE.

AT the regatta at Bognor on the 31st. ult. there was a new kind of race, having for its intention the encouragement of the art of saving life at sea, and called "The Rescue Race." The idea of it was suggested, and the plan for it arranged, by Dr. B. W. Richardson, who is resting for a few weeks at Bognor from professional work, and the competition, carried out by the boatmen with great spirit and skill, excited much enthusiasm. The arrangements of the race consisted in casting a number of dummies, each the size of a human body, into the sea, about 200 yards from land, as if they had been persons capsised from a boat and were drowning. At the signal of distress, the boats lying on the shore, each boat containing two men, were pushed rapidly into the sea, and rowed with all speed to the scene of supposed peril. On reaching the spot, one man in the boat had to leap into the sea, seize one of the floating bodies, get it into the boat, and with his comrade return to land as fast as possible. The boat which first reached the shore and placed its burden safely on dry land took the first prize, and so on in order of arrival for two other prizes. Another competition having the same object was carried out by two of the bathing-women, without boats, their skill being demonstrated by swimming. The prizes, amounting to seven guineas, were contributed by Dr. Richardson and his friends, and with other regatta prizes were presented to the successful candidates in the evening by the Rev. Dr. Conder, chairman of the local board. Such a rescue race might be made a prominent feature at every regatta.

CHOLERA.

A TELEGRAM from Athens, dated Sept. 11th, states that according to intelligence received from Constantinople some cases of cholera had occurred in the latter city. Cholera is raging at Basrah (or Bassora), a city in direct river communication with Bagdad, where a severe epidemic of cholera also prevails, and where, according to Mr. F. D. Mocatta, there is a population of 26,000 Jews, who have been thrown into a state of great destitution, and who are without resources for burying the dead. As direct steamer communication exists between Bombay and Basrah, it is to be hoped that the authorities at the latter place will leave nothing undone to stamp out the epidemic. A melancholy interest will attach to the receipt in London from Basrah of a telegram, the simple and telegraphic brevity of which tells its mournful tale perhaps more eloquently than many words. The telegram in question runs thus:—"On the 16th Aug., at H.B.M.'s Consulate, Basrah, Persian Gulf, of cholera, Eric Charles, aged three years and a half; on the 18th, Maude Elma, aged five years and two months, only children of Patrick and Ethel Robertson; and, on the 21st Aug., Patrick J. C. Robertson, H.B.M.'s Political Agent and Consul, aged forty-two."

THE MILK TRADE.

IN a recent address delivered by Mr. S. W. North, medical officer of health to the city of York, to the National Association of Sanitary Inspectors, the subject chosen was the Milk Trade as affecting Public Health. The various diseases which have been communicated to man through the agency of milk were considered; but special stress was laid upon the question of the production of human tubercle as the result of the ingestion of the milk of tuberculous cows. It was contended that the same defective hygienic conditions which favour the development of this disease in man also favour its production in animals. Thus, deficient light and air, dampness of sheds, overcrowding, imperfect

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ventilation, bad and insufficient food, and filthy surroundings were set forth as the conditions tending to lower health, to impair nutrition, and to increase susceptibility to tuberculosis both in man and in the cow; and all dairy-farmers, as well as those responsible for the administration of dairies, would do well to give heed to the warning which these facts convey. Amongst the remedies which Mr. North would suggest are a careful and systematic inspection of dairies and cattle by competent persons, and the requirement that all who sell milk within the area of a sanitary authority should possess a special licence granted by that authority, and capable of being withdrawn or suspended whenever sufficient reason exists for such action. It was further proposed that every producer and vendor of milk should be bound to report to such sanitary authority the occurrence of any disease amongst the cattle, or the persons of his household, or amongst those engaged in the preparation or distribution of the milk. Such an address cannot fail to lead to a more careful and intelligent performance of some of the more important duties devolving on sanitary inspectors.

INSANITARY AREAS IN CLERKENWELL.

IT is stated that Dr. Griffith, the medical officer of health for Clerkenwell, has made representations to the London County Council of no fewer than fourteen localities which, in his opinion, are insanitary, and should be done away with. The newly-appointed authority are likely to have their hands full, and it will need some nice discrimination to distinguish between demolition which should be undertaken by the vestries and district boards, and for which under Torrens' Act no compensation is given, and the improvement of sanitary areas which can only be effected by the London County Council under Cross's Act at considerable public expense. We trust the ratepayers will not begrudge the cost of the removal of these plague spots from London. It cannot be expected that the errors of the past can be undone without some burden being cast upon the present inhabitants of the metropolis, but it behoves the Council to see that we in our time are not guilty of mistakes that a future generation will have to redeem, for London must have spent in health improvements already not far short of two millions, in addition to the amounts which have been expended by private householders.

HOMICIDAL EPILEPSY.

AFTER recent expositions of this terrible malady, particularly after Lombroso's classic description of "epilessia sanguinaria," superintendents of continental infirmaries, one would think, might show greater circumspection in harbouring epileptics of apparently the harmless kind than seems to have been the case at Lovendegem, some two leagues from Ghent. Into the hospital there a Belgian, thirty-five years of age, had been admitted, suffering from epilepsy. He was allowed to associate in a common hall with old men mostly incurables, and little boys hopelessly rachitic, the surveillance of this motley assemblage being entrusted to some Sisters of Charity. How unequal these good ladies were to their task is evident from this—that notwithstanding his having shown symptoms of aggressiveness, notwithstanding that he had given vent to the strangest illusions, asserting that Brussels was in flames, that the king had been banished, that at Antwerp he had himself seen carts laden with bombs, and had added, "They have given me lion's flesh to eat; I feel my blood boiling with it," he was left pretty much to himself, and actually entrusted with a razor to shave himself with! On the night between the 29th and 30th ult., he rushed, armed with this weapon, into the hall, which, a sitting- and dining-room by day, was a dormitory by night, and began at once to deal murderous strokes at the sleeping inmates. He had already wounded several of the old men and children, who were too weak or too dazed to defend themselves, when the shrieks and general tumult brought the Sisters to the scene. In vain they tried to disarm him. They only succeeded in getting gravely wounded themselves. Meanwhile one of them sounded the alarm bell, and the madman was shortly thereafter overpowered and pinioned. As soon as practicable, he was conducted, under a strong escort, to Ghent, and there confined in the Guislain Lunatic Asylum, the place to which he should in the first instance have been taken. Twenty-seven is the number of those who were wounded by him, more or less severely, among the most serious cases being that of the Mother Superior, who sustained some deep razor cuts on the head, but nevertheless refused to quit her post till he had been secured. The tragic affair is, indeed, a loud warning to the superintendents of promiscuous hospitals, in which epilepsy is largely represented, never to admit or retain such cases when illusions of the aggressive kind are manifested. For these the well-appointed, thoroughly organised lunatic asylum is the only safe habitat.

ALLEGED INSANITARY STATE OF FROME.

IT appears that some of the leading inhabitants of Frome have appealed to the Local Government Board on account of the stench from the river, which is alleged to have been associated with cases of enteric fever and diarrhœa in Lullington. The chairman of the local board has evidently been deeply pained by this action, and in a speech which he delivered at its last meeting he set forth in some detail the action which had been taken, and which was still in progress, to remove the causes of complaint, and he, in the end, contended that the assertion that the local board declined to undertake the necessary remedial work, was uncalled for. He then resigned his position, and urged other members to do the same, on the plea that the vacancies could then be filled up by a number of the complainants, who were men of means, leisure, and position, and who would thus have an opportunity of displaying their zeal for the sanitary state of the town. Whatever the true state of Frome may be as regards its sewage disposal and other similar matters, no one can well object to the attitude of the chairman as undignified or unmanly.

THE CEREBRAL COMPLICATIONS OF EAR DISEASE.

DR. OTTO KÖRNER of Frankfort points out that all the cerebral complications of ear disease are more frequent on the right than the left side. Thus, of 31 cases of cerebral abscess, 18 occurred on the right side from disease of the right ear, and 12 on the left from disease of the left ear, and in one case there was abscess on both sides following disease of both ears. Similarly, of 61 cases of thrombosis of the lateral sinus, 35 were met with on the right side and 26 on the left. Of 23 cases of meningitis from ear disease, 17 affected the right side and 6 the left. Adding these together, we have a total of 115 cases, of which 70 were on the right side, 44 on the left side, and 1 bilateral. Körner traces this greater frequency on the right side to the fact that the groove for the lateral sinus passes further forwards and outwards into the petrous and mastoid bones on the right than on the left side. The bony wall separating the sinus from the mastoid antrum is therefore thinner on the right side. Added to this is the fact that in brachycephalic skulls the anterior cerebral fossa is considerably nearer the mastoid antrum than in the dolichocephalic. In the former cerebral complications of ear disease more readily ensue than in the latter.

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OVERCROWDING OF THE PROFESSIONS IN GERMANY.

PROFESSOR W. LEXIS of Berlin has just published a pamphlet on the undue increase in all the learned professions. The Roman Catholic Theological Faculty alone fails to increase, but all the others do so to a most alarming extent. In medicine, Dr. Lexis considers 2675 the average number of students for the whole of the universities of the German Empire. This number was in 1877–78 reduced to 1774, but this reduction was soon made up, and in 1888–89 there were 2344 over the average. The average number of new licences to practise is, according to Dr. Lexis, 465, which number was not surpassed until 1886. The near future, however, offers most unfavourable prospects, as in proportion to the large increase of students, more than 800 new licences per annum must be expected. The German Association of Teachers in Realschulen had some time ago offered a prize of £50 for the best essay on the following question: "Why are the learned professions overfilled, and how can this evil be remedied?" The prize has now been awarded to two essays out of the seventy-six sent in, which will shortly be published together in book form under the title: "The Eagerness to enter the Learned Professions, and the Causes and Remedies of this Evil," by Fr. Pietzker, Superior Teacher at the Gymnasium of Nordhausen, and P. Freuttein, Professor at the Carlsruhe Gymnasium.

ENTERIC FEVER AT CHINLEY.

ACCORDING to a report by Mr. C. J. Bennett, medical officer of health to the Chapel-en-le-Frith rural sanitary district, enteric fever prevails in the village of Chinley under very aggravated circumstances. Indeed, such is the overcrowding by navvies that in one house thirteen persons were found to be living, of whom five slept in a room where there were enteric fever patients; and in another house, containing two bedrooms, eight persons shared these rooms, each of which was occupied by an enteric fever patient. The need for some temporary accommodation both for the sick and the healthy is a matter calling for immediate action.

POSTERIOR RHINOSCOPY.

THE difficulty of making a satisfactory examination of the naso-pharynx and posterior nares by posterior rhinoscopy is well recognised. In the current number of the *Centralblatt für Chirurgie* Dr. Dorn states that he has had great success in cases of operations in this region by placing the patient with the head hanging vertically back over the end of a table. He states that in this posture it is easy to introduce a mirror into the naso-pharynx and to see every part of it, and to manipulate instruments, such as forceps and snares, under the guidance of the mirror, just as is done in the case of the larynx. The danger of hæmorrhage during operations is greatly diminished when the patient is in this position.

SUCCESSFUL PROSECUTION OF QUACKS.

THE Medical Defence Union are to be congratulated on the success of their latest attempt to put down adventurers who trade upon the weakness of a certain portion of the public. They have brought six summonses against three unqualified practitioners of the "notorious advertising venerealist type" in Birmingham. One of them was C. F. Groom, who at the instance of the Union was struck off the rolls of the College of Surgeons last year. The summonses were taken under the 40th section of the Medical Act for the illegal assumption of a medical title. It is gratifying to learn that the full penalty was inflicted in all the cases, amounting to £124 14*s.* 6*d.* This, we are informed, is only the first stage, as the Defence Union intend to bring exactly similar actions in the County Court, under the Apothecaries Act.

CREASOTE TREATMENT OF PULMONARY TUBERCULOSIS.

DR. BOURGET has for the last three years treated tuberculosis of the lungs with large doses of creasote, thoroughly saturating the system with the drug, and he claims to have obtained most favourable results by his method. He prefers, however, guaiacol, as being less irritating to the stomach and as being therefore better borne than creasote. Dr. Bourget recommends the following prescription, substituting in winter cod-liver oil for the wine: Guaiacol, 2 dr.; tinct. quiniæ, 6 dr.; vin. Malacc., 40 oz. He begins with a tablespoonful at every meal, gradually increasing the dose until three tablespoonfuls are taken. Patients have in this way taken from twenty-two to thirty grains of guaiacol in the day without any trouble. Patients who could not take wine had the following enema administered: Guaiacol, 30 gr.; ol. amygd., 5 dr.; acac. pulv., 2½ dr.; cf. emuls. cui add. aqu., 40 oz.: misce; sig., "For four enemas." In winter Dr. Bourget prescribes: Guaiacol, 40 gr.; ol. jec. as., 6 oz.: misce; sig., "One tablespoonful at every meal." The patient is also rubbed with the following lotion before bedtime, on chest and back and in the axillæ: Creasote e. fag., 5 dr.; ol. jec. asell., 6 oz.: misce. He is then covered over with blankets. During day, and if possible by night also, the patient inhales from two to three drops of creasote by means of a nasal respirator.

STYRONE AS AN ANTISEPTIC.

DR. BEACH, of the Massachusetts General Hospital, says that, having studied the action of styrone (prepared from liquid storax and balsam of Peru) for eleven years, he can confirm the statement he then made as to its antiseptic properties (*Boston Medical and Surgical Journal*, Aug. 1st). It possesses the advantages of being (1) efficient, (2) non-poisonous, and (3) agreeable in odour. It may be used as a deodorant for ulcerating cancers in the form of a spray (styrone, 1 dr.; glycerine, 1 oz.; and water, 1 oz.), or applied to raw surfaces in the form of an emulsion, with olive oil, water, or vaseline. From experiments made by Dr. E. K. Dunham, Bacteriologist to the Massachusetts Board of Health, it is shown that the germicidal powers of styrone are considerable, as the development of such organisms as putrefactive bacteria, cholera bacilli, streptococcus pyogenes, and staphylococcus pyogenes aureus, was checked by certain proportions of styrone.

FOREIGN UNIVERSITY INTELLIGENCE.

Bahia.—Dr. Joaquim M. dos Santos has been appointed Assistant Clinical Professor of Children's Diseases.

Bonn.—Dr. Fritz Noll, assistant in the Botanic Institute in Würzburg, has been appointed Extraordinary Professor of Botany.

Innsbruck.—Dr. W. Roux of Breslau has been appointed to the chair of Anatomy.

Manilla.—It is thought probable that the Spanish Colonial Ministry, which is at present occupying itself with educational matters, will establish a university here.

Pavia.—Dr. E. Pestalozza has been recognised as *privat-docent* in midwifery and gynæcology.

Prague.—Professor Hueppe will commence a course of lectures on Bacteriology at the Hygienic Institute on Oct. 1st. Demonstrations on the same subject will also be held during the winter session.

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DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. Jacobsen, Professor of Chemistry in the University of Rostock, at the age of forty-nine.—Dr. Anthon Geuther, Extraordinary Professor of Chemistry in the University of Jena.—Dr. Anton Nuhn, Honorary Professor of Anatomy in the University of Heidelberg, whose name is connected with the glands discovered by him in 1845 in the apex of the tongue. Professor Nuhn was seventy-four years of age, and was, with the exception of Professor Hyrtl of Vienna, the oldest German anatomist.—Dr. Josef Tieftrunk of Prague, formerly body physician to the Emperor of Austria.—Dr. Franz Hellwig, the botanist attached to the German New Guinea expedition.—Dr. Wasseige, Professor of Midwifery in the University of Liège.

THE establishment of a Pasteur Institute at Rome for the prevention and cure of hydrophobia is now, after much friction, *un fait accompli*. The Senatus Academicus has granted the necessary accommodation, laboratories, and other accessories, while Professor Angelo Celli, director of the Hygienic Institute, who successfully started a similar establishment at Palermo, will be the working president. An effective staff of assistants is in course of being provided, so that in a few weeks the sufferers from bites of rabid dogs in Rome and the Agro Romano will be under no necessity of repairing, as heretofore, at the expense of the commune, to the Istituto Antirabbico at Naples.

STATE MEDICINE formed a special feature of the Medical Congress that opened its proceedings on the 1st inst. at Ancona. The Government was represented by the Under Secretary of State for Public Instruction, Signor Mariotti, who in an introductory address pointed to the immense progress Italy had made in hygiene, and gave official assurance that the sanitary reforms initiated under Signor Crispi's government would be energetically carried out. Count Orsi, a veteran hygienist, congratulated the Congress on the substantial aid its predecessors had given to Signor Crispi's policy.

IN Bonn the Geheime Medicinalrath, Professor Hermann Schaafhausen, has just received from his colleagues, students, and fellow-townsmen the honour of a public celebration of his Doctor-jubilee, having graduated at Berlin fifty years ago. Over and above Professor Schaafhausen's special work in the Medical School at Bonn, he has achieved a world-wide reputation in anthropology, the German Anthropological Society owing its origin almost entirely to him. Since 1853 he has been one of the most conspicuous advocates of the "Descendenz-theorie."

PROF. LAWSON TAIT of Birmingham will deliver the annual address, on "Ectopic Gestation," to the members of the Northumberland and Durham Medical Society, in the College of Medicine, Newcastle-on-Tyne, on Oct. 4th, at 6 P.M. The medical profession in the north of England is cordially invited. It is proposed that the members and their friends should dine together after the delivery of the address. Non-members wishing to be present at the dinner should write at once to Dr. Oliver, Newcastle-on-Tyne, the honorary secretary of the Society.

DR. J. S. CAMERON (medical officer of health for Huddersfield), Mr. A. E. Harris (medical officer of health for Sunderland), and Mr. Sweeting (medical superintendent of the Western Fever Hospital, Fulham) are the three candidates for the post of medical officer of health for Leeds. The final selection will be made at the next meeting of the Town Council.

BRITISH PHARMACEUTICAL CONFERENCE.

THE twenty-sixth annual meeting of the British Pharmaceutical Conference was held at Newcastle-on-Tyne, under the presidency of Mr. Charles Umney, F.I.C., F.C.S., in the early part of the present week. The occasion derived additional interest from this city having been the site of the first tentative meeting held in 1863. Mr. Henry Deane, Clapham, who then presided, set forth the advantages hoped for from the meetings of the pharmaceutical conference, speaking in very plain terms of ignorance, of intentional adulterations and substitutions, of recklessness in dispensing, of mystifications of formulæ, quack medicines, underselling, and other evils which should vanish as an honest love of truth, order, and precision took their place. The growth of the Conference was slow during the early years of its existence; but its usefulness in time became more fully recognised, and at present it numbers over 2000 members; and although the meetings have a very substantial supply of scientific papers, they are rendered attractive also by numerous social gatherings and excursions. This year the proceedings opened with a reception and conversazione at the College of Science on Sept. 9th, and on the following day Mr. Umney delivered his presidential address. After a brief retrospect of the work of previous years, and a graceful allusion to Newcastle as "our native heath," he passed at once to his theme, one of the articles of association agreed to in 1863—viz., "That one object of the Association should be to maintain uncompromisingly the principle of purity of medicine." In the course of his remarks upon this subject, he took occasion to refer to many questions of great interest to pharmacists—e.g., the fusion of the rival Pharmacopœias of London, Edinburgh, and Dublin into a national Pharmacopœia, the influence of the Sale of Food and Drugs Act, the relations between the Excise and the trade in medicines, and the more recent encouragement of original work by the establishment of the research laboratory by the Pharmaceutical Society. Mr. Umney's remarks upon the labour of compiling a pharmacopœia were full of sympathetic good sense. "There is, perhaps, no work upon which an expert has to use his judgment with so much tact and skill, so that he may keep both in touch and tune with the medical profession, the pharmacist, the drug merchant, and manufacturer, as when he is called upon to edit a national pharmacopœia." The recent prosecutions connected with sal volatile found ready recognition in the following words: "Is it not also desirable that pharmacists should co-operate with the Medical Council in their desire to make the British Pharmacopœia preparations legal for sale, and those of old pharmacopœias obsolete and illegal? In my opinion it is most desirable." The depressing influence upon the manufacturing pharmacy of this country hitherto exerted by the Excise regulations, and the various concessions which have recently been made, were dealt with in some detail. "Alcohol free of duty for medicinal purposes, or some facility to work with pure alcohol under supervision, is a most serious and urgent necessity. We are surely all desirous that we may not continue mere purveyors of potent remedies, but that we may be producers also, with a complete knowledge of the products we handle, whether as dispensers or traders." The concluding remarks upon the commercial value of science were of necessity brief, although they were sufficiently to the purpose. Mr. Umney evidently felt that science should be followed for its own sake rather than for any immediate prospect of reward. It might well be argued that, although the commercial results of applied botanical and chemical knowledge are great, they not uncommonly affect some clever financier, leaving the labourer the satisfaction inseparable from his work.

The "Year-book of Pharmacy," which is edited by Mr. Louis Siebold, F.I.C., F.C.S., will contain full details of the various papers read at this meeting, together with notes of the discussions.

The meeting of the British Pharmaceutical Conference is to be held next year in Leeds.

GORLESTON COTTAGE HOSPITAL.—The Gorleston Cottage Hospital, which has been in course of erection since May last, was opened on the 24th ult. by Sir H. Tyler, M.P.

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HOSPITAL ATHLETICS.

THE past year has continued to show that increased amount of enthusiasm which has of recent years been a marked feature in nearly all branches of hospital athletics. There is, however, great room yet for improvement all round, and we would like to see students taking a greater interest in this part of their hospital world. A large number of them not only take no active part in athletics, but are too indifferent to interest themselves even in the prowess of their respective hospitals. Granted that in London men are placed somewhat at a disadvantage as regards athletics, still there is no excuse why they should give them up entirely and lapse into a state of listless apathy. Perhaps some shrink from athletics because in a few instances there are very evident examples of over-indulgence by some of their fellow-students, to the detriment of medical work; and teachers even have been known to condemn athletics *in toto* for the same reason; but surely such deductions are illogical. Of athletics, as of all other good things, one can have too much. Happily, however, we have only to glance at the lists of the various presidents and vice-presidents of our United Hospitals Athletic Club to see what a great interest is taken by the foremost men of our profession in this important branch of student life.

Fresh air and exercise are two very important ingredients of every practitioner's prescription for convalescent patients, but students are not compelled to cram up the minute details of these "drugs" for examination purposes; therefore they are neglected or almost wholly laid aside for the time being, and their value is only appreciated in after-life. Surely it is not making too much of a small matter to impress upon every medical student, freshman or otherwise, the necessity of keeping the body supplied with good health, as well as the mind with knowledge.

The United Hospitals Athletic Club showed still further development of activity this year by inaugurating during the summer a series of contests with their brother students at Edinburgh. These contests cannot fail to inspire greater enthusiasm amongst the adherents of both schools, and we confidently look forward to a growing interest in them year by year, and trust that the movement will spread amongst the other athletic clubs. It speaks volumes for the energy of our athletes that not only should such contests be made possible, but that the first contest should pass off so successfully and without a hitch. This meeting was held in Powderhall Grounds, Edinburgh, last July, in the presence of an enthusiastic and impartial gathering. No less than six of the ten events were most closely contested, two of them being dead heats. The United Hospitals were victorious by 7 points to 3:—100 yards: G. S. S. Marshall (U.H.) and R. A. Taylor (E.U.), dead heat. Putting the weight: W. G. West (U.H.) Long jump: R. G. Hogarth (U.H.). Half-mile: W. Kent Hughes (U.H.). 120 yards hurdles: S. Kent (U.H.). Hammer throwing: T. M. Donovan (E.U.). Mile: D. S. Duncan (E.U.). High jump: B. C. Green (U.H.) and F. Fitzgerald (E.U.), dead heat. 440 yards: W. Kent Hughes (U.H.). Three miles: A. Quennell. The Edinburgh students were most untiring in their efforts to make the trip as enjoyable as possible, and everything passed off in the happiest possible manner.

Though the Inter-hospital Athletic competition was threatened to be robbed of a great part of its interest on account of the certainty that was felt that the winners of last year would again prove victorious, yet the majority of the events were very keenly contested, and some excellent finishes were witnessed by the numerous spectators. The attendance has quite doubled during the last two years, and this has been in great measure due to the improvement in the music provided, and the executive of the sports must be assured that any efforts in a similar direction will be attended with success. The medals and cups were distributed by Mrs. Treves, and the President at the conclusion of the sports expressed his great interest in the day's proceedings and his hearty sympathy with all branches of athletics. St. Bartholomew's won with exactly the same number of events as last year—eight firsts, two seconds, and one third; they have now won the shield six times; Guy's and St. Thomas's each five times; King's and St. George's each three times, and London once. The records now stand as follows:—100 yds.: B. B. Connolly (Guy's), 10½ sec. 220 yds.: L. Stokes (Guy's), F. Little (St. Geo.), G. S. S. Marshall (Middlesex), 22½ sec. 440 yds.: T. A. Guinness (King's), 51½ sec. 880 yds.: W. Kent Hughes (St. Bart.'s), 2 min. 2½ sec. One mile: H. P. Ward (King's), 4 min. 36½ sec. Three miles: A. Quennell (St. Bart.'s), 15 min. 52 sec. 120 hurdles: J. G. Gravely (Guy's), 16⅔ sec. Putting weight: W. G. West (St. Bart.'s), 38 ft. 3 in. High jump: A. E. Nuttall (St. Bart.'s), 5 ft. 7½ in. Long jump: R. G. Hogarth (St. Bart.'s), 21 ft. 2½ in. Throwing hammer: C. T. Dent (St. George's), 90 ft. 4 in.

The Rugby Football Cup again fell to St. Thomas's Hospital, who were regarded as certain to win, as they had improved upon their team of last year, which carried all before them. Winners of first round: Middlesex, St. Bartholomew's, St. George's, Guy's, St. Thomas's, London (byes). Winners of second round: St. Thomas's, Guy's, London, and Middlesex (a draw). Winners of third round: St. Thomas's, Middlesex. Winner of fourth round: St. Thomas's. St. Thomas's team: A. S. Gedge (back); E. E. Bromet, E. W. Senior, and N. P. Toller (three-quarter backs); P. Northcote and R. W. Ord (half-backs); J. H. Dewhirst, T. A. M. Forde, P. C. Gabbett, F. W. Goodhue, J. R. Harper, W. Jackson, T. W. Lambert, W. F. Milton, C. C. Moxon (forwards). The cup has been won by Guy's four times, by St. George's and St. Thomas's each three times, by St. Bartholomew's twice, and by London and Middlesex each once.

The cricket club did not perhaps show quite so much energy as last summer, for in several instances there were difficulties in getting a team together for united hospital matches; however, they acquitted themselves very fairly on the whole; the inter-hospital ties were remarkable for the early overthrow of Guy's and St. Bartholomew's, both of whom have fought it out in the final for several years past. London and St. Thomas's met in the last round this year to compete for possession of the cup, and the latter beat their opponents rather easily, P. Northcote batting very brilliantly for them, and making a "record" for the ties by scoring 201. Winners of first round: Charing-cross, St. Mary's, St. Thomas's, Guy's, London, and University College. Winners of second round: Charing-cross, St. Thomas's, and London. Winners of third round: London and St. Thomas's (a bye). Winner of fourth round: St. Thomas's. The most prominent players in the cup ties were Messrs. Wright (Charing-cross), Poynton (St. Mary's), Isaacs and Northcote (St. Thomas's), Simpson, Kyffin, and Webb (London). The cup has been held three times by Guy's, twice by King's, and once by St. Thomas's.

In the Association Football Cup ties Guy's had again to give way, and this time to their old antagonists St. Bartholomew's, who have striven against them in the final every year since the foundation of the club in 1884 with one exception. The final tie was the most interesting of the hospital competitions, and though St. Bartholomew's won by four goals, the game was very even, and for a long time the issue was uncertain. Winners of first round: Charing-cross and Westminster, Guy's, St. Bartholomew's, St. Thomas's, Middlesex, St. Mary's and London (byes). Winners of second round: Guy's, St. Mary's, St. Bartholomew's, and St. Thomas's. Winners of third round: Guy's, St. Bartholomew's. Winner of fourth round: St. Bartholomew's. The Cup has been won four times by Guy's, and once by St. Bartholomew's. St. Bartholomew's team: J. A. Coulby, goal; E. Henry and F. E. Fernie, backs; F. Lewaine, J. Cropper, and J. G. Faber, half-backs; R. G. Hogarth and F. J. Dixon, left; A. E. Carruthers, centre; A. W. Lemarchand and N. O. Wilson, right forwards.

The Rowing Club, although it has shown more signs of life, yet has not been able to increase the number of competitors for the Inter-hospital Cup. The ties were again won by St. Thomas's, who met St. George's in the final, and won rather easily in the end, though for the first part of the course the crews were very close together. All the eight rowing in the final were Cambridge University men. Winner of first tie: St. George's, beating Guy's and Middlesex. Winner of second tie: St. Thomas's, beating St. Bartholomew's. Winner of final: St. Thomas's. St. Thomas's crew: G. C. Richardson (bow), T. W. Lambert (2), H. T. Davis (3), T. Haydon (stroke), and P. C. Phillips (cox). In the second fours, Middlesex representatives beat those of St. Thomas's and St. George's

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by four lengths. Winners of Cup: 1885, London; 1886-7, Middlesex; 1888-9, St. Thomas's.

The Cross Country Challenge Cup was won by St. Thomas's, the only other hospitals represented being St. Bartholomew's and St. Mary's. Winners: 1887, St. Bartholomew's; 1888-9, St. Thomas's.

The Lawn Tennis Cup was won by St. George's Hospital, who now hold it for the second year in succession.

The Shooting Cup did not evoke much interest, as only two hospitals entered—St. Thomas's and St. Bartholomew's. The former retained their possession of the Cup, winning by 7 points.

It is interesting to note the remarkable all-round success of St. Thomas's, who, it will have been seen, carried off the Rugby Football, the Cricket, the Rowing, the Cross-country, and the Shooting Cups.

We may add that the Medical Staff Corps Cricket Club have had a very successful season this summer. They have only suffered one defeat, and have scored a large number of wins. Surgeon Trask, Corporal Forsyth, and Sergeant Lumney have been the principal contributors to their success.

THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

The International Congress on Forensic Medicine: Arsenic Poisoning; Instinctive Criminals; the Selection of Experts.

THREE more subjects were discussed by the Congress on Forensic Medicine which merit special attention—namely, Arsenic Poisoning, Instinctive Criminals, and the Selection of Experts for Medico-legal Questions. On the first question a report was presented by Dr. P. Brouardel and M. G. Pouchet. This report was based in the main on the great arsenic poisoning cases of Hyères and of Havre. The result of these observations, which in these two cases were made with great care, is, that whether the case is very acute and followed by death in a few hours, or, on the contrary, very slow and lasting for several weeks, the symptoms are almost identical. In the slower cases there are no new symptoms, but each symptom may be studied in detail. Unfortunately, in the latter case the doctor does not always perceive the link which connects the various stages. Thus, at Hyères the medical men first believed there was an epidemic of gastric fever, then an epidemic of influenza and spasmodic cough; then they thought it was an epidemic that recalled acrodynia; and it was not till symptoms of paralysis appeared that all these conjectures were set aside, and the analysis of the wine showed that it was a case of wholesale but accidental arsenic poisoning. Dr. Vidal of Hyères gave to the Academy of Medicine the following chronological record. On Feb. 8th, gastric trouble, diarrhœa; March 4th, cutaneous eruptions suggesting measles, spasmodic coughing, running from the eyes and nose as in influenza; March 31st, pains in the lower limbs, cutaneous hyperæsthesia; and, a few days later, paralysis. At Havre there were exactly the same symptoms, coming in the same order, but following each other more rapidly. The vomiting is characteristic, and different from other forms of poisoning. It comes frequently, suddenly, eight or nine times a day at Hyères, but causes only slight abdominal pain and leaves no sense of burning or of acute suffering. Constipation is as frequent as diarrhœa, and there is sometimes some blood with the motions. Having described the cutaneous eruptions, the troubles of sensibility, and the final paralysis, Dr. Brouardel remarked that death often ensued from cardiac complications. This was the case with both M. and Mme. D—— at Havre. This was also noticed in the case of Mme. M——, who died suddenly at the hospital, six weeks after she had ceased taking arsenic. The quantity of poison taken may be insufficient to cause death in a few days after its absorption. There may even be time enough for the elimination of the poison; but the anatomical modifications which have taken place in the hepatic and renal cellules, in the muscular fibres, remain after the arsenic has gone, and death results. The process, may be compared to that of the toxic effects of alcoheol when death from sclerosis of the liver or the kidneys takes place long after the patient has given up drinking. When symptoms suggest the possibility of arsenic poisoning, the doctor is often in a very embarrassing position, and it is best to secure more positive evidence than that arising from the suspicious character of the disease. He cannot easily take possession of soiled linen without awakening attention. On the other hand, it is quite usual, in medical practice, to ask for a specimen of urine, and this can be done without attracting much attention. Yet even in this the medical man must see to it himself, or else perhaps the water would be changed, and thus he would be entirely thrown off the scent. Dr. Brouardel quoted the important experience of Dr. Gaillard concerning a young girl suffering from eczema, who had been overdosed with Fowler's liquid. Forty days after she had ceased taking the drug, traces of arsenic were found in the urine. On the other hand, Dragendorff has demonstrated that arsenic can be detected in the urine a few moments after it has been taken. Thus a medical man can, by an easy analysis, protect himself against the very unpleasant consequences that would ensue from a mistake committed in so grave a matter. Also arsenic is to be found in the hair, of which, under some pretext, it might be possible to secure a sample. This was done at Havre, and one hundred grammes of Mme. D——'s hair were found to contain one milligramme of arsenic. Finally, if the patient should die, the presence of arsenic can be detected in a very positive manner in the spongy tissue of the bones. The substitution of arsenic for phosphorus in the bone tissue has been thoroughly demonstrated by M. Pouchet. Whether the arsenic is swallowed or injected, the result is the same, and is all the more marked when small and continued doses have been administered. With dogs and rabbits all traces of arsenic tested with the Marsh test entirely disappeared from the viscera in three weeks, but could be seen in the bones ten weeks after the last dose of arsenic had been given. The localisation of arsenic is less accentuated; the drug is more rapidly eliminated when given in such large quantities as to produce at once the symptoms of poisoning. M. Dubouchet related his experience, and completely confirmed all that had been said. He consequently insisted on the very great utility of analysing the bones of those who were suspected of dying from the effects of arsenic.

On the last morning Dr. Garnier read a most interesting and thrilling paper on his experience in his investigations with regard to the most atrocious crime committed by Joseph Lepage. The cynicism of this youthful murderer was most remarkable. When he had passed a sleepless night he indignantly protested that it was the want of exercise and not remorse which had prevented him from sleeping. Lepage longed for the day to appear before the Assizes Court. He gloried in the publicity and in the horror his self-glorification for the accomplishment of crime would create. He displayed consistently and throughout the most complete absence of moral sense. The awful cynicism of his remarks and his boastfulness impressed the judges, as they had impressed Dr. Garnier, with a doubt as to whether they were dealing with a person really responsible for his deeds. The law at present strikes criminals who are incapable of understanding their own moral culpability. On the other hand, the moral sense of society would revolt against the idea of mixing with the insane criminals suspected of being insane. This is all the more objectionable, as every day efforts are made to reduce the restrictive measures taken in asylums. Also as an asylum is a hospital, criminals, when cured, might claim to be released. He therefore demanded that special asylums for criminals should be created. This brought the Congress round again to the point at which the discussion on the simulation of disease had ceased. One delegate remarked how completely the character of a youth at the age of puberty sometimes changed. He took to tobacco, to absinthe, and fell into evil ways. Was this due to moral decadence or to physical change? Dr. Motet dwelt on the difficulties of treating those who were very gentle in their manner, and related the case of a man who entered the house of a poor workman. He pretended to be a police agent, and insisted on examining all the premises. He found a young child whom he declared was suffering from a dangerous, infectious malady, and compelled the frightened mother to pay him five francs to remove her. He then took the child to his own room, violated her, and turned her out into the street. This man did not attempt to escape the police, and was

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not conscious of having done anything wrong. Dr. Motet described another case of a man released six times from the asylum, and who six times committed acts of violence. He claimed that special asylums existed in other countries, and should also be instituted in France. Dr. Vleminckx wanted to treat instinctive criminals with very strict repressive measures, but Dr. Garnier again inquired whether a man totally devoid of moral sense should be treated as a moral criminal. A delegate here protested that this would lead us to admit that, with a few exceptions, there are no criminals. All criminals are not instinctive criminals, but a great proportion might be described as such. He thought that all criminals should be sent to prison, and not to an asylum. M. Schmy said that, while refusing to admit the irresponsibility of all criminals, he doubted whether the actual methods were good. Lepage has a brother. The two brothers were brought up together under exactly the same influences; one is a thoroughly honest, hardworking fellow; the other is the most repulsive of criminals. Was there not some physical defect to account for this otherwise inexplicable moral difference? The speaker advocated the improvement and extension of the system of reformatories. M. Ortholou, a member of the Parisian bar and a magistrate, protested that we must not only punish where punishment can moralise; we must punish when evil has been done, and not punish only when punishment may do good. We must punish first and moralise afterwards, if possible. When convicting prisoners, it had never occurred to him to inquire if the criminal would understand the moral significance of the sentence. If we are in the presence of persons who are bad, let us punish first; if good results, all the better; but in any case we must punish. This very characteristic speech rather amused the budding disciples of Prof. Lombroso. Dr. Lacassague doubted whether Lepage was really ill. He described him as a "foul flower of Paris." Such characters could not be found in the country. This "fonfaron du crime" was of town growth; and, for his part, he was willing to assist in the process of natural selection produced by alcoholism, tuberculosis, &c., and sign with both hands the execution warrant of such a monster. If a criminal, when in prison, developed genuine signs of madness, then let him be sent to a madhouse. It would be complicated to have an asylum for the insane and another for the criminals supposed to be insane. He could not see who could decide to which of these asylums each case should be sent. Dr. Semal advocated prison asylums for instinctive criminals. In ordinary asylums the doctor would not impose prison rules; he would release the patient when cured without inquiring whether he was a criminal. Our asylums were now decked with flowers and cheered with the songs of birds. There were long walks and a semblance of freedom. A separate place was evidently needed for the violent. Are not certain persons criminals? For instance, epilepsy is sometimes associated with a splendid intelligence, but never with kindness of heart. An epileptic patient may be a genius; he will never be a philanthropist. The epileptic patient may therefore be gradually converted into a criminal. He may engender a sentiment of hatred, and under the influence of the malady may kill, not the first comer, but the person he hates. This tendency will not be suppressed in an asylum; his field of action only is restrained. The access is so sudden that even in an asylum a crime may be committed. Such a person must be specially watched, and the doctor should only have a patient before him. Crime in illness is the result of an accident. The persons who are really culpable are those who are round the patient and who fail to foresee the danger. We must not wait till the crime is committed. The Commission of the Belgian Academy of Medicine had reported in favour of the creation of a special central asylum for these sort of cases, and he thought this was a step in the right direction. Dr. Lacassague maintained that in asylums there was actually a well-established system of classification, and that criminals who were really ill were treated accordingly. Thus, for instance, at the celebrated trial of the anarchists at Lyons, when Prince Krapotkine was condemned to five years' imprisonment, the speaker was consulted, and one of the anarchists was allowed special treatment. Dr. Motet, in answer, alluded to the practice in England, which he considered superior to that of France. Dr. Garnier finally replied that there were persons who are sometimes in prison, sometimes in an asylum, and this proves that they are an intermediary type; mad, sane, sometimes a bit of both, and for these a prison asylum was necessary. The President now summed up the discussion by declaring that all evidently agreed that a special asylum should be created; that the Congress thought the present state of affairs in France was defective, but could not quite decide as to what particular class of persons should be admitted to the asylum prison.

The last afternoon of the Congress proved a field day for the lawyers. The report to be discussed had been drawn up by M. Adolphe Guillot, Judge of Instruction to the Tribunal of the Seine, and M. Demange, Advocate at the Court of Appeal, and also Judge of Instruction. The names of these two lawyers are associated with some of the most celebrated trials held of late years. The question they submitted in a joint report to the Congress related to the appointment of experts in such a manner as to best protect the interests of society and of the accused. During the Universal Exhibition of 1878 this matter had been considerably discussed. On Aug. 12th, 13th, and 14th, 1878, an International Congress was held on the subject at the Tuilleries. The President of the Congress, the Hon. Dr. Devergie, in a paper on experts, commenced with the following words:—"According to certain newspapers there is a question of giving to the accused, during the course of legal investigations, certain rights which they do not now possess, notably that of demanding the appointment of counter experts." These rumours, thus treated somewhat scornfully, were well founded, for three months after the Congress, the Minister of Justice, M. Le Royer, inspired doubtless by the debates of the Congress, brought forward in the name of the Government a Bill for the complete reform of the method of criminal investigation. This Bill states: "The question of investigations by experts gives rise to many complaints. With the actual system errors once committed are almost always irreparable. The defence is only acquainted with the result of the investigation made by experts a long time after it is terminated. The objects examined have either disappeared or have greatly altered. There is no means, therefore, of control, and yet too many precautions cannot be taken, for in serious crimes this investigation of the experts is often the principal evidence produced in the accusation." The above, the text of the preamble to the Government Bill, sets forth clearly what became the subject of debate at the Congress. Should the accused himself select an expert to carry out the investigation as against the expert appointed by the prosecution? This has been proposed by M. Goblet in his Parliamentary Report of Nov. 15th, 1881, and M. Bovier-Lapierre's of Jan. 20th, 1887. The whole tendency of modern reform—and this was especially noticeable in the Cahiers des États-Généraux of 1789—has been to strengthen the defence. Nevertheless, this proposed reform with regard to experts is not yet carried, though it has been discussed for some ten years. The reporters to the Congress inquired whether the proposed innovation would work. Would a medical man, eminent in science, like to find himself called the expert for the defence? The magistrate selects his experts among the most distinguished men of science, and it is an honour to be an expert. But the criminal, for his defence, might select the most discredited practitioner he could find, someone who would not scruple to employ any stratagem to obtain an acquittal. Should the law limit the right of choice, and compel the criminal to appoint only persons of high reputation? This would cause invidious distinction, and in a great measure destroy the very principle the reform seeks to establish. Yet, again, if the criminal has the free choice of an expert, this will expose the expert appointed by the magistrate for the prosecution to personal contact with individuals of bad repute. The reporters seem to think that a list of experts should be drawn up by scientific bodies, and the prosecution and the defence should alike select from this same list. Then another difficulty arises. If the expert for the defence is to be paid by the defence, he may receive a great deal more than the expert employed by the magistrate. This will open the door to accusations of partiality. To meet this difficulty, the Parliamentary Commission, in its report on the subject, proposes that the experts should receive the same sum each, and be paid by the State. This would be a first step towards gratuitous justice, and it is advocated on the ground that the law should be as anxious to save the innocent as to condemn the guilty. Again, should both experts have the same rights and facilities of investigation? The reporters thought that, however the experts were appointed, they would always act

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according to their conscience, and, while not seeking to accuse, would not try to defend, but devote their energies solely to ascertaining the truth. The real advantage would be the control—the lessening of the individual responsibility. The experts should be colleagues, and not adversaries; and should mutually seek to render the task more easy. The advocate for the defence might, perhaps, be admitted at the post-mortem investigations. It has been said that the pupils at a clinique were the body guard of the patient. Perhaps, if there was a clinique of forensic medicine, the presence of students would be the most powerful guarantee of the thoroughness and the impartiality of the investigation. Based on these principles, the report concluded with no less than nine resolutions.

The report having been read, the discussion commenced. M. Vleminckx said that in Belgium the law did not sanction the presence of a counter expert. He urged that if experts for the defence were allowed, they certainly should not be paid more than those engaged for the prosecution. M. Chaudet, a barrister, had often heard it said that experts were always in league with the public prosecutor to prove the prisoner guilty. From outward appearance it would seem that this was the case, but the public only judged from the trials that actually take place. They forget or ignore the number of prosecutions that would have been instituted but for the fact that experts, having been consulted, reported unfavourably. Dr. Lacassagne thought that the presence at the Congress of M. Demange showed the bench recognised the necessity of reform. In large towns there was but little difficulty in securing the help of experts, but in rural districts the case was very different. Young medical men, in order to gain a reputation, sought to be involved in some legal cases; it served as an advertisement; but by the time they had acquired some experience in forensic medicine their private practice increased, and then they avoided the law courts as far as possible. In a town the best man is generally appointed; a second expert could only play an inferior part. Even now, when there is but one expert, the lawyer very often consults a second expert, and is thus able to put his finger on the weak point. Sometimes a counter opinion is produced at a trial which tends to degrade the professor and does not help to get nearer to the truth. Formerly, when an affair was very difficult or serious, the expert used to ask for an assistant, but a ministerial decree had put an end to such aids. Dr. Brouardel remarked that, right or wrong, there was at present a decided current of opinion in favour of rival experts, and urged that the Congress had better utilise, in the interests of justice, a current it could not resist. The best examinations, especially in cases of assault, were those done at once; and the second expert, the expert for the defence, would be appointed too late to be present at this first examination. Again, with regard to chemical examinations—in whose laboratory should they be carried out, in that of the defence or the prosecution? Evidently not in both, and there were but few places where a neutral laboratory could be found for both experts to work in it at one and the same moment. Then, in course of time, one practitioner would acquire a reputation as an expert for the defence and another for the prosecution. In small towns and rural districts there was already too much personal rivalry and antagonism between the local practitioners, and this might lead to outbreaks of a scandalous description before the law courts. Consequently, when the local experts did not agree, it would be necessary to have a court of appeal. M. Moreau thought that on whatever side the medical man might be retained, he would do equally well his duty. It would be better that the judge should at once appoint two experts, but give the defendant the right to object to one or the other of them, and if a good reason was given the judge might appoint someone else. The same oath should be administered to both experts, and they should both be paid by the State. Dr. Vibert thought experts should be specialists. If in the matter of health specialists were consulted, surely we should do the same for the cause of justice. Forensic medicine was not a good profession; still, some doctors followed it steadily for years, and measures should be taken to prevent the dismissal of such men solely to please the caprice of a new magistrate. Dr. Da Silva, the Spanish delegate, protested that the Congress should not only consider the difference between town and rural districts, but the difference between the different nations. If by appointing two experts the Congress meant that the experts were to take sides, this was altogether against the spirit and dignity of science. A medical man could have only one object in view, that of ascertaining the truth, and would degrade the profession if he allowed himself to be employed for any other purpose. It was not his mission to attack or to defend; he could only be called upon to give impartial testimony. M. Demange replied that the current in favour of contradictory debate was too strong, and this was accepted, with melancholy good humour, by Dr. Brouardel. For the dignity of science there should be no contradictions made before the tribunal. Though both sides were to choose experts, these could only be selected from a carefully-prepared list. Both experts would be equal; they would not issue rival, but, on the contrary, joint reports. If they did not agree, then they would have to ask for the creation of a superior or higher court. Dr. Da Silva did not like the idea of the defendant being able to refuse a specialist. The defendant could not refuse the magistrate or the prosecutor. Also in some special case, there might be only one man available, capable of acting as an expert. The defendant, by refusing to accept this expert, would throw the case into incompetent hands. M. Guillot thought the plurality of experts a good thing; he scorned all ideas of economy, and had himself sometimes employed two and three experts.

The Congress now proceeded to vote on the resolution. The first, to the following effect, was carried unanimously: "To guarantee the interests of society and of the accused in all medico-legal investigations, at least two experts shall be employed." The next sentence, "These shall be appointed by the judge," was carried by a small majority, for a large minority voted in favour of each side appointing its own expert. A resolution giving the defendant the right to object to one of the experts was lost. The difficulty of drawing up lists of experts was further discussed. Dr. Brouardel stated that, though 500 medical men came out every year from the Paris Faculty of Medicine, he did not think thirty were fit to act as experts. The facilities of communication reduced this difficulty, as experts could be brought from a distance. The Congress then voted: "That experts, except in special cases requiring special knowledge, shall be chosen from lists drawn up by the public powers and the scientific bodies selected for that purpose. The system of the plurality of experts imposed the constitution, at the seat of the Faculties of Medicine, of a Supreme Council of Forensic Medicine, which shall act as a high and final court of appeal." With respect to this latter resolution, it was pointed out that a similar institution had worked very well in Germany. At first there had been many cases referred to this court, but in a short time it was found to act as an excellent check against careless investigation, and now the cases sent up on appeal were not at all numerous. The Congress then carried the following resolutions without any further discussion and without any opposition:—"The Judge of Instruction should be present at the post-mortem &c., except in special cases, so as to supply to experts such information as may guide their researches. The lawyer retained for the defence may also be present, so as to point out to the experts the objections the defence may raise. A class comprising the general principles of legal medicine should complete in the law schools the study of criminal law. It would be well, so as to facilitate the study of legal medicine, if exception were made to the principle of professional secrecy in so far as to admit the presence of students at post-mortem examinations, unless this for special reasons is vetoed by the judge. It would be well to create in schools of forensic medicine or in law courts archives and collections of all articles which served as evidence, and which the magistrates and experts thought useful for the teaching of forensic medicine."

Having thus successfully disposed of the resolutions, Dr. Brouardel rose and thanked the foreign members of the Congress for their attendance and for the zeal they had displayed. If the Congress was not numerous, this was due to many other causes than that of indifference to the questions at issue. Their subject was very restricted; the number of persons capable of participating in the discussion was very limited. Nevertheless, though the Congress was not numerously attended, it had done its work in a remarkably business-like manner. The questions had been thrashed out with great perseverance, and the speeches were well to the point. No one had indulged in utopian flights; all had proved themselves intensely practical. When the volume which the full report of the proceedings would make was read, it would not fail to produce a good impression.

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He therefore congratulated the Congress on its work, and declared its labours were concluded.

The members quietly left the large amphitheatre, and soon formed groups in the court, where, for the most part, they discussed which of the rival holiday resorts would be the best resting-place after the fatigues of so many Congresses.

Paris, Sept. 3rd.

THE BRITISH ASSOCIATION.

THE fifty-ninth annual meeting of the British Association commenced at Newcastle-on-Tyne on Wednesday, the 11th inst., twenty-six years having elapsed since the last meeting of the Association in that town. Sir Frederick Bramwell, F.R.S., the retiring President, having, in a few appropriate words, introduced his successor in the chair—Professor Flower, F.R.S.,—the latter proceeded to deliver his address. As chief of the Natural History Museum in London, the new President's speech was, as might be expected, directed to a subject upon which he is so great an authority—namely, the practical organisation of museums, and in an effective and lucid manner and at considerable length, he explained the true principles upon which collections of natural history objects should be arranged so as to bring them most easily and quickly under the eyes of the visitor, or within the scope of the scientific investigator. Overcrowding in museums was to be deprecated at all costs. The President urged that the first consideration in establishing a museum, large or small, ought to be that it should have some definite object or purpose to fulfil, and that the means should be forthcoming to maintain the museum in a suitable manner to carry out that purpose. Every specimen exhibited should be good of its kind, and all available skill and care should be spent upon its preservation, so as to render it capable of teaching the lesson it was intended to convey. At the conclusion of the address a hearty vote of thanks was accorded to Professor Flower. The President expressed his acknowledgment of the vote, and announced that the number of tickets issued for the present meeting of the Association amounted to 2228.

PRIZES AT THE MEDICAL SCHOOLS.

THE following is a list of the Prizes, &c., awarded at the various medical schools, for the Sessions 1888–89:—

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE.—Lawrence Scholarship and Gold Medal: Bedford Pierce. Brackenbury Medical Scholarship: J. A. Hayward. Brackenbury Surgical Scholarship: C. H. Roberts. Senior Scholarship in Anatomy, Physiology, and Chemistry: A. G. Gave. Open Scholarships in Science, Senior: N. Soden; Junior, J. W. Pickering. Preliminary Scientific Exhibition: R. E. Scholefield. Kirkes Scholarship and Gold Medal: W. F. Oakeshott. Bentley Prize (Medical): F. W. Andrewes. Bentley Prize (Surgical): E. A. Edelston. Hichens Prize: W. B. Jones. Wix Prize: A. B. Boyd. Harvey Prize: H. N. Armstead, A. S. Blackwell (equal); 3, H. O. Davy; 4, W. B. Jones; 5, N. Wilson; 6, C. E. Wheeler; 7, A. N. Weir; 8, H. J. Walton. Skynner Prize: B. Pierce, W. G. Willoughby (equal). Practical Anatomy, Junior: Treasurer's Prize—1, W. N. Soden; 2, H. S. Elworthy; 3, C. R. H. Crawford; 4, A. H. Buck; 5, J. O. March; 6, A. F. Stevens; 7, B. Ley; 8, A. D. Allen; 9, E. S. Humphry; 10, R. C. T. Stevens. Practical Anatomy, Senior: Foster Prize—1, N. Wilson; 2, W. B. Jones; 3, H. W. Armstead; 4, O. Holst; 5, A. N. Weir; 6, H. O. Davies, W. E. Miles (equal); 8, J. C. Baker; 9, F. Lewarne, B. G. Seton (equal). Shuter Scholarship: J. Attlee. Junior Scholarships: A. S. Blackwell; 2, H. W. Armstead; 3, A. A. Weir.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL.—Session 1888–89.—£125 Entrance Scholarship: Mr. A. R. Rendle. £65 Entrance Scholarship: Mr. G. E. Hale. £50 Entrance Scholarship: Mr. E. G. G. Little. The Acland Clinical Prize in Medicine: Mr. W. K. Fyffe. Pollock Prize in Physiology: Mr. N. Elrington. The Henry Charles Johnson Prize in Anatomy: Mr. H. A. Hinge. Assistant Demonstrator of Anatomy: Mr. H. A. Hinge.

CHARING-CROSS HOSPITAL MEDICAL SCHOOL.—Llewellyn Scholarship, certificate and £25, F. H. A. Taylor; Golding Scholarship, certificate and £15, C. H. J. Lockyer; Governors' Clinical Gold Medal, F. H. A. Taylor; the Pereira Prize, certificates and £5, T. E. Constant and A. H. Smith (equal). Senior Anatomy: Prize, A. W. W. Hoffman; certificates, W. M. Palmer, F. B. Rockstro, and H. W. J. Cook. Junior Anatomy: Prize, N. R. J. Rainier; certificates, J. W. Willson and E. Clowes. Senior Physiology: Prize, A. W. W. Hoffman; certificate (*proxime accessit*), H. W. J. Cook; certificates, D. C. P. Taylor, W. M. Palmer (equal), H. Gillett, J. P. Oliver, G. T. Bishop, and F. B. Rockstro. Junior Physiology: Prize, G. H. Hooper; certificates, W. May, E. R. Bull, J. W. Willson, K. Schelling, and W. R. Barrett. Practical Physiology: Prize, A. W. W. Hoffman; certificates, C. H. J. Lockyer, and W. M. Palmer, H. W. J. Cook, and J. Busfield (equal). Chemistry: Prize, G. H. Hooper; certificates, R. F. S. Wallace, H. H. Woods, A. W. Denny J. W. Willson, E. J. Rowbotham, P. C. Spark, and W. R. Barrett. Practical Chemistry: Prize, J. H. Day; certificates, W. M. Palmer, D. C. P. Taylor, and M. B. Foster, S. C. Bright (equal), A. V. Knowles, and S. B. Axford, A. W. W. Hoffman, J. P. Oliver, and C. C. Jeffery (equal). Osteology: Prize, W. R. Barrett. Medicine: Prize, H. S. Baker; certificates, H. J. F. Badcock and Charles Gibbs. Junior Practical Medicine: Prize, J. Busfield; certificate (special), G. F. Dickinson; certificate, H. S. Baker. Senior Practical Medicine: Prize, G. F. Dickinson; certificate (*proxime accessit*), Charles Gibbs. Surgery: Prize, G. F. Dickinson; certificates, A. Carling and E. L. Rowse (equal). Minor Surgery: Prize, S. F. Cheesman; certificates, J. W. Willson, E. J. Eedle, and J. H. Day. Therapeutics: Prize, F. H. A. Taylor; certificates, M. Dobbs and T. E. Constant. Materia Medica: Prize, A. W. W. Hoffman; certificate (special), C. H. J. Lockyer; certificates, G. T. Bishop, T. H. Lawrie, and H. D. Senior. Midwifery: Prize, J. F. Colyer; certificate, G. F. Dickinson. Forensic Medicine: Prize, F. H. A. Taylor; certificate, G. F. Dickinson. Pathology: Prize, G. F. Dickinson; certificate, J. Busfield. Dental Surgery: First prize, certificate, and £6 6*s*., J. A. Mallett; second prize, certificate, and £4 4*s*., E. Preedy; certificates, A. R. Colyer and W. May (equal).

GUY'S HOSPITAL MEDICAL SCHOOL.—The Treasurer's Gold Medal for Clinical Medicine, Ernest Henry Starling (Bombay). The Treasurer's Gold Medal for Clinical Surgery, Robert Devereux Mothersole (Colchester), and Ernest Henry Starling (Bombay), *proxime accessit*. Gurney Hoare Prize of £25 for Clinical Study, George Herbert Pennell (Exeter). Beaney Prize of 30 guineas for Pathology, Ernest Henry Starling (Bombay). Mackenzie Bacon Prize of £15 for Nervous Diseases, Arthur Henry Williams (Hayton, Yorks). Golding Bird Medal, and Prize of £20 for Methods of Diagnosis, Robert Devereux Mothersole (Colchester). Michael Harris Prize of £10 for Anatomy, John Henry Bryant (Ilminster). Fourth-year students: Alfred Parkin (Hightown, Yorkshire), first prize, £25; Robert Devereux Mothersole (Colchester), second prize, £10. Third-year students: Frederick William Hall (Sydney, New South Wales), £25. Second-year students: John Henry Bryant (Ilminster), £11 13*s*. 4*d*.; Bertram Whewell Hogarth (Morecambe), £11 13*s*. 4*d*.; Arthur Stanley Wohlmann (Hertford), £11 13*s*. 4*d*., equal; William Gusterson Rogers (Kimberley, South Africa), certificate; Charles Edward Salter (Barnes Common), certificate. First-year students; Alfred Theodore Rake (Fordingbridge), first prize, £50; Thomas Holmes (Lancaster), second prize, £25; Edward Thomas Ernest Hamilton (East Dulwich), certificate; Tom Robinson Taylor (Methley, near Leeds), certificate; Charles Caldwell Elliott (Wynberg, Cape Colony), certificate; Harry Bacon Wilkinson (Southport), certificate; Arthur Mantel Daldy (Romford), certificate. Open Scholarship in Arts of 125 guineas, John Beresford Leathes (Rochester). Open Scholarship in Science of 125 guineas, William John Johnson (Shefford, Beds).

MIDDLESEX HOSPITAL MEDICAL SCHOOL.—Broderip Scholarships, for the best examination at the bed-side and in the post-mortem room:—First, H. A. Daniel; second, J. K. Clarke; *proxime accessit*, E. E. Norton. Governors' Prize: E. C. Long. Hetley Prize: E. C. Long. Exhibition in Anatomy (first year): A. E. Bodington. Lyell Medal: E. C. Long. Murray Medal and Scholarship: E. C. Long. Medicine: C. H. Fazan. Surgery: E. C. Long. Practical Medicine and Therapeutics: Evan Jones. Practical Surgery: E. C. Long. Practical Midwifery: W. H. Fosbery. Anatomy: T. Carwardine. Physiology: H. W. Gibson. Chemistry: F. E. Rock. Dissections: H. W. Gibson. Pathological Anatomy: H. W. Kendall. Midwifery: F. A. Alderson. Forensic Medicine: H. B. Shepherd. Materia Medica: E. W. Gregor. Practical Chemistry: F. E. Rock. Practical Physiology: E. H. Williams. Entrance Scholarships: First, H. Bankes Price; second, A. E. Bodington; exhibition, A. Jones.

LONDON HOSPITAL MEDICAL COLLEGE.—Entrance Science Scholarships: £60 scholarship, F. J. Wollacott; £40 scholarship, R. G. Kirton. Buxton Scholarships: £30 scholarship, W. S. H. Sequiera; £20 scholarship, A. Russell. Clinical Medicine: £20 scholarship, given jointly by the House Committee and the Medical Council, G. F. Oldham; honorary certificate, F. R. Riley. Clinical Surgery: £20 scholarship, given jointly by the House Committee and the Medical Council, J. A. Offord; honorary certificates, W. C. Aylward and E. J. Hicks. Clinical Obstetrics: £20 scholarship, given jointly by the House Committee and the Medical Council, W. C. Aylward and F. J. W. Porter (equal); honorary certificate, F. R. Riley. Duckworth Nelson Prize: Prize, £10, E. J. Hicks; honorary certificates, G. F. Oldham and W. C. Aylward. Letheby Prize: £30 prize for proficiency in Chemistry, E. E. Blomfield; honorary certificate, S. H. Rayne. Anatomy, Physiology, and Chemistry: £25 scholarship given by the Medical Council, E. E. Blomfield; honorary certificate, J. Mulvany. Anatomy and Physiology: £20 scholarship, given by the Medical Council, H. L. Barnard; honorary certificate, W. S. H. Sequiera. Dressers' Prizes for Zeal, Efficiency, and Knowledge of Minor Surgery, given by the House Committee: £15 prizes, E. E. Blomfield and ——; £10 prizes, J. Mulvany and A. T. Hirsch; £5 prizes, —— and ——. Practical Anatomy Prizes: £5 prize, J. McNeal; £5 prize, J. Mulvany; £5 prize, J. R. Preston; £5 prize, H. L. Rutter.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—Entrance Scholarship in Natural Science of 75 guineas, C. T. Parsons; 75 guineas, J. S. Collier; 50 guineas, F. J. Poynton; 50 guineas, J. E. B. Wells. University Entrance Scholarship of 50 guineas, G. E. C. Pritchard, B.A. Oxon.; £50, E. H. Colbeck, B.A. Cantab., G. Wilkinson, B.A. Cantab., W. W. Simmons, B.A. Cantab. Classical Scholarship of value of £50, W. Charrington Wood. Mathematical Scholarship of value of £50, T. T. Brunyate, Christchurch, Oxford. Summer Session, 1888: Second year: Midwifery—L. Rogers, prize; G. M. Winter, certificate of honour. Medical Jurisprudence—G. M. Winter, prize; H. L. Hatch, L. E. Parkhurst, and L. Rogers (equal), certificates of honour. First year: Materia Medica—G. G. Clarke, prize; R. B. Manning, D. Maddock, F. J. Worth, A. V. Crossing, and E. A. Nathan, T. E. Smurthwaite (equal), certificates of honour. Botany—R. Gilmour, prize; C. A. Lane, certificate of honour. Chemistry—E. W. Simmons, prize; R. B. Manning, and F. H. Daynes, E. A. Nathan, H. W. Clarke, T. E. Smurthwaite (equal), certificates of honour. Histology—H. G. Lane-Pryce and J. O. Symes, prizes; E. A. Nathan, certificate of honour. Winter Session, 1888-9: Third year: Medicine—Prize not awarded; L. Rogers and G. Wilkinson (equal), certificates of honour. Surgery—L. Rogers, prize; G. Wilkinson, certificate of honour. Practical Surgery—L. Rogers, prize; G. Wilkinson, certificate of honour. Pathology—L. Rogers, prize; G. Wilkinson, certificate of honour. Third and fourth years: Clinical Medicine—C. G. Mack, prize; A. B.

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Batley and C. H. Powers, certificates of honour. Clinical Surgery—J. J. Knox, prize; A. H. Bindloss (*proxime accessit*), and C. G. Mack, G. M. Winter (equal), certificates of honour. Prize in Ophthalmology of £10 10s.—J. Griffith, prize; ditto (prize divided)—H. A. Kidd and R. B. Ferguson (equal). Pathology Scholarships—A. C. Rendle and L. Rogers, prizes. Second year: Anatomy—J. R. Evans, prize; J. O. Symes and F. J. Worth, certificates of honour. Physiology—C. A. Lane, prize; E. A. Nathan, R. B. Manning, and J. O. Symes, certificates of honour. First year: Anatomy—C. T. Parsons, prize; J. S. Collier, certificate of honour. Physiology—C. T. Parsons, prize; J. S. Collier, certificate of honour. Chemistry—H. Roberts, prize. Special prizes, 1888: Students of first year, for general proficiency in Anatomy, Physiology, Materia Medica, and Chemistry—R. B. Manning. Students of second year, for general proficiency in Anatomy, Physiology, Midwifery, and Medical Jurisprudence—G. M. Winter. Students of third year, for general proficiency in Medicine, Surgery, Pathology, and Operative Surgery—R. H. Cole. Prosectors—N. E. Norway and F. J. Worth. Special prize for best Drawings and Note-book in the Physiology Classes—Mander Smyth. [1] Obtained number of marks equal to the prize winner.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—Summer Session 1888.—First-year students: J. H. Fisher, college prize, £15, and certificate of honour; C. S. Wallace, college prize, £10, and certificate of honour; W. B. Winston, certificate of honour; W. Watkins-Pitchford, certificate of honour; W. P. Purvis, certificate of honour; C. S. Jaffé, certificate of honour; P. C. Gabbett, certificate of honour; W. G. Sutcliffe, certificate of honour; W. L. Wainwright, certificate of honour. Second-year students: A. King, college prize, £15, and certificate of honour; D. F. Shearer and E. T. Whitehead (equal), college prize, £10, and certificates of honour. Third-year students: A. Wentworth Jones, college prize, £15, and certificate of honour; C. C. Heywood, college prize, £10, and certificate of honour; A. C. Lankester, certificate of honour.—Winter Session, 1888-89:—Entrance Science Scholarships: E. M. Hainworth, scholarship, 125 guineas, and certificate of honour; E. Smith, scholarship, £60, and certificate of honour. First-year students: E. Smith, the William Tite Scholarship, £27 10s., and certificate of honour; W. G. Sutcliffe, college prize, £20, and certificate of honour; C. Planck, college prize, £10, and certificate of honour; L. V. Tebbs, certificate of honour; H. M. Moore, certificate of honour; J. W. Hewett, certificate of honour; G. J. Arnold, certificate of honour; K. B. J. Vickers, certificate of honour; W. Redpath, certificate of honour; C. L. B. Stares, certificate of honour; C. W. Grant-Wilson, certificate of honour; E. M. Hainworth, certificate of honour; E. Miskin, certificate of honour. Second-year students: J. H. Fisher, the Musgrove Scholarship, £38 10s., and certificate of honour; C. S. Wallace, college prize, £20, and certificate of honour; W. B. Winston, college prize, £10, and certificate of honour; A. Banks, certificate of honour; W. Potter, certificate of honour; J. G. Turner, certificate of honour; C. Latter, certificate of honour; W. A. Bowring, certificate of honour; A. M. Campbell, certificate of honour; W. Watkins-Pitchford, certificate of honour; W. E. Drake and W. P. Purvis (equal), certificates of honour; W. L. Wainwright, certificate of honour; C. S. Jaffé, certificate of honour; T. W. Hicks, certificate of honour. Third-year students: J. J. Perkins, college prize, £20, and certificate of honour; W. H. Millar, college prize, £15, and certificate of honour; A. King, college prize, £10, and certificate of honour; E. T. Whitehead, certificate of honour; C. P. Lovell, second tenure of the Peacock Scholarship. Surgery and Surgical Anatomy: A. C. Lankester, the Cheselden medal; A. F. Stabb, T. W. Lambert, and H. W. Nix, special mention and certificates of honour. Practical Medicine: S. G. Toller, the Mead medal; A. W. Musson, T. A. Dukes, and A. Wentworth Jones, special mention and certificates of honour. For general proficiency and good conduct: A. F. Stabb, the Treasurer's gold medal.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—Honours List (Summer Session).—Materia Medica: W. H. A. Tebbs, prize; H. Wolseley-Lewis, H. A. Stonham, T. W. Bailey, W. B. Winckworth, certificate. Practical Chemistry: W. H. A. Tebbs, prize; T. W. Bailey, H. A. Stonham, W. B. Winckworth, H. H. Mills and E. C. Drake (equal), G. Norman, J. A. L. Campbell and H. W. Lewis (equal), certificate. Histology: A. S. G. Bell, prize; T. W. Bailey, certificate. Pathology: E. J. Pritchard and P. M. Yearsley (equal), prize. Midwifery: P. M. Yearsley, prize; E. J. Pritchard, certificate. Forensic Medicine and Toxicology: P. M. Yearsley, prize. Honours List.—Entrance Scholarships (Winter), H. Witham, £80; (Summer) E. Spencer, £100; E. Nowell, £40; H. M. Dowler, £40. Treasurers' Prize for first winter subjects, value 10 guineas, W. H. A. Tebbs. President's Prize for second-year subjects, value 20 guineas, A. S. G. Bell, and H. W. Lewis, J. B. Byles, *prox. accesserunt*. Bird Prize and Medal, value £15, P. M. Yearsley. Chadwick Prize, value 20 guineas, not awarded. Clinical Medicine Prize, value £5, Ll. Lewis. Clinical Surgery Prize, value £5, not awarded. Class Prizes and Certificates.—Anatomy—Senior Class: J. B. Byles, H. W. Lewis, A. S. G. Bell, H. A. Stonham; Junior Class: W. H. A. Tebbs. Physiology—Senior Class: H. A. Stonham, A. S. G. Bell, J. B. Byles and H. W. Lewis (equal); Junior Class: W. H. A. Tebbs. Histology—Senior Class: A. S. G. Bell, H. W. Lewis, J. B. Byles, H. A. Stonham. Chemistry—Junior Class: W. H. A. Tebbs, prize. Medicine—Senior Class: A. S. G. Bell, prize. Surgery—Senior Class: P. M. Yearsley, prize.

UNIVERSITY COLLEGE, LONDON.—Atkinson Morley Surgical Scholarship: W. W. H. Tate. Atchison Scholarship: T. L. Pennell. Sharpey Physiological Scholarship: W. D. Halliburton, M.D., B.Sc. Fellowes Clinical Medallists, 1888, Summer Session: M. G. Foster, W. Gordon, W. W. H. Tate, and H. H. Horden; Medallists, 1889, Winter Session: T. L. Pennell, P. R. Dodwell, Douglas Drew, and E. R. C. Earle. Liston Gold Medallist: T. L. Pennell. Alexander Bruce Gold Medallists: L. E. Hill and T. L. Pennell. Tuke Silver and Bronze Medallists: L. E. Hill and T. L. Pennell. Cluff Memorial Prize: A. Griffith. Erichsen Prize: W. S. Routledge.

BRISTOL MEDICAL SCHOOL.—Chemistry: Prize, V. Moxey; certificates, T. M. Carter, H. B. Wilson, E. A. Duffield, C. W. J. Brasher, and J. Freeman. Practical Chemistry: Prize, H. B. Wilson; certificates, T. M. Carter, V. Moxey, and J. Freeman. Botany: Prize, H. B. Wilson. Practical Physiology and Histology: Prize, A. W. Peake; certificates, E. G. C. F. Atchley, H. B. Wilson, T. M. Carter, and J. H. Parsons. Materia Medica and Therapeutics: Prize, A. W. Peake; certificates, T. M. Carter, J. Freeman, and V. Moxey. Obstetric Medicine: Prize, F. H. Edgeworth; certificate, B. G. M. Baskett. Practical Surgery: Prize, H. S. Jackson; certificates, F. E. Scrase, S. H. Lucy, and B. G. M. Baskett. Pathology and Morbid Anatomy: Prize, E. G. Hall; certificates, T. C. Grey, H. F. Ormerod, F. H. Edgeworth, C. A. Griffiths, and G. F. Bergin. Practical Pathology and Morbid Anatomy: Prize, T. C. Grey; certificates, C. A. Griffiths, H. L. Ormerod, F. H. Edgeworth, E. G. Hall, and G. F. Bergin. Medical Jurisprudence: Prize, T. C. Grey; certificates, C. A. Griffiths, H. L. Ormerod, J. S. Griffiths, and R. H. Norgate. Junior Classes of Anatomy and Physiology: Prize, W. H. Ligertwood. Junior Class of Anatomy: certificates, W. R. Hadwen, J. C. Smyth, F. C. Fosbery, M. F. Staniland, and R. H. Chilton. Junior Class of Physiology: certificates, W. R. Hadwen and J. C. Smyth. Senior Class of Anatomy: Prize, J. H. Parsons; certificates, A. W. Peake, T. M. Carter, C. W. J. Brasher, V. Moxey, and P. H. M. Star (equal). Senior Class of Physiology: Prize, A. W. Peake; certificates, J. H. Parsons, T. M. Carter, V. Moxey, C. W. J. Brasher, and J. Freeman. Class of Practical Anatomy: Prize, T. M. Carter; Prosectors' certificates, C. W. J. Brasher, T. M. Carter, and A. W. Peake. Class of Medicine: Prize, T. C. Grey; certificates, C. M. Vernon and C. Wintle. Class of Surgery: Prize, H. S. Jackson; certificates, T. C. Grey and C. Wintle. Class of Hygiene: Prize, H. L. Ormerod; certificates, E. G. Hall and R. H. Norgate.

BRISTOL ROYAL INFIRMARY.—Entrance Scholarship (of the value of 35 guineas): W. H. Ligertwood. Entrance Scholarship (of the value of 10 guineas): E. A. Duffield. Suple Medical Prize (a gold medal value 5 guineas, and 7 guineas in money) for fourth-year Students: H. L. Ormerod. Suple Medical Extra Prize of 7 guineas: E. G. Hall. Suple Medical Extra Prize of 3 guineas: C. M. Vernon. Suple Surgical Prize (a gold medal value 5 guineas and 7 guineas in money), for third-year Students: C. Wintle. Clark Prize (of the value of 15 guineas), for that Student of the Infirmary who has most distinguished himself in the class examinations open to Students in their third year at the Medical School: H. S. Jackson. Tibbits' Memorial Prize (of the value of 9 guineas), for proficiency in Practical Surgery: F. Lace. Crosby Leonard Prize (of the value of 7 guineas), for proficiency in Clinical Surgery: F. H. Edgeworth. Pathological Prizes (each of the value of 3 guineas): F. Dymoke, G. H. Skinner, C. B. Gratte, F. Lace, J. H. Fardon, and H. J. Thomas.

BRISTOL GENERAL HOSPITAL.—Lady Haberfield Entrance Scholarship (of the value of 30 guineas): C. W. J. Brasher. Clarke Scholarship (of the value of £15), for proficiency in Surgery, open to Students of the third year: B. G. M. Baskett. Sanders Scholarship (of the value of £22 10s.), for proficiency in Medicine, Surgery, and Obstetric Medicine, open to Students of the fourth year: G. F. Bergin, C. A. Griffiths (equal). Martyn Memorial Pathological Scholarships (each of the value of £10), for proficiency in Pathology and Morbid Anatomy: April, R. F. E. Austin; October, G. F. Bergin, C. A. Griffiths (equal). Committee Gold Medal (awarded to the Student of the fourth year who has most distinguished himself during his career at the Hospital and the Medical School): T. C. Grey. Committee Silver Medal (awarded to the next most distinguished Student of the fourth year): G. F. Bergin.

LEEDS SCHOOL OF MEDICINE.—Anatomy: Prize, C. A. Dixon; certificate, J. L. Iredale. Anatomy (Junior): Prize, J. M. Nicol; certificate, T. L. James. Physiology: Prize, C. A. Dixon; certificates, J. L. Iredale and J. G. Rowell. Physiology (Junior): Prize, J. M. Nicol; certificates, E. W. S. Hughes and T. L. James. Practical Physiology: Prize, C. A. Dixon; certificate, C. Waddington. Chemistry: Prize, J. M. Nicol; certificate, A. W. Scott. Practical Chemistry: Prize, J. G. Rowell; certificate, H. Keighley. Materia Medica: Prizes, H. Walker, J. G. Rowell; certificates, C. Forsyth, C. Benson, C. A. Dixon, and A. Ellison. Midwifery: Prize, J. J. Mitchell; certificate, C. Benson. Gynæcology: Prize, J. G. McCandlish; certificate, R. Wilkinson. Surgery: Prize, Jas. Stalker; certificate, C. Benson. Medicine: Prize, J. J. Mitchell; certificate, A. E. Sellers. Thorp Prizes in Forensic Medicine: First, T. P. Braim; second, C. Forsyth and J. J. Mitchell. Thorp Prize in Hygiene: J. Stalker. Hardwick Prize: H. E. Hick.

UNIVERSITY COLLEGE, LIVERPOOL.—Holt Tutorial Scholars: G. W. Chaster and J. Gould. Lyon Jones Scholar (Senior): V. B. Bennett. Lyon Jones Scholar (Junior): B. Stahlknecht. Derby Exhibitioner: J. Gould. Torr Gold Medallist: J. Evans. Junior Gold Medallist: F. J. Woods.

CARMICHAEL SCHOOL OF MEDICINE.—Carmichael Scholarship: V. K. Cooke. Mayne Scholarship: E. Kennedy. Medical Jurisprudence: E. Du Cane. Midwifery: R. Creighton. Physiology: J. Dowling. Botany: W. Allen. Practical Chemistry: Ethel Joel. Practical Histology: J. H. Farmer. Anatomy (first year): W. Black, F. Rogers, W. H. Anderson; (second year): J. Dowling, J. H. Farmer, R. T. Moynan. Chemistry: G. Griffith, W. Black, and E. Hamilton.

LONDON SCHOOL OF DENTAL SURGERY.—Saunders Scholar, A. W. W. Hoffman; Ashs' Prize, K. Schelling. Certificates, J. H. Day, A. W. W. Hoffman. Mechanical Dentistry: First prize, Mr. J. H. Day; second prize, A. W. W. Hoffman; certificates, C. F. Badcock, J. Dunlop, V. Knowles. Metallurgy: First prize, A. W. W. Hoffman; second prize, S. C. Bright; certificates, J. A. Mallet, J. H. Day. Prize in Operative Dental Surgery: First prize, J. B. Hordern; second prize, G. G. Spray; certificates, F. Burton, J. Dunlop. Dental Anatomy: First prize, A. W. W. Hoffman; second prize, E. J. Preedy; certificates, W. May, J. H. Day, K. Schelling. Dental Surgery: First prize, A. W. W. Hoffman; second prize, E. J. Preedy; certificates, E. R. Bull, T. Coysh, L. C. Tomlyn, J. H. Day. Students' Society prize, F. A. Harsant.

NATIONAL DENTAL HOSPITAL AND COLLEGE.—Rymer Medal: J. N. Dunlop. Dental Anatomy: R. S. Faro, prize, and J. N. Dunlop, prize (equal); E. A. H. Field, certificate. Dental Mechanics: S. Keele, prize; J. N. Dunlop, certificate; A. Prager, certificate. Metallurgy: A. Moore, prize; F. E. Cutts, certificate. Dental Surgery: J. N. Dunlop, prize; W. Rushton, certificate, and F. T. Haycroft, certificate. Operative Dental Surgery: Prize and certificate not awarded. Dental Materia Medica: Prize not awarded; F. T. Haycroft, certificate; S. Keele, certificate. Elements of Histology: S. Keele, certificate. Mechanical Work: Prize not awarded. Student's Society: R. S. Faro, prize.

SCHOOL OF MEDICINE, EDINBURGH.—Class of Chemistry, Surgeons' Hall: Class Medals, (1) John Lister Armitage, Thirfield, Yorkshire; (2) Adam Dryden, Edinburgh; (3) Charles Allan Brough, London, and Alexander Elder, Edinburgh. Class of Practical Chemistry: Class medals, Charles Allen Brough, London; George Henry Peake, Madagascar; George Stephenson Shirt, India. Class of Medical Jurisprudence: Junior Division, (1) M. A. Bamby, Bangalore, India; Senior Division, O. R. Lewis, London, and Douglas Stanley (equal). For Best Notes of Dissection in Class: (1) Douglas Stanley. Class of Public

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Health: Junior Division, (1) William Polson; Senior Division, P. C. Smith, Durham. For Best Essay on Abattoirs: (1) A. K. Melville. Class of Clinical Surgery, Royal Infirmary: Senior, (1) W. J. H. Cumming; Juniors, (1) F. J. L. Lorimer, and (2) F. J. Bonnalie (equal). Class of Practice of Physic, 27, Nicolson-square: Senior, (1) C. N. C. Wimberley, Inverness; Junior, (1) R. D. Rudolph, Nova Scotia. Class of Materia Medica and Therapeutics, Minto House: Silver medal, Joseph Eugène, Horace Gentil, Mauritius. Class of Practical Materia Medica, including Practical Pharmacy: Silver medal, Robert Scott, M.A., Melbourne. Class of Chemistry: Medal, T. A. Coward, Carlisle; second prize, William L. Dickson, Edinburgh; third prize, George Edward Gabites, New Zealand. Class of Chemistry, 41, Chambers-street: Silver medal, H. W. Bolam, Leith. Class of Practical Chemistry: Medal, George W. Pollard, Taunton. Class of Anatomy, Minto House: Senior prizeman, E. R. Harriott, Jamaica; Junior prizeman, Adam Dryden, Edinburgh. Class of Practical Anatomy: Senior Gold Medallist, Robert J. Ashton, Calcutta; Silver Medallist, R. M. Horne, Slamannan; Second-year men, Silver Medallist, J. M'Clymont, Kirkcudbrightshire; First-year men, Division A., Silver medal, D. H. Beegling, New South Wales; Division B., Silver medal, Adam Dryden, Edinburgh. Class of Practice of Physic, Surgeons' Hall: Medals, (1) A. J. Prentice, Lanark; (2) W. Polson, Sutherlandshire. Dental Students: Medal, F. J. Bonnalie, Chester. Class of Principles and Practice of Medicine, Park-place: Senior Division, (1) William Everett, Kettering; Junior Division, (1) Thos. J. Burton, Edinburgh. Class of Materia Medica and Therapeutics, Surgeons' Hall: Medallist, Edward Hughes, North Wales. Special Examination in Therapeutics: Prizeman, John Cuthbertson Walker, Dumbartonshire. For Assistance in the Work of the Class: Special prize, Charles Edward Lester, New South Wales.

EDINBURGH.—Class of Systematic Surgery, 27, Nicolson-square.—Senior Division: Prize, Rhys Davies, South Wales. Junior Division: (1) Arthur E. Shepherd, Adelaide, Australia. Practical Class.—Senior Division: Prize, David Westwood, Perthshire. Junior Division: Prize, Arthur E. Shepherd, Adelaide. Class of Systematic Surgery, Surgeons' Hall.—Senior Division: (1) Charles G. MacLeod, Fife. Junior Division: (1) F. J. Bonnalie, Chester. Class of General Pathology.—Silver medals: William Wood, Yorkshire, and Fred Graham, Monmouth (equal). Bronze medal: Frank T. Foster, New Zealand. Class of Practical Pathology.—Bronze medal: John Maclaren, Edinburgh. Class of Theoretical Botany, Minto House.—Medallist: J. Owens. Class of Practical Botany.—Medallist: J. Kerr. Class of Anatomy, Surgeons' Hall.—Gold Medallists: J. B. Davies, Lampeter, and G. V. Lockett, Jamaica (equal). Systematic Anatomy.—Seniors: Medallist, Henry Taafe, Londonderry. Juniors: Medallist, C. A. Brough, London. Practical Anatomy.—Juniors: Medallists, (1) W. Fitzgerald, New Zealand, and (2) C. A. Brough, London. Practical Anatomy (second year).—Medallists: Gabriel Barbeau, Mauritius, and L. G. Fink, Calcutta (equal). Practical Anatomy.—Seniors: Medallists, (1) J. C. Williams, Rhyl, and (2) W. B. Macleod, Edinburgh. Class of General Pathology, Nicolson-square.—Certificate and first prize, W. F. Robertson, Roxburghshire; certificate and second prize, M. A. Bamby, Bangalore. Class of Diseases of the Tropics and Climatology, Park-place.—First prize, E. C. Foston, Penang; second prize, George A. Wolfendall, Tutbury. Class of Systematic Surgery.—Seniors: First-class honours, (1) E. G. Pilgrim, Barbadoes; second-class honours, John Maclaren, Edinburgh. Juniors: First-class honours, (1) Charles Martin, Middlesborough; second-class honours, (1) Arthur T. Kember, S. India. Class of Midwifery and Diseases of Women.—Prizes, (1) William Paterson, Ayrshire; (2) James Currie, M.A., Kelso; (3) G. Trafforde Tuke, Edinburgh. Class of Institutes of Medicine, Surgeons' Hall.—Medals and Certificates of Merit, (1) Frederic J. Hare, Darlington; (2) Henry J. Glover, Goalhouse-on-Fleet; (3) Charles D. Sutherland, Aberdeenshire. Class of Practical Physiology.—Medal and certificate, Alexander Gibson Clark, Forfarshire. Class of Surgery, Chambers-street.—Prizes, (1) E. Forsyth, Berwickshire; (2) James Spencer, Glasgow. Class of Systematic Surgery, Minto House.—Senior Division: Prize, W. M. Parham, Bath; Junior Division: Prize, F. C. F. Foster, New Zealand. Class of Chemistry, Marshall-street.—Silver Medallist, James W. Horne, Stirlingshire. Class of Practical Chemistry.—First-class honours, (1) B. Harbottle; (2) W. H. Coupland; (3) W. Harper.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

On the Sanitary Condition of the Hoo Rural District, by Mr. SPEAR.—This district comprises a tongue of land that stretches into the estuary formed by the confluence of the rivers Thames and Medway; one half is marsh, but there is also an elevated range of London clay, capped here and there by gravel, the local industry being, apart from some brickmaking, almost purely agricultural. It is evidently a district lying under suspicion, for it had already been visited, on behalf of the Local Government Board, by Dr. Airy in 1881, and by the late Dr. De Chaumont, in connexion with the cholera survey in 1885. The story told by Mr. Spear is one that is altogether uninteresting apart from administrative considerations, for it is that of a district long since shown to have but few of the sanitary requisites of a healthy population, and one in which little progress has been made, notwithstanding that the defects and needs of the several localities composing it have been more than once pointed out. As regards disease, it is stated that diphtheria has become notably more prevalent and more fatal during recent years, and the village of Hoo is referred to as one of the places that has suffered most. One cause of this state of affairs is explained to be the complete absence of any proper organisation in the sanitary machinery of the district, there being no community of action between the medical officer of health and the inspector of nuisances, and it is especially urged on the sanitary authority that they should give heed to that portion of the Order of the Local Government Board relating to the duties of the inspector of nuisances, and which distinctly contemplates that this officer should to a large extent work under the direct superintendence and supervision of the health officer of the district.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5429 births and 2972 deaths were registered during the week ending Sept. 7th. The annual rate of mortality in these towns, which had been 19·2, 17·2, and 16·9 per 1000 in the preceding three weeks, further declined last week to 16·2, and was lower than the rate in any previous week of this year. During the first ten weeks of the current quarter the death-rate in these towns averaged 19·0 per 1000, and was 1·4 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 13·2 in Leicester, 13·9 in Bristol, 14·0 in London, and 14·5 in Wolverhampton. The rates in the other towns ranged upwards to 20·7 in Manchester, 25·4 in Plymouth, 26·0 in Preston, and 26·9 in Newcastle-upon-Tyne. The deaths referred to the principal zymotic diseases, which had been 811, 636, and 543 in the preceding three weeks, further declined last week to 512; they included 255 from diarrhœa, 63 from "fever" (principally enteric), 59 from scarlet fever, 58 from whooping-cough, 40 from measles, 37 from diphtheria, and not one from small-pox. These zymotic diseases caused the lowest death-rates in Derby and Birkenhead, and the highest in Sunderland, Preston, and Plymouth. The greatest mortality from diarrhœa occurred in Salford, Sunderland, Leicester, Blackburn, Newcastle-upon-Tyne, Hull, and Preston; from "fever" in Bradford, Norwich, Plymouth, Bolton, Preston, and Huddersfield; from scarlet fever in Plymouth, from whooping-cough in Sunderland, and from measles in Newcastle-upon-Tyne, Sunderland, and Preston. The deaths from diphtheria included 30 in London, 2 in Liverpool, and 2 in Preston. Small-pox caused no death in any of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and the London Fever Hospitals at the end of the week was 1021, against numbers increasing in the preceding ten weeks from 559 to 966; 121 cases were admitted to these hospitals during the week, against 98 and 136 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 162, 115, and 148 in the preceding weeks, were last week 142, and were 25 below the corrected average. The causes of 57, or 1·8 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Newcastle-upon-Tyne, Bradford, Portsmouth, and in eight other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Sheffield, and Oldham.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17·8 and 18·1 per 1000 in the preceding two weeks, declined to 16·5 in the week ending Sept. 7th; this rate exceeded by only 0·3 the low rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 11·1 and 11·6 in Perth and Paisley to 15·0 in Aberdeen and 21·2 in Glasgow. The 423 deaths in the eight towns showed a decline of 26 from the number in the previous week, and included 24 which were referred to diarrhœa, 18 to whooping-cough, 10 to "fever" (typhus, enteric, or ill-defined), 9 to diphtheria, 3 to measles, 2 to scarlet fever, and not one to small-pox; in all, 66 deaths resulted from these principal zymotic diseases, against 91 and 74 in the preceding two weeks. These 66

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deaths were equal to an annual rate of 2·6 per 1000, which was 0·2 below the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of diarrhœa, which had been 48 and 31 in the preceding two weeks, further declined last week to 24, of which 13 occurred in Glasgow, 3 in Edinburgh, and 3 in Aberdeen. The 18 deaths from whooping-cough were within one of the number in the previous week, and included 10 in Glasgow, 4 in Dundee, and 2 in Leith. The 10 deaths referred to "fever" showed an increase upon the numbers in recent weeks; 6 were returned in Glasgow and 2 in Aberdeen. The fatal cases of diphtheria also exceeded the numbers in recent weeks, and included 3 in Glasgow, 3 in Leith, and 2 in Edinburgh. The deaths from measles and scarlet fever, on the other hand, showed a further decline from recent weekly numbers. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 48 and 55 in the previous two weeks, were last week 54, and 21 below the number returned in the corresponding week of last year. The causes of 39, or more than 9 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 24·4, 25·1, and 26·6 per 1000 in the preceding three weeks, declined to 18 6 in the week ending Sept. 7th. During the first ten weeks of the current quarter the death-rate in the city averaged 22·7 per 1000, the mean rate during the same period being 16·8 in London and 15·6 in Edinburgh. The 126 deaths in Dublin showed a decline of 54 from the number in the previous week; they included 11 which were referred to diarrhœa, 2 to whooping-cough, 1 to "fever," 1 to measles, and not one either to small-pox or diphtheria. Thus the deaths from these principal zymotic diseases, which had ranged in the preceding five weeks from 15 to 34, declined again last week to 15; they were equal to an annual rate of 2·2 per 1000, the rate from the same diseases being 2·1 in London and 1·4 in Edinburgh. The deaths referred to diarrhœa, which had increased in the previous five weeks from 8 to 26, declined again last week to 11. The deaths from "fever" also showed a marked decline. The deaths, both of infants and of elderly persons, showed a considerable decline from the numbers in recent weeks. Six inquest cases and 3 deaths from violence were registered; and 29, or nearly a quarter, of the deaths occurred in public institutions. The causes of 13, or more than 10 per cent., of the deaths in the city were not certified.

THE SERVICES.

THE *London Gazette* of the 6th inst. contains the official account, by Major-General Sir F. Grenfell, K.C.B., of the battle fought at Toski, and which ended in the total defeat of the Dervishes. Speaking of the services rendered by the medical staff, the Sirdar says: "When the reconnaissance developed into a general action, Surgeon-Major Hayes quickly returned to camp, arranged an increase of eighty beds on the seventy already organised, improvised a bearer column, and all wounded received first field dressings as they fell, and seriously wounded men were conveyed to hospital by stretcher parties and camels. This rapid organisation reflects great credit on Surgeon-Major Hayes, and the following officers of his department:—Surgeon Morse, S.M.O., 1st column; Surgeon Lewis, Extemporised Bearer Column; Surgeon Pinching, S.M.O., 2nd column, and I have every reason to be satisfied with all his arrangements for Egyptian wounded. In addition to the care of Egyptian wounded. Surgeon-Major Hayes had arranged for a large number of Dervish sick and wounded, and has worked night and day to alleviate their sufferings. He is a most able, active, and energetic officer."

ARMY MEDICAL STAFF.—Brigade Surgeon Caleb Sherar Wills, C.B., has been granted retired pay (dated Aug. 24th, 1889); Surgeon James Perceval Myles has been seconded for service with the Egyptian Army (dated Aug. 4th, 1889).

INDIA OFFICE.—The Queen has approved of the following admissions to the Indian Medical Service (dated March 30th, 1889):—To be Surgeons: Bengal—Fairlie Russell Ozzard, Adam Rivers Steele Anderson, John Telfer Calvert, Edgar Jennings, Theodore Mayo Stiles, and Arthur Gervase Hendly. Bombay—William Symonds Percival Ricketts, Charles Malcolm Moore, George William Jenney, and Charles Tilson Hudson.

ARMY MEDICAL RESERVE OF OFFICERS.—Surgeon Wm. Coates resigns his commission (dated Sept. 4th, 1889).

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon James D'Arcy Harvey has been placed on the Retired List of his rank, at his own request; Surgeon Arthur William Egerton Brydges Barrett has been allowed to withdraw from Her Majesty's Naval Service with a gratuity.

The following gentlemen have been appointed Surgeons in Her Majesty's Fleet (dated Aug. 22nd):—George Allan, M.B.; William J. Maillard, M.B.: Percy V. Jackson; Oswald M. Jones; Nicholas C. Ridles; Alfred H. L. Cox; Erington F. S. M'Kay; and Alexander Maclean, M.B. The following appointments have also been made:—Surgeon Charles W. Hamilton to the *Wye;* Surgeon T. J. Crowley, M.D., to the *Boscawen;* Surgeon William E. Beal to the *Sultan;* Surgeon George K. Bell, to Chatham Hospital, temporarily; Fleet Surgeon Henry N. M. Sedgwick to the *Duke of Wellington*; Fleet Surgeon Henry A. Close to the *Northumberland*, vice Sedgwick; Staff Surgeon Richard J. Barry to the *Phæton;* Surgeon W. Slaughter, B.A., M.B., to the *Ajax;* and Surgeon Reginald T. A. Levinge to the *Hotspur.*

VOLUNTEER CORPS.—*Artillery:* 2nd Volunteer (Essex) Brigade, Eastern Division, Royal Artillery: Harold Gurney, Gent., to be Acting Surgeon (dated Sept. 4th, 1889).—1st Banff: Acting Surgeon F. W. Grant, M.D., to be Surgeon (dated Sept. 4th, 1889).—*Rifle:* 1st Volunteer Battalion, the Royal Warwickshire Regiment: Acting Surgeon E. L. Freer to be Surgeon (dated Sept. 4th, 1889).—3rd Volunteer Battalion, the Lancashire Fusiliers: Acting Surgeon W. E. Husband to be Surgeon (dated Sept. 4th, 1889).—1st Volunteer Battalion, the Duke of Wellington's (West Riding Regiment): Acting Surgeon J. Martin to be Surgeon (dated Sept. 4th, 1889).—1st Volunteer Battalion, the Sherwood Foresters (Derbyshire Regiment) Acting Sur- E. Vaudrey, M.B., to be Surgeon (dated Sept. 7, 1889).

Correspondence.

"Audi alteram partem."

CHLOROFORM AS AN ANÆSTHETIC.

To the Editors of THE LANCET.

SIRS,—I wish to criticise a few of Mr. Horsfall's remarks in his letter in favour of chloroform as an anæsthetic.

He says: "How rarely do we hear of a death *under* it; *from* it almost never." In the medical journals for the last ten years there are reported one hundred and twenty (if not more) cases of death under chloroform. Many of these are very imperfectly described, but in at least forty-nine cases the patients were in good general health at the time of administration, and required an anæsthetic merely for the performance of some minor operation—e.g., extraction of teeth (eleven cases of death), reduction of dislocations (nine cases), eye operations, fistulæ, and so on. In some fifty-nine cases death occurred before the commencement of the operation, and so was clearly due to the chloroform alone. In about twenty of the cases it is noted that chloroform had been successfully given on previous occasions; in one, as many as eight different times before the fatal administration. It is evident from the foregoing that chloroform is uncertain in its action; that not only do people die while *under* chloroform, but also *from* it—frequently, too, even when it is used by skilful hands. Of course, it is possible to retort that "it was not properly given," which may be correct. This will not alter the fact that these accidents prove chloroform to be a powerful agent, very difficult to administer properly—indeed, so difficult and dangerous that it is scarcely suitable for a routine anæsthetic, when a drug less powerful for evil can replace it.

Mr. Horsfall emphasises the objections to ether, without noticing the means of overcoming them. Its "nauseous flavour" and "the sense of suffocation" can be entirely done away with by the use of nitrous oxide, and its inhalation made more agreeable than even that of chloroform,

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while the patient quickly becomes unconscious without the struggling so common with chloroform. I have not yet found a single patient who has once inhaled ether preceded by nitrous oxide complain of suffocation or object to take it again on the ground of its unpleasantness.

The readiness with which chloroform affects the heart, the smallness of a fatal dose, and especially the ease and suddenness with which such a dose can be inhaled almost by a couple of deep inspirations, will make its safe exhibition always a difficult task to invariably accomplish. Without having had so many years' experience, I have given chloroform successfully nearly as many times as Mr. Horsfall, and have gradually come to believe it to be a less safe anæsthetic than ether.

I am, Sirs, yours obediently,

ALEXANDER WILSON,

Administrator of Anæsthetics to the Manchester Royal Infirmary and Victoria Dental Hospital.

Sept. 3rd, 1889.

NOTIFICATION OF INFECTIOUS DISEASES.

To the Editors of THE LANCET.

SIRS,—Your leading article of August 31st on this subject, coming as it does after the passing of the obnoxious Bill, is as oil and wine to those who have taken part in opposing that measure. We appear to be worsted, but I am one of those who do not consider the game by any means played out yet. Something has been gained by our agitation in the fact that the dual system is not enforced over the whole country, and Mr. Walter McLaren, M.P., says that at his request (which was certainly most opportune) the chief clause has been altered so that the medical man has not (as intended) to state the name of the person whom he considers primarily liable, but only the name, address, and disease of the patient. Of course the effect on the householder will be the same, but we shall not be quite such *common* informers.

And now I wish to vindicate myself (and my statistics on this subject) from the attack of Professor Corfield, who, in *The Times* of August 28th, besides saying other unpleasant things, wrote as follows:—

"Mr. Biddle alludes to statistics prepared from the Registrar-General's reports, and concludes from them 'that the dual system is on the average destructive of life.' I would refer those who are anxious to ascertain the value of conclusions drawn by him from statistical tables to the controversy which took place between him and Dr. Whitelegge, the medical officer of health for Nottingham (now medical officer of health for the Western Division of Yorkshire), in the *British Medical Journal*, in March, April, and May of the present year. They will there find that Mr. Biddle argued that a reduction in the number of deaths from 1000 to 950 was equal to a reduction of from 50 to 0 if the population were equal; in other words, that 'the good effected would be the same' with a reduction of 5 per cent. of the deaths as with the abolition of the death-rate, and they will readily understand that Dr. Whitelegge did not consider such an argument worthy of a reply."

In the first place, I beg to say that I did not expect any reply from Dr. Whitelegge, since he had already expressed a resolve to write no more, and in the last letter from which Professor Corfield "quotes" I was merely availing myself of the usual right of terminating the discussion which I had begun. Secondly, I was treating of the death-rates from preventable diseases, in which zero is by no means an absurdly impossible limit. Year after year the death-rate from small-pox is *nil* in several of even the large towns, and in some does not average 0·005 per 1000 for ten years together.

But in order that your readers may judge fairly betwixt us, I will ask you to be kind enough to reproduce the passages in two of my letters from which Professor Corfield may be supposed to quote (or rather *mis*quote). The first[1] is as follows:—

"The principle of expressing the increase or decrease in the effect of any disease upon a community by the *ratio* between death-rates at given epochs, as by Dr. Whitelegge's system of percentages, is far from satisfactory, inasmuch as where the death-rate has been low slight vicissitudes produce too great an effect upon the estimate; and where, on the contrary, the death-rate has been high, a considerable change is apt to pass almost unnoticed. Thus, for instance, in the case of small-pox, it seems altogether unfair to regard a reduction in the average number of deaths in a town from 40 to 20 as no more than equivalent to a reduction from 4 to 2 or 2 to 1. It is far more just to take the *difference* between the average death-rates at two epochs, and thus obtain the actual yearly saving (or loss) of life per 1000 of the population, in the latter period as compared with the former."

The second letter[2] runs thus:—

"When Dr. Whitelegge attempts to invalidate the method adopted by me of taking the difference rather than the ratio between the death-rates of two epochs in order to estimate increase or decrease, which method I adopted because it shows the actual saving or loss of life per 1000 of the population, and when he says, 'To take another illustration, a reduction from 1000 to 950 would be equivalent to a reduction from 100 to 50 or from 50 to 0,' I beg to observe that such would not be the case, unless the populations compared were equal. But given this equality, the good effected would, so far as the evidence goes, be the same in all three instances, however different in potency might be the salutary influences brought to bear; and if the deaths in the first town went on decreasing by fifty each year until they reached zero, I should say that they did so by equal annual decrements, and, if the average population remained the same, at an equal annual rate.

"At the same time, there cannot be reduction of a death-rate which is already *nil*, nor is it fair to compare towns or groups of towns whose average death-rates did not, at the earlier of the two given epochs, afford pretty equal scope for reduction. I am ready to grant, therefore, that the ratio would serve as an estimate almost equally with the difference, if the commencing death-rates were on a par; but Dr. Whitelegge has disregarded this proviso.

"Now the two sub-groups of towns which I selected for comparison in my last letter, had (to commence with) death-rates almost identical, not only from zymotic diseases as a whole, but from these as differentiated into notifiable and non-notifiable. The advantages as regards number of towns (in the group), average population, and density were all on the side of the dual-notification group; and yet, whereas in 1871–76 the average death-rate of this group from notifiable diseases was only 2·55, as against 2·64 in the non-notification group, there was in 1881–86 a reversal of the relations, the death-rates from notifiable diseases being respectively 1·05 and 1·01."

On reviewing these passages I see no reason whatever for recantation on my part, but feel confident that recognised statisticians other than medical officers of health will agree with me that the effect produced upon a group death-rate by a reduction of 50 in the number of deaths in a particular town of that group would be precisely the same whether the previous number of deaths in that town were 1000 or only 50. In fact, it is easy to see that in either case 50 lives would be saved to the country, neither more nor less, in a population of given extent. If Dr. Whitelegge and Professor Corfield mean that it is always or even generally easier to reduce a high death-rate than a low one, I should like to know how this can be asserted with the evidence before our eyes of London and Manchester. The former, without any system of notification to control its teeming millions, has declined considerably in its death-rate, which for four years has been under 20 per 1000, and last year was only 18½; whilst the latter, with all the advantage (?) of the dual system, has become a public scandal, owing to the height at which its death-rate keeps, rarely falling below 27.

I am, Sirs, your obedient servant,

D. BIDDLE.

Kingston-on-Thames, Sept. 2nd, 1889.

To the Editors of THE LANCET.

SIRS,—Allow me to heartily thank you, on my own part and that of many others, for your able endeavours to prevent the medical profession from passing under the degrading yoke of the dual clauses of Mr. Ritchie's Bill. The profession have not been fairly dealt with in the matter of this Bill; for, to hurry it through committee of the House in the last week of the session, when the Government knew that every medical member was absent and all other opponents of the dual system also, except one, is not consonant with the principle of fair and just legislation, and such a proceeding merits the strong condemnation which

[1] Brit. Med. Jour., April 27th, 1889.

[2] Ibid., May 18th, 1889.

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you have passed upon it in your leader of the 31st ult. Your arguments, and those of others, against medical notification have been very apt and able, and I am sorry that the official mind has not been more favourably impressed by their force and gravity.

In *The Times*, whose columns are now closed to discussion, there appeared on the 28th ult. a letter from Dr. Farquharson, in which he states his impression that the medical men of Kingston were not unanimous in their opposition to the dual clauses of the Kingston Improvement Bill. The fact that not one member of the profession refused to join in our opposition, except the medical officer of health of the Corporation, and that eighteen, residing within a mile and a quarter of the Town Hall, and including four other medical officers of health, most liberally subscribed to a fund to carry the opposition into both Houses of Parliament, will be sufficient, I hope, to remove that impression.

I am, Sirs, yours obediently,

Kingston-on-Thames, Sept. 3rd, 1889. T. CORBETT.

THE MAYBRICK CASE.

To the Editors of THE LANCET.

SIRS,—Though I was simply amazed at the verdict of "Guilty" after the lack of any evidence whatsoever to prove to the jury that Mrs. Maybrick administered, or attempted to administer, arsenic with a criminal intent to the deceased, my feeling of surprise was trivial compared to that experienced on reading Mr. Bond's letter in your columns today. Mr. Bond, after severely condemning the evidence of Drs. Tidy and Macnamara, insists that the deceased died from arsenic poisoning, and suggests that Mrs. Maybrick poisoned her husband with a solution of arsenic from the fly-papers she bought. The Home Secretary, however, after an exhaustive review of the evidence, a re-examination of some of the medical witnesses, and additional legal and medical advice, distinctly states that there is a reasonable doubt whether the death was caused by the administration of arsenic. This official deliverance is a complete answer to Mr. Bond's insistance that the man was killed by arsenic.

Mr. Bond, though he thinks that the fly-papers were the source of the arsenic wherewith he asserts that Mr. Maybrick was poisoned, dwells on the grave suspiciousness of the large quantities of white arsenic found in the house, adding that in several cases of poisoning this form (arsenious acid) was used. Does he mean that Mrs. Maybrick gave the deceased arsenious acid and also arsenic from the fly-papers, the latter of course in solution? If so, why was so very little arsenic found in the body? As I read the evidence, Mrs. Maybrick was accused of administering the poison in solution, *not* of administering the solid form.

Again, when was the large quantity of arsenious acid found? After death; and there was no evidence to show that Mrs. Maybrick had either bought or placed it where it was found. Thereby, I have no doubt, hangs a tale. It is a mystery for the nonce, but it was for the Crown to prove that Mrs. Maybrick procured and placed it, neither of which they attempted to do. That suspiciously large store (more than seventy grains) *might* have been deposited by some other woman or man; but, even on the hypothesis that Mrs. Maybrick was a poisoner, what purpose could this enormous quantity, placed where it could easily be found, have served her?

I entirely disagree with Mr. Bond's opinion, and am satisfied that no proof has been adduced in public of the death of the husband by arsenic poisoning.

I was present at Madeline Smith's trial in Edinburgh thirty-two years ago. In her case there was a clear motive (the removal of a lover who had threatened to stop an eligible marriage by the production of compromising letters). There was a large quantity of the poison found in the body of the deceased, and she was proved to have bought the poisonous substance. Yet an intelligent Scotch jury returned a verdict of "Not proven." *That* jury would assuredly have acquitted Mrs. Maybrick, against whom the evidence was so much weaker.

It seems to me unwarrantable, on Dr. Stevenson's evidence as to the small quantity of arsenic detected by him, especially in the absence of some well-known and characteristic symptoms of arsenic poisoning, to conclude that the deceased must have died from poisoning, and I rejoice to find that Mr. Matthews has come to the conclusion that there is reasonable doubt on the subject. I have no doubt that all concerned—judge, jury, and witnesses on both sides—have been conscientious and straightforward, but human life and liberty are too precious to be lost on mere suspicion. It was for the Crown to prove the accused guilty, which they clearly failed to do. They only proved that the circumstances were suspicious. I have strong hope that Mr. Matthews, whose conduct I cannot too highly praise, will by-and-by completely fulfil the full requirements of reasonable doubt of the alleged offence (murder) by opening the prison door. It is to be regretted we have no Medico-Legal Society which could dispassionately discuss the trial.

I am, Sirs, your obedient servant,

NORMAN KERR, M.D.,
Vice-President (permanent) of the International Congress
Aug. 31st, 1889. of Medical Jurisprudence.

To the Editors of THE LANCET.

SIRS,—I have read with much interest the able letter of Mr. Bond in your issue of Aug. 31st, and fully agree with him in the opinions therein expressed. It is remarkable how few cases are recorded of the post-mortem appearances of poisoning by arsenic in solution, and the departure from the more usual appearances to be expected under such circumstances seems to have been largely overlooked in the Maybrick case. Of course, such points are not liable to occur to a cross-examining counsel unless they are specially suggested to him at the time, and it is quite conceivable that those who might have been expected to be alive to the point were so astounded by the statement that the symptoms observed pointed away from arsenical poisoning that they did not have the questions put to the witnesses who gave such extraordinary evidence. But it is worthy of remark in this connexion that Woodman and Tidy, in their "Handbook of Forensic Medicine and Toxicology," state that "sometimes the patient dies without any bad or severe symptoms at all." It is clear, therefore, that the absence of certain symptoms, which led Dr. Tidy to dispute the theory of arsenical poisoning in the Maybrick case, finds a parallel in other cases quoted by himself.

There is one point in the Maybrick case of which many of the commentators appear to be ignorant; that is, that all the solid arsenic found was in admixture with charcoal (not with soot or indigo, which are the substances prescribed by law for mixing with arsenic). There was a chocolate box containing a stained handkerchief and a paper packet labelled "Arsenic; poison for cats." There were two bottles containing the same cat poison mixed with water. It seems probable that whoever used the cat poison found the presence of charcoal an inconvenience, and hence tried to remove it by adding water and filtering the solution through a handkerchief. This operation would probably prove unsuccessful, and hence cause a resort to fly-papers as a source of arsenic. It is not likely that Mr. Maybrick would willingly eat a mixture of arsenic with charcoal, and he had no occasion to separate the charcoal; for, besides a box nearly full of arsenical pills, Mrs. Maybrick states that he possessed a white powder which, at his request, she added to the meat-juice. If she had done so, some would probably have remained undissolved, whereas the analyst found the poison to be wholly in solution. Mrs. Maybrick states that she added a considerable quantity of water to the meat-juice to replace some of the liquid which she accidentally spilt, which is a strange action on the part of a person not in a position to fear punishment for carelessness. On the other hand, if an infusion of fly-papers were added to the meat-juice, the presence of arsenic (wholly in solution) and the dilution observed by the analyst would both be accounted for.

Much has been made of the absence of arsenic from the stomach of the deceased and of the small quantity found in the liver. In a previous case of undoubted poisoning by arseni al fly-papers (that of Flannigan and Higgins), the same analyst, Mr. Davies, only found twice as much arsenic as he *actually extracted* from Mr. Maybrick's liver. But Mr. Davies stated in evidence that he believed in Mr. Maybrick's case he only succeeded in extracting one-half of that present, and, as a matter of fact, the portion of liver examined by Dr. Stevenson was three times as rich in arsenic as that analysed by Mr. Davies.

I am, Sirs, yours respectfully,

ALFRED H. ALLEN, F.I.C., F.C.S.,
Past President of the Society of Public Analysts, &c.
Sheffield, Sept. 3rd, 1889.

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"THE USE OF ROBURITE IN MINES."

To the Editors of THE LANCET.

SIRS,—I did not see the letter of "The Writer of the Article" in time to reply last week. In closing the discussion, so far as I am concerned, I would only beg to point out that my letter was addressed to the practical point of the *use* of roburite in mining, tunnelling, quarrying, &c, and I expressly asked to have the unfortunate accident at Gathurst eliminated from consideration, as it occurred during the *manufacture* of roburite, and from an operation which should certainly not have been performed by manual labour. I regret that "The Writer of the Article" should have supposed I wished to contend that dinitro-benzol, one of the organic components of roburite, is not poisonous if absorbed into the system, although it is certainly not so injurious as the more volatile nitro-benzol, of which latter roburite contains but a trace, produced during manufacture. My whole object in writing to you was to produce reliable evidence that, when *used* under proper and simple precautions, roburite does not produce an injurious effect upon the health; also that the gaseous products of explosion (fumes) were not different in kind from those produced by most other high explosives, though less in quantity. As to the far more injurious character of the fumes produced by fired gunpowder, I need say nothing. I may conclude with the illustration that when H R.H. Princess Henry of Battenberg fired a shot of roburite at the Winnstay Colliery, Ruabon, the other day, general surprise was expressed at the small quantity of the fumes; this has been my personal experience on many occasions.

I am, Sirs, your obedient servant,

Sept. 10th, 1889. W. H. WARDELL, Major-General.

TREATMENT OF FRACTURE OF THE NECK OF THE FEMUR.

To the Editors of THE LANCET.

SIRS,—In reference to your article on the treatment of fracture of the neck of the femur, I write to say that I have had several instances—two in old people—of complete bony union after treatment with the contrary-to-authority Liston's long splint, the fracture having first been reduced and then kept well up against the splint with broad woollen cravats, or large old-fashioned handkerchiefs, round the pelvis and chest. I use a large handkerchief, with tow or wool in the middle, and folded corner-wise, for counter extension, and a plaster stirrup for the foot, and, with old people, have a thin, soft bed on the hard one.

I am, Sirs, yours truly,

Rhymney, Sept. 3rd, 1889. T. HALL REDWOOD.

"HINTS TO STUDENTS BEGINNING."

To the Editors of THE LANCET.

SIRS,—Everyone must agree with your correspondent, "Experientia docet," in advising students to see something of private practice while going through their course, but why should they be recommended to reside with a physician? He does not dispense, or work a parish appointment, or attend clubs; nor does he usually see the numerous trivial cases that are so important for a student; and, what is more, he rarely keeps books or sends out accounts. Surely it would be far better for a student to reside with a general practitioner, who could initiate him into the mysteries of all classes of practice, and into those of dispensing and book-keeping as well.—I am, Sirs, yours truly,

Woolwich, Sept. 11th. THEODORE MAXWELL.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Liverpool School of Medicine.

THE appearance of the "Students' Number" of THE LANCET, with other indications that September is now come, warn us of the near approach of the opening of the Medical Faculty of the Liverpool University College. Liverpool has possessed a Medical School for more than half a century. It began as the Royal Institution School of Medicine, then became the Royal Infirmary School of Medicine, and has now expanded into the Medical Faculty of the Liverpool University College. It received some impetus in the year 1860 owing to a considerable increase in the number of students. But it is to Mr. Reginald Harrison that the school must always be indebted for its present position. Under his able management as Registrar and Demonstrator of Anatomy it acquired a position which it has never lost, but to which it has made considerable augmentations.

The Anatomical Rooms and Physiological Laboratory.—As anatomy and physiology are the basis of all real medical education, it has for years been recognised at this School that the practical study of Anatomy and Physiology is of primary importance. Those who remember the old dissecting-room of thirty years ago, find it very difficult to identify it now, enlarged, added to, and altered as it has been out of all recognition. Professor Mitchell Banks still occupies the chair of Anatomy, which he has now filled for many years. He is ably assisted by Mr. Thomas, F.R.C.S., and Mr. Gould; the supply of subjects is unlimited, and the facilities for acquiring a thoroughly practical knowledge of anatomy are such as could hardly be exceeded in any medical school. The Physiological Laboratory is amply furnished with microscopes and all other requirements for the teaching of Physiology, even up to the present high standard. Professor Caton and Mr. Larkin have charge of this department.

The *Chemical Laboratories* have been established in buildings recently erected for the purpose at considerable expense. Professor Campbell Brown is an analyst of repute, and students can learn Chemistry from the standard sufficient to enable them to pass the more ordinary examinations up to those for honours at the Victoria or any of the Universities. In this as in all other departments of the school care has been taken to make the teaching thoroughly practical.

Medicine and Surgery.—Professors Glynn and Rushton Parker lecture respectively upon Physic and Surgery; each has held his chair for some years past, and the classes are well attended. Provision for the practical study of both these important subjects will be found in the wards of the Royal Infirmary, where clinical lectures are regularly given.

The New Royal Infirmary.—There is every reason to hope that the winter session 1890–91 will find the professors, medical staff, residents, and students comfortably established in the newly erected and rapidly completing buildings of the Royal Infirmary, the most complete institution of the kind which has hitherto been erected. For the present, provisions for the accommodation of patients, and the clinical teaching of medicine and surgery have been made in temporary wards erected for the purpose and in the wards of the Lock Hospital. In the new infirmary there will be, in addition to every modern improvement, the most ample facilities for clinical teaching and reasonable opportunities of obtaining the various positions of clinical clerk, dresser, post-mortem clerk, house physician and house surgeon.

Other General Hospitals.—Although the close proximity of the Royal Infirmary to the School must always attract the larger number of students, some have availed themselves of the opportunities provided by the Northern and Royal Southern hospitals for the clinical study of medicine and surgery, at both of which hospitals one or more professors of the School hold office as physicians or surgeons. Both of these hospitals, being situated in convenient proximity to the Northern and Southern Docks respectively, receive annually a large number of accidents and urgent cases, affording to the students and resident surgeons almost unlimited opportunities for the study of fractures, dislocations, and other injuries. The Stanley Hospital, though more distant, is conveniently accessible by rail and tramcar, and also affords great opportunities for the clinical study of medicine and surgery.

When the new infirmary is reopened the Lock Hospital will be again ready for the reception of patients of both sexes suffering from syphilis and other venereal diseases. The male wards will be open as formerly to the students of the School for clinical study, clinical lectures being given by the surgeons every week. As might be expected in such a city as Liverpool, the number of cases of venereal disease exceeds very greatly the accommodation made for them. In addition to the eye department of the Royal Infirmary, there is the Eye and Ear Infirmary within a few minutes' walk of the School. Still nearer is the Ladies' Charity and Lying-in Hospital, the out-patient department of which provides the students with obstetric cases. The Thornton

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wards of the infirmary will be an admirable field for the study of gynæcology under Dr. Wallace, the Professor of Obstetrics.

It would be impossible to give within the compass of a letter all the advantages which the Liverpool School offers to students. A collegiate residence for them is still in the future. But comfortable lodgings at most reasonable charges can be had near the College and in all parts of the city, as well as on the Cheshire side of the Mersey. Some medical practitioners receive pupils into their houses, while a limited number will be received into the infirmary and hospitals. A student can complete his medical curriculum here, or study for a year or more with great profit to himself, even should he have been at another provincial or a metropolitan school of medicine. Liverpool has had for many years the reputation of being a place for cotton-selling and money-making, for shipping and freights. It is all the more creditable to it and to the men who have nobly toiled for years amidst discouragement and difficulties, that they have effected what they have. Liverpool can now successfully compete with those ancient places where

"Learning with its eagle eye
Seeks Science in her log abode."

Death under Chloroform at Liverpool.

An inquest was recently held by the Liverpool city coroner upon the body of a boiler-scaler aged twenty-two, who went into the workhouse hospital suffering from phimosis and phagedœna of the prepuce. Dr. Alexander performed circumcision, the house-surgeon administering chloroform in the usual way. When the operation was all but completed, the patient passed a full stream of urine, which required Dr. Alexander to wait until the bladder was empty. It was then observed that the breathing had become irregular, and, in spite of every effort by artificial respiration, galvanism, &c., the patient never rallied. At the post-mortem examination nothing beyond congestion was found. It appears that the heart had ceased to beat when the breathing became irregular, and the passage of urine may have been the result of the same spasm which stopped the heart's action. The jury found that the young man had been treated skilfully, and had died under chloroform.

Liverpool, Sept. 10th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Ship Canal and Polluted Streams.

ON a former occasion attention has been called in these columns to a serious danger to public health that will undoubtedly arise in connexion with the polluted condition of the water forming to a large extent the future source of supply to the new ship canal, and public attention has recently been directed to this matter, by reports from one of the adjacent health authorities whose district borders upon the present Bridgewater Canal, which will ultimately become absorbed by the new watercourse. Numerous cases of a severe form of sore throat, apparently of a diphtheritic character, have arisen, to which the term "canal throat" has become applied. The directors of the canal company appear to be alive to their responsibilities, and, judging from the report of a recent meeting of the shareholders, they will endeavour to put a stop to the continued pollution of the waters of the Mersey, the Irwell, and the Medlock in their higher reaches. The Stockport Corporation has already taken steps to acquire some 100 acres of land for a sewage farm, in order to divert its sewage from the Mersey, and have notified the local authorities above Stockport, along the Mersey watershed, that they must also cease polluting the streams, so that possibly we are getting within measurable distance of the time when the present disgraceful condition of our local streams and rivers will be considerably improved.

The Hospitals.

The resignation of Mr. F. A. Heath, senior surgeon to the Royal Infirmary, has come rather as a surprise to some. Under the rules now in force every member of the honorary staff terminates his period of office at the age of sixty. Either Mr. Heath has resigned earlier than this rule calls for, or his appearance belies his real age and he carries his years remarkably well. Mr. Heath's election took place many years ago under the old rules and methods of appointment, when an election to the staff of the infirmary was almost as serious a matter to the candidates as a Parliamentary election. All that has now been changed, and the selection rests with a committee appointed for the purpose out of the general body of subscribers. Mr. F. A. Southam, who has been assistant surgeon for some six or seven years, goes up as full surgeon, and the vacant post of assistant surgeon will shortly be filled up. Amongst the applicants either Mr. Collier or Mr. Thorburn are mentioned as most likely to be the successful applicant. Both these gentlemen have been connected with the infirmary for some years.—At the annual meeting of the Ancoats Hospital a good record of work accomplished was given. This charity has in recent years made a considerable advance amongst our local hospitals, and the presence of Prince Albert Victor last year to lay the foundation of the new wing directed public attention towards it in a desirable way, for it has rather suffered in past years from the modest and unobtrusive fashion in which it has carried on its operations in one of the most crowded districts of the city. More than 10,000 patients have been under treatment during the year, a large proportion of these being accident cases. The managers appeal strongly for additional funds to clear off the debt incurred by the extensions.—A new eye hospital is projected in the neighbouring township of Altrincham; the exact need for this is not very apparent, for if every small town and district is to found a special hospital their name will soon be legion. Dr. Mules, formerly on the staff of the Manchester Eye Hospital, is to have the medical charge of the new institution.

Open Spaces, &c.

The old burial-ground attached to St. Michael's Church situate in Angel Meadow, one of the most notorious "slums" of Manchester, is about to be greatly improved and laid out as a recreation-ground for the benefit of the dwellers in that unpicturesque and squalid locality. An inquiry has been held before one of the inspectors of the Home Office, and although there was some slight opposition to the scheme, made on behalf of the churchwardens, it is highly probable that these difficulties will be got over, especially as Dr. Hoffman (the inspector) expressed his unqualified approval of the scheme.

The condition of the homes of the poor still continues to be the subject of considerable agitation, chiefly at the present time by open-air meetings, which are addressed by philanthropists, sanitarians, clergymen, and others, and we are assured that both in Manchester and Salford our municipal parliaments have the matter seriously before them. A considerable number of the worst houses have been closed or condemned and many others improved, but at present no scheme upon anything like a comprehensive scale has been brought forward for the better housing of the poor.

Our new medical officer of health, Dr. Tatham, has given public notice that he can be seen every morning from ten to twelve o'clock upon matters affecting in any way the public health, but that Wednesday afternoons will be specially set apart for this purpose, when he will be at the service of those who may wish to see him.

Manchester, Sept. 10th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Scarlet Fever in Birmingham.

DURING the past week there has been an increase in the number of cases admitted into the Borough Hospital. Forty-one new patients bring the total number up to 327. The epidemic seems to be universal, and not confined to any particular locality of the city. The Health Committee have instructed their superintendent that in case of an outbreak at a house with a shop attached the whole of the stock should be purchased and destroyed. In small tenements this may possibly succeed, but if it is repeated with large and valuable stocks, the experiment will be decidedly an expensive one. It indicates, however, that every precaution is being taken to limit the spread of this baneful disease.

The Cost of the New Workhouse Infirmary at Birmingham.

At a recent meeting of the guardians it was stated that the total cost of the building, with commissions and alterations over and above the original contract, would amount to little short of £94,000.

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Prosecutions for Illegal Practice.

At the Birmingham Police-court, on the 6th inst., eighteen summonses were dealt with against various persons for falsely holding themselves out as legally-qualified practitioners in medicine and surgery. The prosecution was conducted by Dr. Showell Rogers on behalf of the Medical Defence Union. After hearing the evidence, the deputy stipendiary inflicted the full penalty and costs against three of the defendants, amounting in all to £40 and costs in each case. The other summonses were agreed to be dismissed. The pecuniary loss will probably aid in deterring this shameless kind of practice, carried on with such marked impudence. It will also help in enlightening those credulously disposed persons who, under a sense of personal guilt, are so easily trapped by specious advertisements. I am led to understand that the Nemesis of the law is not yet satisfied, and that the defendants will be further proceeded against in the County Court for the recovery of heavy penalties under the Apothecaries Act.

Birmingham, Sept. 11th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Health of Rothbury.

A WARM controversy on the health of Rothbury is going on in the Newcastle daily papers. It will be remembered that in the "Northern Counties Notes" of the 24th ult. it was mentioned that the resident medical men and the sanitary authority defended its sanitary condition, and the writer of the Notes, on the assumption that the medical men of the place would in all probability know most about it, on these grounds, and purely in a general way, to some extent supported their views. It appears that Mr. H. E. Armstrong, the medical officer of health for Newcastle, was the visitor to Rothbury who suffered in his family from the disease. Anyone going to a health resort and becoming ill from local causes is to be sympathised with. The first case in Mr. Armstrong's family took place on the twenty-first day of their visit to Rothbury—a period much beyond the usual stage of incubation of scarlet fever. Mr. Armstrong complains of the sanitary authority of Rothbury that they have no compulsory system of notification and no hospital for infectious diseases, the hardship of which he experienced when he had to remove his child all the way to the Newcastle Hospital.

Cremation.

Dr. Barron of Durham has printed the excellent address which he gave at the meeting of the North of England Branch at that city last month. In his address he chiefly deals with the cremation question, of which he is a very powerful advocate, and he certainly gives some weighty facts and arguments in favour of this mode of disposing of our dead. As bearing on the subject he narrates the following from his own observation: "In the summer of 1884 I was staying at the Lizard in Cornwall, and in the course of my wanderings found myself in the little churchyard of Landwednack, and noticed that a portion thereof was closely fenced off from the rest. I was unable to discover the reason of this at the time, but since then I have found an explanation in a little guide-book to the Lizard. It appears that in 1645 Landwednack was visited by the plague. It is said that about a century afterwards the part of the churchyard in which persons were buried who had died of pestilence was opened to receive the bodies of some shipwrecked sailors, upon which the plague reappeared. In consequence of this, that part of the churchyard was fenced off and planted, and has never been reopened since." Dr. Barron says, "If this story be true, then the germs of disease had lain in the ground, retaining their baleful influence, for one hundred years." To Dr. Barron's mind it is satisfactorily and clearly proved that the forces of nature are not capable of preventing a decaying body from causing and spreading disease when buried in large numbers in the ordinary method, especially when these bodies are buried in limited spaces, and particularly when the disease of which the person has died is of an infectious nature. He thinks that it has been proved to the satisfaction of all medical men that cremation is by far the best method for the disposal of the dead which has yet been thought of for the health of surviving humanity.

Carlisle.

At the last meeting of the governors of the Cumberland Infirmary, the Bishop of Carlisle presiding, reference was made to the very sudden death of the Secretary, Mr. Blomfield, whose desire was, the Bishop said, to do his very best for the institution he served. Mr. Blomfield gave himself up with great earnestness to the work of the infirmary.—The late Mr. Thomas Blair, whose will has been proved in the Carlisle District Registry, has left £200 to the Silloth Convalescent Institution, and £100 to the Carlisle Dispensary.—The late Miss Preusser, whose death near Windermere I have already noted, and whose interest in the boarding-out system for pauper children was well known, has left by will the half residue of her estate, which has been valued at nearly £7000, to promote that system, or for the advancement in life or possible emigration of pauper children in the district of Windermere.

Stockton Hospital.

The annual meeting of the Stockton Hospital shows an increase of patients treated as compared with the previous year; 473 in-patients had been treated, and 1265 out-door cases. The whole of the forty beds had, for the first time, been occupied, and by the new wing now in course of construction increased facilities were being provided. The subscriptions had also increased, the workmen contributing £528.

Ripon.

Last week Dr. Hoffman, medical inspector from the Home Office, made an inspection of the Ripon Cathedral burial ground, in consequence of a representation by the Dean and Chapter that the space for burials was rapidly being filled. Dr. Hoffman declared there was no pressing need for a new ground, but the Corporation, as the burial board, should be looking out for a new site.

Hexham.

The subject of the appointment of medical officer of health at Hexham has been settled by the reappointment of Dr. Maclagan, at his original salary of £300 per annum. Dr. Maclagan gives his whole time to the work, and some time since the local board wished to reduce the salary and allow private practice. This the Local Government Board did not approve of. Dr. Maclagan is, I am happy to say, rapidly recovering from his late severe accident.

Newcastle-on-Tyne, Sept. 3rd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

GLASGOW.

Health of the City.

DURING the fortnight ending Aug. 24th the death-rate was 20·8, being 1·4 higher than the corresponding period of last year. Diarrhœa accounted for the increase; there were 51 deaths from this cause, and of these 46 occurred in children whose average age was only eight months. The total infant deaths numbered 133. Owing to the measles epidemic in the spring and infantile diarrhœa, this year will be remarkable for the large loss of child life.

St. Mungo's College.

The dissatisfaction caused by the mode of appointing the teachers in this College is not dying out, but rather spreading. Additional trouble has arisen, more particularly over the allotment of wards in the Royal Infirmary to the Professor of Clinical Medicine. The governors of St. Mungo's having appointed a professor, it became necessary to request the manager of the infirmary to accept their nominee, and provide him with wards. This request has been acceded to, and Dr. McVail has been appointed to wards as an extra physician. It is not unlikely that this dispute may be the forerunner of many such difficulties between St. Mungo's and the Royal Infirmary, two institutions which ought to have gone hand-in-hand from the outset.

Sale of Horseflesh.

It is comforting to learn from the Town Council reports, that the horse-slaughtering works of Glasgow are under constant inspection, and that "flesh of horses slaughtered in this city is never sold for human food."

Glasgow, Sept. 10th.

ABERDEEN.

Resignation of Professor Struthers.

THE University Court met on the 2nd inst., and had before it a letter from Dr. Struthers, making application to

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be allowed to retire from his professorship. In his letter he says that he feels the step he has taken to be his duty alike to himself and to the University, because since a severe illness in the winter of 1887–88 he has felt unable to discharge the duties of the chair with regularity and efficiency. Referring to the changes in the School and the work that has fallen to him since he took office in 1863, he points out that he found the position to be an unsatisfactory one in every respect, as regards the numbers in the school, the buildings for anatomy, the museum, and other means of illustration and study. But he says, "In the event of my petition being granted, I shall have the satisfaction of leaving to my successor a large and increasing class, good anatomical buildings (completed in 1881), a large and select Museum of Anatomy, a full provision of instruments of anatomical study and research, and a large stock of drawings—in short, a fully-equipped and prosperous school of anatomy." Dr. Struthers has been engaged in the teaching of anatomy for forty-four years, and twenty-six of these have been spent in the service of the University of Aberdeen. During the year 1853–54, in the absence of the late Professor Goodsir, he discharged the duties of the Professorship of Anatomy in the University of Edinburgh. In speaking to a motion that the application be granted, Principal Geddes said: "By the announcement made, a vacancy falls to be created in one of the most important chairs in the Medical Faculty, and the University will lose the services of one of the best, most distinguished, and energetic professors.....He has not confined himself to his own department, for it is well known that there has hardly been any important movement of recent years connected with the University in which Dr. Struthers has not been both prominent and influential. Among these movements I might refer to the following as typical instances: The development of the system of local examinations, in which Dr. Struthers was the prime mover; the creation of medical bursaries, before him almost unknown; the institution of science degrees; and, though last, not least, the elaboration of our claim for extension of buildings, which has resulted in the concession on the part of the Government of an instalment of our claim. In his own field as a teacher and expounder of anatomy it would be difficult to find a rival to him, much less a superior. No one can, even as a transient visitor, pass through the anatomical rooms or look round the anatomical museum (which is his creation) without recognising in Dr. Struthers a most influential and energetic professor, and although opinion is known to differ, and differ very materially, as to his general educational policy, there can be no question that the period of office of Dr. Struthers as Professor of Anatomy will long remain a signal and marked period in the history and development of the Aberdeen Medical School." The motion to grant the application was carried unanimously.

University Class Fees.

The Court next considered a report from the Medical Faculty on the question of class fees. The report stated that, as the custom had hitherto been to charge a fee for not more than one practical class in connexion with any systematic course, the Medical Faculty recommended that meantime a fee be not payable for the winter practical surgical class, but that the fee for the summer course of operative surgery be raised to £3 3*s*. They also recommended that the fee for the classes of practical materia medica and pharmacy, practical medical jurisprudence and hygiene, be raised from £2 2*s*. to £3 3*s*. A resolution by the Medical Faculty was also read to the effect that in the event of Professor Struthers resigning the chair of Anatomy, they recommend to the Senatus that they should request the University Court to place systematic anatomy on the same footing as the other classes, the fee for a second attendance to be £2 2*s*. instead of £3 3*s*., and that the fees for practical anatomy and demonstrations, exclusive of cost of material, be so arranged that not more than £6 6*s*. in all should be payable by the students. The majority of the Court thought it inexpedient in present circumstances to enter upon the consideration of the recommendation of the Senatus, and a motion to that effect was carried. Principal Geddes thought the question should be taken up and considered at an early date, because it appeared to him that they were postponing indefinitely the completion of a very important University internal reform.

Aberdeen, Sept. 10th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

DUBLIN.

Adelaide Hospital, Dublin.

ON Tuesday last the following cases were operated on in the theatre of the hospital by Mr. Kellock Barton, senior surgeon to the institution:—Case 1: Recurrent scirrhus of the right breast; the enlarged axillary glands caused œdema of the forearm. Two glands were removed, the hæmorrhage, as usual in these operations, being very free. Case 2: Adhesions of the shoulder-joint in a sailor, interfering greatly with the movements of the articulation. Under ether these adhesions to a great extent were broken down by forcible manipulation, but the procedure will probably require to be repeated. Case 3: Tenotomy of the tendo Achillis for club-foot in a child. Chloroform was administered, the patient coming very rapidly under its influence. Case 4: Incision made downwards over the front of the left tibia close to the head for swelling and deep-seated pain. The periosteum being opened, some carious bone was felt and a gouge applied; an abscess in the bone, which was of considerable depth, gave exit to a quantity of pus. In this hospital the patient, prior to operation, is etherised or chloroformed in an adjoining room, and then wheeled in on an operating couch to the theatre. The advantages of an arrangement of this kind are obvious.

Dublin Medical Schools Amalgamation Scheme.

Owing to some irregularity in preparing the necessary legal documents, a certain amount of delay was unavoidably caused; but it is expected that the advertisements for the new professors &c. will be issued in a few days.

Royal College of Surgeons and the outgoing Lord-Lieutenant.

Among the various addresses presented to His Excellency the Marquis of Londonderry prior to his departure from Ireland, was the following:—"We, the President, Vice-President, and Members of Council of the Royal College of Surgeons in Ireland, have learned with unfeigned regret your Excellency's determination to resign the high office confided to you by Her Most Gracious Majesty. We desire to approach your Excellency with this most sincere acknowledgment of the unvarying kindness which we have on every occasion experienced at your hands, and of our grateful recognition of the warm interest you have at all times evinced in the well-being of our College. Devoted as we are solely to the advancement of the science and art of our profession, we make them our objects, and leave the vexed field of politics untouched. Yet, as Irishmen, we are not debarred from recognising such admirable qualities as you have displayed in the fulfilment of your Viceregal responsibilities. The regret which we feel upon the present occasion is, however, in a certain measure tempered by the reflection that, although your residence as Viceroy in this country may have terminated, still, as a resident Irish landlord, you and your most amiable lady will still be in our midst, and our heartfelt prayer is that it may please Divine Providence long to preserve you both in health, happiness, and prosperity."

The late Henry H. Boxwell, F.R.C.S.I.

Mr. Boxwell, who had been one of the leading practitioners in the county Wexford for many years, died at the Infirmary House, Wexford, on the 1st inst., at an advanced age. The deceased gentleman had been upwards of half a century surgeon to the infirmary, and was generally esteemed and respected. The appointment he held will be filled up by the governors of the infirmary on the 30th inst., the emoluments of the post being £120 per annum, with a residence.

Galway County Infirmary.

The judge at the recent assizes having refused to fiat the annual presentment of £900 for the institution by the grand jury, in consequence of the governors not having acted in accordance with the writ of *mandamus* issued by the Court of Queen's Bench, the majority of the governors decided to close it for want of the necessary funds. A special meeting was held to consider the matter, when the chairman, Mr. Henry Persse, very generously announced his intention to maintain the institution for the ensuing year out of his own pocket. The resolution to close the infirmary was consequently

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rescinded, and a vote of thanks passed to Mr. Persse for his kind offer.

Lunacy Accommodation in the Dublin Workhouses.

The two unions, North and South Dublin, are in the one district, and similarly supported. They contain 380 insane inmates, the accommodation at the north being decidedly inferior, particularly in the female divisions. There is a narrow, single-storeyed building, cramped in by a high wall on one side and an elevated structure on the other, containing double-bedded cells, which do not afford 330 cubic feet to each patient. It has no available corridor and no adequate supply of air, the only aperture in the cells for light and ventilation being windows not fifteen inches in diameter. Even at the South Dublin Union, where the accommodation is much better, there is scarcely half an acre of available exercise ground for over 220 patients.

The Lords Justices have sanctioned the expenditure of £2000 for the acquisition of certain lands necessary for Omagh District Lunatic Asylum; also £500 for improvements at Limerick Lunatic Asylum; and a similar amount for Enniscorthy Asylum.

Mr. Robert G. Bird, Fleet-Surgeon R.N. (retired), has been placed on the Commission of the Peace for the county of Cork.

Mr. M. A. Donnelly, of Dublin, met with an accident lately while driving in a car, and has been under the care of Mr. Stamer O'Grady. He is progressing favourably.

Dublin, Sept. 10th.

BELFAST.

The Royal Hospital.

The quarterly meeting of this charity was held on Aug. 26th, when, from the report presented, I learn that during the quarter there were treated in hospital 517 in-patients; of these, 201 were medical and 316 surgical. During the same period there were 5208 out-patients, of whom 3898 were surgical, the remainder medical. At the close of last quarter's report the hospital stood indebted in the sum of £1463 18*s.* 8*d.* Since then the receipts have been £1886 12*s.* 11*d.*, and the expenditure £2068 4*s.* 11*d.*, which brings up the indebtedness to the sum of £1645 10*s.* 8*d.* at the end of July. Professor Cuming, Mr. Fagan, and Professor Sinclair were re-elected medical attendants of the institution. There have been a larger number of in-patients and out-patients than in any previous year.

Queen's College.

For some time past the Queen's College authorities have had before them applications from a number of young ladies who desire to enter the medical classes with a view of studying for the medical profession. A meeting of the medical faculty of the College was held last week to consider this matter, when it was decided to open the classes to ladies. Already ladies have for some time been attending the arts classes, and, in arranging to admit them to the medical curriculum, the faculty were no doubt influenced by what has been done in other schools, as well as by the fact that in the Royal University ladies are eligible for the medical degrees and other honours. We believe that the new President (Dr. Hamilton) was strongly in favour of the arrangement which has just been made. The ladies, it is said, are not to be taught in separate classes, but will attend with the other students as in the Arts Faculty. I understand that the staff of the Royal Hospital are in favour of opening the practice of the hospital to women.

Belfast, Sept. 10th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Electricity in the Treatment of Fibroids.

DR. LUCAS-CHAMPIONNIÈRE lately presented to the Société de Chirurgie a very interesting note on the result of the action of electricity in the treatment of uterine fibromata, which he had undertaken conjointly with Dr. Danion, a well-known electrician. The conclusions of the authors, notwithstanding certain restrictions caused principally by the difficulty to obtain absolutely radical cures which remain the privilege of surgery, and the slowness of the results, are most favourable to the method, with which no other medical treatment, they say, can be compared. The patients were treated by Dr. Danion in Dr. Lucas-Championnière's ward at the St. Louis Hospital. He introduced in the method generally employed — that is to say, that of Apostoli — such modifications that they really constitute a new treatment. The intensities employed by Dr. Danion have never exceeded sixty-five milliampères, and the action has nearly always been purely intra-cervical. He thus endeavoured to demonstrate as clearly as possible the inutility of uterine action. For the punctures which are practised in such cases he has substituted a vaginal tampon, from which he obtained results far superior to those which have been observed heretofore. But it must be remarked that Dr. Danion, as a complementary measure to these new procedures, frequently reverses the current, which appears to give to the treatment a considerable activity. The greater number of surgeons who took part in the discussion which followed this communication agreed that, if surgery can alone pretend to effect radical cures, electrotherapy may certainly be placed at the head of the medical means.

Alcoholism.

For some time alcoholism has been engaging the attention of alienists, who attribute to it much of the increase of insanity. During the last fifty years, states a report submitted to the Minister of the Interior, the consumption of alcohol has trebled, and the number of lunatics has quadrupled. Crime and suicide are also steadily on the increase. In the years 1872–87 the number of suicides have increased by 55 per cent. Their proportion in regard to the population has risen from 15 to 21 per 100,000 inhabitants. Women resort less frequently to suicide than men. As shown in previous statistics, the frequency of suicide bears a relative proportion to age. Thus up to the age of forty years the propensity to suicide remains the same in women as in men, but after this period it increases regularly with age. The report of the last International Congress for the Suppression of Alcoholism, which was held in Paris from July 29th to Aug. 1st, 1889, contains the old and familar statement that criminality and mental aberration follow a march parallel with the consumption of alcholic beverages. It is also stated that the number of crimes and offences against morals is exactly in ratio with the consumption of alcohol. To the influence of the excessive use of alcohol is also attributed the degradation of the race, it being a fact that the health of children almost always suffers from the alcoholic excesses of the parents. To the same influence is attributed in part the phenomenon of the continued diminution in the population of France, more noticeable in some parts than in others, for in the wine-growing districts drunkenness is less prevalent than in those where the consumption of alcohol is relatively considerable.

The Medical Department of the Paris Exhibition.

This department has just published its report relative to its work during the months of June and July last. As has before been mentioned, the ambulance system is well organised. The stretchers are always ready to pick up patients, who are then attended to and conveyed to their own homes or to a hospital. The following statistics may be found interesting. The medical service had consumed during the two months of June and July 2 litres of ether, 20 litres of camphorated spirits, 60 litres of eau de mélisse (a kind of aromatic spirits), and 100 litres of carbolic water. Fifty mustard plasters were applied, and 300 hypodermic injections of morphia and of cocaine were practised on patients at the Exhibition. The number of dressings amounted to 1780, of which 935 were for visitors. One workman died from accident; among the visitors there were six cases of sudden death. In this period of two months 18 workmen and 490 visitors were sent to the hospital. The greater number of the injured workmen were the subjects of crushing (*écrasement*), contusions, or cuts. The indispositions have almost always had for their cause, among the visitors, indigestion and affections of the heart. There have been some cases of poisoning, and three cases produced by the ingestion of sausages and hams.

The Continental Anglo-American Medical Society.

The following is the constitution of this new Society, which has been already referred to in a former letter:— Honorary Presidents: Sir Spencer Wells, Sir Joseph Lister, Dr. Richard Quain, Professor Ball, Professor Brown-Séquard, Dr. Ricord, Dr. J. S. Billings, Dr. Fordyce Barker, and Dr. Weir Mitchell. Executive Committee: The Hon.

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Alan Herbert, M.D., Dr. Faure-Miller, Dr. Chapman, Dr. Dupuy, Dr. Barnard, and Dr. T. Linn as Secretary (16, Rue de la Paix, Paris), to whom all communications should be addressed. The first general meeting of this Society will take place at the Grand Hotel, Paris, on Monday, Sept. 30th, at 5 P.M.; and the first annual dinner will also take place at the Grand Hotel at 8 P.M. on the same evening.

Paris, Sept. 10th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Dr. Wilhelm Loewenthal.

THE appointment of Professor Loewenthal to be a doctor in the French navy, with instructions to investigate cholera in Tonkin—which appointment I reported some time ago—has had a singular sequel. Paris journals found the news in German newspapers, and fell foul of the French Government for giving a Prussian the rank and uniform of a French officer. Some went so far as to hint that the German Professor might easily be a spy, who wished to go to Tonkin, under the pretext of scientific pursuits, in order to survey the land—perhaps even to make preparations for its conquest by Germany. These utterances caused such commotion among a number of naval officers and medical men that they addressed an indignant protest to the Admiralty, declaring that they would not receive a Prussian as a comrade. These circumstances induced the French Government to cancel the appointment, and Professor Loewenthal was officially informed of its decision, with the remark that "under existing circumstances his position in Tonkin would have been untenable." Meanwhile, however, the attention of the Argentine Government had been called to Professor Loewenthal, and it invited him to go to La Plata, to make a journey of investigation through that country, and report its results to the Minister of Foreign Affairs in Buenos Ayres. The Argentine Government wishes him to investigate the sanitary conditions of the country, and especially to determine whether it is in general healthy; what hygienic improvements might be introduced; what parts are best suited for colonisation by Europeans; whether Europeans would thrive best in the northern, the southern, or the central parts; whether they can not only live there temporarily, but also found families and multiply at a normal rate; what is the hygienic condition of the European settlements already existing, and what is the bodily and mental state of Europeans after a longer or shorter stay in La Plata. Professor Loewenthal has accepted the invitation and sailed for Buenos Ayres. My informant is a Paris correspondent of the *Vossische Zeitung* of Berlin.

Tuberculosis and Typhus in Munich.

Dr. von Ziemssen, the well-known head physician of the chief hospital in Munich, has recently published his observations and reflections on the decrease of tuberculosis in that city. His investigations had reference chiefly to the question as to what influence the cleansing of the soil of the Bavarian capital by sewers, which has almost banished typhus, has had on the frequency of tuberculosis. He shows that the number of deaths from tuberculosis has diminished by one-fourth during the last twenty-one years, and by one-third during the last eighteen years. Of every 100 deaths in Vienna in 1888, 23 were due to tuberculosis; in Würzburg, 19; in Frankfort-on-the-Maine and Nürnberg, 18; in Elberfeld and Leipsic, 16; in Berlin, Dresden, and Altona, 15; in Cologne and Stuttgart, 14; in Augsburg, 13; in Munich, Ratisbon, Hamburg, and Magdeburg, 12; in Breslau, 11; in Goerlitz, 10; and in Chemnitz, 9 per cent. Munich, accordingly, is one of the German cities which suffer least from tuberculosis. Von Ziemssen, however, hesitates to attribute this comparatively happy state of things to the cleansing of the soil alone. Nor can the protection which the boiling of milk, much more usual now than formerly, affords against the schizomycetes in the milk of tuberculous cows be regarded as the sole reason of the improvement; for Bollinger's most recent investigations have proved that the virus of the milk of a few such cows is counteracted by being mixed with that of many healthy ones. Von Ziemssen thinks that the improvement is due not only to the cleansing and drying of the soil on which the city stands, and to the supply of pure water, but also to the better construction of the houses, especially of the schools, the widening of the streets, and the laying out of large open spaces, plentifully planted with flowers, shrubs, and trees. In connexion with this subject, it is interesting to note, on the distinguished authority of Von Ziemssen's equally famous townsman and colleague, Professor von Pettenkofer, that twenty-eight times as many persons died of typhus in Munich in the sixth as in the ninth decade of this century, though the population has doubled in the interval. This victory of sanitary science is due to the simple facts that the city is now better supplied with drinking water, that the cesspools have been rendered waterproof and sewers have been laid, and that a central slaughter-house has been erected. These results are chiefly owing to the noble labours of the above-mentioned scientists and men like them.

The German Society for Public Hygiene.

The German Society for Public Hygiene will hold its fifteenth annual meeting in Strasburg from the 14th till the 17th inst. The transactions will be opened by a lecture on the Hygienic Condition and Arrangements in Alsace-Lorraine, delivered by the first medical official of that country, Privy Medical Councillor Dr. Krieger. This will be followed by a discussion of the proposals drawn up by a committee appointed at last year's meeting for legislation for the furtherance of house hygiene in Germany. This discussion will be introduced by Dr. Miguel, Burgomaster of Frankfort-on-the-Maine, who is one of the leaders of the National Liberal party in the Reichstag, and Professor Baumeister of Karlsruhe, one of the chief official advisers of the Government of Baden in architectural matters. On the second day the question of Convalescent Homes, at present a burning one for many German cities, will be introduced for discussion by Professor von Ziemssen of Munich and Burgomaster Back of Strasburg. After this discussion Professor Heller of Kiel will introduce the subject of the Prevention of Tuberculosis. The theme of debate on the third day will be the very important and hitherto somewhat neglected one of Railway Hygiene. The debate will be opened by Herr Wichert, Privy Councillor of Public Works in Berlin, and Professor Löffler of Greifswald, who will discuss the construction, lighting, ventilation, heating, cooling, and disinfecting of passenger carriages, the safe guarding of passengers against infection and accidents, the rendering of help in case of accidents and sudden illness, &c. The labours of the meeting will be diversified and enlivened by a banquet and the illumination of the Minster on the first evening; an excursion to Odilienberg, Mennelstein, and Barr on Sunday, the 15th, on which day there will be no formal meeting; and a social gathering of the members and their ladies as the guests of the city in the festal rooms of the Town-hall on Monday evening. Everyone who pays the annual contribution can take part in the meetings of the Society.

Berlin, Sept. 9th.

Obituary.

THOMAS KING CHAMBERS, M.D. OXON., F.R.C.P.

The death of Dr. King Chambers has taken away a man of high cultivation and of much force of character, though comparatively little known by the younger members of the medical profession. He had from bad health retired from active practice many years ago, when he was not fifty years of age. He retained, however, strongly marked intellectual faculties to within a few hours of his decease.

Dr. Chambers was born in London on Oct. 16th, 1817. His father was a metropolitan stipendiary magistrate. He was at school at Rugby under Dr. Arnold, and then went to Christ Church, Oxford, where he graduated with honours in classics. He retained a strong love of literature thus acquired, together with a certain fastidious literary taste, through life. He took a quaint pleasure in paradox, and expressed his opinions with a force and an originality highly characteristic of himself. This sometimes might put him at a disadvantage with persons who did not know him; but a strong sense of justice, an abounding probity, a vigorous intellect, and keen feelings of honour, always, and under all circumstances, at once inspired those who met him with the conviction that they were dealing with an English gentleman of no ordinary capacity and character.

Dr. Chambers became Doctor of Medicine at Oxford in

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1846, having been an assiduous student in the clinical wards of St. George's Hospital—a hospital where his cousin, Dr. Chambers, the trusted friend of Queen Adelaide, and one of the most popular physicians of his time, had been, with Sir Benjamin Brodie, among his great teachers in that famous institution. He was elected a Fellow of the College of Physicians of London in 1848, was Censor in 1860, Goulstonian Lecturer in 1850, and Lumleian Lecturer in 1863. He delivered the Harveian Oration in 1871. He was much attached to the College of Physicians, and jealous in all ways for its reputation. Dr. Chambers was selected to accompany the Prince of Wales to Italy when his Royal Highness made that first experiment in foreign travels with his faithful Governor-General Bruce. He took a house in Hill-street, Berkeley-square, but moved after some time to Brook-street, where he remained till the failure of his health, of which we shall presently speak. He became physician to the then young St. Mary's Hospital, and took the deepest interest in its development and in the formation and progress of its medical school. No one who remembers his lectures on Medicine will have forgotten the faithful and philosophic exposition of all the subjects which he undertook to teach, for he had a deep sense of the responsibility of a teacher of men whom he desired to practise the great art of Physic in the temper of Hippocrates. He looked upon the duty which every man owes to his fellow-man in conformity with his own profound but manly sympathy with the sufferings and sorrows of the sick and of the poor. It would take long, and more space than we have, to show this in detail; it is enough to say, by way of illustration, that he was greatly interested and actively engaged in the "House of Charity," in Rose-street, where we believe he worked with a congenial friend (shall we not say, even then, a noble example?)—the present Sir James Paget. He was, moreover, intimate with Professor Frederick Denison Maurice, and for him gave lectures at the Working Men's College. This connexion probably influenced the strong religious convictions which abode with him through life. To this should be added, as evidence of his wide social and professional sympathies, that he became consulting physician to the Lock Hospital. He was one of the first to warmly espouse the cause of the medical education of women. He was, indeed, if not the founder, a most energetic supporter of the Henrietta-street School of Medicine. On the death of Professor Rolleston in 1881 he became the representative of the University of Oxford in the Medical Council. In that body he did not, owing to the state of his health, play as active a part as otherwise he would assuredly have done. Educational questions, especially any that bore on the higher education of medical students, were to him of all things the most congenial. His name will be found as acting on the Committee on Education which, with Professor Struthers, reported to the Council in 1888. He was chairman of the Committee on the Employment of Unqualified Assistants by Registered Practitioners. He bestowed much labour and had much correspondence on this matter, regarding it as a subject demanding very careful inquiry, and involving many considerations not at first sight obvious. His statement appended to the valuable report of the whole committee, to be found in Volume 20 of the Minutes of the Medical Council (page 47), is illustrative of his manner of dealing with such a question.

It is not possible to omit noticing, in connexion with education, Dr. Chambers' steady help in the progress of the Medical Statutes in the University of Oxford, though this is not a place for fully discussing this complex question. He aided the University in raising the old standard of examination to the position it now holds as thoroughly practical in every department. With Dr. Andrew, Mr. Teale, and Dr. John William Ogle, he spent without stint energy and time in this work. On the clinical examination especially, he was found to bestow the most scrupulous but never unreasonable or captious attention.

The principal works of Dr. Chambers consist of "Clinical Lectures"; of three volumes on questions affecting the digestive organs—viz., "Digestion and its Derangements—the principles of rational medicine applied to Disorders of the Alimentary Canal"; "The Indigestions or Diseases of the Digestive Organs functionally treated"; and a "Manual of Diet in Health and Disease." These volumes were all published prior to 1878. The first, indeed, was issued in 1855. They have all become part of medical literature; they attracted much attention in this country and in the United States. Besides these well-known writings, Dr. Chambers contributed anonymously to various periodicals many lighter works of fancy, and a large number of letters on social and philanthropic subjects. He also wrote a book on the Climate of Italy, the result of personal observation—the observation, be it noted, of an artist, closely attentive to all phenomena of external nature as well as of a shrewd and independent physician. It is well to say here that Dr. Chambers had considerable attainments as an artist in a true sense. He drew admirably from nature both in line and in colour, and chiefly in landscape. He had a fine sense of composition, and, though not confined to any school or educated by any master, his record of form and his interpretation of colour were alike deserving of notice among accomplished amateurs. Late in life he took to carving in wood, sometimes in bas-relief, and sometimes in the completely modelled figure. He executed several good medallion portraits, and took great pleasure in the interpretation of animal life. All this art work was, as might be expected, characterised by the force and energy of the man.

We have reserved to the last a few parting words concerning the ill-health and suffering with which Dr. Chambers was afflicted. It was discovered about the year 1862 that he had a popliteal aneurysm of the left leg. Before long amputation became urgently necessary. The limb was removed by Sir James Paget, other friends being with him. He assented with instant cheerfulness to this necessary verdict. The same affection appeared in the other limb, and this was saved by Sir James Paget, with Mr. T. Smith's aid, by pressure. In the interval of these two operations he manfully continued his work, including his duties as physician and lecturer at St. Mary's. But after the second procedure he retired into the country at Sunningdale; there he carried on his intellectual and artistic pursuits, going regularly to the Medical Council, to the examinations at Oxford, and also twice a week to the Hand-in-hand Insurance Office. Gradually serious disease was developed in the heart and larger vessels, and, after months of distress patiently borne, he peacefully sank at last, in full possession of all his faculties, on Aug. 15th of the present year.

The strength and cheerfulness of this strong man rested not more on a natural courage under much trial than on a never-failing, but yet silent, power of an abiding Christian faith. A widow and two daughters survive him. Of these two, the elder is married to Mr. Walter Ouless, the accomplished Academician.

LAWRENCE TRENT CUMBERBATCH, M.D. ST. AND., M.R.C.P. LOND., M.R.C.S.

DR. CUMBERBATCH, who died so suddenly on Aug. 18th, was born at Barbadoes on May 1st, 1824. He was the son of Edward Carlton Cumberbatch, a gentleman living in the West Indies on account of property belonging to his family. The original intention of his father was that Dr. Cumberbatch should join a well-known firm of merchants, but this was afterwards abandoned, and, as inclination led him to the study of medicine, he was entered as a student at Trinity College, Dublin, at the age of sixteen. His college career was marked by close application to work; but as in those days it was considered rather a matter of importance that he should become qualified to practise with as little delay as possible, he graduated B.A. in 1846, after which he studied for some time in Paris, and then, in 1848, took the membership of the Royal College of Surgeons of England, instead of proceeding to graduate in medicine. This was a matter of great regret to him afterwards, although at the time it was unavoidable. Having obtained his diploma, he immediately commenced work. He became assistant at Chipping Norton to a practitioner who had an extensive practice and held several appointments, amongst others a large union. It was here that Dr. Cumberbatch had the opportunities of obstetric work which laid the foundation of the excellent position he afterwards attained. Not only had he a large amount of work in obstetrics, but he had an extensive field for observation in general medicine, of which he thoroughly availed himself. Although at the time this work was frequently laborious, he valued it highly, and in after-life often remarked how much he owed to it. After doing this for a considerable time, an episode occurred which was the turning-point of his life. His father, being anxious that he should enter the army, and having considerable influence, succeeded in

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obtaining a nomination for a commission as assistant surgeon. Accordingly, one day Dr. Cumberbatch received the news, and with it notice that he must come to London at once and report himself at the War Office. It happened that the season was over, and his uncle, to whom he had entrusted his diploma some time previously on purpose to be produced should there be a commission offered, had gone out of town. The day Dr. Cumberbatch arrived in London impressed him greatly, for it was entirely owing to his uncle's absence from town that his path in life became so very different. Repairing to the War Office, he learned, to his mortification, that he could receive no commission without producing his diploma. This was a serious blow then, for he had thrown up his work in the country in the expectation of immediately entering the army. He thought anxiously over his position, and came to the conclusion that he would settle in practice at once. Taking rooms near Lowndes-square, he waited. Having good family connexions and excellent ability, he soon secured a *clientèle*, which gradually increased until, after some years, it became so great that he resolved to throw up general practice entirely and confine himself to physician's work. Accordingly, in 1866, he took the M.D. of St. Andrews and the Membership of the Royal College of Physicians, London. The friend who induced him to devote himself to obstetric practice was the late Sir Charles Locock, who found in Dr. Cumberbatch a man of ability, and one who could be thoroughly trusted. He therefore largely availed himself of Dr. Cumberbatch's help, and was the means of throwing much work in his way. Dr. Cumberbatch, in like manner, was of great assistance to the late Dr. Cape, and also to Dr. Gream, whose obstetric practice was an extensive and fashionable one, until the time came when Dr. Cumberbatch found himself in the full tide of a very large obstetric and medical practice, for he always kept up his medical work, especially amongst children. Some time previously he had been offered the post of physician-accoucheur to a well-known lying-in hospital; but at that time he felt that he could not do justice to both a hospital and a large obstetric practice, and therefore declined the offer. He accepted, however, and held for some years, the office of physician to the Economic Insurance Office.

For many years Dr. Cumberbatch kept working at high pressure, making a very large income. About seven years ago, however, he suddenly discovered that his pulse, which had formerly been a natural one, had fallen to forty in the minute. Acting, therefore, on the advice of the friends whom he consulted, he immediately curtailed his midwifery practice, and as quickly as possible gave it up entirely, only entering the lying-in room in consultation. After the busiest time he had had for several years at the close of the season, he left London on the night of the 16th ult. to join his cousin's yacht in Scotland. Beyond being somewhat fatigued by the journey, he appeared well on arriving the following day. On Sunday, the 18th, at breakfast, he seemed in his usual excellent spirits. Soon afterwards he was seized with severe pain, which at first he attributed to indigestion, but which was evidently angina pectoris. He remarked that he had had a slight attack of the same kind the previous Sunday. The pain, however, increased, coming on in severe paroxysms, and in less than half an hour from the moment of seizure he died.

Dr. Cumberbatch is mourned by an extensive circle of friends and patients. He was a remarkable man, for, with no hospital or school at his back, he obtained one of the largest midwifery practices in the metropolis—a position which he held until he wisely determined to give up the more laborious part of his work and keep exclusively to consulting practice. Only those who have had the advantage of meeting him in consultation can know how valuable was his opinion; how thoroughly straightforward and honest he was, and of what comfort and support in difficult and complicated cases. He was a man of sound principles, upright, honourable, self-sacrificing, charitable, and kind. To his patients he endeared himself by his sympathy, as well as by his success in treating them; and those who knew him well were delighted by his bright, cheery manner, full of kindness, combined with thoughtfulness for their good. Of excellent observation and sound common sense, few could give more valuable or better advice than he upon general subjects, as well as upon those concerning his profession. One charming trait in his character was his entire freedom from professional jealousy, and his delight in assisting juniors who were starting in the race of life. To these he was every ready to stretch forth a helping hand and to give wise counsel. Although so widely known, and coming in contact with so many men, both in and out of his profession, it may be confidently affirmed that he never made an enemy.

Although a Fellow of the Royal Medical and Chirurgical Society, a member of the Pathological Society, and at one time a vice-president of the Obstetrical Society, immersed as he was so deeply in the cares and anxieties of a busy life, he never contributed to the literature of his profession. But he often stated that he intended, when he had sufficient time, to publish the results of observations made in the course of his practice. Cut off, as he was, at the age of sixty-five, in the midst of his activity, the rest to which he looked forward never came. There can be hardly any doubt, from a medical point of view, that had he been a little less self-sacrificing the end would not have been so soon.

In his home-life he was peculiarly charming: a devoted husband, a fond and affectionate father, full of forethought for those about him, he was likewise an excellent and agreeable, as well as an accomplished, companion. For, in addition to being a good classical scholar, he was well read in subjects apart from his profession, and was always thoroughly versed in the topics of the day. As a host, or at a dinner party, he was delightful, and those who have met him know what an acquisition he was, full of amusing anecdote and sparkling humour. He thoroughly enjoyed society, and, in spite of the many calls upon his time, entertained largely; indeed this, and an occasional visit to the Athenæum Club, were his chief means of recreation.

He married in 1854, and leaves to mourn him, besides his widow, two daughters, both of whom are married, and three sons.

WALTER JOHN COULSON, F.R.C.S. ENG.

WALTER JOHN COULSON, a brief notice of whose short and fatal illness appeared in our last issue, was born at Penzance in 1834. Having passed through the usual course at St. Mary's Hospital and filled the post of house surgeon and curator of the museum, he took the Fellowship of the Royal College of Surgeons in 1860, and became assistant surgeon to the hospital. At this time he was closely associated in practice with his uncle, the late Mr. W. Coulson, was assistant surgeon to the Lock Hospital, and was mainly instrumental in establishing St. Peter's Hospital for Stone, at which institution he was senior surgeon at the time of his death. For many years he was in large practice in St. James's-place before moving to Harley-street. His chief contributions to surgery were: "Stone in the Bladder, its Prevention, Early Symptoms, and Treatment by Lithotrity"; "Treatise on Syphilis"; "Case of Adhesion of Soft Palate to Posterior Wall of Pharynx following Syphilitic Ulceration, Operation," THE LANCET, 1862; "Obturator Hernia, Operation," ibid, 1863; "Remarks on Lithotrity, with Record of Fifteen Cases of Stone," *Med. Mirror*, 1864. He also edited the sixth edition of "Coulson on Diseases of the Bladder and Prostate."

Mr. Coulson enjoyed the esteem of a very large circle of friends, by whom his sterling qualities of mind and heart were greatly appreciated. To great skill in his profession he united a sympathetic temperament and a tenderness of disposition which endeared him to all with whom he was brought in contact, and everybody who came within the scope of his influence will deplore the void created by his untimely decease.

THE ASSOCIATION OF PUBLIC SANITARY INSPECTORS.—On the 4th inst., on the occasion of their annual Congress, the members of this Association assembled at Folkestone. Mr. S. Penfold (the mayor) received them, and afterwards opened the meeting. Mr. Hugh Alexander occupied the chair, who stated that the object of the Association was to obtain improved laws of sanitation and to elevate the standard of sanitary inspectors. A paper was read by the mayor of Hastings from Sir Edwin Chadwick, which dealt with the question of the disposal of sewage. Dr. Fitzgerald and Mr. Bateman read papers on the sanitation of Folkestone. After the meeting the mayor of the borough entertained the members of the Association and some friends to a luncheon at the Town Hall.

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Medical News.

UNIVERSITY OF DURHAM: FACULTY OF MEDICINE.—At the First Examination for the degree of Bachelor in Medicine, held in August, the following candidates satisfied the Examiners:—

In all Subjects.—George Henry Vane Appleby, Wm. Henry Bishop, Robert Alfred Bolam, Robinson Brown, Henry King Dawson, Reginald Green, John Stratford Hall, Arthur Samuel Hedley, Norman Shaw Liddell, Benjamin May, Edward McGarity, William Ernest Peacock, Edward Vernon Peacock, James Peacock, Miles Prior, Edmund Race, Robert Sterling, B.A., L.Th.; Chas. Stewart, Samuel Short Whillis, James Powell Willis, and Geo. Jas. Williams, of the College of Medicine, Newcastle-on-Tyne; John William Henry Eyre, Guy's Hospital.

Elementary Anatomy and Physiology.—William Arthur Clayton, Wm. Wilkie Deans, William Forrest, Hugh Meyrick Jones, and George Turner Wayman, College of Medicine, Newcastle-on-Tyne.

Chemistry with Chemical Physics, and Botany with Medical Botany.—Arthur Badock, London Hospital; Thos. Bishop, Queen's College, Birmingham; Hugh Somerville Burniston, St. Mary's Hospital; Duncan James Caddy and Henry Case, College of Medicine, Newcastle-on-Tyne; Arthur Allen Fennings, St. Mary's Hospital; Chas. Forsyth and Arthur John Gardner, M.R.C.S., L.R.C.P., Yorkshire College, Leeds; Thomas George Smith Hodson, London Hospital; Daniel Noel Jackson, Thomas Francis Keenan, and Rowland Venables Lloyd-Williams, of the College of Medicine, Newcastle-on-Tyne; Gerald Lowsley, St. Bartholomew's Hospital; Gideon Wm. Barker Marsh, College of Medicine, Newcastle-on-Tyne; Francis Herbert Marson, Queen's College, Birmingham; George Edwyn Middlemist, College of Medicine, Newcastle-on-Tyne; Arthur Wm. Port, St. Bartholomew's Hospital; Lionel Litchfield Preston, Middlesex Hospital; William Ernest Rielly, University College Hospital; John Melville Ritchie, Queen's College, Birmingham; Lancelot Wm. Rolleston and Noel Florentine Rowstron, of St. Bartholomew's Hospital; Arthur Wm. Scott, Yorkshire College, Leeds; Robert Henry Sheperd, St. Bartholomew's Hospital; Harry Shore and Fredk. Hampson Simpson, of Queen's College, Birmingham; Harry Spicer, St. Bartholomew's Hospital; Fredk. Wm. Standish, College of Medicine, Newcastle-on-Tyne; Joseph B. Stephenson, Middlesex Hospital; Frank Wm. Stokes, University Coll. Hospital.

Chemistry with Chemical Physics.—Fredk. Carden Brodie, M.R.C.S., L.R.C.P., L.S.A., Middlesex Hospital; Charles Meaden, Bristol Medical School; Christopher Michael O'Brien, Trinity College, Dublin; Geo. Stephen Ware, M.R.C.S., L.R.C.P., L.S.A., Middlesex Hospital; Arthur Waldemar Brougham Warde, M.R.C.S., L.R.C.P.

Botany with Medical Botany.—Richard Pryce Mitchell, Lond. Hosp.

At the Second Examination for the degree of Bachelor in Medicine, the following candidates satisfied the Examiners:

Honours (Second Class).—Charles Forsyth, Yorkshire College, Leeds; Charles Henry Duncan Morland, M.R.C.S., L.R.C.P., St. George's Hospital; John Arthur Kendall, College of Medicine, Newcastle-on-Tyne.

Pass List.—Thomas Moffatt Allison and Eustace W. Powys Baines, of the College of Medicine, Newcastle-on-Tyne; Ernest Chittenden Bridges, St. Bartholomew's Hospital; Thomas Buckham, Alfred Cox, and Charles Vincent Dingle, of the College of Medicine, Newcastle-on-Tyne; Robert Bruce Duncan, St. Mary's Hospital; Eric France, College of Medicine, Newcastle-on-Tyne; Albert Gurney, London Hospital; Thomas Hartley, Wm. Cyril Haswell, Alfred John Hopper, Frederick Hunton, and Nicholas Magoris, of the College of Medicine, Newcastle-on-Tyne; John Pendlebury Molyneux, Owens College, Manchester; Kenneth Worsley Poole, M.R.C.S., L.R.C.P., London Hospital; William Turnbull and John Dobson Wardale, of the College of Medicine, Newcastle-on-Tyne; Arthur Waldemar Brougham Warde, St. Bartholomew's Hospital; Avery Clough Waters, M.R.C.S., L.S.A., London Hospital; Joseph Wood, Owens College, Manchester.

Licence in Sanitary Science.—William Henry Coates, M.B., M.R.C.S., L.R.C.P., L.S.A.; John Stokes, M.B. Durh.

Licence in Sanitary Science for Medical Officers of Health of Five Years' Standing.—Nicholas Hardcastle, M.R.C.S., L.S.A.; Thomas Stephen Maguire, M.D. Durh.; Edw. Sergeant, M.R.C.S. Eng., L.R.C.P. Lond.; William Dyne Steel, M.D. Aber.; Charles Robt. Straton, L.R.C.P., L.R.C.S. Edin.

MEDICAL MAGISTRATE.—Mr. John Bark, M.R.C.S., Stanley Mount, Bootle, has been placed on the Commission of the Peace for the borough of Bootle-cum-Linacre.

HUDDERSFIELD INFIRMARY.—Mr. Hanson Ormerod, of Brighouse, has just made a donation of £500 to the Building Extension Fund of the Huddersfield Infirmary.

QUARANTINE.—The British Representative at Lisbon telegraphed on the 9th inst. that eight days' quarantine had been imposed upon arrivals from Vigo, which was declared to be infected with disease of an epidemic character.

UNIVERSITY OF CAMBRIDGE: EXAMINATION IN SANITARY SCIENCE.—An examination in so much of State Medicine as is comprised in the functions of officers of health will be held at Cambridge on Tuesday, October 1st, and following days. Candidates who desire to present themselves for examination in October next must send in their applications and transmit the fees to the Rev. Dr. Luard, Registrar, University of Cambridge, on or before Sept. 26th.

VACCINATION CERTIFICATES.—Mr. John F. Staines has been appointed by the Local Government Board as a teacher of vaccination, and the certificate required by the different examining bodies can be obtained after a due course of instruction at the Public Vaccination Station, 47, Endell-street, St. Giles's, on Tuesday mornings, at 10 o'clock.

FOOTBALL FATALITY.—Thomas Spittle, a lad, of Lozells, Birmingham, was badly hurt on the 7th inst. whilst playing football on the Fentham-road Ground, Birchfield. He received a kick in the abdomen which necessitated his removal to the General Hospital. He died somewhat unexpectedly on Monday last.

DUNOON SEASIDE HOMES.—On Saturday last Lady King opened a new wing which has been added to the West of Scotland Convalescent Seaside Homes at Dunoon. The new structure has been built primarily for the accommodation of the servants, and, their old quarters being now devoted to patients, the accommodation of the Homes will be considerably increased.

LITERARY INTELLIGENCE.—Professor McKendrick's Text-book of Physiology will, we hear, be completed within a few days. The first portion, including General Physiology, was issued last year; and the second volume, containing Special Physiology, including Nutrition, Innervation, and Reproduction, will be published immediately by Messrs. MacLehose and Sons, Glasgow.

NEW COTTAGE HOSPITAL.—The Duke of Cambridge on Saturday last laid the memorial stone of a new Cottage Hospital at Shooter's-hill, near Woolwich. The new building, which is situated on a site given by the War Department, near the summit of the hill, cost £2700, of which £2350 have been subscribed. It contains two wards with ten beds.

DEATH OF A FASTING MAN.—An attempt on the part of a Frenchman at Lyons to imitate the foolish feats of such men as Succi and Merlatti, has, it is reported, had a melancholy, though hardly unlooked for, termination. The man, it appears, reached his twentieth day of abstinence from food; but his desire to continue the experiment was frustrated by death.

LONGTON COTTAGE HOSPITAL.—Sir Smith Child, in sending an additional gift to the amount of £250 towards the completion and furnishing of the New Cottage Hospital at Longton, expresses his earnest hope that efforts will be made to finish the work by freeing the hospital from all debt on the completion of the building, and that its proper maintenance will be one of the first cares of the inhabitants of Longton.

WORTHING INFIRMARY AND DISPENSARY.—At the annual general meeting of the governors of this institution the report and accounts, which were adopted, were on the whole favourable. The receipts for the past year amounted to £1672 0*s.* 4*d.* (including a legacy of £500 invested in 2¾ per cent. consols), and the expenditure to £1451 15*s.* 10*d.* The committee earnestly appealed for additional annual subscriptions to enable them to maintain the institution in its present efficient state.

ROYAL HOSPITAL FOR CHEST DISEASES.—On Wednesday last Lord Charles Bruce presided over a special court of governors of the above institution for the purpose of considering a resolution authorising the trustees to sell out a portion of the funded property of the hospital—not exceeding £6000—for the purpose of paying sundry debts incurred in building the new wing, and in necessary repairs. The chairman explained that the contractors had threatened legal action unless their claims were immediately settled. After considerable discussion the motion was agreed to by ten votes to seven.

RABIES.—According to the *London Gazette*, the number of dogs in England reported during the week ending August 24th as afflicted with rabies was 10 against none in the previous week. Of these, 1 died and 9 were killed. Of the 10 diseased animals, 4 belonged to Yorks (West Riding), 2 to Hants, and 1 each to Essex, Middlesex (excluding London), Oxford, and Sussex (Western Division). During the week ending Aug. 31st, there were 12 rabid dogs reported, all of which were killed. The distribution was as follows:—York (West Riding) 4, Middlesex (excluding London) 3, Surrey (excluding London) 2, and Hants, Kent, and London 1 each.

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CAUSES OF UNFITNESS FOR MILITARY SERVICE.—According to an article in a Russian military medical journal, the number of young men liable to military service in the Kieff district who were rejected on medical grounds during the years 1883 to 1886 was more than 60 per cent. of those examined. The most frequent ground of rejection was myopia. This defect was especially common amongst Jews. The same remark applies to eruptions of the skin and of the scalp, which were also frequent causes of rejection. Another very frequent cause of rejection was hernia, and here, again, the Jews were found to be affected in this way more frequently than the Christians.

MORTALITY IN PUNISHMENT BATTALIONS.—Dr. Shishlo, a Russian military surgeon, has recently discussed the question of the cause of the high mortality which occurs in the so-called disciplinary battalions into which soldiers are sent for punishment. In these the life is harder, the duty more fatiguing, and the general conditions are less healthy; but according to Dr. Shishlo the explanation of the excessive death-rate depends not so much on these circumstances as on the fact that a number of the prisoners who form these battalions are sickly men, who, if they had behaved themselves, would have either been sent temporarily to their homes, or who would have obtained their discharge in the ordinary course, having completed their term of service.

PRESENTATIONS.—On Aug. 28th Wilford Vidal Robinson, L.R.C.P. Lond., M.R.C.S., of Hersham, Walton-on-Thames, was presented by a great number of friends and former patients, at Pinner, Middlesex, with an artistically executed address, accompanied by a cheque for a considerable sum, "as a mark of the high esteem and regard felt for him personally, and in recognition of the unfailing zeal and sympathy shown by him in professional work during seven years' residence among them."—Mr. H. T. Shapley, M.B. Aberd., L.R.C.P. Edin., M.R.C.S. Eng., has been presented by the patients of the Leamington Provident Dispensary with a handsome marble timepiece and bracket, as a token of their appreciation of his services and attention to them.

THE ORDER OF THE HOSPITAL OF ST. JOHN OF JERUSALEM IN ENGLAND.—We understand that, in addition to those members of the medical profession already on the roll of the above Order, of which the Prince of Wales is Grand Prior, the sanction and approval of the Queen, the Sovereign Head and Patron of the Order, has been given to the enrolment of the following as honorary associates:—Surgeon-Major George Allan Hutton, M.D.; Joseph Dallas Pratt, M.D.; Surgeon-General Sir Robert Jackson, C.B., M.D.; William Edmund Cant, M.D., F.R.C.S.; Fleet Surgeon Henry Charles Woods, M.D., R.N.; William Henry Platt, L.R.C.P.; Walter Pearce, M.R.C.P., M.B.; Brigade Surgeon E. D. Tomlinson, M.D.; Deputy Inspector-General Matthew Coates, R.N., M.D.; John Martin, F.R.C.S.; James Robertson Crease, F.R.C.S.; Frederick Charles Mears, M.B., M.R.C.S.; Francis Richard Cassidi, M.D.; John Pleydell Wilton, M.R.C.S.; Alexander Theodore Brand, M.D.; Christopher Childs, L.R.C.P.; Arthur Symons Eccles, M.B.; Robert Clark, L.R.C.P.; Charles Knott, M.R.C.S.; William Warman Coleman, M.R.C.S.; John Blackburn, M.R.C.S.; and Edward Atkinson, M.R.C.S.

SHEFFIELD GENERAL INFIRMARY.—The annual meeting of the governors and subscribers of the Sheffield General Infirmary was held in the board-room of the institution last week. The secretary read the ninety-second annual report, in which regret was expressed that the expenditure had exceeded the ordinary income by £965 8*s.* 9*d.* This deficiency was, however, more than covered by legacies, which had this year been exceptionally large, and had enabled the board to make additional and much-needed accommodation for the nurses, and also to give to the patients a more liberal diet, besides adding considerably to the capital account. Mr. Arthur Jackson said he would commend to Mr. Howard Vincent, M.P., whom he was glad to see present, the consideration of one of the most burning questions of the day—hospital reform,—which would come before Parliament shortly. There would probably be a Royal Commission, and he hoped Mr. Vincent would be one of the foremost in looking into the question. It was a herculean task, and wanted to be considered as much as any other question in the country. The report was adopted.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on September 11th, 1889.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever	Other diseases.	Total.	
Eastern Hospital	199	59	..	48	4	310	442
North-Western Hospital	232	33	..	7	..	272	435
Western ,,	171	9	..	5	..	185	262
South-Western ,,	..	..	..	..	..	..	402
South-Eastern ,,	264	15	1	19	2	301	462
Northern ,,	177	..	..	..	..	177	480
Totals	1043	116	1	79	6	1245	2483

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ASHMEAD, GEORGE, L.R.C.P., L.R.C.S.Edin., has been reappointed Medical Officer to Brierley Hill and Quarry Bank.

BOND, F. F., M.D.Edin., M.B., C.M., has been reappointed Medical Officer of Rastrick, Yorkshire.

BOOBBYER, PHILIP, M.B., late Medical Officer of Health for Basford, has been appointed Medical Officer of Health to Nottingham Borough, vice B. A. Whitelegge, M.D., appointed Medical Officer of Health to the West-Riding County.

COOPER, WILLIAM, M.R.C.S., L.S.A., has been reappointed Medical Officer of Widnes.

COTES, DIGBY FRANCIS BAYNES, L.S.A.Lond., M.R.C.S., has been appointed Medical Officer and Public Vaccinator for the Parish of Teddington, Kingston Union.

CRAVEN, ROBT. MUSGRAVE, M.R.C.S., L.R.C.P.Edin., Dip. Publ. Health, Univ. Camb., has been appointed Medical Officer of Health to the various combining Sanitary Authorities of the county of Westmoreland.

DUNLOP, J., M.B., Ch.C.Vict., has been appointed House Surgeon to the Manchester Royal Infirmary.

EDELSTEN, ERNEST A., M.A., M.B., B.Ch.Oxon., M.R.C.S., L.R.C.P.L., has been appointed House Surgeon to the East London Hospital for Children, Shadwell.

EVANS, CHARLES WALTER, M.R.C.S., L.S.A.Lond., M.B.Lond., has been reappointed Medical Officer to the Bakewell (Derbyshire) Local Board.

EWENS, H. L., M.B., B.S.Durh., has been appointed Senior Resident Medical Officer of the Birmingham Children's Hospital.

FOXWELL, ARTHUR, B.A., M.B. Cantab., B.A., M.R.C.P. Lond., has been appointed Honorary Physician to the Queen's Hospital, Birmingham, vice Sir J. Sawyer, retired.

GIBBENS, F. E., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the sixth district, Romford Union.

HALLIWELL, J., M.R.C.S., L.R.C.P.Lond., has been appointed House Surgeon to the Manchester Royal Infirmary.

HEATON, GEORGE, M.A., M.B.Oxon., has been appointed Resident Surgical Officer to the General Hospital, Birmingham, vice E. N. Nason, resigned.

HOPKINSON, ALBERT, M.A., M.B., B.C. Cantab., has been appointed House Physician to the Manchester Royal Infirmary.

KELZNACK, J. N., M.B., B.Ch. Vict., has been appointed House Physician to the Manchester Royal Infirmary.

KINSEY-MORGAN A., M.R.C.S., L.S.A., has been reappointed Medical Officer of Bournemouth.

MACPHERSON, ALFRED, M.B., C.M.Edin., has been appointed a Honorary District Medical Officer to the Liverpool Ladies' Charity and Lying-in Hospital.

MASSIAH, BENJAMIN JONES, M.R.C.S., has been appointed Medical Officer of the Tenth District, Chorlton Union.

MCALDOWIE, A. M., M.D.Aberd., M.B., C.M., F.R.C.S.E., has been appointed Medical Officer to the North Staffordshire Infirmary, vice Orton.

MCMUNN, C. A., M.D.Dub., L.R.C.S., L.M.Irel., has been appointed Honorary Pathological Officer of the Wolverhampton General Hospital.

M'GOWAN, J. S., B.Sc. Lond., M.B., B.Ch.Irel., M.R.C.S., has been appointed House Surgeon to the Manchester Royal Infirmary.

ORTON, C., on retiring from the Honorary Medical Staff, has been appointed Consulting Physician to the North Staffordshire Infirmary.

PERKS, ROBT. H., M.D.Brux., F.R.C.S.Eng., L.R.C.P., Resident Medical Officer, Royal Albert Hospital, Devonport, has been appointed Medical Superintendent of the Adelaide Hospital, Adelaide, South Australia. [This is a new appointment, no previous incumbent.]

PURSLOW, C. E., M.D.Lond., M.B., M.R.C.S., has been appointed Honorary Obstetric Officer of the Queen's Hospital, Birmingham, vice Hopkins, resigned.

RICHARDSON, MARTIN J., M.B., C.M., has been appointed Assistant House Surgeon to the Rotherham Hospital and Dispensary, vice G. H. O'Reilly, M.B., M.R.C.S., L.S.A., resigned.

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SHELDON, ROBERT GARNETT, M.R.C.S., L.S.A., has been appointed Medical Officer of the Kirkdale District (Liverpool), in succession to Dr. Bark, resigned.

SKIPWORTH, H., L.K.Q.C.P., L.M.Irel., M.R.C.S., has been reappointed Medical Officer, Quorndon Union district.

SOUTHAM, FREDERICK ARMITAGE, F.R.C.S.Eng., M.B.Univ. Oxfd., has been appointed Honorary Surgeon to the Manchester Infirmary, vice Mr. Frederick Ashton Heath, M.R.C.S., L.S.A.Lond., resigned.

SYKES, J., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed House Surgeon to the Manchester Royal Infirmary.

STANDEN, PETER, M.B.Edin., C.M., has been reappointed Medical Officer of Mansfield Rural district.

SULLY, A. Max, L.R.C.P.Lond., M.R.C.S., has been appointed Assistant Resident Medical Officer of the Birmingham Children's Hospital.

TAYLOR, REGINALD, M.R.C.S., L.S.A., has been appointed Medical Officer of the Gray's-inn-road Workhouse Infirmary.

THOMSON, MALCOLM EDWARD, L.R.C.S.Irel., L.R.C.P.Edin., has been appointed Medical Officer of the St. Sepulchre District, Northampton.

WEATHERLY, A. J., M.R.C.S., L.R.C.P.Lond., has been appointed Civil Medical Officer of the First Class to the Kurseong Division of the Darjeeling District; also Consulting Medical Officer to the Darjeeling Himalayan Railway.

WEST, C., L.R.C.P.Lond., M.R.C.S., has been appointed Resident Surgeon of North Cambs. Hospital.

WHITE, R. WENTWORTH, M.R.C.S., L.D.S., has been appointed to the newly created post of Honorary Dental Surgeon to the Norfolk and Norwich Hospital.

WILLIAMS, HUMPHREY LLOYD, M.R.C.S., L.S.A., has been appointed Medical Officer of Health for Flint.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BOSCOMBE HOSPITAL AND PROVIDENT DISPENSARY, Bournemouth.—Resident Medical Officer. Salary £60 per annum, with board and residence at the hospital. Not more than five testimonials of recent date to be sent.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, London, S.W.—Three Clinical Assistants. The fee is £3 3s. for three months.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician. No salary, but board and residence provided.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—House Surgeon. Salary £70 with board, washing, and residence.

FEMALE LOCK HOSPITAL, Harrow-road, London, W.—Assistant House Surgeon. No salary, but board and lodging provided.

FLINTSHIRE DISPENSARY, Secretary, Bagillt-street, Holywell.—House Surgeon. Salary £100 per annum, with furnished house, rent and taxes free; also coal, lights, water, and cleaning, or in lieu thereof the sum of £20 per annum.

GENERAL HOSPITAL, Birmingham.—Resident Registrar and Pathologist. Salary £100 per annum, with board and lodging. Also Assistant House Surgeon, for six months. No salary, but residence, board, and washing will be provided.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—House Surgeon. Salary £80 per annum, with board and lodging in the hospital.

LEICESTER INFIRMARY AND FEVER HOUSE, Leicester.—House Surgeon. Salary £120 for the first year, rising at the rate of £10 per annum until the fourth year. Board, apartments and washing will be provided.

NORTHUMBERLAND COUNTY ASYLUM, Morpeth.—Clinical Assistant. No salary, board and residence provided.

NOTTINGHAM GENERAL HOSPITAL.—Resident Surgical Assistant for six months. No salary, but board, lodging, and washing in the hospital.

PENDLETON BRANCH DISPENSARY.—House Surgeon. Salary £80 per annum, with board and appointments.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone, N.W.—Resident Medical Officer for four months. Salary at the rate of £60 per annum, with board and residence in the hospital. Not more than four testimonials (copies) to be sent.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's-inn-fields, London.—Examiner in Dental Surgery.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor, I.W.—Assistant Resident Medical Officer. Salary £60 per annum, with board and lodging in the hospital.

SOUTH DEVON AND CORNWALL HOSPITAL, Plymouth.—House Surgeon. Salary £100, with board and rations.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston-road, London. Honorary Physician.

Births, Marriages, and Deaths.

BIRTHS.

BEECHAM.—On Aug. 29th, at St. Mary's Villa, Huyton, near Liverpool, the wife of William Beecham, L.R.C.P., &c., of a son.

CARDWELL.—On Aug. 24th, at Kirkham, Lancashire, the wife of Thomas Cardwell, L.R.C.P., M.R.C.S., of a daughter.

COWARDIN.—On Aug. 31st, at Edith-road, West Kensington, W., the wife of Dr. Thos. G. Cowardin, late of Richmond, Virginia, U.S.A., of a daughter.

DAVIES.—On Aug. 18th, at Maisonnette, Woolston, Southampton, the wife of Surgeon A. M. Davies, Army Medical Staff, of a daughter.

ELLIOTT.—On Sept. 5th, at Monson-place, Tunbridge Wells, the wife of Thomas Elliott, M.D., of a son.

GOULD.—On Aug. 28th, at Queen Anne-street, Cavendish-square, the wife of Alfred Pearce Gould, F.R.C.S. Eng., &c., of a daughter.

JOYCE.—On Aug. 26th, at Victoria-terrace, Weymouth, the wife of Staff Surgeon Joyce, R.N., H.M.S. *Hercules*, of a daughter, stillborn.

LYSTER.—On Sept. 8th, at Coleshill, Warwickshire, the wife of Arthur E. Lyster, M.R.C.S. Eng. and L.S.A. Lond., of a son.

MOIR.—On Sept. 8th, at Leinster-square, W., the wife of Byres Moir, M.B., of a son.

O'REILLY.—At Rathmore House, Highgate, the wife of Dr. G. J. O'Reilly, of a daughter.

PATTERSON.—On Sept. 8th, at Gosport, the wife of Staff Surgeon A. Patterson, R.N., H.M. ship *Victor Emanuel*, Hongkong, of a daughter, stillborn.

PECK.—On Sept. 4th, at Gower-street, the wife of Awdry Peck, M.A. Oxon., M.R.C.S. Eng., L.R.C.P. Lond., of a daughter.

ROE.—On Aug. 17th, at Amraoti Camp, India, the wife of Robert Bradley Roe, Esq., Civil Surgeon, Amraoti, of a son.

THOMPSON.—On Sept. 1st, at Priory House, Launceston, Cornwall, the wife of W. F. Thompson, M.B., of a son.

MARRIAGES.

AYMARD—WOOL.—On Sept. 5th, at St. Paul's Church, Clacton-on-Sea, John Law Aymé Aymard, M.R.C.S., L.R.C.P., of Ipswich, to Amy Constance Collins, third daughter of Bright Wool.

CHADWICK—HEMINGWAY.—On Sept. 11th, at the Parish Church, Ribbesford, Charles Stott Chadwick, M.R.C.S., L.R.C.P., of Birmingham, to Mary, eldest daughter of Richard Hemingway, Park Lodge, Bewdley, solicitor.

COLQUHOUN—LETCHFORD.—On Sept. 10th, at St. Matthew's Church, Upper Clapton, Wm. Brooks Colquhoun, L.R.C.P. Lond., M.R.C.S., of Stoke Newington-common, elder son of J. Carter Colquhoun, to Alice Jane, daughter of the late Frederick Letchford.

FAIRBANK—PEARSON.—On Sept. 5th, at All Saints' Church, Margaret-street, Hull, Henry S. Fairbank, M.B., son of John Hack Fairbank, to Beatrice Maude, daughter of Z. C. Pearson, The Park, Hull.

HAMILTON—RUSSELL.—On Aug. 27th, at St. Matthew's Church, Oakley-square, London, Henry Hamilton, M.R.C.S. Lond., L.R.C.P. Eng., L.S.A. Lond., second son of Henry Hamilton, of Falkland House, Finchley, to Lucilla Mary Elizabeth, widow of the late Phillip C. C. Russell, and only daughter of the late Odiarne Coates Lane, of Clifton, Bristol.

PHILLIPS—BAYLEY.—On Sept. 4th, at St. Andrew's Church, Plymouth, H. Astley Phillips, M.D., of Gravesend, to Catherine Bayley, widow of the late Fewster J. Bayley, Esq., and daughter of W. J. Square, F.R.C.S.

SMARTT—BEVAN.—On Aug. 21st, at Street Church, County Westmeath, Henry Warner Smartt, L.R.C.S.I., Castlepollard, son of F. W. Smartt, M.D., Ballymahon, to Anna Maria, daughter of the late Philip Bevan, M.D., F.R.C.S.I., Dublin.

STIRLING—ROGERS.—On Aug. 29th, at the Parish Church of St. Stephen's-by-Saltash, Charles Stirling, M.B., C.M., of London, youngest son of the late James Stirling, of Kirkintilloch, Scotland, to Julia, youngest daughter of John M. Rogers, of Pillmere, Saltash, Cornwall.

TURNER—LAWTON.—On Sept. 4th, at St. Paul's, Mill-hill, N.W., Nathaniel Henry Turner, M.R.C.S. Eng., L.R.C.P.Lond., of Ivy Walls, Edgbaston, second son of the late Fred. Turner, of Nizels, near Tonbridge, to Alice, youngest daughter of the late Robert Lawton, of Hough-hill, Dukinfield, Cheshire.

WALKER—ATKEY.—On Aug. 28th, at Holy Trinity Church, Kilburn, Basil Woodd Walker, M.D., son of the Rev. John Walker, M.A., of Bradwell, Suffolk, to Maud Ellen Atkey, daughter of the late John Atkey, formerly of Southsea.

WATSON—EDWARDS.—On Aug. 21st, at the Parish Church, East Budleigh, Devon, Robert Walker Watson, M.R.C.S. Eng., L.S.A. Lond., of Ladismith, Cape Colony, and Highbury New-park, London, to Jane Sarah, daughter of the late R. Edwards, Esq., of Knowle Villa, Budleigh Salterton.

DEATHS.

BOYES.—On Sept. 1st, at Lansdowne-crescent, Edinburgh, Charles R. Boyes, M.D., Retired Army Surgeon-Major, late of 60th King's Royal Rifles.

CLIFFORD.—On Sept. 3rd, at Cloonlurg, Slough, John James Clifford, M.D. Edin., late Surgeon-General (Queen's Royal) Lancers.

FLANAGAN.—On Aug. 8th, at Bangalore, of typhoid fever, Harold Edward Bickerson Flanagan, Surgeon Army Medical Staff, only son of Lieut.-Col. Flanagan, formerly of 76th and 81st Regts., aged 31.

FLEXMAN.—On Sept. 8th, at The Chase, King's Lynn, James Flexman, Esq., M.R.C.S., formerly of South Molton, Devon, and for many years Coroner of that borough, aged 72.

GILLIES.—On July 5th, at his residence, Regent Road, Dunedin, New Zealand, John Finlayson Gillies, M.D. Aber., L.R.C.S. Edin., aged 41, formerly of Melksham in Wiltshire, and of London.

HARTILL.—On Aug. 28th, at Sutton Coldfield, W. H. Hartill, M.R.C.S., L.S.A., of Walsall-road, Willenhall, Staffordshire, aged 53.

JACKSON.—On Sept. 1st, at Princess-square, Plymouth, Louis Pilkington Jackson, L.R.C.P., &c., aged 26.

KERNOT.—On Sept. 5th, at his residence, Bishnauth, First Avenue, Brighton, Charles Noyce Kernot, Esq., M.D., F.R.C.S.E., Lic. Med., &c., of Dalhousie-square, Calcutta, aged 49. Indian and Australian papers please copy.

SMITH.—On Aug. 26th, at St. Aubins, Jersey, James Edward Smith, M.R.C.S., &c., aged 31.

WILSON.—On Sept. 10th, suddenly, at the Cannon-street Hotel, David Wilson, M.D, of Brook-street, Grosvenor-square.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, September 12th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Sept. 6	30·30	N.E.	60	58	108	72	57	..	Overcast
,, 7	30·18	E.	59	57	82	67	56	..	Overcast
,, 8	30·12	S.W.	64	57	87	67	53	..	Cloudy
,, 9	30·15	S.W.	62	59	107	76	55	..	Cloudy
,, 10	30·25	S.W.	62	60	102	79	59	..	Cloudy
,, 11	30·17	S.W.	67	62	115	83	60	..	Cloudy
,, 12	30·18	W.	68	64	117	79	63	..	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

OUR STUDENTS' NUMBER.

WE publish the following items in addition to, or in correction of, information given last week.

In an account of the changes in the lectures at the London Medical Schools in our last issue we inadvertently omitted those which had taken place at the London School of Medicine for Women, and also those in the staff of the Royal Free Hospital to which it is attached. Mrs. Scharlieb lectures on Diseases of Women, and is succeeded by Mr. Dawson in the joint lectureship on Forensic Medicine and Hygiene. Dr. H. W. G. Mackenzie gives Pathological Demonstrations once a week. Demonstrations in Auscultation and Percussion are given by Dr. Calvert. Mr. Berry holds classes in Surgery. Mr. Battle succeeds Mr. Barrow as demonstrator in Practical Surgery.

At the *Royal Free Hospital* Dr. Cockle has been appointed Consulting Physician, and is succeeded by Dr. Sainsbury. Dr. Calvert was appointed Assistant Physician, and later Dr. F. W. Andrewes was elected as an additional Assistant Physician in charge of out-patients. Mr. W. H. Dodd has been appointed Surgical Registrar (a new appointment), and Mr. E. C. Stabb Senior Resident Medical Officer.

Hospital for Sick Children, Great Ormond-street.—With respect to this hospital, it should have been stated that clinical teaching is carried on, courses of lectures being delivered by members of the medical and surgical staff at stated periods during the session.

Bethlem Hospital.—Students of the third year are allowed to attend the practice of this hospital gratuitously. This is in addition to the provision for Resident Clinical Assistants.

Aberdeen Royal Infirmary.—The paragraph on p. 509, contains some inaccuracies; we therefore reprint it in its correct form, as follows:—The Infirmary contains about 250 beds. Physicians: Drs. J. W. F. Smith-Shand, Angus Fraser, and Blaike Smith. Surgeons: Messrs. A. Ogston, J. O. Will, and R. J. Garden. Junior Surgeon: J. Hall. Ophthalmic Surgeon: Mr. J. Mackenzie Davidson. Pathologist: Mr. David James Hamilton. Dental Surgeon: Mr. Williamson. Treasurer and Secretary: Mr. W. Carnie. Also in the paragraph referring to the same institution, on p. 526 the first and last sentences should have been omitted, the appointments therein mentioned not having been made recently.

Dr. E. S. Nutting. — The American Medical Association, Chicago, Illinois.

DIABETIC URINE.

To the Editors of THE LANCET.

SIRS,—I should be glad if anyone could tell me what to add to diabetic urine to take the sickly smell away. After standing for some time in the chamber-vessel it becomes unpleasant.—Yours truly,

Sept. 11th, 1889. ASBESTOS.

LEPROSY IN IRELAND IN THE SEVENTH CENTURY.

FECHIN, who figures as the first presbyter named in the Third Order of Irish Saints, according to the famous catalogue given in Archbishop Ussher's "Britannicarum Ecclesiarum Antiquitates," is an interesting example of the circumstance, brought out into strong relief by Montalembert, that the early mediæval monks were the depositories and practitioners of the best medical knowledge of the time. There is, of course, much of the miraculous recorded in his name which sober history must reject; but, when all reasonable deduction has been made, a residuum of fact remains which the annalist of medicine cannot overlook. S. Fechin's sphere of activity was mainly in the West of Ireland, and according to Archdeacon O'Rorke, the historian of the County Sligo (Dublin: James Duffy and Sons), leprosy was the disease the saint was most frequently called in to cure. At Fore he was one day begged by a loathsome leper to take him in charge, and Fechin, having carried him on his back to the monastery, left him in the hospital and consigned him to the care of Themaria, wife of King Domnald, who, being promised a heavenly crown in recompense, undertook the unpleasant task. The Queen tended the patient devotedly, though some of her duties were so disgusting that, according to the Archdeacon, they had better remain in the obscurity of the old Latin biographer: "Inter alia dura ministeria leprosus, divinum amorem allegando, ab ea petivit, ut purulenta phlegmata e naribus suis proprio ore exsugat." The heroine had her reward; for (and here the miraculous comes in) "next day, when the saint was going to the hospital, he saw a globe of fire ascend towards heaven from the roof of the building, and on entering the sick room found that the man they had been nursing, and who had departed in the form of fire, was no other than our Lord Himself—the whole occurrence illustrating the truth of the words, 'Inasmuch as ye did it unto one of these the least of my brethren, ye did it unto me.' In going away the leper left behind a staff and a lump of the purest gold, with directions to the Queen to give them to Fechin, which she did, and the staff became the famous *Bachal Fechin* with which the saint is supposed to have performed many miracles through life, and which was held in great reverence after his death; but the gold he employed in building hospitals and in other works of charity." Skilfully disentangling this and such-like legends from their mythopæic drapery, Archdeacon O'Rorke accumulates a mass of evidence, corroborated from other sources, which makes it clear not only that the chief, if not the sole, practitioners in Ireland in the seventh century were monks, but that the disease they were most commonly confronted with was leprosy, wrongly supposed to have been first brought into Europe by the Crusaders.

G. F. H. (Marazion).—Probably the Medical Defence Union, the offices of which are in Edmund-street, Birmingham, would take up the case if the facts were represented to them.

Club.—The B.P. does not give the formula for Parrish's food. The quotation was correct for syr. fer. phosph.

Mr. Alfred Geo. Beale.—Compound tincture of benzoin, or tincture of guaiacum.

PROFESSIONAL ETIQUETTE.

To the Editors of THE LANCET.

SIRS,—I have been in general practice for thirteen years, after holding hospital appointments of the highest order, and during the years I have been connected with the profession (over twenty years) I have never made a single professional enemy amongst my neighbours. My initials are J. J. G., well known to most West-end people. The patient I will call Y., and the medical brother of whom I complain Z. Y., suffering from double pneumonia and also heart mischief, was my patient, and I visited him daily. He went on very well under the usual treatment until Saturday, July 13th, when his wife allowed him to get out of bed and sit in front of an open window without my knowledge. On Sunday I found the patient not so well. On Monday morning the temperature was 104°, with evident signs of a return of the inflammation. I saw him again about 2 o'clock and also at 3. His breathing then was not favourable. I recommended his wife to call in a physician if she was not satisfied with my treatment. To this she did not consent, being sure that I was doing all I could for her husband. I made another call at 5.30, when, to my astonishment, the wife told me that she had had another doctor to see the patient, and that he was going to call again in the evening. Of course, under the circumstances I gave up the case at once. In the evening I received from Dr. Z. the following letter:—

"MY DEAR MR. G.,—I was called in to see a man by name Y——. That no misunderstanding should arise, I let you know this at once. I find that my interpretation of the laws of etiquette differ from that of some of my neighbours, and I much regret this; still, it is a pity that there should be any want of confidence between one man and another. Mrs. Y. did not send for me; a patient of mine, a friend of theirs, summoned me in haste. I have given digitalis &c., and promised to see him again, they undertaking in the meantime to see you. Shall I meet you there? Will you arrange this?—Yours, &c., Z."

The same evening, later on, Z. called on me, and I then informed him that he had acted not only unprofessionally but ungentlemanly, considering we were neighbours. Finding that there were many reports

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set about which were detrimental to my character, I sent the following letter to Z. :—

"MY DEAR SIR,—I write to inform you that through certain circumstances which have occurred during the week with regard to Y. and your laws of medical etiquette, I shall be obliged to ask the opinion of the medical papers for the sake of my own reputation.—Yours truly, G."

I received a reply giving me leave to place it before the medical world.

From the above I would just ask if Z. was justified in seeing Y., knowing that J. J. G. was in attendance, and if Z. was only called in by one of his own patients and not by Mrs. Y., was it not his duty to acquaint me of it, and make me a *present* of his visit? Z. is a younger man than myself, and his qualifications are no better than my own? Poor Y. is no more. Not even Z.'s digitalis could keep him alive. The last day I saw Y. I was giving him digitalis and Warburg's tincture, so that Z. did not make any change of medicine. I am, Sirs, yours truly,

September, 1889. J. J. G.

*** We think J. J. G. has very good right to complain of Z. It is the first time we ever heard of a practitioner thinking it right to undertake the charge of another practitioner's patient—not at the request of the patient or his near relatives, but of a friend. Our correspondent has the satisfaction of being in the right and of having his treatment only confirmed by Z., who should have refused to see the case except in consultation with the practitioner in attendance.—ED. L.

A. L.—All sudden illnesses, such as the falling sickness, for which no cause was apparent, were attributed by the Greeks to a deity whose resentment they sought to overcome by a hymn which had the force of a charm. In the Medea of Euripides (v. 1172) Pan is supposed by the female attendant to have caused the convulsions under which the King's daughter died, until the poisoned robe and chaplet, the gift of the murderess Medea, were found to have induced the symptoms. A systematic medical commentary on the classics is still a desideratum.

"JUMPERS."

DR. BENNETT of Griqualand writes in the *South African Journal* an account of a peculiar nervous affection which is met with among the Griquas and other natives and individuals of mixed descent living in Griqualand. He suggests that perhaps the affection is similar to that prevalent amongst the French Canadians, and known there by the name of "Jumpers." Dr. Bennett says :—

> "The affection is entirely confined to the male sex, and I have never seen or heard of a case in the female. The victims of this strange form of neurosis go through the most extraordinary and grotesque antics on the slightest provocation. A whistle, a touch, a shout—anything, in fact, sudden and unexpected, will 'set them going.' Some will stiffen their limbs, make hideous grimaces, and valse about as if they had no joints in their body. Others will jump wildly about like dancing dervishes, imitating the particular sound that had acted as an exciting cause. Some, again, will make use of the most obscene expressions on a transient impulse, correcting themselves immediately afterwards, and expressing their regret for having used such language, whilst others, on the spur of the moment, will do anything they are told to do. If they should happen to have a piece of tobacco in their hand, and one should suddenly shout, 'Throw it away!' they will do so at once, running away for a short distance, and trembling all over their body. I remember one case in particular; it was that of a 'Bastard' boy, a mason by trade. He had been handed a piece of tobacco, and the person who handed it to him shouted out suddenly, 'Throw it away; it is a snake!' He first danced about wildly for a short time, and then ran away as fast as he was able; but he had not gone far when he fell down in a 'fit,' and it was some time before he recovered."

As to the probable cause of this affection, Dr. Bennett is disposed to ascribe it to the indiscriminate intermingling of the blood of different racial types, and the intermarriage of those standing in close relationship to one another.

A CAUTION.

To the Editors of THE LANCET.

SIRS,—During last week a man answering the following description has called at 8.30 in the morning at the houses of two neighbouring medical men, pretending he had come from a patient, and on the servant coming downstairs after delivering the message man and property (in one case a heavy marble clock) had gone. As he will now probably visit another district, I write to put other medical men on their guard. Aged about thirty; height, 5 ft. 7 in.; complexion pale; hair and very slight side whiskers dark; dress, black diagonal jacket suit; black, hard, round felt hat; appearance of a gentleman's manservant. By inserting this letter you will greatly oblige, Yours truly,

London, W.C., Sept. 10th, 1889. A VICTIM.

Mr. A. H. Boys.—It is difficult to give a definite opinion in the absence of knowledge of the exact facts; but on the supposition that the statement submitted to us is in the main a fair representation of the case, we think the charges cannot be considered exorbitant.

Dr. Naismith.—Yes, in an early number.

THE LATE DR. HABERSHON.

IT was our intention to publish this week a notice of the life and professional career of the late Dr. Habershon; but the sources of information being at this holiday season widely scattered, it will be convenient to defer what we trust will be a complete record until the end of the present month.

A. R. J. asks for information as to a method of preparing the labels on dispensing bottles in a surgery so that liquids do not affect them, and so that they are waterproof and can be gently washed when dirty.

H. Sherwood.—Certainly not.

THE APPROPRIATION OF PATIENTS BY CONSULTANTS.

To the Editors of THE LANCET.

SIRS,—Will you kindly inform me if it is right, after a consultation with a so-called specialist, for him (the specialist) to see, and afterwards prescribe and treat that patient to whom he was introduced, without the knowledge of the usual attendant (the introducer), and what is your opinion as to his conduct.—I am, Sirs, yours faithfully,

Sept. 2nd, 1889. F. A. MITCHELL.

*** We think that the "so-called specialist" acted wrongly, and would be the better for some special study in medical ethics.—ED. L.

Medicus.—We think there must be some mistake in the case our correspondent sends us. We should require some more detail before we could publish his letter. He does not even inform us where the occurrence took place or the name of the officer.

FALLING HAIR.

To the Editors of THE LANCET.

SIRS,—I have at present a lady patient under my care whose hair has been coming off in large quantities for some months past while being combed. I should feel much obliged if you or any of your numerous correspondents would kindly suggest a remedy for treatment of same.

I am, Sirs, yours faithfully,

Sept. 4th, 1889. SCARPA.

ERRATUM.—Our attention has been called to a slight error which occurred in our annotation headed "The Value of Medical Charities" in THE LANCET of Aug. 3rd, page 232, where the executors of the late Mr. John Griffith are described as "Mr. Samuel Clewin and Dr. Daniel Clewin Griffith," instead of *Dr.* Samuel Clewin and *Mr.* Daniel Clewin Griffith.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Henry Acland, Oxford; Mr. Rivington, London; Comte de Loverguy, London; Mr. H. F. Bailey, Blackheath; Dr. E. P. Manby, Brighton; Dr. Percy Smith, London; Dr. Kirk, Partick; Mr. H. J. Newcome; Sir James Sawyer, Birmingham; Dr. T. Oliver, Newcastle-on-Tyne; Dr. Leslie Phillips, Birmingham; Dr. O. Sturges, London; Messrs. Wilson and Son, Harrogate; Mr. Sturridge, Kendal; Mr. J. M. Davidson, Aberdeen; Dr. Naismith, Ayr; Mr. Boys, St. Albans; Dr. C. Begg, Edinburgh; Mr. H. E. Jones, Liverpool; Mr. Ellice-Clark; Mr. Simpson, London; Mr. Meadows, Hastings; Dr. Dick, Glasgow; Dr. Blakie Smith, Aberdeen; Mr. B. Hollander, London; Messrs. Robertson and Scott, Edinburgh; Mr. Stebbing; Dr. L. Wilde, London; Mr. E. du Cane, Dublin; Mr. H. Fox, Newcastle-on-Tyne; Messrs. Burgoyne and Co., London; Mr. C. Umney, London; Mr. Bolton, Tunbridge Wells; Mr. Reubman, London; Dr. Helm, Marazion; Messrs. Millin and Co., Belfast; Mr. Grier, St. Ives; Dr. Heron, London; Mr. W. Anderson, London; Dr. Manning, Gladesville, N.S.W.; Dr. Hueppe, Prague; Surgeon-Major Laurie, Hyderabad; Dr. Gregg, Bengal; Dr. B. Anningson, Cambridge; Dr. O'Neill, Lincoln; Dr. Allwright Brighton; Major-General Wardell; Mr. Haviland, London; Dr. A. Duke, Dublin; Mr. Butterfield, Sevenoaks; Mr. Struthers, Aberdeen; Mr. Wilson, Plymouth; Mr. Beattie, Ireland; Messrs. Wyleys and Co., Coventry; Mr. Stubbs, London; Mr. Jones, London; Messrs. Lee and Martin, Birmingham; Miss Manning, Towcester; Messrs. Waddie and Co., Edinburgh; Mr. Holden, Liverpool; Mr. Pfister, London; Mr. Vinkas, London; Mr. Clarke, Morpeth; Dr. Lyon, Houghton-le-Spring; Mr. White, Chicago; Dr. Davies, Wrexham; Messrs. Smith and Botwright, London; Mr. Garrett, Bournemouth; Messrs. Mayer and Meltzer, London; Mr. Bowker, Scarboro'; Mr. Vinter, Devonport; Dr. Morris, Halling; Dr. Wiener, Vienna; Mr. Lamond, Glasgow; Mr. More, Kettering; Mr. E. F. Neve, Kashmir; Mr. Cole, Holywell; Dr. Thomson, Ampthill; Mr. Hearnshaw, Sleaford; Mr. Mills, London; Messrs. Livingstone, Edinburgh; Mr. Hordley, Stoke-upon-Trent; Dr. Collier, Suffolk; Mr. Keeley, Nottingham; Mr. Birchall, Liverpool; Messrs. Orridge, London; Dr. Shirtliffe, Kingston-on-Thames; Mr. Fenwick, London; Mr. Campbell, London; Altschull; Vera; A. R. J.; Ollipod Denta; A Victim; Medicus; Royal Portsea and Gosport Hospital; Asbestos; Alpha, Birmingham; Sanitas Co., Birmingham; G. P., Sheerness-on-Sea; Secretary, Nottingham General Hospital; General Hospital, Nottingham; London Lock Hospital; Lillistine, Willesden; Andrew, Huddersfield; Nurse Gooding, Godmanchester; Garman, London; Dakin, London; Salve Lardum; Beta, Lordship-lane; House Surgeon, Halling; Salford Royal Hospital.

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LETTERS, *each with enclosure*, are also acknowledged from—Mr. Tully, Hastings; Mr. Ackland, Exeter; Mr. Carter, London; Mr. Bell, Bury St. Edmunds; Mrs. Lawrence, Wolverhampton; Mr. Daniell, Port Talbot; Mr. Notley, Birmingham; Mr. Craig, Wick; Messrs. Easun and Son, Dublin; Mr. Purland, Woolwich; Mr. Woodward, Tunbridge Wells; Mrs. Lush, Salisbury; Mr. White, Suffolk; Mr. Travis, West Kensington; Mr. Clark, Doncaster; Mr. Andrew, Stockport; Mr. Van Praagh, London; Mr. Crassweller, Highbury; Mr. Harries, South Wales; Mr. Davis, London; Mr. Adam, Crieff; Messrs. Ormrod and Dudgeon, Workington; Mr. Williams, Holyhead; Mr. Nutman, Great Yarmouth; Mr. Storey, Kirton; Mr. Keens, Luton; Messrs. Pawsey and Co., Ipswich; Mr. Heywood, Manchester; Mr. Lawrence, Bury St. Edmunds; Mr. Weddell, Newcastle-on-Tyne; Messrs. 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H., Leicester; Clarence-House, Southend; Savory, London; H., London; P. H., London; Irish, London; F. H., London.

Harrow Gazette, Mining Journal, Educational Times, Christian Commonwealth, Barnsley Chronicle, Lymington Chronicle, The Scotsman, The Australian Irrigation Colonies, Christian World, Newcastle Daily Leader, Bath and Cheltenham Gazette, Glasgow Herald, Maidstone and Kentish Journal, Child's Guardian, Masonic Review, &c., have been received.

Medical Diary for the ensuing Week.

Monday, September 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, September 17.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

Wednesday, September 18.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, September 19.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Friday, September 20.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, September 21.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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Clinical Lecture
ON
PYO-SALPINX,
WITH REMARKS ON THE OLD FAITH AND THE NEW REGARDING PARAMETRITIS AND PERIMETRITIS.

By JOHN W. TAYLOR, F.R.C.S.,
SURGEON TO THE BIRMINGHAM AND MIDLAND HOSPITAL FOR WOMEN.

GENTLEMEN,—I have just had occasion to remove a specimen of pyo-salpinx from a woman with subacute peritonitic symptoms. The specimen shows the association of pyo-salpinx with great enlargement of the broad ligament. This pathological connexion depends, I think, largely on the date of the disease, and it is fortunate that the operation of this morning has enabled me to remove so characteristic a specimen of the disease at its most instructive period. This period is usually accompanied by definite physical signs which have long been known clinically as evidence of an inflammatory disease common among women. The exact nature of this disease—how it commences—what are the tissues primarily attacked—all involve questions regarding which there has been for a long time considerable dispute. The specimen before us explains much that is difficult to reconcile between the old faith and the new on the subjects of parametritis and perimetritis.

Briefly stated, the old faith on these diseases was as follows:—Parametritis is an inflammation of the cellular tissue of the broad ligament; it is a common disease; it generally terminates in complete resolution; it frequently ends in abscess; it is rarely fatal. Perimetritis is inflammation of the peritoneum around the uterus and its appendages. Except for a form of very mild and limited character which has no symptoms and may be ignored, perimetritis is a rather rare disease. It is usually accompanied by grave and (so-called) septic symptoms. It is not infrequently fatal.

The new faith is as follows:—Parametritis as the name of a common disease is altogether a misnomer; it is occasionally met with, but is almost a pathological curiosity. Perimetritis is salpingitis. Salpingitis is the essential disease, which has been wrongly or inadequately labelled as parametritis or perimetritis.

This is the new faith which is gaining ground day by day. It is truer than the old faith, and the gods of the past will slowly go down before it. But there was something in the old faith which it is not well to lose—something in "parametritis" there is a danger of ignoring; and it is to this I wish to specially direct your attention. Before examining the specimen let me give you the clinical history of the case.

E. H——, aged thirty-nine, married fifteen years, having seven children, the youngest of whom was fifteen months old, and but recently weaned, was sent to me by Dr. Scott on April 17th. She had been "losing" almost continuously for three weeks, and complained of hypogastric pain. The uterus was enlarged and tender, and all the signs and symptoms were consistent with and suggestive of early pregnancy with threatened abortion. The sound was not used. Rest was advised, and viburnum prunifolium prescribed. Some temporary improvement followed, the hæmorrhage ceasing. On May 8th she returned with feverish symptoms (temperature 100°) and great increase of pain. On examination the uterus was found to be anchored by a mass on the left side of the vaginal roof. The mass was hard and tender, extending across the vaginal roof, and directly joining the uterus high up by a prominent posterior tumour, "feeling like a retroflexed fundus." This was diagnosed at the time as tubal. The patient from this date was kept entirely in bed, and every means were taken to bring about resolution of the inflammatory process, but without any good result. On May 11th she was seen at home. She had severe abdominal pain, and frequent vomiting. The temperature was higher, and the retro-uterine tumour large and exquisitely tender. Both signs and symptoms were considered indicative of pyo-salpinx. In spite of rest and appropriate treatment, the patient was evidently getting worse. The tumour, diagnosed by experienced touch as tubal, the hypogastric pain and vomiting, the febrile state—all markedly increasing during a period of rest—formed not only sufficient ground but proper ground for operative treatment. This was accordingly recommended to the patient and her husband, the nature and possible effect of the operation being fully explained. Her condition was evidently serious. Consent was readily and gratefully given, and the patient was removed to the in-patient department at Spark-hill. Two days later (after due consultation) I operated. What were the steps of the operation? The abdomen was opened by a small incision above the pubes. Then, with the forefinger of the right hand in the vagina and the first and second fingers of the left hand inside the abdomen, the prominent tumour was exactly mapped out and slowly unpeeled from the numerous adhesions surrounding it. When sufficiently liberated, the right hand was withdrawn from the vagina and thoroughly washed in clean hot water, the rest of the manipulations being abdominal only. After slight enlargement of the incision, the mass which you see was pulled out of the abdomen and its base ligatured. As the ligature was tightened the tubal portion of the pedicle was cut directly across by the ligature. I caught the divided portion with the forceps so as to keep it for a short time under observation; but the occurrence did not alarm me, nor did I expect that any further ligature of the tube would be necessary. The division of the Fallopian tube by the ligature often happens when the operation is performed during the acute inflammatory period, and I have never known any bad result attend the accident. The reason of this we shall see later on. The remainder of the base or pedicle was securely tied, and the tumour above cut off with scissors. On the left side the tube and ovary were involved in the surrounding adhesions, but were both fairly normal in size and consistency. These were removed at the same time, because it has been found that if the uterine appendages of one side have been removed for inflammatory disease the same disease is apt to return on the other side, and this occasionally within a short time after recovery from the original disease and operation. It is therefore judged unwise in these cases to allow the patient to run the risk of early recurrence and a second operation. Whether in every case of inflammatory origin this practice is sound or not may still be considered an open question, but the balance of general opinion and experience is in favour of its soundness. The pelvis and abdomen were now well washed out with hot water, the bleeding from the separated adhesions being somewhat profuse. A drainage-tube was left in Douglas's pouch, and the abdominal wound was closed with silkworm-gut sutures.

Now let us turn to the specimen removed. There is much more to be learnt from this than is involved in its relation to the operative proceedings already described. You will see it is a mass of considerable bulk, as large as a boy's fist, which in both size and shape it roughly resembles. It is not easy at first to differentiate the structures composing it. Here, however, is the Fallopian tube, the cross section of which (made by the silk ligature close to the uterus) is quite as large as a threepenny-piece. If we look closely at the cross section we shall see that this increase of size is caused solely by the swelling and enlargement of the walls of the tube, its lumen here being undilated. Furthermore, look as closely as you will, you will yet fail to see any vessel of considerable size divided. This explains the absence of serious hæmorrhage at the time of operation. The vessels of the Fallopian tube itself are always small in size. Now, if we trace the tube outwards, we shall find it increasing in size, and what should be its fimbriated extremity lost on the globular and thickened broad ligament, as the ball of the thumb may be said to be lost in the palm. Here is the abscess, not so much in the tube, though it is partially in the tube, as beneath the adhesions which have welded the outer extremity of the tube to the altered broad ligament. In many cases the abscess invades the ovary itself and is strictly tubo-ovarian, but in this case the ovary, as you see, can be entirely separated from the under surface of the greater bulk of tissue, leaving the abscess strictly limited to the Fallopian tube and broad ligament. I have divided the wall of the abscess just where the outline of the tube is lost and pus is freely escaping. The wall is thin; it might easily have ruptured here a few days later. But what is all this tissue, nearly as thick as the palm of my hand—this,

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which is neither tube nor ovary—this, which you see has been cut across in a line with the cross section of the tube? This is none other than that fold of the broad ligament which in its normal state is semi-transparent. Now it is quite half an inch in thickness, and is traversed by large vessels almost as big as the radial. It is therefore this portion of the base or pedicle which needs and receives most careful ligature by the surgeon. Here, then, is the parametritis or cellulitis of the old authors still existing, coexisting with the salpingitis, breaking down into pus at the confluence of the two, so that it is difficult to say whether the abscess belongs more to the tube or more to the broad ligament. Should I have found the same condition if the patient could have waited safely to a later date? I think not. The abscess would have been larger than it is. It would probably have distended the tube to a greater degree than is now the case, but much of the swelling of the adjacent tissue would have disappeared In other words, as I have written elsewhere, the parametritis undergoes resolution; the perimetritis or salpingitis too often does not. On the other hand, it is of course possible that the abscess might continue to invade the cellular tissue. In this case the late pathology of the affection might differ considerably from its early stage, and it is because the pathological sequence is hard to retrace after repeated abscesses have formed and burst into the vagina, bladder, rectum, or externally, that the pathology of a recent case like this is so much more instructive than that of one of long duration. Even in chronic cases, however, the main seat of mischief has often been found to be distinctly tubal.

Finally, let us criticise the operation in the light of the specimen before us. Notwithstanding this mass of morbid tissue, which at first sight looks so full of irrecoverable disease, was the operation necessary? I am desirous of giving every credit to the policy of caution and non-interference, and wish to examine this question impartially, as if the work I have done myself had been done by a stranger. I am ready to acknowledge that all these changes we have noticed are undoubtedly inflammatory; that, with the exception of the abscess itself and the obliterative adhesions of the fimbriated end of the Fallopian tube, all the other pathological changes might absolutely disappear with time, leaving scarcely a trace behind them. Why, then, was the operation performed? You will remember that tubal abscess was diagnosed, and that this was already causing distinct symptoms of local peritonitis. Under these circumstances the operation was performed for two reasons: (1) to save life, and (2) to bring about a speedy recovery from the disease. I will consider these reasons separately.

First, to save life. Let me tell you of a tragic incident which happened in my practice a few months back. I was telegraphed for by a surgeon living some hundred miles away to see a patient of his who was seriously ill. The place was rather inaccessible, and I could not arrive at my destination until about midnight, having to post the last few miles of the journey. We saw the patient on my arrival. The physical signs in her case were almost a counterpart of those which I have described as present in the case before us; the symptoms were decidedly worse. Peritonitis was undoubtedly present, but there had been no vomiting for several hours, and the patient stated that she was in less pain than she had been. The history was an acute one of but little more than a week's duration. Her temperature had reached 104° F. There was no difficulty in diagnosing acute inflammatory disease of the uterine appendages on one side, with probable pyosalpinx. Immediate operation was advised, and after some consultation it was decided to carry this out early in the morning so soon as the necessary arrangements could be made. When we met a few hours later the patient was manifestly dying, her death taking place about half an hour later than the time agreed upon for operation. In this case intra-peritoneal rupture of the abscess had probably taken place, most likely before I saw the patient, for in cases of perforative peritonitis, especially when morphia has been given, the last few hours of life are often strangely free from marked symptoms, and the death appears to be one of sudden collapse. Similar cases are, unfortunately, by no means rare. Dr. Boldt of New York has recently reported some interesting and instructive examples of this disease in the *American Journal of Obstetrics* for March. The history of one of these cases is exactly similar to that which I have just related, and the fatal issue was as sudden and comparatively unexpected. The danger, then, of sudden death from pyo-salpinx is a real one—one that needs reckoning with while there is time; and it is no stretch of imagination to regard the operation for the removal of tubal abscess as one of direct life-saving importance. Doubtless it is only in the minority of cases that the abscess bursts into the peritoneal cavity, causing fatal peritonitis. But the danger of this is an unknown danger in every case. You see at once the necessary consequence: that *every case of pyosalpinx justifies operative interference*—not necessarily in all cases removal of the appendages. What is right in the practice of one surgeon may not be so in another, and sometimes the operation is full of difficulty and danger. But it certainly justifies abdominal exploration, evacuation of the pus, and, if possible, removal of the parts affected.

Side by side, however, with the purpose of saving life, another purpose only second to it in importance may well actuate the surgeon—namely, that of ensuring a speedy recovery for the patient. When life is not directly threatened by a purulent salpingitis, what happens? Adhesions form around the abscess, and when it bursts the pus finds its way into one of the natural cavities of the pelvis—the vagina, bladder, or bowel,—or slowly comes to the surface externally. What is the duration of these cases? It has often to be measured by years, and three years from the date of onset to the date of recovery has been frequently used by by gynæcologists as a fair average computation of the time involved by the natural course of this disease. The abscess is by no means always single. It is very often bilateral, and when the inflammation is severe secondary abscesses are apt to form like those around the knee-joint after purulent synovitis. In a case which interested me greatly several years ago, and of which I took careful drawings, a large abscess of the tube itself was accompanied by two separate abscesses of considerable size just beneath the peritoneum. All such cases, if not fatal, must necessarily run a very protracted course And it is this weary, anxious, painful time of chronic suffering which the operation of removal can abolish in the best and most perfect manner. If all goes well in the case we have been considering, how soon may we expect her to recover? In three weeks she will be convalescent; in six or eight weeks she will probably be doing her usual household duties at home.[1] This is surely a development of the "healing art" for which we may all be thankful, and none more so than the woman who suffers and the surgeon who ministers to her recovery.

THE TREATMENT OF SCROFULOUS GLANDS.[2]

BY FREDERICK TREVES, F.R.C.S.,
SURGEON TO, AND LECTURER ON, ANATOMY AT THE LONDON HOSPITAL.

IN the history of medical literature there is no more remarkable feature than the intermittent conflict which has been active for centuries around the terms "scrofula" and "tuberculosis." These terms have presented themselves at one time with a brilliant individuality, and at another have become blurred and lost beneath a cloud of mere verbiage. It has been shown at one period that scrofula and tuberculosis are identical conditions, and at another that they are fundamentally unlike. It has been demonstrated that both disorders are due to a neoplasm, to a septic change, to an infection, to an inherited diathesis, to a purely local process. Scrofula and tubercle have each played the part of Dromio in a pathological "Comedy of Errors." The progress of any knowledge of the subject has been obscured by theories and obstructed by conflicting statements, and in the mouths of men "tubercle" has been from time to time an untranslatable word. A recent German author has written the literary history of tuberculosis. The subject has absorbed 500 closely printed pages; and while the work contains a record of many brilliant scientific achievements, it is concerned chiefly with the handling of a once simple matter, rendered huge and unwieldly by mere flatulent discussion. Unfortunately this long period of scientific doubt has had a serious influence upon the treatment of strumous disease. Those who, on the one hand, have urged that

[1] This expectation was realised.—J. W. T.
[2] A paper read before the Harveian Society, April 25th, 1889.

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scrofula is due to a tubercular process of a kind of which acute miliary tuberculosis is the finished type have discouraged all local modes of treatment on the ground that local measures cannot influence a constitutional disease. They have maintained that the meddling with strumous deposits has led to a more general infection of the body, and that an operation upon a scrofulous subject has little prospect of being surgically complete. On the other hand, it has been asserted that strumous manifestations are essentially local, that they may remain local from first to last, and that they are amenable to actual cure by no other than local means. It is necessary at the outset to make clear the position taken in the present paper with reference to these two attitudes.

All scrofulous manifestations are due to the tubercular process. It is true that in all the tubercle bacillus has not been uniformly detected; but in connexion with this point it has yet to be shown what part the bacillus plays in the process, what local conditions influence its development, to what extent it is essential to all stages of the change, and what is the possibility of its remaining undetected. The tubercular process is an inflammatory process of a peculiar type, and in the production of its special features more would appear to depend upon the pre-existing state of the tissues than upon the exciting cause of the inflammation. Injuries of precisely equal degree produce in one child simple synovitis, and in another strumous disease of a joint. It may be said that the phthisical lung, the white swelling, the carious spine, the tubercular testicle, and the scrofulous gland in the neck are all due to the same process, modified only by locality. Such diseased parts may as reasonably be termed tubercular as simple pneumonia; traumatic synovitis, acute orchitis, and the enlarged gland from a sore heel are classed as inflammatory. There is in the tubercular subject a certain tissue disposition as a rule. In the strumous this textural weakness is met with in individuals possessed of fairly defined physical characteristics, the heirs usually of certain hereditable "points," or the subjects of certain intangible weaknesses which place them in the vague category of the "delicate." Their grosser features are shown in peculiarities of the blood and lymph circulation, in a disposition to certain inflammatory states, notably to catarrh, and to other tissue habits which need not here be specified. The main naked-eye feature of the scrofulous process—so far especially as the glands are concerned—is the production of caseous matter. Caseation is very rarely indeed met with in chronic adenitis, except as the result of struma. In the latter condition it is almost constant when the disease follows a typical course. The term "caseous deposit" is frequently employed, and the fresh section of certain strumous glands gives some colour to the expression. In a strict sense, however, there is no deposit. The caseous gland has been the seat of a chronic inflammation of a very low type. Circumstances, which concern mainly the state of the blood circulation and the lymph current, have caused the inflammatory products to remain unabsorbed. These products, severed from all vascular influence, have undergone the passive physical change known as caseation. The cheesy mass is absolutely non-vascular. It can experience no further vital changes. It is little other than a foreign body in the substance of the gland. It may in time, by a simple chemical process, become calcareous, and in such condition remain for an indefinite period harmless. It may become surrounded by an area of healthy inflammatory action, and, being thus isolated and encapsuled, may, like other sequestra, be rendered innocuous. Both events, however, are rare. As a rule, the caseous nodule plays the part enacted by other foreign bodies. It excites a suppurative inflammation in the tissues which surround it, and the pus thus produced makes for the mass a way to escape. There are no grounds for stating that the cheesy deposit itself "breaks down into pus." An inert, non-vascular, helpless mass of débris cannot exhibit the phenomena of suppuration. It is a sequestrum; it imitates the career of a fragment of necrosed bone; and as a dead tissue it is ultimately cast forth from the body when the abscess which surrounds it has made its way through the skin. A gland, therefore, which is the seat of caseous change has within itself little prospect of recovery. It may remain quiescent for an unknown period, but the probability is that it will suppurate.

The treatment of scrofulous glands involves many phases and many difficulties. Although it cannot now be said, as Malcolm declares in "Macbeth, that struma is "the mere despair of surgery," it is still a fact that the disease may withstand every art which modern surgery can ply. The larger proportion of the cases, however, yield readily and most kindly to local and general measures, and even when the patient is "all swoln and ulcerous, pitiful to the eye," it is possible to claim for surgical treatment a more than occasional cure.

The *general treatment* of a case of scrofulous gland disease may be very briefly considered under the following heads:—

1. The patient should be placed under the best hygienic conditions, and in a large proportion of hospital cases this is the main circumstance in the treatment. Special benefit attends a long residence on the sea coast. Those places appear best suited for strumous disease where acres of seaweed lie exposed to the sun at low tide. Patients will often improve rapidly at Margate who have experienced no benefit from a stay at Brighton. It is well if the winter can be spent in some warmer climate, such as is afforded by the Riviera, and the summer in some suitable town upon the English coast. Among foreign health resorts Kreuznach deserves mention. Cases of widespread gland disease of a low grade improve there, and the same may be said of glands which are suppurating extensively. The place is, however, depressing, and patients who have resided there speak of their stay in Kreuznach with an air of melancholy.

2. A large proportion of strumous patients possess a decidedly feeble circulation, which is shown by the bluish extremities, the growth of fine hair upon the limbs, the coarseness of the subcutaneous tissues, and the frequent occurrence of chilblains. Such patients present a distinct type of the scrofulous physiognomy, and good illustrations of that type are to be met with in the sodden-looking, purple-faced, clownish children who are now and then seen shuffling their chilled limbs in the ranks of a charity school parade. Such individuals require to be properly clad, and need to have the skin covered from the neck to the ankles and the wrists with wool.

3. Of the diet of the subjects of gland disease nothing need be said; and in the matter of medicines there is little beyond the well-worn circle of iron, arsenic, quinine, and cod-liver oil. Iodine, in the form of Kreuznach water, appears in many instances to act with distinct benefit. The very general administration of the syrup of iodide of iron partakes rather of the nature of a rite than of a serious feature in treatment, and probably ranks in value with the royal touch. I have not been able to ascribe any certain or specific advantage to the use of sulphide of calcium.

The local treatment embraces the following points:—

1. Any disturbance of the periphery whence the affected glands derive their lymph vessels must be dealt with as a matter of the first importance. Cases of primary infection of the cervical glands are exceedingly uncommon. In the great proportion of instances a chronic inflammation is induced in the gland by some trouble active in the area from which the lymphatics concerned arise. Many cases of strumous disease commence as a result of the pharyngeal catarrh or sore-throat incidental to certain of the eruptive fevers. Common causes of disturbance—so far as the cervical glands are concerned—are enlarged tonsils, scrofulous pharyngitis, affections of the mouth and teeth, coryza, ozæna, otorrhœa, phlyctenular ophthalmia, and eczema of the scalp. It is of little avail to attempt the reduction of an enlarged gland if an inflammation of its substance is maintained by neglected caries of the teeth or persistent sore-throat. If it be recognised that the glandular disorder is secondary, it will be obvious that the first local measure in the treatment of the case must be directed against the primary local cause. To blindly paint a gland with iodine while the eczema of the scalp which primarily induced it is left to flourish is to waste a valuable drug.

2. Specific local applications to the glands, as distinguished from the common applications in general use in surgery, have met with but discouraging success. Iodine paint is probably in nearly all cases harmful. Its reckless use is a surgical mystery, and its employment is of interest as a relic of the customs of a bygone age. Ointments often appear to have some good effect, and the benefit that attends them depends possibly more upon the rubbing than upon the composition of the unguent. Compresses of seaweed, of Kreuznach water, and of sea water act obviously as cold applications, but it does not appear that they can claim any advantage over the simple water dressing. The gland should be protected from all irritation, and from fluctuations

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of temperature. These ends can be met by the use of a slender silk scarf.

3. The most important local measure consists in giving rest to the part. Rest is a primary factor in the treatment of all inflammatory conditions. The disregard of this simple means is often forcibly illustrated in the treatment of the strumous neck. A patient with an inguinal bubo in a state of suppuration is not allowed to walk, and the subject of inflamed glands in the axilla is not allowed to use the arm. Yet a child with an identical affection of the cervical glands is permitted to keep the neck in almost incessant movement. The neck of a child is seldom at rest, and the obstinacy of glandular affections of the part, and of the sinuses that result therefrom, is certainly due in very great measure to the fact that the movements of the neck are in no way restrained. The neck may be kept at rest by a simple home-made stock, or by the wood-wool collar used by Mr. W. Knight Treves at the Margate Infirmary, or by the special splint I described some years ago.[2] In children or adults with long hair this splint may be so worn as to be unobserved. Of the good effects of the treatment by rest I can speak in emphatic terms, especially in the earlier stages of the disease, and in cases where suppuration is threatening. The measure of the good result may be estimated by comparing cases of inguinal gland disease treated by rest with an equal number treated during unrestrained movement of the limbs.

4. The remaining point concerns the operative treatment of gland disease. A large proportion of the cases yield to the general and local measures already described. A not insignificant residuum remains in which operative measures have to be considered. These cases include such as have resisted a milder treatment, such as are deliberately progressing, and such as are in some stage of suppuration. Into the physical characters of the gland which will at some time or another demand operation it is out of place to enter here. It must be allowed that the caseous gland is—except in the rarest instances—hopeless, and that neither climate, nor drugs, nor splints, nor local applications will cause the mass of dead tissue to disappear. The prognosis is probably on a precise level with that in bone necrosis. When once a sequestrum has formed, it is not hasty to assume that it will be separated, and that the tissues will not resume their normal quiet until the dead matter has been got rid of. It is possible that a fragment of necrosed bone may become encapsuled and rendered for an indefinite time inert; but in advising treatment surgeons speculate little upon that possibility. Many of the operations performed upon scrofulous glands may be at once disposed of. The treatment by crushing, by solvent or irritant injections, and by the seton, may be characterised as bad. A scarcely milder criticism may be passed upon the method of treatment by cautery puncture, which I was indiscreet enough to advise in 1882. I still believe this method to be the best for evacuating pus situate in the substance of large glands, provided that no more radical measure is intended. Glands which have been treated by cautery puncture have become shrunken and have disappeared, but the measure is of very limited application and is uncertain. The removal of a diseased gland by scraping out its softened substance with Volkmann's spoon and applying the actual cautery to the wall of the resulting cavity is a procedure which is applicable to certain cases only. It cannot claim to be regarded as a general measure. It should under no circumstances be employed in instances where the skin is still sound. It is of great value in cases where suppuration has occurred, where a sinus persists, and where it would be difficult or impossible to remove the relics of the diseased gland with the scalpel. The scraping should be complete, every trace of disease should be removed, the cavity left should be dressed from the bottom, and the neck should be kept absolutely at rest during the healing process. An unsightly scar is apt to result, and it is not unusual for the cicatrix to break down once or twice before it finally heals. Operations with Volkmann's spoon are, in the case of large gland tumours, very commonly incomplete, and have to be many times repeated. When the depths of the neck are invaded with the spoon the operation must certainly be classed as dangerous. Excision of strumous glands offers the simplest, the safest, and the most certain method of treating this obstinate affection. The operation is in accord with the primary principles of surgery, is definite, and is attended with admirable results. Recent improvements in our knowledge of the treatment of wounds have rendered the operation possible, and with Mr. Treves of Margate rests the chief merit of carrying the measure into actual practice. In favour of the treatment by excision the following points may be urged: the glands are completely and cleanly removed; the wound is an incised wound; the resulting cicatrix is thin, fine, and white. If the case be dealt with early, it must be further pointed out that the local spreading of the disease from gland to gland is arrested, the mass may be removed through a simple incision before suppuration supervenes, an unsightly and characteristic scar is avoided, and the wearisome period of the expectant treatment is replaced by a measure which can claim to be final. Although glands can be removed at any period by excision, it is needless to say that the operation is the easier the earlier it is performed. The number of the glandular swellings offers no bar to the excision. From one patient I have removed eighty-four glands, all of which were caseous, while not a few were suppurating. The sooner the operation is performed, the less extensive is the area involved and the less conspicuous is the scar. The wounds should follow as far as possible the natural lines or folds in the skin of the neck, and should be horizontal rather than vertical. An incision made in the natural cutaneous line at the level of the hyoid bone may lead to a scar which becomes actually invisible. The gland should be *cut* out, not *torn* out. In the treatmert of the resulting wound stress may be laid upon the following details: All bleeding must be well arrested. The wound must not be washed out by too strong an antiseptic solution. The edges of the incision should be very carefully adjusted, and maintained in position by sutures of silkworm gut, which are removed on the fifth or seventh day. No drainage-tube should be employed if it can be avoided; if the use of one is inevitable, it should not be retained for longer than from twenty-four to forty-eight hours. The part should be dressed with sponge only, and should be subjected to sufficient direct pressure to obliterate the "cavity" of the wound. The neck must be kept absolutely rigid for not less than ten days; and to this rule no kind of exception should be made. It is impossible to carry out the two last-named propositions if the patient has greatly enlarged tonsils. For no measure which has been employed for the treatment of the strumous neck can such excellent results be claimed as attend upon the simple excision of the glands. Considering the grave complications attending the disease, the tedious path it follows, and the disfigurement it leaves, it may be permitted to regard this operation as not the least of the improvements in modern surgery.

Wimpole-street, W.

[2] THE LANCET, June 5th, 1886.

AN ESSAY ON THE

FUNCTIONS OF INDIFFERENT CELLS IN THE HUMAN ORGANISM.

BY JAMES DICKINSON.

IN the human organism, the bulk of which is made up of highly differentiated elements, there exist certain elements which show no differentiation whatever. These amœba-like cells retain even that power of movement from place to place which a cell first forfeits as the penalty of specialisation. They have a wider anatomical distribution than any other cells, either aggregated in masses of lymphoid tissue, or forming the corpuscular elements of circulating fluids, or, as errant leucocytes constituting essential though inconspicuous features in the minute anatomy of all tissues. They are called by various names: in the blood they are called white blood-corpuscles; in the lymph channels, lymph-corpuscles; elsewhere, leucocytes. What definite share these elements possess in the working of the economy is a question which, to judge from the records in some leading text-books, has not much attracted the attention of physiologists. Whatever challenge they have undergone has been exclusively in one or other of their several characters, and even in such instances their functions have been but slightly investigated. A muscle-cell is a muscle-cell all the body over, and, no matter where it occurs, is recognised as an element in a peculiar tissue, having always the same peculiar

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function. The amœboid elements I refer to are as distinctive (in contrast with the specialised elements which make up the bulk of the body) as the elements of any tissue. But they have not received recognition as being themselves elements of a tissue—a tissue presumably performing the same kind of function in all its distribution just as the tissues constituted by muscle-cells, cartilage-cells, or nerve-cells perform respectively their own peculiar functions wherever we may find them.

It may safely be assumed that undifferentiated cells or leucocytes have a normal function in the body, and also that it is worth while to inquire what that function is. It cannot be conceived that there exists in the body a tissue which has not a function, nor surely a function which is unworthy of study. Leucocytes differ from amœbæ in this, that they are not independent organisms but items in a community. In this cell community it is seen how each cell lives its own life in a way that is useful to the rest, the difficult ideal being attained of serving its own and its neighbours' ends and the whole community at one and the same time. Is the leucocyte an outcast in this ideal community? Is it the one selfish individual, living only for the indulgence of its own habits? If so, surely it must have perished in the long struggle for existence, and have paid the inevitable penalty that waits on all products of evolution for which Nature in her further developments has no need. Evolution as it concerns organisms in their mutual relations is but a gross naked-eye result of a process whose true seat is in ultimate elements. As regards the gross result, it is known that an organism epitomises in its development the whole course of development from the primitive unicellular organism up to its own point in the scale. Meanwhile within the organism is being epitomised the whole course of cell-evolution through the various stages of cell-differentiation. But in any particular organism only those stages of cell-evolution obtain permanence which are of use to that organism. Accordingly we may not only rest assured that leucocytes have a function, but we may turn confidently to their peculiar amœba-like characters for an explanation of their function, and seek in their very independence and apparent selfishness that usefulness to their fellows that justifies their existence in a community in which every cell executes a special task in the service of the whole. Moreover leucocytes, which are the representatives of the primary undifferentiated stage of cell-evolution, not only obtain permanence in the mature human organism, but form such a considerable proportion of the whole cell community as to suggest the conclusion that their function is one of great importance. For it must be remembered that lymphoid tissue, made up mainly of undifferentiated elements, has a most extensive distribution, being diffused throughout the whole alimentary and respiratory tracts, forming the main constituent of the so-called lymphatic glands, and being largely present in the red marrow of bones and in the spleen; that every artery, vein, and lymphatic vessel is a channel through which a constant stream of undifferentiated elements is passing; and, lastly, that among the elements of every other tissue isolated cells of this type are always found wandering. Not only have these amœba-like elements been treated with neglect during their lives, but their dead bodies, under a new name—pus,—are often despised and hated, or at all events regarded with suspicion. Because they are concomitants of danger they are treated as the cause of it. The same reasoning might with equal justice be used to bring dishonour upon soldiers that have died in defence of their State. That leucocytes are deserving of more consideration than they get, living or dead, it is the object of this paper to show.

There occurs in Professor Michael Foster's Text-book of Physiology (1884 edition) the following statement: "While we are able to attribute to the numerous red corpuscles an important respiratory function, we are unaware at present of any special work carried on by the scantier white corpuscles while they are being hurried along in the blood current. As far as our present knowledge goes, they seem to tarry in the blood only on their way either to be broken up or to pass into the tissues." The qualification "while they are being hurried along in the blood current" might lead one to infer that the above confession of ignorance did not apply to leucocytes that were *not* "being hurried along in the blood current." However, nowhere else in Foster's Text-book can I find any suggestion as to the functions of these cells, and I am forced to regard the statement as containing all his views in the matter. The concluding sentence quoted is apparently intended to convey two alternative suggestions—namely, that the destiny of the white cell is either to be broken up or to pass into the tissues. It seems on the face of it highly improbable that there exists in the body a tissue whose *function* is to be broken up. Death usually does not begin till function ends. However, Foster presses the matter further, and refers to the probability that it is by the death and splitting up of white blood-cells that the fibrin factors are set free in shed blood. He then offers the speculation that by a precisely similar process fibrin factors are habitually discharged into normal circulating blood, the white cells being then broken up to provide food for the tissues. It certainly would be a satisfaction if we could turn to useful account some of the results that have been obtained through so much toil and controversy in the investigation of the phenomena exhibited by shed blood in coagulation. The speculation Professor Foster offers is clearly an effort in this direction. But the speculation has the striking objection that the only function it provides for the white cells is a post-mortem one. During life it seems they have nothing to do but, like sheep in a pasture, to fatten and await the appointed hour of slaughter. We are to believe that Nature is at pains to create these cells and endow them with the precious energy called life, not with a view to making use of that energy, but simply with the object of using their dead frames when the energy has gone out of them. Food has got to be supplied to them during the term of their existence, and its potentialities dissipated as so much absolute waste. It is far from being denied here that, after the white cells have lived their life and done their work, portions of their worn-out carcases may be reutilised in the body as nutriment. That all cells are liable to a similar fate is, indeed, part of the conception afterwards to be unfolded. But it is hard to believe that Nature, the economiser, would create any cell for that purpose alone. However, it is not for man to dictate limitations to her, so let us ask the question, Is there any proof that the white cells are specially charged with this post-mortem function? Not a shadow of proof. Professor Foster himself makes the admission that the most careful examinations have failed to show that fibrin, or the essential fibrin factors, are normally present in circulating blood. Their presence, though it would be no proof of the theory under discussion, would at least be consistent with it. Their absence absolutely negatives it, unless we make the unwarranted assumption (as Foster suggests) that these substances, as fast as they are freed, are made away with in some mysterious fashion. We do indeed, by the help of the word "intra-molecular," endeavour to understand how the tissues hide away oxygen for use at leisure in the process of respiration. Here, however, we have good reason for the conception. But we should not, in the absence of the very strongest evidence, be justified in supposing that such complicated molecules as that of fibrinogen are in the same fashion habitually hidden away in circulating blood. Much less should we be justified in resorting to such a conception because a highly improbable and absolutely unsupported theory requires it.

There is no course but to reject the first of Professor Foster's suggestions with regard to the functions of leucocytes (in their character of white blood-corpuscles). Let us turn, then, to the second. But this is not a suggestion as to function at all, for it amounts to no more than the statement that white blood-cells become errant leucocytes. In the pursuit of the matter the Professor contents himself with just referring to the migration and aggregation of leucocytes in inflamed areas, and so leaves it. Whether some useful end may not be aimed at by this very migration and aggregation is a question which he might have asked himself with a view to generalising from the answer as to the usefulness of leucocytes at all times. It is a question which has been debated by pathologists, and many think satisfactorily answered. But it does not seem to have occurred to anyone that in that answer, if correct, must lie the secret of the habitual functions of leucocytes. Pathological phenomena are merely illustrations of physiological truths. A physiologist applies an irritant to the cut end of the vagus nerve in a rabbit, and, getting a certain result, deduces conclusions as to the function of that nerve. It is merely a case of altering the conditions under which a function is performed, and getting, in consequence, an exaggerated manifestation of the function. The process of inflammation is just such a simple experiment. What happens is this. An area of

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tissue sustains damage. Thereafter white cells coming into the damaged area, in possession of all the powers proper to them and thinking only of their duties, begin to behave in a striking and noteworthy manner. Evidently this is in response to an alteration caused by the injury of the surrounding conditions into which the white cells enter. Do they leave their proper functions and engage themselves in a manner new to them? No more than, in the physiological experiment just mentioned, those ganglia in which the vagus nerve ends act in an altogether new fashion when the condition transmitted through the vagus suddenly alters. In both, I apprehend, there is produced an exaggerated manifestation of normal function. Every cell knows its own work and no other. It occupies itself with this all its life, and, slave to its conditions, accomplishes it with more or less success as these conditions vary. It is like an "automatic" musical instrument with one tune, whose governing conditions are transmitted, let us say, through a handle. The tune may be variously modified through alteration of those conditions, but as long as the instrument can work it will produce that tune and no other. The cells of a tissue perform the only tune they know in a manner varying as the governing conditions vary. If those conditions suddenly allow (or compel) them to perform with more energy than usual, then is an opportunity for us to detect what before may have escaped our observation; then is the time to record their tune, so to speak; and when conditions revert to the normal, we may know that the same tune is in performance, though haply inaudible. White blood-cells entering a damaged area forthwith exhibit remarkable activity. The fair inference is, that in that area some condition of restraint has been removed or some necessary condition more freely supplied enabling them to carry on their functions with unwonted vigour. If it can be determined what precise work the leucocytes accomplish, or at all events aim at, in inflammation, I shall venture, on the grounds above given, to deduce from this particular instance conclusions as to the general uses of leucocytes in the economy.

Views of inflammation take one of two tendencies. One is, to regard it as an effort of repair directed against the effects of an injury (including in the word injury whatever morbid cause is competent to evoke inflammation). The other is to regard it as a true effect of injury, requiring to have measures of repair directed against itself rather than having a beneficial tendency. The latter view aims at as purely physical an explanation as possible. But undoubtedly every vital phenomenon is a physical consequence of certain material being placed under certain conditions, and to demonstrate the physical *rationale* is not to come to the end of the matter. For every vital process in the body has an aspect which is not physical but purposive, and the object aimed at throughout is the conservation of the organism. The success with which this object is attained is the criterion of health, and in any disease whatever I believe we may see the same efforts towards the same end, however futile. That inflammation is a sequence to injury inevitable and explicable on physical grounds is quite consistent with its being a physiological effort of repair. A physical mechanism underlies all the functions that make up the economy, and the astonishing thing is that so marvellously is the mechanism of the body balanced that any derangement whatever entails by still physical mechanism compensative consequences. So, though it be right to refer the phenomena of inflammation to a "molecular change" in the wall of the bloodvessels, it is equally right to regard the process as a function responding to a need left by injury. What that need is and how inflammation copes with it are suggested in the following passage, taken from Charles Hilton Fagge's Text-book of Medicine: "It seems to me that when a part is injured, the removal of damaged tissue elements is an essential preliminary to the work of reconstruction and repair. I have for years past ventured to teach that the emigration of leucocytes in inflammation serves this especial purpose of clearing away such portions of injured structure as are no longer fit to remain. Leucocytes have been seen to take up granules of vermilion, milk globules, and particles of myelin when these substances have been placed in their way. May we not assume that they can also remove damaged cells or fibres?" That they not only can but do effect such removal is proved by the fact that the separation of sloughs is effected by their agency or that of their immediate products, which eat through the slough's attachments, and substitute themselves instead. Fagge, in adducing this fact, shows that it was observed forty years ago by Professor Goodsir. We cannot deny inflammation the merit of serving a useful function in this case. The need is obvious, and migrated leucocytes undoubtedly cope with it. Surely this is but a magnified example of a function inflammation is designed always to perform. Suppose, instead of a visible mass, just a few cells are rendered useless beyond recovery. Is it not extremely probable that the separation of irreparably damaged cells from the reparably damaged cells to which they are connected is as essential for local recovery as is the separation of an obvious slough for restoration of the part to which it is connected? And if it be so, one does not see how the separation is to be effected either by the damaged cells themselves or by their less damaged neighbours. On the other hand, it is easily seen how the separation may be effected by the aggregation of leucocytes in the part, for the properties of these cells are just such as to qualify them for the duty. It is a matter of observation that leucocytes seize upon all material that submits itself, flowing round inert particles in the manner of an amœba, carrying them off, and subjecting them to a process of intra-cellular digestion, or depositing them in a new situation. This rapacity has earned for them the name "phagocytes." Again, there is a fact which Fagge mentions—namely, that infiltration of leucocytes has always for its concomitant the disappearance of material that occupied the situation before their ingress. The material is said to be "absorbed," but the expression is, in this case and many others, only a vague equivalent for "taken up by leucocytes." This is certainly what it means in the connexion about to be referred to.

(To be continued.)

REMARKS ON THE MAYBRICK TRIAL.

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MANY questions of interest were raised at the Maybrick trial; space will allow only two or three to be discussed here.

Mr. James Maybrick, a cotton merchant, aged fifty, died on May 11th, 1889, after two short illnesses, the cause of his death, in the opinion of Dr. Humphreys and myself, who attended him, being arsenical poisoning. His wife, a young, highly-educated, and fascinating woman, was charged with murdering him, and, after a trial lasting seven days, was convicted and sentenced to death on Aug. 11th, the sentence being ultimately commuted to penal servitude for life. "What were the symptoms displayed by the deceased which caused you to come to this conclusion?"—i.e., of death from irritant poisoning, most probably arsenic—was a question asked me by the coroner. My reply was: "Very urgent and continued vomiting, diarrhœa, straining, incessant thirst, a sensation as of choking, gradual failure of the circulation, as shown by the white hand, followed by rapid sinking and early death."

I saw Mr. Maybrick for the first time on May 7th. The vomiting, which had been so excessive that for an entire day not even a drop of water could be retained, was then passing away and diarrhœa commencing; urination was free; the throat was red, dry, and glazed; there was an incessant attempt to hawk up an imaginary hair; thirst was intense; the tongue was furred; and, though the breath was quite sweet, the patient complained (to use his own words) that his mouth was "as foul as a midden"; there was also great restlessness. Such were the positive symptoms. Negatively, there was neither cramp, conjunctivitis, nor pain in the stomach or abdomen. Beyond the gastritis there was no evidence of disease.

Further facts stated to me were that the digestion had been first seriously disturbed on April 27th, on his dining at a friend's house after attending the Wirral races; that after a few days' treatment he was well enough to go to his place of business, but not well enough to resume his ordinary food, a midday meal prescribed by Dr. Humphreys being sent to him from his home and warmed at his office; that on

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Friday, May 3rd, this food, from having, as he thought, been made with inferior sherry, had reinduced the gastric disorder. That was all. I did not know until much later that Mr. Maybrick had vomited on the *morning* of the races, and that he had attributed this vomiting to an overdose of some aperient medicine. We decided that his illness had been originally caused by *some* irritant food or drink. *What* we could not tell: but we did not suspect intentional poisoning. The first serious question is, whether we ought to have done so on that evidence. I think not. Husband and wife were apparently on affectionate terms with each other. The illness originally commenced, as was believed, away from home, and the symptoms seemed capable of an innocent interpretation. On the 9th I saw him again. His condition was practically the same, with the addition of tenesmus, which had been very bad all night. On the 10th, though he expressed himself as being almost well, the pulse had risen from about 84 to 108, and his right hand was white to the knuckles. On the morning of the 11th he was delirious, and in the evening he died.

I was told for the first time on the 9th that in the middle of April Mr. Maybrick had been able to eat any ordinary food during a visit to his brother's house; that he soon became sick on returning home; that this contrast had been the subject of remark and had been noticed before; that there had been a most serious estrangement between husband and wife; that the wife was known to have been unfaithful; and that just before the illness she had procured many fly-papers. We did not at once take these statements for granted; we tested them very carefully. But while still shrinking from the terrible conclusion that the murder of a husband by his wife was being attempted, we could not help feeling that, if what was stated to us was true, much that had been obscure might be cleared up, and that it was at least our duty to be very vigilant and to surround the patient with efficient safeguards. On this day some Neave's food was examined by me, and found to be pure. On the 10th something was introduced by Mrs. Maybrick into Valentine's beef juice, intended for, but not taken by, her husband; and on the 11th, the day of his death, this was proved to be arsenic. On the evidence thus far obtained a certificate of the cause of death was refused, and Mrs. Maybrick was arrested. One by one additional facts came to light, and ultimately the case stood thus: A gentleman of fairly good general health became suddenly ill on two very definite occasions. Each time he attributed his illness to something that he had taken: the first time, to an overdose of medicine; the second, to some badly prepared food. A few drops of the medicine left in the bottom of the bottle, and a thin scale of the food dried on to a washed-out jug, were found on analysis to contain arsenic. The food was sent to him by his wife; the bottle was accessible to her; similar bottles found at his office were free from arsenic; his wife had expressed her loathing of him, and had very strong reasons for wishing him out of the way; she was known to have prepared an arsenical solution; she was known also to have actually put arsenic into food intended for him; the symptoms and the post-mortem appearances were believed *by all who witnessed them* to be those of an irritant poison; and arsenic was found in his liver, intestines, and kidneys in such amount as to warrant Dr. Stevenson in the belief that the whole body contained nearly a fatal dose at the time of death.

To meet the above serious facts and inference it was alleged by the defence that the symptoms were *not* those of arsenical poisoning, but actually pointed away from it; that the post-mortem appearances strengthened this conclusion; that the patient had been in the habit of taking arsenic, and that what was found in his body might have been a portion of a long antecedent dose; and, lastly, that what was found in his food might possibly have come from a glaze in the pan, though Mr. Davies had boiled distilled water in a similar pan without getting a trace. There was no explanation of how the arsenic got into his medicine, and Mrs. Maybrick herself explained its presence in the beef juice.

The symptoms were in some respects anomalous, and in one respect—the lateness of the onset of diarrhœa—markedly so. Around this question of anomaly an interesting discussion arose. If anomalies are much commoner in arsenical than in other kinds of poisoning, and if in any given case the symptoms are like those caused by arsenic, then the fact of there being anomalies will rather strengthen than weaken the presumption that arsenic did, in fact, cause them. That anomalies *are* common in arsenical poisoning was admitted on both sides. The difference was that Dr. Stevenson did, and Dr. Tidy did not, consider them commoner than in other cases of poison compared with the actual number of such cases, or, as Dr. Tidy stated, "there are infinitely greater numbers of cases of arsenical poisoning than any other, and the result is that the anomalies become more apparent in the case of arsenical poisoning than in any other."

But is this so? The only way of determining it is by an appeal to facts, and no facts in support of the statement were offered at the trial. I had collected for use in court, if required, all the cases of poisoning that had occurred at the Royal Southern Hospital during my nineteen years' tenure of office as physician. They are 102, and not one of them was from arsenic. A similar collection from the reports of *many* institutions would help to settle this question one way or the other. But there is another method. From the number of deaths from arsenical poisoning as recorded by the Registrar-General we can infer the number of cases, as we do in deaths from disease. From the five last published volumes (from 1883 to 1887 inclusive) I have collated the deaths from the commoner poisons in England and Wales during those years. They are as follows: opium, 646; lead, 438; carbolic acid, 332; prussic acid, 132; oxalic acid, 120; strychnine, 106 (and vermin-killer, 59); hydrochloric acid, 90; cyanide of potassium, 74; phosphorus and lucifer matches, 71; alcohol, 66; chloral, 52; arsenic, 51; sulphuric acid, 49; ammonia, 45; nitric acid, 29; salts of mercury, 26. This does not support the statement that "there are infinitely greater numbers of cases of arsenical poisoning than any other."

One of the anomalies was the late onset of diarrhœa. A preliminary remark must be made here. Diarrhœa, as I stated at the trial, had certainly begun on the 7th. This symptom was mentioned to me on that day. I asked to see a motion, and Dr. Humphreys and I went to the bathroom for the sole purpose of seeing a large loose one which had been retained for examination. (We had examined the urine in the bedroom, and had been told that no vomited matter had been saved.) Not only, therefore, was the onset of diarrhœa, though admittedly late, earlier than the defence alleged, but tenesmus *followed*, and did not, as was also alleged, *precede* it. It is as well to remember here also that the patient had had no food whatever on the 4th, and very little on the 5th and 6th, and that directly the stomach became able to retain more food, diarrhœa, though never an urgent symptom, was more marked.

Can any reasonable explanation of this late appearance of diarrhœa, other than the empty intestine, be suggested? A remark made by Orfila and Tardieu in their official report on the death of the Duc de Praslin is worth reproducing here: "L'un de nous a démontré, par des expériences récentes, qu'à l'aide de faibles doses d'un composé opiacé, on parvient à diminuer les vomissements et à en retarder l'apparition, à rendre les douleurs moins aiguës et à prolonger la vie." Now it is a very striking fact that one of the first things done by Dr. Humphreys on the 28th was to introduce a morphia suppository. This was done to allay pain, but one of its effects would be to delay diarrhœa. Again, on the night of May 8th, when called up on account of the tenesmus, he ordered an opium suppository. "Why was not this urged at the trial?" may be asked. I do not know. All I know is that I drew attention to what I believed to be its importance.

Another anomaly was the slightness of the abdominal pain. Had the morphia and opium no effect in causing this? It at any rate was one of the effects (delayed diarrhœa being another) which Orfila and Tardieu say that they produced by giving opium; and as opium was given here, unless we are to suppose that it produced no effect at all, the natural inference is that it produced the effect which it was likely to produce, and which experience had shown that it did produce. It is not certainly known in what form the arsenic was administered, but most likely it was in solution. If so, this also would modify the symptoms. A strong reason for thinking that a solution of arsenic was originally used was that a solution was certainly introduced into the beef juice which was meant to be given.

Another interesting point raised was as to how long after a serious dose of arsenic had been taken it could be easily

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found in the urine. The following question was put by Sir C. Russell to Mr. Paul: "Taking Dr. Humphreys' account of what he did—that he put the urine over the flame of a lamp for two minutes until he brought it to the boiling point,—I want to ask you whether, if a serious, a fatal, dose had been administered within, I would say, a fortnight of that time, there must, in your judgment, have been a deposit shown upon the copper?" Answer: "There must, in my judgment." Then, that there might be no mistake about what was meant, Sir Charles added: "I mean taking the test which Dr. Humphreys described that he imperfectly made?" "Yes." Cases bearing upon this point, where the analysis has been made by competent men, should therefore be valuable. The Duc de Praslin took a fatal dose of powdered arsenic on Aug. 18th, and died at 4.35 P.M. on the 24th of the same month. The urine passed in the night of the 21st contained a little arsenic; that passed on the 24th, none. The analysts were Chevallier, Orfila, and Tardieu; and, commenting on the absence of arsenic on the 24th, the two latter remark: "Nous devons dire que ce résultat négatif n'a rien qui doive surprendre. L'un de nous a signalé depuis longtemps ce fait, à savoir: que l'on peut trouver de l'arsenic dans l'urine à telle époque de l'empoisonnement et ne pas en déceler plus tard." The circumstances surrounding the Duc de Praslin's case, and especially the closeness with which it was watched and reported on several times daily, give great value to the recorded facts, and it is remarkable how many resemblances there are between them and those of Mr. Maybrick's illness. The Duke took poison in the afternoon or evening of the 18th. Vomiting commenced about 10 P.M. on the same day. On the 19th, on leaving a bath, there was one involuntary evacuation of the bowels. On the 20th there was no action, and no pain in the abdomen either with or without pressure, but the extremities were very cold. On the 21st, at 5 A.M., there was still no abdominal pain, no vomiting or retching, very urgent thirst, and the pulse was 80 to 85. In the evening the abdomen was distended and a little painful; no vomiting; no stool; constriction of throat severe. On the 22nd there was neither nausea nor vomiting; there were two stools *following enemata;* abdomen distended and painful to the touch; burning from throat to anus. In the night fainting occurred, and there was complete insomnia. On the 23rd the symptoms were intensified; no stools; no urine. On the 24th death took place at 4.35 P.M. The lateness of the abdominal pain, the late onset and, with the exception of the motion after the bath, very moderate character of the diarrhœa, the absence of cramps and of conjunctivitis, the sleeplessness, the coldness of the extremities, and the long interval between the fatal dose and death, are curiously similar in the two cases. The Duc de Praslin lived six days; Mr. Maybrick eight.

Liverpool.

A CONTRIBUTION TO THE

MORPHOLOGY OF THE SACCHAROMYCETE OF DIABETIC URINE.

BY J. BARKER SMITH, L.R.C.P.

THE case of diabetes which furnished the study of this saccharomycete terminated fatally after a few years, and was that of a young Jewess. The specific gravity of the urine and the percentage of sugar were fairly constant throughout, the former approximating to 1044, the latter to 4½ per cent. It was the appearance of some fusiform particles in the urine under the microscope, these slightly undulated and with a double contour, that invited an investigation which was continued over two years. I conjectured that they might have passed through the epithelium of the kidneys,[1] but it was not until I had grown aerial forms that their history became apparent, and that they were recognised as the broken segments of mother cells or spores, which differed, again, from those afterwards grown by me in not losing their double contour by immersion.

Four phases in the morphology of this saccharomycete may be mentioned:—(*a*) *Torula phase:* Settling like heavy yeast on the bottom of the vessel containing the urine, the aceto-amide reaction with iron increasing; during this period the fungus might be mistaken for a micrococcus or micrococcous form of bacterium ureæ, &c. (*b*) *Mould phase:* Throwing up hyphæ above the surface of the urine or culture solution, the hyphæ being first white, then yellowish or brown, or, under certain conditions of light and culture, pitchy black. (*c*) *Differential phase:* Resting on the bottom of the vessel for several weeks under starved conditions, the vessel containing water only. Both clavate and globular terminal cells may be observed, from which escape smaller round cells without nuclei, but with a few pinkish cells between them. Barrel cells are also present, apparently formed by conjugation. (*d*) *Aspergillus phase:* Growing well on moistened bread, forming a dark greenish grey or canescent patch, which becomes bluish olive green when treated with spirit or ether. This phase is interesting because it is an example of one of the facts which enable us to conclude that the physiology of the larger fungi is somewhat explanatory of that of the smaller. The aspergillus form, for instance, may be traced to a lower or micrococcous form, whilst its extracts exhibit some of the constituents of the larger fungi. This analogy I purpose treating more at length in a future paper; there are numerous interesting developments connected with the simple facts here stated.

The urine evaporated gave a gummy opaque mass, surrounded by crystalline granules of modified uric acid. The ethereal extract recovered by spirit and diluted with water exhibited in a few days hyphæ growing above the solution. A sample of urine acidulated with hydrochloric acid and agitated with ether afforded two layers, the upper one clear and the lower one turbid. The clear layer gave a semi-crystalline extract, containing two organic forms, one subspherical and the other fusiform (débris of mother cells). The turbid layer gave a clear gummy extract, surrounded by crystalline granules and containing three sorts of organic forms, round complete cells, and débris of incomplete cells. The fungus was grown in various solutions, and the cells were found to differ in size according to the culture solution, whilst their shape varied according to position in or out of the culture solution. None of the forms, however, differed so widely as to be indistinguishable. The most constant characters of the aspergillus forms of the fungus are the macroscopic appearance of the patch, the branched hyphæ supporting the spores, terminal hyphæ with constrictions supporting two terminal subspherical spores from a well-marked node or constriction (similar to the basidospores with sterigmata of the larger fungi), submoniliform appearance of other terminal hyphæ, and the double contour of the spores themselves, which contour is immediately lost on immersion in fluid. The spores become very small when grown in citric acid solution, remaining distinct, however, from the common aspergillus of lemons, which sometimes resembles a starved mucor. They grow in a 2 per cent. phosphate of ammonia solution with a somewhat larger percentage of citric acid; also in similar salts with glycerine, sugar, &c.; the mould form eventually becoming yellowish-brown, the brown or even blackish colour not being apparently distinct from the yellow except by quantity or condensation. In this form perhaps only a single central nucleus will be found, the pinkish nucleus becoming clear or of a steely-blue colour on altering the focus, whereas the aspergillus forms often exhibit in their spores two to four nuclei. Bread forms a good culture-bed for these aspergillus forms; they may be kept six months or longer in a chip-box, the spores retaining their vitality—e.g., examination of spores—after six months. Dry: Cells somewhat smaller than a blood-corpuscle; cell wall dark in colour and well marked, an outer halo and an inner pinkish one under altered focus; some with hyaline centres; others containing from three to four rose-coloured nuclei; others, again, with bluish granular contents. Moist: The somewhat oval spores become round; the double contour of the cell wall disappears and becomes evident as a dark line; pinkish nuclei become motile and are extruded as spores; cell contents become larger, but remain clear and homogenous.

SUPPLEMENT TO THE PAPER ON THE FUNGUS OF DIABETIC URINE.

In the study of the fungus of diabetes four phases in the life history of the same plant were selected. In studying other fungi than the schizomycetes, we may select these phases as types, leaving, however, the morphological history of the different fungi incomplete, and not confusing the term *micrococcous* form with micrococcus.

[1] Vide supplement relating to oxalates.

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Torula type.—Examples may be found in the mucus from the evacuations of children suffering from autumnal catarrhal diarrhœa, in which there is a history of cold meat or some article of diet taken twelve hours before. Cells in various stages of development are found, and may be traced through several phases to the more complete endogenous mother cell, whose walls are breaking away to afford exit to the four complete daughter cells. At this moment the endogenous mother cell somewhat resembles those compact cells of four in a group found in myxœdemic and gonorrhœic urines, &c. The micrococcous form of this type is well illustrated by the mucous membranes, or even epidermis, of the gouty and the rheumatic, in their secretions and excretions, or even in the well water contaminated thereby; also by the small pink nuclei from the uvula and fauces, especially before a case of tonsillitis. In a similar way, I am persuaded, may be found in syphilis, recent or remote, those streptococcus germs like small definite specks, under a fifth of an inch, which are supposed to cause it—i.e., not only in the blood about a chancre, but also in the ventricose hair from a patch of syphilitic psoriasis, or, again, in the urine. The urine of gouty and rheumatic patients submitted to cultivation affords a variety of forms which refuse for months to grow in solutions of urea unless sugar is added, whilst growing freely in solutions of uric acid; some of these are often greenish in colour. With rheumatism and gout in view, some early experiences of mine as a fungus eater more than twelve years ago may be mentioned. I had with a companion partaken of fungus (Coprinus atramentarius) at breakfast every day for a week, when I awoke one morning with pain in my right ilium, and later on in the ankles and soles of the feet, which rendered locomotion painful; my ankles were weak, and I was nearly crippled; getting well after taking iron and discontinuing the fungus. My companion after a few days experienced the same symptoms. The experiment was again repeated in both cases, with the same result. Moreover, one of my patients had been a sufferer from apparently rheumatic pains in the calves of the legs, and was always benefited by a short course of iron. Finding he was in the habit of eating uncooked mushrooms, I advised him to discontinue his habit; he did so, and lost his pain, which he had had at irregular intervals for years, and he has remained free from them ever since. Another interesting one-celled fungus was found in the bile-stained urine of a jaundiced patient who had pain under the right scapula, and whose symptoms came on after exposure in a damp meadow in autumn. Its distinctive characters were its bright halo, apparently with ciliæ, its motility, and its small oblong pink nucleus. I think I have seen the same fungus emerging from one of the desmids, and in some cases of pneumonia in children.

I shall not attempt to illustrate the *mould* type, though I suspect some of the forms found in rheumatism and gout would enable me to do so; I will therefore pass on to those resembling aspergillus.

Aspergillus type.—In many cases where there is an aspergillus growing on the ceiling in a corner of a bedroom the inmates will exhibit various forms of irritation referable to the mucous membrane and the skin. Such are conjunctivitis, laryngeal irritation, bronchial catarrh, bladder irritability, and itching papules of the skin, often persisting for months, and especially coming on after measles; troubles of the external ear, and even attacks of epilepsy; also ringworm. A microscopical examination from the different parts affected will confirm the analogy with the aspergillus of damp paper, although we may be left with a suspicion, which is strengthened by our study of the diabetic saccharomycete, that we have in the spores of what we pass as those of bacterium ureæ possibly those of an aspergillus living under other circumstances of growth. Certainly I have sought oxalates in the aspergillus hitherto unsuccessfully; they are found in mucor, as a possible cause of the irritations of mucous membranes in such cases, which often resemble the respiratory dyspnœa and bladder irritation associated with oxalates, but I have not proved that the aspergillus contains them in any form. Of this, however, I am assured: that the larger fungi are explanatory of the smaller fungi, in physiology and in chemical constitution—e.g., the constant occurrence of tyrosine-like crystals, easily extracted by spirit, and cramming the spores of the larger fungi, &c. In poisoning by some of the larger fungi (apart from irritant resins of the russulas or the muscarin of the amanitæ) there is also much to remind one of oxalic acid and cholera. Oxalates do occur in the fungi, not only outside the hyphæ but inside; I attribute the poisonous nature of the puff-ball to this fact as much as to the ripening of the spores, for at the time when this fungus becomes yellow and poisonous, crystals of calcic oxalate crowd the hyphæ. Some of these points were mentioned by me in a letter published in THE LANCET of Aug. 30th, 1884.

An interesting case which has lately come under my care has increased my interest in oxalates, and made me consider another mode of their origin in the body in addition to idiopathic formation and ingress by the alimentary canal—viz., by the lungs,—and this, perhaps, not always wholly immediately, but indirectly through the agency of micrococcous forms. Such an experience is probably unrecorded, as the process known as the platinum process has only lately been in use, and my patient was engaged in working the process as an elegant addition to photographic art. He complained of a cough which he had had for six months, and spat blood for about two months before. He was anæmic, and complained of *general weakness*, *pain in the back*, and over the region of the heart. His temper was irritable. Sometimes he was absent in mind or self-conscious. He had sensations of heat in his head, slight giddiness, and flushing of cheeks frequently. There was no sweating at night or loss of flesh. Physical examination revealed no signs of phthisis; his heart beat irregularly and feebly, and there was a hæmic murmur. The sputa were loaded with small fungus cells, but contained no bacilli. The urine contained abundant minute crystals of calcic oxalate. He had conjunctivitis, which he had also noticed in his fellow-workers. On visiting his dark chamber, brilliant crystals of potassic oxalate glittered like small diamonds everywhere—on the floor, shelf, and bottles. The potassic oxalate is used in the process in hot saturated solution. It may be mentioned that Nägeli found that no fungus grew in oxalate of ammonia and oxalic acid except on the addition of sugar.

Dulwich.

THE HISTORY AND USE OF ANÆSTHETICS IN MIDWIFERY.

BY FRED. W. ALLWRIGHT, M.D., L.R.C.S.I.

(Concluded from p. 1242, vol. i. 1889.)

Chloroform: its mode of administration.—A good remedy will fail in its effects if not properly administered. This truism especially applies to anæsthetics, even in surgical practice, while in obstetrics care and skill are essential to the successful use of them, and out of all proportion to the attention bestowed upon the subject in the text-books. No one can be a good administrator of an agent so powerful as chloroform without a careful study of the chemical, physical, and vital principles concerned. A few of these should be clearly understood. As to the exact nature of the changes which it effects in the cells of the nervous centre it is needless to inquire. It is sufficient to know that the effect is by a direct action upon these cells, according to all authorities, and that the chemical theory of former times, which referred the action to suspended oxygenation of the blood, has been abandoned. Neither is artificial anæsthesia cerebral anæmia, although this state accompanies it. Chloroform belongs to that class of poisons which have an elective action upon the nervous system, selecting certain parts and leaving others alone. A special affinity to the nervous system is shown by the preponderating amount found in it; thus, when the amount in the blood is 1 part, there will be in the brain 3·25 and of chloroform 3·92 parts. The rapidity of the action of chloroform is an important fact. Entering the system through the pulmonary circulation, it passes directly with the blood currents to the nervous centres. In like manner, and with the same rapid action, the system clears itself, and cessation of administration ensures speedy cessation of effect. The fact enforces attention to the importance of intermittence of the inhalation. Paul Bert found that dogs in a mixture of air and chloroform vapour, which required an hour to produce insensibility, invariably died at the end of seven hours. Intermitting administration could be continued indefinitely

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with safety.[1] The residual air of respiration should also be held in mind by the administrator of chloroform. The cumulative action of this agent, of which a great deal was formerly said, is only the additional effect of the amount of vapour contained in this air; in other words, the effect of chloroform will continue to be progressive after the influx of vapour by the tidal current of respiration has been stopped, until all that is in the air of the lungs and bronchial tubes has passed into the blood. The vapour of all anæsthetic agents is heavier than air, and this fact has an important bearing upon the position of the mouth and nose of the patient in relation to the surface from which it is inhaled. Temperature has a powerful influence upon the amount of vapour which the air will carry. With a change in the thermometer of 20° the amount of chloroform vapour doubles. The record of chloroform accidents shows many cases plainly due to the sudden inspiration of air heavily charged with the vapour. Essential requisites of any apparatus or plan for the safe administration of chloroform are that it shall ensure a thorough admixture of air with the vapour, also give the power of graduating the process and limiting the dose. Nature has prepared an instrument which fully meets these demands. It is a hollow or cup-shaped sponge. This article, dipped in warm water, and squeezed out, is unequalled in convenience and efficacy. It is soft and pliable; it is so porous that the supply of air cannot be shut off; if pressed together after chloroform has been sprinkled on it, every little interstice, as it gives passage to air, yields to that air its modicum of vapour. The only device at all comparable with it is Esmarch's mask, and that is not so readily carried. An essential adjunct to this sponge is a bottle which will only permit the escape of the liquid by drops. A perfume-bottle with a screw-cap tube is the best, or an ordinary perforated cork will answer the purpose. Provided with these, the administrator has perfect command over the rate of administration; while the mode almost universally recommended of pouring chloroform upon a handkerchief or napkin is faulty in the extreme; it is not only faulty, but dangerous. This is not a matter of opinion, but of facts of physics. The current of inspiration can never be equably charged with the vapour of a liquid which is poured on a cloth in patches, so that it does not pass through, but only over, the moistened surface. The patient cannot fail to get at one breath air only slightly charged with the vapour, and at another that containing a dangerous amount. There can be no doubt that many practitioners have given up the use of chloroform in obstetrics from neglect of attention to these minute points. After sprinkling a few drops of the liquid on the sponge and squeezing it together, it is applied to the patient's nose and mouth. If coughing is excited, the vapour is altogether too strong. If the pains lessen in force or cease, a few words of encouragement and little delay, and recommencement with a very small dose, will generally obviate the difficulty. When the patient shows that she is passing under the influence by expressions of relief, the sponge is withdrawn, replenished, and held closed in a folded towel to prevent evaporation. The patient will indicate, if told to do so, when a pain is approaching; then two or three deep inspirations will anticipate the suffering. The object is to keep her in the first stage of anæsthesia of authorities. There are three by Sansom: (1) sopor, (2) stupor, and (3) stertor. Campbell divides this first stage, again, into three: (1) an initial stage of amelioration, (2) incomplete analgesia, and (3) complete analgesia. But the different degrees of narcotism glide insensibly into each other. The respiration of the patient and the appearance of her countenance indicate her condition. In obstetric analgesia, and with a small amount poured on the sponge, there is no need to watch the pulse. After the patient has ceased to make voluntary remarks, a question will enable the administrator to judge of the extent of the influence by the readiness and coherency of the answer. A better description of this process has never been given than that by Channing: "The object in ordinary midwifery practice or in the severer form of labour pains in the use of etherisation[2] is to diminish suffering. There is much of this pain which is tolerated readily, and from this the patient does not demand relief from extraordinary agents. So true is this in practice that cases daily occur in which etherisation is induced, and in which the patient determines exactly its extent. In the intervals of uterine contractions the instrument is removed by the patient or by her direction given in some way, and which is at once understood. She knows when the pain is coming, and demands the inhaler. She graduates, so to speak, the supply exactly by the demand; and in this way is presented to the observation of the practitioner one of the most important and interesting agencies in operation for relieving suffering, sometimes agony, which he ever notices." As the head distends the vulva, the effect of chloroform is carried more deeply to meet the acuter suffering of this stage. Full surgical anæsthesia may be required, and is often necessary as an efficient aid in delivery of the head without injury to the perineum. The head being delivered, the administration should cease. The length of time during which the inhalation of chloroform may be continued would be difficult to determine. Paul Bert's experiments have indicated its harmlessness with small doses and an intermittent administration. In practice, Snow has continued it for thirty-one hours, Simpson fourteen hours, and Protheroe Smith twenty-eight hours. Snow is undoubtedly correct in saying that "the quantity of chloroform given in labour might be continued daily for an indefinite period without appreciable effect on the health."[3] It is evident from the foregoing that the administration of chloroform in labour is no light or easy task. To do it well requires great care, close attention, constant watchfulness, and entails no small amount of extra fatigue. Under chloroform the operation of turning is very much facilitated, and rendered possible in cases which, without it, would be impracticable. Indeed, it was in cases of neglected cross-positions that anæsthetics won their earliest and most brilliant triumphs. The most determined opponents of their use have testified to their benefits in such cases, and experienced accoucheurs have succeeded in turning under chloroform when all previous efforts had failed and every preparation had been made for embryotomy.[4] In seventeen cases of obstructed labour in women who had previously had craniotomy or embryotomy performed, version under chloroform gave nine living children and seven more with heart pulsation.[5] In proceeding to administer chloroform for version the obstetrician should be fully alive to the fact that anæsthesia must be carried very deeply. All voluntary efforts must be rendered impossible; even in the deepest narcosis, as manifested by stertorous breathing, the introduction of the hand will not always fail to excite uterine contractions. An assistant is most desirable in these cases, and should always be obtained if possible. Still, a neglected shoulder presentation at night, many miles from professional assistance, and urgently demanding relief, may present itself to the practitioner at any time. A few directions may aid in meeting the exigencies of the case. See to the placing of such assistants as may be at command, and explain what will be required of them. Place the patient in a proper position across the bed, the hips free of the edge, and take measures for her being kept there. Carry the anæsthetic deeply, and do not commence the operation until there is stertorous, or at least heavy, breathing. In committing the continuance of the administration to the hands of a non-professional person, the drop tube is a valuable resource; directions to vigorously shake the bottle will be necessary in order to get enough of the liquid; an overdose is not easy, and if the patient is on her back the accoucheur can obtain a full view of the face and watch the respiration. The imagination has not been drawn upon for such cases, and experience has taught the dependence of excess upon attention to details.

Indications.—Chloroform being in labour as an analgesic, pain is the indication for its employment. But while there is no labour without pain, it is not every labour that requires chloroform. In muscular women of the lower classes labour causes more effort than suffering. In women of nervous type, whose systems have been enervated by refinement or luxury, the suffering is apt to be acute. In all classes there are happy exceptions, in whom parturition proceeds rapidly, and the pain is not severe enough to tax the nervous system and is well borne. The necessity or advisability of chloroform to facilitate labour must rest with the obstetrician; as a means of relieving pain it should depend upon the patient. There is a general agreement amongst authorities that the proper time to commence administration is when the os is nearly opened and expulsive pains are about to begin. Whether anæsthesia has been needed previously or not, it will most

[1] Annuaire de Thérapeutique, Bouchardat, 1884.
[2] Channing uses the term "etherisation" to denote the effects of chloroform as well as ether.
[3] American Journal of Medical Science, Oct. 1853, p. 526.
[4] Hall Davis: Transactions of the London Obstetrical Society, p. 137.
[5] Kidd: Medical Times and Gazette, July 4th, 1863.

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likely be demanded now. The most painful period of labour is when the head distends to the utmost and clears the two existing circles of soft parts, the os and the vulva. During that part of the process in which the head is moulded to the bony canal, which sometimes requires many pains, anæsthetic effect is not so much needed, and chloroform may often be dispensed with. The stretching of soft parts, however, is often most agonising, and at the vulva relief is most urgently called for. With entire unconsciousness and complete acinesia, not only is acute suffering saved, but delivery of the head is effected with less danger to the integrity of the perineum than under any other circumstance.

Contra-indications.—It may be stated in general terms that no contra-indications exist to the administration of chloroform in labour when the severity of the pains demand it. Diseases of the vital organs and some special conditions, however, demand careful consideration.

Chloral.—The physiological effects of chloral are strikingly similar to those of chloroform. Locally it is an active irritant, in strong solutions vesicant, or even escharotic. It is also decidedly antiseptic taken internally. Its first effect is a local one upon the stomach; then follows a stage of exhilaration similar to that caused by alcohol; after this comes sleep, and then narcotism. Its action may be divided into three periods: (1) excitement; (2) hypnotism; (3) stupor. Preceding or attending the second and third stages, it exerts a decided anæsthetic action, very much diminishing any pain which may be present, but scarcely ever abolishing it. Chloral also causes marked muscular relaxation, reduces the temperature, and enfeebles the contractions of the heart. It is introduced into the system through the primæ viæ, differing in this respect from chloroform, and differing from that agent also in its effect upon the conjunctiva, producing insensibility of that membrane long before that of the skin is affected—"a unique exception, thus far, in the history of intoxicants." So similar are the physiological effects of chloroform and chloral that Liebreich, the introducer of the latter to therapeutics, formulated a chemical theory of its action, according to which chloral undergoes decomposition in the blood; chloroform is liberated and becomes the efficient agent. This theory has not been accepted. Chloral was introduced to therapeutics in 1869. In the same year it was first used in obstetrics by Simpson, who found that, while the patient was so deeply hypnotised by it as to be only partially aware that labour was going on, the uterus still continued to contract strongly and regularly.[6] In 1874 Dr. Playfair presented the claims of chloral to the profession, and has ever since been a strong advocate of its use. He urged its especial value in women of highly organised nervous type, primiparæ, and in whom dilatation of the os took place slowly and painfully. In such cases dilatation was promoted and relief rendered without the disadvantage of suspending labour, as is the case when morphia is administered. Space will not permit of giving the experience of other authorities, but a careful survey of them upon the use of chloral in labour shows a striking absence of that disagreement as to facts regarding its action which is the case with chloroform. Interference with the process of parturition was no longer a novel thing when chloral came under observation; moreover, the effect of chloral does not vary so widely with the dose, and especially it does not vary so rapidly as with chloroform. Whatever the explanation, there is general unanimity of testimony as to the effect of chloral upon the various elements and processes of parturition. 1. It is a quieter of nervous agitation, a stimulant for mental despondency, a soother of irritability, and a tolerably efficient remedy for hysterical manifestations. 2. Its anæsthetic properties are decided and considerable; nevertheless, it cannot rival chloroform in its absolute power over pain. The sufferings of labour are lessened, but unconscious delivery can scarcely take place. It has not succeeded in establishing itself in surgery as an anæsthetic. 3. The strongest and most abundant testimony is in regard to the influence of chloral in promoting dilatation of the os. It seems specially adapted for cases of thin and rigid os, when the pains are more irritating than effective. 4. Its effect upon uterine contractions is, like chloroform, regulating and tending to restore them to the normal type when they are spasmodic or irregular. In such cases it may seem to increase uterine action; most observers agree that uterine action is not lessened. 5. Muscular relaxation being a pronounced physiological effect of chloral, it would be expected to promote the passage of the head over the perineum; but there is a singular absence of testimony upon this point. The period of labour and the class of cases best adapted to the action of chloral are evident from what has preceded. In giving chloral, its irritating qualities must be kept in mind. Administered by the stomach, it should be well diluted; if by the rectum, in some bland vehicle. Fifteen grains may be given in an ounce of water, and repeated in twenty minutes, and again in forty minutes, if necessary. In repeating the doses of chloral, the fact should be borne in mind that, once given, its action has passed beyond control. In this respect it presents a marked contrast to chloroform, with which cessation of inhalation causes very speedily cessation of effects. Chloral is perfectly safe, however, with reasonable care. The contra-indications to the use of chloral are the existence of diseases of the stomach and heart.

Ether.—The influence of ether upon the duration of labour, upon the uterine contractions, and upon the maternal soft parts is not materially different from that of chloroform; there are, however, certain minor points of difference which deserve consideration, while the mode of administration differs considerably. In regard to the influence of ether upon the duration of labour, one can with this remedy blow both hot and cold. In those cases, especially in primiparæ, in which the patient is exhausted from long effort, so that not only do the abdominal muscles fail to supplement the contractions of the uterus, but the uterine muscle itself grows weak from fatigue, ether, being one of the best diffusible stimulants, will often reawaken with renewed vigour the muscles engaged in the expulsion of the child, so that the administration of this anæsthetic will often obviate the necessity of instrumental delivery. Again, in those cases in which, during the second stage of labour, each expulsive effort causes such pain that the action of the abdominal muscle is inhibited, a mitigation of the suffering by the adminstration of any analgesia will result in the active co-operation of the abdominal muscles, and consequently a more speedy termination of labour. On the other hand, in those women who from excitement and pain are stimulated to a degree of frenzy, in which, regardless of the pain they inflict upon themselves, and deaf to the expostulations of the medical attendant, they summon every atom of muscular force at their command to terminate their intolerable suffering, any anæsthetic will calm the excitement and allow the labour to take a more natural and placid course. But, in any case, ether, like chloroform, if pushed to an extreme degree, will diminish the contractile power of all the muscles, and thus not only retard labour, but predispose to post-partum hæmorrhage.

Method of administration.—After trying the familiar cone and various forms of inhalers, all more or less complicated, it will be found that the most convenient and suitable apparatus is a rather thin towel or napkin, folded once and laid lightly over the patient's nose and mouth. The ether is dropped upon the compress, only by three or four drops at a time, at the close of every expiratory act, directly below the point of the patient's nose. In this way none of the vapour is driven away from the nose and mouth by the expired air, but all of it enters the lungs at the next inspiration, and the individual is in a few seconds irresponsive to the prick of a pin or a pinch. Narcosis being established, it is sufficient to let fall only a drop or two beneath the nose at about every alternate inspiration in order to keep the patient unconscious and insensible. If this course is pursued, there will not be the stertorous breathing, frothing mouth, and deeply congested face only too familiar in many of the surgical clinics where ether is habitually administered. If ether is given as an analgesic to mitigate the labour pains, it should be administered, of course, just as the pains come on, while in the intervals the administration may be discontinued.

Brighton.

[6] Medical Times and Gazette, Jan. 1st, 1870, p. 4.

OPEN SPACES FOR WAKEFIELD.—The Wakefield Paxton Society intend to open recreation grounds in several parts of the city for the use of the public. Much interest is shown in the scheme, and the promoters are receiving generous support. In addition to the ground recently opened by the Society in Pinderfields-road, others have been promised by, respectively, Sir E. Green, M.P. for the city, Miss Edith G. Mackie, daughter of a former member, and by Mrs. Frederick Thompson, of South-parade.

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Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

THE COCAINE HABIT.

By ARTHUR P. LUFF, M.B., B.Sc. LOND.,
LECTURER ON MEDICAL JURISPRUDENCE AND TOXICOLOGY, AND WARDEN OF THE COLLEGE, ST. MARY'S HOSPITAL; ASSISTANT PHYSICIAN TO THE NORTH-WEST LONDON HOSPITAL.

THE following case of long-continued addiction to the use of cocaine, which lately came under my notice, will probably be of interest to the medical profession.

The patient, a gentleman, consulted me for a feeling of inaptitude for work, mental indecision, occasional palpitation of the heart, and dyspeptic symptoms. I ascertained that three years ago he had been recommended to apply a 5 per cent. solution of the hydrochlorate of cocaine to the nasal mucous membrane to relieve an attack of nasal catarrh, and that he had found the result so pleasurable that he had continued the application on and off for a period of three years, quite irrespective of any catarrh or affection of the mucous membrane of the nose. At no time did he abstain from the use of the cocaine for a longer period than two weeks, and he frequently employed it daily over a period of four or six weeks. As a general rule, he used up four or five grains of cocaine daily in the form of a 5 per cent. solution, although occasionally as much as eight grains were used in a day. The cocaine was always applied with a long nasal brush, the spray never being employed, and the mucous membrane of the nose was the only part to which the application was made. He informed me that at first the use of the cocaine produced some sleeplessness, but that this passed away after employing it for two or three months, and that he drifted into the use of the drug on account of the feeling of freedom from worry and the local and general pleasurable sensations excited by it. The drug exerted no influence upon the sexual functions. During the latter half of the three years of its employment he had noticed a gradually increasing indisposition for work, together with a growing inaptitude for coming to a ready decision with regard to affairs connected with his business and daily life; also a disposition to shun society. He felt that his general health was not so good as formerly, and he had been subject for the last two years to chronic constipation, together with occasional attacks of palpitation of the heart and slight dyspepsia. I pointed out to him the probable connexion of his symptoms with the long-continued employment of cocaine, and strongly advised him to break himself of the habit, ordering him at the same time a simple tonic and to employ abdominal massage with a four-pound cannon-ball for five minutes every morning in order to relieve the constipation. Six weeks later he informed me that he had entirely broken himself of the use of cocaine, although for the first week he suffered from great depression, and had a strong desire to return to it. He had entirely recovered from all his bad symptoms, his mental decision and powers of application to work being thoroughly restored.

Westbourne-terrace, W.

CASE OF HYDATID MOLE.

By JAMES OLIVER, M.D., F.R.S. EDIN.

WELL-RECORDED cases of hydatid mole are sufficiently rare to warrant the publication of one which very recently came under my care at the Hospital for Women.

Annie T——, aged twenty-five, and married seven years, has had five full-time children and no miscarriage. The last child was born two years and four months ago. This child was suckled for sixteen months, and the patient was unwell each month during the first five months of nursing. After the child was five months old she was never again unwell until one month after weaning. The last child was the first which had been suckled by the mother. Menstruation was established at the age of fourteen, and it has usually lasted seven days. On April 22nd she began to lose, and continued to do so until July 10th, losing more or less every day—i.e., for eleven weeks. Prior to April 22nd she had not menstruated for three months, although until then, and after she had weaned the baby, she had been quite regular, and lost as usual. Besides complaining of constant hæmorrhagic discharge, she complained also of pain all over the lower part of the stomach. The pain came on generally at night, after going to bed, though it had occasionally been noted during the day. There was a constant feeling of "soreness of the stomach," such as one experiences after colicky pain. The patient began to lose blood before she complained of pain; the latter was remarked, however, within twenty-four hours after the establishment of hæmorrhage. For three weeks both lower extremities had been swollen, and pitted readily on pressure. Six weeks before she began to lose constantly there was noted a slight discharge of blood after coitus. There was no bladder or rectal trouble. Eleven weeks previously to my seeing the patient, she began to feel sick, and latterly she had actually vomited at least once every day. No movements had been felt. On examination, the abdomen was occupied by a uniformly globular swelling, located centrally, and reaching to one inch above the umbilicus. It was somewhat soft, but seemed to harden under the hand in consequence of contraction. No fœtal heart or uterine souffle could be detected. The swelling was tender all over to the touch. The breasts were not enlarged, but were, in fact, flabby, and no colostrum could be obtained from either. On vaginal examination, the cervix was soft and patent, and nothing was felt in the cervix itself. The abdominal tumour moved the cervix readily, and was uterine; it was equal in size to a six months' pregnancy. My diagnosis was pregnancy, the child being dead. On July 12th, two days after the patient saw me, I received a letter from Dr. Townsend of Lewisham High-road (whose patient Annie T—— was), saying: "A hydatid mole weighing 2 lb. came away this morning; there was a good deal of hæmorrhage, and I had to clean out the uterus, swabbing the cavity with perchloride of iron."

It is stated by the majority of authors that in cases of cystic disease of the ovum the tumour rapidly increases in size, and that the size does not correspond with the supposed period of pregnancy. In the above case there was no rapid increase, and the size of the tumour corresponded well with that of the supposed period of pregnancy—viz., six months. The discharge was always hæmorrhagic, and at no time had it been noted as watery.

Gordon-square, W.C.

WOUND OF THE RADIAL ARTERY.

By E. ST. GEORGE QUEELY,
GOVERNMENT MEDICAL OFFICER, MAYTOWN DISTRICT, AND SURGEON TO THE PALMER HOSPITAL, QUEENSLAND.

THE following case of wounded radial artery came under my notice lately, and is, I think, worthy of note from the length of time that elapsed before the patient was treated, and from the quantity of blood lost.

W. F——, a miner, aged twenty-eight, while working in a shaft of an Anglo-Saxon gold-mine, received a cut across the left wrist, occasioned by a fall of sharp quartz. The wound was about two inches long, extending from the base of the thumb upwards and inwards. There was considerable hæmorrhage for some time, but it was controlled, and after three days the man was able to be about, with his arm in a sling. On the fifth day hæmorrhage set in again, and the patient lost a large quantity of blood; but a poultice of salt eventually stopped it. From the great loss of blood he naturally became very weak and anxious, especially as on the twelfth day a loss of blood again took place. I was therefore sent for, and arrived on the fifteenth day after the accident. The distance I was obliged to travel being forty miles over very rough country, I did not reach him until late at night, and as he was comfortable and no hæmorrhage had taken place for fifteen hours, I thought it better not to do anything until daylight. Next morning I visited the camp and learned the man had slept well and felt better. On removing the dressing, I found the wound looking healthy and commencing to granulate. As there had been no sign of blood for twenty-six hours, I merely applied lint saturated with carbolic oil, and told his friends to use it three or four times a day. I also improvised a tourniquet with a piece of cork,

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and marked a place over the brachial artery, with instructions to apply it immediately in case of any fresh discharge, and that as soon as he could sit on a horse he was to come into town, the food obtained where he lodged not being sufficiently nourishing. I visited the case four times during the day, but was obliged to leave for town, having several hospital patients to see. Three days afterwards I heard that hæmorrhage had set in worse than ever and could not be controlled, and that the patient had to be carried into the hospital in a dying state. He arrived seventy-two hours afterwards, and when admitted was in a very low condition and quite blanched. His forearm was greatly swollen from several tight ligatures having been tied tightly round his arm. I had him placed on the operating table and administered chloroform. He inhaled a large quantity before coming under its influence. All ligatures, bandages, &c., being removed, blood immediately spirted from the wound, but was as quickly stopped by the tourniquet. I found the lower end of the artery easily, and twisted it, but could see no sign of its upper end; so I made an incision upwards and inwards over the artery for about two inches, and at last was able to place a ligature round it. The wound was closed by three catgut stitches and a pad of lint put over it. The man recovered from the anæsthetic quickly, but suffered some pain, which was relieved next day by the subcutaneous injection of morphia. His diet consisted of strong essences, milk, eggs, and port wine, with ammonia and iron as a tonic. Twelve days afterwards the ligature came away, and the patient was discharged on the thirtieth day, cured.

Now the question in this case is, Should I have operated on my visit at first, or was I justified in my treatment? Some people (lay, of course) thought I should have done so immediately on my arrival; but as there was no sign of hæmorrhage, and none had taken place for twenty-six hours, I hold that I was right.

Queensland.

ON THE MECHANICAL TREATMENT OF AMENORRHŒA.

By ALEXANDER DUKE, F.K.Q.C.P.I.,
EX-ASSISTANT MASTER OF THE ROTUNDA HOSPITAL, AND GYNÆCOLOGIST AT STEEVENS'S HOSPITAL, DUBLIN.

THE mechanical treatment of amenorrhœa by the introduction of an intra-uterine stem to be worn for some time is frequently followed by the desired result. The danger, however, of uterine stems compels the practitioner to enforce the recumbent position on the patient; and as this becomes exceedingly irksome, more especially in the case of younger patients, sufficient time is seldom allowed to effect the looked-for result. An uterine stem to be worn with comfort should be flexible, hollow, freely movable, and require no vaginal support in addition. It should also permit of the patient going about as usual, the exercise contributing in no small degree to the action of the stem. The making of such a stem self-retaining has been the great difficulty met with, as the various modifications of the instrument will testify. With regard to the advantages of the galvanic stem, I have strong doubts as to its action. I have given it a trial on several occasions, and am fully persuaded that a foreign body of *any kind* introduced into the uterine cavity will act quite as well. The stem I recommend is formed of spiral wire (plated), which I originally designed for the purpose of keeping the os and cervical canal patulous after the operation of division of the cervix for stenosis, and it has given me every satisfaction. These stems are sold by Messrs. Arnold of West Smithfield, and are made in various sizes, so that if a proper size be chosen and introduced, the patient can go about as usual, and be quite unconscious of wearing such. Indeed, on one occasion I introduced one of my stems without the patient's knowledge, and was rewarded by the menstrual flow being established, which had been in abeyance for over a year. It must be distinctly understood that I do not advocate the indiscriminate use of the stem as a routine treatment for amenorrhœa, but only in those cases where the usual plans of treatment by medicine &c. have failed, and where the symptoms complained of are such as fully to warrant mechanical interference. The stem should be introduced to its full length, and I have found that the spring introducer lately designed by me is the best instrument for placing the stem *in situ*. The base of the stem being flat and very light, the vaginal walls embrace it closely and in such a manner as effectually to prevent its falling out. Having experienced the value of this treatment of amenorrhœa, I have confidence in recommending it to others.

Dublin.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

WEST LONDON HOSPITAL.

FIVE RECENT CASES ILLUSTRATIVE OF CEREBRAL SURGERY; REMARKS.

(Under the care of Mr. C. B. KEETLEY and Drs. DONALD HOOD, J. B. BALL, and COLMAN.)

(*Continued from page 542.*)

IN our issue for last week we gave the first case of the series, one in which the skull was trephined for a bullet wound of the brain, and in which, although only a partial removal of the bullet was effected at the operation, the patient recovered. We also gave the reasons for regarding the flow of pus which came from the wound three or four days after the operation in Case 2 as having its origin in a cerebral abscess. A method of preserving the crown of bone removed by the trephine for re-implantation is illustrated in two cases. In Case 3 operation was only resorted to as a last resource, and not with any great hope of success. There being a clear history of injury and of discharge from the left ear, it was thought justifiable to perform an exploratory operation.

CASE 2. *Cerebral abscess, (?) of traumatic origin; trephining; recovery.*—E. W——, aged fifteen, domestic servant, was under the care of Dr. W. S. Colman and Mr. Keetley. The present illness was said to date from three weeks before admission. She received a severe thrashing from her mistress, including three boxes on the left ear. She says that soon after, and not before, she had discharge from that ear, and pain over the left temple, fixed and persistent. She vomited for the first time four days ago. Appetite has been fair. Occasional squint, and also short-sightedness, were noticed on the left side before the blows were inflicted.

On admission the girl was anæmic, sallow, and looking ill. Pupils equal and natural. No twitchings anywhere. Increasing weakness and disinclination for exertion complained of. Fixed pain in left temporal region of a fortnight's duration. Earache has been present, but has gone off. Curious stoop when walking; no incoördination; walks in a straight line and stands steady, with her heels together. Forehead narrow, but alike on both sides. No tenderness on percussing any part of skull or compressing the mastoid processes. Some tenderness on pressing the left eye back, and there is slight proptosis. No twitchings or tinglings. Reflexes everywhere normal. Mind and memory unimpaired. No enlarged cervical glands. Chest narrow, otherwise normal. Vomiting till four days ago, not since. Temperature on admission 99·4°, pulse 80, respiration 32. The ophthalmoscopic appearances were—Left eye: myopia (4 D at least). Disc, cup gone; edge rather indistinct; rest of fundus natural. Right: disc much swollen, greyish and striated; vessels dip slightly at periphery; a little distance to the temporal side is a distinct hæmorrhage, and along the vessel to the nasal side is some white exudation. No tubercles seen in either eye. Vision quite acute; the field does not seem contracted in either eye. Colour sense normal. Hearing on the right side good, twenty inches; left side, only eight inches. No discharge from ear now. Mr. Wainewright reports perforation of tympanic membrane just behind the handle of the malleus. Bone conduction seems perfect on both sides. Smell and taste normal. No defect of function found in any of the other cranial nerves, though careful and particular search was made. Urine pale and

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clear; sp. gr. 1012; excess of phosphates; no albumen or sugar.

With regard to the family history, the father is said to have sciatica and a weak chest; paternal aunt, "consumption and tumours." Paternal grandmother died of cancer. No important diseases on the mother's side. Is one of eight children; four dead ("fits," "whooping-cough," "diarrhœa," "wasting in six weeks"). The patient had whooping-cough badly when two years old. Well since, but has been getting weak for four months. Has been in a heavy "place" for nine months.

On April 11th and 12th the patient was each day minutely examined by Dr. Colman. The pain was being relieved by an ice-bag, but the optic neuritis in the left eye was rapidly increasing. The edge of the disc was distinguishable now only at the upper part. The vessels were buried in it for some distance, especially the lateral ones. Neuritis of the right eye not much increased. On the 11th she had a good night after a chloral and bromide draught.

The operation was performed by Mr. Keetley. The head was previously shaved, cleansed with soap, &c., and dressed for some hours with moist antiseptic gauze. Chloroform was given, and a semicircular flap turned down to expose the area about an inch and a half above, and one inch in front of external auditory meatus. The temporal fascia and muscle and pericranium were reflected sufficiently, and a medium-sized trephine used. Dura mater dull and tense, pulsating less than normally. This was punctured, and there was an escape of clear fluid, showing under the microscope red blood-corpuscles, but no pus. The dura mater was freely incised, some clear fluid escaping rather copiously. The exposed brain looked healthy and did not bulge. A fine trocar and cannula was then passed successively—(1) downwards and inwards until it impinged on the upper surface of the petrous part of the temporal bone (a dry base of a skull was held by an assistant in such a way that it was quite easy to calculate, with it in view, the exact path of the trocar); (2) backwards, downwards, and inwards into the posterior part of the temporo-sphenoidal lobe; (3) forwards, downwards, and inwards into the anterior part of the same; (4) upwards and forwards into the frontal lobe; (5) directly inwards. The results were negative. Nos. 2, 3, and 4 punctures were made to the full depth possible with the trocar, which was, unfortunately, only about two inches and a half long, the instrument which should have been used having been found rusted. The dura mater was stitched with two catgut sutures. Bone removed by trephine was broken up with bone forceps and replaced. Temporal muscle sewn with buried sutures, skin with silver. Dressing: iodoform crystals, iodoform gauze (moist), and sponge. Bandage and strapping (Leslie's) freely used. Pulse good throughout the operation, the duration of which was one hour. The patient was delirious two hours after the operation, but became quiet after a hypodermic injection of morphia. At 8 P.M. she began to vomit, and continued to do so every ten minutes. The bandage was taken off, and reapplied very loosely.

April 13th (10 A.M.).—Temperature 102°; pulse 100, regular. She rambles a great deal, and complains much of pain in the temple and in the left eye. Wound dressed; looks healthy. No facial or ocular paralysis, but amblyopia. Can now distinguish only figures (not faces). Much more comfortable after dressing, and more rational.

14th.—She has not vomited since 9 A.M. yesterday. Rather more pain at site of operation; also in occiput and over mastoid. Considerable mastoid tenderness and some fulness this morning. Temperature 100·8°; pulse 104, regular. On ophthalmoscopic examination the left disc was much paler than before the operation, and the vessels not so much embedded. Right eye: neuritis not much increased; cup still absent and edge blurred; vessels appear to dip slightly; no hæmorrhages. No tubercles in either eye.

15th.—Very good night. Appetite better. Some puffiness of left cheek and lower eyelid. Less tenderness of eyeball. Does not complain at all. Pulse 92°; respiration 22; temperature 99°.

16th.—Same as yesterday, but puffiness and tenderness less. No tenderness of left orbit now. Pus observed at the edge of the dressing. Wound dressed at 8 P.M.; a considerable quantity of pus in the dressing. Flap looks quite healthy. Silver sutures removed and cicatrix opened at each end. Much pus welled up, evidently from the trephine hole. Wound dressed as before. Microscopically the pus-cells were extremely granular, and there was a great deal of granular débris. On ophthalmoscopic examination the neuritis was much less in the left eye. Right eye almost normal. Temperature (evening) 99·2°. Bowels open five times.

18th.—From this date no rise of temperature occurred, excepting once on the 20th, when 99·6° was reached. No pain. No tenderness anywhere. Appetite good.

19th.—Manner a little strange. "Ringing in ears." Wound dressed; looking well; no puffiness. Slept soundly.

20th.—Ophthalmoscopic examination: Left eye, disc normal. Vision perfect.

May 2nd.—Since the last note she has continued perfectly well. The wound has been dressed once a week. There is not much discharge. On ophthalmoscopic examination the optic neuritis on the right side was not subsiding. Edge of disc still blurred; vessels rather more blurred than before. A torch-shaped hæmorrhage just beyond the temporal edge of the disc.

She remained in hospital three months and a half longer. On May 11th she complained of the sight of the left eye, which was myopic. The last ophthalmic note taken while she stayed in hospital was by Mr. Vernon on May 17th, when the right disc was hyperæmic; veins turgid, with irregular outlines, and disturbance of choroidal pigment. Left disc very much the same; not so hyperæmic; showed a myopic crescent upwards. Granulations at one or two points of the wound had several times to be cauterised. Frequently there were complaints of headache. On June 4th the note was: "Has been complaining of pain in left side of head as when she came in, and tenderness for the last two days. Slight discharge from left ear again to-day." On July 6th she "complained of tenderness and occasional pain in two spots, one just above the ear, and the other about two inches higher; otherwise well." On Aug. 9th it was noted that there had been pain every day in the neighbourhood of the wound, a little above it. There was aching of the left eye, the sight of which had not improved. The pain did not keep her awake at night or cause her much inconvenience. Left ear discharging. A dark-coloured, hardish concretion was washed out on the previous day. It was syringed daily. On the 17th there had been no more discharge from the ear. She complained of loss of memory. This was possibly due to inattention or carelessness, as interesting facts were well recalled, and the patient was able to repeat poetry learnt the day before. The pain over the wound and at another point a little behind it was not severe, but constant. The left eye was perfectly blind. On the 21st, her memory being better and the pain less, she was discharged. She has since occasionally attended the hospital, and was last seen recently, more than a year after the operation, looking and feeling quite well, without any pain, and with good sight in both eyes.

CASE 3. *Doubtful symptoms of intra-cranial suppuration associated with a history of injury and afterwards with discharge from the left ear; exploratory trephining; death; disease of pons Varolii (new growth?).*—M. P——, aged seven years, was admitted into Hull ward, under the care of Dr. Hood, on May 25th, 1888. Fourteen days before admission she had a fall while playing and knocked her head against a window-sill. A small bruise (just visible) appeared at the centre of the left superciliary ridge. She seemed at the time not much hurt, but rather stunned; there was no bleeding from the nose or ears. The next day but one after the accident she was observed to stagger in her gait and complained of giddiness, but there was no vomiting until the day before admission. The staggering had been getting worse until then, and she had a slight squint (had had none previously). Her appetite was as usual. The bowels were acting. She vomited only after food. She was said never to have had any discharge from either ear. Family history good.

On admission there was slight internal squint of the left eye. No headache. Pain in chest. The left eye moved well when the right was closed. Double vision. No optic neuritis. Knee-jerks distinctly exaggerated. No ankle clonus; no paralysis, either motor or sensory, in face or extremities. Watch heard at two feet from either ear, and also on contact with either side of the head. No tender spot anywhere. She was given confection of senna.

May 28th.—No material change. Had only vomited once. Squint more marked. Suspicion of ankle-clonus. Pain across temples. Gait still staggering. Diplopia present.

29th.—The patient was ordered to take castor oil, also one grain of grey powder three times a day. She vomited twice in the evening.

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31st.—Woke up with a start three times in the night; her arms twitched each time.

June 5th.—Comfortable. No convulsion; no headache. Vomited at times after taking the powders.

11th.—A discharge from the left ear was noticed last night. Gait decidedly worse. Legs carried wide apart, and very tottering.

12th.—Much worse. Had vomited constantly since yesterday. Very little food kept down for the last three days. Had a restless night. At 6 A.M., after being washed, she became faint, cold, almost pulseless, and of a livid colour. This passed off soon. An ice-bag was applied to her head, and hot bottles to her body. She had pain over the left eye. Since then she had been drowsy, but understood what was said to her. She had vomited frequently. The squint of the left eye remained; the eyes were otherwise normal. Pulse 104, weak. Temperature subnormal. It was thought justifiable to perform an exploratory operation. A semicircular incision, with the convexity upwards, was made over the squamous part of the left temporal bone, and the skin, with the muscle and fascia, divided and turned downwards. The pericranium being reflected, a button of bone was removed with the trephine (crown the size of a shilling). This button was passed through a small incision previously made (antiseptically) in the skin of the left thigh, and lodged in the subcutaneous tissue until wanted again for replantation. A carbolised sponge and bandage held it in place. When the skull was opened, the dura mater bulged slightly and pulsated plainly. A small opening being made in it and two bleeding vessels secured, the left temporo-sphenoidal and frontal lobes of the brain were punctured by an aspirator needle and also by a director in different directions, but with negative results. The dura mater was sewn up again, the button of bone taken from the thigh was cut up into small pieces and laid over the dura mater, and the temporal muscle and fascia brought over all and sutured with catgut. Lastly, the skin edges were united (not tightly) with two silver sutures, and the wound dressed with moist iodoform gauze and sponge (for pressure). At 7 P.M. she was semi-conscious; nodded when questioned; and there was less squint. At 12 P.M. she had vomited once; she was still slightly conscious; the temperature was normal, and the pulse 96.

13th.—Had passed a restless night, throwing off the bedclothes. She had vomited once since midnight—i.e., twice since the operation; but she had kept down half-a-pint of milk this morning. She had passed urine and a motion while in bed. She became more conscious at 4 A.M. She could then lift her head when asked to do so, but was still very drowsy. Squint as before. Pulse 100; temperature subnormal.

14th.—Slept little, lying almost unconscious, occasionally asking for ice or milk. Had three attacks of faintness, becoming pulseless and cold for two minutes or so each time. Vomited four times since last evening. Restless, throwing her arms about and her head from side to side. Thirsty. Temperature normal; pulse about 140. At 3 30 P.M. she was quite insensible; conjunctivæ and corneæ insensitive (the pupils had been dilated with atropine for ophthalmoscopic examination). Limbs rigid, especially the *left* arm; slight ptosis of the right upper eyelid. Squint variable. Temperature 101°; pulse weak, and not easily counted, about 130 (?); respiration rapid. A little later the right arm became completely paralysed; the left a shade less (?). It fell less heavily when raised. The left fingers were more bent on the palm than the right. At 8.20 P.M. she vomited about half a pint of black fluid matter, and died immediately afterwards. Temperature 105·6° at 7 P.M.; 105° after death.

Necropsy.—"No inflammation on cerebral side of wound. No abscess discovered. Pons Varolii enlarged to about three times its natural size, uniformly of yellowish colour, both externally and on section. No other abnormality discovered. Brain kept by pathologist for examination." No further report has been received by Mr. Keetley.

PRESBYTERIAN HOSPITAL, CHICAGO.

HYDATID CYST OF THE ABDOMEN; OPERATION; RECOVERY.

(Under the care of the late Professor MOSES GUNN.)

WE have this year given examples of the successful treatment of hydatid cysts by the operation of direct incision and drainage after suturing of the cyst wall to the abdominal parietes.[1] We give below the account of a case in which it was attempted to secure adhesion of the apposed surfaces before incision of the cyst, but in which the method employed did not answer, and the operation, practically, was the same as that mentioned. Various other methods have been tried with the object of obtaining adhesion of the apposed surfaces before incision of the cyst wall. Barwell[2] recommended suturing of the abdominal wall to the cyst three or four days before the completion of the operation; Simon of Heidelberg tried multiple punctures with this object, but this method does not obtain much popularity. Baudeleben in the Congress of German Surgeons brought a series of successful cases treated by the application of Vienna paste to the abdominal wall over the cyst. It required some six or seven days for the caustic to act, and the process was a painful one. Ranking made an incision through the parietes and then removed two semilunar pieces of the abdominal wall, incising the cyst at a later date. In this case the cyst appears to have resembled an enlargement of the pancreas in its early stages. For the following account we are indebted to Dr. C. W. Ward, who was the house surgeon during this patient's residence.

Charles W—— was admitted about June 5th, 1887. He was thirty-three years of age, married, a blacksmith by trade, and active in his habits. He was born in Germany, and the elicited family history was very good. Seven years ago, then a resident of Germany, the patient was seized with a sudden attack of abdominal pain, and a medical man, on palpation of the abdomen, found the existence of a tumour, and a diagnosis of hypertrophied pancreas was made. With this tumour there existed more or less ascites and marked abdominal distension. Fourteen weeks of diuretic treatment removed the ascitic condition, and the patient again resumed his vocation, feeling no appreciable discomfort, save a slight mental anxiety at the continued presence of the tumour. It caused no inconvenience until six years later, when he suffered from a second, though less severe, attack of pain, from which he seems to have quickly recovered.

On admission an examination was made. The subjective symptoms were a sharp cutting pain referred to the seat of the tumour, and a troublesome fermentative distension of the viscera following the ingestion of food. The objective symptom was a tumour located two inches and a half to the left of the mesial line and an inch or so below the hypochondrium. The protruding abdomen conveyed an impression of its size to be about that of a small orange. The tumour was scarcely movable, elastic and tense to the touch, and caused no pain or tenderness when manipulated. On percussion, an area of dulness existed corresponding in size to that of the tumour. The characteristic thrill known as "hydatid fremitus" which is observed in large hydatid cysts filled with daughter cysts, and which is probably produced by the concussion of these with each other, was here elicited, and upon that sign a diagnosis of hydatid cyst was pronounced. His complexion was sallow, appetite good, bowels regular, and urine normal.

The patient was advised to submit to an operation, but as he had known of a "similar case in Germany" that resulted fatally, his courage failed him, and he declined, leaving for home that night. However, a month later (July 8th) he returned, having in the meantime laid the matter before his family and his friends, who induced him to reverse his decision and accept operative measures. There had been no alteration of symptoms during this time, and Tuesday, July 12th, was arranged for making the primary incision.

The operation was planned to consist of two steps: the first, to cut down upon the tumour until reaching the internal fascia of the rectus abdominis muscle, then pack the incision with iodoform gauze, aiming thereby to excite inflammatory adhesion of the peritoneum; the second, then to open the cyst cavity, evacuate its contents so far as possible, and resort to drainage for what might remain. As occasionally occurs, so here, the plans were only partially realised. The incision was made over the tumour in the left hypochondriac region about four inches in length, and the wound well packed with iodoform gauze.

One week later (July 19th) the packing was removed, but no evidence of adhesion was found. Nevertheless, the fascia was opened and the cyst wall exposed. The cyst wall, which was recognised by its greyish, cartilaginous, and translucent appearance, was opened on the grooved

[1] Vol. i., pp. 477, 528, Mirror of Hospital Practice.
[2] Medico-Chirurgical Society, 1887.

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director, and the contained fluid, limpid and serous in character, jetted forth. On enlarging the opening, the daughter cysts, opal-like bodies, came forth in great profusion. By means of a large hæmostatic forceps, often used in colpo-hysterectomy for controlling hæmorrhage from the ovarian arteries, many daughter cysts were removed. The incised cyst wall was then sutured to the abdominal walls by six silk sutures, and a drainage-tube half an inch in diameter introduced into the cyst to a depth of about six inches. The cyst was then thoroughly cleansed with a 5 per cent. solution of carbolic acid, dressings applied, and the patient placed in bed. The 6 P.M. record showed the temperature to be 100·4°; pulse 102.

July 20th.—Passed a quiet night, but failed to sleep. Maximum record: temperature 99·4°; pulse 98. He received a small amount of nourishment, such as milk, tea, toast, and egg. Urine 28 oz. Dressings saturated every twelve hours with 2 per cent. carbolic acid solution.

21st.—Patient slept well during the night. Breakfast consisted of beefsteak, oatmeal, coffee, and toast. At 7.10 A.M. the temperature was 100·8°, and the pulse 104; at 1.45 P.M., temperature 101·6°, pulse 112; 8.30 P.M., temperature 103°, pulse 102. At 2 P.M. the dressings were changed and quite a number of daughter cysts were "fished out" by the use of the hæmostatic forceps. Many of them presented a biliary colouring, thus showing their proximity to the liver. At 9 P.M. the patient was given twenty grains of antipyrin.

22nd.—Slept well till 3 A.M. Felt sick and refused breakfast. At 10 A.M. he was given two drachms of sulphate of magnesia, and at 3 P.M. ten grains of antipyrin. At 8.15 A.M., temperature 100·2°, pulse 98; at 2 P.M., temperature 101·4°, pulse 100. At 3 P.M. the dressings were changed; more "fishing."

In a week the patient walked about the ward. The wound was dressed daily, carbolic acid (5 per cent. solution) being used for irrigation. At each dressing resort was made to the "fishing" process.

Aug. 26th.—The last daughter cyst was removed to-day. Dressings changed each alternate day, and the use of the drainage-tube still continued. Appetite good and general health unimpaired. Walks about the lawn.

Oct. 1st.—The drainage-tube has been lessened and shortened, but not yet discarded. Complains of a "nervousness" that worries him. Boric acid irrigations substituted. Ten minims of dilute phosphoric acid given three times a day as medicine. Out-door exercise advised.

Nov. 22nd.—Drainage-tube removed. "Nervousness" continues.

Jan. 16th.—Patient discharged. Abdominal opening merely a fistula. Discharge simply serous and small in amount. Still "nervous."

On May 15th Dr. Charles W. Hall wrote: "W—— walked into my office with a firm step. He enjoys excellent health and is in good spirits. His only complaint is that of weakness or unsteadiness in his legs, and that after five days of labour he is so tired as to feel it necessary to rest the other two days of the week. The cicatrix is prominent, and contains a fistulous opening about the size of a small quill, which discharges slightly."

Remarks by Dr. WARD.—Two months later I saw the patient, and found him about as described above. In closing I want to inquire, What caused the "nervousness" of which he continually complained?

Medical Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Polypus of the Gum.—Brain Tumour with Thinning of Skull.—Melanotic Sarcoma of the Eye.—A Fœtus with Cystic Kidneys.

A MEETING of the Pathological Section was held on May 31st.

Mr. ARTHUR W. W. BAKER read a paper on the subject of Polypus of the Gum. These tumours vary from the size of a pea to a horse chestnut, and are found on the gum in the neighbourhood of diseased teeth. They are said to be chiefly caused by the ragged edge of a carious tooth, but it is probable that the ptomaines resulting from the operations of the bacteria in the dentinal tubules have more to do with their etiology than is usually supposed. Wedl and Rothman, in their writings, support this view. The growths in question are essentially papillomatous, and exhibit on section large branching papillæ covered with a thicker layer than normal of squamous epithelium. The polypi are purely local in their origin, and non-malignant.—Dr. SCOTT said that the growths were papillomata. These growths were an advanced link of connexion between papilloma and epithelioma, between which there was a well-known clinical difference.—Dr. CHARLES BALL said the tumours were an example of the way in which irritating discharges produced papillomatous and sometimes even adenomatous growths.—Mr. BAKER, in reply, said he was glad that Dr. Scott looked on them as a connecting link between papillomata and epitheliomata, for that was his (Mr. Baker's) own view with respect to them, although he could not say that the slides showed sufficient evidence of it.

Dr. BALL showed a Tumour of the Brain (angio-sarcoma) as large as a turkey's egg, occupying the right occipital and portion of the temporo-sphenoidal lobes. The symptoms during life were pain in the head, vomiting, double optic neuritis, and the presence of a pulsating venous tumour on the vertex, from which large veins radiated, and beneath which a perforation of the skull could be felt. The case was diagnosed as one of perforating angioma, probably originating in the dura mater; and, acting on this diagnosis, simultaneous ligature of both external carotid arteries above the origin of the facial was had recourse to, with a view of diminishing the blood-supply through the middle meningeal and temporal arteries. All symptoms were relieved for a month, after which they reappeared, gradually increased in severity, and proved fatal, the patient remaining conscious and free from all paralysis to the last. The necropsy showed that the venous tumour of the vertex was caused by a number of veins coming through the skull and carrying the blood from the great longitudinal sinus, the normal flow of blood into the right lateral sinus being prevented by the pressure of the tumour on the torcular Herophili, at which place it was adherent to the dura mater—a condition similar to the caput medusæ met with at the umbilicus in cases of obstructed vena cava. The inner surface of the skull was roughened and eroded over its entire extent. He considered that the marked improvement following operation for a short time could only be accounted for by the loss of blood at the operation, and subsequently by a moderate secondary hæmorrhage relieving the intra-cranial tension.—Dr. PATTERSON said the tumour was very sharply differentiated from the surrounding brain substance, and its outer surface was covered with a dense network of vessels, suggesting extreme vascularity. As to the etiology of the tumour, he thought it highly probable that it originated in the perivascular sheaths, and developed from them, for in some places the vessels could be seen surrounded by rings of sarcomatous tissue. As to the little nodules removed from the dura mater, they also seemed to be sarcomatous tissue. It was right to state that this system of starving tumours by cutting off the vascular supply had not hitherto been attended with very satisfactory results, even in cases where the vessels dealt with directly communicated with the tumour.—Dr. BENNETT said he was equally responsible with Dr. Ball for the error of diagnosis. The condition of the cranium was due to an increase of intra-cranial pressure—not a local, but a general increase, such as occurred in hydrocephalus in children.—Mr. SWANZY said that with a tumour in the right occipital lobe there should have been hemianopsia on the right side. That could hardly have been missed, and it would have pointed to a lesion very far from the position in which the only lesion was supposed to be.—Dr. MILES said that lesions of the occipital lobe were associated with colour-blindness. It was very difficult to conceive how a large tumour like this could have existed without giving rise to paralytic symptoms. In fact, as far as they could see, the presence of a pulsating tumour of the scalp appeared to have overridden everything else in the diagnosis.—Dr. BALL, in reply, said the first question was as to whether there had been erosion of the inside of this skull or not. As to this, a great deal depended on what was meant by erosion. That the surface of the bone had been absorbed in many places there was no doubt; and the inner surface of the external plate had become exposed.

Dr. E. H. BENNETT exhibited an example of Melanotic Sarcoma of the Eye remarkable for its slow growth, while

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its histological characters were eminently malignant. The disease had been detected as intra-ocular more than eight years ago at St. Mark's Hospital. Some considerable time since the globe had given way, and a fungus protruded, which had attained the size of a closed fist. Of late this fungus bled freely; this symptom at last frightened the patient—a woman nearly fifty years of age—and caused her to submit to its removal. The removal was facilitated by the fact that under ether the muscles no longer supported the fungus, and its sac (the remains of the globe) was exposed by the tumour falling out on the face. The bleeding, which was very free, was at once arrested on the removal of the globe. On section the tumour was seen to be formed of a jet-black mass, except in part, where a lobe of white tissue strongly contrasted with the remainder. Microscopically, the tissue appeared in many parts that of alveolar sarcoma.

Dr. BAGOT showed a Female Fœtus with Congenital Cystic Degeneration of the Kidneys. Externally, with the exception of the enlargement of the abdomen, the child presented no malformation. On opening the abdomen, he found that it contained about two ounces of peritoneal fluid. The peritoneum covering the kidneys was thickened, and showed signs of inflammation, band-like adhesions passing to the intestines. The latter were in some places adherent to each other. The ureters were extremely thin, but pervious. Both kidneys were symmetrically enlarged; but cysts were nowhere visible on their surfaces. On section their normal structure was seen to be replaced by an extremely fine network of minute cysts, thus resembling the variety of kidney described by Virchow as "the fine cystoid." The tubules could be seen to have undergone an irregular dilatation, some appearing normal, others more or less dilated, till in most parts they had become replaced by large epithelial-lined spaces. The epithelium of the tubules appeared in many places to have undergone proliferation—a condition which was also present in some of the glomeruli. The bloodvessels were greatly congested, and hæmorrhages into the tissues could be seen here and there. Concerning the etiology of this condition various theories have been put forward, amongst which that by Virchow has been the most generally accepted—viz., that it is caused by atresia of the papillæ, due to a fœtal inflammation, brought about by an abundant deposit of urinary salts in the tubules. Thorn, however, believes that this condition is more frequently brought about by inflammation passing from the calices to the substance of the papillæ; while Chotinsky says that occlusion of the tubules is to a great extent due to successive multiplication of the epithelium. Others hold that it is due to a primary fault of development, and that in this condition "we have really to do with a more or less persistent mesonephros, associated in greater or less degree with normal renal tissue.

Reviews and Notices of Books.

Lectures on General Pathology. By JULIUS COHNHEIM. Translated from the Second German Edition by ALEX. B. MCKEE, M.B. Dub. Section 1: The Pathology of the Circulation. London: The New Sydenham Society. 1889.

THE publication of the work wherein the late Professor Cohnheim may be said to have gathered the harvest of his remarkable scientific career is an event regarding which the New Sydenham Society deserves great credit. It has, indeed, often been a matter of surprise to us that no English translation of these "Vorlesungen" should hitherto have appeared, for they in no small measure mark an epoch in the history of pathology. The first edition appeared in 1877, and the second in 1882. Two years later, at the early age of forty-five, their gifted author passed away, leaving behind him not only this but numerous other contributions to pathology which bear the stamp of genius. In a sense, indeed, Cohnheim created a new school of pathology in his aims at studying it from the experimental and physiological side; and, brief as was his career, he succeeded in not only adding new and important contributions himself, but in inspiring many workers to pursue investigations of many problems upon new lines and methods, with far-reaching result. It may be that in the more recent pursuit of the etiology of morbid processes, in the absorbing and fascinating study of the relations between bacterial organisms and disease, there has been a diversion of attention from the important subjects with which Cohnheim mainly dealt. But when the history of pathology comes to be written there cannot fail to be found a most prominent place for such work as he did, both in the facts he disclosed and the fertile suggestions that he made, especially in such subjects as embolism, inflammation, anæmia, tuberculosis, and morbid growths.

The volume before us contains that section of the lectures which deal with the Circulation. It embodies, therefore, much of the ground with which the author himself was personally most familiar. Opening with the study of the circulatory derangements depending upon lesions of the heart and its valves, and passing thence to the conditions of the circulation in the peripheral vessels, the subjects of local Anæmia and Hyperæmia are fully discussed. Next the author deals with Thrombosis and Embolism, where we note the statement of the view that thrombosis occurs not in consequence merely of the arrest or stagnation of the blood stream, but on account of the impaired nutrition of the endothelial lining of the vessels which such stagnation may itself occasion. It is shown also that in the "organisation" of a thrombus it is not essential even for the vessel wall to participate, but that the whole process may be effected by emigrant wandering cells penetrating the thrombus from without, for of course the older idea of direct conversion of the clot is quite abandoned. The results of the softening of thrombi and the mechanical effects of thrombosis upon the circulation lead naturally to a discussion of the subject of embolism, which is dealt with in an exhaustive and most interesting manner. Many readers will doubtless turn to the following chapter, that on Inflammation, in the expectation of finding it treated in a philosophical manner: nor will they be disappointed; for whether we regard the style in which the description of the process is given, the minute and painstaking way in which each of its phenomena is treated, or the completeness with which the whole subject is viewed on all sides, this chapter by itself bears the impress of the master hand. The subject of inflammation is in truth the keystone of morbid action, and it was Cohnheim's great service to demonstrate the preponderant influence of the circulation in the process. The remaining topics dealt with in this volume, Hæmorrhage and Anæmia (we would draw special attention to the discussion of "essential anæmia"), although each of them of great interest, pale in importance before this unique exposition of inflammation.

The influence of Cohnheim's teaching has shown itself in many recent works on pathology, but hitherto the English-reading student has had to be content with the descriptions of his work at second-hand. He will now have the opportunity of studying the words of the teacher himself, and he cannot fail to be impressed by the depth of knowledge and clear thinking that are evinced on every page. For this boon he has to thank the New Sydenham Society, and especially the able translator, Dr. McKee, who has succeeded admirably in the by no means easy task of rendering such a work as this into another language without impairing the freshness or terseness of the original.

The Anatomy of Labour, as studied in Frozen Sections, and its bearing on Clinical Work. By A. H. F. BARBOUR, M.D. Edinburgh: W. & A. K. Johnston. 1889.

THIS little book is explanatory of the author's Atlas on the same subject. Though small in size, it is great in

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value, summing up as it does the present condition of knowledge on the subject, for much of which we are indebted to Dr. Barbour. The first part of the book gives these results; the second gives the literature of the subject in the form of references, tables, and summaries. The amount of work, of one kind and another, here represented is very great, and the book will always, we think, maintain its place as a standard authority on the anatomy of labour. The uterus and pelvis are treated before labour, in each of the stages of labour, and after labour. The facts are derived from gross and from microscopical evidence, and include the consideration of the "lower uterine segment," which, though not yet fully worked out, seems to belong unmistakably to the body, and not to the neck of the womb.

There are few criticisms for us to make. A few changes might be made in a subsequent edition, which would make some details clearer. For instance, on page 46, the placental site is described as thicker, and on page 52 as thinner, than the rest of the uterus. In Chapter 4 the word "conjugate" is incorrectly used (*passim*) to denote antero-posterior diameters other than that of the brim. A "conjugate" is a technical term, meaning the lesser diameter of an ellipse, and only applies to the antero-posterior diameter of the brim. There is an advantage in this, inasmuch as it is only necessary to speak of the "conjugate," since the only conjugate is that of the brim; and it is as unnecessary and redundant to speak of the "conjugate of the brim" as it would be to speak of the brain of the head or the fingers of the hand. It is plain that, in future, the terms "extension" and "flexion" can only be taken to denote the lesser or greater coincidence of the long axis of the head with that of the genital canal, and not separation or approach of the chin from or to the chest. The elevation of the pelvic peritoneum, except that of Douglas's pouch, during pregnancy, and still more during labour; the relation of the ureters as regards the possibility of their compression; and the imperfect elevation of the bladder during labour, are all of great interest. In Chapter 5 the bearing of clinical facts on frozen sections of the third stage is considered. Here we think a little more caution was required, for, as regards the clinical facts, some of the most important of them have been the subject of prolonged discussion and reinvestigation, with the result that former descriptions require revision. There is no trace of this in the chapter before us, and, while the literature of frozen sections is given, the literature of the clinical side is not alluded to. For many reasons, the evidence of frozen sections from the third stage of labour is less weighty than that of the other stages, and the question is not yet settled. It is not unlikely that some of the statements here made will have to be withdrawn, and we hold that in a work like the present this should never be necessary. It is far better to assert nothing which cannot be proved, for unproved assertions often cost others much weary and unnecessary trouble, and really impede the advance of knowledge.

The book, small as it is, is so full of facts that it is not easy to find what is searched for, especially as the object of search often occupies pages remote from each other. An index, and a pretty full one, should certainly be added. A second edition of this excellent work should be even more valuable.

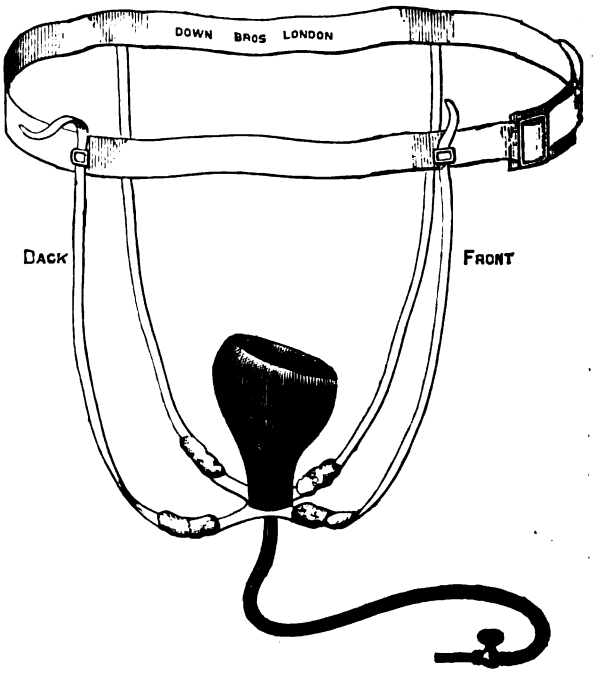
VICTORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea.—On the 11th inst., the Organising Committee and delegates from the temperance trades and friendly societies and clubs handed over to the chairman and committee of the hospital the sum of £272 16*s.* 10*d.*, being the net proceeds of the most successful church parade which has yet been held in Chelsea.

New Inventions.

HYDROSTATIC REPOSITOR.

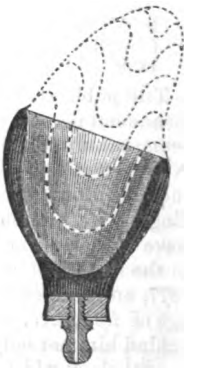
CASES of chronic inversion of the uterus are happily not of very frequent occurrence, but they are sufficiently common to warrant the adoption of special means in their treatment. No amount of manual dexterity and patience, however great, will suffice to replace the chronically inverted uterus, but steady and well-directed mechanical pressure will generally effect reduction. The cup and stem repositors, which have hitherto been used with much success, are open to at least two objections: 1. The necessity for changing the cups as reduction proceeds. 2. The difficulty in withdrawing the instrument when reduction has been

FIG. 1.



effected; for not only does the cervix then grip the stem *below* the cusp, but this latter also acts as the plunger in a suction pump, and the negative pressure induced by attempted withdrawal is very great. The report in THE LANCET of May 18th of cases related at a meeting of the Obstetrical Society of London fully illustrates these difficulties. I have therefore been induced to elaborate the rough model of a hydrostatic repositor which I designed in the year 1886. The instrument was exhibited at the Leeds meeting by the makers, Messrs. Down Bros. It consists of a double india-rubber bag (Figs. 1 and 2) mounted on a steel X-shaped frame, and connected with a stout rubber tube called the supply-pipe. It is kept in position by four *in*elastic perineal bands attached to the four points of the X frame and buckling on to a stout waistband, which latter may, if required, be coated with adhesive plaster. The arrangement of the frame leaves the meatus urinarius and the anus uncovered, so that the patient is enabled to micturate and defecate. The pressure is applied through the supply-pipe by any fluid, from compressed air to mercury (oil alone excepted), and by any means, from a Higginson's syringe to a reservoir over the patient's bed, or the ordinary service supply-pipe. Its advantages are:—1. It can be thoroughly disinfected by any solu-

FIG. 2.



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tion (e.g., sublimate) before use. 2. The bag being elastic, it envelops the womb; and the power being hydrostatic, it adjusts itself accurately to that organ, while the pressure is uniformly distributed over the whole of the body to be reduced. Thus the bloodvessels and lymphatics are emptied, engorgement is diminished, and reduction materially favoured. 3. The pressure being constant and uniform, reduction takes place in the line of least resistance, and the receding uterus is steadily followed up by the reducing agent. 4. The posterior border being longer than the anterior, the axis of the curves of reposition tends to coincide with the axis of the uterus. (Fig. 2.) 5. The pressure can be regulated to a nicety, especially by a reservoir suspended over the patient's bed. 6. Reduction may be effected with the patient in any position, from the genu-pectoral to the dorsal decubitus. 7. Reduction having been effected, the bag is emptied by disconnecting the supply-tube and the reservoir. The upper part then collapses, and the whole is easily withdrawn from the vagina.

Fig. 1 represents the repositor with the bands and belt attached. Fig. 2 is semi-diagrammatic, the shaded portion representing a vertical section through the inverted cup (ready for use), and the dotted lines, approximately, the various curves assumed during distension of the instrument and reposition of the uterus. The instrument has been well and faithfully made from my detailed drawings by Messrs. Down Bros. of St. Thomas's-street, Borough.

B. CAMPBELL GOWAN, M.R.C.S., L.R.C.P., L.S.A.
Great Stanmore.

THE BRITISH ASSOCIATION.

THE various Sections of the British Association commenced their labours on Thursday, the 12th inst., large audiences being the rule and the addresses being well received.

BIOLOGY SECTION.

Canon Tristram read the address which had been prepared on this subject by the President of the Section, Dr. Burdon Sanderson, who was prevented by illness from being present. After an introduction the address proceeded:—

"Physiology first studies man and the higher animals, and proceeds to the higher plants, then to invertebrates and cryptogams, ending where development begins. From the beginning her aim has been to correlate function with structure, at first roughly, afterwards, when her methods of observation became scientific, more and more accurately, the principle being that every appreciable difference of structure corresponds to a difference of function; and, inversely, that each endowment of a living organ must be explained, if explained at all, as springing from its structure. It is not difficult to see whither this method must eventually lead us. For, inasmuch as function is more complicated than structure, the result of proceeding, as physiology normally does, from structure to function must inevitably be to bring us face to face with functional differences which have no structural difference to explain them. By multiplying examples, they would in each case come to this issue—plurality of function with unity of structure, the unity being represented by a simple structural element, be it retinal cone or cell, possessed of numerous endowments. Whenever this point is arrived at in any investigation structure must for the moment cease to be our guide, and in general two courses or alternatives are open to us: one is to fall back on that worn-out *Deus ex machinâ*, protoplasm, as if it afforded a sufficient explanation of everything which cannot be explained otherwise, and accordingly to defer the consideration of the functions which have no demonstrable connexion with structure as for the present beyond the scope of investigation; the other is, retaining our hold of the fundamental principle of correlation, to take the problem in reverse—i.e., to use analysis of function as a guide to the ultra-microscopical analysis of structure. I need scarcely say that of these two courses the first is wrong, the second right, for in following it we still hold to the fundamental principle that living material acts by virtue of its structure, provided that we allow the term structure to be used in a sense which carries it beyond the limits of anatomical investigation—i.e., beyond the knowledge which can be attained either by the scalpel or the microscope. We thus proceed from function to structure, instead of the other way. In thus changing direction we are not departing from the traditions of our science."

Having dwelt upon the discoveries of Haller and others, the address went on to describe life as "a cyclosis in which the organism returned after every cycle to the same point of departure, ever changing, yet ever the same." After touching upon the relation of oxygen to living matter and vital process and other cognate subjects, an outline or sketch was given of what might, if there were time to complete it, be an adequate conception of the mechanism and process of life. The following passages concluded the address:—

"What we have to guard against is the mixing of two methods, and, so far as we are concerned, the intrusion into our subject of philosophical speculation. Let us willingly and with our hearts do homage to 'divine philosophy,' but let that homage be rendered outside the limits of our science. Let us, if we are so inclined, cross the frontier and philosophise; but for my part, as a physiologist, I feel more disposed to do my best to furnish professed philosophers with such facts relating to structure and mechanism as may serve them as aids in the investigation of those deeper problems which concern man's relations to the past, the present, and the unknown future."

ANTHROPOLOGICAL SECTION: HEREDITY.

The President, Sir William Turner, F.R.S., delivered an address upon "Heredity." After some introductory observations, Sir W. Turner said that in its relations to man, his structure, functions, and diseases, the subject of heredity had long occupied a prominent position in the minds of anatomists, physiologists, and physicians. That certain diseases, for example, were hereditary was recognised by Hippocrates, who stated generally that hereditary diseases were difficult to remove, and the influence which the hereditary transmission of disease exercised upon the duration of life was the subject of a chapter in numerous works on practical medicine, and formed an important element in the valuation of lives for life insurance. Sir W. Turner described at some length the latest discoveries in the field of biology, and referred extensively to Charles Darwin, Mr. Francis Galton, Professor Weismann, and others. The lecturer then proceeded to examples of hereditary malformation, and continued as follows:—"These examples illustrate what may be called the coarser kinds of hereditary deformity, where the redundancies or defects in parts of the body are so gross as at once to attract attention. But modifications or variations in structure that can be transmitted from parent to offspring are by no means limited to changes which can be detected by the naked eye. They are sometimes so minute as to be determined rather by the modifications which they occasion in the function of the organ than by the ready recognition of structural variations. One of the most interesting of these is the affection known as Daltonism, or colour-blindness, which has distinctly been shown to be hereditary, and which is due, apparently, in the majority of cases, to a defect in the development of the retina, or of the nerve of sight which ends in it, though in some instances it may be occasioned by defective development of the brain itself. Dr. Horner has related a most interesting family history, in which the colour-blindness was traced through seven generations. In this family the males were the persons affected, though the peculiarity was transmitted through the females, who themselves remained unaffected. The family tree showed that in the sixth generation seven mothers had children. Their sons, collectively nine in number, were all colour-blind with the exception of one son, while none of their nine daughters showed the hereditary defect. ..... The eye is not the only organ of sense which exhibits a tendency to the production of hereditary congenital defects. The ear is similarly affected; and intimately associated with congenital deafness is an inability to speak articulately, which occasions the condition termed deaf-mutism. ..... Mr. David Buxton, who has paid great attention to this subject, states that the probability of congenital deafness in the offspring is nearly seven times greater when both parents are deaf than when only one is so; in the latter case, the chance of a child being born deaf is less than ¾ per cent.; in the former, the chances are that 5 per cent. of the children will be deaf-mutes. ..... Had one been discussing the subject of hereditary disease twenty years ago, the first example probably that would have been adduced would have been tuberculosis, but the additions to our knowledge of late years throw some doubt

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upon its hereditary character. There can, of course, be no question that tubercular disease propagates itself in numerous families from generation to generation, and that such families show a special susceptibility or tendency to this disease in one or other of its forms. But while fully admitting the predisposition to it which exists in certain families, there is reason to think that the structural disease itself is not hereditarily transmitted, but that it is directly excited in each individual in whom it appears by a process of external infection due to the action of the tubercle bacillus. Still, if the disease itself be not inherited, a particular temperament which renders the constitution liable to be attacked by it is capable of hereditary transmission.....The germ from the cancerous parent must be so far different from the normal as after the lapse of years to engender the cancerous condition. Heredity is also one of the most powerful factors in the production of those affections which we call gout and rheumatism."

After adducing several family histories in which the heredity of cataract and other diseases is suggested, Sir W. Turner went on to treat of the transmission of acquired characteristics, and said:—

"If we could conceive both parents to be physiologically perfect, then it may be presumed that the offspring would be so also. ..... Should both parents be physiologically imperfect, we may expect the imperfections, if they are of a like nature, to be intensified in the children. It is in this respect, therefore, that the risk of consanguineous marriages arises, for no family can lay claim to physiological perfection. ..... So far as man is concerned, the evidence in favour of a tendency to the transmission of both structural and functional modifications which are either of disservice or positively injurious, or both, is quite as capable of proof as that for the transmission of characters which are likely to be of service. Hence useless as well as useful characters may be selected and transmitted hereditarily. I have dwelt somewhat at length on the transmissibility of useless characters, for it is an aspect of the subject which more especially presents itself to the notice of the pathologist and physician, and little, if at all, to that of those naturalists whose studies are almost exclusively directed to the examination of organisms in their normal condition. But when we look at man, his diseases form so large a factor in his life that they and the effects which they produce cannot be ignored in the study of his nature."

Having pointed out the conflict of opinion existing as to whether the somatogenic acquired characters are transmissible from parent to offspring, Sir William Turner continued:—

"It may appear, therefore, to be both rash and presumptuous on my part to offer an opinion on this subject. I should, indeed, have been slow to do so had I not thought that there were some aspects of the question which seemed not to have been sufficiently considered in its discussion. In the first place, I would, however, express my agreement with much that has been said by Professor Weismann on the want of sufficient evidence to justify the statement that a mutilation which has affected a parent can be transmitted to the offspring. It is, I suppose, within the range of knowledge of most of us that children born of parents who have lost an eye, an arm, or a leg come into the world with the full complement of eyes and limbs. The mutilation of the parent has not affected the offspring; and one would, indeed, scarcely expect to find that such gross visible losses of parts as take place when a limb is removed by an accident or a surgical operation should be repeated in the offspring. But a similar remark is also applicable to such minor mutilations as scars, of the transmission of which to the offspring, though it has been stoutly contended for by some, yet seems not to be supported by sufficiently definite instances. I should search for illustrations of the transmission of somatogenic characters in the more subtle processes which affect living organisms, rather than those which are produced by violence and accident."

In conclusion Sir William Turner said:—

"Man is a living organism, with a physical structure which discharges a variety of functions, and both structure and functions correspond in many respects, though with characteristic differences, with those which are found in animals. The study of his physical frame cannot therefore be separated from that of other living organisms, and the processes which take place in the one must also be investigated in the other. Hence we require, in the special consideration of the physical framework of man, to give due weight to those general features of structure and functions which he shares in common with other living organisms. But, whatever may have been the origin of his frame, whether by evolution from some animal form or otherwise, we can scarcely expect it ever to attain any greater perfection than it at present possesses. The physical aspect of the question, although of vast importance and interest, yet by no means covers the whole ground of man's nature, for in him we recognise the presence of an element beyond and above his animal framework. Man is also endowed with a spiritual nature. He possesses a conscious responsibility which enables him to control his animal nature, to exercise a discriminating power over his actions, and which places him on a far higher and altogether different platform than that occupied by the beasts which perish. The kind of evolution which we are to hope and strive for in him is the perfecting of this spiritual nature, so that the standard of the whole human race may be elevated and brought into more harmonious relation with that which is holy and divine.'

Mr. Francis Galton, F.R.S., read a paper on the "Advisability of assigning Marks for Bodily Efficiency in the Examinations of Candidates for the Public Services," and pointed out that the proposal had no reference whatever to the pass examinations now made by medical men in order to eliminate candidates who are absolutely unfit, but to give additional marks to those youths who, being fit for service, were at the same time exceptionally well fit so far as bodily efficiency was concerned.

Papers were also read by Dr. J. G. Garson (in the absence of Dr. Ridolfo Livi) on the "Development of the Wisdom Teeth"; by Dr. W. K. Sibley, on "Left-leggedness," which went to prove that, whilst man was naturally or artificially right-handed, he was at the same time left-legged; and a paper on the subject of "The occasional Eighth True Rib in Man and its relation to Right-handedness," by Professor D. J. Cunningham. The proceedings then closed.

CHEMISTRY SECTION.

Amongst the papers read in this Section was one by Dr. ISAAC ASHE, entitled "Dimidium: an attempt to represent the Chemical Elements by Physical Forms, with Models of the Elements, from Hydrogen to Nickel, constructed in accordance therewith." The author pointed out that when the combining weight of an element was divided by the number representing its combining power, or valency, as compared in both cases with hydrogen, the quotient in many cases presented the fraction ½, instead of an integer number; and that in many other cases, particularly in the triad series, an integer quotient, with unity for a remainder, was to be obtained by doubling the combining weight before dividing. Hence he inferred that an element having half the weight of hydrogen would be found to be the primordial element out of which the other elements were constructed. This hypothetic element he proposed to call "dimidium." The number of atoms of dimidium which would go to form any given element would be double the number representing the combining weight of that element as compared with hydrogen. Dimidium itself might probably consist of a number of vortex rings, according to Sir W. Thomson's theory, placed one on the top of another, thus forming an elongated circular bar; a limit would be placed to the length of the bar so compacted, in consequence of a point being reached on each side of the centre, in a lengthwise direction, where the forces of attraction and repulsion between the rings balanced each other. Possibly the hollow tube thus formed might itself be filled with some still lower form of matter, out of which the vortex rings themselves might have been made, perhaps perfect spheres, to which Mr. Crookes' term "protyle" might be applied. Assuming, then, the existence of this primordial linear element, and representing its atoms by small metallic bars of brass wire, the author showed that—taking in each case the number of bars indicated as above, by doubling the combining weight of each element—he had been able to construct a series of models of the chemical elements, in which their combining power, their positive or negative condition, and their modes of combination were all expressed, as well as their combining weight. He further showed that the forms brought out in these models corresponded with the crystalline forms known to belong to certain of these elements; and how the phenomenon of the expansion of water when freezing might be explained by reference to the form employed for the

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molecule of that compound, which was hexagonal in its general outline. The forms adopted for the elements in these models were also shown to correspond with the arrangement of the elements in series by Newlands and Mendeljeeff, elements belonging to the same series having corresponding forms. The author suggested that simple geometrical forms—that is to say, the equilateral triangle and the square—were the combinations into which the primordial element would first have entered, and all the models were accordingly constructed out of these forms, along with the simple bar. Thus the atom of hydrogen was constructed of two single bars placed side by side, and the molecule of four, and he suggested that these were probably separated in the gaseous condition so as to form a hollow cube. There were other secondary forms constructed out of the triangles and squares, and the models of many of the elements were then constructed out of these secondary forms. Lithium was formed of two squares and two triangles, or fourteen pieces, its combining weight being 7. Carbon was formed by placing two pyramids base to base, each pyramid being formed of four equilateral triangles, in all twenty-four pieces, its combining number being 12. The crystalline forms, both of the diamond and of graphite, were shown to correspond with this, the former being made by placing a number of the carbon atoms together by their edges, and the latter by placing them in apposition by their triangular facets. The author suggested that probably metals combined with non-metals by lateral interpenetration, a salient angle of the former corresponding with a re-entrant angle of the latter; but that two non-metals combined by superposition, corresponding angles being applied one to the other. The union of boron with nitrogen at a high temperature was shown by reference to the models to be an illustration of this view. The compounds of oxygen with nitrogen and with chlorine were also discussed, and a corresponding explanation of them suggested. What is known as the nascent condition of elementary atoms was explained as consisting in a sliding movement between two atoms which had been combined, so that one of these was removed gradually from the other, while a third gradually replaced it by a similar sliding movement, the atom so removed necessarily entering into combination with a fourth.

THE AMINES PROCESS OF SEWAGE PURIFICATION.

A LARGE company of gentlemen, in response to the invitation of Mr. E. B. Ellice-Clark, M.I.C.E., assembled on Wednesday last at the Wimbledon Sewage Farm to inspect the method of purification of sewage, now being carried out there, and known as the Amines process. Amongst those present were the Lord Mayor, several members of the Main Drainage Committee of the London County Council, as well as many well-known civil engineers, chemists, medical officers of health, and others interested in sanitary matters. "No known process of precipitation purifies sufficiently," was the conclusion the late Royal Commission came to in 1884. Yet the elaborator of this process of precipitation, Mr. Wollheim, claims for it not only a clear effluent, but one absolutely free from all organisms and sterile. The actual process differs little in its working from other precipitation processes, so that it can easily be put in operation without much outlay at sewage works where such methods have been in use.

The pure sewage is pumped up, and by suitable contrivance definite quantities of milk of lime and herring brine are added to it. It is then allowed to flow over an agitator into settling tanks. Clarification rapidly takes place, and is usually complete in half an hour. The clear effluent, smelling of brine, is then run off, and more sewage, with a smaller proportion of lime and brine, is run in on top of the residual sludge. This process is repeated six or more times. The sludge is then allowed to gravitate into the filter press house, where it is pressed into "cake." Samples we took from the press possessed only a slight ammoniacal smell. In his address Mr. Ellice-Clark stated that the sludge, containing 90 per cent. moisture, may be thrown on the land without giving rise to any nuisance, even under conditions of weather most favourable to putrefaction. No claim was urged having regard to the practical use or value of the sludge.

Dr. Klein has examined (by inoculation on nutrient gelatine) both the sludge and the effluent. In the former he reports finding fewer organisms than are found in filtered river water supplied by the London companies, and in the latter absolutely no organisms at all. And, further, that when the effluent is diluted with water containing organisms actual decrease in the number takes place rather than increase. This disinfecting and antiseptic property of the material employed is assigned by the inventor to a gaseous reagent soluble in water, and evolved by the action of the milk of lime upon the herring brine, to which he has given the name "Aminol." As to cost, Mr. Wollheim states that it may be given in round numbers as ranging from a halfpenny to three farthings per thousand gallons of sewage treated, and in the case of London sewage, taking the daily flow at 130,000,000 gallons, the cost need not exceed £330 daily, equal to about £125,000 per annum, which means 7½*d.* per head of the population, or a rate below 1*d.* in the pound. Most of those present on Wednesday seemed to think favourably of the process. The local board of Wimbledon expressed their satisfaction with this treatment, which has been carried out now at their farm for the past two months.

We failed to detect anything of an objectionable character in or around the premises; and the process, apart from the novelty of its active agent, from which is derived its name, deserves to enlist the interest of all concerned in sanitary science.

THE HYDERABAD CHLOROFORM COMMISSION.

To the Editors of THE LANCET.

SIRS,—I am directed by his Highness the Nizam's Government to offer THE LANCET, as the leading medical journal, £1000 to send out a representative to repeat the experiments of the Hyderabad Chloroform Commission, and make any others with the Commission that you may suggest.

1. The Hyderabad Committee performed a series of experiments, of a clinical nature, on the effects of chloroform in dogs in 1888, and their conclusions were embodied in a report which was submitted to Government early this year.

2. The experiments of the Commission tend to prove that chloroform has no direct action upon the heart, and though it is hardly to be expected that their conclusions will be accepted as final by the whole of the medical profession, their work may be safely said to constitute an interesting addition to what is already known about chloroform.

3. The Nizam's Government has been advised that if the experiments are continued and amplified by the Hyderabad Commission, associated with a trained scientist, whose position and attainments will ensure the acceptance of his opinions by the profession, the subject might be threshed out thoroughly, and the question whether chloroform does or does not affect the heart directly, and other questions connected with it, might be settled once for all.

4. His Highness's Government therefore desires to offer £1000, a cheque for which is forwarded herewith to the Editors of THE LANCET, to send a representative to Hyderabad to repeat and continue the experiments of the Hyderabad Chloroform Commission, and make with them any others that THE LANCET chooses to suggest.

5. If his Highness's offer is accepted, the gentleman selected should take a return ticket by P. and O. *vid* Brindisi for three months, to be extended if necessary, and he will be the guest of the Nizam's Government during his stay in Hyderabad.

6. The Hyderabad Commission undertake to place themselves entirely at his disposal and will act under his direction. The Commission will provide all instruments and appliances and everything which may be required for the experiments, and will, without bias, do all in their power to assist the representative of THE LANCET in arriving at the truth.

I have the honour to be, Sirs,

Your most obedient servant,

EDWARD LAWRIE,

Hyderabad, Aug. 18th, 1889. Surgeon-Major, Residency Surgeon.

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THE LANCET.

LONDON: SATURDAY, SEPTEMBER 21, 1889.

AT the meeting of the British Association at Newcastle, just concluded, two addresses on biological subjects were delivered, one by Professor BURDON SANDERSON, the other by Professor TURNER, which claim a passing notice. It was much to be regretted that Professor BURDON SANDERSON was, in consequence of severe indisposition, unable to attend the meeting and deliver his own address. This duty in his unavoidable absence was undertaken by the Rev. Canon TRISTRAM. The theme on which Professor SANDERSON dilated was the Nature of Life, or, perhaps, to speak more correctly, the difficulties which at present stand in the way of giving any satisfactory explanation of the intimate nature of the vital processes and the quarter from which aid may be anticipated. The determination of the chemical and physical endowments of living matter in general, and of the several varieties of living matter which constitute the animal and plant organism, is, he pointed out, the first duty of the physiologist in particular. He must then ascertain how these processes are localised so as to constitute the special function of each structure and the relation between structure and process in each case. There can be little doubt that we must look to chemistry for the next steps in physiological inquiry. We owe an immense debt to the microscope, which has supplied information of extreme interest in regard to all the various organs of the body. But it is not by this means that we shall gain an insight into the nature of the intimate processes of nutrition, of the contractility of muscle, or of the excitability of nerve. Function, as Professor SANDERSON remarks, is more complicated than structure, and the result of proceeding, as physiologists commonly do, from structure to function must inevitably be to bring us face to face with functional differences which have no structural difference to explain them. In every instance the ultimate issue proves to be plurality of function with unity of structure, the unity being represented by a simple structural element, be it retinal cone or cell possessed of numerous endowments. The problems that may be regarded as most urgently demanding solution are those which relate to the endowments of apparently structureless living matter, and the problem of the future will be the analysis of these endowments. In order that it may be worked out, those cases should be selected in which the vital process offers itself in the simplest form, and is consequently most easy to understand, and then, following the fundamental principle of the correlation of structure with function, of mechanism with action, we may proceed to draw inferences as to the mechanism by which these vital processes are actually carried out. After further showing that living differed from non-living matter in undergoing constant change whilst remaining the same, Professor SANDERSON observed that it was this antithesis which constitutes the essential distinction between the two great branches of biology. Seen from the morphological side, the whole plant and animal kingdom constitutes the unfolding of a structural plan which was once latent in a form of living material of great apparent simplicity. From the physiological side this apparently simple material is seen to be capable of the discharge of functions of great complexity, and therefore must possess corresponding complexity of mechanism. It is the nature of this invisible mechanism that physiology thirsts to know. Each step in general science affords further and further insight into the nature of vital processes, and demonstrates that they are not essentially different from those with which we are already familiar. The chemical investigations of BLACK and CAVENDISH and LAVOISIER, for example, led to clear conceptions of the changes involved in respiration; the cell theory founded on the researches of SCHLEIDEN and SCHWANN and VIRCHOW gave an insight into the deeper processes of nutrition, which has been greatly extended by the modern conception of protoplasm; but we are still far from understanding the essential difference between a living and a non-living body, though Professor SANDERSON believes that such knowledge is approachable.

In selecting Heredity for the subject of his address to the Anthropological Section, Professor TURNER interested not only the small number of his hearers who are specially engaged in investigating the history of man, but a far larger audience who are interested in the observation and treatment of his diseases, as well as those who are engaged in the breeding and rearing of animals. Though the ancient doctrine, that the seed of the animal or plant contains the adult in miniature, has been dismissed, and we no longer believe that the spermatozoa are homunculi, a doctrine almost as incredible is now very generally accepted to the effect that the germ plasm is transmitted, with all its original forms and potentialities, from parent to child, and has been so transmitted for an indefinite period—in fact, since the origin of the human race. The cells possessing these extraordinary powers are, as a rule, separated from the rest of the cells of the body at an early period of its development. They take no part in the growth of the organism in which they arise, and the principal reason for their association with other cells of the body is that certain of the latter minister to their nutrition. For the production of a new animal or plant, it is necessary that a process of fusion should take place between two particles named respectively the male and female pronucleus; and this fusion has been demonstrated in very humble members of both kingdoms. As the new individual grows, the germ plasm again separates from the rest, bearing, as it were, the torch of life to the next generation. Each new individual is, however, endowed with the power or faculty of variability, enabling it to adapt itself, within certain limits, to the conditions by which it is surrounded, and these adaptations, if favourable to the life of the individual, are capable of hereditary transmission, and may then, in course of time, lead to the formation of new species; if unfavourable, they lead to its degeneration or extinction. Professor TURNER demonstrates that in some instances structural lesions are transmitted—such, for example, as defect of digits, hare-lip, colour-blindness, and deaf-mutism; whilst in others there is inherited a strong predisposition to disease, as is seen in cancer, tubercle, hæmophilia, and cataract. The structural changes which there is every reason to believe exist in the

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germ plasm, and lead to structural defect or to particular tendencies and susceptibilities, are too recondite and delicate to permit of their being recognised; but it is not improbable that much light might be thrown upon this point by well-directed and carefully performed experiments upon the fertilised ova of the lower animals. It is still held by some physiologists that acquired characters cannot be transmitted from parent to offspring; but if this supposition were correct, it would follow, as Sir WILLIAM TURNER observes, that the primordial human germ plasm must have contained within itself an extraordinary potentiality of development—a potentiality so varied that all the multiform variations in physical structure, tendency to disease, temperament, and other characters and dispositions which have been exhibited by all the varieties and races of men who either now inhabit or at any period of the world's history have inhabited the earth must be included in it; and, still further, if it be true that all living beings have descended from a single cellular organism, this must have contained in its molecular constitution the potentiality of evolution into higher and more complex forms of life, a doctrine that requires much faith to accept. And there seems good reason for accepting Sir WILLIAM TURNER'S conclusion that somatogenic characters are transmitted and form an important factor in the production of hereditary characters.

IT will not be amiss to draw a few lessons from the prosecutions which have been so ably and successfully conducted at Birmingham against the quacks that infest that town. Birmingham would appear to have more than her share of such characters; but it can scarcely be supposed that she differs much in this respect from other towns where the same diseases and, alas! the same ignorance prevail. Venereal disease is too constant everywhere. Everywhere is the same dread of its consequences, affording a lucrative source of profit to the charlatan. Equally ubiquitous is the disposition to have it treated secretly and to believe anything in either the threats or the promises of the most audacious pretenders. Such prosecutions as that reported last week ought to enable the sufferers and the public generally to see that there is one thing almost more to be feared than these diseases—viz., the men who trade on them, and on those who fancy they suffer from them, with perfect indifference to anything but the extortion of money. The great proof of wisdom in men in regard to these diseases is in avoiding them altogether, and all the risks and sources of them, as the worst form of pestilence, and one entirely preventable. But the next greatest proof of wisdom is, when the disease has been contracted or there is any reasonable fear that it has been, to go at once to the medical man best known and most respected. Of all indiscretions, that is the greatest which leads a man with this disease to consult such quacks as these prosecutions have brought to light, who were ready to pronounce perfectly healthy men who consulted them to be "very ill," and "to need months of treatment," and still more ready to extort from them exorbitant fees for their impudent opinions and their quack medicines. There is no ear into which the confession of error and its consequences can be more fitly made than that of the medical man. It is his business at once to receive such communications and to give such advice as will curtail the mischief that may have arisen, to abate undue fear, and to facilitate the return to health and self-respect. He is of all men the one who can make the most allowance at the same time that he most powerfully dissuades from evil courses. We cannot forbear to notice the fact, shown by the prosperity of these pretenders, that while the working classes expect medical practitioners to treat them for small and inadequate sums, they are always ready to pay large charges for quack medicines and to quack practitioners. The more bold and audacious the pretenders are, and the higher they appraise themselves and their medicines, the more easy does it seem for them to exact heavy fees from people who would be shocked by a general practitioner asking them half-a-crown or five shillings for advice.

It is worth while to notice a few of the legal points that cropped up in these cases. Dr. ROGERS had his case well in hand, and was ready with all points. He was clear in his own mind at least as to the legal grounds on which to base a claim for conviction, and at times most effective and humorous in his examination of witnesses. The defendants were charged generally with falsely holding themselves out as legally qualified practitioners in medicine and surgery. CHARLES FREDERIC GROOM, of 44, Great Charles-street, was charged specially with falsely using the title of a Member of the Royal College of Surgeons. Mr. TRIMMER was in court, and gave evidence that in October last he had communicated to GROOM the resolution of the College of Surgeons withdrawing his diploma on account of an objectionable pamphlet, and requiring him to return his diploma, which he had not done. Dr. ROGERS contended that no person was entitled to represent himself as legally qualified unless he was registered—as GROOM'S counsel admitted he was not. Dr. ROGERS quoted Baron POLLOCK as laying down that if even a properly qualified medical man took the title of "Doctor" without being legally entitled to do so he infringed the law, and argued that an unqualified man who took such a title must be a much greater sinner. Not only did GROOM call himself "surgeon" and "Dr. GROOM," but JOHN MARSTON, a carriage builder, called himself "Dr. HUNTER," and JESSE KEY called himself "Dr. CURTIS." KEY had been convicted thirteen years since for illegally practising. The defence was hollow throughout. Mr. VACHELL, on behalf of GROOM, asked how he was to know that he had been struck off, seeing the College met with closed doors, and it could not be proved that the communication announcing his being struck off the roll had reached him. On behalf of MARSTON, the coach builder, Mr. VACHELL alleged his possession of a Philadelphia degree, as if it were not notorious that the University of Philadelphia had been deprived of its charter for the disgraceful sale of all sorts of degrees. There was, in fact, no defence, and the stipendiary magistrate, Mr. HILL, convicted all three "for falsely using the title of 'Doctor.'" The magistrate granted a case on each conviction, but we have not much fear of any reversal of his decision.

We cannot leave these prosecutions without a word of praise for the Medical Defence Union, to whose energy and public spirit we owe the successful results. It is a matter for painful surprise that the public authorities of such an

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enlightened municipality as Birmingham should allow such pestilential quackery to flourish in its midst, where there is law so easily available, if only the authorities would take a little trouble or empower the police to do so. It is disappointing that the College of Surgeons, which did so well in withdrawing GROOM'S diploma, did not follow up their action by prosecuting him for still using the title after being deprived of the membership on which it was based. It ought not to have been left to the Medical Defence Union to vindicate the sanctity of medical titles, and to prosecute the most pernicious of public and advertising quacks. The public and the medical corporations should combine to save the community from such pests and the profession from such disagreeable duties. Let us hope that a few such prosecutions, with all their disclosures of fraud and imposture, will stimulate them to do their duty. Meantime society owes a deep debt of gratitude to the Medical Defence Union, which, created for strictly medical defence purposes, has thus gone out of its way to do a great public service by exposing a great public evil.

ACUTE INFLAMMATION of the peritoneum arises under so many conditions that the study of its pathogeny would, it might be thought, be of especial value in determining the nature of the inflammatory process in general. One must welcome, then, any fresh contribution to the subject which, in view of its frequency and importance, has not perhaps been so thoroughly investigated as many far less valuable questions. Such a contribution is afforded in the current issue of *Virchow's Archiv* (Band 117, Heft 3) by Dr. PAWLOWSKY of St. Petersburg, who relates in detail a long series of experiments conducted by him in Professor ROSENBACH'S laboratory at Göttingen—experiments which go a considerable way to clear up many of the difficulties that surround this subject. It may be well, before adverting to his results, to follow him in his opening survey of the work hitherto done in this line of inquiry. He reminds us that in 1877 WEGNER published a series of researches upon the functions and action of the peritoneum, which were a distinct advance on the knowledge available up to that time, but the importance of which has been to some extent overlooked. WEGNER'S experiments largely consisted in noting the effects of the injection of air and of fluids of various kinds into the peritoneal cavity. He demonstrated that many such injections were quite innocuous, the material being rapidly absorbed without producing the slightest evidence of irritation of the serous membrane; and he also showed how rapidly peritoneal wounds healed. He found, too—and this before the real significance of pyogenic organisms was clearly understood,—that even in the case of fluids containing putrefactive bacteria the result depended apparently upon the amount of fluid injected, small quantities being absorbed without ill effects. At the same time he clearly conceived the notion that cases of rapidly fatal peritonitis, where death was often attributed to "shock," were really examples of general septic poisoning due to the absorptive powers of the peritoneal sac; and further believed that the fatal issue of acute suppurative peritonitis was owing to a similar blood-poisoning. There can now be no question that the reason for the immunity enjoyed by the peritoneum from the effects of certain of the fluids with which he experimented was due to the fact that they were devoid of any pathogenic organisms. GRAWITZ, who ten years later (1886) also made an experimental study of peritonitis, arrived at the conclusion that the serous membrane itself must be first injured or altered before general purulent inflammation could be excited by the injection of pyogenic organisms. WEGNER dwelt more upon the conditions of the peritoneum as a cavity into which fluid could be poured out, and from which it could be absorbed. GRAWITZ, on the other hand, directed especial attention to the wall of the cavity and its maintenance in a state of integrity. MIKULICZ, at the Berlin Surgical Congress in 1887, related experiments upon perforative peritonitis, and found that subsequent washing out the cavity with either carbolic or sublimate solutions was of no avail, whilst similar treatment with boracic or salicylic acids resulted in saving 50 per cent. of the animals in whom peritonitis had been so excited. But what was the nature of the poison derived from the intestine in such cases that had the power of exciting peritonitis, or why it was that carbolic acid and corrosive sublimate failed to arrest the process, were matters still left *sub judice*.

The question of experimental peritonitis had, then, reached this stage when PAWLOWSKY determined to carry it further. He planned a number of experiments to observe the effects of the action (1) of chemical agents, (2) of microbes, (3) of the intestinal contents, and (4) of combined chemical agents and microbes upon the peritoneum. The experiments were all conducted with strict observance of aseptic rules, and great care to avoid injury to viscera by the injecting syringe. The "chemical irritants" employed comprised croton oil, trypsin, and the products of two well-defined pathogenic organisms—staphylococcus aureus and streptococcus erysipelatis. One fact was clearly established—viz., that the infective forms of peritonitis were vastly favoured by the previous irritation of the membrane by chemical agents, thus confirming the proposition advanced by GRAWITZ. But the great merit of PAWLOWSKY'S work lies in the differentiation of the types of inflammation produced in these various ways. The peritonitis excited by the injection of the above-named chemical substances was invariably hæmorrhagic — never purulent; and side by side with this fact was the entire absence of microbes in the peritoneal exudation. Even in cases where the inflammation had been most severe, there was no lesion of the intestinal walls, no penetration of micro-organisms into the peritoneal cavity, no trace of suppuration. But when—as in some instances—the post-mortem examination was deferred beyond two hours after the death of the animal, then microbes could be detected in the peritoneal fluids, showing that (even before putrefaction had set in) these organisms could penetrate the dead but not the living tissues. The experiments with injections of cultures of micro-organisms fell under three series. In the first, non-pathogenic microbes were employed, without any result. Then the staphylococcus aureus, as the most typical and virulent of pyogenic organisms, was injected in varying quantities, and found to be highly provocative of peritonitis, even when administered in minute amounts. In the most severe cases death ensued within twenty-four hours, and the peritoneum showed hæmorrhagic and fibrinous exudation, with perhaps some admixture of

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"catarrhal" cells, evidently indicative of commencing suppuration, which advanced to a greater degree the longer the animal survived. Experiments were also made with bacillus pyocyaneus, held by many to be non-pathogenic, and it was found to be almost as pyogenic as the staphylococcus. The conclusions from these experiments, which illustrated infection of the peritoneum from without, point to no less than four types of peritonitis being so induced: viz., (*a*) the mycotic form, the most severe and rapidly fatal, where the membrane is coated in places with a scanty mucoid exudation, consisting mainly of bacterial colonies; (*b*) hæmorrhagic exudation with more or less admixture of pus and microbes; (*c*) a fibrino-purulent form, obviously due to less intense infection, and marking the commencement of suppuration; and (*d*) typical purulent peritonitis, which is most markedly attained by the combined action of mechanical and chemical irritation, and the presence of pyogenic microbes in such amount as to produce comparatively slight general infection, and therefore to permit of the longer survival of the animal. Another series of experiments was concerned with the etiology of perforative peritonitis, and with this object injections into the cavity were made of filtered and unfiltered or diluted intestinal contents. The main results were that similar varieties could be produced by this mode of infection from within (i.e., intestine), as in infection from external sources, according to the amount and quality of the material introduced. Apparently microbes play an important part here also, but the precise micro-organism responsible for the inflammation in man has not been determined. In the rabbit, PAWLOWSKY isolated a bacillus from the intestinal contents, which was doubtless the cause of the peritonitis. It may be gathered, therefore, from his research that general acute peritonitis, which tends to become, or, owing to the survival of the microbe for a sufficient period, does become purulent, is invariably due to the presence of microbes which may be introduced into the cavity from sources external to the body, from the intestinal canal, or from some local source of infection elsewhere in the body. Also that the operation of these bacteria is favoured by associated irritation of mechanical or chemical nature, which *per se* induces hæmorrhagic but never purulent exudation.

PAWLOWSKY refers also to another interesting point in the history of acute peritonitis—viz., the frequent association with it of splenic tumefaction and of pleurisy. In explanation of these concomitants he reminds us that the peritoneum is a large lymph sac, and that its wall is furnished with stomata opening into the surrounding lymphatics; that there is thus an almost direct connexion between the pleura and the peritoneum, and also between the latter and the lymph space of the spleen, through its capsule; that a path of invasion of these parts by the peritonitic microbes is thus open; and that the presence of such microbes in the spleen leads to its reactive hyperplasia. As to the cause of the fatality of acute peritonitis, it is, on this microbic doctrine, due to general infection. If the virus be of small amount, it is conceivable for it to be absorbed into the thoracic duct, carried away in the circulation, destroyed and excreted as is the case with simple exudations; but if it be of greater amount or virulence the microbes will be found accumulating around the stomata, which they soon occlude, and then, multiplying in the peritoneum, produce purulent effusion, besides increasing the danger of general sepsis. The practical inference from such considerations is that *early* laparotomy is indicated in every case of infective peritonitis, but there yet remain points as to the etiology and treatment of the disease (especially that due to intestinal perforation) that await inquiry.

A SOMEWHAT important case, involving a question as to the proper interpretation of Section 126 of the Public Health Act (1875), came before the Malling Petty Sessions last week. The section imposes a penalty on exposure of infected persons and things, such penalty being incurred by any person who "gives, lends, sells, transmits, or exposes, without previous disinfection, any bedding, clothing, rags, or other things which have been exposed to infection"; and in pursuance of this provision the rural sanitary authority of Maidstone summoned a parent whose children were alleged, whilst affected with scarlet fever in its desquamative stage, to have been engaged in an orchard gathering currants which were subsequently transmitted to London. Mr. BUTTERFIELD was present as medical witness on behalf of the authority, but the details of the case were not gone into, on the ground, taken by the magistrates, that it was very doubtful whether fruit was so far *ejusdem generis* with the other articles named in the section as to be properly included in the term "other things." On behalf of the sanitary authority it was contended that this term included everything in the "wide, wide world" that could be shown to be capable of conveying the infection; but the magistrates evidently felt that, even with the aid of expert medical evidence, they could not undertake to decide whether fruit carries infection or not; and although they showed their sympathy with the sanitary authority by refusing to allow the defendant's costs and by stating that cases of this kind should be brought under the notice of the Legislature, yet they decided that they had no jurisdiction.

We imagine that there are conditions of fruit gathering which can leave but little doubt as to the danger of conveying particles of scarlatinal epithelium from fruit gatherer to fruit consumer, although it might be extremely difficult to prove, in an individual case, that any special parcel of fruit was actually thus infected, or was the actual cause of any case of scarlatina. But, in all probability, the magistrates may have been influenced in their decision as to the meaning of the term "other things" by the absence of any well-known cases in which fruit has conveyed infection, whilst the other articles named in the section are recognised carriers of the specific contagia. The point deserves to be carefully borne in mind by medical officers of health and others in cases of scarlatina or other diseases having an obscure origin. We only recall one instance in which the matter has come under any detailed investigation, and in the brief account of it given in the *Practitioner* (July, 1883) it is admitted that whilst "the employment as strawberry gatherers of persons in the desquamative stage of scarlet fever" came under suspicion, yet the case was complicated by the circumstance that those who consumed the strawberries and who subsequently contracted scarlatina had mixed the fruit with a cream which could not be exonerated from a share in the suspicion as to the source of the infection.

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Annotations.

"Ne quid nimis."

"THE LANCET" AND THE HYDERABAD CHLOROFORM COMMISSION.

ON another page we print Surgeon-Major Lawrie's letter containing details of His Highness the Nizam of Hyderabad's offer to place at the disposal of THE LANCET, as the leading medical journal, the sum of £1000 to send out a representative to repeat the experiments of the Hyderabad Chloroform Commission, and to make any others that we may suggest. This offer we have cheerfully accepted. There are many young men of great ability and thorough scientific training who could have done this work exceedingly well, but in accordance with the Nizam's desire that we should select a man who is not only a trained scientist, but one whose position and attainments will ensure the acceptance of his opinions by the profession, we have requested Dr. Lauder Brunton, F.R.S, to act as our representative, and he has consented to set out for Hyderabad on Oct. 4th, which is the earliest possible opportunity. Dr. Lauder Brunton has not only devoted much time to pharmacological work for more than twenty years, his first contribution on the action of nitrite of amyl having appeared in our columns in 1867; but the fact that his large work on "Pharmacology and Therapeutics," which appears also in an American edition, has been translated into French, and is now being translated into German, Italian, and Spanish, shows that he is regarded as an authority in other countries as well as our own. It may perhaps be considered as a farther advantage that in this work Dr. Lauder Brunton has very decidedly stated that one of the dangers resulting from chloroform is death by stoppage of the heart. "Audi alteram partem" is the motto of an important section of THE LANCET; and we think that by getting both opinions regarding the effect of chloroform on the heart represented on the Commission, as they will be by Dr. Lauder Brunton and Surgeon-Major Lawrie, we are more likely to obtain a correct conclusion. The question whether chloroform paralyses the heart or not is one of the greatest possible practical importance, for upon its correct solution the lives of thousands of people and the happiness of thousands of families may depend. Both in Europe and America clinical experience and physiological experiments have led to the conclusion that it has a paralysing action on the heart, while ether exerts such an action in a very minor degree, if at all. In consequence of this, ether is now largely used in this country as well as in America for producing anæsthesia in surgical operations, in spite of the greater pleasantness and convenience of chloroform. It is almost impossible to believe that the conclusion at which European and American surgeons and scientists have arrived is, after all, destitute of foundation, and little better than an idle dream. When we find, then, that Dr. Lawrie and the Nizam's Commission have arrived at an entirely opposite conclusion, it is natural that we should hesitate to accept it. A consideration of the report of the Commission appears to show that the number of experiments performed was not only large, but the results were so uniform that the conclusion arrived at—viz., that chloroform does not paralyse the heart, but kills by stopping the respiration—may fairly be taken as correct for the animals experimented on, and for the conditions under which the experiments were performed. But if we grant this we are at once confronted by the next problem: Why do the results of the Nizam's Commission differ from those of European and American investigators? Is it because the experiments in India were carried on in a warmer climate? Or is it because the animals experimented on were peculiarly resistant to the action of chloroform? These questions can only be answered by further experiments, which can hardly fail to be of practical utility, even if they afford only a partial solution of the problem. For Surgeon-Major Lawrie states in his letter, which appeared in our issue of May 11th, that the results of the experiments carried out by the Commission tallied exactly with his own experience. In the correspondence which occurred on the subject in THE LANCET some writers agreed with Dr. Lawrie, while others supported the opposite view. We may perhaps fairly call these two views those of the Edinburgh and London schools. In the Scotch capital failure of respiration is regarded as the chief or only danger, while in the metropolis failure of the heart is more feared. It is quite possible that the surgeons in both cities are right, and that the habits or mode of living of the people may lead to differences in the resisting power of the cardiac or respiratory apparatus respectively. The proportion of gouty patients is much larger in London than in Edinburgh, and when we consider that the natives of India appear to resemble the Scotch in their comparative immunity from cardiac paralysis by chloroform, it will be advisable for the Commission to ascertain, if possible, what the conditions are which enable the heart either in dogs or men to resist the power of chloroform or which lead to its stoppage during the administration of the drug. It may not be possible to work out completely all the questions which may arise, but if the Hyderabad Commission, with the aid of Dr. Lauder Brunton, can settle definitely the question whether chloroform does or does not affect the heart directly, a most important practical object will have been attained by means of the Nizam's generous offer.

COMPETITIVE EXAMINATIONS.

AT the meeting of the British Association on the 12th inst. Mr. Francis Galton brought under the consideration of the Anthropological Section the important question of physical qualifications as an element in deciding the relative position of the candidates for appointments in the public service. It appears that some years ago a joint committee of the Civil Service Commissioners and War Office drew up a scheme of competition for admission to Woolwich and Sandhurst, in which the physique of the candidate received a fair amount of consideration. For some reason, which is not stated, this scheme was not brought into operation. Recently, the Commissioners appear to have again suggested the expediency of some such measure, but were informed that "the military authorities did not think it necessary to introduce such a competition, being completely satisfied with the physique of the young men who came to them through our examinations." We cannot but think that the military authorities—presumably the Commander-in-Chief and Adjutant-General—have committed a grave error in this decision. There can be no question that for service in the Army, the Navy, and the Indian Services a good physical development is, if not an absolute necessity, at least a great additional qualification for efficiency. It may be true that, under the present system, no deficiency in this respect has been experienced; but if so, this has probably been a result of the care exercised by the medical officers on whom the duty of inspection of the candidates has devolved. The importance of securing for these services men who are well qualified, physically as well as mentally, for the hard work which is often required of them, must be obvious, and it seems desirable from that point of view that a certain standard of fitness should be required, and that such qualities should be considered in judging of the relative fitness of the candidates. The result of a literary examination affords no evidence of physical fitness, for it has been found at Cambridge that among high-honours men, low-honour men, and men who took an ordinary pass

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degree, the average physical efficiency was almost exactly the same. With a slight exception as to eyesight, "they were alike throughout; alike in their average bodily efficiency, and alike in the frequency with which different degrees of bodily efficiency were distributed among them." This being the case, Mr. Galton contends that when two candidates are almost on a par intellectually a certain weight should be given to physical superiority. One probable result of such a rule would be that more attention would be paid to the health and physical development of intending candidates, and the number of instances of broken health from over-pressure under the cramming system would be materially reduced. We believe, also, that it would considerably improve the efficiency of the services to which it was applied. Mr. Galton "entertains no doubt that if the reasonableness and feasibility of the proposed reform were widely understood, a loud demand would arise from many sides, and without arousing any opposition worth regarding, for the introduction of so salutary a measure." Mr. Galton explained the proposed system by which this could be easily carried out, and he is supported by the Civil Service Commissioners in the opinion that there would be no more difficulty in determining the relative physical capabilities of the candidates than is now experienced in the literary examination. We think the suggestion well deserves the careful consideration of the authorities, and that if judiciously brought into operation it would be productive of very beneficial results.

THE EPIDEMIC OF SCARLET FEVER IN PLYMOUTH.

SCARLET FEVER of an exceptionally fatal epidemic character has prevailed in Plymouth for nearly five months, and shows even now a tendency rather to increase than to decline. More than two months ago we called attention to the severity of the outbreak. We also pointed out that there was no legal notification of zymotic disease in the town; that, although the borough possessed an isolation hospital, there appeared to be no serious attempt to turn it to account, inasmuch as only one death had occurred in the hospital up to the end of the first week in July, although 51 deaths from scarlet fever had been recorded within the borough since the beginning of the year. During the ten weeks that have elapsed since July 6th, no fewer than 90 more deaths from this disease have occurred in the borough, making 141 since the beginning of the year, all but 3 of which have been recorded since the middle of April, soon after which the disease assumed an epidemic character. During the second quarter of this year scarlet-fever mortality was more than ten times greater in Plymouth than in the twenty-seven other great towns, the annual rate being equal to 2·21 per 1000 of the estimated population; during the eleven weeks ending last Saturday the annual rate from the disease in the borough was equal to no less than 5·8 per 1000. So remarkably fatal an epidemic of scarlet fever has not occurred in any of the twenty-eight great towns dealt with in the Registrar-General's Weekly Return since the memorable outbreak in Portsmouth in 1877. The responsibility of the Town Council of Plymouth, as the local urban sanitary authority, in the face of such an epidemic, is so heavy that we hope we are misinformed as to the statement that only four deaths have been recorded in the isolation hospital of the borough since the outbreak of the present epidemic. As we remarked more than two months ago, the local sanitary authority is seriously handicapped in having no legal system of disease notification in force in the borough; but it is difficult to acquit the authority of apathy in having neglected to turn to practical account their isolation hospital. Until the passing of the recent Act there was no system of notification in operation in London; and yet 43·8 per cent. of the deaths from scarlet fever in the metropolis during last year were recorded in hospital, whereas, if our information is correct, only 2 per cent. of the deaths in Plymouth in the present epidemic have been so recorded. It is noteworthy that Plymouth is one of those large towns which has not yet recognised the importance of appointing a medical officer of health, who, debarred from private practice, should devote his whole time to public health service.

DIAGNOSIS OF CEREBRO-SPINAL MENINGITIS BY PUNCTURE OF THE LIVER.

DR. C. BOZZOLO reports in *La Riforma Medica* an interesting case of cerebro-spinal meningitis, in which the diagnosis was assisted by bacteriological observations made on the fluid obtained by puncturing the liver. A man aged fifty-four, who had been ill for five days previously, was admitted into the clinic at Turin suffering from feverishness, pain in the right side of the neck, jaundice, enlargement of the spleen, painful enlargement of the liver, bronchitis, and albuminuria. A rigor occurred more than once. Except the pain in the neck and vomiting, no symptom whatever of meningitis existed. Six days after admission the patient died, having been slightly delirious for the previous forty-eight hours. Diagnosis being difficult, the author had on the fourth day after admission made an exploratory puncture of the liver, which was still painful. The blood extracted showed by cultivation and after experiments on animals the existence in it of Fraenkel's diplococcus of pneumonia. This result, in the absence of pneumonic and pleuritic symptoms, with the existing pains in the neck and vomiting, encouraged Bozzolo to diagnose meningitis, a diagnosis which was confirmed by the post-mortem examination. In addition to the morbid changes in the meninges, gall-stones and acute endocarditis were found.

THE USE AND ABUSE OF ICED DRINKS.

ICES and iced drinks have come to be taken so commonly and as a rule without obvious ill-effects that one is hardly prepared for the fatal consequences which in certain cases appear to follow this form of indulgence. The latest recorded instance of death from this cause occurred quite recently in Paris, where Mr. Ira Paine, a well-known American marksman, is said to have succumbed to the effects of drinking two glasses of iced beer. In order to understand the rational method of such an accident we need only recall the consequences of applying cold to other regions—namely, temporary suspension and subsequent excess of the vital processes, chiefly those of the circulation. There is a chill anæmia followed by local congestion—that is to say, the same changes in varying degree that we find occurring in a limb after frost-bite. As in the latter condition, also, we may expect the tendencies and processes of disease to be modified by circumstances. Increase of age, arterial rigidity, fatigue of the circulatory apparatus, the quantity and quality of blood in the vessels, the amount of ice, and the suddenness with which it is taken, are all accordingly matters of importance in this connexion. At any time the avoidance of undue chill to the gastric mucous membrane is the first consideration. It therefore becomes intelligible why the safe consumption of ice stands in a direct ratio to the vigour of the general and especially the gastric vascular tone, to gradual and moderate ice consumption, and to the freedom of circulation in the stomach. This reasoning explains the comparative tolerance of ice in young persons, its usually harmless effect when taken during digestion of a substantial meal, and its utility in sthenic fevers, where the blood-flow is everywhere active. It likewise justifies

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the prudent custom of sipping iced fluids, through a straw for example, thus leaving time for the mucous membrane to recruit its vascular tone at frequent intervals. The habit of quaffing iced beverages in large quantities, as the case we have quoted proves, is by no means free of risk; nor, we may add, is that, so common at evening entertainments, of swallowing ices without other refreshment.

DEFORMITIES OF THE JAWS AND TEETH IN IDIOTS AND OTHERS.

THE association of the V- and saddle-shaped jaw with idiocy has been frequently pointed out in papers such as those of Cartwright, Oakley Coles, Ireland, and Langdon Down; but, according to the statistics of Dr. Talbot of Chicago, these are not the only forms of irregularity met with, nor is it true that idiots present the most aggravated deformities of jaws and teeth. In his tables he excludes those deviations from the normal which might be considered due to a local cause, and only takes those of constitutional and developmental origin. The subdivisions comprise large jaw, protrusion of lower jaw, protrusion of upper jaw, high arch, V-shaped arch, thumb-sucking, saddle-shaped arch, and small teeth. Of nearly 2000 cases examined in idiot asylums, almost one-half of the whole number had irregularities of the jaws and teeth, whereas in 1000 cases of healthy children only 22 per cent. suffered in this way. Next, taking 2000 cases of deaf and dumb persons, 45·3 per cent. presented oral deformities, and of a small number of cases in asylums for the blind there were 50 per cent. Examinations of the mouths of 700 insane patients revealed the fact that only about 12 per cent. were irregular, and these were among cases of the congenitally insane, or those who had become insane early in life. Dr. Talbot observes that there has been brought forward evidence to show that when idiocy appears in a family other members may be found scrofulous, deaf, dumb, blind, or insane, showing that the conditions indicating neurotic tendencies have been transmitted through generations; and while specialists have generally recognised only one common feature—a very low grade of cerebral development—his investigations concerning the osseous system in its relations to the irregularities of the jaw and teeth show a lesion common to all those conditions. The small percentage of deformities in the insane examined is due to the fact that, with few exceptions, insanity does not appear in the individual until the skeleton has attained its normal development. Further details will be found in the July number of *The Dental Cosmos* (Philadelphia).

FATALITY IN A MIDWIFE'S PRACTICE.

MR. WYNNE BAXTER investigated at the Town Hall, Limehouse, the circumstances of the death of Eleanor Bumforth, who was confined on Sunday, Sept. 8th, became ill with diarrhœa &c. on Wednesday, Sept. 11th, and died on Friday, Sept. 13th. She was the daughter of a midwife, who said that she did not deliver her daughter, though it was admitted that she came and examined her, and, according to the evidence of Mr. Talbot, remained with her for about an hour. The serious part of the investigation was the tracing of six cases of death in childbed from about July 24th, all of which had been attended more or less by the midwife. On July 24th she attended Mrs. Sparrow, Copenhagen-street. She died. A medical practitioner was called in, and told the midwife she ought not to go out for a fortnight. But she attended Mrs. Ward on Aug. 1st, who complained the following day of pain in the stomach and vomiting, and died on Aug. 5th; and so on with other cases all remarkably alike. There was an inquest on Mrs. Ward, at which the midwife was warned by the coroner to desist at least a fortnight. Mr. Talbot, who was called to the last case, attributed the cases to some constitutional fault in the midwife, who had diseased bone in the mouth. The only notice of the fatalities and of the various warnings which she took was to wash her clothes in Condy's fluid and go away for a week from August 7th. When a patient sent for her on the 14th she replied that she ought not to go; but the patient saying that she had no fear, as people had to die when their time came and not before, she went. In the end the coroner spoke very gravely to her, and said that if she attended a case within three months he would have her committed for manslaughter. It must be admitted that he dealt leniently with her, and that her conduct was exceedingly blamable. One of our contemporaries heads the inquest "A Strange Epidemic in Limehouse." But there is really nothing strange about it but the persistence of the woman in going about spreading disease after both the coroner and at least two medical men had fully warned her. It is one more and very sad illustration of the state of midwives' midwifery. It is discreditable to the Home Office that legislation is so long delayed insisting on some proofs of education and intelligence in midwives. Until such legislation is earnestly set about, we must consider our legislators as much to blame as the ignorant women who think to disinfect their persons by merely washing their clothes in Condy's fluid. One of our contemporaries seems anxious about doctors and their personal disinfection. We can assure it that the disinfection of obstetricians has become one of the fine arts, and has reached such perfection that even in Lying-in Hospitals septic mortality is almost abolished. The difference between a medical man and a midwife is that the one is educated and the other is not, and that he is quick to recognise any indications of sepsis, and to deal with them *secundum artem*. It is gratifying to know that with very little intelligent trouble this risk of midwifery may be abolished. And every obstetric practitioner, male or female, should regard the abolition as one of the prime duties of practice, at whatever personal inconvenience.

UNUSUAL MODE OF SUICIDE.

ON the 28th of August an inquest was held at Lincoln on the body of a woman, aged thirty-eight, who had been found dead in her room early that morning. The medical man who was first called in found the woman lying on the floor, apparently dead; blood had flowed from the nose and mouth, and there was much blood about the room, especially on the carpet. Examination of the mouth revealed the presence of the sharp broken end of a hand mirror, which was just within reach of the forefinger, was about four inches in length, and was removed with some difficulty. A hand looking-glass had been found on the dressing-table; this was spotted with blood, and the handle had been broken off close to the mirror. At the post-mortem examination a sharp piece of wood, about two inches in length, was found lying between the posterior wall of the œsophagus and the cervical spine; this fitted the mirror and the broken handle previously removed. There was an opening in the lower part of the pharynx near the commencement of the œsophagus, through which the wood had penetrated, and some of the muscles in front of the spine were lacerated. Death was ascribed to suffocation by pressure of the foreign body on the larynx. It was supposed that suicide had been committed by the deceased whilst under the early effects of opium poisoning, that she had forced the mirror handle foremost into the mouth, and that it had broken at the junction of the handle and mirror. From the description of the broken handle, and the way in which it was splintered and impacted in the pharynx, the idea is suggested that the woman might have held it in her mouth and fallen forward on the floor, thus driving it forcibly against the spine, and

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causing the point of the handle to run downwards in front of the cervical vertebræ. It is difficult to imagine anyone of sufficient strength and determination to produce the result described without some such assistance. The finding of the mirror on the dressing-table lends support to the view given in the medical evidence, but does not disprove the other supposition—either implies great determination on the part of the woman. Almost all the injuries causing perforation of the pharynx, excluding gunshot wounds, have been produced by a person falling forward on the ground and so forcing a pipe or similar thing into the mouth, or a blow has been struck by someone and a similar result produced, the blow having struck the foreign body and forced it backwards.

CENTENARIANISM IN IRELAND.

THE Registrar-General of Ireland, in his twenty-fifth annual report, which has just been issued, states that the deaths registered during the year 1888 included no fewer than 208 of persons stated to have been aged upwards of one hundred years at the time of their decease; this number included 87 males and 121 females. Such statements in the Death Register would not, if uncorroborated, inspire much confidence, bearing in mind the usual result of the investigation of similar statements in all parts of the world. Dr. Grimshaw, however, proceeds to state that, "further inquiry having been made, it was ascertained that the ages of the centenarians as given in the records were in every case confirmed." Such an unwonted result of the investigation of claims to centenarianism deserves fuller notice. It would have been interesting to know the precise nature of the investigation, and of the evidence accepted as confirming the accuracy of the statement in the Death Register; also the precise stated age of each of these 208 centenarians might well have been placed on record. The English report for 1888 has not yet been issued, but it is worth noting that in 1887 the deaths of only 60 reputed centenarians were registered in England and Wales, little more than 2 per million of the estimated living population. In Ireland, however, the deaths of centenarians in 1888 were, Dr. Grimshaw reports, 208, and thus more than 43 per million of the population! This is certainly a startling announcement. It may be pointed out that the numbers of centenarians in the two sexes show an unwonted equality in Ireland, being in the proportion of 1·4 females to 1 male; whereas in England and Wales the proportion in 1887 was 3·6 females to 1 male. Measured by their proportion to the deaths of persons aged upwards of seventy-five years, the Irish figures suggest further evidence of untrustworthiness. The Irish report for 1888 records the deaths of 16,611 persons aged upwards of seventy-five years; the 208 reputed centenarians were therefore equal to 12·5 per 1000 of those who died above the age of seventy-five years. If we measure the 60 reputed centenarians in England and Wales in 1887 in the same manner, we find that they were equal to only 1·1 per 1000 of the recorded deaths of persons aged upwards of seventy-five years. We are faced, therefore, with two alternatives. Either we must believe that of persons aged upwards of seventy-five years more than twelve times as many attain the age of one hundred years in Ireland as in England, or we must decline to accept as trustworthy the statement of the Registrar-General of Ireland that 208 undoubted centenarians died in that country during last year. Indeed, further ground for doubting the accuracy of the Registrar-General's report as to Irish centenarianism is afforded by the fact that the death-rate in Ireland among persons aged upwards of sixty-five years (stated by Dr. Grimshaw to have been 97·0 per 1000 in 1888) has in recent years somewhat exceeded that which has prevailed in England and Wales. If the mean death-rate among persons aged upwards of sixty-five years is higher in Ireland than in England, there is the best ground for disbelieving that the proportion of survivors to the age of one hundred years is larger in Ireland than in England.

INTESTINAL OBSTRUCTION.

DR. GELPKE reports in the *Correspondenzblätter für Schweizer Aerzte* four cases of intestinal obstruction, of which two had been operated on, one with success, and two had been successfully treated with metallic mercury. From these cases he concludes that quicksilver is a valuable remedy in cases of obstruction, and that the metal seems to be quite innocuous to the system if not too long retained. It had been so retained in one of the two cases in which four teaspoonfuls of quicksilver had been given, and the fæces and urine of the patient contained the drug for twelve weeks; there were other distinct symptoms of mercurial poisoning, such as great emaciation, excitement, loss of hair, and some stomatitis. The other patient, on the contrary, showed no signs of mercurialism whatever. He considers that in hernia it is generally advisable to commence the abdominal section from the orifice of the sac. Finally, considering the uncertain and not very successful results of laparotomy, he would not operate before other means, such as quicksilver, have been tried for from four to six days.

Dr. S. V. Reitz, in the *Centralblatt für Chirurgie*, reports the case of a labourer suffering from obstruction of the bowels, who, after three days' fruitless administration of purgatives, was brought to the hospital. Fæcal vomiting was present, and a tumour could be felt on the left side of the umbilicus. Enemata of water by the long tube, though as much as six pounds of water were injected, were unsuccessful, but the vomiting and sickness improved under repeated washing out of the stomach. The next day the patient was considerably worse, and fæcal vomiting returned, with cold perspiration, restlessness, meteorismus, a pulse of 120, and a temperature of 100°. After the enema with the long tube had been again used, and the stomach repeatedly washed out, without any improvement, seven drachms of bicarbonate of soda in five ounces of water were injected into the rectum, followed by three drachms of tartaric acid in the same amount of water, and the anus closed. The patient, who was on his knees and elbows, complained at once of severe abdominal pains, and in five minutes the injection came away with exceedingly offensive flatus. Shortly afterwards the patient felt considerably better. In three hours the enema was repeated with half the previous doses, and was shortly followed by a large loose motion, and by a second later on. The patient completely recovered.

VACCINATION MEMORANDA.

AMONGST the papers contributed last year to the Australian Association for the Advancement of Science is one by Dr. Ashburton Thompson on the classification of persons who have been exposed to the infection of small-pox, so as to show the relation between the incidence of the disease and different degrees of protection by vaccination or by a former attack of small-pox. After explaining at some length the principle of the method of classification adopted, an analysis is given of the state as to vaccination of, and the incidence of small-pox upon, the 312 passengers who were landed in 1886 at the quarantine station, Port Jackson, from the steamship *Preussen*, on which small-pox had taken place. Of 19 persons who were unvaccinated, 4 only escaped, the percentage of attacks being 78·9, and the rate of fatality being 60 per cent. of attacks; all the attacks were either severe or moderate, none being slight. Of 55 persons who had been both vaccinated and revaccinated, the percentage of attacks was 7·3; none of the

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cases were fatal, and all the attacks are entered as either slight or very slight. Of 103 passengers and crew who had been primarily vaccinated, and who had a sufficient area of scar of good character, 20, or 19·4 per cent., were attacked, no deaths occurring amongst them. All those attacked were over fifteen years of age. Of 47, who whilst having scars of good character, exhibited an insufficient area of foveation, 9, or 19·1 per cent., were attacked, but no deaths occurred. Of these, 1 took place under and 8 over fifteen years of age; the attack under fifteen years of age being recorded as very slight. There were 27 persons who, with a sufficient area of scar, exhibited scars of a "bad" character. Of these, 5, or 18·5 per cent., were attacked, and again none died. All these attacks were in individuals over fifteen years of age. And, lastly, there were 32 persons whose vaccination was imperfect, both by reason of deficient area and bad character of the scars. Of these, 11, or 34·3 per cent., were attacked, and the deaths were 3, giving a fatality percentage of 27·2. All these attacks also occurred in persons over fifteen years of age. The results shown are very striking, in so far as they afford an indication of the great power of vaccination in preventing death from small-pox, even at a distance from the date of vaccination. Thus, even an imperfect vaccination saved all under fifteen years from death by small-pox. So, also, only one single attack below fifteen years of age occurred amongst any of the vaccinated.

CHURCH VAULTS, CHURCHYARDS, CEMETERIES, AND BURIAL REFORM.

A CIRCUMSTANCE has recently occurred which is calculated to add considerable weight to the remarks made in a recent issue of THE LANCET, and to provide a terribly forcible argument in favour of simple earth-to-earth burial. For some time past the members of the choir and congregation of St. Mary's, Woolnoth, have complained of sore throats and other ailments as the results of attending service in that church, the air in which has been of late much vitiated, and unpleasant odours have been very perceptible. The examination of the church by sanitary experts has resulted in its being closed, it being considered unsafe for anyone to remain in it for any length of time. Investigations are now being made to ascertain the source of the foul air, which is supposed to arise from the bodies deposited in the vaults below. This is one of the churches the vaults of which were inspected by the late Dr. Waller Lewis about the year 1850, and of which he reported: "The vaults I have visited up to the present time are generally in a very disgraceful condition. ..... In St. Mary's, Woolnoth, the churchwarden thinks there are about 1100 coffins; the sexton considers there are not more than 500. In this church leaden coffins have only been used (except in the chancel) since the regulations of the General Board of Health enjoining the use of lead." Unless, therefore, something has been done since that date to remedy the condition of the vault and its contents, there is only too much probability that the bad odours now perceptible arise from bodies interred in wooden coffins, without lead, in vaults above which living persons have till recently assembled every Sunday to worship. Not long ago there were complaints of similarly unpleasant odours being perceptible in another city church. Nothing can be clearer than the duty of the authorities, which is to have these vaults examined with every due precaution; either to entomb in charcoal and concrete all the remains which may be found; or, better still, to remove them to some suburban cemetery for burial in the earth. Moreover, now that two city churches have been found unwholesome in consequence of the vaults beneath, would it not be a wise precaution to anticipate the possibility of these evils arising in other city churches, by having an inspection of all those having vaults in which dead bodies are deposited, with a view to their sanitary entombment or removal. That prevention of these sore throats and other ailments would be better than cure must be obvious. In connexion with this subject, a letter from the Dean of York, chairman of the Council of the Church of England Burial Reform Association, comes to hand very opportunely. It is shown that the members of the Association are concentrating all their energies on two principal points—burial in perishable coffins, and in simple "earth-to-earth" graves. As the venerable Dean remarks, "the Burial Service in our Book of Common Prayer offers suggestions of a mode of disposing of the dead which has been declared by scientific men to be in accordance with sound science and sanitary law, and which, if properly and completely carried out, renders overcrowding impossible." In the Burial Service there is no mention of a coffin, the terms used being "corpse" or "body." The body is to be made ready to be laid into the earth, and earth is to be cast upon the body. The consequences of acting in direct defiance of all rubrics, all sanitary laws, and all reason are shown in such cases as St. Mary, Woolnoth, now, and previously in St. Andrew's, Holborn, St. Martin's-in-the-fields, and many others. Dr. Purey Cust observes towards the conclusion of his admirable letter: "Graveyards should be gardens where the dead are buried side by side, each succession of human bodies passing away into air and ashes, the earth being thus ready every succeeding generation to perform its beneficent action again. Thus natural laws will have been observed, and the earth which is the best deodoriser and antiseptic known, and the receptacle of all creatures which have lived and died, will have acted as the medium through which the air descends and performs its purifying and disintegrating action to reascend in new combinations and nourish fresh life."

USELESS INQUESTS.

WE have frequently in our columns called the attention of our readers to the uselessness of inquests which are held without a post-mortem examination and medical testimony as to the cause of death. We have had our remarks strikingly exemplified by an inquest held a fortnight ago at Lowton, near Newton-le-Willows, Lancashire, by Mr. Husband, the deputy coroner for one of the Lancashire divisions of the county. The subject of inquiry was the strange death of a boy four years of age named Jesse Jones, the son of a navvy employed on the Ship Canal Works. The mother stated that the deceased had been always healthy, except a slight attack of bronchitis which he had the year before, and from which he soon recovered. She had taken him to a neighbouring village, and returned home at 4 o'clock in the afternoon. He then went into the yard to play, but soon came in again, saying that he felt "as drunk as anything." She gave him some tea. He was taken to bed at 9.45 P.M., and he slept all night. Next morning, as he said he did not feel well, he was not sent to school, but allowed to rest on the sofa. Subsequently he had a dose of senna tea, which he vomited, and then some warm tea was given to him. At 2 o'clock in the afternoon he woke up, and began to "shake and tremble" and to froth at the mouth. A doctor was sent for, but the child died before his arrival. The boy was insured for £3 in the Prudential Society. Questioned by the coroner, she said there were no berries in the yard, and he had no sweets in the village. He fell on his head whilst playing in the yard, and this caused his head to ache. A neighbour testified to the boy dying in her presence in a fit. The deputy coroner said the symptoms pointed to deceased having eaten something poisonous—the pods of laburnum trees, or something of the kind. He could hardly see that the death was from natural causes. The jury could return one of four verdicts:

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1st, accidental death; 2nd, death from natural causes; 3rd, death from taking improper food; or, 4th, an open verdict, which was to say there was nothing to show the cause of death. After some discussion the jury returned the following verdict, "Death from natural causes, the nature of which the evidence does not show." We cannot imagine a more futile inquiry. Surely a necropsy was requisite in order to ascertain whether the death was from natural causes or not. We might observe here that, in a case of this nature, if the coroner is satisfied, from inquiries made by the police on the spot, that there is no suspicion of foul play and no necessity for a post-mortem examination or medical testimony, he might save the time of twelve intelligent jurymen, and order the burial without summoning them to hold an inquiry which bears no fruit, and is useless so far as the finding out of the actual cause of death is concerned.

CARELESS DEATH CERTIFICATION AND VACCINATION.

VACCINATION is a convenient explanation of all sorts of constitutional weakness, and exempts parents from the reproach which might otherwise belong to them. At Cardiff lately the registrar directed the attention of the medical officer of health to the death of a child twelve months old registered as "caused by phthisis consequent on vaccination." The mother had chosen the child from whom the lymph was taken, in London, for its healthy appearance. But she somehow took it into her head that the vaccinator was to blame, and, unfortunately got a medical man to put into his certificate, merely on the strength of her fancy, that the phthisis was caused by vaccination. We can imagine the delight that would run through the anti-vaccination circle at Cardiff by such a case. Fortunately the medical officer of health, Dr. Walford, took the case in hand and got at the facts. He found "the mother herself had twice suffered from inflammation of the lungs, some of her brothers and sisters were consumptive, her own mother died from consumption, and sixteen of her mother's brothers and sisters had also died from the same complaint." With such a history of course even anti-vaccinationists cannot contend, and the case makes one more addition to the pile of absurd conditions which mostly constitute anti-vaccination literature. We must join our contemporary, the *South Wales Daily News*, in expressing at once regret that a medical man could have written such a certificate as was given in this case. The value of medical certification depends not on what comes into the mother's head but what comes out of the doctor's educated mind. On hearing the facts brought to light by Dr. Walford, the medical man at once admitted that the vaccination theory could not be maintained, and that it had been inserted wholly on the mother's statement.

A WARNING TO HOSPITAL VISITORS.

BY this time not only physicians and trained nurses, but a large proportion of the general public, are familiar with the fact that a fluid and light diet in typhoid fever is practically a matter of life and death. Unfortunately, an equally large or even larger number of persons are still grossly ignorant on this elementary and most important point, as the sequel shows. A few days ago a young man, a patient in the London Hospital, about the fourth week of this fever, partook of some grapes which his father brought him—of course, against hospital rules. The result was vomiting, with consequent fatal perforation. In this case it is difficult to say where blame should chiefly be attached. The patient was at that critical stage in the disease when appetite awakes with the advent of convalescence, but he must nevertheless have known pretty well what food for him was contraband. For the father's guidance there were placards in abundance throughout the hospital, forbidding visitors to bring into the wards any food save tea, sugar, and butter; yet he never noticed them! This is the most remarkable part of the story, yet, strange to say, such carelessness as this is of every-day occurrence. Partly, no doubt, from inability to read, and partly from mere heedlessness and want of the sense of personal responsibility, hospital patients and their friends daily ignore the simplest rules inscribed on admission cards and letters for their guidance. Much inconvenience results—though not often, let us hope, such mishaps as that above mentioned. A very moderate concentration of attention on these necessary details would go far towards averting both lesser and greater evils. It is therefore to be hoped that the lessons of this deplorable incident will not be lost upon the class whom it most nearly affects.

SURGEON CRIMMIN AND THE VICTORIA CROSS.

THE Queen has been pleased to bestow the rare distinction of the Victoria Cross upon Surgeon John Crimmin, L.K.Q.C.P.I., L.R.C.S.I., of the Bombay Medical Service, for the following act of bravery:—"Lieutenant Tighe, 27th Bombay Infantry (to the Mounted Infantry to which corps Surgeon Crimmin was attached), states that in the action near Lwekaw, Eastern Karenni, on Jan. 1st last, four men charged with him into the midst of a large body of the enemy who were moving off from the Karen left flank, and two men fell to the ground wounded. He saw Surgeon Crimmin attending one of the men about 200 yards to the rear. Karens were round the party in every direction, and he saw several fire at Surgeon Crimmin and the wounded man. A sepoy then galloped up to Surgeon Crimmin, and the latter joined the fighting line which then came up. Lieutenant Tighe further states that very shortly afterwards they were engaged in driving the enemy from small clumps of trees and bamboo, in which the Karens took shelter. Near one of these clumps he saw Surgeon Crimmin attending a wounded man. Several Karens rushed out at him. Surgeon Crimmin thrust his sword through one of them and attacked a second; a third Karen then dropped from the fire of a sepoy, upon which the remaining Karens fled."

THE CARPET-BEATING ANNOYANCE.

NO intelligent person, not even the mistress of a house absorbed in the business of spring cleaning, will deny that the beating of carpets is, for various reasons, a social nuisance. The addition of household dust and particles of woollen texture imports nothing of advantage, but often more or less that is injurious, into the air we breathe. It has been urged that germs of disease are thus distributed in the atmosphere. This is true enough, though happily the danger of infection from such a source is in all large open spaces reduced by the action of oxygen and aerial currents. Another drawback is hardly less noteworthy—namely, the disturbance of rest caused by the drum and rap of incessant switching. No person possessed of a sensitive nervous system—above all, no invalid—need hope for quiet while the work goes on. An attitude of uncomfortable disinterestedness is all that remains for him. His evil may be someone's good, at all events if carpet-beating is necessary. To some extent it probably is so. Time, distance, cost, and the want of sufficient apparatus combine to render as yet more or less uncertain the aid of other mechanical methods. If these were now easily and universally applicable, the beating system would not have a leg to stand on. For a time we fear it must continue; but in mitigation of its evils and annoyances it is only fair to allow to the com-

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plaints of the afflicted, if supported by a reasonable amount of proof, a power stronger than that of remonstrance and akin to that of a legal veto.

PROSECUTION FOR NON-NOTIFICATION OF INFECTIOUS DISEASE AT LEICESTER.

WE have before pointed out that Leicester, which is so jealous of interference with the liberty to have small-pox, has no compunctions about curtailing liberty in other ways in the interest of public health. The Sanitary Committee has just had its first prosecution for non-notification. The case was that of a jeweller who had a son labouring under scarlet fever, and he was charged first with neglecting to give notice of the fact to the sanitary authorities, and, secondly, with exposing the boy in his shop without proper precautions. The town clerk said the Sanitary Committee considered the case as one of importance to the borough. The proceedings were taken in no vindictive spirit, but to give fair warning to the public that even where there is no medical man in attendance, as here, the parent will be held responsible and the full penalty demanded. The full penalty was not inflicted in this case, but a fine of £1 in respect of each charge, or fourteen days' imprisonment in default. The prosecution will do good. It will commit Leicester more and more to an observance of the law, or at least expose it to the charge of inconsistency in not observing the whole law, and it will let the public know that the not calling in a medical man in no way exonerates them from the duty of notifying. The father knew of the nature of the disease, for he had given information to the school at which his boy attended. It is well known that the milder cases of scarlet fever require very careful medical management as well as others. But there is a tendency to forget this among the working classes and to suppress the fact of such cases existing. Leicester is one of the towns which had the system of notification under a local act.

TRICUSPID STENOSIS.

FROM some facts collected by M. Leudet (of Rouen) and his father, the late Professor Leudet, the comparatively rare condition of stenosis of the tricuspid orifice (*L'Union Médicale*, No. 96) may be either congenital or acquired. The former arises either in fatal endocarditis or from a malformation producing an excessive amount of muscular tissue at the auriculo-ventricular junction. In consequence of the stenosis, there may also be patency of the foramen ovale and incomplete formation of the ventricular septum; sometimes it is associated with pulmonary stenosis or lesions on the left side. Cyanosis is the most frequent symptom; and a systolic bruit, rarely a diastolic, may be produced; whilst the enlargement of the right auricle may occasionally be detected by percussion dulness crossing the sternum. It is obvious that the diagnosis of the condition is hardly to be determined, from other forms of congenital malformation. M. Leudet has collected details of 114 cases of acquired tricuspid stenosis, 86 females and 22 males (in 6 the sex not stated); and in 57 no antecedent disease, such as rheumatism, chorea, typhoid fever, or scarlatina, was noted. The degree of stenosis may be considerable, and it may be produced by—(1) cohesion of the valves; (2) true stenosis of the orifice; (3) obstruction by vegetations, &c. The first often is the most frequent—"a chronic, slow, silent endocarditis, generalised rather than deep, vegetating but little, yet adhesive and plastic, tending to cause the damaged valves to unite at their margins." In only 11 cases out of the 114 was the tricuspid stenosis solitary; usually there is concomitant mitral stenosis, which is always more marked than the tricuspid. Presystolic thrill and bruit at the xiphoid and above may be present, but do not from these observations appear to be common.

THE LIVERPOOL ABATTOIRS.

THE public mind in Liverpool is somewhat exercised because the Abattoir Company have petitioned the Corporation for the renewal of their present lease and the grant of further land for the extension of their premises. The *Liverpool Courier* protests strongly against the granting of these privileges, on the ground that the abattoir is in the centre of the city, and its existence tends to depreciate the property in the neighbourhood. Land which has been cleared of houses has remained idle and profitless, and the houses which still exist are said to be unfit for habitation—the businesses which are carried on in connexion with the abattoir, the gut-scraping, blood-boiling, hide-dressing, offal-salting, &c., constituting a serious nuisance. If this statement is free from exaggeration, it certainly behoves the authority to find another site. The business of killing animals for food should not be carried on in the midst of a large population, and a public abattoir thus situated might readily become a more serious nuisance than even private slaughterhouses. London, in spite of the improvements which have been effected, is still conscious of the inconvenience which results from the driving of cattle through the streets and from their slaughtering in the midst of dwelling-houses. The only remedy is the public abattoir; but this should be situated in a proper locality, sufficiently remote to enable the business to be conducted without offence, and so placed that animals arriving by sea or by land can be conveyed there without necessitating their passage through the streets. The need for London to change her ways is so obvious that the proceedings at Liverpool will be closely watched, for we are convinced that an authority which has freed itself from private slaughterhouses will never again revert to their use. We do not doubt the capacity of the Liverpool Corporation to find a solution to their difficulty.

CHOREA ATTRIBUTED TO POISONING BY IODOFORM.

THE twenty-fifth annual report of the Jenner Hospital for Children in Berne contains a report of a secondary retro-pharyngeal abscess in a boy of six years, who was suffering from disease of the cervical vertebræ. Professor R. Demme opened this abscess, and a second, which had reached to the middle of the right clavicle. A little iodoform bougie was introduced in the fistulous canal, and the wound dressed with iodoform powder and gauze. Three days afterwards the boy suffered from headache and complained of being sick, but the dressing was not changed, and a second iodoform bougie was introduced four days later, when convulsions began to occur gradually, passing on to chorea. The iodoform was then omitted from the dressing, and the chorea disappeared after a fortnight. A few weeks later another practitioner dressed the same case with iodol and iodol gauze, and again chorea appeared, lasting for three weeks.

THE DESTRUCTION OF SEWER AIR IN LEEDS.

THE desirability of arranging for the destruction of sewer air is engaging the attention of the Sanitary Committee of the Corporation of Leeds. One proposal is to utilise the refuse which comes from the premises of certain manufacturing chemists by removing it to a number of cisterns to be constructed along the lines of sewers, into which it would be made to flow slowly by day and by night. The waste refuse in question contains a large percentage of sulphate of iron, and it is assumed that if it mingles with the sewage in a moderate amount only it will not damage the joints, whereas it will prevent fermentation and decomposition, and in this way stop the formation of unwholesome effluvia. Another proposal is to ventilate the

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sewers by means of shafts so arranged that the heat passing up these shall both add to the ventilation and destroy all the noxious properties of the sewer air. Before embarking in either scheme, it has been decided that experiments should be made in a certain section of the borough as to both methods, and that before even these experiments are commenced the sewage itself and the gases evolved by it should be properly examined and analysed, so that the committee may know precisely with what they are dealing.

THE OUTBREAK OF DIPHTHERIA AT EAST HADDON.

THE outbreak of diphtheria in the Northamptonshire village of East Haddon shows no sign of dying out. The parish of this name is distinctly rural, having, according to the last census report, an area of 2572 acres, and a population at the date of the last census of 752 persons against 726 at the previous census in 1871. In this small rural community no fewer than 17 deaths resulted from diphtheria or diphtheritic croup between Aug. 26th and the 11th inst.; 8 deaths occurred on the four days ending Aug. 30th, after which the number of deaths decreased, no more than 1 occurring per day until the 11th inst., when 3 deaths took place. The National School has been fitted up with 14 beds, and further accommodation has been secured should necessity arise. So fatal an outbreak in so circumscribed an area should, if made the subject of immediate investigation, throw useful light upon the causation of such rural epidemics The increase of our knowledge concerning the causation and behaviour of this disease is becoming daily more important, owing to the general increase of diphtheria mortality in this country.

ANTI-VACCINATION IN ST. PANCRAS.

AN evening contemporary states that the anti-vaccinationists in St. Pancras have given notice of their intention to take aggressive action with regard to the administration of the vaccination law in that parish. The guardians of St. Pancras have, we understand, followed the advice of the Local Government Board to refrain from repeated prosecutions of the same individual, and have in practice limited themselves to one prosecution, unless it is proved that the house or neighbourhood in which the unvaccinated children reside is visited by or threatened with an epidemic of small-pox. But this action does not satisfy the anti-vaccinationists, who would prefer to see the law not enforced at all. What course the anti-vaccinationists have decided to take is not stated, but we doubt if the guardians will depart from their usual procedure because difficulties are put in their way. They will, we anticipate, make no change until the Royal Commission has reported, and the result of the inquiry now being made is known. They will then have the conclusions of the Commission to appeal to as guide for their future conduct.

IODOFORM IN MALIGNANT PUSTULE.

DR. E. RINONAPOLI (*Bolletino della R. Accad. Med.-Ch di Napoli*, No. 3, 1889), gives particulars of several cases of malignant pustule treated by the subcutaneous injection of a solution of iodoform in ether. Dr. Rinonapoli began this method in 1886, some thirteen months before Senger's work on the antiparasitic action of iodoform appeared. The method employed is that of several injections into and around the seat of the pustule of a 10 per cent. solution of iodoform in ether. The pain attending the injections is of severe burning character, but soon passes off. The beneficial effects are rapid in their appearance. In three or four hours after the injections, even in advanced cases, the fever lessens, the swelling round the pustule disappears, the tongue becomes clean, and the patient is able to sleep and to take food. The treatment appears to be of distinctly specific character, and to arrest at once the growth and multiplication of the charbon bacillus. If applied at the outset of the attack, the effect is said to be almost magical.

THE GAOL HOSPITAL AT JOHANNESBURG.

A CLERICAL GENTLEMAN (Rev. F. H. Fisher) has written to the Johannesburg Hospital Board to bring to the notice of the Sanitary Board the state of that portion of the gaol which is used as a hospital and the treatment of the patients there. He says: "I know not who is responsible for this place; but I have no hesitation in saying that the whole thing is a disgrace to a civilised town. In an unkept and brick-floored room, opening immediately into the courtyard of the gaol, are a dozen bedsteads, upon which lie as many patients, white and natives, young and old. In this filthy den comfort is unheard of and decency unknown. Dirty coloured blankets are the bed-coverings of men seriously ill, and cleanliness is a word taken from a dead language. The rations served out to poor fellows suffering from dysentery, enteric fever, and severe accidents consist of a chunk of bread and an equal amount of cold boiled mutton." It seems that by no means are all of the patients prisoners Even if they were, they ought to be treated with humanity; but if the charge made by the reverend gentleman is based on fact, the authorities who are responsible for the gaol hospital have a good deal to answer for, especially if, as is further asserted, contagious and non-contagious cases are put together.

WOLVERHAMPTON GENERAL INFIRMARY.

AT the recent half-yearly meeting of the governors of the above institution a resolution was carried to create the new office of honorary pathological officer, and on the motion of the chairman, seconded by Dr. Millington, the appointment was conferred upon Dr. McMunn, whose researches in pathological chemistry and allied subjects are well known. It is pleasant to find that the labours of Dr. McMunn are properly esteemed in the town in which he resides, and in affording him increased facilities for the pursuit of his studies the governors of the Wolverhampton Infirmary have shown a commendable appreciation of the importance of scientific inquiry.

ROYAL COMMISSION ON VACCINATION.

THE first Report of the Royal Commission on Vaccination, which it has been decided to issue at once, will contain all the evidence submitted to the Commission up to the date of their adjournment—namely, that of Sir John Simon, K.C.B., Dr. Wm. Ogle, Dr. Thorne Thorne, and Dr. J. H. Rauch of the Illinois State Board of Health.

SCARLET FEVER IN CAMDEN TOWN.

A PARAGRAPH is appearing in various newspapers to the effect that Bayham-street, Camden Town, is suffering from scarlet fever, and this is associated in the mind of the writer with the unwholesome condition of the Regent's Canal. Let the condition of the canal be what it may, it should be pointed out that, whether or not scarlet fever is prevalent in Bayham-street, there is no reason to suppose that it owes its existence to any "dead dogs, cats, and garbage thrown into the water." We are so much accustomed to read exaggerated accounts of the state of the Regent's Canal that we shall not be surprised to hear that its bad condition has been again overstated. But whether this is so or not, there is no reason to assume that scarlet fever has its origin in such a cause.

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FOREIGN UNIVERSITY INTELLIGENCE.

Buda-Pesth.—Dr. Alex. Szénássy has qualified as *privat-docent* in Bandaging and the Use of Instruments.

Cagliari.—Dr. Lustig has been appointed Professor of General Pathology.

Cracow.—Dr. Pietrovski has been recognised as *privat-docent* in Physiology.

Kharkoff.—The number of applications for admission to the various Faculties is smaller than it has ever been before, and it is remarkable that nearly all the applications refer to the Medical Faculty, there being scarcely any students wishing to enter the Legal and Philosophical Faculties.

Kieff.—Dr. V. T. Chernoff, Director of the Olga Children's Hospital in Moscow, has been appointed to the chair of Children's Diseases.

St. Petersburg.—The number of applications for admission to the Medico-Chirurgical Academy of St. Petersburg, the most important medical school in Russia, is far greater than the vacancies. Not only have many applicants who have passed their maturity examinations at the St. Petersburg gymnasiums to be refused, but also some students of the St. Petersburg University who desire to be transferred to the Academy, which, though entirely distinct from the University and governed by the Ministry of War, in many respects fills the place of a Medical Faculty to the University.

Tübingen.—Drs. Vierordt and Wagenhäuser have been promoted to the rank of Extraordinary Professors.

Professor Weigert is about to retire from the post of editor of the *Fortschritte der Medicin.*

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. Preiss of Carlsbad; Dr. Oré, Professor of Physiology in Bordeaux; and Dr. Rudolf Voltalini, Professor of Laryngology and Otology in Breslau.

FOLLOWING closely on the discussion as to the poisonous ingredient in fly-papers, we have the announcement in Swiss journals that a series of bank-notes recently issued by the Confederation, and printed in green colours, have induced in the officials who manipulated them the well-known symptoms of irritant poisoning. The matter is under investigation; but, meanwhile, those of our compatriots who may still be in Switzerland should know that the notes in question are fifty-franc notes.

THE well-known and able ophthalmologist, Professor Dr. Jacobson of Königsberg, died on the 16th inst. at Cranz, a watering-place on the Baltic. The deceased was the father of Dr. Julius Jacobson, likewise a well-known ophthalmologist, who has been residing in London for several years past.

SUNDERLAND AND BISHOPWEARMOUTH INFIRMARY. The ninetieth annual report of this institution again showed a considerable increase in the number of patients treated in the infirmary, the total number being 4833, or an increase of 933 compared with the preceding year. The deaths numbered 64, which was equal to a rate of 3·6 per cent. as against 6 8 and 3·9 per cent. last year. The total income from all sources was £8122 16*s.* 6*d.*, and the expenditure £5289 15*s.* 10*d.* The committee recommended that the surplus be utilised in repaying the balance of the amount borrowed from capital, with the sanction of the Charity Commissioners, in 1881. The report was adopted. The committee desire to remind those interested in the work done by this institution that as soon as the Hartley Memorial Wing, which is almost completed, is occupied by patients, additional funds to the amount of £2000 per annum will be required.

ICE SPOILS FISH.

BY J. LAWRENCE-HAMILTON, M.R.C.S.

No. III.

IN considering the preservation of fish, its red muscular fibres are comparatively so few that for practical purposes the study of the pale fibres is sufficient. Whilst in the higher animals used as food the muscles are arranged in close, thick, firm bundles of long fibres, in fish nearly all the muscles are in the form of loose, short, soft bundles arranged in narrow rings in a zig-zag fashion, separated from each other by delicate partitions of thin connective tissue. Except in the eel, salmon, and mackerel, fat is usually absent in fish. The flesh of salmon yields from 63 to 68 per cent. of water, whilst that of ordinary white fish furnishes from 75 to 82 per cent., which are much larger proportions of water than is contained in meat. Not only in the intestinal tract, but also in the blood, lymph, and tissues of healthy *living* sea and fresh water fish, active and multiplying bacteria are found. Though fish up to a certain point apparently are able to tolerate the presence of these bacteria in their blood and lymph, yet, should the vitality of their tissues become lowered by confinement, injury, starvation, or disease, the fish will probably be overcome and die. The same applies to external and internal parasites, which almost invariably frequent healthy fish, who, up to a certain point are also tolerant of these parasites. On death fish readily absorb water from moisture, whether naturally in the atmosphere or foolishly supplied by the chronic conventional customs of using melting ice, as well as by the continual watering of fish on the fishmongers' slab. How excessively deleterious the absorption of the moisture will be is apparent upon recollecting the filthy state of the fish boxes, barrels, and baskets in the equally filthy fish boats, fish markets, and some fishmongers' shops.

Though from time immemorial the Norwegians, immediately on capture, have always *bled* their fish by incisions just under and behind the gills, the usual situation of the heart in most fishes, or else above the tail, and then at once *gutted* their fish, yet British fishermen seem still unwilling to listen to and to learn this wise economical practice. The Dutch, introducing the Scandinavian plans of bleeding before clotting and gutting herrings on capture, together with the plan of pickling and curing herrings re-invented by an Englishman, Will Blenkinson, secured for their countrymen from the fourteenth to the eighteenth centuries the virtual monopoly of the marine mastership of the world, including its carrying and export commerce. Because of its rapid putrefactive contagion, I propose that no unbled and ungutted dead fish should be allowed to enter any fish market or fishmonger's shop in the United Kingdom. Living cattle with certain contagious diseases are slaughtered by Government authority. What butcher would dream of cutting up meat from an ungutted or uncleaned carcase? Though fish is pre-eminently more prone to early putrefaction than meat, nevertheless the conventional British fish markets and many fishmongers' shops stink from avoidable causes, and thereby spoil any unspoilt fish in their vicinity. A slaughterhouse would be properly objected to in the heart of most towns; nevertheless, fish markets and fishmongers' shops, evil-smelling from avoidable putrefactive bacteria, are sanctioned, though I presume that under the present Health Acts of the United Kingdom their present condition is illegal. Prior to considering the effects of ice on fish, it is necessary to recollect the previous stages of fish life and fish death, from the time when the fish is caught till it arrives at the consumers.

Accidental injuries.—Wounding with a spear or gaff hook, or by trawling fish in nets over rough grounds, and the pressure of a mass of fish in the nets, cause injuries to the skin, scales, fins, tail, gills, muscles, abdomen, and other parts of the fish, and increase its rapid putrefaction. In the trawl immature fish often get so spoilt and injured that they are technically said "not to take the ice," and are hence thrown back into the sea.

Avoidable fish-spoiling through carelessness, filth, and bad packing.—Placed upon their bellies on the usually filthy boards at the bottom of the smack, the abdomen of fish

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may rot whilst its sides and back remain comparatively sound. In the United Kingdom captured fish are often thrown *unbled* and *ungutted*, and always unpithed, into the more or less foul hold of the fishing boat, where they remain exposed to successive alternations of heat, sunshine, moist and melting ice, and putrefactive filth. The fish are frequently ruthlessly crushed, bruised, and cut by the heavy weights of their thoughtless captors standing in sharp-nailed boots, whilst the lower layers of fish may have tons of fish resting upon them. In some parts of England, from about September till April, many of the smacks fish by themselves, and not in a fleet, from which a steamer or other carrier takes away each day's fish. As such isolated smacks stay out at sea about a week, it follows that a portion of their catch has been already some six days in ice before landing. Such stale fish by putrefactive contagion damages the fish more recently caught. On reaching the harbour the fish are commonly pressed into filthy fish boxes, barrels, and baskets pregnant with putrefactive bacteria. The fish suffer further shaking, banging, and bruising by being flung about on the pier, where this food lies again exposed to heat, rain, and sunshine. As the fish boxes or trunks have always wide open apertures, and in the carrying boats and railway and street vans the boxes are closely piled one above the other, it follows that the flowing filth from the upper boxes circulates through the lower ones, whilst the last tier both from above and below is surrounded with these putrefactive abominations.

The empty fish trunk weighs from 19 lb. to 28 lb. Its ice and melted ice may be taken at from ½ lb. to 1½ lb. Exclusive of the box or trunk at Billingsgate, a box or trunk of brill is supposed to weigh from 80 lb. to 90 lb. of fish; of gurnards or rays, 70 lb; of hake, 112 lb.; of soles, 70 lb. to 100 lb.; of mackerel, 112 lb.; of plaice, 80 lb. to 100 lb.; and of whiting, 80 lb. The usual size of a fish trunk is 24 in. by 18 in. by 9 in., with a capacity of 2¼ cub. ft., but these trunks are occasionally so packed that from 20 to 40 per cent. dead weight of fish may be wanting. "Taking the load" is a market term alluding to a trade trick of emptying out three trunks, and then repacking the fish so as to make it pass as the contents of four trunks. Trunks or boxes when the fish come up to the top are called "levels," but if the fish be piled up in excess these are termed "fulls." It is said to be a common trade trick to double up a big flat fish in the middle of the trunk to make the load appear full, or else to add 20 to 30 per cent. of ice. *Loose* trunks are those underpacked with fish. Hence it is evident that in the wholesale markets, to a certain extent, fish is sold by guess-work, an element of gambling which Parliament should stop by compelling fish to be sold by accurate weight only. The pound avoirdupois would make the best standard. Of course this gambling in fish is virtually carried on at the expense of the consumer—the public.

Fish are, again, further damaged by close packing and pressure. To economise space in packing the barrels, a sharp sudden wrench or twist bends the fish into a coil, breaking up the animal's softened muscles and structures, thereby inviting and increasing putrefaction. Finally, such fish are tightly crammed into the conventional rough, porous, unvarnished, foul boxes and barrels, which are rudely closed by sharp hammering. Suddenly twisting the tail of the whiting, &c., to pass through its mouth, ruptures the soft, flabby, loose muscular fibres, especially when such fish have been previously skinned. The exposure of dead fish thus wastefully maltreated in fishmongers' shops, pregnant with putrefactive bacteria, accelerates decomposition.

When fish has once become flabby, stale, or tainted, no preservative process can possibly restore its lost flavour, freshness, or firmness. The few fish which British fishermen occasionally gut are often to be seen placed in a few inches of stagnant water, super-saturated with putrid blood and filth. Frequently handling fish, especially with dirty hands, accelerates putrefaction, as also the time-honoured chronic conventional custom of watering fish on the fishmonger's slab. By a statute of Edward I., dated 1272, no fishmonger was allowed to water his fish more than once; no fresh fish was to be kept in London beyond the second day from its capture; nor was any bad fish to be sold. The profit of the London fishmonger was limited by this statute to one penny in the shilling. Of course, in those days neither the fishermen nor the public were afflicted with the middlemen wholesale salesmen, whom it is alleged make undue profits apparently at the expense of the fishermen and of the public.

Fisherfolk so fully realise the present difficulty of preserving fish, that stale and decomposed fish is technically termed "over-day" (over-a-day) fish. Fisherfolk state that thunderstorms spoil fish, but as thunderstorms occur chiefly in hot, still weather associated with rain, the explanation is included in the fact that fish decompose quicker on a wet, windless winter's day than during a dry hot summer's day with a brisk breeze. Others credit the bright rays or a full clear moon with causing rapid decomposition of freshly-caught fish; but here, also, there seems to be no foundation for this statement.

Railways spoil fish.—Suddenly flinging down a heavy fish trunk loosens and damages the soft muscular fibres of fish, accelerating decomposition. Owing to the continued violent shaking in transit, railway-carried fish is so greatly damaged that even its wholesale trade price is lessened by upwards of 25 per cent. when compared with water-borne fish.

Chemicals spoil fresh fish.—Common salt, brine, boracic acid, tartaric acid, nitre, sugar, burning sulphur and aromatics, boro-glyceride, lime-water, shea or vegetable butter, powdered charcoal, flour, sawdust, or other antiseptics, as well as forcing under mechanical pressure chemical solutions into fresh fish, alike fail to keep fish from decomposing when applied in the usual commercial proportions.

Ice spoils fish.—The thickness of fishes and certain qualities of their skin cause slight variations in the freezing point of the different kinds. The freezing point of fish is a few degrees below that of water or of the ordinary commercial ice at 32° F., which, even were it used in large excess, could then only superficially and incompletely chill the exterior layers without practically affecting the temperature of the interior of a thick fish's body. But even in these conditions ice spoils the freshness, firmness, and flavour of fish by rendering it, prior to putrefaction, insipid, soft, and flabby. In the United Kingdom, by coasting vessels, fishing is seldom carried on during Saturday afternoons and all Sunday, fish caught on Friday night and often days previously, especially during continued storms, fogs, and calms, could not reach Billingsgate till Monday morning, and the consumer late on Monday, when it would never be less than three days old and often more. Indeed, much of the best prime trawl-caught fish sold at Billingsgate is from three to ten days old! The London fish trade alone is now (1889) said to consume upwards of 1000 tons daily of ice during the summer months. Ice is an expensive, bulky, rapidly perishable, wasteful product. The present average wholesale winter or minimum price of rough artificial ice is as low as 11*s.* the ton, when purchased in quantities of two tons or more, and the average price of artificial ice in winter bought by the smaller fishmongers and costermongers is 1*s.* the cwt., or at the rate of £1 the ton. In London the price of natural Norwegian ice is, even in winter, often £1 10*s.* the ton, which is popular in Billingsgate and other fish markets, where also actually *crushed* natural ice at 1*s.* 9*d.* the cwt. or £1 15*s.* the ton is customary. Being imported from the metropolis, ice in most fishing districts is, again, much dearer than in London. Compared with the winter prices, during the summer months, when ice is most used and most wasteful, it is much dearer—sometimes by 50 per cent.

Poisoning by iced fish.—Experience seems to show that the gravest cases of fish poisoning arise more commonly from eating fish which has been kept on ice than from eating fish kept naturally cool. Where fish is preserved on ice it appears to me that the ice only favours putrefaction by furnishing a constant supply of moisture, carrying with it the putrefactive bacteria derived from its foul and filthy surroundings, so that this iced fish remains covered with fresh solutions of filth pregnant with putrefactive bacteria. Thus large quantities of those subtle complex bodies, the animal alkaloids or ptomaines, are probably elaborated, and give rise to those marked symptoms of poisoning which sometimes occur from eating fish preserved on ice. On the other hand, keeping fish dry and cool can in no way favour putrefaction. And although here cases of poisoning may happen, yet, as far as I can gather, the symptoms are much less marked, and pass off sooner, the toxic effects being usually confined to a passing attack of vomiting and diarrhœa. Whilst in the case of fish preserved on ice the vomiting and diarrhœa may be less marked, though the other

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symptoms may be much more profound and lasting, and even sometimes fatal.

There are various poisons derivable from putrid fish, the detailed consideration of which require much further elaboration, work, experiment, and research. Indeed, as upwards of seventy different kinds of food-fishes, within a few hours of their death, on being eaten, give rise to poisonous symptoms, the Russian Government in 1894 will award a prize of 5000 roubles (say roughly £500) for the best essay upon the nature and cure of fish poisoning. It is unwise of Parliament not to imitate and initiate similar plans for the benefit and protection of the British and colonial public, especially for the poor, whose cheap, healthy food-supply seems chronically shamelessly ignored and outrageously neglected by those in official legislative authority. Independently of the sacred duties of charity, humanity, and religion, if viewed exclusively as a matter of public economy and expenditure, as a matter of mere pounds, shillings, and pence, then the question of cheap, healthy, abundant food means diminished taxation, which appeals directly to the pocket of every individual taxpayer. The solution of this subject as regards increasing the supply of fish, whilst lessening its cost and improving its quality and commercial value, I reserve for subsequent communications.

THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

Experiments by the Jury on Hygiene.—International Congress on Accidents to Workmen.—Exhibits of Waterproofs and Textile Fabrics.

THE time is now rapidly approaching when the distribution of prizes to the exhibitors will take place. I cannot speak of all the classes of the Exhibition, but this much at least may be said—the rewards in all that relates to public health have been fairly, honourably won. The juries have done their work in a thoroughly conscientious and scientific manner, especially with respect to all that relates to filters and to drainage. With regard to the latter, the gentlemen of the jury not only allowed me to be present, but were anxious to avail themselves of any advice I could give. The experience acquired at the International Health Exhibition held in London four years ago was fully utilised and improved upon. The jury had a small hut built immediately behind the Pavilion devoted to the sanitary exhibits on the Place des Invalides, and here the experiments were made, day after day, for several weeks. Each closet-pan submitted was carefully measured, and a drawing to scale taken. Then the pans were in turn affixed to the same flush tanks, so that the conditions of the experiment were equal for all. A flush of ten litres of water was given in every instance—that is, a trifle (a litre) more than our usual two-gallon flush. The pans were first painted with plumbers' ink, and notes taken as to how far the stains were removed by the flush, and whether any of the water splashed over the border of the pan. Then pieces of paper were placed round the pan to see if these were all removed by one flush. Finally a fixed number of potatoes or apples were put into the syphon to test if the flush could remove them all. Careful notes were taken of each experiment, and thus a comparison, based on the material results, was established as to the respective value of each pan, showing whether the pan was thoroughly cleansed and the trap completely emptied by the usual flush. The earthenware drain pipes of which an increasing number are now manufactured in France, were next examined. Every pipe was submitted to four different experiments. To test resistance to external pressure, a long plank of wood was placed over the pipe. One end of the plank was held down to the ground. On the other higher end weights were placed till at last the pipe broke under the increasing pressure. This test showed how greatly the pipes varied in quality; for, while the weakest broke under a weight of 800 kilogrammes, the strongest carried 2500 kilogrammes. The experiment for internal pressure is not so important, as it is very rare that a drain or even a sewer pipe is exposed to very great internal strain. Nevertheless, the experiment was made. Both sides of the pipes were cemented, a little hole remaining at one end to introduce the nozzle of the pneumatic pump. It was then found that the pipes could resist internal pressure of from four to six and a half atmospheres before bursting. The third experiment was particularly useful. It was to see how far a pipe could resist a shock or blow. Where earthenware pipes are used for the drainage of small streets, and are not laid deep, the passing of heavy carts or the fall of heavy loads may cause such pipes to break. The pipe was placed by the side of an upright measured gauge. An iron ball weighing six and a half kilogrammes was raised along this gauge and then allowed to drop upon the pipe. Each time the ball was dropped from a greater height until at last the pipe broke. The result was that the weakest pipe broke when the ball fell from a height of ten centimetres, and the strongest was only broken when the ball was raised to the height of twenty centimetres. The fourth and final experiment was of a very important and ingenious character. The pipes selected measured fifteen centimetres in diameter and sixty-five centimetres in length. They were placed in a heated oven for twelve hours so that they should be thoroughly dried, and then they were carefully weighed. After that the pipes were put to soak in water for twenty-four hours; then taken out and weighed again. The object was to ascertain how much humidity the pipes were capable of absorbing. The difference of the results attained was very remarkable. The best pipe only absorbed 150 grammes of water; the worst took up no less than a litre, or 1000 grammes.

During all the past week a very interesting international Congress has held its sittings at the Ecole de Droit, on the question of accidents to workmen and employers' liability. Some of the debates were purely technical, and only concerned engineers. For instance, the question of boiler explosions and the best means of constructing and placing machinery so as to avoid accidents. Then a great deal was said as to the right of inspection and the duty of inspectors. This, in France, is limited to factories where women and children are employed, the Legislature deeming that adult men are able to take care of themselves. The members of the Congress were for the most part engineers, factory inspectors, delegates of chambers of commerce, a few actuaries—in all more than 700 delegates, including the official representatives of eleven European governments, several members of various parliaments, and a few doctors of law and of medicine. The importance of such a Congress from a public health point of view is perhaps best set forth by glancing at the report on the statistics of accidents to workmen, read by M. Octave Keller, mining engineer, and Vice-President of the Parisian Statistical Society. For instance, the French railway companies, which now employ 223,000 servants, show that the annual average, taken on the experience of the ten years from 1875 to 1884, is equal to 239·5 killed and 1850·4 wounded. In Germany, the average proportion of railway servants killed and wounded is equal to 4·64 per 1000, of which 1·35 are killed. In England the proportion of killed is much higher, being equal, on one railway, from 1882 to 1885, to an average of 2·431 per 1000 employed, and, according to some authorities to 3·3 throughout the country. For coal mines in France, for ten years, the average killed was 1·56 per 1000 and 8·87 per 1000 wounded. But all these figures seem but as details when compared with the magnificent statistics of the German empire. There, to apply the Bismarckian laws on compulsory insurance, a full census of the exact occupation of every person in the empire was taken. Thus in 1887 there were 259,977 State servants and 3,861,560 workmen or artisans insured by their employers in the sixty-two corporations of the various trades concerned. The last year's record shows that 115,000 accidents took place, of which 17,102 were so serious as to entail more than three months' treatment. These latter figures give some idea of the magnitude of the question treated by the Congress, and show how numerous are the accidents to workmen which occur, and will continue to occur unless more stringent measures are taken. Industry, as M. Linder, the President of the Congress, remarked on the opening day, is a battle-field strewn with dead and wounded. We shall never quite succeed in preventing this, but we can reduce the danger and we can relieve the afflicted. The only difficulty with regard to the latter proposal is the fact that if sufficient compensation is guaranteed to the workman in case of accidents, he will become careless, and mishaps will be of more frequent occurrence. Then there is also the danger of simulation of injury. This, however,

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the Congress did not feel itself very competent to discuss, and the subject had already been very well debated at the Congress on Forensic Medicine.

Another point on which the members of the Congress did not venture at very great length, but on which, however, strong opinions were expressed, related to the diseases engendered by certain trades. The use of black aniline dyes has recently been found to be very dangerous; and there are of course the old enemies—lead, mercury, sizing, cotton and woollen dust, &c. The illnesses and the subsequent deaths caused by injurious occupations are far more frequent, far more disastrous, than accidents of a violent description. Nevertheless the Congress did not venture to make any proposals in this respect, though all felt, and felt strongly, that there was just as much reason to compensate for illness as for accidents. Doubtless, however, the members of the Congress thought that this phase of the question could with more advantage be treated at a Congress of Hygiene or of Forensic Medicine. Several valuable observations were made and figures given showing the exceptional prevalence of accidents to children in factories. These, it was said, were due to the carelessness, thoughtlessness, giddiness, and curiosity of the children. But, on the other hand, it was recognised that these were all the natural characteristics of youthfulness, and only proved that the monotony of factory work was not in keeping with the physical requirements of a young child. The real fault was due to the admission of such young children to the works. Apart from these questions, the Congress devoted the greater part of its time to debating the social, economical, and political consequences of compulsory insurance against sickness and accidents. This involved the examination and the criticism of the recent and sweeping measures taken in this respect by the German Legislature. The arguments for and against are certainly very complex, and the Congress, perhaps wisely, refrained from expressing by vote any opinion. Undoubtedly the German system has a very marked and direct bearing on the health of the population, and would supply the subject of a most useful investigation. Finally, the Congress resolved to form an international society for the purpose of collecting and of exchanging all documents bearing on the question of the prevention of accidents. The annual fee for membership is ten francs, and the address of the International secretary is M. E. Grunner, 6, rue Féron, Paris.

I will now resume my notices of the various exhibits, the continuity of which has been interrupted by the reports of the different Congresses. In a previous letter some of the articles of clothing exhibited were described, but still a great deal remains to be said and seen on this subject. Unfortunately it is not altogether easy to obtain the information which it is the object of an exhibition to supply. For instance, Messrs. Barlow and Jones of Manchester have an immense exhibit. There is a great variety of sheeting that would be of interest as bearing on the bedding of hospitals, and friction towels appertaining to the hygiene of the bath-room; but there is no one to open the case to show specimens or give information. The same cannot be said of Messrs. Robinson and Cleaver of Belfast. Here there are always attendants who lose no opportunity of displaying all the goods. Consequently it was not difficult to ascertain that this firm supplies a large quantity of linen for hospitals. Some of these linens are remarkably cheap, and seem of good quality. They have also some excellent grass-bleached diapers of very soft finish that may be recommended. Close by, Messrs. Haynes and Co. exhibit their well-known absorbent and medicated cotton wools. With regard to woollen fabrics, the exhibits of Messrs. Hunt and Winterbotham of Dursley may be mentioned. Under a rainbow-like array of clothes they show the woollen threads, and then the wool itself employed in manufacture. There is no glass case, everyone can examine the clothes for himself, and, as some of these are supplied for the uniforms of the English army, their quality becomes a question of national importance. Messrs. Tyler and Co.'s case contains unshrinkable flannels, jerseys, and various suits of knitted woollen clothes, which must be recognised as excellent for their porosity and warmth. Messrs. Le Gros Thompson and Son have a weatherproof silk crape that will commend itself to ladies in mourning; but, on inquiry, it appears that the weatherproof quality relates rather to the stains than to the wet which results from rain. Messrs. J. and J. Cash have friction towels and gloves for baths. They differ from most articles of this description, and seem more like a network made of tape. Whether this is or is not more effective, or whether its action on the skin is more stimulating, is a question that must be left in doubt, for there are no means afforded of testing the same. A little circular, with a small specimen attached, renders the patent of Walry's antiseptic canvas intelligible to all comers. This consists simply of a rough loose web-work or canvas well saturated in tar and pine oil. The canvas is then enveloped in two layers of perforated flannel, which is used for underclothing. The theory is that the skin is thus protected by an antiseptic, and also that, as the pores absorb the emanations of the tar, this may have a healing effect in some diseases. Scientific experiments should be organised to demonstrate positively these suggestions.

In the hosiery department, the use of wool for underclothing has greatly increased, and these exhibits show what progress modern theories on sanitary clothing have made. The difficulty is in ascertaining whether articles said to be pure wool are really what they are described to be. Customers cannot carry microscopes in their pockets when they are about to buy a pair of socks. For those (and their number is increasing every day) who want wool, and nothing but wool, a quick and easy method of testing should be devised. Perhaps the easiest test is to separate the warp from the woof, and hold both to a flame. Wool forms into an amorphous mass, leaves a shapeless ash, and does not flame any more when removed from the fire or light. Cotton, on the contrary, continues to burn steadily, and its ash retains the shape of the thread. It would be well for exhibitors to give the fullest information as to the purity of their wools and the absence of poisonous materials in the very brilliant colours they employ. In this scientific age, people, we are glad to note, are not satisfied with mere appearances. It does not suffice if an article of clothing looks well; it must also be free from any deleterious substance.

In respect to waterproofs, also, a great demand has arisen for the better ventilation of these garments. People are commencing to understand that the action of the skin is impeded by wearing an unventilated waterproof, and that the accumulation of foul damp air under the waterproof and the sudden transition produced by its removal, are so contrary to the general scheme of nature as to create greater dangers than the risks involved by getting wet in the rain. Thus almost every exhibitor boasts that he has some special and particularly effective method of ventilating his waterproofs. Messrs. Mandleberg and Co. have, for instance, a number of indiarubber tubes that pass up the back of their coats, these communicating with the outside at the seams. The tube in its course up the back has at every two or three inches' distance a small aperture, and thus these tubes form small ventilating shafts, just where most of the hot air accumulates. How far this is actually successful in practice I cannot say, having witnessed no experiments, but I am tempted to think that the india-rubber tubes are not stiff enough and might close up, if the wearer leant back against a wall or carriage seat. This company, in common with several other exhibitors, shows some very elegant silk and rubber air cushions that only weigh three ounces, and can fold in a little packet three inches square. When blown out they make excellent cushions or head-rests for travelling purposes, and are a very good protection against the vibration of railway trains. The North British Rubber Company has a stand where all kinds of travelling contrivances are exhibited, together with a sort of history of caoutchouc from the tree to the manufactured article. There are innumerable specimens of various forms of goloshes. In this also may be noted the progress of more scientific principles. Formerly the idea of keeping the foot dry was the only thought entertained. Hence the clumsy golosh that covered the whole of the foot up nearly to the ankle. Now, on the contrary, manufacturers are beginning to understand that the idea is to give as little caoutchouc and as much air as possible. Thus it is only the front sole and the seam of the boot that are covered. Under the instep the air may have full play, the heel is unprotected, its thickness is sufficient to resist the water, and under the arch a thin band holds the light golosh that is under the fore part of the foot. Speaking of foot covering,

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Messrs. Hubert and Co. exhibit their hunting boots, with indelible coloured tops, which require neither scrubbing nor polishing, and can be cleaned by simply holding under a tap of water. To the lovers of hunting this is a great advantage, and it helps to keep the boot dry. Mr. George Cording, of London, has waterproofs ventilated by placing network under the cape, so that as long as the cape does not adhere too closely to the body there would be no difficulty for the hot air to escape. Messrs. Lee Brothers have a large show of woollen waterproof fabrics, of portable baths, buckets, basins, &c., all objects that would certainly be of interest, alike for medical, hospital, and general sanitary purposes. But their case is always closed; there is no agent or representative to give any explanation. I am puzzled to say what advantage there can be in exhibiting in such a manner that no one can judge the value of the object exhibited. Still, and in spite of such difficulties, there is something to be learnt by a visit to the textile section and the clothing exhibits of the British section.

Paris, Sept. 16th.

THE INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.

THE following is the text of a circular addressed by the Local Government Board to all district boards and vestries in the metropolis. The circular is accompanied by an order prescribing a form of notification for use by medical practitioners and a memorandum for their guidance.

Local Government Board, Whitehall, Sept. 13th, 1889.

SIR,—I am directed by the Local Government Board to draw the attention of the district boards to the provisions of the Infectious Disease (Notification) Act, 1889, which received the Royal assent on the 30th ult., and which, it is hoped, may materially assist the local authorities of England and Wales in checking the spread of infectious disease, by enabling them to obtain early and accurate information with respect to the cases of infectious disease occurring within their districts.

The Act will, after Oct. 30th, 1889, extend to every London district—that is to say, to the City of London and the several parishes and districts under the jurisdiction of the metropolitan vestries and district boards and the Local Board of Woolwich.

The local authorities for the purposes of the Act will be—in the City of London, the Commissioners of Sewers; in Woolwich, the Local Board of Woolwich; and in the remainder of the metropolis the vestries and district boards acting under the Metropolis Management Acts.

Section 3 of the Act provides that where an inmate of any building used for human habitation within a district to which the Act extends is suffering from an infectious disease to which the Act applies, then, unless such building is a hospital in which persons suffering from an infectious disease are received, the following provisions shall have effect—that is to say: (*a*) The head of the family to which such inmate (in the Act referred to as the patient) belongs, and in his default the nearest relatives of the patient present in the building, or being in attendance on the patient, and, in default of such relatives, every person in charge of or in attendance on the patient, and in default of any such person, the occupier of the building shall, as soon as he becomes aware that the patient is suffering from an infectious disease to which the Act applies, send notice thereof to the medical officer of health of the district. (*b*) Every medical practitioner attending on, or called in to visit the patient, shall forthwith, on becoming aware that the patient is suffering from an infectious disease to which the Act applies, send to the medical officer of health for the district a certificate stating the name of the patient, the situation of the building, and the infectious disease from which, in the opinion of such medical practitioner, the patient is suffering.

Every person required by this section to give a notice or certificate who fails to give the same will be liable on summary conviction in manner provided by the Summary Jurisdiction Acts to a fine not exceeding 40*s*. If, however, a person is not required to give notice in the first instance, but only in default of some other person, he will not be liable to any fine if he satisfies the Court that he had reasonable cause to suppose that the notice had been duly given.

A notice or certificate to be sent to a medical officer of health in pursuance of the above provisions may be sent by being delivered to him, or by being left at his office or residence, or may be sent by post addressed to him at his office or at his residence. Where, in any district of a local authority, there are two or more medical officers of health of the authority, the certificate must be given to such one of them as has charge of the area in which the patient referred to in the certificate is, or to such other of them as the local authority may from time to time direct.

It will be observed that Section 3 refers only to cases where the patient is an inmate of a building used for human habitation. Section 13 of the Act, however, declares that the provisions of the Act shall apply to every ship, vessel, boat, tent, van, shed, or similar structure used for human habitation in like manner, as nearly as may be, as if it were a building, and that a ship, vessel, or boat lying in any river, harbour, or other water not within the district of any local authority within the meaning of the Act, shall be deemed for the purposes of the Act to be within the district of such local authority as may be fixed by the Board, and where no local authority has been fixed, then of the local authority of the district which nearest adjoins the place where such ship, vessel, or boat is lying. This section will not, however, apply to any ship, vessel, or boat belonging to any foreign Government, nor will the Act extend to any building, ship, vessel, boat, tent, van, shed, or similar structure belonging to her Majesty the Queen, or to any inmate thereof.

The expression "occupier," which occurs in Section 3, is defined by Section 16 as including a person having the charge, management, or control of a building, or of the part of a building in which the patient is, and in the case of a house the whole of which is let out in separate tenements, or in the case of a lodging-house, the whole of which is let to lodgers, the person receiving the rent payable by the tenants or lodgers, either on his own account or as the agent of another person, and in the case of a ship, vessel, or boat, the master or other person in charge thereof.

Section 4 of the Act enables the Board from time to time to prescribe forms for the purpose of certificates under the Act, and requires any forms so prescribed to be used in all cases to which they apply.

The Board, in pursuance of this power, have issued an order, a copy of which is enclosed herewith, prescribing the form of certificate required by the Act to be sent to the medical officer of health by the medical practitioner.

The Board also enclose a memorandum for the information of medical practitioners, which they suggest might accompany each supply of forms of certificates.

The Act requires the local authority to gratuitously supply forms of certificate to any medical practitioner residing or practising in their district who applies for the same, and to pay to every medical practitioner for each certificate duly sent by him in accordance with the Act a fee of 2*s*. 6*d*. if the case occurs in his private practice, and of 1*s*. if the case occurs in his practice as medical officer of any public body or institution.

Where a medical practitioner attending on a patient is himself the medical officer of health of the district he will be entitled to the same fee as if he were not such medical officer.

Any expenses incurred by a local authority in the execution of the Act are to be paid as part of the expenses of such authority in the execution of the Acts relating to public health; but the greater part of these expenses, so far as they are incurred in respect of places within the Metropolitan Asylum district, will be recouped to the local authority if the directions of section 10 of the Act are observed, which provides that where a medical officer of health receives, in pursuance of the Act, a certificate of a medical practitioner relating to a patient within that district, he shall within twelve hours after such receipt forward a copy thereof to the managers, and that the managers shall repay to the local authority the amounts paid by the authority in respect of those certificates of which copies have been sent to the managers, as required by that section.

The infectious diseases to which the Act applies will in all cases include the following diseases: Small-pox, cholera, diphtheria, membranous croup, erysipelas, the disease known as scarlatina, or scarlet fever, and the fevers known by any of the following names—Typhus, typhoid, enteric, relapsing, continued, or puerperal. If the local authority of any district to which the Act extends desires that the Act shall in their district apply to any infectious disease other than the above, they may from time to time by resolution order that the Act shall in their district apply to such disease. In such a case, at least fourteen clear days before the meeting at which the resolution is passed is held, special notice of the meeting and of the intention to propose such resolution must be given to every member of the authority. The order embodied in the resolution may be permanent or temporary, and, if temporary, the period during which it is to continue in force must be specified therein, and any such order may be revoked or varied by the local authority by which the order is made. But no such order, or any revocation or variation of it, will be of any validity until approved by the Board.

When it is so approved the local authority must give public notice thereof by advertisement in a local newspaper, and by handbills, and otherwise in such manner as they think sufficient for giving information to all persons interested. They must also send a copy thereof to each registered medical practitioner whom, after due inquiry, they ascertain to be residing or practising in their district.

The order will come into operation at such date not earlier than one week after the publication of the first advertisement of the approved order as the local authority may fix.

In the case of emergency the resolution may be passed at a meeting of which three clear days' notice has been given. In any such case the resolution must declare the cause of the emergency and be for a temporary order, and a copy of the resolution must be forthwith sent to the Board and advertised, after which the order will come into operation at the expiration of one week from the date of the advertisement. But unless approved by the Board it will cease to be in force at the expiration of one month after the resolution is passed, or such earlier date as may be fixed by the Board.

As the Act will take effect in the metropolis on Oct. 30th next, the local authority should, as early as practicable, furnish every medical practitioner residing or practising in their district with the forms of certificate which have been prescribed, and the Board suggests that they should, without delay, take such steps as may appear to them to be most convenient for giving notice of the requirements of the Act to the inhabitants of the district. Judging from the experience of a large number of provincial towns in which provisions similar to those contained in the Act have been put in force by means of local Acts, the Board do not anticipate that the local authority will have any practical difficulty in securing a due compliance with the provisions of the statute, and the Board feel assured that the authority will take such action in connexion with the notifications which they will receive as will materially assist in checking the spread of infectious disease in the metropolis.

I am, Sir, your obedient servant,

HUGH OWEN, Secretary.

ST. THOMAS'S HOSPITAL OLD STUDENTS' DINNER. The annual dinner will take place on Tuesday, Oct. 1st, 1889, at 6 for 6.30, in the Governors' Hall, St. Thomas's Hospital (entrance from Westminster-bridge), Dr. John Harley in the chair.

LITERARY INTELLIGENCE.—Dr. Sakhnovski, Medical Inspector of the province of Kieff, is about to bring out a new monthly journal dealing with epidemics, entitled the *Epidemicheski Listok*.

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Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Epping Rural District.—Mr. T. Fowler gives in a tabular form an account of the cases of infectious diseases that have occurred, together with a statement as to the action taken with regard to each, the latter including, in one instance, successful proceedings against a person for moving a scarlatina patient whilst still in an infectious condition. The drainage of the populous parts of the district has been completed, with the provision of a system of sewerage for Chingford, and a large amount of sanitary work is now regularly carried on for the abatement of nuisances, and for generally improving the health of the district. The sanatorium was useful during the year for the isolation of cases of scarlatina, but its usefulness would be increased by the provision of proper means of disinfection. The death-rate for 1888 was 15·5 per 1000 living.

Tendring Rural District.—The general death-rate for the last year in this district was 16·7 per 1000, and the increase which this represents over the rate for last year is regarded by Dr. J. W. Cook as in part due to excess of deaths amongst infants and young children. There has been a further extension of sewers at Brightlingsea, during the progress of which both enteric fever and diphtheria have diminished, but the privy accommodation in that town is of a very bad and unwholesome sort. Parkeston and Frinton-on-Sea now have good water, but the former place stands much in need of sewerage. Indeed, seaside resorts have been springing up which call for the earnest attention of the authority as regards their efficient sanitation.

Lewes Urban District.—Mr. Braden gives the general death-rate for 1888 as 14·5 per 1000, and points out that the zymotic rate has been but small. He refers to the simultaneous appearance of three cases of enteric fever, each being single attacks in households, and each occurring in widely different parts of the town, and he explains that he could find no cause for them. He evidently inclines to the view that they arose *de novo;* but in the absence of any condition favouring pollution of air or water, it is not clear what the circumstances are which in this case led to the origin of an infectious and specific disease. The need for the proper sewerage of the district known as Cliffe is adverted to; it is a low-lying area, and the culverts show signs of decay. The infectious hospital was found useful during the year, the water-supply is good and plentiful, and good sanitary work goes on week by week.

Kendal Urban District.—Mr. Charles Paget, until recently health officer for Kendal, gives last year's general death-rate as 17·3 per 1000. Midden-privies still cause nuisance in the town, but every year a greater readiness is experienced in getting rid of these structures. Proper construction of house drains, in so far as disconnexion and ventilation are concerned, is enforced in new houses, and a good deal of remedial work is carried out in existing houses where drain defects are discovered. A smart outbreak of diphtheria took place, and with one exception all the cases occurred near a canal in the flattest and lowest lying portion of the town, where a heavy fog had hung about with much persistency. Seven deaths resulted. The merits and value of the Sanatorium were put to the test during the year, with satisfactory results.

Ramsgate Urban District.—On an estimated population of 25,260 the death-rate for 1888 is calculated as 15·5 per 1000, which is lower than any rate during the present decennium; the zymotic rate was also exceptionally low—namely, 1·1 per 1000. Dr. Styan also contends that the deaths from consumption are singularly few amongst the inhabitants, although cases occur amongst strangers. In some cases of diphtheria and enteric fever sanitary defects were found in the houses, the defects being of a sort that would to a large extent have been obviated by a house-to-house inspection, such as is needed, above all things, in health and pleasure resorts. But the limitation in the number of cases of such diseases is regarded as a satisfactory testimonial to the efficacy of the existing sewerage system.

Truro Urban District.—The city of Truro had a low death-rate of 14·0 per 1000 last year, as opposed to an average of 19·67 for the period 1876–87. Mr. Sharp also finds that the occasional cases of enteric fever which occur are not, so often as they were, precursors of serious outbreaks, and this change he attributes to the increased supply of wholesome water and improved drain construction. At the same time improvement is needed as regards the ventilation of the public sewers, and it is important that the question of the ultimate disposal of the sewage should be dealt with. In summer weather the river Kenwyn is in a filthy state, and the stream, or rather the absence of a sufficient stream of water to wash away the filth, is a source of dangerous nuisance, especially to those inhabitants living near its banks.

Hanley Urban District.—It is somewhat difficult to estimate the population of the borough of Hanley, but setting it down as 55,520, the death-rate for 1888 would be 20·7 and the zymotic rate 4·6 per 1000, whilst the mortality under one year of age would be equal to 19·3 per cent. of the registered births, which is certainly excessive. Measles of a severe type accounted for some of this mortality, and school closure, which is stated to have been immediately followed by a diminution in the mortality, had to be resorted to. One case of enteric fever is stated to have been distinctly traced to the milk-supply, the cow-house and premises being in a most deplorable condition. It is, however, not explained in what way the specific pollution was received by the milk, nor whether others besides the one case of enteric fever used the same supply. Isolated cases of enteric fever from milk pollution are, to say the least, extremely rare. The common lodging-houses and the bakehouses seem to be well looked after and to be in a good sanitary condition. The system of compulsory notification of infectious diseases is reported to have worked well, and to have advantages beyond the mere acquiring of knowledge as to the existence of disease in individual houses. Fowler's closets are reported to have been increased in number. As a substitute for privy nuisances they have doubtless effected good, and though we cannot regard them as embodying the principles required in a proper closet, we are glad to note the testimony of Dr. J. S. Walker that they appear to add to the wholesomeness of the localities in which they are placed in Hanley.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5443 births and 3062 deaths were registered during the week ending Sept. 14th. The annual rate of mortality in these towns, which had declined in the preceding four weeks from 19·2 to 16·2 per 1000, rose again last week to 16·7. During the first eleven weeks of the current quarter the death-rate in these towns averaged 18·8 per 1000, and was 1·6 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 13·2 in Derby, 13·3 in Brighton, 13·4 in Salford, 13·7 in Birkenhead, and 14·2 in Bradford and in Leicester, The rates in the other towns ranged upwards to 26·7 in Blackburn, 27·0 in Halifax, 27·5 in Preston, and 31·4 in Plymouth. The deaths referred to the principal zymotic diseases, which had declined in the preceding four weeks from 811 to 512, rose again last week to 529; they included 272 from diarrhœa, 72 from scarlet fever, 56 from diphtheria, 54 from "fever" (principally enteric), 45 from whooping-cough, 30 from measles, and not one from small-pox. These zymotic diseases caused the lowest death-rates last week in Birkenhead and Norwich, and the highest rates in Newcastle-upon-Tyne, Blackburn, Preston, and Plymouth. The greatest mortality from diarrhœa occurred in Plymouth, Hull, Newcastle-upon-Tyne, Blackburn, and Preston; from scarlet fever in Oldham, Huddersfield, Bolton, and Plymouth; from "fever" in Preston and Nottingham; from whooping-cough in Huddersfield; and from measles in Newcastle-upon-Tyne. The deaths from diphtheria included 41 in London, 2 in Manchester, and 2 in Derby. Small-pox caused no death in any of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and the London

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Fever Hospitals at the end of the week was 1111, against numbers increasing in the preceding eleven weeks from 559 to 1021; 151 cases were admitted to these hospitals during the week, against 98, 136, and 121 in the previous three weeks. The deaths referred to diseases of the respiratory organs in London, which had been 148 and 142 in the preceding two weeks, rose again last week to 152, but were 48 below the corrected average. The causes of 68, or 2·2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Manchester, Bristol, Bradford, Nottingham, and in five other smaller towns; the largest proportion of uncertified deaths were registered in Sheffield, Liverpool, Huddersfield, and Salford.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18·1 and 16·5 per 1000 in the preceding two weeks, rose to 19·1 in the week ending Sept. 14th; this rate exceeded by 2·4 the low rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 12·5 in Paisley and 15·0 in Edinburgh to 22·7 in Aberdeen and 23·6 in Dundee. The 488 deaths in the eight towns showed an increase of 65 upon the number in the previous week, and included 38 which were referred to diarrhœa, 13 to whooping-cough, 11 to "fever" (typhus, enteric, or ill-defined), 9 to measles, 5 to diphtheria, 3 to scarlet fever, and not one to small-pox; in all, 79 deaths resulted from these principal zymotic diseases, against 91, 74, and 66 in the preceding three weeks. These 79 deaths were equal to an annual rate of 3·1 per 1000, which exceeded by 0·2 the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of diarrhœa, which had been 48, 31, and 24 in the preceding three weeks, rose again last week to 38, of which 17 occurred in Glasgow, 8 in Edinburgh, 4 in Dundee, and 4 in Aberdeen. The 13 deaths from whooping-cough showed a further decline of 5 from the numbers in the previous two weeks, and included 6 in Glasgow, 4 in Edinburgh, and 2 in Dundee. The 11 deaths referred to "fever" exceeded the numbers in recent weeks; 4 were returned in Glasgow, 4 in Dundee, and 2 in Edinburgh. The fatal cases of measles, which had been 13, 7, and 3 in the preceding three weeks, rose again last week to 9, of which 5 occurred in Glasgow and 3 in Leith. The 5 deaths from diphtheria were fewer than in recent weeks, and included 2 in Glasgow and 2 in Edinburgh. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 55 and 54 in the preceding two weeks, rose last week to 61, but were 14 below the number returned in the corresponding week of last year. The causes of 47, or nearly 10 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 26·6 and 18·6 per 1000 in the preceding two weeks, rose again to 24·5 in the week ending Sept. 14th. During the first eleven weeks of the current quarter the death-rate in the city averaged 22·8 per 1000, the mean rate during the same period being 16·6 in London and 15·6 in Edinburgh. The 166 deaths in Dublin showed an increase of 40 upon the low number in the previous week; they included 15 which were referred to diarrhœa, 4 to "fever" (typhus, enteric, or ill defined), 1 to scarlet fever, and not one either to small-pox, measles, diphtheria, or whooping-cough. Thus the deaths from these principal zymotic diseases, which had been 33, 33, and 15 in the preceding three weeks, rose again last week to 20; they were equal to an annual rate of 3·0 per 1000, the rate from the same diseases being 2·1 in London and 3·3 in Edinburgh. The deaths referred to diarrhœa, which had been 26 and 11 in the previous two weeks, rose again last week to 15; and the deaths referred to "fever" also exceeded the number in the previous week. The deaths, both of infants and of elderly persons, exceeded the numbers returned in the previous week. Four inquest cases and 2 deaths from violence were registered; and 36, or nearly a quarter, of the deaths occurred in public institutions. The causes of 35, or more than 21 per cent., of the deaths in the city were not certified.

Correspondence.

"Audi alteram partem."

NOTIFICATION OF INFECTIOUS DISEASES.

To the Editors of THE LANCET.

SIRS,—I feel that I must spare a few precious minutes of a very short holiday to make two or three observations on Mr. Biddle's letter to you. He speaks of my "attack," and of my saying "unpleasant things." I think it is altogether the other way, and that it is I who ought to complain. I wrote a short letter to *The Times* in support of Dr. Farquharson's views, and stating my opinion on the subject, an opinion formed after a careful investigation. Mr. Biddle wrote, styling my letter "a very good specimen of its class," and saying that Mr. Ritchie had plenty of such in his pigeon-holes, or words to that effect. I was thus obliged to *defend* my views, and I did so in a letter which *The Times* has evidently considered as conclusive; and this is what Mr. Biddle calls my attack! As to saying "unpleasant things," truths are often unpleasant, and a correspondent who makes remarks in the bad taste—to put it mildly—of those I have quoted above, has no right to expect one to go out of one's way to say things as pleasantly as possible. He complains in his letter to you of my having "misquoted" him, whereas it is obvious from his quotation from my letter that I did not quote him at all (with the exception of seven words), but that I merely summarised his argument, and he does not complain that my summary was an unjust one. Of course, if 1000 deaths from a particular disease in a town are reduced to 950, and in another town 50 are reduced to 0, the same number of lives—viz., 50—are saved in each town; but to argue that the importance of the result is the same is very much like arguing that if one man has £1000 and loses £50 it is of the same importance to him as it is to a man who has £50 and loses all. The relative importance is in each accurately expressed, not by the "difference," as Mr. Biddle contends it should be, but by the "proportion." It is not fair to compare the general death-rates of London and Manchester in an argument about the relative advantages of "single" and "dual" notification, if only on account of the essential difference in their methods of excrement removal; and it is perfectly absurd to suggest that because, for instance, scarlet fever has been epidemic in certain towns where there has been dual notification, this fact is due to the system of notification. The death-rate from diphtheria has increased enormously in London in recent years. This is certainly not due to dual notification. Is it due to the want of it?

I am, Sirs, your obedient servant,

Bexhill, Sept. 17th, 1889. W. H. CORFIELD.

THE MAYBRICK CASE.

To the Editors of THE LANCET.

SIRS,—I regret that my letter on the Maybrick case should have given Dr. Norman Kerr such a shock that amazement would be a trivial expression of his feelings. There is not much to answer in his letter. I do mean that Mr. Maybrick was first dosed with arsenious acid and afterwards with arsenic in solution, but for some two or three days before his death he got no arsenic; that would be another reason why so little was found in the body. Again, I do not think the indictment would be invalid if Mrs. Maybrick had been accused only of administering the poison in solution, and it had been proved to have been given in the solid form. With regard to the large quantity of arsenic found in Mrs. Maybrick's possession, thereby no doubt "hangs a tale" which has not been cleared up. If Mrs. Maybrick knew nothing about it, why did she not indignantly repudiate any knowledge of it when she made her statement? Dr. Norman Kerr's critical mind suggests to him that some member of Mr. Maybrick's family or the nurses may have deposited the arsenic where it was found; if this were so, it could only have been done with a view of inculpating Mrs. Maybrick. What those persons have done to lay themselves open to such a horrible suspicion I quite fail to see. I agree with Dr. Norman Kerr that an intelligent Scotch jury would have probably found a verdict of "Not guilty"; but an equally intelligent English jury had no such opportunity of shirking a responsibility which was

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thrust on them, and, in accordance with the national character, they boldly did their duty to the best of their ability, and their verdict has been approved by most persons of robust mind and understanding. Again, I agree that the Home Secretary did wisely in giving way to some extent to the clamour of the multitude. In such affairs a crisis will sometimes arise where public opinion seems to lose its head and runs riot with emotion or sentimentality. This sort of agitation cannot be altogether disregarded either in politics or otherwise. The Tichborne case was one in point, the Lipski case another, and now the Maybrick case has run its course; but I venture to predict that if the position of the present Home Secretary be as permanent as the position of Dr. Norman Kerr is stated to be in his letter, the latter gentleman will have to wait a very long time before his desire is gratified—viz., that the prison door be open to Mrs. Maybrick.—Yours obediently,

The Sanctuary, S.W., Sept. 18th, 1889. THOMAS BOND.

To the Editors of THE LANCET.

SIRS,—Kindly allow me to correct an error in Mr. Allen's letter of the 14th. He states: "Mrs. Maybrick added a *white* powder to the meat extract." I have her statement before me, and she never said anything about *white* powder. This was an addition by the press. What she did say was: "When I found the *powder* I took it to the inner room, and in pushing through the door I upset the bottle," &c. The importance of pointing out what may appear to some a trivial matter is this. Some people think that if it was a white powder it was of necessity arsenic. Now, as Mr. Allen himself points out, if this powder was arsenic it would have remained undissolved. We are then positively certain that this powder was *not* arsenic, and that therefore the admission of evidence to this end was with no other object than to blind the jury to the real issue. Your correspondent suggests that Mrs. Maybrick attempted to filter arsenic mixed with soot through a handkerchief. It is monstrous to assert that this woman had any technical knowledge of filtration, however crude, and it is just such misconceptions which have placed her where she is. The prosecution relied on three things for a proof of administration of arsenic: (1) the presence of 1 gr. of arsenic in meat juice, which the deceased never had; (2) the presence of $\frac{1}{1000}$ gr. in a pan at his office, which he never used; and (3) the presence of $\frac{2}{3}$ gr. of arsenic in a glycerine bottle. Siebold (editor of the *Pharmaceutical Report*), at a meeting of the British Pharmaceutical Association held at Newcastle last week, proved that glycerine abstracts As_2O_3 from certain manufactured glass after long standing. This is an important statement, and I must refer your readers to his paper. As to Mrs. Maybrick's guilt or innocence I do not express any opinion; but I do say that in a case involving so many medical, legal, and analytical doubts the only course is to liberate her, and if there is any fresh evidence against her, to re-arrest and re-try her, and not let her be unconstitutionally sentenced for a crime—"attempt to murder"—which was not before the Court.

I am, Sirs, yours truly,

W. H. COATES, M.B., L.S.Sc., F.C.S., M.R.C.S.

Highgate, Sept. 17th, 1889.

To the Editors of THE LANCET.

SIRS,—Your correspondent, Dr. Kerr, in the parallel which he has drawn between the case of Mrs. Maybrick and that of Madeleine Smith, and his inference that the same "intelligent" jury which acquitted the latter would also have done so with the former, overlooks or ignores an important distinction between the two cases. In Madeleine Smith's case there was a doubt as to whether she had administered the poison at all or not; while in the other case neither the Home Secretary nor the jury had the shadow of a doubt on this head. This, I believe, accounts for the different verdict in the two cases. I do not mean to enter into the merits of the recent case—everyone has already had ample means of forming a judgment on the subject. I would only say that I think the Liverpool jury, being convinced that the prisoner had administered poison with intent to kill, did well in holding her responsible for the fatal event which followed, all medical cavilling to the contrary notwithstanding. If a Scotch jury had not done the same in similar circumstances they would have shown little claim to be possessed of that intelligence with which your corresnpodent credits them.—Yours truly,

Partick, Glasgow, Sept. 16th, 1889. ROBERT KIRK, M.D.

"FIVE RECENT CASES ILLUSTRATIVE OF CEREBRAL SURGERY."

To the Editors of THE LANCET.

SIRS,—Under the above heading there is a case (No. 1) recorded in your issue of Sept. 14th which is rather remarkable for its rarity, particularly as complete recovery took place, notwithstanding a bullet remaining lodged in the cranial cavity. With your permission, I will state a case, which has never been recorded, and which I think is most remarkable and unexplainable—to me, at all events. To your readers I shall leave the explanation, hoping that each one may satisfy himself.

Eighteen months ago I was summoned in great haste to the house of a farmer, whose child, I was informed, had been accidentally shot by his brother. I went, and saw the boy—aged about nine years—within a quarter of an hour of the occurrence. His condition was this. He lay on his left side, with his head bent, his chin touching his chest, his legs drawn up and flexed on the thighs, which were touching the abdomen; his breathing was slow, laboured, and slightly stertorous; pulse 50; temperature normal. He was quite unconscious, and I could not rouse him till at the expiration of about twenty minutes, when, on speaking loudly to him and slightly shaking him, he muttered something in great irritation and relapsed into his former state. His right eye was cleanly knocked out, the eyelids a little black and swollen, and immediately over the malar bone of the same side there was a swelling about the size of a pullet's egg. Having observed his condition, as previously described, I obtained the history of the accident, as follows. Four of the children, ranging in ages from twelve to four, happened, while playing in the bedroom, to find a revolver loaded in all its chambers. The oldest child took it to examine, and in doing so, one of the chambers accidentally went off. The other brother—the subject of this case—happened to be standing within a yard and opposite to him, and immediately fell, remaining there in the condition I have previously described as finding him in. Thinking the case was hopeless, I said so, but at the same time sent for my principal, a man of large experience and great tact. When he arrived, he examined the child, as I had previously done, and he came to the conclusion that the bullet must have penetrated the skull through the optic foramen, in the track of the optic nerve, and no doubt was lodged in the brain—where, we could not think. I had previously examined the room where the accident took place, hoping that the bullet might have impinged against some irregularity in the orbital cavity, made a sort of irregular curve, destroying the eyeball, and coming out again, and therefore not entering the cranial cavity at all. On examining the orbital cavity with my finger I could find no irregularity whatever either on the floor, roof, or either side, but could feel the pulsation of the vessels at the foramen lacerum anticum. My principal said that we must not interfere, but wait to see if the boy would rally, firmly believing that it was only a matter of a few hours at most with him to live. After waiting for three hours the boy became sick and vomited some food which he had partaken of some short time previously, and, having vomited, he sat up, looked with his one eye, dazed, and called for a cup of tea. This he had, and after having taken it he commenced to chat and talk as if nothing had happened. We put him to bed, but having left the place I learned afterwards that he would not stay there, but got up and walked about, and did as the other children. Though he was seen twice a day, his temperature carefully taken, and all the other usual symptoms watched for, the result was negative. Not the slightest fever, no pain, no loss of appetite, no headache, no more vomiting, motions and urine passed regularly and normal, was the result day after day from that time up to now. Even with the eye being made a pulp of, one would expect some little fever and constitutional disturbance, but there was not a trace of either. The swelling over the malar bone went down in less than twenty-four hours, and the eyelids, which were not even scratched, had regained their normal colour in a few days, and with the exception of a slight discharge from the cavity of the orbit, which continued for a week, the boy was practically well in three hours after receiving his injuries. That the bullet entered the cranial cavity I have not the slightest doubt, but where it can have lodged without producing even headache, much less paralysis or any of the other well-marked signs of brain irritation, I must leave, like your corre-

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spondent, to Ferrier, Horsley, or Macewen, hoping that they or some one of your numerous readers might be able to throw some light on, to me, an inexplicable case.

I may add that there was no bleeding whatever. A bullet taken from one of the other chambers was conical in shape, and its greatest diameter was less than a quarter of an inch. On discharging one of the chambers at three yards' distance, the bullet went almost through a quarter-inch board.

I am, Sirs, yours truly,

Osnaburgh-st., Regent's Park. J. J. CLARKE, L.S.A., &c.

A SERIES OF CASES OF PUERPERAL FEVER.

To the Editors of THE LANCET.

SIRS,—On July 24th of this year a midwife attended an ordinary confinement; the woman died a few days after. On July 30th she was called to another, and found the woman lying on the floor confined. She removed the after-birth, and the woman died on Aug. 2nd. An inquest was held, preceded by a post-mortem, and the death certified as "puerperal fever." On the 7th she was called to another, examined her, and after a while, saying that the case was a difficult one, sent for a medical man, who delivered the patient, and she died a few days after of puerperal fever. On the 14th another case was attended by her, which also ended fatally a few days after. On Sept. 8th another confinement occurred in the top room of her own house. She was with the patient—her own daughter—for an hour before sending for another woman (her sister) to act. The midwife did not actually accouche her daughter, but her daughter died of puerperal fever on the 13th.

The connexion between these cases is so obvious that I think it calls for no remark from me, but the following fact may throw some light upon the cause of the first case. The midwife was suffering from specific disease in the tertiary stage, and about the 28th of July had a large piece of loose necrosed bone—the stench from which was abominable—removed from the roof of her mouth. This bone had been exposed for at least a month. Had she been fidgetting this piece of bone about with her finger, and conveyed septic material to her patient?

I am, Sirs, yours faithfully,

RUSSELL M. TALBOT,

Bow-road, Sept. 1889. Medical Officer of Health, Bow and Bromley.

DIPHTHERIA AND ITS TREATMENT.

To the Editors of THE LANCET.

SIRS,—In your issue of Aug. 24th, I find that Dr. Henderson expresses himself as not satisfied with my paper upon the Eliminative Treatment of Diphtheria, in not being sufficiently effectual for the entire expulsion of all the microbes supposed to be attached to the mucous membrane of the gastro-intestinal tract; for he states that in my commencing the treatment by "administering an emetic, followed by an aperient," he fails to comprehend "how a single evacuation of their contents can be of any service at all." It is evident that he has failed to grasp the general view which my treatment is calculated to effect; he should understand that the mustard emetic is not only an effectual evacuant, but it is likewise an excellent germicide. Again, I suggested that this be followed in due course by two doses of the liquor hyd. perchloridi in strong peppermint-water, which is acknowledged to be a most decided germicide as well as a specific alterative and aperient; this is to be followed by a dose of castor-oil. This treatment will effectually destroy and remove the microbes and their spores from the stomach, œsophagus, and fauces, as well as the intestinal tract. I quite approve of the application of his solution of corrosive sublimate; it is one of the remedies I recommended in a former paper; and, with the exception of two or three cases, I was satisfied with the throat application once a day, as being all-sufficient. Dr. Henderson tells us he is attached to the Birmingham Children's Hospital, which would enable him to watch more closely than one could possibly do in private practice.

I regret to learn that he does not agree with me that "tonics and stimulants in the early stage should not be given." In my letter to THE LANCET of November, 1880, I endeavoured to show what unfortunate results followed upon the tonic and stimulating plan adopted in the April of that year in one of the largest London hospitals. Five cases are carefully recorded in your journal—viz., four children, who succumbed under the above treatment within three days; and a probationer aged thirty-three, who had been in her usual good health, but had been in attendance for two days upon two of the fatal cases of diphtheria; she was taken ill with sore-throat on the evening of April 23rd, and in three days she died under similar tonic and stimulating treatment, aided by most assiduous attention from the physicians. I was in hope that this report would have proved a lesson to the profession to withhold such treatment, which doubtless it did with those who perused my paper at the time, although I believe there are many practitioners who still hold to this unscientific and unsuccessful plan of treatment.

When in general practice in Tottenham for several years, I had upon an average half a dozen cases annually to treat, the locality being rather low and damp. I attributed these cases at that time to aerial infection, through a fungus floating in the atmosphere depositing itself upon the tonsils and soft palate, which I at once attacked with a strong solution of nitrate of silver (one drachm to the ounce), and with a camel's-hair brush removed as much as the patient could tolerate, and at each subsequent visit, until the whole was removed. Finding there was a febrile condition present with nausea in many cases, I commenced with a dose of calomel and an aperient, for I found the secretions in a vitiated state; this was succeeded by salines, diaphoretics, and diuretics, in order to aid nature in eliminating the *materies morbi* from the system under which it appeared to be so oppressed and distressed. With this plan of treatment, the patients, being supported with nutritious and unstimulating diet, gradually improved towards convalescence. *Ergo*, for many years I used to look upon diphtheria as a curable disease if called in tolerably early to arrest its progress.

In order to prove the success the above treatment has met with in my hands, having lost but two cases during thirty-five years of active practice, the registrar's book of Tottenham can show but one death from diphtheria as attended by me, and one at Dalston. In each of these cases the delicate children had been ill two or three days before I was called in, when I found the disease had travelled into the windpipe.

I am, Sirs, yours faithfully,

EMANUEL MAY, M.D., M.R.C.P.Lond.

Fairholme, Hanwell, Sept. 2nd, 1889.

PREVENTION OF INFECTIOUS DISEASE.

To the Editors of THE LANCET.

SIRS,—Dr. F. P. Atkinson's suggestion—and I see from a letter in to-day's *Times* from Mr. Wootton Isaacson, M.P., that the latter purposes to legislate on much the same lines—is excellent as far as it goes. But it would fail entirely unless some better provision were made than exists at present to ensure the competence of the certifier. As the holder of a "recognised public health diploma" myself, I do not claim to *thoroughly* understand the practical details of the Builders Act, nor do I think that members of our profession ought to be called upon to test the soundness of drains or the perfection of connexion and disconnexion. What we want is a class of practical sanitary experts, whose competence shall be guaranteed by a sound theoretical and practical examination—men who should hold a middle position between the medical sanitarian and the engineer, and of such social position as to ensure them against all possible suspicion of being subject to undue influence of any kind. The examination should be enforced by law. It is no more right that an uneducated man (such as are many of the surveyors employed by local boards and analogous bodies) should be permitted to endanger the lives of the public than that lawyers and doctors should be allowed to practise without qualifications.

I am, Sirs, yours faithfully,

C. H. ALLFREY, M.D., F.R.C.S., D.P.H.Camb.

St. Mary Cray, Sept. 4th, 1889.

CASE OF TETANUS OCCURRING TEN DAYS AFTER DELIVERY.

To the Editors of THE LANCET.

SIRS,—I have been very much impressed, on reading the above remarkable case in THE LANCET of August 17th, by Mr. Henry Peacock of Gloucester, as I have not seen

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a case mentioned in any obstetric work. Although it is quite possible to have been traumatic tetanus, still I am more inclined to the opinion that it was a true case of idiopathic tetanus, induced by insanitary surroundings, more especially when puerperal disease had been prevalent in the neighbourhood for some months previously. If Mr. Peacock traced each one of these puerperal cases to its proximate cause he would find the same results. I have seen a case of idiopathic tetanus in one of the lower animals (a mare of my own) induced by a deplorably defective sanitary condition of my stable, &c. My groom had a little boy who was in the habit of carrying sugar to the manger both before and during the mare's illness, who thus contracted blood poisoning. Singular to say, death resulted in both cases about the same time. I am sure you will agree with me that there should be a thorough and searching investigation into the sanitary condition of Gloucester, as I am convinced that the houses must be in a most unwholesome state. I am, Sirs, yours obediently,

Whitby, Aug. 22nd, 1889. JOHNSON HERBERT.

LUNACY CERTIFICATES.

To the Editors of THE LANCET.

SIRS,—My attention has been called to the following sentence in a leading article in THE LANCET of June 15th, 1889, dealing with an address by Dr. Cosby Morgan at the late Inter-Colonial Conference at Melbourne: "The Lunacy Act is supposed, by its interpretation clause, to require that medical men certifying be properly qualified, but Dr. Morgan has recently seen a case in which the certificate was signed by an unqualified medical man, 'being also a justice and a coroner.'" The inference is that a patient was admitted into a hospital for the insane on such a certificate, and this I am quite sure my friend Dr. Morgan did not intend. Unqualified practitioners have in two or three cases within my knowledge signed lunacy certificates in this colony (I believe such a thing is not unknown in England), but I can vouch for it that these certificates have been as promptly rejected here as they have been in the old country, and that the Lunacy Act which does not compare unfavourably with that in force in England is strictly administered by the officers charged with the duty.

I am, Sirs, your obedient servant,

F. NORTON MANNING, M.D.,
Inspector-General of the Insane and Medical Adviser to the Government.

Gladesville, N.S.W., July 25th, 1889.

"HINTS TO STUDENTS BEGINNING."

To the Editors of THE LANCET.

SIRS,—I am glad to note that others agree with my advice in the Students' Number. Dr. Theodore Maxwell and myself are quite at one as to its being the *general practitioner* with whom the student ought to reside from the outset of study. With the exception of a few localities throughout the English-speaking world, the word *physician* is synonymous with *general practitioner*, and it is of course in that sense I used it. The student residing with a physician in general practice can be assisted with his studies, learn all the routine duties, see cases outside which illustrate and enable him rightly to understand class lectures and theory in books, and lays the foundation for splendid moral qualities—e.g., self-reliance, presence of mind, &c.,—which assistance at post-partum and other serious cases evoke. Besides, the present faulty curriculum gives no true and complete picture to the beginner of his future work, except in a very partial manner during the *last* year. So, after spending much time, money, and trouble, the student finds it too late to retire from medicine if the profession is uncongenial; whereas residence with the practitioner gives him from the commencement some experience of night work, midwifery, infantile convulsions, book-keeping, &c., and if the duties are distasteful he can withdraw at the end of his first session. If the student really wishes to learn his profession, he must work with, and alongside of, his principal.—Yours faithfully,

Sept. 18th, 1889. EXPERENTIA DOCET.

UNIVERSITY COLLEGE, DUNDEE.—The sum of £9000 has been subscribed towards the £15,000 required to found a chair of Physiology in this College.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The British Association.

THE visit of the British Association to Newcastle has been on the whole a success. It is true that numerically it hardly comes up to the expectations of some of its most sanguine promoters, but, on the other hand, its general interest or attendance at the sections has been rarely exceeded. It is as well to mention that the handsome baronial chair used for the first time by Professor Flower on assuming the presidency was a gift of Professor Philipson to the College of Medicine. The carving is elaborate, and was the work of a local artist of high repute, Mr. Elijah Copland. Saturday last saw a very large number of visitors off to Durham where a convocation was held and degrees were conferred, amongst others, on Professor Flower, Professor J. S. Burdon Sanderson, and Professor Turner. The various works in this city and vicinity received a due share of attention, but I believe the great manufacturing works of Armstrong, Mitchell, and Co., Elswick, were viewed by no less than 250 visitors. Among the excursions, Wallington, the seat of the Trevelyans, appeared to be one of the most popular. Wallington has been long famed for its warmth of hospitality, and, indeed, this feature has passed into song and tradition. Leland calls Wallington "the chefist house of the Fenwicks," who lived there until 1689, in great splendour and hospitality. "Show us the way to Wallington," was once a popular air with the Northumbrian pipers. It is strange how old customs survive now we have the philosophers of the "wise week" making all haste to Wallington, as prudent travellers did centuries ago. I cannot leave the Association meeting without alluding to the handsome accommodation afforded in the way of reception rooms by the College of Medicine here. This very fine new building was placed at the disposal of the Association, and was admirably adapted to its purpose, every want of visitors being amply provided for. The College itself is to be formally opened and devoted to its legitimate purposes on Oct. 2nd. A long list of invitations has been issued, and it is to be hoped that the College will have a prosperous career worthy of its noble building.

Newcastle Hospital Sunday Fund.

The annual meeting of the Newcastle Hospital Sunday Fund has been held. It appears that there has been a decrease in the church collections, but an increase in the workmen's fund, which for the first time exceeds the amount collected at the churches; the works collection being £1961 and the church £1956. The number of letters distributed last year was 6280. The total amount of money collected through the fund since its commencement in 1870 had been £63,000, while in the same period 70,000 letters had been distributed.

Stockton.

Last week an interesting ceremony was witnessed in Baldersdale in connexion with the second of the three reservoirs to be constructed for the water-supply of Stockton and Middlesbrough and the surrounding towns. The Mayor of Stockton cut the first sod of this great reservoir. The first reservoir, the Hury, which is rapidly approaching completion, will have a storage capacity of from 800 to 900 million gallons; the second, in Blackton, will hold 460 million gallons; and the third, the Grassholme, which is a compensating reservoir, will contain 1,300,000 gallons. A vast expense is being incurred in this important water undertaking; but the increasing population of the Teeside towns, and the water required for domestic and manufacturing purposes, have left the local water board no other course but that which has been adopted. The site of the new reservoir is in Teesdale, not far from Cotherstone, in the midst of some of the very finest gathering grounds.—The Stockton Dispensary appears, from the account presented at the annual meeting, to be in a waning condition; its income is said to be gradually decreasing from the death of old subscribers. The increase of clubs to which workmen subscribe will also affect this, like many other local charities.

Newcastle-on-Tyne, Sept. 18th.

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DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Reformatory and Industrial Schools, Ireland.

FROM the 37th report of the inspector it appears that there was no outbreak of contagious disease in any of the nine reformatories during the past year, and only five deaths amongst an average of 853 inmates, or about six per 1000, which must be regarded as favourable when contrasted with the general death-rate of the ordinary population. In the industrial schools the health of the inmates generally was good, but as these children are younger and come from a more destitute class than those sent to reformatories, the neglect experienced prior to committal make them more susceptible to disease. The only extensive outbreak of disease amongst the children of the industrial schools was at Booterstown, county Dublin, where fifty-eight of the inmates were attacked by typhus fever, and two deaths took place. Scarlatina broke out in several of the schools (eight), but no death took place. The deaths in industrial schools were chiefly the result of scrofula in its various phases; 51 were due to lung disease, 12 to brain affections, and 5 to mesenteric and bowel disease. The total deaths numbered 74, being at the rate of 9 per 1000. The diseases which the inspector (Dr. Plunkett O'Farrell) found most prevalent among the school children were ophthalmia, ringworm, and chilblains during the winter and spring months. The only way of checking purulent ophthalmia in schools is by constant medical inspection, minute attention to the lavatory arrangements, and a complete isolation of all acute cases; while among the hygienic measures nothing is so useful as the provision of a grass plot for play in dry weather. The dietary scale in the greater number of schools, the inspector states, was fairly liberal, but in many schools the quantity of new milk allowed fell short of what was required to build up the constitutions of the young.

The Dublin Barracks.

Some cases of sickness have recently occurred in Island Bridge Barracks, which at present is overcrowded, owing to the 5th Dragoon Guards having been sent there from the Royal Barracks. The Royal Dublin Society have offered their extensive premises at Ball's Bridge for the occupation of troops, in case the sanitary improvements in the Royal and the Richmond Barracks are not finished before the troops have to leave their camp in the Phœnix Park. The two regiments now under canvas there are very comfortable and appear to enjoy themselves very well, but it must be added that the weather of late has been greatly in their favour. So far as I can learn, there has been little or no sickness, and the men do not complain of their sojourn under canvas. Extensive alterations are being carried on at the Royal Barracks, so as to prevent the recurrence of fever and other zymotic affections; and the Royal and Palatine squares are now undergoing a thorough overhauling. As it was found that the quadrangular form of the buildings prevented free ventilation, portions of the buildings at the several angles have been removed, so as to allow fresh air to circulate; while in Palatine-square three of the angles have been taken down. Ventilators have been fixed in most of the rooms in the officers' quarters in this square—in fact, in all the rooms where an outbreak of fever has occurred,—and new flooring put down in a number of the rooms, louvre ventilators being placed at the top of each staircase so as to give thorough ventilation; while the ordinary paving setts in the stables have been replaced by concrete, and new concrete channel courses substituted for the old brick courses. The old prison, which has not been used for years, has also been demolished, and also the riding-school at the rear of Royal-square. It is not expected that the necessary alterations will be finished before next year.

Death of Dr. Henry Coulton.

This gentleman died at his residence in Dublin on the 16th inst., after a somewhat tedious illness, of paralysis. He acted for many years as medical officer in connexion with the South Dublin Union, and retired on a pension about ten years since. He was attended in his last illness by his old friend Mr. Kellock Barton, senior surgeon to the Adelaide Hospital, who was unremitting in his attentions to the deceased. Dr. Coulton was of a kind and amiable disposition, a true friend, and a Christian gentleman.

Health of Ireland for 1888.

The births numbered 109,557 and the deaths 85,892, both being under the average for the previous ten years. The excess of births over deaths was 23,665, but as the loss by emigration amounted to 78,684, there would appear to have been a decrease of 55,019 in the population during the year. As regards the 109,557 births, the rate afforded in proportion to the estimated population was 1 in 43·6, or 22·9 per 1000, which is 1·12 under the low average rate for the ten years 1878–87, and less than the rate in any of those years. The average percentage of the illegitimate births was 2·9, which compares favourably with the returns for most other countries. The registered deaths amounted to 85,892, being equal to 1 in 55·6, or 18·0 per 1000, which is somewhat under the average rate (18·4) for the previous ten years. The deaths of infants under one year old numbered 10,619, being equal to 9·7 per cent. of the number of births registered; while among children under five years of age 19,095 deaths occurred, a mortality equal to 35·9 in every 1000 of the living at that age. It will be seen from these figures that the rate of mortality among children still remains very high.

Zymotic Diseases in Dublin.

During the past three months the deaths from scarlatina numbered only 2, typhus fever 3, measles 30, and typhoid fever 33—returns which must be regarded as satisfactory when contrasted with previous quarters.

The Lord Justices have sanctioned the expenditure of £1600 upon improvements in the Ballinasloe District Lunatic Asylum.

The election of an assistant surgeon for St. Vincent's Hospital will take place on the 23rd inst.

Dublin, Sept. 17th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Population in France in 1888.

SOME remarkable figures have recently been placed officially before the public bearing on this question. For Frenchmen especially the question is ever an important one, and, touching so nearly as it does on the future position of France in the march of nations, the publishing of these figures showing the state of affairs has excited a considerable amount of attention and comment. Some take a gloomy view of the outlook, and go so far as to declare that France is "within measurable distance" of assuming a third- or fourth-rate place in the rank of nations; while others, on the other hand, declare that the figures only indicate that France will be the first to reach the summit in the climb which all nationalities are making towards a perfected civilisation, and that the turn of the others will arrive later on. France, it is pointed out, is not a colonising nation, and cannot with comfort support much more than forty millions. But no more can Germany or England, who, not without much misery and difficulty, find an outlet for their surplus population in emigration and colonisation, and emigration means merging into other nations, while even colonisation ends in the setting up of new nationalities, with destinies of their own to work out, and little in common with the mother country, unless it be the language. Comfort is taken in the belief that the days of gigantic empires are at an end, and that even "Imperial Federation," so dear to many of your countrymen, is a myth. But whatever side may be taken eventually in this political economists' discussion, there is no doubt that the figures, as published, are interesting reading to medical men. According to the return, the increase of births over deaths in 1888 amounted to 44,772, whereas in 1887 the increase was 56,536. This is certainly a striking falling off, and it is easy to see that at this rate the time is not far off when the quantity will become a *minus* instead of a *plus* one, and those who aim at the "perfected civilisation" scheme must see the necessity of arresting this downward progress if France is to remain numerically a great power. How it may be possible to arrest it is of course another matter. The number of marriages in the year 1888 were 276,848, divorces 4708, births 882,639, and deaths 837,867. As regards marriages, there were 212 less than in 1887, but as compared with 1886 the diminution was much more marked, amounting to no less than 6360. In 1888 there were granted 1072 more divorces than in 1887,

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and 1758 more than in 1886. Taking France generally, there was one divorce in every 1585 existing marriages; but in the Department of the Seine alone there was one divorce in every 419 homes. The total number of births was 16,794 less than 1887. This is the greatest diminution since 1871. Nor does the diminution show much sign of lessening, if one may judge by the following figures. In 1885 there were 13,200 less births than in the preceding year; in 1886, 11,720 less than in 1885; in 1887, 13,505 less than in 1886. On the other hand, the number of illegitimate births go on increasing. There were 7·5 per cent. in 1881, 8 per cent. in 1885, and 8·5 per cent. in 1888. In the Department of the Seine, of every 100 children born in 1888, 25 were illegitimate; while in Brittany they only amounted to 2 per cent. The deaths in 1888 amounted for France generally to 21·9 for every 1000 persons. The departments returning the greatest birth-rate also show the greatest death-rate, the mortality being most marked amongst infants of tender age.

Ocular Massage.

A communication was recently made to the Academy of Medicine on this rather novel, or, as it would appear, modification of the ancient, use of massage by M. Costomiris of Athens. He said that if the ancient Greeks employed massage in eye affections it was not by means of the pulp of the finger on the conjunctiva and cornea, such as he had been in the habit of employing for many years. His method was, after everting the lids, to spread a thickish layer of fine boracic acid powder on the conjunctiva, and then with one of the fingers to rub in massage fashion the parts so covered with the powder. He then washes the eye in boracic acid solution, and for the few following days applies a lotion composed of 1 in 200 of nitrate of silver to prevent the inflammation which sometimes follows the manipulation. He next rubs the outer surface of the lids in the same way, which he finds lessens any pain caused by the internal massage. It is as well in every case to begin with a short and very light friction, then to increase it and again decrease it, and this should be repeated once daily and continued for two or three weeks after cure. M. Costomiris speaks very highly of this method in the treatment of granular lids or follicular conjunctivitis, in parenchymatous keratitis, in hypopyon, in infiltrations, and in abscesses or ulcers of the cornea; but in deep-seated ocular mischief he cannot recommend it.

Paris, Sept. 17th.

THE SERVICES.

ARMY MEDICAL STAFF. — Surgeon-Major Ignatius McDonogh O'Farrell, F.R.C.S. Ireland, to be Brigade Surgeon, ranking as Lieutenant-Colonel, vice C. S. Wills, C.B., granted retired pay (dated Aug. 24th, 1889); Surgeon William Parsons Feltham, from half pay, to be Surgeon, in succession to Surgeon-Major J. A. Smith, deceased (dated Aug. 15th, 1889).

ARMY MEDICAL SCHOOL. — Deputy Surgeon-General Henry Cayley, Bengal Medical Establishment (retired), to be Professor of Clinical and Military Medicine (dated June 4th, 1889).

ARMY MEDICAL RESERVE OF OFFICERS. — Surgeon-Major Burford Norman, having resigned his commission in the 1st Volunteer Brigade, Southern Division Royal Artillery, ceases to be an Officer of the Reserve (dated Sept. 18th, 1889); Surgeon John Alexander Mackenzie, M.B., resigns his commission (dated Sept. 18th, 1889); Surgeon Robert Balfour Graham, F.R.C.S. Edin., 1st Fifeshire Artillery Volunteer Corps, to be Surgeon, ranking as Captain (dated Sept. 18th, 1889).

INDIA OFFICE.—The Queen has approved of the following promotion among the Officers of the Staff Corps and Indian Military Forces made by the Governments in India (dated Sept. 17th, 1889):—Bengal Medical Establishment—Surgeon-Major Henry Black Purves to be Brigade Surgeon (dated June 16th, 1889).

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon Stephen Sweetnam has been placed on the Retired List at his own request, with permission to assume the rank of Deputy Inspector-General of Hospitals and Fleets (dated Sept. 10th, 1889).

The following appointments have been made:—Surgeons George Welch to the *Defiance*, additional for temporary service, Jeremiah Sugrue, to Haslar Hospital, and William G. Stott, M.B., to the *St. Vincent* (all dated Sept. 19th, 1889); Fleet Surgeon Samuel Bamfield to the *Durham;* Staff Surgeon Herbert E. Marsh to the *Serapis;* Staff Surgeon Edward R. Mulock to the *Assistance;* and Staff Surgeon William M. Rae to the *Brilliant*, temporarily (dated Sept. 26th, 1889).

VOLUNTEER CORPS. — *Artillery:* 1st Inverness-shire: Second Lieutenant H. W. Mann, M.B., is appointed Acting Surgeon (dated Sept. 14th, 1889).—*Rifle:* 3rd Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry): Acting Surgeon J. A. Bright resigns his appointment; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated Sept. 14th, 1889).—2nd (Berwickshire) Volunteer Battalion, the King's Own Scottish Borderers: David Skinner, Gent., to be Acting Surgeon (dated Sept. 14th, 1889).—2nd Volunteer Battalion, the Duke of Cornwall's Light Infantry: Acting Surgeon F. D. S. McMahon resigns his appointment (dated Sept. 14th, 1889).—3rd Volunteer Battalion, the Hampshire Regiment: Captain C. S. Ticehurst is appointed Acting Surgeon (dated Sept. 14th, 1889).—2nd Volunteer Battalion, the King's (Shropshire Light Infantry): Acting Surgeon C. H. Gynn, M.D., to be Surgeon (dated Sept. 14th, 1889).

Obituary.

JOHN F. GILLIES, M.D., L.R.C.S.

THE above-named gentleman died at Dunedin, New Zealand, on July 5th, after a lingering illness. He was born in the island of Skye in 1847. As a student in Edinburgh and Aberdeen he gained the highest distinction. He took the degree of M.B. at Aberdeen in 1869, passing the whole of the professional examinations at one term—a feat which, as Professor Harvey remarked, is "almost never attempted; and the manner in which Dr. Gillies accomplished it evinced mental capacity of a singularly high order." He acted for a time as assistant to Dr. Handyside in the anatomical classes of the Edinburgh School of Medicine, and engaged also in original investigations of a physiological nature, for which he possessed great aptitude, but circumstances did not permit him to follow out his bent. He entered on general medical practice in Melksham, Wiltshire, and for a short time in London. He went to Dunedin in 1874, where he was soon afterwards appointed health officer of the city. As such he took charge of the Fever Hospital, which was erected in consequence of an outbreak of scarlet fever, and by his skilful management he achieved the best results. He was also appointed in 1876 Lecturer on Clinical Medicine at the Otago University. He took a keen interest in all matters affecting the social, educational, and political interests of the community; but from his retiring disposition he preferred to publish his numerous communications on such subjects anonymously. He was a proficient in Celtic literature, to which he devoted much attention. His skill and sympathy and kindness were very highly appreciated by his patients, and very specially by those in humble circumstances, to whom he rendered needed help with ungrudging generosity. He was married in 1879 to Miss Carnegie (granddaughter of the late Captain David Carnegie of Edinburgh), who survives him.

DR. HERMANN REUTER.

ANOTHER medical hero of the Franco-German war died on the 4th inst. at Nürnberg, in the person of the Landgerichtsarzt, Dr. Hermann Reuter. He was born in May, 1826, and having completed the usual course at the Nürnberg Gymnasium, he proceeded to the Erlangen and Heidelberg Universities. At the former of these seats of learning he distinguished himself by his powers of organising the *Burschenschaft* for political as well as academic aims, and lived through the revolutionary upheaval of 1848 in keen sympathy with the movement, but without compromising his professional career. Having graduated creditably as Doctor of Medicine, he served as volunteer assistant surgeon in the Schleswig-Holstein campaign—an

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experience by which he profited largely and well. His next step was to settle down in his native Nürnberg as a medical practitioner, in which capacity he not only won the confidence of the community, but so attracted the notice of the Government that in 1861 he was appointed Bezirksgerichtsarzt (head medical consultant of the district court). Other professional honours fell to his share—that of Medicinalrath in 1880, and that of the Michaelsorden of the fourth class on New Year's Day of the present year. His chief distinctions, however, and those he mostly prized, were the posts that seemed spontaneously to come to him in the hygienic and charitable undertakings of his native city and province. He contributed towards founding the local medical association, and was an able and active member of the Aerzte-Bund (medical confederation) of Germany. But it was in the war time of 1870-71, particularly in his work on behalf of the wounded of either belligerent army, that he gave most striking evidence of his high qualities of head and heart. His fearless exertions under fire, and his nightly as well as daily service in the field ambulance, earned him the Bavarian Cross of Merit, the Memorial Cross of Saxony, and, above and beyond these decorations, the deep and enduring gratitude not only of his compatriots but of the opposing nationality. In after years he enhanced his reputation in the law courts as an expert in medico-legal cases, while, outside his professional engagements, he was an ardent votary of liberal principles in Church and State—a political leader respected even by the opposite interest not more in Nürnberg than throughout Bavaria. His powers, taxed as they had been by an exceptionally laborious and eventful life, latterly showed symptoms of decline, which, assuming an acute form, carried him off in his sixty-fourth year.

Medical News.

BOY SUICIDES.—On Thursday two boys, aged respectively thirteen and sixteen, are reported to have committed suicide; one by hanging himself, the other by swallowing laudanum.

LEAD POISONING.—A large number of the inmates of the Keighley workhouse and infirmary are stated to be suffering from the effects of lead poisoning. The water, supplied by the Corporation, is suspected to be the cause of the evil.

BIRMINGHAM HOSPITAL SUNDAY.—The collections on behalf of the General Hospital, which will this year receive the proceeds, will be made on Oct. 27th next. Great exertions are being made in the town to recover the ground lost during late years.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—A monthly meeting of the North-Western Branch of the Society of Medical Officers of Health was held in Manchester last week, at which M. Bobrownicki, Professor of Mathematics in Russia, read a paper on a new Patented Method for the Treatment of House Refuse. His improvements consisted in the treatment of the putrescible matters by direct contact with the condensible and suspended matters in the gases arising from the ordinary combustion of fuel, or from the distillation at a comparatively low temperature of coal, tar, resin, and other fuels and hydrocarbons. By this means the gaseous products arising and resulting from the imperfect combustion and distillation were deprived of their constituents. which were objectionable in the atmosphere, but were of considerable value to the agriculturist.

BEQUESTS AND DONATIONS TO HOSPITALS.—Mr. Quilter, M.P., has given £2000 to the Felixstowe Convalescent Home.—The late Mr. Wm. Stirling of Glasgow has left by his will £20,000 to Glasgow charities; the three leading infirmaries get £5000 each.—Dr. Edmond of Kingswells has presented £300 to the Aberdeen Hospital for Incurables, as an additional donation in place of future annual subscriptions.—The late Surgeon-General David Wyllie, formerly of Montrose, has left £2500 to the Montrose Infirmary, and a like amount to the public charities.—Mrs. Walter Parlane, late of Somerset-place, Glasgow, has by her will (after providing for legacies to relatives and subject to an annuity still payable) bequeathed to the Glasgow Royal Infirmary and the Glasgow Royal Hospital for Sick Children £1000 each.

RABIES.—According to the *London Gazette*, the number of dogs in England reported during the week ending Sept. 7th as afflicted with rabies was nine, against twelve in the previous week. All were slaughtered. Of the nine diseased animals only one belonged to London proper, whilst two appertained to Kent and Surrey each, and one to Lancaster, Middlesex, Sussex (Eastern Division), and York (West Riding) respectively. In spite of the muzzling order, there appears to be still a steady average of nearly a dozen cases of rabies each week. What the number would have been had the muzzling order not have been enforced may best be left to the imagination. Even as it is, the "order" is scandalously ignored in the suburbs of London; whilst, to make the edict thoroughly effective, it should be made universal; and, furthermore, the authorities should see that the muzzling is carried out.

PROVINCIAL SUNDAY AND SATURDAY HOSPITAL COLLECTIONS.—The Welwyn Hospital Sunday collection on Aug. 11th amounted to £13 13*s.*, which sum has been divided between the Hertford and Hitchin Infirmaries and the Hertford Convalescent Home. The St. Albans (Herts) Hospital Sunday collection on Aug. 18th produced £24 2*s.* The Bank Holiday Hospital Gala held at Leeds on the 5th ult., in aid of the Leeds medical charities, realised about £600. The Hospital Saturday collection at Clacton-on-Sea, on behalf of the Essex and Colchester Hospital, held on the 17th ult., amounted to £50 4*s.* 7*d.* The usual annual Church parade of the Friendly Societies, in aid of the Bath Royal United Hospital, on Sunday, August 25th, produced £26. The Hospital Saturday collection at Scarborough, on the 7th inst., towards the funds of the Scarborough Hospital and Dispensary, amounted to £182 12*s.* A church parade of the United Friendly Societies of Teignmouth on Sunday, the 1st inst., on behalf of the Teignmouth Infirmary, produced £21 10*s.* The Maidenhead Friendly Societies' Hospital Sunday collection on the 8th inst., on behalf of the Maidenhead Cottage Hospital, amounted to £35 7*s.* 5*d.* The Hospital Sunday collection on the 15th inst. at Dartmouth amounted to £24 18*s.* 11*d.*; and that of Northallerton on the same day realised £6 3*s.* 6*d.*

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on September 17th, 1889.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever	Other diseases.	Total.	
Eastern Hospital	218	57	1	47	4	327	442
North-Western Hospital	232	33	..	5	..	270	435
Western ,,	170	11	..	5	..	186	262
South-Western ,,	..	..	..	..	..	..	402
South-Eastern ,,	273	15	1	20	2	311	462
Northern ,,	212	..	..	..	..	212	480
Totals	1105	116	2	77	6	1306	2483

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BROWN, H. B., M.D., B.S.Lond., F.R.C.S. Eng., has been appointed House Physician to the Wolverhampton and Staffordshire General Hospital.

CALDERWOOD, GEORGE, M.D., M.B., C.M.Glasg., has been reappointed Medical Officer of Egremont, Cumberland.

ELSOM, F. J., L.R.C.P., L.M.Edin., M.R.C.S., has been reappointed Medical Officer and Public Vaccinator of Cuckney District, Worksop Union.

FISHER, P. C., F.R.C.S., L.S.A., has been appointed Medical Officer of Sarratt District, Watford Union.

GABE, J. REES, M.D., M.R.C.S., L.S.A., has been appointed Public Vaccinator for Holborn, vice J. Norton, M.R.C.S., L.S.A., deceased.

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GLINN, C. F., L.R.C.P.Lond., M.R.C.S., L.S.A., has been appointed Medical Officer of Hatherleigh District, Okehampton Union.

GREENE, A. J., L.R.C.S., L.K.Q.C.P.Irel., has been appointed Medical Officer of the Burwash District, Ticehurst Union.

MCWHANNELL, L., M.B., C.M.Glas., has been appointed Senior House Surgeon to the Birkenhead Borough Hospital, vice E. Scott Sugden, M.B., M.R.C.S., resigned.

MEDCALF, E. S., L.R.C.P., L.M. Edin., M.R.C.S., L.S.A., has been appointed Medical Officer for the Town of Hove, Sussex.

MUGFORD, S. A., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer of Ardleigh and Great Bromley Districts, Tendring Union.

PACKMAN, ALFRED C. A., M.D., M.R.C.S., has been appointed Medical Officer of Health for the Rural Sanitary District of the Hoo Union.

PURSLOW, C. E., M.D.Lond., M.R.C.S., Honorary Medical Officer to the Birmingham Lying-in Charity, has been appointed Honorary Obstetric Officer to the Queen's Hospital, Birmingham, vice A. T. Hawkins, F.R.C.S., resigned.

REED, LESTER, F.I.C., F.C.S., has been appointed Public Analyst for the Borough of Croydon.

SNELLEN, HERMAN, jun., M.B. and Mast. Surg. Utrecht Univ., has been appointed House Surgeon to the Bristol Eye Hospital.

THRESH, J. C., D.Sc.Lond., M.B., B.Ch.Vic., has been appointed Medical Officer of Health to the combined Sanitary Districts of Chelmsford and Maldon.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BOSCOMBE HOSPITAL AND PROVIDENT DISPENSARY, Bournemouth.—Resident Medical Officer. Salary £60 per annum, with board and residence at the hospital. Not more than five testimonials of recent date to be sent.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House Physiciancy. No salary, but board and lodging are provided free of cost.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—House Surgeon. Salary £70, with board, washing, and residence.

FLINTSHIRE DISPENSARY, Secretary, Bagillt-street, Holywell.—House Surgeon. Salary £100 per annum, with furnished house, rent and taxes free; also coal, lights, water, and cleaning, or in lieu thereof the sum of £20 per annum.

GENERAL HOSPITAL, Birmingham.—Resident Registrar and Pathologist. Salary £100 per annum, with board and lodging. Also Assistant House Surgeon, for six months. No salary, but residence, board, and washing will be provided.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, London, W.—Resident Medical Officer. Salary £50 a year, with board and lodging.

HULL FRIENDLY SOCIETY MEDICAL INSTITUTE, Brook-street, Hull.—A fully qualified Man to take charge of, and manage the above. Salary 170 guineas per annum, with midwifery fees, house, coals, and gas.

LEICESTER INFIRMARY AND FEVER HOUSE, Leicester.—House Surgeon. Salary £120 for the first year, rising at the rate of £10 per annum until the fourth year. Board, apartments and washing will be provided.

LONDON FEVER HOSPITAL, Liverpool-road, Islington, N.—Assistant Resident Medical Officer. Salary £120 per annum.

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—Junior House Surgeon. Salary £40 per annum, with board and residence.

NORTHUMBERLAND COUNTY ASYLUM, Morpeth.—Clinical Assistant. No salary, board and residence provided.

ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY, Wigan.—Junior House Surgeon. Salary £80 per annum, with apartments and rations (exclusive of wines, spirits, and washing).

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Junior House Surgeon. Salary £50 per annum, with board and apartments.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King-William-street, West Strand.—Surgeon.

SOUTH DEVON AND CORNWALL HOSPITAL, Plymouth.—House Surgeon. Salary £100, with board and rations.

Births, Marriages, and Deaths.

BIRTHS.

CONNOLLY.—On Sept. 17th, at the Royal Arsenal, Woolwich, the wife of Surg.-Major B. Bloomfield Connolly, M.A., F.R.C.S., of a daughter.

DINGLE.—On Sept. 17th, at 46, Finsbury-square, E.C., the wife of Wm. A. Dingle, of a daughter.

GARDNER.—On Sept. 13th, at The Avenue, Mill-hill-park, Acton, the wife of Dr. W. T. Gardner, of a daughter (Marjorie).

JONES.—On Sept. 5th, at Longworth-road, Oxford, the wife of Arthur Wentworth Jones, B.A., M.R.C.S., L.R.C.P., of a son.

KYLE.—On Sept. 15th, at St. Andrews, N.B., the wife of Dr. Hamilton Kyle, of a daughter, stillborn.

MARSH.—On Sept. 14th, at Russell-road, Kensington, the wife of W. Blake Marsh, L.R.C.P., M.R.C.S., late of the P. and O. Co.'s Service, of a son.

NICHOLS.—On Sept. 7th, at Alderney, the wife of Surgeon F. P. Nichols, M.B. Cantab., Army Medical Staff, of a daughter.

MARRIAGES.

BARRINGTON—TAYLOR.—On Sept. 12th, at St. Nicholas' Church, King's Lynn, Frederick Albert Barrington, L.K. and Q.C.P., and L.R.C.S.I., of Chapel-street, King's Lynn, to Frances Emma, only daughter of the late Charles Taylor, Esq., of King's Lynn, Norfolk.

CROSS—HAWKES.—On Sept. 11th, at St. Matthias' Church, Torquay, Francis Richardson Cross, M.B. Lond., F.R.C.S., of Clifton, eldest son of the late Rev. Joseph Cross, M.A., Vicar of Merriott, Somersetshire, to Eva Beatrice, elder daughter of the late Capt. Henry Hawkes, R.N., of Torquay.

DAY—MITCHELL.—On Sept. 10th, at Zion Church, Rathgar, William Bullen Day, Army Medical Staff, son of Arthur M. Day, Rostrevor-terrace, to Ruth, younger daughter of the late George Mitchell, J.P., Hopeton, Rathgar, Dublin.

GATHERGOOD—BEATLEY.—On Sept. 11th, at St. Mark's Church, West Hackney, Benjamin William Gathergood, M.R.C.S., L.S.A., son of John Gathergood, Surgeon, of Terrington St. John, to Kate Mary (Kitty) Beatley, second daughter of Thomas Gage Beatley, Shipowner, of Leadenhall-street, London, and Amhurst-road, Hackney Downs.

GRIFFITH—LOVELL.—On Sept. 18th, at St. Mathias', Earl's-court, Dr. R. Glyn Griffith, of Allahabad, N.W.P., India, to Edith Lilian Grimsted, only daughter of the late John Lovell, Esq., of Portledge House, Newbridge-hill, Bath, Inspector-General of Hospitals, Madras Presidency.

HAY—MACGREGOR.—On Sept. 14th, at Holy Trinity Church, Llandudno, by the Right Rev. the Bishop of Bangor, and the Rev. J. Morgan, Rector of the Parish, Henry Hay, M.B., C.M. Edin., and Surgeon to the Prison of Edinburgh, to Jessie Mackay Macgregor, widow, daughter of the late Rev. David Nicol, of Dalgety, Fifeshire, N.B., and niece of James Nicol, M.D., Llandudno.

HAYNES—NEWMAN.—On Sept. 11th, at the Parish Church, Bottisham, Cambs., Walter F. Haynes, L.R.C.P., of Stansted, Essex, to Rosa, second daughter of Edward Newman, Esq., of the Parsonage, Bottisham.

MACKAY—BOURNE.—On Sept. 12th, at Tynemouth Parish Church, by the Rev. Canon Brutton, Vicar and Rural Dean, assisted by the Rev. R. Raggett, M.A., William Murray Mackay, L.R.C.P., L.R.C.S., L.F.P.S.G., &c., of North Shields, second son of James Mackay, Esq., Geiselittle House, Caithness, N.B., to Edith Rose, third daughter of the late William Bourne, M.A., M.D., J.P., of North Shields.

MCKERCHAR—BRYER.—On Sept. 17th, at Christ Church, Forest-hill, Robert McKerchar, M.D., of Dalbeattie, Kircudbrightshire, to Edith, eldest daughter of William Bryer, of Sunderland-road, Forest-hill, and Barbican, London.

NICHOLSON—COX.—On Sept. 10th, at Hackney Parish Church, Thomas Tanner, only son of the late William Hunter Nicholson, M.R.C.S., of St Pancras, to Susan (Susie), eldest daughter of Isaac Cox, Esq., of Dalston.

TOPHAM—WORSICK.—On Sept. 11th, at North Parade Baptist Chapel, Halifax, by the Rev. Carey Hood, resident minister, assisted by the Rev. W. Gray, of Birchcliffe, Albert Stocks Topham, M.R.C.S., L.R.C.P. Lond., Prescott-street, Halifax, to Anna, eldest daughter of Richard Worsick, maltster, Halifax.

DEATHS.

BENTON.—On Sept. 8th, at Weymouth, after a few days' illness, Samuel Benton, M.R.C.S., of 2, Bennett-street, St. James's, second son of Philip Benton, of North Shoebury, Essex, aged 39.

DUCKWORTH.—On Sept. 14th, at Westgate-on-Sea, after a short illness, Annie Alicia, wife of Sir Dyce Duckworth, M.D.

EDSALL.—On Sept. 14th, at Clarence-road, Kew-gardens, Surrey, Samuel Bernard Alfred Edsall, M.R.C.S. Eng., second son of W. Viner Edsall, of Wimbledon, aged 31.

GARDEN.—On Sept. 14th, suddenly, at South Hampstead, Alexander Garden, M.D., late Brigade Surgeon I.M.D., aged 56.

HENDERSON.—On Sept. 7th, at Brighton, George Henderson, M.R.C.S., late of Upper Norwood, in his 30th year.

MURRAY.—On Sept. 16th, at Rickmansworth, Herts, John Leslie, younger son of Alexander Dalton Murray, M.B.

ROYSTON-PIGOTT.—On Sept. 14th, at Annandale, Grange Gardens, Eastbourne, George West Royston-Pigott, M.D., F.R.S., aged 70.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

BELL, GEORGE, & SONS, York-street, Covent-garden, London.
On the Motion of the Heart and Blood in Animals. By William Harvey, M.D. Willis's Translation, revised and edited by Alex. Bowie, M.D., C.M. 1889. Bohn's Select Library. pp. 147.

BLACKIE & SON, Old Bailey, London.
A Text-book of Organic Chemistry. By A. Bernthsen, Ph.D. Translated by George M'Gowan, Ph.D. 1889. pp. 544.

CORNISH BROTHERS, Birmingham, and SIMPKIN, MARSHALL & CO., London.
Notes on Medical Education. By Sir James Sawyer, M.D., F.R.C.P. 1889. pp. 113.

FISCHER, GUSTAV, Jena.
Die Allgemeine Pathologie. Zweiter Theil: Die Krankenhaften Störungen des Baus und der Zusammensetzung des Menschlichen Körpes (Allgemeine Pathologische Morphologie). Von Dr. Edwin Klebs. 1889. pp. 836.

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LONGMANS, GREEN, & CO., Paternoster-row, London.
A Manual of Pathology. By Joseph Coats, M.D. Second Edition, revised and mostly rewritten, with 364 Illustrations. 1889. pp. 977. Price 31*s.* 6*d.*
The Rotifera, or Wheel-Animalcules. By C. J. Hudson, LL.D. Cantab., F.R.S., assisted by P. H. Gosse, F.R.S. Supplement. With Illustrations. 1889. pp. 64. Price 12*s.* 6*d.*
Tablets of Anatomy. By Thos. Cooke, F.R.C.S.Eng., M.D. Paris. Eighth Thousand. 1889. pp. 294. Price 7*s.* 6*d.*

LEWIS, H. K., Gower-street, London, W.C.
Hygiene and Public Health. By Louis C. Parkes, M.D. With Illustrations. 1889. pp. 471.
What to do in Cases of Poisoning. By W. Murrell, M.D., F.R.C.P. Sixth Edition. 1889. pp. 230.
On Bedside Urine-testing. A Clinical Guide to the observation of Urine in the course of Work. By Geo. Oliver, M.D., L.R.C.P. Fourth Edition. 1889. pp. 236.

MADRAS GOVERNMENT PRESS.
The Diseases of the Madras Famine of 1877-78. By Alex. Porter, M.D., F.R.C.S.Irel. 1889. pp. 253.

RENSHAW, HENRY, Strand, London, W.C.
On Static Electricity in Medicine, and Apostoli's Methods in the Treatment of Uterine and Peri-uterine Disease. By Henry McClure, M.D. With 16 Illustrations. 1889. pp. 160.

ROYAL GEOGRAPHICAL SOCIETY, Savile-row, London, W.
Hints to Travellers, Scientific and General. Edited for the Council of the Royal Geographical Society. By Douglas W. Freshfield, Hon. Secretary R.G.S., and Capt. W. J. L. Wharton, R.N., F.R.S. Sixth Edition, revised and enlarged. 1889. pp. 430. Price 6*s.*; to Fellows, at the Office of the Society, 4*s.*

SMITH, ELDER, & CO., Waterloo-place, London.
On the Principles and Exact Conditions to be observed in the Artificial Feeding of Infants: the Properties of Artificial Foods, and the Diseases which arise from faults of Diet in Early Life. By W. B. Cheadle, M.A., M.D.Cantab., F.R.C.P. 1889. pp. 209.
The Various Manifestations of the Rheumatic State as exemplified in Childhood and Early Life. Lectures delivered before the Harveian Society of London. By W. B. Cheadle, M.D. 1889. pp. 127.
An Elementary Treatise on Human Anatomy. By Joseph Leidy, M.D., LL.D. Second Edition, rewritten. With 495 Illustrations. 1889. pp. 950.

Gout: its Nervous Origin; by W. Tyrrell, M.R.C.S. (Beaumont & Co., London), price 1*s.*—Papers read before the Medico-Legal Society of New York from its Organisation; First Series; third illustrated edition (the Medico-Legal Journal Association, New York, Publishers, 57, Broadway).—Annual Report of the Health Commissioner, City of St. Louis, M.O. 1888-89. (Nixon-Jones Printing Company, St. Louis, 1889).—Klinische Beiträge zur Manuellen Behandlung der Frauenkrankheiten mitgetheilt; von Dr. Egon v. Braun (M. Breitenstein, Wien, 1889).—Diphtherie und Croup im Königreich Preussen in 2en Jahren, 1875-1882.—Ein Beitrag zur Ergründung, Einschränkung und Heilung dieser Krankheiten; von Dr. L. Brühl und E. Jahr. Mit einem Vorwort von Hofrath Prof. Dr. M. J. Oertel (Hirschwald, Berlin, 1889).—The Early Symptoms of some of the Infectious Fevers; by T. C. Railton, M.D., M.R.C.P. (J. Heywood, Manchester and London), price 2*d.*—The Conditions required for a Healthy House; by T. C Railton (J. Heywood, Manchester and London), price 2*d.*—The Operative Treatment of Hydatid Cysts of the Liver and Lungs; by J. D. Thomas, M.D., F.R.C.S. (Stillwell & Co., Melbourne, 1889).—Spinal Caries: Operative Treatment; Laminectomy, or so-called Trephining of Spine; by De Forest Willard, M.D., Ph.D. (W. J. Dornan, Philadelphia, 1889).—The Republic of Uruguay; the Country in the Paris Exhibition; General Description and Statistical Data, 1888-89 (Rockliff Brothers, Liverpool). The Surgical Treatment of Intestinal Obstruction; by N. Senn, M.D., Ph.D., Milwaukee, Wis.—Report on the Carbonic Acid Gas Treatment of Malarious Fevers; by C. G. R. Naylor, M.R.C.S.; second edition (Maclachlan and Stewart, Edinburgh, 1889).—The Modern Frankenstein; by George M. Gould, M.D. (the Open Court Publishing Co., Chicago).—Divonne-les-Bains Hydrothérapie: Renseignements généraux sur l'Etablissement et sur les Procédés Thérapeutiques employés à Divonne; par le Dr. E. Vidart (Charles Pfeffer, Genève, 1888).—Vorlesungen über Krankheiten der Harnorgane; von Prof. Dr. Robert Ultzmann (M. Breitenstein, Wien, 1889).—Divonne Hydrothérapie: Du Traitement de quelques formes de Paralysies, de Scolioses, des Neuralgies, du Rhumatisme chronique, &c., par la Gymnastique Suédoise (méthode de Ling); par le Dr. E. Vidart (A. Cherbuliez, Genève, 1889).—Notes on the Electrical Treatment of Uterine Fibroids, with Cases, by Dr. Tivy (J. Baker and Son, Clifton and London, 1889), price 1*s.*—The Mortality of Acute Lobar Pneumonia; by C. W. Townsend, M.D., and A. Coolidge, jun., M.D., of Boston (W. J. Dornan, Philadelphia, 1889).—Lavori dei Congressi di Medicina Interna; Primo Congresso, tenuto in Roma nell' Ottobre, 1888.—Handbook to the London University Matriculation Examination, containing the papers set in June, 1888, and January, 1889, with full solutions; edited by G. W. de Tunzelmann, B.Sc. ("The Electrician" Printing and Publishing Company, London, 1889), cloth, 3*s.*; paper boards, 2*s.* 6*d.*—Burrough's Duplicate Prescription-book (Burroughs, Wellcome, & Co., London), price 3*d.* each, or 2*s.* per doz. post free.—Shorthand for Students (especially adapted for the use of Students, Medical Men, and others); by an Amateur (W. H. Truslove, West Norwood, S.E.), price 6*d.*—Reading Practice in Cursive Shorthand, facsimiles of actual writing; by H. L. Callendar, M.D. (Clay & Co., London).

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, September 19th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Sept. 13	30·22	S.W.	66	63	104	81	62	..	Cloudy
,, 14	30·35	E.	60	58	110	67	55	..	Cloudy
,, 15	30·35	N.	57	52	92	64	52	..	Cloudy
,, 16	30·43	E.	55	51	101	63	49	..	Cloudy
,, 17	30·28	S.E.	51	47	101	63	45	..	Fine
,, 18	30·28	S.E.	52	48	100	67	46	..	Foggy
,, 19	29·90	S.W.	57	52	74	62	49	..	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

ANTISEPTICS AMONGST THE ANCIENTS.

DR. ANAGNOSTAKIS, Professor of Ophthalmology in the University of Athens, writing in the Greek medical journal, Γαλληνὸς, points out that the ancient Greek physicians were acquainted not merely with the words σῆψις (putrefaction) and ἄσηπτος (non-putrescible), but with the great fact of what we now term septic action, and with the importance of preventing it in surgical cases. Thus Hippocrates recommends that wounds should be dressed with hot water, and in the treatment he employed as far as possible rain-water, boiled, in order to render it aseptic: ἀποσήπεσθαι. He also recognised that suppuration was due to putrefaction, and that putrefaction was due to moisture; consequently he laid considerable stress on the drying of wounds. If the book "On Wounds" is carefully read, it will be found to form a small code of antiseptic or aseptic treatment. As to the substances used as dressings, we know the Good Samaritan employed oil and wine, and Hippocrates recommended tar in the form of ointment and sulphate of copper in the form of powder Besides these substances, bitters, aromatics, and resins were looked upon as valuable antiseptics.

Mr. T. G. Simpson.—1. We do not think the prospects of practice of a man unconnected with the Indian Medical Service would be good. 2. There is no special work on the subject. There is much information in Dr. Blanford's reports on the Meteorology of India; and Dr. Macnamara has published a work on Himalayan India, its Climate and Diseases (Churchill).

Mr. H. Booth.—We are not aware of any injurious results having arisen from the smoking of "asbestos" pipes.

THE RESPECTIVE CLAIMS OF PRINCIPALS AND ASSISTANTS AS TO FEES.

To the Editors of THE LANCET.

SIRS,—A. is called out to a case of drunkenness, and the case goes to court. A. is assistant to a doctor, and the latter has never bothered himself about the case. All the responsibility of the case lies upon the assistant A. The case comes on, and A. gets £1 1*s.* for his labour. The doctor, however, claims half fee. Note, however, that this case did not interfere in any way with the due performance of A.'s duties. Should A. not receive the whole payment, or is the doctor capable of claiming half fee?

Would you kindly find room for the insertion of the above in your journal, as also its solution? I am, Sirs, yours truly,

September, 1889. J. W. M.

*** A. must be considered as acting throughout as an assistant, not as principal. Apart from any contract to the contrary, as regards odd fees, it seems to us that the division of the fee was right.—ED. L.

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OUR STUDENTS' NUMBER.

London School of Medicine for Women.—By a printer's error, the name of Mr. Dawson was substituted for that of Mrs. Dowson as lecturer on forensic medicine and hygiene.

J. O'C.—"The Italian Medical Association," like its German analogue, publishes an official report of its transactions, the papers and speeches being revised by their authors. The title of the volume in which the work of the Association's first meeting is recorded is: "Lavori dei Congressi di Medicina Interna." It numbers 400 pages; its editor is Dr. Edoardo Maragliano, and its publisher is Vallardi, of Milan.

Mr. J. Thomas.—What "new Act" is referred to?

REMARKABLE CASE OF MATERNAL IMPRESSION.

To the Editors of THE LANCET.

SIRS,—In one of your issues of some months ago—in May last I think—Dr. Russell of Paisley recorded a case of what he took to be one of "maternal impression." The cardinal facts of it were these. The wife of a glazier was *enceinte* at the time her husband unfortunately met with an accident—a severe wound of his right forearm—so serious that it was deemed necessary to take him to a hospital, where for a few days it was feared he would lose his hand. When her baby was born a nævus was found on the corresponding part of its forearm. This case is similar to that of the Countess of Cromerty, related by Sir Walter Scott in his "Tales of a Grandfather." She was in one of her pregnancies when her husband, the Earl, was tried and condemned to death for the part he took in the rebellion of 1745, caused by the Pretender Charles Stuart. Through the powerful intercession of his Countess and that of her friends he was pardoned by King George, but when afterwards his wife presented him with a son there was a mark of a broad axe on the child's neck, on that part of it where at one time she feared the headsman would have to operate. No doubt in both cases the anxious mothers thought intensely of their unfortunate husbands—the one in danger of losing his hand, the other his head. My case is more remarkable and interesting to medical men than either of these, and among several cases occurring in my practice recently it is the strangest and most extraordinary.

I was asked to see a woman in a neighbouring village who was being attended by a midwife; the latter, however, being unable to effect delivery by herself, wanted a doctor. On introducing my finger to ascertain the presentation I perceived something unusual—a long, round, and slightly tapering fleshy substance, which struck me at the time as feeling like the shape of an ordinary carrot, but of course not so hard. But to what part of the body this substance was attached was a puzzle, until I discovered what I took to be an ear and the eyes. I then concluded it must be attached to the head. Giving a dose of ergot, and stimulating the uterus by other methods as much as possible, I soon had come into the world what I at once saw was a monster. Instantly wrapping it into the piece of flannel ready to receive it, and without saying a word either to mother or nurse, I carried it into an adjoining bedroom, followed by the latter. Here I found the fleshy substance spoken of to be projecting from the floor of the skull, the roof of which was entirely absent, and so closely did this substance resemble a cow's teat—or, as the nurse called it, "pap"—that at the same instant we both made the same exclamation, "How like a cow's teat!" Cautioning the midwife to observe the strictest silence while I questioned the mother, we again proceeded to her room, when I quietly said to her, "I am sorry to have to tell you, Mrs. C——, that the child is dead, although it breathed a few moments; and perhaps it is as well, because the baby was not 'all right.'" "Ah!" said she, "I thought that such would be the case. What is wrong with it?" I replied, "Tell me your story first. What caused you to think it would not be 'all right'?" "Well," she proceeded, "I got a most awful scare when I was carrying it at the fore part of my time." Here she paused, but, leading her on by an inquiring "Yes?" she went on again—"One day I was in the cowhouse, milking the cow, sitting upon the stool beside her and milking away, when a rat or something in the roof made such a row all at once as to startle the poor animal almost out of her wits, and before I knew where I was she had tumbled me on the floor, milk and all together, and there I was, lying upon my back, still hanging on to the cow's pap like grim death, and thinking that I would be trampled to death every moment. Oh, the scare! I shall never, never forget it! for it made me downright ill and nervous for weeks after it. I could not get it out of my head, and kept dreaming about it even, and I feared all along for my child." Having thus spoken, she made signs for me to bend down my ear towards her, when she whispered: "Has it horns upon it, doctor?" Nothing would induce the mother or friends to give up the body of the child, nor would she allow me to touch it further, which caused me the sharpest disappointment. The "teat" seemed to be a prolongation of the spinal cord, and to be all there was to represent the brain. Otherwise the body was well developed and perfect.—Yours truly,

Revesby, Lincolnshire, Sept. 3rd, 1889. A. ROSS PATERSON, M.D.

FALLING HAIR.

To the Editors of THE LANCET.

SIRS,—With regard to the letter of "Scarpa" in your last issue, I beg respectfully to suggest the following remedy, which I, in my limited experience, have found most useful in such cases. ℞ Tinct. jaborandi, ʒss.; lanoline, ʒiii.; and glycerine, ʒii. A little to be rubbed in every night.

I am, Sirs, yours obediently,

Sept. 17th, 1889. F.

VACCINATION AWARDS.

Public Vaccinator.—The awards have in one sense certainly not been discontinued; but under the Local Government Act of last year they are now payable by the County Councils on receipt of the proper authorisation from the Local Government Board. Why delay occurs in the issue of the needed authority is by no means clear; and inquiry should be made at Whitehall with a view of ascertaining why awards which are long since overdue have not been paid.

Vera.—We regret that we cannot insert our correspondent's letter. His personal remarks on the examiners are, we believe, unjust. Our advice to him is to read up for the next examination.

M.D.—We would advise our correspondent to put himself in communication with the Secretary of the Income-tax Repayment Agency, 16, Artesian-road, W.

Dr. G. S. Middleton.—We shall be glad to receive the MS. for consideration.

FACE PRESENTATIONS.

To the Editors of THE LANCET.

SIRS,—Two consecutive cases of face presentation falling to my lot to attend on the same day seemed to me to be rather an unusual occurrence. I thought I might make a few remarks on them. The first, Mrs. H——, was in her third labour. On examining her I found the os nearly fully dilated, the membranes being still intact. These ruptured shortly after, and I then discovered the true nature of the case. The descent was fairly rapid until the chin appeared at the vulva, when from some cause there was considerable delay. Having fears for the safety of the child, I applied the forceps, and delivered without difficulty.

I was called to the second case, Mrs. M——, the same evening—her thirteenth pregnancy, all her previous ones being natural. The membranes had ruptured two days before. On examining her I found the face presenting high up at the brim, but fairly movable. Judging that there was plenty of room, I decided to leave the case to nature. For about an hour and a half there was little or no advance, although the pains were very good, when suddenly the head descended on the perineum, and the child was born without difficulty.

I have noticed that several authorities advocate in these cases either early version, or an attempt to rectify the malpresentation. In the first of my cases either of these methods was impracticable, as the head was quite fixed when assistance became needful; and in the second, which looked at first a proper case for turning, owing to the early delay, the procedure proved quite unnecessary after a little patient waiting. From my experience, I am inclined to leave such cases to nature; but I would be glad to hear the views of others of your correspondents on the subject.

I am, Sirs, yours truly,

Lancaster, Sept. 16th, 1889. GEO. R. PENROSE, L.K.Q.C.P.I., &c.

L.R.C.P.Lond.—Any legally qualified medical practitioner is entitled to take or use the title of Dentist, Dental Surgeon, &c.; but he cannot now register under the Dentists Act without taking the special diploma.

DISPENSING LABELS.

To the Editors of THE LANCET.

SIRS,—In reply to "A. R. J.," I think he will find the method I usually adopt an excellent one for preserving his labels, besides adding much to the appearance of the bottles and surgery. I have used it for the last three or four years, and with always satisfactory results. When the labels have been placed on the bottles and are quite dry, apply to them with an ordinary camel-hair pencil a coating of size, made liquid by means of a hot-water bath. When this has quite dried on, paint the labels over with ordinary varnish, or, if a darker colour is required, with varnish-stain. When this has properly dried, the labels will be ready, and with careful use will often last for two or three years, being easily washed with a damp sponge. Care should be taken to cover the whole of the label with size, else a dark patch will appear when the varnish or stain is applied. Trusting "A. R. J." will find this method answer as well as I have done,

I remain, yours faithfully,

Kingston-on-Thames, Sept. 16th, 1889. DISPENSER.

To the Editors of THE LANCET.

SIRS,—I would suggest to your correspondent, "A. R. J.," that if he varnishes the labels on his dispensing bottles with some white hard photographic negative varnish, he ought to find no difficulty in gently washing them and keeping them clean.—Yours obediently,

Belgrave-road, S.W., Sept. 15th, 1889. THOS. CHARTERS WHITE.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Clifford Allbutt, Leeds; Dr. Corfield, London; Mr. F. Treves, London; Sir Henry Acland, Newcastle-on-Tyne; Mr. Peters, Salford; Dr. Judson, New York; Mr. Maggs, London; Mr. J. J. Clarke, London; Mr. R. M. Talbot, London; Mr. Emmett, Kingston; Mr J. Thomas; Dr. Auld, Glasgow; Mr. Robinson, London; Mr. Judge, London; Mr. T. Bond, London; Mr. Goodman, Birmingham; Mr. Johnston, Edinburgh; Dr. Jamieson, Shanghai; Dr. Hare, Manchester; Messrs. G. Back and Co., London; Mr. J. Ford, Oxford; Mr. Bickerton; Dr. James Oliver, London; Mr. J. L. Maxwell, London; Dr. A. Porter; Dr. Ross Paterson, Revesley; Mr. C. H. Wade, Chudleigh; Messrs. Arnold and Son, London; Mr. McGill, Leeds; Mr. T. C. White; Mr. Ellis Lever, Tan-y-Bryn; Mr. Hicks, Buntingford; Messrs. Bennett and Co., Manchester; Mr. T. Cooke, London; Dr. Tivy; Messrs. Bussey

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LETTERS, *each with enclosure*, are also acknowledged from—Mr. Dawson, Bournemouth; Mr. Murray, Rickmansworth; Messrs. Farrant and Vlieland, Exeter; Mr. Williams, Aberystwith; Messrs. Briant and Son, London; Mr. Walker, Monmouthshire; Mr. Williams, North Wales; Mr. Lathbury, Staffs; Dr. Pare, Derby; Mr. Dakers, Fence Houses; Dr. Pickworth, Suffolk; Mrs. Jagger, Yorkshire; Mr. Joly, London; Mr. Huggins, London; Mr. Ideson, Colne; Mr. Smith, Tredegar; Mr. Adam, Paisley; Dr. McClure, Cromer; Dr. Pattin, Hereford; Dr. Barsham, Surrey; Mr. Hindle, Loughboro'; Mr. Coward, Durham; Dr. Waters, Bourne; Mr. Tully, Hastings; Mrs. Thompson, Bath; Mr. Tyte, Minchinhampton; Mr. Smith, Durham; Miss West, Didsbury; Mr. Brownlow, Preston; Mr. Butler, London; Dr. Parsons, Burnley; Mr. Johnson, Harbotton; Mr. Weary, Ryde; Mr. Hamilton, Bradford; Mr. Cooke, Halifax; Dr. Hamilton, Hereford; Dr. Baines, Southport; Mr. Henderson, Ireland; Mr. Hartill, Wolverhampton; Dr. Winckworth, Beds; Mr. Purland, Woolwich; Messrs. Rowntree, Yorks; Mr. Lowgrove, Kent; Mr. Macdougall, Sussex; Mr. Gorman, Stafford; Mr. Haythorne, Bucks; Mr. Wood, Nottingham; Mr. Rigg, Cumberland; Mr. Campbell, London; Dr. Cavell, Hants; Mr. Owen, Portmadoc; Mr. McManus, Ireland; Mr. Sturdee, Essex; Dr. Taylor, Norwich; Mr. Beckitt, Oswestry; Mr. Monger, London; Mr. Waller, Peterboro'; Mr. Woodrooffe, Bristol; Miss Williams, Leamington; Dr. Purslow, Birmingham; Mr. Reece, Swansea; Messrs. Whittle and Bartlett, Liverpool; Mr. Dalmas, Leicester; Mr. Heywood, Manchester; Mr. Brownlow, Peterboro'; Mr. Gibson, Kidderminster; Mr. Stenhouse, Glasgow; Mr. Hughes, Birmingham; Mackay, North Shields; Stubbs, London; Simson, London; Thorne, Liverpool; M.B., Durham; L., London; X., London; School of Massage and Electricity, London; Marcus, London; Clinical Hospital for Women and Children, Manchester; Medicus, Southport; Hampstead Home Hospital; Mrs. H. L., Kilburn; Anthracosis, London; Ben Rhydding Hydropathic Co.; Xenos, London; Surgeon, London; Sunderland Infirmary; Max, London; Elder, Orkney; Cooper, London; The Coppice, Nottingham; T. F., Oldham; Medicus, Birmingham; R., London; Medicus, Leytonstone; Surgeon, Gloucestershire; H. F. C., London; General Hospital, Nottingham; Companion, Chard; Hull Royal Infirmary; Assistant, London; Surgeon, Taunton; Guyite, London; M.B., London; A. Z., London; H. L. M., London; Junior, London; M.B., Cluckie, Scotland; Manager, Cornwall; Trelawney, London; Medicus, London; Chemicus, London; D. C., London; Pumilio, London; X. Y. Z., Birmingham; Invicta, Tunbridge Wells; Melbourne, London; Nucleus, London; T. B. J., London.

Midland Evening News, The Englishman (Calcutta), The Times, Surrey Advertiser, Essex Times, Reading Mercury, Birmingham Daily Times, Weekly Free Press and Aberdeen Herald, Buxton Chronicle, Nottingham Evening Post, Hertfordshire Mercury, Lloyd's Weekly Newspaper, Alnwick and County Gazette, Torquay Times, North Devon Journal, Western Chronicle, Iron and Coal Trades' Review, Australian Trading World, Bell's Weekly Messenger, Warehousemen and Drapers' Trade Journal, &c., have been received.

Medical Diary for the ensuing Week.

Monday, September 23.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; and Thursday, 9 A.M.

Tuesday, September 24.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

Wednesday, September 25.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, September 26.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, September 27.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, September 28.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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Agent for the Advertisement Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

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ABSTRACT OF A

Clinical Lecture

ON

FOREIGN BODIES IN THE EYE.

By C. S. JEAFFRESON, M.D., F.R.C.S.,

SENIOR SURGEON TO THE NORTHUMBERLAND, DURHAM, AND NEWCASTLE INFIRMARY FOR DISEASES OF THE EYE.

AFTER dilating upon the more common form of injuries, Mr. Jeaffreson said:—I wish to explain to you the rule of practice I adopt where there is supposed to be a forming body in the eye. Of course where there is an extensive rupture and sight is obviously and permanently destroyed, search may be made in the eye if desirable, but it can scarcely ever be necessary, as evisceration or enucleation should always be immediately performed. It is in cases where the wound is not so extensive, where there is still perception of light, that we shall have some hesitation as to how to act. Let me give you a case in point. A man was brought to the hospital with the history of having been struck with a piece of metal chipped from a tool. There was a wound three-eighths of an inch long dividing the cornea at its junction with the sclerotic, the iris was also split, a small piece was prolapsed. (Fig. 1.) There was a good deal of blood in the anterior chamber, but still fair perception of light. The patient could count fingers at one or two feet with his back to the light. How should we proceed in such a case? If there is a foreign body in the eye and it remains the eye is doomed to destruction. If there be none, there is a prospect of retaining the eye, which, although seriously damaged, is better than an artificial organ. In this case it is obviously of the very first importance to determine if there is a foreign body in the eye, and to leave no stone unturned which will help us in determining that point. First, we must have a minute and careful history of the case, and collect all the outside testimony which can be brought to bear upon the point. The object from which the foreign body has become detached should, if possible, be produced. In the present case the tool is a cold chisel, and the piece detached about three-eighths of an inch by two-eighths. (Fig. 2.) It has not been found or picked up in the shop. This is a point in favour of its being lodged in the eye, though not of very great importance, as such a small object might elude search. Can we derive any information from the nature of the wound? The cornea is cut, the aqueous has escaped, the iris is incised, and the cavity of the vitreous is opened. Under these circumstances, it is exceedingly improbable the piece should have made such a wound and fallen out again, unless it were a large piece, which we know it is not. To obtain corroborative evidence we employ the magnetic needle. The needles that I employ were manufactured for me by Messrs. Milward and Co. of Redditch. They consist of a very fine double-pointed needle about one inch in length, with a fine eye in the centre. A very delicate piece of silk is passed through the eye and knotted, and the other end is attached to a small ivory handle as seen in the sketch. The length of the silk must be such as to give the needle sufficient play to sew with, and something about twelve inches is sufficient for this. (Fig. 3.)

FIG. 1.

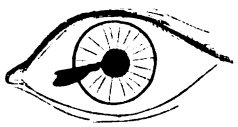
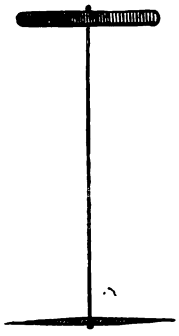


FIG. 2.



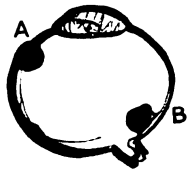
FIG. 3.



The patient must be now placed upon a couch so that the commissure of the eye lies north and south, and the needle gradually lowered over the organ. Opening the commissure widely, the needle is promenaded over the globe as close as possible without touching it, and the patient is also directed to facilitate matters by moving the eye to the greatest extreme in different directions. If this be carefully and steadily done, and the needle remains perfectly steady, the inference is that there is no piece of metal (steel or iron only) in the eye. This is, however, only negative evidence; its sources of fallacy I shall allude to presently. In the event of there being distinct deflection, we have positive evidence of a piece of metal, and that probably of a considerable size. The magnetic needle may therefore be of the greatest value to us in these cases, and its employment should never be neglected. As I said before, sometimes it is uncertain in its action. This may arise from two causes—either the piece of metal is too small to influence the needle, or it may lie at too great a depth.

From experiments made upon eyes which have been enucleated and animals' eyes, I find that a piece of metal weighing two or three grains, lying immediately under the sclerotic, will very sensibly and obviously deflect the needle; a piece the same size lying at the opposite extremity of the eye will not do so, the substance of the vitreous proving an obstruction to the magnetic current. (Fig. 4.) If the piece were double the size it would do so in any position. So you see the chances of getting the reaction upon the magnetic needle depends much upon the size of the fragment and its relation to the surface. In experiments made upon eyes removed we can approximate the needle to all parts of the surface of the globe; but when the eye is *in situ*, a comparatively small part of it can be so explored, and this introduces an element of failure. In making the test we must be careful to see that the needle does not come into contact with the lashes, and thus obtain an artificial deflection. In some cases, to facilitate matters, it may be necessary to cut the lashes short. You must not either be led astray by the adhesion of the point of the needle to the globe. If the point touches the globe by accident it will most certainly adhere, and requiring a little force to draw it away will give the impression of magnetic attraction. What we wish to see is lateral deflection or an oscillatory movement of the needle, which a few trials will make you familiar with. Well, in our illustrative case, the deflection of the needle was very obvious, and I was able to diagnose with certainty the presence of the piece of metal. The galvanic probe was cautiously introduced into the vitreous; a slight click was felt, and the probe cautiously and slowly withdrawn. When the piece of metal arrived at the internal opening of the wound it could not be drawn through, owing to its not coinciding with the position in which it originally entered the eye. This is a common occurrence, and one we should always be prepared to deal with. It is better immediately to enlarge the wound in the direction where the enlargement will cause least danger to ocular structures (generally backwards) than to let the body slip and attempt to get it attached to the probe in a more favourable position. I therefore enlarged the wound with a cataract knife, and the piece was readily extracted. The piece of prolapsing iris was now abscised and a conjunctival suture inserted close to the margin of the cornea. In this case everything pointed to the presence of the foreign body in the globe, and we had the positive evidence of the magnetic needle. Had it not been so, I think we should still have been justified in making a careful search for the foreign body. If it is carefully and gently done with a perfectly clean instrument, it can scarcely increase the mischief of the original injury. Of course what I say applies only to particles of iron and steel. With other materials which cannot be secured by means of the galvanic probe we shall scarcely be justified in searching, because if we found a foreign body we could rarely extract it without making a large opening for the introduction of the forceps. An exception to this rule must be made in the event of the foreign body being absolutely seen *in situ*. This sometimes happens when the patient is brought immediately after the accident, and the media and structures of the eye are still transparent. Under these circumstances I have occasionally been able to remove pieces of stone, copper, brass, &c.,

FIG. 4.



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using, when the body was small, a pair of cannula forceps; when it was large, a pair of aural forceps. It is rare, however, that the circumstances are sufficiently favourable for us to carry out these manœuvres; as a rule we must be content to wait till symptoms develop themselves. In the event of the foreign body being large and of an irritating nature, a panophthalmitis will rapidly develop; under the contrary circumstances the body may become encapsulated or encysted and the eye quiet down, retaining sight in various degrees, from perfect vision to the mere perception of light.

I now wish to say a few words about another class of cases which are comparatively common, and always fraught with great anxiety and responsibility for the surgeon. I allude to those cases in which a small foreign body penetrates the cornea, and becomes lodged in the iris. The shock of the accident may have been so slight as perhaps scarcely to attract the patient's notice; yet the results may be of the most serious import. I cannot do better than illustrate what I have to say by a case which has occurred to me lately.

A smith at work in his forge felt something strike his eye. It gave him comparatively little pain, and he never for a moment suspected anything serious had happened to him. In the course of the day he applied to a local doctor, who told him there was nothing in the eye, but gave him a little soothing lotion. A few days after he applied to me. The eye was injected, painful, and tender. There was some serous iritis, and on the edge of the pupil near to the margin could be seen a small nodule of lymph. This, I suspected, contained a foreign body, more especially as the traces of a minute wound could be seen in the cornea. I explained my view to the patient, and pressed upon him the necessity of allowing me to attempt its removal. This he consented to do. Being a powerful and apparently a strong-willed man, I consented to make the attempt without chloroform. An incision about four millimetres in length was made in the margin of the cornea opposite this nodule of lymph and a curette introduced. On touching the nodule the lymph crumbled away, and the glistening surface of a metallic particle was seen—a flat scale not larger than a small pin's head. I tried to coax it into the curette, but it remained immovable, so I resolved to remove it by forceps together with the piece of iris to which it was attached. No sooner had I seized it together with the piece of iris than the patient gave a sudden and uncontrollable jump, at the same time violently rotating his globe. A large piece of iris was dragged from its attachment, the anterior chamber became filled with blood, but whether the piece of metal escaped or not it was not possible to decide.

The result of this case will no doubt be unfortunate, but I can scarcely attach any blame to myself owing to want of skill, though I do for not having refused to operate without chloroform being administered. In the whole range of ophthalmic surgery there are no cases which require greater care, greater dexterity, greater patience, and greater steadiness on the part of the patient than the extraction of foreign bodies in the anterior chamber; for these reasons, therefore, unless under the most urgent circumstances, no attempt should be made to remove them unless the patient is thoroughly anæsthetised. Some years ago my own son was struck by some particles of glass from an exploded bottle; one fragment penetrated the cornea, and could be seen in the anterior chamber; another was lodged in the cornea. Not anxious to undertake the responsibility myself, I telegraphed to my friend, Sir Wm. Bowman; but, learning that he was on the Continent, and fearing delay, I resolved finally to operate. The piece lodged in the cornea was easily removed. The fragment in the anterior chamber was about the size of a hempseed, but irregular and many-angled; it was freely movable, and changed places with the position of the head. Sometimes its position was difficult to distinguish, but usually it lay in the angle at the bottom of the cornea. An incision about five millimetres in length was made in this situation in the sclero-corneal junction, with an angular broad needle, and the fragment extracted with a little manipulation. In this case chloroform was administered by my friend Dr. Nesham, and the result of the operation was most perfect. In some text-books I see that it is recommended not to interfere with foreign bodies in the eye which are unattended by active symptoms. I think cases where such advice can be safely followed must be rare indeed. Where there is a movable body in the anterior chamber it should unquestionably be removed under any circumstances, and in my experience wherever the foreign body is situated the chance of a successful operation is always much greater when there are no symptoms than when these have actually developed. The only exception that perhaps should be made to the immediate extraction of a foreign body is when it is quite small, and is lodged in the vitreous chamber. In this situation it frequently interferes but little with vision, is much more likely to become encapsulated, and unless it is a piece of iron or steel, which can be dealt with by means of the galvanic probe, will require such a large incision for its extraction and so much manipulation that there is great risk of immediate loss of vitreous or secondary suppurative hyalitis.

No one who has not had frequently to perform these operations can imagine the difficulties that may arise. The foreign body is there, clearly visible, and it would seem a simple matter, but it is as trying to the eye, the hand, and the patience as the "pigs in clover" puzzle. As soon as the incision is made the cornea collapses and the object loses its distinctness; now a few drops of blood may exude and cloud all; the foreign body, if attached to the iris, may be difficult to detach; it may fall out of sight between the cornea and the angle of the iris; it may slip through the pupil, or if the iris has been transfixed may tumble through without any warning. I know of no more pleasant feeling of thankfulness than that which one experiences when such an operation comes to a satisfactory and successful termination. It might seem superfluous to warn you against mistaking pigment deposits in the iris for foreign bodies; yet I can assure you the warning is not by any means unnecessary. I have on more than one occasion seen this mistake made by very competent men. A clear and uniformly coloured iris with a single spot of dark-coloured pigment may (when there are a history and symptoms indicative of a foreign body in the eye) lead you astray unless you make a careful examination with oblique illumination, using at the same time a powerful magnifying glass.

Before I finish I wish to call your attention to a case which has recently passed through our hands, in which a considerable piece of metal was lodged in the lens. The subject of it was a young man who was a fitter. Whilst dressing some castings, a piece flew and struck his eye. We did not see him till a week after the accident, and at that time the eye was only slightly injected, the pupil dilated. (He had been under treatment elsewhere.) The cornea showed, a little to the nasal side of its centre, traces of a recently healed wound. The lens was cataractous, but in the centre there was a dark shadow, which suggested the possible presence of a foreign body. There being but comparatively little reaction, no excessive swelling of the lens, and no absolute certainty of the presence of a foreign body, it was resolved to watch for a few days, keeping the pupil fully dilated with atropine. About the fourth day the swelling of the lens had considerably increased, and the intraocular tension having risen, it was resolved to extract the lens. The incision having been made, there was a gush of lens matter, a considerable piece of metal (about eight grains in weight) presenting at the wound and being removed by a pair of forceps. The patient recovered with a perfectly sound movable pupil and good vision. The lens is of course frequently of necessity wounded when a foreign body penetrates the eye, but it is comparatively uncommon that a foreign body becomes lodged in it without further complications. If it is very small—such as a fine scale of metal or grain of powder—it may do but little injury, producing only a limited opacity in its own immediate vicinity, which may remain quiescent and never spread. If, however, it is large and a considerable rent has been made in the capsule, allowing free access to the aqueous humour, a general opacity of the lens will soon occur. In this case we should watch the case carefully, allowing time for the whole lens to become opaque and softened, but not allowing sufficient time for it to become perfectly diffluent, lest the weight of the particle causes it to become dislodged, and it falls into the deeper parts of the eye, when it would certainly set up acute and dangerous symptoms.

To recapitulate, then, briefly the chief points of my remarks, I should say: 1. When an eye is hopelessly and irremediably destroyed it should be at once removed. 2. When an eye does not appear to be irremediably and hopelessly destroyed every effort should be made to retain it. If there is reason to suppose it contains a foreign body a search may be made, provided always that there is reason-

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able probability that the foreign body will be removed and the damage to the eye not increased in an important degree. 3. In removing foreign bodies that are attached or embedded in the iris chloroform should be freely administered. 4. Foreign bodies embedded in the lens, and not involving other structures, should not be removed too early; time should be given for the whole lens to soften and liquefy. I regret that time and space forbid me, on this occasion, from speaking concerning that interesting class of case where a foreign body of small size penetrates the globe and becomes lodged upon the retina, being visible with the ophthalmoscope, and producing no other symptoms than a small fixed scotoma. During the last twenty years several cases of this kind have occurred in my practice, and I hope to make them one day the subject of a special lecture.

ON THE DIAGNOSIS AND TREATMENT OF SCROFULOUS GLANDS.

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I PREFER the term scrofulous glands to that of scrofulous adenitis, because it is, in the first place, a term sanctioned by long use; and, secondly, because it is less open to objection on the score of incorrectness. Scrofulous glands are not always inflamed, nor is the scrofulous or tuberculous deposit, although the result of, always attended with, inflammation.

The diagnosis of scrofulous glands is for the most part easy, and it is only in exceptional cases that any difficulty arises. The diagnosis has to be made between simple adenitis on the one hand and glandular growth, or hypertrophy of the nature of lymphadenoma, on the other. As regards simple adenitis, time soon settles the question. Simple adenitis is of short, scrofulous disease of long, duration. In simple adenitis the inflammatory exudation in the gland is resolved, or it suppurates within a reasonable time. If, on the contrary, the gland remains enlarged, say, for three months, either it is scrofulous or is in a likely condition to become so. A second point is that the gland affected by simple inflammation is, as a rule, and especially so if about to suppurate, less defined and more surrounded by hard inflammatory material than the scrofulous gland is likely to be. The gland, with its surroundings, is in simple inflammation generally more painful and tender, and especially has more surface tenderness than the scrofulous gland; the skin too is more often red and hot; in fact, the inflammation is more general and more acute. If the degree of simple adenitis is so slight as to cause merely some enlargement of the gland without induration, pain, and surrounding inflammatory exudation, the case is trifling, and the swelling will probably subside as soon as the source of irritation is removed. No doubt there is a borderland between simple adenitis and scrofulous gland disease. We may imagine, although it is perhaps difficult to demonstrate, a prescrofulous state or condition in a gland. By this I mean a gland which, inflamed and enlarged from local irritation, in a person who has some scrofulous tendencies, hangs fire when the local cause has been removed, and, without exhibiting the distinct characteristics of a scrofulous gland, hesitates and declines either to subside or to suppurate. Here I would refer, as helping the diagnosis, to what I may term the "scrofulous throat." In the throat is to be found the earliest indications of scrofula. The scrofulous throat consists of more or less enlargement of the tonsils, probably with signs of old or recent inflammation and ulceration, together with some amount of post-nasal or pharyngeal catarrh, perhaps adenoid growths and an arched palate. Probably not more than one in ten or twenty children with these throats ever suffer from scrofulous glands in the neck or elsewhere, but, on the other hand, it is exceedingly rare to find scrofulous cervical glands in a child with a perfectly healthy throat. A healthy throat should be taken to mean clean, well-defined arches of palate, pale, unthickened mucous membrane, no enlargement of tonsils, and no chronic catarrh. Thus, then, if a gland in the neck has been enlarged for two or three months, if the child has a scrofulous throat, and if there be any family history of consumption or scrofula, the case may safely be put down as scrofulous. This will be more certain still if the child is in poor health, if the circulation is feeble, and if it has that doughy thickening of the cellular tissue which is so common in scrofula. There is also generally to guide us the solid inelastic feeling of a scrofulous gland, which is, as a rule, quite different from the diffused hardness of ordinary inflammation and the elastic semi-fluctuating sensation given by gland growth as found in lymphadenoma. This diagnostic sign is by no means constant. Lymphadenomatous glands may be hard, and scrofulous ones soft, but the converse is usually found. The diagnosis between scrofulous glands and lymphadenoma is often more difficult than that from simple adenitis; there are some cases which seem to lie between the two. Take the following. A boy, the son of a scrofulous father, has a gland swelling in the neck, very elastic, fluctuating, and free from any inflammatory symptoms. This mass is excised, and is found to consist of quickly growing gland tissue, free from inflammatory or scrofulous deposit; fresh glands grow again, and are a second time excised, presenting the same character; for the third time a gland has enlarged. This boy has had the excessive anæmia which attends lymphadenoma; the glands excised presented the appearance of lymphadenomatous glands, but there is no general infection of glands and no splenic enlargement. I look upon this as a case of lymphadenoma, or as one which was tending in this direction; at the same time, I think this boy will get well, the return each time having been slower, and he is now improving in health; the present gland is, I believe, one which was left behind at the last operation.

General infection of glands, or more than one centre of infection, generally indicates lymphadenoma, but it is not always so. I have a patient from whom I excised scrofulous glands which had undergone cheesy degeneration, and were typically scrofulous, from both groins and both sides of neck and armpits. This patient has no anæmia, and, except the distribution of his diseased glands, has never had a symptom of lymphadenoma. Then, I think, occasionally in the more chronic forms of lymphadenoma that the affected glands may undergo scrofulous degenerations. I had a man admitted into the infirmary in a hopeless condition. He was suffering from lymphadenoma in an advanced stage, and had enlarged spleen and general gland disease. He was too bad for any operation, so that I could not take out the glands to see; but I have no reasonable doubt, from their feel and appearance, that some of his glands had undergone scrofulous degeneration. In mentioning these cases I have used the term "deposit" and "scrofulous deposit," as indicating the cheesy or tuberculous-looking material which is found in scrofulous glands, and as being an expression to which we are accustomed. I do not imply that this matter has been carried and deposited in the gland; on the contrary, it is the gland itself, or a portion thereof, which has undergone this form of degeneration. I have tabulated some of the diagnostic signs which exist between scrofulous glands and simple adenitis on the one hand and lymphadenoma on the other. These signs, however, cannot be taken as absolute. Gland affections merge into one another, and although a fairly marked case of either is distinct and obvious, yet there are cases which lie in the borderland between, and present characteristics which are common to each. Especially is this the case with scrofula and lymphadenoma.

Simple Adenitis.—Gland enlargement is tender and painful, with surface tenderness, and perhaps redness; if acute, is hard and surrounded by inflammatory exudation of the same character. The gland is ill-defined, merged in the general inflammation, and cannot be grasped as a definite tumour. Mischief quickly subsides, either by resolution or suppuration. A distinct and recently acting cause of irritation can be found. No scarring follows.

Scrofulous Glands generally have the pre-existing scrofulous throat, or enlargement follows a catarrhal throat set up by one of the exanthemata. Source of irritation is not generally so recent or definite as in simple adenitis. Glands feel solid, more defined than in adenitis, less so than in lymphadenoma; can be grasped, generally pushed about, are less fixed than in adenitis, more so than in lymphadenoma. Gland less tender than adenitis, more tender than lymphadenoma. Has lasted more than two or three months. Scars follow. Patient has scrofulous appearance or history.

Lymphadenoma.—Patient always anæmic, generally excessively so. Pupils widely dilated. Glands feel and look quite different from scrofulous glands; they are much more

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numerous, are more rounded and regular in form, are not inflamed, nor are they surrounded by inflammatory deposit. They are very movable, and are to be found in more than one part. The disease extends as a blood disease, and not by continuity. Glands feel elastic and fluctuating. If enlargement of spleen, diagnosis is definitely settled.

It will be convenient here, before going on to treatment, to indicate the various physical conditions in which scrofulous glands may be found. As to consistency, we have the following varieties—1. Soft elastic gland growth without deposit or trace of inflammatory action. 2. Gland growth harder and less elastic; occasional patches of caseous or tuberculous degeneration; traces of inflammatory action. The degeneration may present a spotted or punctuated appearance, similar to, but not so defined as, miliary tubercle. 3. Glands hard and gland tissue degenerated, and generally caseous; correspond with dry gangrene. 4. Glands suppurating, either infiltrated with purulent matter and remaining firm, or caseous matter becoming liquefied, dissolved in pus, soft, and forming an abscess. 5. There is a form of necrosis of gland which happens when rapidly enlarging glands are the subject of active inflammation; sometimes the whole gland dies *en masse;* this form corresponds with acute gangrene. These cases are acute, attended with high temperature and symptoms of blood poisoning. There is every grade between this and the most chronic form. 6. Calcareous degeneration.

Then as to mobility: 1. Glands are loose, and can easily be hooked out by the finger, capsule included. 2. Glands fairly loose, but not sufficiently so to be turned out with the capsule. If, however, the capsule be divided, the gland substance can be slipped out of the capsule unbroken and perfect in form. The capsule in this instance is thin, and collapses. 3. Gland with capsule can be removed with occasional touches of the knife. 4. Capsule adherent, and requiring close dissection all round. 5. Gland capsule indistinguishable, involved in and blending with surrounding tissues and inflammatory material. Thus this capsule may vary from a gauzy film to the thickness of shoe-leather; the gland itself ranges from jelly to cartilage and from cream to chalk. The glands may lie loose or be absolutely fixed, and one may get a mixture of these conditions in the same case. Scrofulous glands affording infinite variety in their form, course, and duration, scarcely any two cases are exactly alike in all their detail. This variety calls for some modification in the treatment, but that treatment only can be successful which will fulfil two requirements—viz., to establish the general health, and to remove thoroughly and entirely the local disease. Firstly, as regards the general health, nothing does so much good as sea air, and plenty of it. The patient should be out of doors all day and in all weathers, and this applies to the winter as well as the summer. With this, generous diet, wine, cod-liver oil, iron and quinine, light, warm, woollen clothing, sponging and rubbing, sea-bathing, avoidance of fatigue and brainwork, amusement, plenty of sleep, large, airy rooms, and everything that tends to make life happy and comfortable. Drugs, except the ordinary tonics, are valueless; no drug will remove tuberculous deposit or get rid of a scrofulous gland that is once steadily established. I have never seen a single case of scrofulous glands cured by drug treatment. Small doses of perchloride of mercury will diminish scrofulous glands up to a certain point by reducing surrounding inflammatory deposit and improving the condition of the less involved portions of the glands themselves, but it goes no further, and I know of no other drug which will do as much; it will not remove scrofulous deposit.

Iodine and its compounds have from early times had a great reputation for absorbing scrofulous glands. How it got this reputation I do not know; perhaps because it is obtained from sea-weed, and sea-air has undoubtedly been found beneficial. I have used iodine internally in large quantities and in a great number of cases; I do not know if it is injurious, but it certainly does no good. Iodine externally in the form of paint keeps up irritation, damages the skin, and does nothing but harm. Iodide of iron has a great reputation; this drug is more prone than most tonics to upset the stomach, but I have found no other effect. Arsenic and sulphide of calcium I have also tried largely without experiencing any beneficial result. In fact, drugs, except general tonics, are valueless, and I think that anyone who has been in the habit of excising scrofulous glands and of examining them after removal must realise this.

The local disease can only be got rid of in one way, and that is by mechanical means; an opening must be made in the skin and the diseased glands either scooped or cut out. Injecting glands with various agents I look upon as an uncertain and dangerous proceeding, especially for those which are deeply seated. One of my predecessors at the infirmary adopted this plan many years ago, but it was abandoned as useless. Nature's method of getting rid of the peccant material by suppuration is a mechanical means; she washes it out by the aid of pus obtained from the gland itself and from the surrounding tissues, but she often leaves behind the stuff she wants to get rid of. It is a clumsy, tedious, and uncertain process, and, even if successful in the end, generally extends over several years. Besides, there is the risk of further infection from these glands going on all the time. That Nature takes a long time is quite certain; if one comes across an adult carrying marks of old scrofulous gland ulceration, the answer to the inquiry as to how long he suffered from the glands is generally the same—viz., "Off and on for years." I have operated in cases that have been extending over twelve, seventeen, and even twenty years.

(To be concluded.)

AN ESSAY ON THE

FUNCTIONS OF INDIFFERENT CELLS IN THE HUMAN ORGANISM.

BY JAMES DICKINSON.

(Continued from p. 586.)

THE instances already given in support of the view that inflammation is a function designed to effect débris removal are insignificant in comparison with the striking instances which exist in the working of the normal body of the function of leucocytes as carriers. It is now generally admitted that the conveyance of food particles such as fat globules from the alimentary tract into the absorbent channels is effected by the agency of amœboid cells. The wide distribution of lymphoid tissue throughout the alimentary tract, and especially in the villi through which solid particles are chiefly absorbed, is of striking significance in this connexion. That the cells of the epithelial lining of the intestine play also an important part can hardly be doubted, since food particles have been seen in their interior. They cannot change their position, but it is quite conceivable that they retain sufficient of their old amœboid powers to enable them, first, to lay hold of particles; secondly, to transfer them through their substance; and lastly, to eject them at their bases. All this could be effected by an intracellular amœboid movement, affecting only portions of, and not simultaneously, the whole cell. Moreover, it seems to me highly probably that the prime agent in first seizing hold of particles is that striated border which has wrongly been called cuticular. It has been suggested (Quain's Anatomy) that this is the morphological equivalent of the bunch of cilia which some other cells of the columnar type possess. The suggestion is valuable. Cilia are filaments of sensitively contractile protoplasm; the old amœboid contractility is retained by a certain portion of the cell for a definite object. It seems to me extremely probable that the striated border is not only homologous, but closely analogous to the bunch of cilia—namely, that it is a certain portion of the cell retaining the amœboid character to supply a need which is here obviously present. It is certain that the striated border is sensitive protoplasm and not "cuticle" as has been supposed—a supposition which might well keep the process of absorption shrouded in mystery.

In studying the amœboid character as it is exhibited by elements in the human body, it is interesting to observe that, while the character belongs *par excellence* to leucocytes, some cells retain a modified degree of it, some have even specialised upon it, while others that have recently lost it are capable under suitable conditions of recovering it. Thus, if the above views are correct, the epithelium of the intestine exhibits a modified amœboid character consistently with retaining its connexions and serving its epithelial function of forming a surface. Again, in the

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process of digestion, it is observed that liver cells become loaded with particles, fatty and otherwise, and it is difficult to understand the fact unless we credit these cells with a sufficient power of changing their form to enable them to seize upon particles brought within their reach. That some cells have specialised on the amœboid character is seen in the so-called myeloplaxes—those giant cells which are undoubtedly concerned in the absorption of bone. They occur in a tissue distinctly lymphoid—i.e., the marrow; and one is strongly tempted to regard them as leucocytes that have given up their migratory in the special cultivation of their devouring habits. And one is the more inclined to this view from the fact that leucocytes, under some circumstances, are capable of becoming individually hypertrophied. It would seem that giving themselves wholly up to absorption and the destruction—i.e., digestion—of what they absorb, their protoplasm grows under the stimulus of the excessive nutriment they ingest, and division, which is the check upon undue growth, falling also into abeyance, or at most affecting the nucleus, they become the giant cells we are familiar with. Even in circulating blood leucocytes are found possessing several nuclei (Quain). Lastly, just as leucocytes may be observed under suitable conditions to take the first step in organisation, and form a connective tissue, so connective tissue cells may, under the conditions that are present in the early stage of inflammation, undergo retrogressive changes, and resume their old amœboid character.

Crediting the epithelium of the intestine with the limited amœboid powers I suggest, the process of food absorption becomes simple and intelligible. But at this point a question invites answer in order to complete the account of the part played by leucocytes. How do the particles conveyed by leucocytes into the absorbent channels become set free again as we find them in the "molecular basis" of chyle? It is stated in Schäfer's Essentials of Histology that the lymph corpuscles, having reached the absorbent channels, there undergo disintegration, and so discharge their contents. In the same book is figured a preparation taken from the intestine of a rat killed during digestion, and leucocytes are there seen losing their distinctive outline and becoming blended with the fluid and granular contents of the lacteal vessel. This observation prevents us from resorting too readily to the more simple explanation that leucocytes set free the particles by amœboid activity. Indeed, the only reason that suggests itself why leucocytes should ever give up particles they have been at pains to take into their bodies, is that the particles turn out to be indigestible or injurious. Certainly it is equally obscure why they should undergo disintegration, but there is no gainsaying an observed fact. However, one cannot help suggesting the qualification that the disintegration must be merely a cell disintegration, and not a disintegration of the protoplasm itself; for it is hard to believe that the absorption of every particle or so is to cost the life of a cell. Is it not conceivable that the cells disintegrate and the protoplasm continues living and capable of reaggregating into a cell mass as in the case of the "free-cell formation" which is observed in plant life?

Not to dwell longer on this matter, I may just point out the broad fact that is beyond controversy—namely, that leucocytes do in the normal process of absorption of food serve a striking use as carriers of material. Another striking instance is seen in the transfer of particles from the air cells of the lungs to the neighbouring lymphatic glands. Leucocytes are admitted to be the agents by which this is effected. Doubtless, in this they are serving a definite function—probably that of removing irritating particles from the delicate surface of the air cells. Natural stomata exist which open from the air cells into the lymphatic spaces of the pulmonary tissue, and, since amœboid elements are commonly found free in the air cells, the conclusion seems to be fair that they have normally ingress and egress through the stomata for the purpose of keeping the air cell clear. But probably a more serious duty is theirs than the removal of mere inorganic particles, and that is to seize upon and kill by intracellular digestion all micro-organisms that present themselves in inspired air. This view has been advanced in order to explain the general immunity from those specific diseases whose micro-organisms are widely distributed, and I do not doubt that this is the most important function served by the diffuse adenoid tissue in the respiratory tract. A similar protective function must be added to the absorbent function served by adenoid tissue in the alimentary tract.

Enough evidence has been brought forward that the picking up and carrying off of particles is an accomplishment of leucocytes by no means assumed for the delectation of microscopists, but natural to them wherever they may be, and serving indispensable uses in the normal economy. Surely it can no longer be doubted that this is the use they serve in inflammation. This view renders it at once intelligible why the entrance of micro-organisms into a wound should be associated with suppuration. Not only must they be destroyed and removed as foreign bodies specially inimical to local repair, but they must be prevented from gaining an entrance into the organism at large. Thus pus cells are but leucocytes that have died at their post in the execution of an essential duty. There is a disease known as leucocythæmia, of which the striking anatomical feature is an enormous increase in the number of leucocytes in the body, evident both in the naked-eye appearance of lymphatic tissue and in the microscopic appearance of the blood and lymph. In the subjects of this disease repair of wounds is very imperfect, and attempts at organisation of inflammatory exudation abortive. At first sight this would appear to be inconsistent with the present view of the usefulness of leucocytes in inflammation. But it is found that the vitality of leucocytes in leucocythæmia is particularly feeble. They do not exhibit amœboid movements or any of the active characters of leucocytes in healthy organisms. By the light of this observation the failure of tissue repair in the subjects of leucocythæmia is seen to be consistent with the view under consideration and confirmatory of it; while the occurrence of an excessive number of leucocytes as a feature of the disease suggests itself as an effort to make up by numbers for individual incompetence.

But granting that inflammation is a useful process that meets a pressing need, why does it take place? How do the leucocytes know that they are in request that they offer themselves so promptly? We have seen what is the need that exists when inflammation occurs; we have seen how inflammation meets that need; it yet remains to be seen how an injury while causing tissue-damage gives rise to a process which leads to repair of that damage. Michael Foster, in his Text-book of Physiology, describes the vascular phenomena of inflammation, but says not a word to imply that any active part is played therein by the leucocytes themselves. He treats the bloodvessels as the sole agents in the matter and offers his picture of the process as an illustration of some mysterious power he believes the vessels to exert over their contents. We may remind ourselves that the phenomena are mainly these. First an increase in that normal distinction between axial and plasmatic layers, the leucocytes loitering in the area affected and gathering along the vessel walls, while the red cells pursue their axial course. The leucocytes continue to gather till they are thickly aggregated upon the lining of the vessels. Then little processes appear upon the outside of the vessels belonging to leucocytes within. These processes grow while the leucocytes to which they belong diminish till there is complete disappearance from within and reappearance without. Then their connexion with the vessels becomes severed and they are at large. Now Foster says, and I quote his words: "It seems probable that the aggregation in inflammation of the white corpuscles upon the lining membrane of the vessels is due to a special attraction which the bloodvessels exert on the white corpuscles." A more satisfactory explanation is that the leucocytes are themselves the active agents and that the walls of the vessels, though essentially concerned, may be compared to the damaged bars of a prison that allow a captive to get out. Is it to be supposed that leucocytes lose their power of independent locomotion while they are circulating? Certainly not. What is so noticeable in their demeanour as they are seen coursing along in the blood stream? It is that they are not carried helplessly like the inert red cells, but exhibit some independence, feeling their way, as it were, along the wall and stopping now and again. This has been accounted for by their "peculiar adhesiveness." But why not account for it and for their peculiar adhesiveness at the same time, by crediting the white cells with some independent agency in the matter? Their behaviour within the bloodvessels is so extremely suggestive that they are trying the walls of their prison as they proceed, and seeking a way out. What, then, more natural than that when they come to a place where the vessel wall is damaged they should succeed in their endeavour? I use the word "damaged" provisionally without in the least intending to describe the

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change which the vessel wall has undergone. Whether injury be the direct cause of the change, or whether (as seems probable in cases where inflammation has supervened without traumatism) there is some obscure physiological connexion between the cells and the bloodvessels of a tissue, we are fairly safe in describing that change as "molecular." At all events, it probably means some impairment of vitality, and one can distinguish two ways in which this would favour the escape of leucocytes. For impairment of vitality involves loss of elasticity, which must lead successively to increased resistance to flow, dilatation, and stagnation, which last obviously encourages any attack the leucocytes may attempt upon the wall. Again, loss of elasticity must involve relaxation of any stomata which the leucocytes may have discovered or have made by the insinuation of pseudopodia. Such a view of the process of migration is more conceivable and rational than one which refers it "to a special attraction which the bloodvessels exert on the white corpuscles." For this entails certain difficulties. It is, in the first place, not easy to see why injury should suddenly inspire the wall of the vessel with a special attraction for the white cells, selecting them, moreover, in preference to the red. One has next to get over the difficulty that the leucocytes get over when they are half way through, for it might reasonably be expected that a "special attraction" would hold them fixed in this awkward position. Lastly, we cannot but wonder what becomes of the "special attraction" when the leucocytes, having effected their passage, break away from the vessel.

I said in the early part of this paper that I interpreted inflammation as an exaggerated manifestation of a normal function, and that when we had determined the function of inflammation we should have found the clue to the, or at all events a, function generally served by leucocytes. We have seen leucocytes serving special functions in the alimentary tract, and in the respiratory tract as carriers and scavengers—functions both allied to what is believed to be the function of inflammation. But in the respiratory and alimentary tracts the functions of leucocytes are special and concern only those two situations. Inflammation, however, may occur anywhere, and what has now to be shown is that, no matter where it occurs, it is an exaggerated manifestation of a process normally going on at that spot—that is to say, it has to be shown that the migration of leucocytes from the vessels into the tissues is a constant physiological event, and that the function served by these leucocytes is the removal of cell débris. It may easily be proved that leucocytes habitually migrate from bloodvessels. Remembering their roaming habits, and remembering their demeanour in the bloodvessels, and remembering the stigmata that exist in capillary walls, and the power, further, that leucocytes possess of insinuating pseudopodia, and then flowing along the narrow isthmus so formed, we seem to have good reason to believe that migration may normally occur by such a mechanism. But we have absolute proof that it does occur. In course of digestion the number of leucocytes in the blood increases considerably. This is understood to be due to the vigorous lymphatic circulation which accompanies absorption at the lacteals, leucocytes being thereby carried into the veins of the neck from the lymphatic system where they chiefly abound. But some hours subsequently the number of leucocytes in the blood is found to be the same as it was before the meal. Rejecting the view that leucocytes are split up in the blood to provide food for the tissues, the conclusion is inevitable that they have escaped from the blood-channels. The only ways open to them are back into the lymphatics against the current or out through the vessel-walls into the tissues. We need hardly consider the former alternative and are driven on to the latter.

(To be concluded.)

SOCIETY OF APOTHECARIES OF LONDON.—The results of the examination in Arts qualifying for registration as medical student, held in the Hall of the Society on Sept. 6th and 7th, have just been published. There were 155 candidates, and from the pass-list it appears that 3 were placed in the first class, and 18 in the second class, and 114 were certified as having passed in some subjects, but not in all. The next examination will be held on Dec. 6th and 7th, 1889, and again on March 7th and 8th, 1890.

A UNIQUE CASE OF FRACTURED EXOSTOSIS.[1]

BY THOMAS H. MANLEY, M.D.

THE case on which this article is written presented many features quite peculiar to itself, seldom heard of, rarely dealt with, and probably seen only occasionally even in the practice of those of very extensive experience. For, being of an extremely obscure nature with respect to its real character, for the many and unusual coincident pathological conditions, the odd and singular form of this bony excrescence, as well as the surgical measures adopted for its removal, it would seem to stand nearly alone.

Our patient was a young Italian, nineteen years of age. He had been in America two years, and had always enjoyed good health until a little more than a year previously, when he said he commenced to feel slight pains along the inner side of the leg, which, though severe occasionally, at times would annoy him but very little. During one painful spell he consulted a physician, who treated him for rheumatism. He had finally become so accustomed to the difficulty that it gave him little thought, till one day, while working with other labourers in excavating a drain, in making an effort to raise a heavy piece of stone he suddenly became weak, and had to desist from work. This weakness was followed by chills and pain all over the left lower extremity. After remaining away from work a week he returned. He now found himself lame and only able to continue at his occupation with considerable discomfort. He soon had to stop again, when he applied at the hospital for admission. This was sixteen days after the mishap in the trench, and about a year from the date that he first felt anything wrong on the same side. He walked to the hospital—about half a mile—and readily ascended a couple of sets of stairs without any assistance.

Condition on admission.—He was extremely weak, very much emaciated, very pale, with the look of one in much distress. How he was able to drag himself to the hospital was a marvel to all who saw him. His pulse was now nearly 120 beats per minute, with a temperature of 101°. No evidence of organic disease was found. On being stripped of his clothing, the left lower limb was seen to be greatly swollen from Poupart's ligament down to the knee, mostly on the inner aspect; though the outside was also considerably distended, but to a lesser degree, in the same direction. Now, the question was, What could this great increase in volume be attributed to? Was it a hæmatoma, an osteoid-sarcoma, a simple serous accumulation due to blocking of the deep femoral vein; or was it an accumulation of pus? As there was no history of injury, either recent or remote, we were led to eliminate rupture of a vessel as a cause; and as there was good circulation in the vessels of the limb lower down, which would not be the case if directly dependent on vascular lesion, we were led to believe that pus was present. This was decided beyond question by the exploring needle. It was clear that there was an enormous formation of purulent matter; but when we came to consider the question as to its probable origin and exciting cause, we were obliged to hesitate. There being nothing pointing to traumatism, and no trace or signs of vertebral disease, and the chief symptom being of recent date, it was rather difficult to reach a definite conclusion. Had he been laid up any considerable time in bed, it would have led us to suspect an abscess of the psoas variety, or that there was bone disease involving the hip-joint or upper part of the femoral shaft; but with a man walking into hospital unaided, the existence of any of these lesions seemed impossible. Regardless, however, of what or where the real seat of this pus was, the indications for treatment were very plain. The first was to open into the matter and drain it away; the second, to endeavour to find its exciting cause, and if practicable remove it. It was hoped that with a free vent for the abscess and free irrigation of the parts with some mild non-irritating antiseptic solution, our patient would soon recover; remembering that for some cause not yet well understood, especially in erysipelas, pus will form in enormous quantities in the deep loose areolar tissues; and also, in what was formerly designated

[1] Read before the Amer. Med. Assoc., Newport, R.I., June 25th, 1889.

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cold abscess, in those of strumous taint. Our patient consented to permit us to make an opening, but not do any severe operation. To do anything else at that time in his condition would have been unjustifiable.

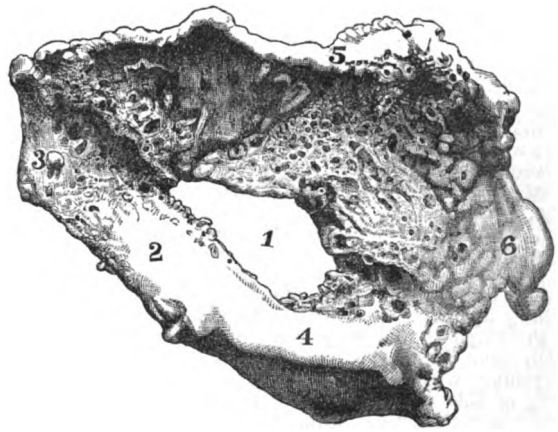
After putting him under an anæsthetic, a free incision was made over Scarpa's triangle, at its apex, carrying it downwards about four inches. Immediately on division of the skin, an immense tense sac bulged into the opening made by the scalpel. Now it was evident that something of a most unusual character was in our way. Accordingly, with a view of making an opening large enough to manipulate and explore through, the incision was slightly enlarged upwards, and the superficial and deep fascia lata divided, separately with the scissors. The pus sac—the pyogenic membrane—was now drawn as far outwards as possible, and opened. Pus, of the consistence of cream, poured through the orifice. It seemed to come from every direction when pressure was made over the quadriceps tendon; over the popliteal space, the groin, the loins, the pubes, and even, when firmly applied, over the abdomen itself. It was at once evident that the accumulation had extended into and invaded all the adjacent tissues. In passing the fingers into the wound with a view of estimating the extent of pyogenic membrane, and the course it pursued, it was plain that it had insinuated itself above and beneath the floor of Scarpa's triangle; that it had displaced the sheaths of the hamstring muscles, pushing away from the bone the femoral vessels in the lower part of the thigh, and burrowing under the sciatic nerve so that it could be readily defined under the fingers. The pyogenic membrane was of the sacculated variety. It was very thick and tough; where the knife penetrated it seemed as dense as the integument itself. Following up along the inner border of the sartorius muscle in the lumen of the sac, I came to the horizontal ramus of the pubes, where an impediment was encountered of a kind which, for the time, completely baffled us to make out. It was lodged a little to the left of the centre of the pubic body. It seemed as large as, or larger than, the hand, of a sort of conical form, with its base downwards and its apex pointing upwards and outwards. Immediately over the summit of this cone passed the femoral artery, which transmitted to the fingers a distinct thrill with each pulsation. The artery was put on the stretch and lifted out of its bed, and deflected very much from its normal course by this body from beneath. The mass was distinctly but slightly movable. What it really was, whether a neoplasm of osseous formation growing from bone, or whether it was a fracture of the bone itself, or separation at its epiphysial junction with the ilium and ischium, perhaps attributable to congenital defect, was all conjecture. It was so deeply buried under greatly deranged and infiltrated tissues that its real nature could not be accurately made out. As the purpose for which we commenced operative procedures was partly accomplished—the removal of pus—and as we were under an injunction from the patient not to make an extended operation, we desisted from exploring any further. Drainage-tubes were inserted, and the whole put up in antiseptic dressings.

After putting our patient in bed and supplying every comfort at hand, time was permitted to study the case and devise some method by which an operation for the removal of this substance could be accomplished. I had decided not to undertake any further operation without the advice and assistance of Professor F. S. Dennis, the senior visiting surgeon, as I fully appreciated that there was a case before us of a kind on which we could get but little light, either as to its true character or the way to safely remove it, from the ordinary available surgical literature; it being one of those cases which now and again turns up in which we are thrown on our own resources, when we must depend on our own knowledge of the laws of pathology, anatomy, and our own ingenuity. He immediately improved after evacuating the pus. The temperature went down to normal, and for a few days he gained strength. Unfortunately his improvement was but transient; pyæmia began to manifest itself, and we found that no longer could delay be permitted.

What we had to remove, and how to do it, were the questions we now had to face. It seemed hardly credible that it could be the fractured or separated pubic bone; for it would seem, with the point of attachment and origin of leverage of all the adductor muscles and those composing the inner hamstring broken off, that locomotion would be impossible, though we all well know the remarkable compensatory action which certain groups of muscles possess. It did not seem impossible either that, with the gluteal muscles, the rectus femoris, and those coming from the pelvis, the head of the femur might be retained firmly in position, even if little motion could be executed. Professor Dennis advised and assisted me in the operation for excision. I may say that without his generous aid and wise counsel we would very likely have failed in our efforts. How were we to proceed in the displacement of this huge mass without either opening into the parietal peritoneum or impairing the integrity of Poupart's ligament? To touch the peritoneum with the taint, infecting almost everything in the region of the wound, would be certainly fatal. The great artery of the lower limb with the femoral vein were in danger of laceration or division, as we would be obliged to draw the mass from under them and effect their detachment in our manipulations. After very carefully, in anticipation of operation, opening down in this region a few days previously on the cadaver, and considering the different routes by which it seemed most practicable to reach the formation and bring it through, I found that there was but one way in which it seemed at all possible to remove it, without sacrificing very important structures; and even here it was discovered that we must divide the anterior crural nerve, and possibly be obliged, if the mass was of great size, to divide or crush it with the bone pliers and remove it in sections.

With the plan of enucleation well fixed in mind, and everything in readiness, so that we might deal promptly and effectually with any unexpected accident, we commenced an operation for a condition of which I can find nothing exactly similar in surgical history. The original incision was extended along the sartorius, till its origin was reached, when the psoas muscles were found and drawn well over, towards the acetabulum, from the vessels which passed directly over them. Now these muscles were divided in a vertical direction, their sheaths opened and their fibres separated. We found that they in the process of time, from excessive pressure from below, had thinned and spread out, like a broad ribbon, and seemed to extend over the greater part of the osseous body underneath. This step of the operation was attended with considerable danger, and the greatest caution had to be exercised. The retractors were now inserted, and the bloodvessels pressed gently towards the symphysis, and I was enabled to pass my index-finger down on to what I found was bare denuded bone. By introducing the periosteal elevator, and detaching the more or less adherent fleshy tissues, I was able, after a long fatigning effort, to remove the cause of all the trouble; the pubic bone, sure enough. (Fig. 1.) At least, at first sight, its resemblance was so close to that part of the skeleton that we could not well liken it to anything else. It was structurally identical to this portion of the skeleton. It had the same shape, the two rami, the ischium attached or fused with it below; the tuber, to which all the hamstrings are inserted, preserving its normal contour and position, the obturator foramen being of the same oval outline as usually met with. When this bone then was raised from the pelvis, we certainly concluded that it had separated from the acetabulum, either through disease, faulty original development, or from an acci-

FIG. 1.



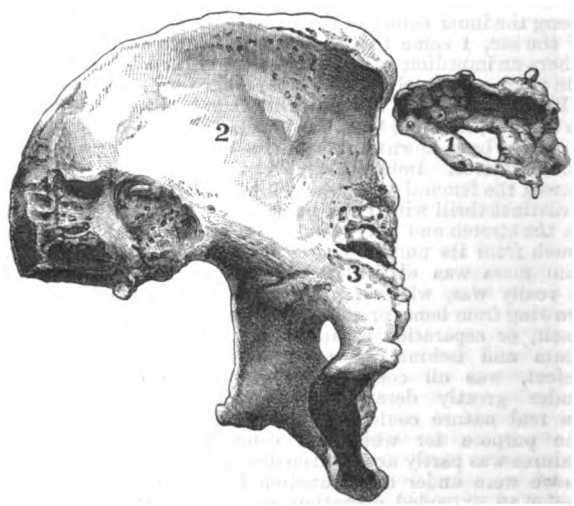
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dental fracture. In the course of removal there was unavoidably considerable mutilation, and it was found impossible to proceed without the bared lacerated muscular tissue coming in contact with the extensive purulent material, which seemed to issue from every direction. In the meantime everything was done to avoid the contamination of healthy parts. The bichloride solution was freely applied for the purpose of washing out and neutralising any septic taint which might linger in the deep tissues. Drainage-tubes of various shapes and sizes were introduced, and counter-openings made, so that the whole tract of the wound could be effectually treated. The usual antiseptic dressings were applied, and the patient returned to the ward. He rallied very slowly, the effects of the shock persisting a considerable time. The morning following the operation he was much improved, the temperature being but slightly elevated, though the pulse remained weak. He seemed to gain until the fourth day, when pyæmia again declared itself, with well-pronounced symptoms. Meanwhile every day the wound was dressed. Pus came away in enormous quantities, soaking through all the many layers of antiseptic cotton and gauze which enveloped the wound. After the fifth day it became evident that we must lose our patient. He now had a profuse, uncontrollable diarrhœa, with exhaustive sweats, and was in constant pain when not under the influence of opium, and on the evening of the tenth day passed quietly away.

It fortunately so happened that we were permitted to make an extensive and very careful examination post mortem. Strange to say that, notwithstanding his severe illness, he had emaciated but little. A most casual examination now showed conclusively that though we had removed a pubis and ischium, the whole of the pelvic skeleton—the whole of the left wing of the ploughshare, as anatomists designate this bone—remained. If one had been removed, it was clear that another remained. Turning our attention to the limb, to the line of incision, we found that though the silk sutures still held the edge of the wound together, there was no attempt at union. Everything was pus-soaked. Between the different layers of fascia and the muscle sheaths, extending down to the terminus of the biceps, a large, broad, thick, pyogenic membrane was now to be seen, with its dense tough walls, externally adherent to everything which came in its way—at one point, reaching out and engaging the sheath of the large vessels, and at another firmly adherent to the floor of Scarpa's triangle, pushing up and away from it the rectus and fascia lata. In the thigh it had very many well-defined diverticula, which seemed to have bored themselves into and through everything which came in their way. The internal lining of this sac was smooth, though with an irregular surface, not altogether unlike the serous lining of an artery. Finding that it had crowded the various groups of muscles in the ham in every direction, we now followed it towards the body, presuming that its limit would be reached at the seat of the original trouble, on a line with the pelvic brim; but we found the pathology of this case as inexplicable and puzzling as its clinical history. Arriving at the crural arch, we stopped. Now, after removing the pelvic viscera, which we found healthy, we continued our exploration upwards. This strong leathery pus sac, after entering the pelvis to the inner side of the pubic bone—its horizontal ramus,—was now traced upwards, behind the peritoneum, and between the psoas muscles, up to their very roots, dividing in its upward course into two sacculi, which penetrated the sheaths of these muscles and ended only at their origin; in fact, when it seemed it could go no further. Taking care that there was no necrotic action going on in the bodies of the lumbar vertebræ to account in part for this pus production, they were minutely examined, but with negative results. In the pelvis, as in the limb, diverticula extended in nearly every conceivable course. Pus was found to ooze through the tissues in the line of the femoral vessels, in the opposite limb, along the rectum, and under the floor of the bladder. We now came to the outer and anterior wall of the bony pelvis, in search for the part from which this osseous formation had come. Just anterior and above the acetabulum, directly beneath the anterior inferior iliac spine, and under the iliac and psoas muscles, was a broad, rather circular-shaped stump of bone, showing evidences of recent cleavage. This stump or stalk had a broad regular base rising directly from the horizontal ramus. Its fracture was about half an inch from the pectineal line, and took an irregular oblique direction. It was entirely stripped of periosteum till the body of the pubes was reached, when this covering was intact. I now removed the entire os innominatum. The body being not yet matured, the sacro-iliac junction was easily divided with the knife, and I here exhibit it. (Fig. 2.) Nothing of special interest was found in the organs except the lungs, where the typical infarctions of pyæmia were seen in abundance.

We had at last, after many conjectures and aimless gropings, been able to determine without question, by indisputable proof, what our patient's affection was; but, alas! we were unable to save his life. Now that death enabled us to clear up all doubts, we come to that part of his history replete with interest and well worthy of a full consideration. I refer to what the probable origin of this formation was, which though possessing many of its characteristics in its clinical history was not a neoplasm. While being a mere typical, innocent substance by its situation and an accident, it ultimately became a cause of death. I think we may ask ourselves, were its true nature, shape, and position known, and the treatment accordingly adopted, might not this young man's life have been saved? For some time after my patient's death I revolved in my mind the causes which might have acted towards giving this osseous outgrowth its strange similarity to the pubes. I reasoned that it could not be regarded as a merely fortuitous development, that it could not have so adapted itself by pressure, exerted through muscular action. While quite perplexed to account for it, and nearly despairing of ever being able to give a rational explanation for its existence,

FIG. 2.



I one day, about a month after the death of the patient, was narrating a few of the interesting features of the case, and showing the specimen, when my friend Dr. James O'Brian of New York, on getting the bone in his hand, pronounced it "a genuine case of reduplication of the os pubis." He further said, "it was his opinion that the production, this precocity of nature, was of congenital origin, that it had existed since birth, and that it was only when perhaps disintegrating from imperfect nutrition it gave way and became a foreign body." My friend O'Brian's opinion of the matter struck me as so simple and rational that it could hardly be questioned. If we can have supernumerary fingers, members, and organs, it seems quite reasonable to suppose that the same freaks of nature may extend to the pelvic bones. It occasioned trouble only when detached; when it became a source of irritation. Had we clearly comprehended its nature at the outset, its management might have resulted in greater success. I believe if we had aspirated off the pus a little at a time and kept the cavity of the sac well aseptic, besides watching his general condition and keeping him well nourished until his strength was restored, we might have removed the reduplication or exostosis with every prospect of success. But in opening up a way to bring the bone through healthy tissues were unavoidably infected. The pyogenic membrane was a most remarkable pathological production, both for its extent and thickness, as well as beautifully illustrating the conservatism of the economy

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in placing this barrier between the sound and diseased parts; covering, confining, and limiting the diffusion of pus. It, besides, showed how completely and effectually purulent material may be walled in without there being any pronounced symptoms or serious constitutional disturbance present to indicate its existence. It may, I think, be asked in closing, as this was a benign formation destitute of any malignant elements, if left alone might not the result have been different? I think it might. In time this diffusive abscess would no doubt have pointed, thinned the skin in its course towards the surface, formed firm adhesions in its way through, and opened spontaneously without in any way contaminating healthy tissues, the sac gradually undergoing contraction, thinning, and absorption, until at last the economy, having no further use for it after the exostosis had come away and thrown off the last vestige of matter it contained, would quickly and entirely dissipate it. As it was, every reasonable precaution was taken, but owing to the obscure character of the condition existing a correct diagnosis was nearly impossible, and we were obliged to deal with difficulties as they arose.

New York.

REMARKS ON

THE WANT OF KNOWLEDGE OF MENTAL DISEASES SO PREVALENT IN THE AVERAGE MEDICAL MAN.

BY GEORGE THOMPSON, M.D.

I WOULD gladly adopt the suggestion made in the editorial annotation on "Bromomania," contained in THE LANCET of May 25th, to substantiate the charge which I make in a former article (on the "Hospital Treatment of the Insane") of ignorance on the part of medical practitioners of the ordinary diagnosis and treatment of insane persons, but for two reasons: the first being that I should be compelled to fill many pages of THE LANCET with matter which would not interest the general reader; and the second, that I should empty the coffers of the treasury of this journal by the number of actions at law which its proprietors would have to meet. I will therefore confine myself to a recital of my very own experience of the facilities which were at my disposal as a student in medicine for learning anything whatever about insanity. There is no law which would enable me to bring an action for libel against myself, and so I proceed to my task heedless of results.

I passed through the usual curriculum, and obtained the diploma of M.R.C.S. in April, 1867. Up to that date I had never had the subject of insanity brought to my notice, except in this way: the lecturer on forensic medicine, the late Dr. Pyemont Smith, kept a very select private asylum at Ilkley, in Wharfedale; but he never mentioned the subject in his lectures. A fellow-student and I (we were both medical superintendents in a very embryonic stage, but we did not know it) agreed to ask Dr. Smith if he would allow us to see his asylum. This request he most courteously granted, and fixed the day. We went, and found the asylum was a fine old mansion high above the Wharfe, and commanding one of the loveliest views in the world. It was licensed for fifteen patients, and that was about the number we saw. Some were sitting or lolling on the terrace, some reclining in chairs in the rooms, and one was in bed. Dr. Smith, most properly, never said a word about the patients (private asylum doctors never do); but I have never forgotten that first lesson, which taught me that insanity, like (as Lytton says) love and death, is a terrible leveller. The patients were all of the higher class, probably persons of good position from Leeds, Bradford, and other towns near. They were most decidedly of the class which is called "quiet" and delights the heart of every private asylum keeper, for they give so little trouble, and are therefore proportionately profitable. I have never seen such a sight since—such wrecks of humanity; I daresay it was the novelty of the scene which struck me. As I think of that sight at this remote period of time, I cringe when I think how the acute cases which now are under my treatment may pass into secondary dementia, because of our frequent helplessness to avert the onset to such a state. That was the first and only lesson I had when I was a student.

But after I became M.R.C.S., and before I joined the staff at the West Riding Asylum, I had another lesson which was equally striking in its effects, though in a different way. I was attending a labour. The two women present to assist were talking, and this was the dialogue: "What became of Sally Jones?" "Oh! she went to Wakefield Asylum." "What happened to her there?" "Oh! she soon died." "Why did she die?" "Oh! she got so bad that they put her between two feather beds, and six keepers sat on her and smothered her." Of course, I sat with the usual gravity of manner and made no remark. The lesson I learned was that there still prevails an idea that the inmates of asylums are done away with. However, I cannot but admit that that would be an excellent way of avoiding "secondary dementia." But, then, I was in possession of a diploma, which I had but to put on the Medical Register to become "duly qualified" in every sense to join in a conspiracy, as has been playfully (I hope) suggested, to deprive a fellow-creature of his liberty, perhaps for life; and this was the amount of teaching which had by chance been apportioned to me. Now, what was the value of that knowledge to me, who at any time was equally qualified with other average men to give an opinion from "facts observed by myself" and from facts "observed by others"? If the examinee threw his arms in the air and declared that he was a windmill, or that the world was a ship and he was the captain, I might safely have said that he was insane, if he was not shamming insanity. But lawyers say that any man with common sense could say as much. And I think the lawyers are right. But in how many cases does the man not throw his arms about? and then, where does the examiner, as ignorant of insanity as I was, come in? I have heard of a case where the one "fact" was "Reads the Bible"; and frequently see such as "His speech is clipped," "He is awkward in his gait." These are physical defects no doubt, often of serious import, but they are not necessarily facts indicating the inability of the individual to manage himself or his affairs.

But to bring this paper to a close, I think it will be admitted that there is no royal road to the knowledge of insanity. It cannot be learned from books; it must be learned from a "master." Could a boy be trained to be a carpenter by reading books? Of course not. And where is the difference? I had never heard the term "general paralysis" before I went to Wakefield, and I do not hesitate to say that had I read all the books that ever had been written on the subject I should never have got a bit nearer being able to distinguish a case had such a one come before me in private practice. The person who wishes to understand anything about insanity must learn it under a master and must live among it. In many cases the diagnosis is a matter of physiognomy—a *tactus eruditus*,—a knowledge of which can only be got by constantly seeing such cases. A member of my family, who has never had an official or other connexion with any asylum, can look down at the patients at the church or at the dance, and, with unerring precision, point out every general paralytic in view of her. This comes from frequently seeing them. Now a man, even with ever such high medical qualifications, might examine (say) a hundred cases of alleged insanity in a year, among which there would be fifteen or twenty general paralytics, and he would not distinguish one of them, and he might go on for twenty years and he would be in the same condition of ignorance at the end of that time. I cannot remember that I have ever known a case of that sort to have been diagnosed before admission to the asylum. Once a medical man kindly wrote to me about one, and said he thought the patient was suffering from "softening of the brain," and that he had been treated with forty-grain doses of bromide of potassium three times a day, which had "quietened" him, and advised me (how kind!) to continue the treatment! He had, indeed, "quietened" the patient: he had expedited a "desolation" which he mistook for a "peace."

Stapleton.

RABIES.—The number of dogs in England officially reported during the week ending the 14th inst. as afflicted with rabies was 8, against 9 in the previous week. They were all killed. The distribution was as follows: Surrey, 2; East Sussex, 3; West Sussex, 1; and York (West Riding), 2. No cases were reported from London. One horse suffering from rabies was also killed during the week in the West Riding of Yorkshire.

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ON ONE FORM OF PUERPERAL ECLAMPSIA.[1]

BY WALTER T. COLMAN, M.R.C.S. ENG.,
FELLOW OF THE OBSTETRICAL SOCIETY, LONDON; CONSULTING SURGEON TO THE HOSPITAL FOR WOMEN AND CHILDREN, BRIGHTON, SUSSEX.

THE present paper is designed to illustrate the theory of the cause of a form of eclampsia puerperalis—viz., that due to sudden and forcible extension, and consequently stretching of the cervix uteri, thereby inducing convulsions, independently of the albuminous factor, which latter, with the majority of authors, is a *sine quâ non* of the disorder. I am wishful now to contribute a mite of assistance in forming a proper classification of such conditions of the system, and *a fortiori* the most applicable and proper treatment for each division.

The first impression given me of the close connexion between puerperal eclampsia in one form and violent stretching of the cervix uteri occurred in a pluripara, who had had more or less constant hæmorrhage for ten weeks previously to the termination of the full period. She was not my patient, but I was asked by her medical attendant if I would assist him in dilating the cervix, which was very rigid and unyielding, to an extent which would permit his performing version. After two hours' perseverance I succeeded, by careful manipulation with my two forefingers and thumb of the left hand formed into a cone, in opening the os to the size of a circle somewhat larger than a half-crown piece. My friend returned, and, having concluded that he could pass his hand through the aperture, commenced the operation; but as he forced his way through the cervix into the uterine cavity, the patient had one tonic convulsion and died there and then, without rallying in the slightest degree, although galvanism and every restorative at hand was used as promptly as possible.

The second case I had under my own care was that of a primipara about twenty-two years of age, florid complexion and fair, who was in labour many hours with violent uterine pains, but whose cervix was most resistant and cartilaginous. I watched my patient for a very long time, but the neck seemed as if it would not yield. I had not my forceps with me, but having determined to apply them—the propriety of which treatment I now doubt,—I ran to a friend who lived close by and borrowed his instruments. I was not absent more than ten minutes, and on my return I found the head pressing on the perineum and the patient in violent convulsions, which I learned came on a few minutes after I had left the house. Chloroform was given at once, and the delivery accomplished in a very short time instrumentally. She remained in a semi-apoplectic condition the whole night—viz., for about ten or twelve hours,—and when I visited her the following morning her senses were beginning to return. She did well. In this case I must say I certainly anticipated convulsions from the previous jactitation, delusions, and incoherent talking, and other premonitory symptoms which were present. Had I administered chloroform there and then instead of rushing for instrumental aid, I believe I should have saved my patient from the dreadful peril of eclampsia.

My third case is that of a pluripara, who aborted at the fourth month. The following is the history. Mrs. P——, aged thirty-four, a woman of florid complexion, dark hair and eyes, and excitable temper. Says she had three children born alive, the first by instrumental means, and the youngest came into the world naturally sixteen months since. Her periodic times returned seven months after delivery, and continued monthly up to January 10th, when the flow remained on her for three consecutive weeks. She dates her conception soon after the termination of the discharge. She said she was very sick for the first month or six weeks, but not so much as usual. After her primary confinement she menstruated every month during lactation; but it began at the seventh month with her second and third confinements. She now considers that she has been impregnated four months. After an outing in the country ten days since, and a great deal of walking and pleasure seeking, together with a hurried journey to catch the train, she found on arriving home that she had a show which continued daily, but no pains, with the exception of those of menstruation, until last night at 10.30, when their character became more violent and severe, and were followed by a discharge of liquor amnii and some little hæmorrhage. Subsequently the ovum came away uncovered by membrane and placenta. Expulsive efforts caused much flooding, and she had fainted six times before I had visited her at 5.30. Next morning her condition was one of great bloodlessness, being extremely blanched and suffering from collapse and almost pulseless. On examination per vaginam I could feel the os to be occupied by a fleshy mass, which I endeavoured to remove by passing my forefinger round and dilating the rigid cervix, but without success, and with the effect, to my great surprise, of producing eclampsia, beginning with fainting, fixing of the eyeballs, and slight twitchings of the angles of the mouth, and followed by flushing of both cheeks. In fact, the common signs characterising *petit mal*. I discontinued my exertions at once, but on making another attempt in about a quarter of an hour there was a recurrence of the symptoms, and in my various trials to remove the placenta I found a recurrence of the eclampsia also again and again as often as I stretched the rigid cervix. I at last succeeded in detaching the whole substance of the mass and brought it away. Her own description of the attack was that it came on with a singing noise in the ears as of a kettle boiling, and she herself seemed to be some little time in it, although, as far as I was able to judge, it did not appear to last more than a minute. Seen on the following morning, May 21st, says she had a good night, but awoke with pain in the occiput. Has generally had headache the third or fourth day after delivery. Diet, milk taken by the stomach giving ease to the pain, which latter diminished as evening approached.—May 22nd: Bowels relieved; more restless. Movement of head causes a rushing sensation coincidently with cardiac palpitation, the rushing coming on at every throb of the heart, the two seeming to be cause and effect. Lochia very little in quantity. Tongue pale and flabby. Face anæmic. Diet: Chop, bitter beer (four ounces), port wine (three ounces). — 23rd: Passed a very wakeful night, and has much headache, which, as usual, is worse in the morning after the night's rest, and disappears gradually as evening is nearing. Up to the present time she has been taking acetate of iron and chloric ether. I now stopped all stimulants and solids, and ordered simply milk and beef-tea to be given.—24th: No headache, and slept well. The five-grain compound rhubarb pill taken last night had produced an action of the bowels, causing great fainting and pain as motion passed through the rectum. From this period there was gradual convalescence under the ferruginous treatment, combined with the bromide and chloral, &c. I can recall to mind two or three other cases typical of this form of puerperal eclampsia, although I regret to say I have not preserved the notes.

Now two of the three cases I can vouch for not having an albuminous condition of the urine after labour, and if they had previously they certainly did not show any outward indications of the malady. In my first case, which proved fatal, there did not seem to be any of the usual uræmic appearance of Bright's disease, and looking at the state of my first and third cases as closely allied in their character and form, and differing only in degree of cause and effect, and stage of pregnancy, the two important factors in causing the fits were anæmia and stretching of the cervix. In Mrs. P——'s case I could produce eclampsia at will. The second case was one which had a vascular condition, the reverse of the others with the excito-motor system at a very high standard of tension and the violent uterine efforts driving the head through a rigid cervix forcibly and suddenly conveyed the shock to the higher nervous centres and caused the convulsions. As Dr. Barnes says in his lecture of April 12th, 1873, the healthy correlation of resisting power of irritation and nervous energy were not harmoniously preserved, allowing all to work on an orderly circle. Dr. Lever asserts that albuminuria always induced eclampsia puerperalis, and that the latter never existed without the former, dogmas which, I must say, experience teaches me to disbelieve. It is questioned by some as to whether the fit is consequent on the obstruction of the rigid cervix tending to divert the blood propelled from the heart to the head, or whether it is a deviation of nerve force due to the former hindrance. If we look into the history of Mrs. P——'s case we will note that, from the fact of the functional periodicity being in an

[1] A paper read before the Brighton and Hove Medico-Chirurgical Society.

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active condition during lactation, that this points to the high nervous tension of the ganglionic systems which is an essential factor in the reflex resultant which I am endeavouring to prove. Again, the fact of movements of the head causing almost coincident palpitation of the cardiac region points conclusively to the sympathetic influence at work in the whole excito-motor system. I am therefore of opinion that the eclampsia in the cases I have related was due to shock and not to diversion of blood or of nerve force. Now I have arrived at the following conclusions: given a very rigid cervix and a high tension of nerve force we may have convulsions occurring during labour, and that when these two factors are present it is possible to anticipate from sudden stretching of the unyielding parts conveying through a nervous system in such a state as I have mentioned a reflex influence on the brain proper causing shock and resulting in eclampsia. *En passant*, to strengthen my argument, I am wishful to refer to an analogy which, although very limited in degree, I consider applicable to the intention of the paper, and I therefore introduce it. I allude to sickness. Dr. Barnes places ovario-uterine vomiting under the category of convulsions. We are all of us well aware of the old nurses' proverb of a sick labour being a safe one, and we also know as a fact that it is usually coincident with the passage of the globe-head through the cervix, and therefore a safe one, because the convulsion explodes in the gastric organ. I had almost forgotten to draw attention to the two other cases, and refer these to the same category as Mrs. P——'s as to cause and effect, and I have said that the resultant is due to the reflex shock conveyed to the brain from the stretching of a rigid cervix either at will or by the head of the fœtus passing through it. And now I have arrived at a very important part of the subject—viz., the treatment of such cases as I have related. I shall consider it as an axiom that no practitioner should enter a lying-in room without chloroform. This is the sheet anchor in such emergencies as I have been discussing. And I go as far as to assert that its presence at hand is as essential, and probably more so, than ergot.

I have attempted to show that I have produced one form of eclampsia puerperalis by mechanical stretching of the cervix uteri without any poisoned state of blood. I shall consequently arrange my method of treatment under two heads: First, the preventive or forestalling; secondly, the immediate. I will commence with venesection, which I must discard as coming under either class, preventive or immediate. It may possibly be of service in relieving subsequently the comatose condition which in vascular temperaments arises from arrested circulation due to a relaxed reactionary condition of the vaso-motor system following the shock. But in two out of the three cases mentioned in this paper the system was anything but replete—in fact, the reverse—although the third case was not so hypernotic as to demand bleeding. Drawing your attention to my previous syllogism—viz., that given a rigid cervix and a certain explosive standard of the nervous system, I say there is every probability of eclampsia resulting, and on these grounds I think I may justify my belief in basing the *modus operandi* of treatment by using such means and administering remedies which are known to relax the tissues in question and reduce central nervous irritation. And amongst the preventive class I will take the following: belladonna, opium, bromide of potassium, chloral, and chloroform. Chloral has the combined effects of reducing the central nervous irritation as well as relaxing the tissues. Bromide of potassium acts more directly on the structure of the tissue of the cervix itself. When ordered as a preventive, I prefer giving the two drugs in combination. As to the immediate treatment when the paroxysm is going on, chloroform must be our sheet anchor. No recognised anæsthetic acts quicker, unless it be nitrite of amyl, the virtues of which I have no experience of. The former must be pushed to the surgical extent, and repeated as often as there is a recurrence of the eclampsia. After a time the patient remains in a more or less comatose condition, which may continue for some hours, or even days, without being fatal. The pulse and other general indications must be our guide as to whether we should use the lancet or not. We must use our discretion. I need not give any caution as to the necessity of avoiding all peripheral irritation, such as dashing cold water over the face, sinapisms, &c., which methods to check convulsions were rife in days gone by on account of their supposed restorative action, but which in enlightened scientific periods have been proved by the highest of obstetric authorities to act quite in the reverse manner. One word as to the forceps, and I am well aware of the fact of my trespassing on dangerous ground when I say I should forbid the use of them unless the head is pressing on the perineum free of the cervix, and then will be the time and not before when we should seek instrumental aid.

Brighton.

ABSTRACT OF PAPER ON

PERICHONDRITIS OF THE LARYNX.

BY F. DE HAVILLAND HALL, M.D., F.R.C.P.

AT the meeting of the British Medical Association in Leeds, after the reading of the above paper, the following points were submitted for discussion:—1. Is there such a disease as primary laryngeal perichondritis? 2. Are there any characteristics by which the laryngeal perichondritis of tuberculosis, of syphilis, and of cancer can be differentiated? 3. The occurrence of laryngeal perichondritis in enteric fever. 4. The causes of the dyspnœa. 5. The prognosis. 6. The treatment of laryngeal perichondritis.

Evidence in favour of the occurrence of primary laryngeal perichondritis was adduced, but the author laid stress on the difficulty of excluding the possibility of the perichondritis being of a secondary nature. In the diagnosis of the different forms of secondary perichondritis much difficulty was at times experienced. The presence of tubercle bacilli in the secretion from the larynx, pale and puffy swelling of the epiglottis and arytenoids, the occurrence of ulceration in the inter-arytenoid fold, and the existence of apical mischief in the lungs, spoke for the tubercular origin of the disease; the absence of pain, extension of ulceration from the pharynx, a history of past syphilitic manifestations, and the effect of full doses of potassium iodide were the chief points to be noted in syphilitic cases. In perichondritis of malignant origin, a thickened and infiltrated condition of the thyroid and cricoid cartilages and surrounding tissues, and the occurrence of hæmorrhage from the larynx, were the chief diagnostic points. Microscopic examination might be of use. The cause of the perichondritis of enteric fever was attributed to defective nutrition rather than to any specific inflammatory process. The absence of symptoms was stated to be a marked feature of typhoid perichondritis. Œdema of the larynx, immobility and median position of one or of both vocal cords, abscess, impaction of the necrosed cartilage in the glottis, collapse of the cartilaginous wall of the larynx, and, finally, in the more chronic cases, stenosis from cicatrisation, were mentioned as the causes of the dyspnœa in laryngeal perichondritis. The prognosis in this disease was always a gloomy one; in the primary and limited variety, however, it was more hopeful. Of secondary perichondritis, the traumatic and syphilitic varieties were the most hopeful, though, in the latter, stenosis, as the result of cicatrisation, usually occurred. In cancer the occurrence of perichondritis accelerated the end by exhaustion from the profuse suppuration. Typhoid perichondritis was a very grave complication.

Functional rest and the use of ice-bags, or Leiter's coil externally and ice internally, were enjoined for the treatment of the disease at the outset. Œdema should be treated by the application of cocaine and scarification, abscesses should be opened, and necrosed cartilage should be removed by the laryngeal forceps. Early tracheotomy was advocated, and subsequent dilatation by Schroetter's method practised. Allusion was made to the plan originally suggested by Dr. Duncan Gibb of splitting the thyroid and removing dead structures. This plan has been recently advocated by Dr. Sajous, and its employment in suitable cases was recommended.

OLD STUDENTS' DINNERS.—At the annual dinner to be held at St. Mary's Hospital Medical School, on Wednesday, Oct. 2nd, the chair will be taken by Dr. Broadbent, in place of Dr. Lees, who is unavoidably prevented from being present. — At St. Thomas's the annual old students' dinner will be held in the governors' hall of the hospital on Oct. 1st. Dr. Harley will preside.

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CASE OF

CENTRAL RUPTURE OF THE PERINEUM, SCARLET FEVER, AND SEPTICÆMIA.

BY J. H. ASHTON, M.R.C.S.

AT about 1.30 P.M. on April 26th I was sent for to attend Mrs. W——, age twenty-three, in her confinement. I found her a well-developed woman, with regular but not very strong pains. On examining her, the os uteri was about the size of a shilling, the head presenting, and in the first position. At 2.30 P.M. the os uteri was fully dilated, and the membranes ruptured. At 4.15 P.M. the perineum began to distend; the pains were not very strong; the parts were moist, the pulse was quiet, and the head continued to advance gradually. A few minutes before the birth of the child, which occurred at 5.30 P.M., I observed the skin just in front of the anus cracking, evidently in consequence of its inability to dilate to a further extent; the crack extended with the next pain in a transverse direction, the skin in this situation being hardly thicker than a sheet of paper; at the same time the posterior commissure of the vulva began to tear. I immediately applied the forceps, but in spite of all precautions (in the way of support and direction of traction) the perineum was lacerated from the fourchette to the spot where it originally gave way. During the progress of the labour and afterwards the patient complained of sore-throat and thirst; the skin was cool and the pulse quiet. The following day (April 27th) the same symptoms were complained of. The perineal wound looked healthy; it had been left unstitched. Early on the 28th, fever with diarrhœa and constant sickness came on, the pulse was very rapid, and the throat was red, swollen, and painful. Superficial sloughing began on the right side of the wound, and extended over its whole surface; on the left side the same appearance presented itself, but to a less degree. On April 29th a copious red rash (scarlatinal) appeared, which spread over the whole body. At this time the external parts were swollen and inflamed with a profuse purulent discharge. Sickness, diarrhœa, and delirium had been present. On the following day (April 30th) the lochial discharge ceased. On May 5th the rash had entirely gone, and the wound assumed a healthy appearance. The treatment during the first part of the attack consisted in the administration of salines, with small quantities of stimulants; and during the latter part quinine in ten-grain doses was given, on the nights of the 5th, 6th, and 7th days, with tincture of digitalis and moderate quantities of stimulants; antiseptics were also applied locally. On the morning of May 14th the patient was seized with rigors, sickness, and diarrhœa, with rapid pulse and tenderness over the hypogastric region, the cause being evidently septicæmia, due probably to the discharge from the wound not having been washed away during the night. The tenderness over the hypogastric region passed away on the 17th, and the patient commenced to be convalescent on the 18th. No albumen was found in the urine drawn off by catheter.

Remarks.—Central rupture of the perineum has been known to occur in cases where the coccyx has been less curved forwards than usual, but the condition here was normal, and the cause of rupture evidently the large size of the child's head. It was apparent that rupture would take place some time before it actually occurred, also that the forceps would not only cause a rent, but probably a severe one—an opinion expressed and verified by the result. The sloughing appearance of the wound was due to the scarlatinal poison, which had manifested its presence prior to the outbreak of the febrile symptoms. The scarlet fever gave rise to neither peritonitis nor metritis, differing in this respect from the septicæmic attack where metritis occurred. In a collection of cases by Dr. B. Hicks[1] several of scarlet fever are recorded, in some of which local lesions were found, in others none. It is certain that scarlet fever in the lying-in state sometimes runs its course without any; and it may be inferred that, when present, they probably result from some local cause introduced from without, or arising within the patient's body, or from injury during labour. The infant did not take the disease, and this was the mother's first attack.

Richmond.

[1] Obstet. Trans., 1876.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF SUPPURATING OMENTAL CYST; ABDOMINAL SECTION; EXCISION OF CYST; RECOVERY.

BY JOHN WALDY, F.R.C.S. ENG.,
SURGEON TO THE SCORTON HOSPITAL.

B. H——, a girl eight years of age, was first seen in May, 1888, when she was suffering from pain in the lower part of the abdomen. Her mother stated that she had suffered at intervals during the last two years from attacks of abdominal pain, which had increased both in severity and frequency. The pain was not accompanied by vomiting, nor did it appear to be caused by food or induced by violent exercise.

On examination, the lower part of the abdomen was visibly enlarged, and measured twenty-four inches in circumference at the umbilicus. On palpation, a tense globular, hard, movable (in all directions) swelling could be felt. Over its surface a creaking feeling was perceptible during respiratory movements. It fluctuated in all directions, and appeared not to be deeply situated or to be fixed in the pelvis or lumbar regions. Percussion gave a dull note over the swelling, with distinct resonance all round. The hand could be passed below the swelling into the pelvis. A hypodermic needle withdrew pus.

My partner, Mr. J. H. Hutchinson, agreed with me that the tumour was either a suppurating hydatid or dermoid cyst, probably situated in the omentum, and that excision or drainage offered the only chance of cure. Accordingly we agreed to open the abdomen, and having obtained the assistance of Mr. Richard Bowes of Richmond, on June 6th I made an incision two inches and a half long in the middle line between the umbilicus and pubes. On exposing the cyst, it was found firmly adherent to the abdominal wall in front. These adhesions were separated, and after tapping the cyst, withdrawing half its contents, and clamping the opening with pressure forceps, it was found to be adherent to the intestines and liver. The child was now turned on to her right side, and a portion of the cyst having been drawn out of the wound, the cyst wall was freely incised and the pus completely evacuated. The second opening was again clamped, and the adhesions were separated without much difficulty until the descending colon was reached; here they were so dense and firm that in dissecting them off the bowel a small aperture was made, which was immediately closed by Lembert's suture. The cyst was now delivered, and the broad pedicle formed by the adherent omentum was divided between numerous catgut ligatures. The abdominal cavity was washed out with warm spring water that had been previously boiled, a drainage-tube was introduced into the pelvis, and the wound was closed in the usual way and dressed with iodoform wool.

On the following day the wool was saturated with red serous discharge. Pulse 130; temperature 100°; urine loaded with urates, passed without the aid of a catheter. Vomited two or three times. The drainage-tube was removed, and fresh wool applied. On the third day the pulse was 100; temperature 99°. Bowels acted naturally on the second day. On the fourth day the wound was healed, and the child gradually convalesced. The diet was warm water for the first twenty-four hours, milk-and-water for the following two days, then beef-tea and milk until the end of the first week, and afterwards a gradual return to ordinary food.

The clinical features of the case are interesting. The age of the patient suggested a dermoid cyst. The resonance all round the tumour, together with its free mobility and the fact that the hand could be passed between the tumour and the liver and spleen, and also below the tumour into the pelvis, as well as into both loins, excluded a tumour com-

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mencing in any of the abdominal or pelvic organs. The cyst was unilocular and about the size of a large football; its walls were about an eighth of an inch thick, and to its lining three plates of bone were adherent. Microscopic examination of the fluid only demonstrated the presence of pus.

Catterick, Yorks.

ON THE USE OF PILOCARPINE IN THE FORM OF HYPODERMIC INJECTIONS IN THE TREATMENT OF DEAFNESS.

By ADOLF BRONNER, M.D.,
SURGEON TO THE BRADFORD EYE AND EAR HOSPITAL.

IN the *British Medical Journal* of July 20th, Dr. T. Woodhouse reports on five cases of deafness which he treated with pilocarpine, according to the suggestion of Field and others. He is surprised to find that "no real good was effected." In four of the cases the patients were over sixty years of age, and had evidently been deaf for many years; and in one case the patient's age was forty-four, and deafness had existed for nine years. Dr. Woodhouse does not give us any particulars as to the exact nature and cause of the deafness. We surely cannot expect pilocarpine to cure all cases of deafness, irrespective of the nature and duration of the disease. How can we hope for any improvement in old chronic cases, in which there is perhaps much thickening and calcification of the membranæ tympani or fenestræ ovalis or rotundæ, or where the membrana tympani is absent or adherent, or there is much ankylosis of the ossicula, or where extensive changes have taken place in the internal ear or auditory nerve?

Pilocarpine can only be of use in certain classes of cases, and at present it ought to be our endeavour to define these classes as strictly as possible. In some acute or subacute cases we may reasonably hope not only to arrest the progress of the disease, but also in some cases to restore normal hearing; but in chronic cases we ought to be satisfied if we can prevent the deafness from progressing. In all cases in which the deafness is not entirely due to affections of the internal ear, we ought also to make use of the Eustachian catheter, in addition to the use of pilocarpine.

I have used pilocarpine in many cases of deafness, and in some with very good results. At present I have a girl of twelve under treatment who is suffering from a subacute affection of the middle and internal ear. After twenty injections of pilocarpine she can hear the watch with the right ear at twenty inches and with the left at six inches, and hear "whispers" (ninety-nine) at more than five metres with either ear. Before treatment she could not hear the watch at all, not even on contact, and loud speech (ninety-nine) at two metres. There is a history of congenital syphilis.

As far as my experience goes, the following classes of cases seem to be the most suitable for treatment by pilocarpine:—1. Deafness caused by acquired or inherited syphilis, due to changes either in the internal or middle ear. These seem to be the most successful cases. 2. Deafness due to hæmorrhage or exudation into the internal ear. 3. Cases of chronic catarrh, with recurrent exacerbations. 4. Cases of sclerosis or dry catarrh, but only in the initial stages. Normal hearing is very rarely restored in this class of cases, but one can frequently arrest the progress of the disease.

I will only add that I am still collecting cases and making further investigations in this very important subject, which I hope to publish *in extenso* at some future time.

Bradford.

POISONING BY STRYCHNINE; RECOVERY.

By ARTHUR E. LYSTER, M.R.C.S., L.S.A.

SOME time back I was called to a woman who had taken rat-poison. On my arrival (within fifteen minutes of the poison being taken) I found that the chemist who had supplied the poison had administered sixty grains of chloral. At once a full dose of sulphate of zinc and copious draughts of warm greasy water were given her, which soon produced free vomiting. Again more greasy water and sulphate of zinc were given, when again she freely emptied her stomach. About fifteen minutes after my arrival she developed tetanic convulsions, and at once chloroform was administered, and repeated constantly for at least an hour and a half. She recovered. The chemist who supplied the rat-poison told me it contained two grains and a half of strychnine.

Coleshill.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

WEST LONDON HOSPITAL.

FIVE RECENT CASES ILLUSTRATIVE OF CEREBRAL SURGERY; REMARKS.

(Under the care of Mr. C. B. KEETLEY and Drs. DONALD HOOD, J. B. BALL, and COLMAN.)

(Concluded from page 595.)

THE cases which we have already published have been examples of (1) successful trephining for bullet wound of brain; (2) recovery after trephining for cerebral abscess; (3) exploratory trephining in a patient suffering from new growth of the pons, in which there was reason to suspect intracranial suppuration.

In Case 4 it is to be regretted that the operation was not performed earlier. The case was much clearer at first than at the time surgery was resorted to. There was then a most misleading set of symptoms superadded and masking the plain original indications—namely, a red and tender swelling above the left ear, a history of discharge from that ear given by one parent and denied by another, and some tenderness over the mastoid process. After a consultation it is not surprising therefore that the first trephining was performed with a view to exploring not only the motor part of the cortex, but also the temporo-sphenoidal lobe, well known to be the usual seat of abscesses connected with ear disease. The second trephining was done in the right place. It failed because it was a second trephining, and was therefore undertaken with less heart and thoroughness than the first. Had the exploration been as thorough and systematic at the second as at the first, the pus must have been reached. The second trephine hole was not exactly over the pus, because one does not trephine in the middle line directly over the superior longitudinal sinus. The fact that the symptoms, although cerebral and not spinal in character, were rather paraplegic than hemiplegic, at first pointed plainly to the situation of the pus, and, reading the case over again, it is plain that, with prompt action and a just faith in the doctrines of cerebral localisation, the collection of pus between the leg centre and the falx cerebri should have been found.

CASE 4. *Abscess (? tubercular) diffused between falx cerebri and left hemisphere, and also in left occipital lobe and on anterior and inferior aspects of left frontal lobe; trephining; death.*—Henry H——, aged thirteen, was admitted under the care of Dr. J. B. Ball, on Sept. 24th, 1888. His illness began on Sept. 11th with vomiting and headache. The former ceased after two days, but the latter continued. On Sept. 20th he was noticed to be "weak in the back and the legs," could scarcely walk, and the weakness was increasing. On the 23rd he was said to have been delirious at night, with twitching of the face and hands; bowels very constipated. Both personal and family history good; no injury; no tubercle; but a history of old ear disease and of discharge a week before the onset of symptoms.

Sept. 25th.—Restless, much pain in the head, frequently whistles and calls out, is slow at answering questions; skin hot and dry; pulse 72, regular. Pink flush on the face. There is a slight white fur over the tongue, and the papillæ are red and prominent. No paralysis of cranial nerves. Pupils dilated, normal. Slight right internal squint. Face twitches slightly (probably voluntarily). Arms and hands weak. Left leg weak; right leg can scarcely be moved; knee-jerks exaggerated; no ankle clonus. Abdomen supple, not retracted. No aural discharge. Temperature: evening, 102·4°.

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26th.—Slight left ptosis (?) Rather duller; otherwise the same. Temperature: morning, 102·8°; evening, 102°. Pulse 88.

29th.—Temperature: morning, 100·6°; evening, 101°. Much pain down the back yesterday. Motions passed beneath him. Tongue protrudes to right. More noisy and restless.

30th.—Sensation in right leg seems much delayed. Knee-jerk less active than on right side. Plantar reflex scarcely perceptible. "A kind of risus sardonicus, with raising of upper lip"; left side slightly more than right. At 10 A.M. there was a rigor, and at 12 the temperature was 105°. Head shaved; mercurial ointment to be applied to it night and morning. Right eye: arteries tortuous, veins enlarged, disc hazy, but only a glimpse was obtained of it, owing to the boy's movements. The fundus of the left eye, as far as could be seen, was the same as the right, as regards vessels.

Oct. 3rd.—Yesterday both lower extremities were rigid with very excessive knee-jerks. Neck rather rigid and seemed to be slightly retracted. This morning the temperature dropped to 98·8°; pulse 92. Frequently calls out "mother," sleeps in intervals of calling out. Easily roused and answers simple questions correctly. Weakness of right arm doubtful. Slight but distinct drop of right side of face. The right leg can now be slightly raised. Knee-jerk excessive. Very slight rigidity. No plantar reflex. In the left no rigidity. Rectus clonus, but no ankle clonus. No plantar reflex. No retraction of head, ptosis, or squint. Abdominal reflex much less on the right side. Much wax removed from both ears yesterday. Right ear normal. In the left no sign of recent inflammation; (?) old perforation. Patient seemed much brighter in the afternoon, but very noisy at night. Temperature, 101°.

4th.—Temperature, 98·6°. Slight salivation. Gums a little swollen. A slight swelling, about two inches above the left ear, noticed last night, is now reddish and tender.

5th.—The notes show, if anything, a slight general improvement; but at 1.30 P.M. a rigor took place. Mr. Keetley saw the patient, and performed the following operation. After the head had been shaved, cleansed with liq. potassæ, soap, and nailbrush, the fissures of Rolando and Sylvius were carefully marked out on the left side of the head, and a semicircular flap was turned down, exposing the pericranium at the site of the tender swelling above the left ear. No evidence was observed that this swelling was connected with the cranium or its contents. The pericranium was therefore reflected and the skull trephined at the upper and anterior part of the wound—i.e., over the lower part of the motor area (about the situation of the facial centre). The button of bone was slipped through a small incision in the left thigh, and "pocketed," as it were, in the subcutaneous cellular tissue until wanted again. (Antiseptic precautions.) The dura mater bulged, but pulsation was well marked. On dividing it a little serum escaped, and the brain bulged strongly through the opening. The intracranial tension was unmistakable. An aspirator needle was pushed (1) straight in, (2) upwards into the leg centre, (3) horizontally into the hemisphere, (4) downwards through the temporo-sphenoidal lobe as far as the upper surface of the petrous part of the temporal bone, (5) backwards and downwards. A little frothy blood-stained fluid escaped, especially on the third puncturing. The dura mater was replaced as well as was possible. The brain bulged so as to make suture of the dura impossible. The piece of bone was taken from the thigh, and a sponge being held over it, it was clipped into small pieces directly over the wound by bone forceps. The flap was then replaced. Silver sutures; catgut drain. Dressing of wood-wool pads over iodoform gauze, the latter wet with sublimate lotion (1 in 2000). Fixed with gauze bandages and plenty of strapping.

6th and 7th.—Was certainly no better for the operation. On the 7th appeared aphasic, repeating a few words, such as "Mother," "Yes," "I want some water." Temperature 99° last night, normal this morning.

8th.—Passes motions unconsciously in bed. Temperature: evening, 101°.

9th.—Pupils for the first time noticed to be unequal (right larger than left). React normally; no squint. Facial paralysis marked. Tongue does not deviate to the right quite so much as yesterday. Temperature: morning, normal; evening, 102°.

10th.—Seems better. Recognises his mother. Understands a little better. Head a little retracted. Tongue protruded nearly straight. Leg and arm movements rather better. Has control over sphincters. Temperature 99·2° this morning; pulse 100, very much stronger. Marked optic neuritis in both eyes. Tortuosity of vessels much increased since last examination.

11th.—Dressed. A hernia cerebri apparently commencing at the seat of trephining. No pus, either superficially or on passing a probe into the posterior angle of the wound. It reached the trephine hole without resistance. Strands of catgut used for drain nearly absorbed, so the stump (externally) was removed. Iodoform gauze dressing. Face rather more drawn this morning. About 5 P.M. the patient became comatose. When restless he threw the left arm and leg about freely, but did not move the right limbs at all.

Second operation.—Believing that the symptoms pointed distinctly and principally to suppuration in the cortical centre for the movements of the right leg, Mr. Keetley trephined again, the portion of bone being this time removed from a point as nearly as possible just in front of the upper end of the fissure of Rolando. The dura mater bulged greatly, but there was pulsation. Two or three exploratory punctures with an aspirator needle were then made to a depth of an inch and a half, but unsuccessfully. The dura mater could not be stitched together. The button of bone was not replaced. Dressing &c. as in preceding operation. During the operation the patient did not change. His pulse was fairly good all through. Afterwards he lay as if dead, only just breathing with an almost imperceptible pulse. Some brandy was given, and patient revived. Temperature 99° at both 8 P.M. and 12 P.M.

12th.—A little stronger, but hardly conscious. Pupils equal. Tongue protruded nearly straight. Temperature 99° at 2 A.M., 100·2° at 6 A.M., 97·8° at 10 A.M., 98·6° at 2 P.M., gradually rising to 99·4° at 10 P.M. Afternoon and evening restless, rolling from side to side; "cephalic" cry.

14th.—Quieter. Right arm quite paralysed to-day. Leg weaker than before, but is still moved a little. Sensation seems impaired, not lost on right side. Squint more marked. Facial paralysis less. Pulse 125; good volume; rather low tension. Temperature 100·6° at 10 A.M.; 101° at 2 P.M. Incision of first operation healed excepting at the angles. Prominence and pulsation well marked. Second wound looks healthy, but a hernia protruded from the upper part of the incision, the size of a bean, when the dressing was first removed, but was a good deal larger before the new dressing was applied. A thoroughly cleansed probe was passed into the posterior angle of each incision. A small quantity of thick brownish fluid escaped from the first wound after the withdrawal of the probe. Temperature 99°. In the evening the patient was a little more intelligent. Puts out his tongue almost as soon as asked; it protrudes a little to the *left* now. Has taken in the twenty-four hours about six eggs and four pints of milk. Temperature 102·2° at 6 P.M.; 99·2° at 10 P.M.

15th.—Seems stronger, slept pretty well during early part of last night, but after 5 P.M became restless and cried a good deal. Rigidity commencing in right arm. Leg also slightly rigid, with rather less movement than before. Squint and facial paralysis about the same as before. Does not do as asked so readily; clutches at bedclothes; some twitching of face, especially about mouth; occasionally a slight tremor of whole body. This does not occur very often, and is very slight. Pulse 150, volume and tension fair; temperature, 10 A.M., 100·6°; 6 P.M., 102°; 10 P.M., 101·6°. Takes food well. Brandy (of which he had been taking three ounces daily since 8th) stopped.

16th.—Sinking. Some movement in right arm to-day; other parts as yesterday; clutches at his head and at the bedclothes a great deal. He died about 2 P.M. Temperature, 2 A.M., 102·2°; 6 A.M., 104·2; 2 P.M. (and after death), 105·6°.

Abstract from the notes of the post-mortem examination which was held three hours after death.—First wound showed a very small quantity of pus beneath the flap and emitted an offensive odour. Several of the replaced pieces of bone were adherent. The skull-cap having been removed the dura mater seemed healthy, and having been turned back pus escaped from the anterior surface of the frontal convolution, and very freely from between the two hemispheres as the falx cerebri was turned back, probably six drachms altogether, thick and offensive. At the inner aspect of the convolution joining the ascending parietal and frontal convolutions was a depression about the shape and size of a shallow teaspoon, evidently produced by a rather large collection of pus at

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this point—i.e., the inner aspect of the centre for the right leg. The second trephine opening was about one inch external to this, or rather to the median line. The anterior two-thirds of the left side of the longitudinal fissure were covered with a pyogenic membrane of probably recent formation. From this backwards to the inner surface of the occipital lobe the pus was more fluid. At the postero-inferior angle of the occipital lobe was another small collection of pus under the dura mater, which had formed a small excavation in the brain substance. It was in connexion with the rest of the pus. The brain was otherwise healthy. No bone or ear disease was found, but the internal and middle ear were not examined. No tubercle was noticed in any part of the body.

CASE 5 (William P——, aged nine, admitted on the 19th of July, 1889) is added to show how easily a surgeon might be led into performing a premature and unnecessary operation. When first brought to the hospital (two or three hours after falling from a scaffold twenty-five feet high) his pupils reacted well to light and were natural in appearance, although he was unconscious. In three-quarters of an hour the patient was comatose, his pupils had ceased to react and were dilated, his right arm and leg were flaccid, had lost their reflexes, and there was slight right facial palsy. But when Mr. Keetley arrived at the hospital (which is four miles from the middle of London) coma and paralysis had given way to maniacal excitement, and instead of operation an enema of castor oil and the vigorous application of cold to the head, including the cold douche if necessary, were ordered. The cold douche was not necessary. The patient was conscious in a few hours. The next day he was merely irritable and confused; and on Aug. 1st (thirteenth day) he is described as "quite well; fairly intelligent." He is reported to have never been very bright and cannot read, although he has been to school.

NORTH RIDING INFIRMARY, MIDDLESBROUGH.

AN ISOLATED CASE OF FRIEDREICH'S DISEASE.

(Under the care of Mr. HINSHELWOOD.)

AN interesting case of Friedreich's disease has been under observation during the last nine months at the out-patient room of the North Riding Infirmary, and, as it presents several very interesting and unusual features, seems deserving of record. All the characteristic features of Friedreich's disease are present—the ataxy, the unsteadiness of the head, the affection of speech, the lateral nystagmus, the peculiar deformity of the feet, and the age of onset. The case presents a very complete clinical picture of the group of symptoms which Friedreich first described, and to which the names of Friedreich's disease and hereditary ataxy have been given. The most striking feature of Friedreich's disease is that it attacks many members of one generation, and scarcely any isolated cases have been recorded. This case is as yet an isolated one, and this gives it very special interest. Dr. Bury, in *Brain* (1886), says that up to that date only four isolated cases had been placed on record. It is possible that the rarity of such isolated cases is not so much due to the fact that they do not occur as that they are not recognised. Several cases of ataxy occurring in the same family at once suggests the diagnosis; but isolated cases are very apt to be overlooked, unless the examination be a very minute and searching one. It is possible, however, that this case may not remain an isolated one, as some other instances may yet occur in the same family, there being two members younger than the patient, one aged eight years and the other eleven years. As yet, however, it stands alone. Dr. David Drummond of Newcastle has recently seen the case, and agrees with Mr. Hinshelwood's diagnosis.

D. B——, aged twenty-four, is one of a family of five, of which four members are still alive—a brother aged eight, a brother aged eleven, the patient himself, and a sister aged twenty-six. The two brothers and the sister are in perfect health, and entirely free from any nervous symptoms. A younger brother died in early childhood from scarlet fever. There is no neurotic history in the family either on the maternal or the paternal side. The patient enjoyed good health until three years ago, when he first observed that he was unsteady on his legs. Since then his gait has gradually become worse, and the other symptoms have gradually manifested themselves. During the last twelve months all his symptoms have become rapidly worse. His present condition is as follows: He looks healthy and well nourished. His muscles are well developed, and there is no wasting. He cannot stand with his eyes closed, and his gait is markedly ataxic. He lifts his feet very high, and then brings them down with a peculiar stamp. During the last six months his gait has become very much worse, so that now he can scarcely walk without support. There is no impairment of power in the legs. The feet present the very peculiar appearances which have been frequently noted in Friedreich's disease; they are extended at the ankle-joint, so as to be in the position of talipes equinus. The instep is very highly arched, and there is extreme dorsal flexion of the great toes. The movements of the arms are slightly ataxic, and the grasp of both hands seems to be slightly weakened. The little finger of the right hand and the two adjacent fingers are often flexed into the palm, and he requires to straighten them out with his other hand. He carries his head bent forwards, with the chin resting on the sternum, and there is very marked antero-posterior curvature of the upper half of the spine. The head and neck are constantly oscillating with peculiar jerky movements in an antero-posterior direction, even when he is at rest, but these oscillations are greatly increased both in frequency and range when he attempts to walk. Sensations of pain, temperature, and muscular sense normal. Electro-sensibility and electro-contractility normal. The sensibility to touch is normal in the upper limbs and body, but impaired in the lower limbs, especially in the lower part of the legs and feet. He has occasionally slight shooting pains in the legs, and now and again attacks of headache. Both knee-jerks are completely absent. On the right side all the cutaneous reflexes are present and active, except the cremasteric, which is lost. On the left side only the abdominal reflex is present, but sluggish, and very faint. His speech is indistinct and jerky. During the last nine months it has become much worse. There is a peculiar slurring of syllables, and a tendency to run two into one; also occasional hesitation. There is slight twitching of the tongue. His pulse during the nine months he has been under observation has ranged between 120 and 140, never less than 120. His eyes, when fixed on an object, show intermittent attacks of lateral nystagmus. They give several oscillations, remain fixed for a time, and then oscillate again. The nystagmus is most marked on making lateral movements with the eyes either to right or left. The movement is then of a peculiar jerky character. Both bladder and bowels have become affected during the last twelve months. The bowels are very costive, and when he feels the desire he must relieve them at once. The sphincter ani offers little resistance to the passage of the finger. He can retain his urine for some time, but whenever the desire to urinate comes on, the bladder must be immediately emptied.

Medical Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Linear Proctotomy.—Treatment of Intestinal Obstruction.

A MEETING of the Surgical Section was held on June 7th.

Dr. BALL defined the operation of linear proctotomy as the making an incision through the anus and rectum directly backwards to the coccyx and hollow of the sacrum; the following being the indications for its performance:—1. For the cure of non-malignant strictures of the rectum, in which gradual dilatation by means of bougies or other instruments is either impracticable or inefficient. 2. For the removal of growths situated high up in the bowel or in the hollow of the sacrum. 3. As a palliative measure instead of colotomy in advanced malignant disease. 4. As a preliminary step to amputation of the rectum. Dr. Ball brought forward two cases illustrating the first class:—Case 1: Male aged twenty-three years, five years' syphilitic history. Considerable ulceration of lower part of rectum, with tight stricture above. Bougies gave rise to great irritation, so linear proctotomy was performed. Relief to obstruction was immediate, and the ulceration healed without further difficulty. There has been no recurrence of the stricture (twenty months after operation), and the amount of incontinence is ex-

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tremely slight. Case 2: Female, aged forty-seven years, for five years suffered from a morphœa-like condition, which produced puckered subcutaneous cicatrices over both breasts, heart, and abdomen. She also had some ascites. The vagina was contracted, the uterus fixed, and a tight smooth stricture of the rectum existed. This became so tight that her life was threatened from intestinal obstruction. The stricture, which would only admit about a No. 9 catheter, was divided, and all symptoms of obstruction obviated. Six months subsequently she developed stricture of the œsophagus, which proved fatal, no recurrence of the rectal trouble having taken place. The pathology of this case was doubtful, apparently not carcinoma; but as she died down in the country, no necropsy could be obtained. The following are examples of the removal of neoplasms by means of linear proctotom:—Case 3: Male, aged sixty-three years, rectum obstructed by soft tumour filling hollow of sacrum. An attempt to remove the mass by linear proctotomy was so far successful that the tumour, which proved to be a lympho-sarcoma, was completely extirpated; but, unfortunately, the patient died from septic peritonitis. Case 4: Male, aged twenty-six years, much worn down by the continuance of dysenteric-like discharge from rectum. A soft sessile growth could be felt at the highest limit accessible by digital examination, but, with the aid of linear proctotomy, it could be completely controlled. It was extremely vascular, and, in the patient's exhausted condition, destruction by Pacquelin cautery was deemed safer than extirpation. The patient recovered very perfectly, completely regaining his strength, and there has been, so far (eighteen months), no recurrence and no inconvenience from incontinence. Class 3: Dr. Ball did not consider that linear proctotomy could be favourably compared with colotomy for the relief of obstruction due to malignant disease. And in the fourth class, the consensus of surgical opinion was certainly in favour of adopting linear proctotomy as a preliminary to amputation of the rectum, and Dr. Ball had hitherto invariably practised it.—The PRESIDENT believed that the operation afforded a fair chance of curing non-malignant stricture of the rectum almost immediately.—Sir WILLIAM STOKES said it was new to him to hear that Verneuil advocated division by the knife instead of by the cautery, as he happened to be present at a discussion when that operator advocated the latter mode, but since then he seemed to have modified his views. Indeed, the tone of the discussion to which he referred was that the operation, whether done with the cautery or with the knife, was only temporary in its nature. He wished to ascertain whether Mr. Ball recommended, and, if so, what precautions to keep open the stricture, for in the justly popular operation of internal division in organic stricture of the urethra, unless precautions were taken to keep the urethra dilated the stricture returned.—Mr. BALL, in reply, said Verneuil's operation, as described in his paper, was first a division of the tissues by means of an écraseur, which was next inserted through a canula and then through an opening made with a cautery. He was not in the habit of using the knife. With regard to the subsequent treatment, in both cases of stricture a full-size bougie was passed for a certain time; but in one of the cases which he saw within the last week, the bougie had not been passed for over a year, and no difficulty whatever occurred in getting satisfactory relief from the bowels. Between stricture of the urethra and stricture of the rectum there was this difference, that the urine flowed through the same channel after the operation as well as before, while as the result of the operation for stricture of the rectum a new exit was made for the discharge from the bowel—namely, immediately below the tip of the coccyx, and therefore the probability of subsequent stricture was very slight.

Mr. W. THORNLEY STOKER read a paper on some points in the Treatment of Intestinal Obstruction. He dealt chiefly with the treatment of those cases where the obstruction was owing to the paralysed condition of the bowel due to the accumulation of fæces or flatus. In this class of cases a lumbar operation is rarely indicated, and, owing to the extreme meteorism, laparotomy is usually a very fatal proceeding. He urged the adoption of other measures previous to any precipitate opening of the abdomen, advocating the employment of pressure and massage, and the judicious use of purgatives. Of these latter remedies he considered undue fear existed. Of belladonna, when pressed to its full effect, he spoke highly, and quoted cases in evidence. Local treatment by rubefacients he stated his disapproval of, as he did also of opium, which he regarded as masking symptoms, and doing little or no good. Tapping the bowel with an aspirator needle or fine trochar he had found of great use where much tympanites existed. A large part of the paper was devoted to an attack on the "long tube," which he considers a dangerous and useless engine, productive of no effects which cannot be gained by the use of a shorter and safer instrument.—The PRESIDENT was of opinion, notwithstanding the strong outcry against opium, that that drug, if of use in any case of abdominal surgery, gave relief in intestinal obstruction. In his own practice he invariably used it subcutaneously. Inversion he had seen practised, but never with good results. The enema was of great use, not by O'Beirne's tube, but by the ordinary one. Puncture of the intestine also gave relief; but instead of the aspirator, he preferred using a trocar (one-tenth of an inch in diameter), and canula.

Reviews and Notices of Books.

Syphilis und Auge: nach eigenen Beobachtungen von Dr. ALEXANDER, Dirig. Arzt der Augenheilanstalt für den Regierungsbezirk Aachen. Pp. 234. Wiesbaden: Verlag von J. F. Bergmann. 1889.

IN this work Dr. Alexander places before us the results of twenty-three years' extensive practice, during which his attention has been specially directed to the effects of syphilis upon the eye and its surroundings. He possesses the records of 50,000 ophthalmic patients, and of these 1385 of very various nationalities were ascertained, with different degrees of certainty, to be suffering from the effects of venereal disease. He gives the records of several ophthalmic surgeons, who have treated 138,000 ophthalmic cases, of which 2998 were specific, or a percentage proportion of 2·16 cases. In his own practice there were 8 cases of disease of the lids and conjunctiva, 35 of the bones and lacrymal organs, 3 of the sclerotic, 146 of the extrinsic muscles, 59 of the intrinsic muscles, 75 of the cornea, 331 of the sweat tract, 107 of the retina, 568 of the optic nerve, 14 of the trigeminus and facial nerves, and 39 cases of congenital or hereditary disease. To each of these he devotes a chapter, introducing subdivisions under each head; the affection of the lids, for example, being considered under those of the integuments, the tarsus, and the conjunctiva. Hard chancre is rare. It has been seen in infants, owing to the filthy practice of some nurses of cleansing the eyelids of the infant with saliva, when themselves suffering from chancre. The prognosis is, Dr. Alexander thinks, not bad, healing taking place with a small scar only. We have, however, seen a case which terminated disastrously. In regard to the lacrymal apparatus, Forster ventured to state in Graefe and Sämisch's Handbuch that these parts invariably escape infection and disease of a syphilitic nature. Apart from other evidence, however, Dr. Alexander adduces a case of disease of the lacrymal gland which, from the attendant circumstances and the results of treatment, he had every reason to believe was of a syphilitic nature, and a similar case has been put on record by Albini. The affections of the cornea, which are regarded by Dr. Alexander under the head of syphilitic, are the interstitial form of inflammation and keratitis punctata, with and without iritis, as well as gummata. Interstitial keratitis he shows, by reference to cases recorded by different authors, is not always a sign of hereditary syphilis, but may proceed from direct infection; and he remarks very justly that, providing the iris and deeper structures of the eyes are not implicated, no matter how vascular and opaque the cornea may become, the prognosis is not unfavourable. Iritis of course occupies a long section, as it is so frequently due to this disease, the author estimating that nearly 50 per cent. of all cases of iritis are of syphilitic origin. It

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occurs usually in the earlier stages in the first instance, and in one eye, the second eye becoming subsequently affected. He gives a very excellent description of the character of syphilitic iritis, which, however, unless gummata are formed, presents no very marked distinguishing features from ordinary iritis; such gummata occur in about 18 per cent. of all cases of iritis, and of course in a much higher proportion of syphilitic iritis. In regard to the retina, we have only space to give the conclusions at which Dr. Alexander has arrived, which are: That the retina is affected in syphilis in consequence of various forms of choroiditis syphilitica, constituting the several varieties of choroido-retinitis; that there may also be a simple retinitis, in which the disc and adjoining region of the retina is clouded, as described by Jacobson, the periphery remaining intact; that a form may occur in which there is exudation along the retinal vessels; that there may be retinitis with hæmorrhage in consequence of vascular disease and the formation of thrombi; and lastly, that there may be a central recurrent retinitis. Separate chapters are devoted to the hereditary manifestation of syphilis and to the treatment of syphilitic affections of the eye, and the rest of the work is taken up with an interesting description of the paralyses of the muscles of the eye, both internal and external, as indicative of syphilis. Altogether, the work is written in a very good style, the author nowhere seeking to obtrude his own opinions unduly on the reader, though founded on large experience, whilst he has read largely and profitably. We possess no similar work, and one of the junior members of the profession might with advantage translate the work.

OUR LIBRARY TABLE.

Commercial Organic Analysis. By ALFRED H. ALLEN, F.I.C., F.C.S., Past President of the Society of Public Analysts, Public Analyst for the West Riding of Yorkshire, &c. Second Edition, revised and enlarged. Vol. III. Part 1. 1889. J. & A. Churchill.—Mr. Allen has earned the thanks of all chemists and of all who are interested in chemistry for his valuable, clear, and accurate book. The new edition is greatly enlarged and improved, and has to a great extent the character of a new work. So much has been added and rewritten that the first edition is quite superseded. The title, indeed, is now almost too narrow, for so many methods of manufacture and so many details of physiological and general scientific interest are included that the book is to a great extent a manual of practical organic chemistry. The present volume opens with an account of some of the more important acids and allied bodies of the aromatic series. In this part we find an excellent account of the curious body which has become so celebrated under the name of "saccharin." The complex method by which it is prepared from the toluene of coal tar, and the tests—fortunately simple and satisfactory—by which it can be identified, are described in sufficient detail. It appears that—for the present, at any rate—its addition to beer is prohibited. A long and interesting section is devoted to the tannins, and the present state of our knowledge in regard to these important but troublesome compounds is well represented. No less than twenty pages are occupied by a description of the very numerous methods for the analysis of tannin matters which have been proposed. Here, as elsewhere, we are struck by the laborious research which the author has brought to bear on the subject, and the acute criticism with which he has interspersed the bibliography. But the most remarkable feature of the book is undoubtedly the long chapter—two-thirds of the whole volume—which deals with dyes and colouring matters. The chapter is almost entirely new, and, considering the enormous development of this branch of chemical industry in the last few years, we cannot wonder that Mr. Allen is dissatisfied with his work. He modestly asks in his preface for an indulgence, which will most readily be granted towards an attempt in which perfect success was impossible. But he has collected a great mass of material, descriptive and analytical, with care and skill; his classification is sensible and simple, and his chemical details, so far as we have tested them, are accurate. As an example of good scientific writing we may mention the sections on indigo and the final chapters on the recognition and examination of colouring matters and of dyed fabrics.

The Asclepiad. Vol. VI., No. 23. By BENJAMIN WARD RICHARDSON, M.D., F.R.S. Longmans, Green, and Co.—The memoir which Dr. Richardson has given to his readers in the present issue of his instructive and entertaining quarterly is that of Edward Jenner, accompanied by an excellent autotype portrait. The memoir of this "fortunate Esculapian," as the writer terms him, opens with a reference to the controversy that has been and is being waged about his name, and tells how at Berkeley itself the name does not kindle so much enthusiasm as that of Benjamin Jetsy, who "inoculated himself and his family with cow-pox many years before any medical man touched the subject." Dr. Richardson writes impartially enough to satisfy all but those who think they have proved Jenner to be an impostor, for he neither gives way to exuberant adulation on the one hand, nor to hypercritical contempt on the other. The appearance of this essay is timely, and it may be profitably read by the wide circle of those who take an interest in vaccination and its origin. Amongst the other papers in this number there is an interesting reproduction of one upon the Subclavian Arterial Murmur, written in 1861, and now republished with the addition of experience gained in the long interval, which, however, has not led the author to modify his conclusion that the bruit in question is largely produced by pressure. The papers on the Synthesis of Disease are continued, the action of organic acids and the induction of what is termed by Dr. Richardson "synthetic somnambulism" by the inhalation of the vapour of amylene being the subjects now dealt with. Among the Opuscula Practica there is a particularly instructive note upon the value of alcohol in certain cases shortly before commencing the administration of chloroform. Absolute alcohol, diluted with water (dose four drachms to one ounce and a half), is to be preferred to ether, brandy, or wine. In Ammonia as an Antiseptic we are reminded that our author thirty years ago read a paper on the subject at the Medical Society of London. The pages of the *Asclepiad* bear witness that the same love of inquiry and the scientific ardour evinced by the writer almost a generation since are still fresh, combined with a large measure of industry and literary skill.

American Resorts, with Notes upon their Climate. By BUSHROD W. JAMES, M.D. Intended for invalids and those who desire to preserve good health in a suitable climate. Pp. 285. Philadelphia and London: F. A. Davis. 1889.—The object of this work appears to be to bring to notice the great number and variety of health resorts in America, which should render it unnecessary for Americans to seek relief, as they now do in numbers, at the watering places of France and Italy. "If we, as a people, would more generally seek health in our own sanitaria, and our medical men would encourage their patients so to do, the value of these places of retreat for health would soon be appreciated and their fame become widespread." The book appears to be more intended for the general reader and the numerous health-seekers in search of information regarding climate than for members of the profession. It contains short sketchy notices of the principal health resorts under the heads of seaside, fresh-water, and mountain resorts, the mineral springs of the United States,

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summer and winter resorts, and some very brief notes on mineral spas. From a professional point of view, the most important section of the work is the last chapter, occupying ninety-six pages, which consists of a translation of that portion of Dr. Woelkof's "Die Klimate der Erde" relating to North and South America and the Atlantic Ocean. There is also an excellent map of the United States, Canada, and Mexico. The book will probably prove useful in the direction intended by the author of bringing prominently before his countrymen the home resorts for invalids, but it does not contain much that would assist members of the profession in the selection of places to which it would be desirable to send invalids.

Algerian Hints for Tourists. By CHARLES E. FLOWER. Pp. 60. London: E. Stanford. 1889.—It would be difficult to give a more brief, clear, and correct description of this book than that of the author in his preface: "This is not an abridged guide-book; it is not a guide-book at all, but only an appendix to the guide-books. It gives no description of the places or objects to be visited, but only tells the reader what there is to see, and how to get to see it; further information it leaves to the guide-books properly so-called." It gives for Algeria exactly the information we have so often wished for but so seldom met with in our rambles both at home and abroad. We strongly recommend it to all who visit Algeria, either for a short tour or a winter's residence, feeling sure that it may save them time, temper, and expense.

Blackie's Modern Cyclopædia. (Con—Fir.)—We have received Vol. 3 of this work, which appears to be faithfully carrying out its purpose of providing a "Modern Cyclopædia of Universal Information and Handy Book of Reference on all subjects and for all readers." The first word treated in the present volume is "Cone," which is described in both its geometrical and botanical senses. The volume concludes with an account of Firdusi, the greatest epic poet of the Persians, and who produced an historical poem of 60,000 verses, containing the history of the Persian rulers up to 632 A.D. The illustrations and maps are, as usual, numerous and excellent.

New Inventions.

THE J.R.P. INSUFFLATOR.

WE have received from Messrs. Maw, Son, and Thompson an instrument designed by Mr. Philpots for use in the insufflation of suitable powders in various conditions of disease of the nose. It consists of three parts: (1) a mouth-piece, (2) a receptacle for the powder, to which is fixed (3) a flexible tube of rubber, at the end of which is attached a nozzle to be inserted in the nostril. The receptacle is composed of a chamber and a lid which screws into it; this is charged by filling the inverted lid of the box with the powder; the lid is then screwed upwards into the



body of the box, moderately tightly. When used, the lid is turned so as to bring niches on its edge in line with the tube. The nozzle is placed in the affected nostril, and a sharp puff given through the mouth-piece. When not in use, the lid is screwed tightly home, so that none of the powder can escape in the pocket. It is advised that the receptacle be refilled after the third or fourth application. It can be easily carried in the waistcoat pocket, and, if charged properly, used during the day. It is specially recommended by the inventor for use in cases of nasal catarrh or hay fever.

NEW ARTERY FORCEPS.

WE have received from Mr. E. Haines Cory a specimen of new artery forceps, which presents a novelty in the way in which it is kept closed after application to a wounded vessel. It is shaped at the end which catches the vessel much like those in ordinary use, the blades being serrated, and adapting themselves closely when apposed. The handles are so shaped that the one which may be called the lower extends with a slight curve, gradually becomes thinner, and forms a very elastic but strong spring, which meets the upper one—thicker, without spring, and altogether stronger in make—at the extremity of the half-S-shaped curve which it makes, and by a little pressure can be made to fasten on a side catch near its free end; the spring-like character of the lower blade enables it to remain on this ledge, while by its lever action it firmly closes the blades of the forceps. The whole is made of steel, and forms a light and rather elegant instrument. A little practice makes its manipulation easy; but its shape and smooth surface, without anything on which the fingers readily catch, is an objection to its employment when rapidity is of moment, and the instrument is rendered more difficult to hold in consequence of the blood from the wound both on it and the hands of the operator. It is easier to clean than the artery clamp forceps in common use, and takes up less room.

THE MAYBRICK CASE.

To the Editors of THE LANCET.

SIRS,—Mr. Bond is mistaken in attributing to me the suggestion that "some member of Mr. Maybrick's family or the nurses may have deposited the arsenic where it was found." I made no such insinuation; indeed, my thoughts pointed to another direction altogether, indicated in the evidence of the deceased's brother. I had as little sympathy as Mr. Bond with the Tichborne and Lipski hysterics; but those agitations were of a different character from the Maybrick controversy. I know nothing as to the innocence or guilt of the accused, but I do know that Mrs. Maybrick was found guilty "on suspicion." There was positively no evidence that she administered arsenic to her husband, and the Home Secretary distinctly states that the evidence did not "wholly exclude a reasonable doubt whether his death was in fact caused by the administration of arsenic."

In reply to Dr. Kirk, I may say that I overlooked nothing in my comparison between the Madeline Smith and Maybrick trials. The evidence on every point was very much stronger against Miss Smith than that against Mrs. Maybrick. But a study of the reports of these two famous trials will show the different treatment of the cases and of the evidence by the judge as well as by the jury. It is for the prosecution to prove the guilt of an accused, not for the accused to prove his or her innocence, which latter is often utterly impossible, even to the guiltless. It is ungenerous to contend that Mr. Matthews yielded to ignorant and unthinking clamour. After an exhaustive and impartial inquiry he remitted the capital sentence on grounds which will consistently involve the future liberation of the prisoner, an issue I have strong hope of yet witnessing.

I am, Sirs, your obedient servant,

London, Sept. 21st, 1889. NORMAN KERR.

THE REGENT'S CANAL.—At the last meeting of the St. Pancras Sanitary Committee the general insanitary condition of the Regent's Canal was considered. Dr. Smith said that, although the nuisance arising from the canal this summer had not been so great as in former years, owing to the spell of hot weather being of shorter duration, the bed of the canal was in a most insanitary condition, and it was a question whether they should not compel the Company to clean out the canal. Whenever a barge passed through, it stirred up the filth at the bottom. It was decided that the London County Council be requested to take action.

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THE LANCET.

LONDON: SATURDAY, SEPTEMBER 28, 1889.

THE managers of the Metropolitan Asylums Board, at their meeting held on Saturday last, received a letter from the Local Government Board, directing attention to the increased powers which London possessed for dealing with cases of infectious disease. These powers are now very considerable. London has at length acquired compulsory notification of infectious disease, and although we have felt it our duty to protest against certain provisions in this Act, we none the less desire that it may accomplish its object and prove itself of service to the community. We are convinced that it will meet with no opposition from the profession, but, as law-abiding citizens, all will endeavour to carry out the duties imposed upon them. Some difficulties, however, may arise which are due to the construction of the Act. Medical men are expected to forward a certificate in respect of every case of infectious disease under their care to the medical officer of health of the district in which the patient resides. We fear the cases will be very numerous in which neither patient nor doctor will know in which parish the house is situated. Doubtless in some cases where the sufferer is but a lodger, the landlord will know to whom he pays the rates; but the landlord is not always himself resident, and under these circumstances, at the very least, delay must be occasioned. We believe the more efficient method would have been for these certificates to be sent to a central office, where within a few hours they could have been sorted and despatched to their proper destinations. We hold that the London County Council would have been a more proper recipient of these certificates than the Managers of the Metropolitan Asylums Board, for the information in the hands of the former would be used in detail, by the latter only in its aggregate, and statistical returns sent every week would have answered all possible requirements of the hospital-providing authority. As it is, the one central authority which, having the services of a medical officer of health, can watch over the health of London in respect of the whole area would have to wait a week before tidings of a widespread epidemic, such as occurred in 1866, would reach it. This perhaps is the weakest point in the whole Act.

The Managers have, however, under the Poor-law Act of 1889, obtained powers which will be much more useful to them than that of receiving notice of cases of infectious disease. They are now authorised by statute to receive into their hospitals any person who is not a pauper, and is reasonably believed to be suffering from fever, or small-pox, or diphtheria. The expenses incurred by the managers are to be paid by the guardians of the union from which the sufferer is received, and the guardians may recover the amount of these expenses as a simple contract debt from the patient, or those liable by law to maintain him, but any expenses not so recovered are to be repaid to the guardians out of the Metropolitan Common Poor Fund.

We do not doubt that eventually the guardians will not be at the trouble to obtain any repayment from the patient. It is so easy for them to be recouped from the common fund, it is often so difficult to recover money from a private individual, it is often so hard to distinguish between those who are paupers and those who are not; and further, it is so much to the interest of the guardians not to discourage the removal of the infectious sick to hospital, that we are convinced that in a little while the total expenses will fall upon the Common Poor Fund.

The Managers may under this Act also, with the consent of the Local Government Board, purchase land adjacent to their asylums; they may use their ambulances for the conveyance of the infectious sick to and from hospitals and places other than their own asylums, and thus the admirable service which they have created becomes available for the general use of London; and lastly, their institutions may be used for the purposes of medical instruction. The Act, therefore, in increasing the powers of the Managers, has conferred great benefits on London, and Mr. RITCHIE deserves the thanks of the metropolis for adding its provisions to the statute book.

THE study of epidemiology in its wider bearings has often direct and practical result. Faithfully pursued, there is much to be learnt from this survey of the distribution of infectious disease in various regions, since it is suggestive of some of the primal conditions that underlie the causes of epidemic outbreaks. The modern tendency to refer such diseases to a specific organised virus can, without difficulty, be harmonised with the older established facts upon the geographical distribution of disease, and the climatic and other conditions which seem to play sometimes so large a part in their production. Such at least is the inference to be gained from what is, perhaps, the most recent contribution to the subject—viz., an elaborate statistical survey of the prevalence of diphtheria and croup in Prussia during the eight years 1875 to 1882, by Drs. BRUHL and JAHR, of the Imperial Health Institute of Berlin.[1] By a most elaborate and painstaking comparison of the mortality from these affections in each of the several provinces of this extensive kingdom, these authors not only show how great are the variations in such mortality, but offer an apparently reasonable explanation for these differences, based on the prevailing meteorological conditions of the localities in question. It would be obviously impossible to follow them here through the maze of statistics upon which their conclusions are founded. It must suffice simply to advert to the more striking of their conclusions, which will doubtless be utilised by subsequent epidemiologists. The highest rates of mortality from diphtheria and croup are to be found in the eastern provinces of the kingdom; the lowest in the southern and western districts. It is shown that this mortality is on an average highest among infants of one to two years—which is contrary to the generally accepted belief. Further, it appears that in Berlin and the central provinces, as well as in the west and south, which contain the most thickly populated towns, there is a lesser mortality at this early age, or under one

[1] Diphtherie und Croup im Königreich Preussen, im den Jahren 1875-1882, von D. L. Bruhl und E. Jahr. Berlin: Hirschwald. 1889.

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year of age, than in other districts. The mortality is next highest at the ages of from two to five years, and thence up to eighteen, after which it becomes comparatively low. The country yields a higher mortality than the towns; and the influence of the mortality from these causes upon the general death-rate is most marked between the ages of two to five years, for in some provinces these diseases account for nearly one-half of the whole mortality at this period of life. Such statements reveal the terrible extent to which diphtheria now prevails. It is thought to be a "modern" disease; but if this be so, it is no credit to "modern" inquiry and science that it has assumed such enormous proportions. Surely there must be a means for its subjugation yet to be found, since other infective diseases have been so markedly controlled in their extent by sanitation. The authors of this monograph do indeed indicate the lines on which diphtheria is to be met, derived from further facts which they have gleaned from their statistical studies. Thus they claim to have proved that the increase in mortality is closely allied with prevalent atmospheric conditions, the maximum mortality being in those parts of the kingdom where there is throughout the year less equability of temperature and humidity of the air. Where these two conditions are more equable, or where the air is warm and dry, there the mortality is lowest. It is remarkable, too, that the mortality from diarrhœa was higher in Prussia in those years in which the diphtherial death-rate was lowest; and that phthisis seems to prevail most in those provinces in which diphtheria occurs least, and conversely. It is shown that in Berlin the humidity of the atmosphere is greater in January than in July, and the difference in this respect between the air of a dwelling and the external atmosphere is correspondingly more marked in the ormer month, which is also characterised by a far higher mortality from diphtheria and croup (the difference being greater the younger the child), than in the latter month.

Hence the conclusion is made that a primary factor in the individual liability to the diphtheritic poison or in favouring its development is to be found in the change from an environment which allows of a relatively lessened exhalation of water to one which demands a greatly increased withdrawal of water from the respiratory tract. Such a condition is to be found in the difference in winter between the dry overheated air of dwelling-rooms and the external humid atmosphere; and in summer, the converse condition, if the rooms be not well ventilated. The inference is that far more attention should be paid to ventilation, even of the best houses, than is at present bestowed on them; and the authors comment especially in this respect upon the ventilation of sleeping apartments and schoolrooms. By a similar reasoning—which we regret to have to curtail so much—they commend the advice given by OERTEL to apply disinfectant sprays to the diphtheritic throat rather than more forcible local measures of treatment. They regard it of the first importance to maintain the mucous membrane in a thoroughly moistened condition, and consider that this is best attained by means of medicated steam inhalations which permit of being condensed on the lining of the throat. Thus, it is hoped, will the local conditions be less favourable for the growth of the diphtheritic organisms, and a greater opportunity given for the penetration of the mucous membrane by the germicidal agent.

THE value of resident appointments in our large hospitals is justly appreciated by the younger members of the profession. Gladly do they undertake the work, with all its inevitable discomforts and fatigue, and with full knowledge of the risks they incur in the discharge of their duty. They are expected to be at their post at all hours of day or night, ready to cope with all emergencies; and, independently of this, they have arduous duties in their wards, calling for the utmost devotion and self-sacrifice. Their rest may be disturbed by police cases, calling for the utmost caution to avoid errors of diagnosis or judgment, which would almost certainly be followed by all the vexation of a verdict with a rider which might damage the reputation of the institution as well as reflect upon the individual. They may be called up in the dead of night to deal with secondary hæmorrhage or other difficulties arising among the in-patients under their charge, and yet with all these distractions they have to preserve their steadiness of eye and hand to be ready to help in the operating-room, as well as to cultivate the *suaviter in modo* which is so emphatically demanded in all dealings with the sick and with their friends. These requirements are sufficiently onerous, and, we repeat, we believe they are fully realised and worthily fulfilled by the numerous band of young men, to whom so much responsibility is committed only after a long period of probation in ward work, and a careful estimation of their character by the hospital staff. The appointments are valuable, and they are valued. The opportunities for study and for the growth of experience are very rarely, if ever, neglected. It is in no spirit of lack of sympathy that, in view of charges of "hospital neglect" that are every now and then published in the lay press, we venture to address certain admonitory words to those who are so efficiently performing valuable work in alleviating distress and in securing the welfare of those committed to their charge. It is to be feared, however, that occasionally the *suaviter in modo* is somewhat overlooked—not intentionally, doubtless, but merely in the hurry and rush of their official work. Patients prove irritating with their appeals for admission, regardless of the assurance that all the beds are full. The difficulty of satisfying everybody when the necessities of the case require disappointment for many is obvious, still there is a way of conveying even the most unwelcome facts so that they seem perfectly gracious acts of concession. This relationship to the outside public, this task of selection and elimination, is precisely the point upon which, we fear, more attention and more tact are requisite. We are fully alive to the frequency with which wholly unsuitable cases are sent up—a frequency which almost forms a special class which might be termed "subscribers' cases," characterised more by an ardent desire to dispense charity than by a full appreciation of their suitability for treatment. Many cases are thus sent to hospitals, and by their triviality almost challenge brusque treatment; but, after all, the fault is merely the result of well-meaning ignorance of regulations or of an imperfect acquaintance with the true nature of the disease. In

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rejecting such cases, signs of irritation in manner or in words are but too likely to alienate the good opinion of a valuable annual subscriber, as well as to cause disquieting general reflections upon the character of the individual. We repeat that we believe these errors of judgment to be quite exceptional; indeed, they may be, from one point of view, regarded as almost non-existent. It is highly probable that, the case once sent off with a few curt words, the whole incident is speedily lost sight of; it may merely be remembered for a few days as an absurd attempt to gain admission which was successfully repelled; but the mode, the manner, the tone—all these are forgotten, or rather they are remembered only by the friends of the patient, or by the charitable people who may come with him, and who bear away hasty and erroneous impressions of the treatment in hospitals, which they are not likely to keep to themselves. The possibility of thus unwittingly injuring the credit of their hospital during their short tenure of office might well be borne in mind by all who are thus brought into contact with the outside world. A hospital lives upon the good opinion of its friends and subscribers, which may be subverted by lack of care in dealing with people who are never truly patients of the hospital. All the wealth of kindliness and devotion should not be concentrated upon the sick in the wards; some of it should be dealt out to the far larger class who seek admission in vain.

A VERY important point in connexion with the isolation of infectious diseases is referred to in Dr. J. MACLINTOCK'S Annual Report on the Health of the Borough of Bradford. The Corporation have for some time past been desirous of erecting a separate hospital for small-pox; and, acting on the advice of the Royal Commission on Small-pox and Fever Hospitals, which advice has been emphasised by the occurrences which marked the Sheffield small-pox epidemic of 1887, it is explained that great care was taken in devising a method of dealing with the contaminated air of the wards so as to render it inactive in spreading the disease. The plans were then laid before the Local Government Board, who, it is stated, "declined to assume any responsibility in connexion with them, or to offer any suggestion calculated to assist." This attitude is one which it is certainly difficult to understand, and this the more since the Royal Commission which recommended the method of construction at which the Corporation of Bradford seem to have aimed was actually appointed at the instigation of the Local Government Board. And not only so, but amongst the subjects referred to them for report were: "The expediency of continuing the several existing small-pox.....hospitals.....; or, if it be considered desirable that they should be closed, the accommodation for small-pox.....cases which should be substituted"; and also, "The general conditions and limitations which should be observed in the case of the establishment of new hospitals whether by the managers, *or any other authority*, so as to insure, as far as practicable.....the protection of the public against contagion." It is true that primarily the work of the Commission related to the metropolis, but it can hardly be contended, in view of the words we have italicised, and of the results of the Sheffield epidemic, that the principles enunciated in the report hold good for one single large town to the exclusion of others.

The Bradford Corporation appear to have been altogether taken aback by the attitude assumed by the Central Authority, and it is stated that they pointed out that it was unreasonable to expect Bradford to undertake a costly experiment on behalf of the whole nation, and that since the department which constituted the head of the public sanitary service could not give local authorities the necessary information as to how they should proceed in this matter, it was their duty to find out a solution of the difficulty. The subject can hardly fail before long to be a pressing one; indeed, Dr. MACLINTOCK aptly remarks that the difficulty is not one for Bradford alone, since "other towns are beginning to feel the need of small-pox hospitals." It seems, therefore, clear that the Local Government Board, who in the past have rendered signal service to sanitary science by other investigations which they have made in the interests of public health, and for preventing the spread of infection, "ought to put themselves in such a position as to be able to advise sanitary authorities upon this important subject."

One other aspect of the question deserves notice. There is just a possibility that the Local Government Board have become so alive to the danger attaching to small-pox hospitals, and at the same time so convinced as to the efficacy, as a preventive of small-pox, of vaccination universally performed at infancy and repeated later on in life, after the manner laid down in the report of the German Vaccination Commission, that they have decided to take no further responsibility in the construction of small-pox hospitals, but intend to use the whole weight of their influence in the direction of the alternative means of prevention. But if this be so, it would be a distinct public advantage if their determination to that effect were made known as soon as practicable.

Annotations.

"Ne quid nimis."

THE ADMINISTRATION OF INFECTIOUS HOSPITALS.

SOME serious allegations have been made or implied against the sanitary administration of the Solihull rural isolation hospital on account of the occurrence of three cases of scarlatina in a row of cottages, to one of which a child had a week previously been returned as a convalescent from the sanitary authority's hospital. The allegations appear to have been based on an error as to the disinfection of the child's clothing, and had also in part to do with some question of partial desquamation about the child's foot. The story is altogether uninteresting, and we think that the imputations were in no way sustained; and this the more because ample opportunities for contracting scarlatina unfortunately exist at this time in and about Birmingham. But the occurrence is of importance as showing how essential it is for sanitary authorities so to organise and administer their infectious hospitals that they may be able to refute all allegations of this sort. For if the public are once led to believe that isolation hospitals fail to prevent the spread of disease, whether by reason of faulty administration, imperfect appliances, or otherwise, they will be

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much less ready than they now are to assent to that form of isolation which is so necessary in the interests of public health.

THE WEST-END FEVER OUTBREAK.

ACCORDING to Dr. Corfield's last report, the cause of the outbreak of enteric fever at the West-end remains undiscovered—that is to say, its connexion with any special milk service cannot be definitely shown to have taken place. The difficulties inherent in such an inquiry in the metropolis are admittedly very great; and in connexion with this Dr. Corfield mentions that one firm of contractors, whose milk service was apparently included in the investigation he made, obtain their supply from about sixty different farms in different parts of the country. The bad smells which prevailed in several districts of London during, and subsequently to, the period of the outbreak call for the application of every possible remedy; but it is not at all probable that they were the cause of the somewhat sudden occurrence of enteric fever which simultaneously attacked a number of people in St. George's, Hanover-square, and other neighbouring London districts. In St. George's the outbreak only resulted in two deaths; but the whole story of the prevalence over the entire area affected has not yet been put together.

TECHNICAL EDUCATION.

IT is curious to notice how on every hand the demand for technical education is rising from advocates who have little or nothing in common except the formula which they all with one consent employ. On the one hand are those persons—ill advised persons, as we think—whose scheme resolves itself substantially into the substitution of the secondary school for the workshop as a place of instruction in the "mysteries" of the various forms of craftsmanship. In our own country they have not succeeded in producing much impression. The superiority of the workshop as a place of practical instruction is too pronounced to be overlooked. But in India we gather that they are more influential. At the National Indian Congress recently held at Allahabad a resolution on this subject was unanimously adopted, of which the drift and meaning was that India is not able to develop manufactures by the spontaneous operation of private enterprise, and that therefore it is the duty of the Government to open up an industrial future to its impoverished population by diffusing technical instruction in the industrial arts by means of technical schools. It may well be that in the case of a population like that of India, accustomed for centuries past to depend upon its Government for many things which more independent populations accomplish for themselves, it would be wise to apply principles different from those which would be applicable to our own case in the discussion of this question. But it seems impossible to suppose that technical instruction of this kind could possibly be given with any advantage in a State-supported school. Who would pay any attention to the instruction when no factory or other place where it could be turned to practical advantage existed within a hundred miles of the locality where the school existed? The cure for industrial inefficiency is to be found in the creation of factories, and not of schools, and factories can be better founded by private than by public enterprise. On the other hand, the advocates of a system of technical instruction which is to supplement, but not to supersede, the workshop have among ourselves secured a notable success in the passage of the Technical Instruction Act of the past session. It is quite true that this Act only empowers local authorities to act, and therefore it will not be automatic in its operation. But i will probably be set in motion here and there, and if it gets only slowly and gradually to work, so much the better. Corrections and improvements can be the more easily applied as its operation proceeds. The point of greatest importance, and one which it is a real and great gain to have made good, is that while the rate which the local authority is authorised to levy is to be expended in the teaching of the principles of science and art in their application to specific industries, it is not to be expended upon the actual teaching of the practice of any trade, industry, or employment. The distinction is all important. If the definition serves its purpose and is duly observed in practice, it will accomplish a great good both directly and indirectly. Directly because it will properly apportion between the school and the workshop those parts of a youth's education which they are respectively adapted to advance, and indirectly because it will open the eyes of the public to the importance of theoretical acquaintance with the principles of science on the part of the practitioners of any useful art.

THIRIAR ON VENTRO-FIXATION OF THE UTERUS.

DR. THIRIAR publishes in *La Clinique* an instructive clinical lecture delivered to his class at the Hôpital St. Jean, Brussels, on Ventro-fixation for Prolapsus Uteri. The term he proposes to use for the operation is "hysteropexy," from ὑστερον (the uterus) and πηξις (fixation). The condition of the patient, an elderly woman, who had been suffering from complete prolapsus for the last eight years, was such as to render all exploratory and operative procedures per vaginam difficult in the extreme, as she had ankylosis of the left hip, the thigh being fixed in an adducted position. There was a good deal of pain, and the uterus was visible on the outside of the vulva even when the patient was lying down. Pessaries had been tried, but were productive of no benefit. Under these circumstances it was determined to perform hysteropexy. The abdomen was opened in the linea alba between the symphysis and the umbilicus, and the uterus drawn forwards and fixed to the lips of the wound by three points of strong catgut suture, an iodoform dressing being subsequently applied, which was renewed in a week's time. Seventeen days from the time of operation the wound was healed, and the uterus could be felt high up and firmly fixed, so that the patient might be considered cured. She was, however, kept in bed for three weeks longer, when the uterus, being still firmly fixed, she was allowed to get up. Unfortunately, a fortnight later the prolapsus returned, but no pain or dragging was felt. The only thing to be done was to give her a cup pessary and to discharge her as incurable. In his remarks upon the case Dr. Thiriar points out that the operation is a new one, and a good deal more experience is needed to determine the best method of performing it. He does not think Caneva's plan of cutting down to the peritoneum and suturing the parietal and visceral layers of peritoneum together a particularly practical one, as it prevents exploration for adhesions and removal of uterine appendages if necessary. The plan adopted in this case was that of Leopold, except that catgut was substituted for silk, and no scraping of the epithelial layer of the peritoneum for the purpose of assisting the formation of adhesions was practised. The difficulty of fixing the uterus permanently to the abdominal wall is considerable. Müller of Berne, who amputates the uterus and sutures the stump to the lips of the abdominal wound, has found the adhesions break down and the prolapsus recur. Altogether Dr. Thiriar is not disposed to view hysteropexy with much favour—at all events when performed by itself,—though he thinks there may be cases where the prolapsus is accompanied by hypertrophic elongation of the cervix by rectocele or cystocele, where, as an adjunct to some other

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operative measure, it may prove of value. He suggests that the chances of obtaining a permanent adhesion between the abdominal wall and the uterus would be increased by treating the uterus as Juffier treats the floating kidney—i.e., by peeling off the peritoneum from a considerable surface, which is then sutured to the abdominal wall. A lesson which this case teaches is not to be in too great a hurry to publish results. Had this case been published four or five weeks after the operation, hysteropexy would have been credited with a success which would have been entirely unwarranted.

MEDICAL FEES IN LIFE ASSURANCE.

A LETTER which we publish on another page gives expression to the annoyance and disappointment which are constantly arising to medical practitioners from the want of some well-understood practice on the part of the life assurance companies in the matter of their fees for the medical examination of proposed lives. In the case of a policy for a good round sum it is only natural that the companies should insist upon an exact and careful, even an elaborate, examination. In these cases there is rarely any difficulty. The office readily pays a fee of a guinea, or sometimes of two guineas, and the medical examiner furnishes a carefully prepared, detailed report. But it frequently happens that where the policy is to be effected for a small amount only, and the premium will not bear the cost of a guinea fee, a form is sent identical with the form used in the former case. The medical examiner is instructed to make an examination just as searching, and to furnish details just as minute, as for the largest risk that the company would be prepared to undertake, and only learns when his fee is sent down from London, perhaps, or Edinburgh, that the assurance is for a small amount, and that he accordingly is expected to accept half a guinea for his honorarium. This strikes us as being very unfair. It is not unreasonable that where the transaction is a small one the office should seek to economise in the matter of its medical fees, and there are abundant facilities for getting a medical examination made for half-a-guinea. The existing conditions of medical practice secure this advantage to the Life offices. But it is only fair that in such a case the company should be content with a report somewhat less painstaking than what they are accustomed to pay a guinea for, and that when the transaction is of this kind the medical man should be frankly told so at the first, that he may be under no misapprehension as to the terms of the contract under which he does the work required.

TRANSMISSION OF MICROBES TO THE FŒTUS.

THE question of the possibility of the direct transference of the virus of infective diseases from the maternal to the fœtal organism has, since the recognition of the apparent dependence of such diseases upon the presence of microbes, given rise to more than one series of experiments and some interesting clinical and pathological observations. Amongst the latter is a case recorded by Eberth (*Fortsch. d. Medizin*, 1889, No. 5), in which the possibility of such transmission of the typhoid bacillus was raised. It was the case of a young woman, who, in the third week of an attack of typhoid fever, aborted at the fifth month. The fœtus was expelled within its membranes intact, and macroscopically appeared normal; but in the blood, and in fluid expressed from the spleen and lungs of the fœtus, there were found typhoid bacilli (recognised microscopically and by cultivation), which also occurred in the intervillous spaces of the placenta. Drs. Eug. Fraenkel and F. Kiderlen (ibid., No. 17) record a very similar case, in which, however, the abortion (also at the fifth month), though occurring in the third week of an attack of typhoid, was associated with acute peritonitis, found to be due to an ovarian abscess and double salpingitis. The placenta, fœtal blood, and spleen were examined for typhoid bacilli, but with a negative result. On the other hand, cultures of staphylococcus pyogenes were obtained from the spleen. This case harmonised with some others where there was a similar absence of the typhoid organism in the fœtus; but it is pointed out that in all these cases the placenta was normal. It would seem (as in Eberth's case) that the placenta must be diseased for such transference of pathogenic organisms to take place, and the occurrence of hæmorrhage in the placenta appears to be a favourable condition for the transference. In this case, however, although typhoid bacilli were not transmitted, septic organisms were derived doubtless from the suppurating foci in the mother, and probably caused the death of the fœtus from septic infection. Fraenkel about two years ago injected subcutaneously cultures of the bacillus typhosus into three guinea-pigs. Two of them died in three days. They were both pregnant, and the fœtal part of the placenta was found to be hæmorrhagic. The placenta and the fœtuses yielded abundance of the microbes. There have been other and contradictory observations on this subject of the transmission of microbes from mother to fœtus; some asserting it to be usual, others that it requires special favouring conditions. Netter found pneumonococci derived from the mother in a seven-months fœtus; Tizzoni and Caltani found comma bacilli in the blood and serum of a five-months fœtus. The observations are, however, too scanty to permit as yet of the formulation of any definite notions on the subject.

IDIOT AND IMBECILE YOUTH IN GERMANY.

THE conference lately held at Brunswick on the best mode of treating these unfortunates was the sixth of the series, and, like its predecessors, evoked much interesting and reassuring fact. Dr. Sengelmann of Hamburg drew attention to the circumstance that in 1839 Germany had but one asylum for the idiot young; now she has forty-two such institutions, which up to date have had under care and treatment, mental and physical, 16,000 patients. The working staff of these asylums numbers 1200, under whose charge 2400 idiots are now undergoing instruction, while 1850 are being usefully employed, and 1700 are tended merely. Much having been done in their behalf, more yet remains to do—there being multitudes of idiots, particularly in the country, who are harboured in the workhouses, to their own misfortune and that of the other inmates. Germany, indeed, contains 50,000 idiots and imbeciles. For these latter a model institution exists at Brunswick, well worth a visit on the part of all among ourselves who are interested in this department of State medicine. One of its teaching staff, Dr. Kielhorn, led up to an interesting discussion by a paper on the "Imbecile Man in Public Life." He maintained: 1st, that the imbecile child requires a careful schooling, apart from the mentally sound child; 2nd, that the imbecile adult demands in public life special consideration and surveillance; 3rd, that the imbecile man is entitled, in the administration of justice, to exceptional indulgence; and 4th, that he is incapable of military service. As to the first of these positions, Dr. Kielhorn contended that for the effective schooling of the imbecile child its duration should be till the completion of the sixteenth year, the last two years (fourteen to sixteen) including tuition in a specially appointed testing or supplementary school, for which object the present number of such institutions should be adequately increased, with power to add the appliances and resources which educators of the imbecile find necessary. The conference finally resolved on the appointment of a committee to

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consider the whole subject as evolved by Dr. Kielhorn, and to formulate the practical suggestions at which it arrived. This committee is to be composed of medical men, lawyers, schoolmasters, and clergymen, and its report will be read before the next conference, which is to meet in 1892 in Berlin.

THE MIASMATIC THEORY OF ACUTE RHEUMATISM.

To most practitioners acute rheumatism must appear essentially a personal or constitutional ailment, occurring most readily under certain unfavourable conditions, such as fatigue, exposure, depression, with wet or cold weather. There is a disposition, however, among some physicians to regard it as dependent essentially on miasmatic conditions. One of the latest expositions of this view is to be found in a paper read before the German Medical Society of New York by Dr. Leonard Weber, and contained in the *New York Medical Record* of Aug. 31st. Dr. Weber considers it nearly proved by the labours of Immermann, Edlefsen, Friedländer, and their pupils, that what he calls inflammatory rheumatism, and what is generally termed acute rheumatism, is not produced by taking cold—i.e., refrigeration of the heated surface of the body; but that it belongs to the class of miasmatic infectious diseases assuming an epidemic-like character at certain times, in so far as we are apt to see a larger number of cases when there is decreasing rain and moisture, while with an increase of the same the number of cases is diminished. Among other points he considers as nearly proved that rheumatism is also a house disease, the subsoil of houses in certain locations being infiltrated with the virus, which, after prolonged dryness, may be set free by the air currents carried into the apartments. In masked forms of rheumatism there may be an absence of one or other of the main symptoms and of the polyarthritis. Neuralgia of the trigeminal, sciatic, spinal accessory, or other nerves, with slight febrile movement, may be of a rheumatic nature, and yield to alkaline and salicylate treatment after other remedies have failed. Dr. Weber says that his records show that the greater number of his cases of polyarthritis rheumatica occurred in February and March, and again in the hot and dry summer months. We do not commit ourselves to the theory of the miasmatic or external origin of acute rheumatism. By the way, Dr. Weber does scant justice to our own countryman, Dr. Maclagan, who must be chiefly credited with this theory, which, indeed, led him to the use of salicin. We incline strongly to the personal and constitutional theory of its origin. But it is well to keep all well-argued theories in view. It is satisfactory to note that Dr. Weber regards the salicylate of soda, which he gives generally with the bicarbonate, as standing in the foremost rank of valuable drugs with which modern chemistry has presented us.

CASUALTIES AT SEA.

THE annual report upon casualties at sea contains a great body of extremely useful and interesting information on the subject with which it deals; but notwithstanding the copious statistics which it furnishes and the elaborate manner in which these statistics are tabulated, we are quite unable to collect from it what, if given, would be the most interesting information of all—namely, the extent to which life-saving appliances were brought into use and the efficiency which they exhibited under trial. The session which has recently closed has registered another disappointment to those who have been looking for some positive and practical outcome to the deliberations of the committee which have been considering this important question at the Board of Trade. So long ago as June last it was publicly stated that the committee had prepared their report; and if anything were wanted to rebuke delay in its production it would be furnished by the appearance in regular course of the long tale of fatalities which contributes the most painfully interesting chapter to Mr. Gray's somewhat dry record. Its production during the recess will not be nearly so effectual for good as its more timely production would have been while Parliament was in session, and although we ought, perhaps, to be grateful for such results as we do realise, it is not without some feeling of disappointment that we record the inability of the Board of Trade to take immediate or effective measures to enforce the adoption by shipowners of the best available means of affording to the passengers and crews whose lives are committed to their care the utmost security which life-protecting apparatus can secure. This is eminently a case in which the work of the department, to be truly effective, must be supported by a body of intelligent public opinion, and it is, therefore, much to be regretted that the sources of public information should not be more numerous than they are, and that, such as they are, they should not be made available to the fullest extent by well-timed publication.

DEATHS FROM HYDROPHOBIA.

A GIRL aged thirteen years died on the 20th inst., in St. Thomas's Hospital, from hydrophobia. She had been bitten in the lower lip two months ago by a strange terrier dog, by which also her father and brother were bitten. The dog was taken to the Dogs' Home, where it was destroyed. No post-mortem examination was held, but it was said not to suffer from rabies. For several days before the definite onset of the symptoms the child was melancholy and moping. On the evening of the 17th she had a catching in the breath when she attempted to drink, and was taken to the hospital at 2 A.M. on the following morning. She appeared wild, and looked suspiciously at everyone. She was able to swallow water, but with a slight choking feeling; at times, when water was offered, she had a kind of "sobbing catch" in her breath. She did not mind running water or cold air. The organs were apparently normal. At noon she could not swallow any liquid at all; even the sight of it caused a spasmodic contraction of the muscles of deglutition and respiration. There was much frontal headache. She was restless and unable to sleep. On the following day, the 19th, she was still more restless, and excited by the slightest sound. The spasmodic contraction of the pharyngeal and respiratory muscles came on every few minutes; they were induced by a touch, the sight of water, or a breath of cold air. The lips and tongue became brown, and the temperature rose to 100°. In the evening she was delirious at times, but rational when spoken to, and the difficulty in swallowing was less. On the 20th the convulsive fits were severe and frequent, the head flexed and fixed, the respiratory muscles and muscles of deglutition were fixed tonically for a few seconds, then clonically for about half a minute. The back was rigid, but without opisthotonos. She was very exhausted after the fits, and several times seemed on the point of suffocation. Morphia was given subcutaneously, also chloral hydrate by the rectum, and chloroform administered for twenty minutes before death, which occurred about 10 P.M. At the post-mortem examination the lungs were congested, but there was no other sign of disease.

Another death is reported as having occurred in the London Hospital. Last May, Mark Allen, aged fifty-seven, a painter, living at Henwood Side, Chigwell, was bitten by a retriever dog. He experienced no inconvenience until a few days ago, when symptoms of hydrophobia were observed. On the 23rd inst. he was taken to the London Hospital, evidently in the last stage of the terrible disease, and he died the next morning.

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SIGNALMEN'S HOURS.

OF all occupations, none, perhaps, has been more vexed by the evil of overwork than that of railway service. In its different departments the same excess prevails. Guards, drivers, signalmen are in equal difficulty, and we need not therefore be surprised that a representative committee of the latter class in Birmingham have protested against a system which they feel to be oppressive, and which public opinion as a whole consistently disapproves. If some of the proposals contained in this protest appear to ask for a too radical change in the existing order of things, it must also be remembered that the abuses to be amended have been highly aggravated. According to the new arrangement six days will constitute a working week, eight hours a working day on main lines and in busy shunting yards, ten hours on branch lines and sidings, while pay will range from four to five shillings per day, except in the London district, for which a special tariff is to be fixed. A good deal might be said in favour of each of these projected changes. The first, however, has a somewhat Utopian aspect if we are to assume that it contemplates a cessation of Sunday labour in the signal-box. Such work as this is a constant necessity, and capable at best of reduction only. An eight hours' day is the desideratum of a great many, if not of all workmen. On some busy lines where traffic is nearly incessant, it would not be too short a period. As a rule, we should probably best adapt the exigencies of business to the worker's power of endurance by allowing nine hours as the normal term of service. In comparison with far longer periods of nearly continuous duty with which we have hitherto been only too familiar, it suggests a state almost of positive leisure. Whichever limit is finally agreed upon, it is most desirable that the present unsparing exaction of time and energy should come to an end. We must congratulate the Birmingham committee on their laudable desire to avoid an appeal to Parliament. Special Bills have their advantages, no doubt, but such matters as the regulation of labour are far better settled, if possible, by those concerned on a basis of common interests and necessities.

THE PROPHYLAXIS OF TUBERCULOSIS IN BAVARIA.

AT the instance of the Bavarian Home Office, the Ober-Medicinal Ausschuss (Superior Medical Committee), with Prof. Bollinger as its reporter, has just pronounced on the theory of Dr. Cornet of Berlin as to the spread of tuberculosis, and the best means of checking it. To Dr. Cornet's method and findings it has no exception to take, indicating as they do the danger proceeding from the pulverised sputum of the phthisical, a danger recognised by the profession ever since the discovery of the tubercle bacillus. What the committee objects to in Dr. Cornet's view is his entirely ignoring the influence of heredity and predisposition as factors in producing or inducing the disease. He goes so far as to stigmatise with the epithet "unselige" (fatal) the doctrine (practically and theoretically well founded) of an innate and inherited tendency to tuberculosis. The committee, in answer to the Home Minister's question, whether Dr. Cornet's results would warrant him in accepting these as the basis of practical measures for arresting the diffusion of the malady, remarks that Dr. Cornet's deduction involves an extremely optimistic standpoint, and that it cannot assent to his dictum that "the prophylaxis of tuberculosis attains its end with the simplest means imaginable." Measures of State for the prevention of the disease must await the solution of the problem whether in the genesis of tuberculosis contagious infection or inherited tendency plays the chief part. Dr. Bollinger, before an audience of the first Upper Bavarian Medical Diet recently proposed that the State prisons, in which the mortality from tuberculosis averages from 38 to 60 per cent., should be utilised for the experimental determination of the difficulty. With this view a prison should be repeatedly cleansed and disinfected as if it harboured plague or small-pox. Every case, moreover, of tuberculosis occurring in it should be isolated, or, better still, cleared out. The reduction, or disappearance in these circumstances of the tuberculous cases would prove that infection proceeding from the phthisical or from the infected locality played the chief part, and that inherited tendency was the less important factor. The committee concludes that the Home Office should institute the investigation thus recommended, and, considering the importance of the matter, should provide the necessary grant without delay. Meanwhile, our readers may be reminded that Dr. Cornet, with a dust suspected to be tuberculous, obtained by scrubbing a wall of from one to two square metres with a sterilised sponge, infected 392 porpoises, and that of these 196 shortly thereafter died under acute septic and purulent attacks, while the survivors remained partly unaffected, partly tuberculous—the latter dying in from thirty-eight to fifty days after infection. The whole subject, indeed, is agitating the profession in Bavaria to its depths, and the medical societies which meet during the second half of October have received from the Home Office a mandate to discuss the criticism passed by the Upper Medical Committee on the practical application of Dr. Cornet's views.

THE NEW PHARMACOPŒIA GERMANICA.

NEXT month the Reichs-Pharmacopöie Commission (Imperial Pharmacopœia Commission) meets in Berlin to frame a new (that is, the third) edition of the Pharmacopœia Germanica, so as to have the work completed for 1890. The scientific discoveries or inventions, and the practical experiences made known in materia medica since the publication of the second edition, will in this forthcoming one be incorporated, and rendered available. At the same time, it will not undertake, any more than its predecessors, to set forth all those remedial agents which individual German physicians have prescribed and apothecaries have made up. In the preparation of these remedies the most diverse rules and prescriptions have been followed, resulting in inconveniences and errors, sometimes serious to the public and compromising to the profession. To obviate or minimise this confusion, the German *Apotheker-Verein* (Society of Apothecaries) has resolved to issue a supplement (*Ergänzungsbuch*) to the forthcoming Pharmacopœia, which shall deal with all the remedies not given in the official dispensatories, and put the prescriber *au courant* with the latest and most accredited additions to his resources, both as to chemical quality and preparation. The profits accruing to the Society from the sale of this supplement will, it announces, be devoted to a philanthropic purpose.

FALSE TASTE IN DRESS.

As was to be expected, a paper lately read before the British Association by Mrs. Carmichael Stopes on "Errors in Women's Dress" was warmly received, and formed the starting point of an animated discussion. In this article the fallacies approved by women in regard to dress were divided into two classes: those which merely infringed the laws of art, convenience, or sense, and those which left their mark in permanent injury. The former division comprised a host of ungainly fashions and so-called improvers as crinolines, lengthy trains, tight sleeves, and the like, the latter such mischievous devices as the high heel and the tight corset. As a consequence of their use healthy exercise and even free movement were, said Mrs. Stopes, impossible, uncleanliness and infection clung to the trailing

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skirts, walking on high heels became a mitigated hobble and strained the whole body, and grace, when enclosed in whalebone, a synonym of perverted development and consequent ill-health in which posterity claimed a share. In the discussion which followed, the practice of tight lacing received a principal share of attention. There were several avowed champions of the corset, evidently more or less under the impression that the dangers of tight lacing had been exaggerated. The balance of medical opinion of course supported an opposite view, and this was fortified by the president's experience of injury done to the viscera, and actually traceable to persistence in this disfiguring custom. Such questions as this are not of a kind to be settled in the course of a few academic discussions. The clue to their true method of solution was suggested by the lecturer when she referred to a pernicious dress custom as a falsification of truth. It is the dislike to simplicity, the hankering after showy, though false, ideals, which are mainly accountable for the patience of women under the deforming yoke of fashion. Their emancipation, therefore, cannot be the work of a day. It will not be brought about by the warnings of experience alone. The process of training must go deeper, and act on taste by affecting the moral sense on which it is moulded.

UTERINE TUBERCULOSIS.

AN interesting case of primary tubercular disease of the Fallopian tubes has occurred in Professor Lebedeff's wards. The patient, who was the widow of a man who had died of phthisis, was of a cachectic appearance and suffered from amenorrhœa. On examination, a firm, nodulated, intra-abdominal tumour was made out, situate in the space of Douglas. An attempt was made to remove the tumour, but had to be given up as disseminated miliary tubercle was found affecting the peritoneum. The intestines and the uterine appendages too were all matted together. Six weeks after the attempted operation the patient died with symptoms of general tuberculosis. At the post-mortem examination miliary tuberculosis was found affecting the peritoneum, the lungs, the pleuræ, the colon, and the mucous membrane of the uterus. Both the Fallopian tubes were dilated and filled with pus, the epithelium in parts being absent. The intensity of the destructive process was greatest in the tubes, and became less marked towards the periphery. In sections, tubercle bacilli were found; there was no tuberculosis, however, in the ovaries, and only the mucous membrane of the uterus was affected.

THE SUFFOLK GENERAL HOSPITAL.

WE much regret to learn that the affairs of the Suffolk General Hospital at Bury St. Edmunds have again assumed a critical phase; and the three members of the medical staff have once more sent in their resignations. It may be recalled that about six months ago a proposition to increase the staff did not meet with the approval of the present members, who saw no necessity for it; and that after two animated meetings it was decided to postpone the question for twelve months. Some of the governors do not seem to have been satisfied with this, and on the 17th inst. a meeting was held on the requisition of five governors to consider the bye-laws which dealt especially with the medical staff in its relation to the government of the hospital and also with the constitution of the staff. The medical men absented themselves from the meeting, but sent a firm protest against the proposals, which, if carried, would have involved a decided subordination of the medical to the lay government. Their supporters at the meeting, too, were in a minority, and retired after failing in their endeavour to urge a more reasonable course upon the meeting. The remainder of those present, some twenty in all, proceeded to pass resolutions amending the bye-laws, and recommending the appointment of a fourth medical officer. Under these circumstances there could be no other course open to Dr. Image, Dr. McNab, and Mr. Kilner than to send in their resignations. The institution will suffer a severe blow from this singular lack of consideration for its honorary officers, and there is likely to be much further difficulty in store for it, especially when it comes to the question of filling up the vacant appointments.

ANTISEPTIC ACTION OF CHLOROFORM AND OTHER VAPOURS.

DR. SEGALL has published in the *Münchener Medicinische Wochenschrift* an account of some observations in which he has been engaged with the object of determining the amount of antiseptic action possessed by the vapour of chloroform, of formaldehyd, and of creolin. The method employed was to infect the jelly (previously liquefied) in a test-tube with the particular microbe under investigation. After the infected jelly had been allowed to solidify, a small tube containing chloroform, creolin, or a 10 per cent. solution of formaldehyd was suspended over it, so that the surface of the jelly should be exposed to the action of the vapour given off, the mouth of the test-tube being closed with a well-fitting plug of cotton wool. The greatest effect was produced by the vapour of chloroform, this being found to have a nearly equal effect on all the different bacteria experimented on, these including staphylococcus pyogenes aureus, bacillus prodigiosus, and the bacilli of pneumonia, of typhoid, of anthrax, of cholera, &c. The upper part of the jelly remained clear and free from microbes, while the deeper layers presented evidences of the existence of numbers of colonies. In the tubes containing formaldehyd, though only in a 10 per cent. solution, there was also a great difference between the superficial and deep layers; while when creolin was employed this difference was much less marked, though the antiseptic action was greater than that of the fumes of carbolic acid, which have been shown to exert no preventive action on jelly cultures of the cholera microbe.

COCAINE POISONING.

DR. VINOGRADOFF gives, in the *Ejenedélnaya Klinicheskaya Gazeta*, an account of the post-mortem examination in a well-known remarkable case of cocaine poisoning, where a young woman who was suffering from a tuberculous rectal fistula was given twenty-two grains of cocaine by means of repeated rectal injections in order to produce local anæsthesia for an operation which consisted in scraping the anterior wall of the rectum with a sharp spoon. In a quarter of an hour the patient became excited, and began to suffer from clonic spasms in the limbs, opisthotonos, and cyanosis. Death occurred from asphyxia, in spite of tracheotomy and prolonged performance of artificial respiration. At the post-mortem examination the blood was found to be fluid, and of a dark brown colour, as in cases of poisoning with chlorate of potash. There were hyperæmia of the brain and of the lungs, exudative glomerulo-nephritis, evidently of long standing, together with ulceration of the colon and rectum, reaching down to the submucous tissue. Microscopically, there was found albuminoid degeneration of the nerve cells, of the cerebrum, of the heart muscle, of the liver cells, and of the epithelium of the urinary tubules. Dr. Vinogradoff compares this with three other published cases of death from cocaine poisoning, and with cases in which large doses had been given with and without the occurrence of toxic symptoms, and shows that as much as forty-five grains have been borne without any ill effects.

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The fatal result in the foregoing case—which, it may be remembered, led to the suicide of the distinguished surgeon who operated—is to be ascribed to the increased power of absorption of the ulcerated intestinal wall, and to the retardation of the kidney secretion by the diseased condition of the glomeruli. It would therefore appear that when there is any question of giving large doses of cocaine a careful examination should be made of the condition of the kidneys, and if there is any ground for supposing them to be diseased or functionally inactive the greatest caution should be employed. It may be remembered that before operating the unfortunate surgeon asked one of his colleagues, who was a professor of therapeutics, what dose of cocaine might safely be given, the answer being, "Not more than two grains." So that the greatest diversity of opinion exists regarding the maximum dose of the drug.

SECONDARY EFFECTS OF PARENCHYMATOUS INJECTIONS AND EXPERIMENTAL PUNCTURE.

DR. DECKER reports to the *Münchener Medicinische Wochenschrift* the following two interesting cases from his clinic in Würzburg. A strong girl of twenty years of age, who had borne six previous parenchymatous injections of mercury well, presented after another injection of one-third of a grain of carbolate of mercury into the nates marked symptoms of collapse—that is to say, dyspnœa, marked cyanosis, œdema of the eyelids, small pulse, and vomiting. The same symptoms of collapse appeared in another female patient after an experimental puncture in the hepatic region, and the author believes that the same cause led in both cases to the same result—namely, traumatic excitement and consequent paralysis of the vasomotor nerves, leading to marked abdominal plethora, cerebral anæmia, irregular action of the heart, and venous congestion.

ASYLUM MANAGEMENT IN NEW ZEALAND.

A BLANK petition for presentation to the Honourable the Legislative Council of New Zealand has been sent to us which embodies many points which it is desirable should be secured in the management of asylums either for inebriates or the insane. Amongst others, the petitioners pray that medical officers should not be appointed to such institutions without having had special experience or training in this branch of medicine. The only question about such a petition is whether the prayers of it are not so obvious as to be superfluous.

TYPHOID FEVER IN BUDA PESTH.

THE text of a report of the medical officer to the city of Buda Pesth, Dr. Gebhardt, upon the prevalence of typhoid fever there, appears in the *Allg. Wiener Med. Zeitung*, Nos. 37 and 38. It appears that since August, 1888, the number of cases of this fever had risen remarkably, with the exception of April and May of the present year, reaching to as many as 647 in August, 1889, as against 337 in July and 104 in June. The total number of cases for the whole of 1888 was 1667, the deaths being 150, giving a mortality of nearly 9 per cent.; whilst during the next seven months and a half (to Aug. 15th) the cases amounted to 1404, deaths 190, or a mortality of 13·6 per cent. Dr. Gebhardt lays stress in his report upon the diffusion of the disease by means of drinking water, and calls attention to the defective sanitation of the city in respect to drainage and water supply. He closes his report by asserting that until the inhabitants will drink filtered water, and the drainage and dwellings in the city be improved, no diminution in infectious disease can be expected.

THE SOCIETY OF GERMAN PHYSICIANS AND NATURALISTS.

IN the sixty-second Congress of this Society, which, last week, concluded its sittings at Heidelberg, natural history preponderated over medicine, while both had in great measure to give place to discussions bearing on the organisation and standing rules of the Society. These, as of local, rather than of international, interest, need not be noticed further than to remark that they will immensely enhance the efficiency and authority of a Society which, as its President, Professor Quincke, showed in his opening address, had more than quadrupled its membership since its origin in 1827, and had increased its sections for special discussions from six to thirty-two! Of purely medical interest were the proceedings in the section for "Climatology and the Hygiene of the Tropics," in which that quarter of the globe as a residence for Europeans was the theme of learned and animated discussion—the question of "Malaria," its nature and origin, its prophylaxis and cure, receiving particular attention. Professor Minkowski of Strasburg enlivened the section for home-medicine (*innere Medicin*) with a report of his investigations on "Diabetes Mellitus, as a Consequence of Extirpation of the Pancreas." His deduction from these, that this grave malady must be referred to impairment of function in that viscus, was keenly debated and obtained provisional acceptance from some of the participants in the discussion.

PATHOLOGY OF SEVERE BURNS

DR. OSCAR SILBERMANN of Breslau, studying the clinical and pathological signs of the destruction of numerous red-blood corpuscles, found by his experiments: 1. That after extensive burns of the skin the red blood-corpuscles alter their form and lose their power of resistance to heat, drying, compression, and staining. 2. In consequence of these alterations numerous thromboses in the arterioles and capillaries, especially in the finer branches of the pulmonary artery, occur, leading to stasis in different organs—e.g., lungs, kidneys, stomach, bowels, liver, spleen, skin, and brain. 3. The large deviation of the pulmonary capillary circulation produces a considerable impediment to the emptying of the right heart and serious venous congestion, as well as dangerous arterial anæmia. 4. This state, coupled with the above-mentioned symptoms, leads to bleeding and parenchymatous alterations in the affected organs. 5. The interference with the circulation also produces dyspnœa, a small pulse, angina, eclampsia, and anuria, as well as a remarkably low temperature.

HEALTH AND SPIRITS.

WHATEVER may be thought to the contrary, the standard of health is as liable to fluctuations as the weather. The barometer is, in a measure, the gauge of the state of the weather, but we have no instrument for estimating even with an approach to the truth the state of the vitality of any individual. The customary salutation, even when replied to in the usual adverbial manner, is certainly no accurate criterion of the state of the health, since a general paralytic often *feels* much better than he has any physiological right to do. And, in opposite fashion, a man who does not know how he feels may be in first-rate health, or at least in a splendid condition for opposing those forces which are constantly tending, like the force of gravity, to bring a man to earth. Everyone knows, in greater or less degree, that which makes for his physical welfare, but it is not always realised to the fullest extent that an improvement in the *feeling* of health is by no means always desirable in the interests of longevity. To feel extraordinarily well costs

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much, and the excessive expenditure of mental force may derange a considerable number of corporeal functions. The desire to want to be in good "form" requires restriction in the case of many nervous individuals, whose powers are not always equal to their appetite for high spirits.

TUBERCULOUS MILK.

AT the first general meeting of the South Durham and North Yorkshire Veterinary Medical Association, held at Darlington on the 18th inst., an address was delivered by the President, Mr. Nettleton of Northallerton. In the course of his remarks he referred to the transmission of diseases from animals to man, and especially dealt with the subject of tuberculosis, which he said was a source of contamination of milk; and he remarked that the number of diseased cows in England at the present time was enormous, and yet as long as they could walk and the mammary glands secrete the milk was used for human consumption. It had been demonstrated that calves dying from acute diarrhœa when a few months old, having been born of healthy parents but suckled by a tuberculous cow, owed their death to tuberculosis. He believed there would be less human phthisis were measures taken to stamp out the disease. Another feature, he pointed out, is that the cream is always richer in the milk from a tuberculous cow—a "richness" which, he suggested, might be due to the admixture of pus with the secretion. (!) The disease is more common in Alderneys and Guernseys; he had never met with it among black cattle.

THE MANCHESTER AND SALFORD SANITARY ASSOCIATION.

THIS well-known society shows by its last annual report that it fully maintains the reputation it has acquired for useful sanitary and philanthropic work. Amongst the matters dealt with during the past year were questions relating to the Manchester bye-laws, the control of infectious diseases, especially in relation to school attendances, the closure of the Ardwick cemetery, the insurance of infant lives, cheap baths, &c.; and the Association also made representations to the Government to urge that medical officers of health should be dismissible by the central authority only. Conferences relating to the high death-rate of certain parts of the city of Manchester, and health lectures for the people, were also held. One special feature of the association is the valuable help it secures from educated ladies in connexion with visits to the homes of the poor, the provision of cheap meals for children, and the children's holiday fund. The association also carries out its valuable labours in such a way as to secure the hearty co-operation of the medical officers of health of the districts with which it deals.

OPHTHALMIA IN THE STRAND SCHOOLS.

A DISCUSSION arose at the Strand Union meeting last Tuesday on the reading of the report of the medical officer in charge of these schools. One member of the board, Mr. Prescott, moved that the children afflicted with ophthalmia be bathed separately from the other children. He said there were 166 cases of ophthalmia at the schools out of a total of 330 children, and that was a terrible state of affairs. Only nine of the sufferers were in the hospital, the remaining 157 being in the body of the schools with the healthy children. The guardians had a great responsibility in the matter, it being a well-known fact that ophthalmia frequently ended in total blindness. Mr. Dart, in opposing the motion, said he thought it was great assurance for anyone to interfere with the doctor at the schools. The motion was then put and lost. We may, perhaps, have occasion to refer to this subject again.

TORTICOLLIS IN INFLAMMATION OF THE MIDDLE EAR.

TORTICOLLIS, when it occurs in the course of acute otitis media, has generally been looked upon as a very serious complication due to periostitis of the mastoid process, and the formation of an abscess, with myositis of the sterno-mastoid. That this is not always the explanation of the complication is shown by Dr. Radsikh in an article in the *Meditsinskoë Obozrênië*, in which he gives an account of a case of inflammation of the middle ear following measles, which on the third day became complicated by torticollis, this being due to periadenitis of the neck, and Dr. Radsikh suggests that in these cases enlarged and inflamed glands in the neck may frequently be the cause of wry neck.

FEVER IN LONDON.

THE number of cases of fever in the hospitals of the Asylums Board was 1320 at the end of last week, as against 1000 a month before. During this period, 649 fresh cases have been admitted and 240 have been discharged as recovered. Of the cases under treatment, 1123 were cases of scarlet fever, 108 of diphtheria, 80 of enteric, and 2 of typhus. The appearance of typhus at this period of the year would in past times have led to the fear that the disease would attain unusual prevalence; it is, however, so long since this disease was practically banished from our midst that, without exceptional distress and an exceptionally cold winter, there is no reason for thinking that there will be any prevalence of this fatal malady. One of the cases occurred at Battersea, and may perhaps be related to the return of hop-pickers. Again no case of small-pox is known to have occurred during the month.

HYDROCEPHALUS.

DR. RODIONOFF mentions in the *Meditsinskoë Obozrênië* a somewhat remarkable case of recovery from chronic hydrocephalus in a child of eleven months old. The mother took good care of it until it was two years old, and then left it to itself. It was thus exposed to a hot sun for many weeks, and, strange to say, a year later the size of the head had diminished, and the child was able to creep about. When it was four years old the hydrocephalus had disappeared, and the child was able to talk. Dr. Rodionoff seems disposed to refer the cure to the action of the sun's rays.

TUBERCULOSIS IN SLEEPING CARS.

DR. WHITTAKER of Cincinnati has lately (*Nashville Journal of Medicine and Surgery*) drawn attention to the palace car as a medium for the dissemination of tuberculous disease. He says that the cars, owing to the caprice of individual travellers, are generally ill-ventilated, and there is no regard paid to the liability of infection through the sputum. The point is the same as that raised lately by a traveller in the *Australian Medical Gazette* with respect to ships' cabins; but, as Dr. Whittaker says, in some of the express trains a passenger may be literally confined in an atmosphere containing tuberculous dust for days together. He urges the replacement of plush by leather, of carpets by rugs, of curtains by wooden or leather screens, and *inter alia* the provision of separate compartments for invalids or consumptives travelling in search of health. The destruction of the sputum is, in his opinion, the main point to be aimed at.

FOREIGN UNIVERSITY INTELLIGENCE.

Bonn.—Dr. Fritz Roll, assistant in the Botanic Gardens, Würzburg, has been appointed Extraordinary Professor of Botany.

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Freiburg.—Dr. Max Knies has been promoted to the rank of Extraordinary Professor.

Gratz.—Dr. von Wagner of Vienna has been appointed Extraordinary Professor of Mental and Nervous Diseases.

Lausanne.—Dr. H. Stilling of Strasburg has been appointed Professor of Pathological Anatomy.—Dr. Bourget of Geneva has been appointed Professor of Materia Medica and Therapeutics.

Rostock.—Dr. Berlin of Stuttgart has been appointed to the chair of Ophthalmology, vacant by the resignation of Dr. von Zehender.

Tomsk.—Dr. Sadoven of St. Petersburg has been appointed Professor of Physiological Chemistry. There are thus two professors of chemistry already in this newly-established university, which at present possesses only a portion of one faculty—the medical, Dr. S. Zalêski having charge of the general and medical chemistry.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. M. Perrin, Professor of Operative Medicine in the French Military Medical School of Val-de-Grâce; Dr. Marcantonio Barba, formerly Professor of Surgery in Messina.

ACCORDING to a telegram from Cape Town the Colonial Secretary, in reply to a deputation requesting information in regard to the Robben Island Leper Hospital, said that the anxious care of the Cape Government had long been devoted to the matter of leprosy generally, with the result that the disease in the colony had remained stationary, whilst the condition of the lepers themselves had greatly improved. The accommodation for lepers on Robben Island was vastly superior to that which they could obtain in their own homes. The stay of the patients on the island was voluntary, and relatives were continually permitted to visit them. The Government had for some time past been considering measures for effecting further improvement in the treatment of lepers and for their compulsory segregation under the Leprosy Repression Act.

FROM statistics compiled by the Egyptian Sanitary Department, it appears that in all the principal towns in the Delta, excepting Damietta and Rosetta, the death-rate exceeds the birth-rate from the end of May to the beginning of August, during which period the Nile water is most impure, owing to the lack of current. At that season the inhabitants of Damietta and Rosetta use water stored in cisterns, owing to the brackishness of the river water. This would (says the correspondent of *The Times* at Cairo) point to the necessity of adopting measures for purifying the Nile, upon which Egypt is dependent for her water-supply.

THE Italian Medico-military Office will shortly issue its report as to the sanitary condition of the army during 1887. The statistics collected from every branch of the service show a considerable improvement, we understand, over those of 1886. Admissions into hospital, which in 1886 had been 798 per 1000 of the force under arms, was reduced in 1887 to 760 per 1000. The mortality for the latter year, moreover, was 8·74 per 1000, as against 9·31 per 1000 for 1886.

WE very much regret to learn that Mr. Eustace Hill, son of Dr. Alfred Hill, medical officer of health for Birmingham, who has been serving as one of the resident medical officers to the Borough Infectious Hospital during the present severe epidemic of scarlatina, is himself suffering from the disease, and has exhibited serious symptoms. We sincerely hope that his condition will speedily improve.

WE understand that the Anglo-American Continental Medical Society, recently formed, will hold its first meeting in Paris on Monday, the 30th inst., when Sir Spencer Wells will preside, Professor Ball acting as vice-president. The meeting will be followed by a dinner.

THE first meeting of the Obstetrical Society of London for the coming session will be held on the evening of Wednesday, Oct. 2nd, at eight o'clock, at the Society's library, 54, Berners-street, next door to the rooms recently vacated by the Royal Medical and Chirurgical Society.

Pharmacology and Therapeutics.

NAPHTHALIN IN TYPHOID FEVER.

DR. C. SEHRWALD has made some bacteriological experiments in Prof. Rossbach's laboratory, from which he draws the following conclusions:—1. Naphthalin retards but slowly in the temperature of a room the development of the bacilli of putrefaction of fæces, and of typhoid. 2. Naphthalin finely powdered and well spread, or in solution and continually shaken, has its disinfecting power increased. 3. In a temperature of 98° the effect of naphthalin is much more powerful, which makes it highly probable that it is chiefly in its gaseous state that it destroys the germs. 4. Gaseous naphthalin in solution has more effect on aerobic than on anaerobic bacilli, and more on germs cultivated in a solid medium than on those cultivated in liquid. 5. The conditions for the full effect of naphthalin are much more favourable in the intestines than in the test-glass. 6. Naphthalin added to fæces decreases their germs by about a half, but, administered internally, it first decreases them to one-third or even a quarter; after this, however, their number rises again almost to its original figure. 7. Against the bacilli of typhoid stools naphthalin is considered still more effective, and decreases the number of the germs even to one-tenth. 8. The administration of naphthalin should be commenced at the very beginning of typhoid fever. 9. As calomel affects some of the fæcal bacilli, while others are more readily destroyed by naphthalin, it is best to give, whenever possible, both drugs combined.

MERCURIAL INUNCTIONS IN GLANDERS.

Dr. Gold publishes in the *Meditsinskoë Obozrênie* a detailed account of a case of glanders which was successfully treated by a prolonged course of mercurial inunctions. The patient was a young peasant, and though he was unable to trace his illness to any contact with glandered horses, experimental observations on guinea-pigs proved quite clearly that he was suffering from glanders. Half a drachm of mercurial ointment was rubbed into the skin twice a day, and the condition of his mouth properly attended to. He was also kept on highly nourishing diet. The tumours on different parts of the body were opened, and in some cases the edges of the wounds pared or touched with the actual cautery, antiseptic dressings being employed throughout. No less than sixty-eight frictions were employed, and the patient was kept five months in hospital before being discharged cured. The good effects of the treatment began to show themselves after twenty inunctions, the tumours becoming softer and the fine crepitation in the lungs disappearing. Dr. Gold points out that no reliance should be placed on the denial of patients of having had to do with diseased horses, the only sure guides to a correct diagnosis being bacteriological observations and the experimental infection of animals with the purulent matter from the tumours. Again, he thinks this case shows that even very severe cases of glanders may sometimes be treated successfully by a persevering employment of mercury, either by inunctions or hypodermically.

QUININE COMBINED WITH MERCURIAL INUNCTION.

Dr. Dymnitski records in a Polish medical journal the treatment of 178 cases of syphilis by means of quinine together with mercurial inunction. In some cases the quinine appeared to enhance the value of the mercurial treatment to a very remarkable extent; in others it appeared to be of no advantage. This method of treatment was most successful where

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considerable variations of temperature, pulse, and weight existed. Thus it was found that in the cases where the treatment was decidedly successful the temperature was subject to a variation of 1·5° C or more, the pulse varied at least 26 beats, and the weight at least 10 lb. On the other hand, in the cases where this treatment was not successful, the temperature did not vary more than 1·2° C., the pulse not more than 18 beats, and the weight not more than 8·3 lb. The quinine was given in doses of from fifteen to twenty-two grains per diem. In many of the successful cases there had been a good deal of ulceration; this rapidly improved, the temperature fell, and the general condition underwent a marked improvement; but if the quinine was stopped the patient often became worse again. It should be said that care was taken to exclude cases in which there were any traces of malarial fever.

PEROXIDE OF HYDROGEN IN NECROSIS OF THE JAW.

Dr. A. Lohmann of Cassel communicates to the *Deutsche Medicinische Wochenschrift* several interesting cases from his dental practice. The first was that of a woman of thirty-two years, suffering from necrosis of the left lower jaw. A sequestrum with both bicuspids was completely separated, and without trouble or pain removed; the posterior portion, which still contained a molar, was freely movable and full of pus. After several injections of peroxide of hydrogen the discharge of pus entirely disappeared, the gum regained a healthy colour, and in about a fortnight the patient was quite cured. The second case was that of a civil engineer, twenty-six years old, whose left upper jaw was diseased. After removal of the sequestrum, which contained the last tooth and a bicuspid, peroxide of hydrogen was injected into the diseased alveolar processes at once and several times during the following days, and in a week the patient was completely cured. The author has even cured a case of alveolar pyorrhœa by this method.

RUBBER BANDAGE IN INDIGESTION.

Dr. Wettendorfer, while using a Martin's rubber bandage, applied round the waist in a case of chronic eczema, became aware that this treatment seems to be capable of acting beneficially on the digestive organs, curing gastric catarrh and the sense of oppression complained of by dyspeptics, and, as a result of this action, improving in a marked degree the digestive functions. How the bandage acts Dr. Wettendorfer is unable to say, further than that he supposes it is by exerting a mechanical pressure on the organs of digestion, and possibly by causing the bodily heat of that region to be retained. As to the particular classes of cases in which the rubber bandage is suitable only further experience can decide. The bandage should be worn for about an hour after meals, and should be applied over a surface about ten inches in depth.

SALIDAGO VIRGA AUREA (GOLDEN ROD) AS A DIURETIC.

Dr. Theodor Clemens of Frankfort, in a communication to the *Allgemeine Medicinische Central Zeitung*, once more recommends golden rod (Salidago virga aurea latifolia) as a diuretic, following in the footsteps of Ettmüller, Rademacher, and Mascarel, and correcting the mistake of Mascarel, who had looked upon the plant as a new remedy. Dr. Clemens praises this drug above all other diuretics, having relieved or cured a large number of patients by its administration. When there has been difficulty in obtaining it from pharmacists, he has frequently gone out into the woods and gathered the plant, and made preparations of it himself for his patients.

ANTIFEBRIN IN TONSILLITIS.

Dr. Sahli has found, both from personal experience and from numerous observations on patients, that moderate doses of antifebrin will almost invariably give great ease in cases of acute tonsillitis, thus allaying the distress of the patient and enabling him to swallow food, stimulants, or medicine. The dose he employs is seven and a half grains, which he usually orders in a mixture with spirit and syrup, which must be shaken up before being taken. This is sufficiently agreeable to be taken readily even by children. Dr. Sahli mentions that he has found great benefit from this treatment in scarlatinal sore-throat.

GUM BENZOIN IN ULCERATED LEGS.

Dr. Zitrin, writing in the *Voënno Sanitarnoë Dêlo*, strongly recommends the use of powdered Siamese gum benzoin as a local application for chronic ulcers of the leg. An ointment was used by Dr. Voskresenski for the same purpose; but Dr. Zitrin thinks the powder is preferable, especially on economic grounds. He ascribes the beneficial action to the antiseptic and stimulating effect of the benzoic acid, of which the Siamese benzoin contains about 14 per cent.

WOOD ASHES IN WHITLOW.

Dr. Kappesser of Darmstadt has for many years treated commencing whitlow very successfully by making the patient hold the affected finger very frequently in a hot lye made by steeping a handful of fresh wood ashes in half a pint of boiling water. A rag soaked in the same liquid is also applied round the finger when it is not immersed in the lye. In this way the whitlow can be cut short, especially if the treatment is commenced as soon as the first symptoms of the disease present themselves.

EAUX BONNES.

BY DR. DOBREE CHEPMELL.

A LOVELY place, this Pyrenean hamlet, 2500 feet above sea level—one steep, wide street of hotels with a garden in its midst. On east and west, cliff-like hills, 1000 feet high, green and beech-wooded to their tops, with here and there a snowy *pic* peeping over the shoulders of its smaller brethren, as if to see what the world is doing in the shady gorge below. The sky hardly forms part of the picture, a turquoise velarium only, stretched across like an awning from the high crest of one green hillside to that of its *vis-à-vis*. Beneath, at the head of the ravine, surrounded by planes and lindens, in air soft and cool, without wind, without rush, stands the Temple of Hygeia, known simply as "La Buvette." Hither daily, from 5 A.M. till dusk, during the short thermal season of July and August, crowd pallid sufferers from Russia, Spain, Holland, America, with a very few English, to drink their prescribed measure of the Source Vieille. The temperature of this spring is 82° F. or thereabouts; it has a strong sulphurous smell, with little or no taste. In mineral ingredients the water is marvellously rich, and seems to be a very watery extract *à la* Liebig of all the Pyrenean strata. Besides the ordinary components of most sulphur springs, there are found here, according to the careful analysis made by Dr. Garrigou in 1876, elements such as lithium, cæsium, rubidium, glucine, cobalt, nickel, antimony, and arsenic in appreciable quantities. Nature in this instance has indulged with a vengeance and *à la barbe de la Faculté* in the most undeniable polypharmacy.

A century and a half back the Eaux Bonnes were practically unknown, but towards 1750 Antoine Bordeu and his son Théophile, both men of energy and acumen, and practising in the valley of the Ossau, drew attention to the remarkable cures effected by these waters in pulmonary complaints. Not only were men relieved of chronic catarrhs and cured of consumption, but also were the maladies of animals—horses, donkeys, and goats—in like manner favourably influenced by the sulphur springs. Since the days of the Bordeus the reputation of Eaux Bonnes has been on the increase. It is said that much of the virtue of Eaux Bonnes depends (and this is also the opinion of Dr. Leudet, a most competent authority) on the stability of the sulphurous ingredients. A silver coin, newly minted, will, if immersed in the water, remain bright for some time; whilst, when dipped in that of other sulphur springs, the metal tarnishes readily. If administered to a dog, the animal's breath will shortly blacken a sheet of blotting paper wetted with a solution of a lead salt, showing that the principal element is largely exhaled from the lungs. Most of the drinkers whom I questioned were suffering from chronic bronchitis or fibroid phthisis. They told me that at first the water produced a slight feeling of nausea, with, as the treatment proceeded, a marked decrease, and presently a total cessation, of mucous expectoration. One man, long a sufferer from bronchorrhœa, remarked, "I no longer spit, nor even blow my nose, and I am very constipated; but, on the other hand, I pass quantities of water." And such really sums up the immediate action of the Eaux Bonnes. Dr. Leudet calls them "*des eaux désséchantes.*" Dr. Cazenave de la Roche, in addition, urges their anti-parasitic virtues, and

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backs his opinion by referring to the experiments of Froschauer and Niepce as proving the destructive power exercised by sulphuretted hydrogen on the lower forms of life. Whatever the theory as to the *modus operandi*, the fact remains that in certain kinds of phthisis—e.g., fibroid degeneration with profuse bronchorrhœa—the benefit is very marked, and in many instances the gain is almost immediately appreciable. During the three or four weeks of my stay, I noted with interest the progress of these bibulous ægrotants, and can testify to the rapidity of the uplift in health in many of the cases. The drinkers, whom I had seen on arrival crawling painfully up the incline leading to the Buvette, coughing, spitting, puffing, and groaning, in ten days' time began to mount with elastic step and with little apparent fatigue and distress, evidently looking forward with confidence to their *quart* or *demi-verre* of the tepid specific. The dose of the Source Vieille is small—fifty grammes (or a quarter of a glass, equal to an ounce and two-thirds) at the start, twice a day, an hour before meals, and this is slowly increased to 200 grammes three times a day. The maximum of 600 grammes, or 20 oz., daily is rarely reached and never exceeded. Each drinker purchases the privilege of quaffing *ad libitum* for twenty francs, payable to the *fermier* of the Sources, whose £6000 annual rent is easily recouped. Gargling, inhalation of the pulverised spray, and a certain amount of bathing likewise go on, but the *traitement sérieux* consists in the internal exhibition of the water.

For the benefit of the visitors (drinkers and abstainers) a fairly good band plays twice a day in the Jardin Darralde, the small Eden spoken of in the centre of the village. At night this Pyrenean Vauxhall is illumined *a giorno*, not by aid of gas or petroleum, but by some scores of electric lamps, the effect of which, as toned down by the foliage, is remarkably pleasant. The services of a neighbouring cascade with a fall of thirty metres have been requisitioned, and force equal to 150 horse-power, acting through a turbine on a Gramm-motor generates electricity enough to furnish 600 jets to the little town.

Eaux Bonnes is easily reached by rail through Paris and Pau to Laruns, but in fine weather better and more economically by the General Steam Navigation Company's boat from Irongate Wharf on the Thames direct to Bordeaux, and thence on by rail in seven hours to Laruns, the terminus of the branch line from Pau. A good road winds up the picturesque ascent and lands the traveller in three-quarters of an hour at one of the best of Pyrenean hostelries.

REPORT ON SANITARY MEASURES IN INDIA IN 1887-8.

TOGETHER WITH MISCELLANEOUS INFORMATION TO JUNE, 1889. VOL. XXI.

As the greater portion of this report consists of a summary of the information given in the reports of the Sanitary Commissioner with the Government of India and of the health officer of Calcutta, which we have already noticed at considerable length (*vide* THE LANCET, Jan. 12th, June 22nd, 29th, and July 6th), it seems unnecessary again to go over the same ground. There is, however, in the appendix a minute by Colonel Henry Yule, C.B., member of the Council of India, on the subject of sanitation in that country which is well deserving of notice. In it he has taken a review of the present position of sanitary administration in India, and has endeavoured "to form some estimate of the degree in which that administration can be regarded as adequately discharging the duties of our Government in cherishing the health of the troops, in protecting the population from the ravages of epidemic disease, and in raising the standard of public health, as well as to consider what steps are practicable in order that those duties may be more effectually performed."

In 1864, in accordance with the recommendation of the Royal Commission appointed in 1859, to inquire into the subject of barracks and hospitals, the Government of India appointed sanitary commissions in the three Presidency towns, consisting of a civil officer as president, a medical officer as secretary, and a second medical officer and two military officers, one of them an engineer, as additional members. Their duties were "to give advice and assistance on all matters relating to the public health, such as selection of new stations and the sanitary improvement of existing stations and bazaars; to examine new plans for barracks and hospitals; to advise on the laying out of stations and bazaars, the sanitary improvement of native towns, the prevention and mitigation of epidemic diseases, and generally to exercise a constant oversight on the sanitary condition of the population, European and native; to report on the prevalence, causes, and means of preventing sickness and disease." In cases where the construction of remedial works was necessary their functions were to be consultative only, but in other cases they were also to be administrative. In less than two years, however, the Government of India abolished this commission, substituting for it a single officer as sanitary commissioner, with a medical officer as secretary. Colonel Yule states that when this change was carried out the Government "nominated to the position of sanitary commissoner an officer who, it is believed, had given no previous attention to sanitary questions!"

The Royal Commission above referred to stated the average mortality of the European soldiers in India prior to 1859 to have been 69 per 1000, and recorded their opinion that it "could be reduced to 20 per 1000; whilst a hope might be cherished that if the time should ever arrive when India should be freed from the general prevalence of malaria due to local causes, the mortality would come down to one-half of the rate just named." Colonel Yule states that the first of these anticipations has been more than realised, the death-rate in the last four years having been under 15 per 1000. He does not say directly that this has been the result of the measures adopted on the recommendation of the sanitary commissioners, but he has failed to point out that a considerable amount of the reduction may have been due to the altered conditions of service consequent upon the old local European force having been replaced by the regular army. We do not in the slightest degree undervalue the good work in sanitation which has been going on steadily in India during the last thirty years, but we feel it our duty to point out this other very important agency which has at the same time been in operation. But while there has been this remarkable reduction in the mortality, there has been no corresponding decrease in the admissions into hospital and the proportion constantly non-effective from sickness, the former amounting to 150 per cent. annually, and the latter averaging 71 per 1000 of the strength. Colonel Yule attributes this in a great measure to "the increased proportion of young soldiers, due to recent changes in the conditions of service. Such ratios render it imperative on those who are responsible for the health of the army to spare no effort, whether in discovering the causes of so great an amount of illness, or in removing or mitigating these causes when ascertained." He calls special attention to the increase in the death-rate from enteric fever and in the prevalence, in some districts of India, of intermittent fever as deserving of careful investigation. He also notices the diet of the soldier as an important element. It appears that in 1883-5, on a strong representation from the Army Sanitary Committee, it was made a subject of special investigation; but this does not seem to have been followed by any practical improvement. Indeed, in connexion with this question Colonel Yule gives an instance of how things are *not* done. In an extract from a resolution of the Government of Bombay "it is mentioned that the sanction of the Government of India had then been obtained to the 'issue of a free ration of cocoa to men quartered in the Ghorpuri barracks before going on parade in early morning or on sentry after midnight, as an experiment.' I have not found any record of the result of the experiment, which, *primâ facie*, strongly commends itself for adoption. In the return of reports on the subject of diet and daily meals from upwards of one hundred officers, which accompanied the India Government's letter of Aug. 7th, 1885, above quoted, I can find no one instance of cocoa being supplied." Some recommendations were at the same time made on the subject of clothing, on which Colonel Yule observes: "It would be well to know if a recommendation so obviously calling for attention has been followed up and become a rule general in India." We would venture to suggest this question as deserving of the attention of the Council of India, of which Colonel Yule is a member. He also points out the necessity for improving

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the drainage and general sanitation of the country surrounding military stations in unhealthy localities, and the importance of locating a larger number of troops at the hill stations. To this latter subject considerable attention has been already paid, nearly one-third of the European force being thus quartered, with manifest advantage to the health, vigour, and efficiency of the troops. Colonel Yule brings specially to notice the great importance and necessity for some measures to reduce the amount of inefficiency from venereal disease. "The immense proportions of the evil must greatly affect the efficiency of the troops, whilst its nature is degrading to their character. No duty can be more incumbent—whilst, I fear, none is more difficult—than that of abating this mischief." After some remarks on the high death-rates in some of the Indian gaols, and on the mortality in the civil population arising from mitigable or preventable disease, he summarises the insanitary conditions under three heads: (1) Impure water-supply; (2) imperfect removal of filth and polluted surface; (3) a subsoil either polluted by the continual infiltration of surface impurities or saturated with moisture and unrelieved by drainage. In view of these evils the Government of India has expressed the opinion "that the time has now come for the prosecution of sanitary measures on a more systematic plan than has hitherto been adopted as a rule." This seems to involve increased expenditure on water-supply and drainage works; and with a view to efficiency in these respects, the provision (1) of the advice and aid of experts, and (2) greater facility in raising the necessary funds. Into the details of these, however, we cannot enter. Colonel Yule observes, "We have had reports, statistics, and suggestions for a quarter of a century, but taking a broad view of amelioration in the health of the country, the advance cannot be said to have been other than small. It is absolutely necessary that a new and large step forward should be made." Colonel Yule, in concluding his valuable minute, bears very gratifying testimony to the work done by Dr. John Sutherland during the many years he was a member of the Army Sanitary Committee, and from which he has recently retired. "The amount of Dr. Sutherland's work in this kind has been immense. But in quality and value it has been as great as in amount." He points out the great importance of a successor to him being appointed. There seems to be some difficulty raised by the India Office with regard to the payment of a member. "But it will be in reality maintaining an old appointment which has been of the highest value to the British army and to the State in India, and the cessation of which would be a deplorable misfortune." We trust that this strong protest may avail, and that we shall not have to suffer from a wretched system of saving a paltry sum of money at the expense of efficiency.

PRACTICAL OBSERVATIONS WITH REGARD TO THE PASTEUR TREATMENT.

A CORRESPONDENT, Mr. Harry Watts, of the London Hospital, forwards us the following interesting particulars concerning the method pursued at the Pasteur Institute:—

I have recently returned from Paris, having gone thither to take charge of patients who had been bitten by a rabid dog at Henley-on-Thames. During my daily attendances at the Pasteur Institute I have had many opportunities (through the kindness of M. Pasteur and his staff) of seeing the entire working of the Institution, and also of noting the treatment of some 200 patients who were at that time under care. Amongst this number were about a dozen English patients who were under my close and constant observation. Pasteurism does not appear to be even yet thoroughly understood by a large proportion of English practitioners, consequently patients are frequently sent over there to submit to the treatment without the slightest necessity, and so have to return to England uninoculated, and more or less dissatisfied with their medical attendant, who has thus unintentionally sent them on an unsatisfactory errand. For instance, one patient was sent over some three weeks after he had been bitten, who stated that the dog was still living at the time he left England; now it should be generally known that a rabid dog cannot exist for more than four, or at the most five, days after the biting stage of the disease has been reached. This M. Pasteur has conclusively proved; also that it jeopardises the successful issue of the treatment to a vast extent to allow so long a period as three weeks to elapse before this preventive treatment is adopted. Another rule which should be borne in mind is that when possible the head and neck of the rabid animal should be sent to the institute with the patient, for although on post-mortem examination the contents of the animal's stomach may be accepted as generally pathognomonic of rabies, yet M. Pasteur prefers the more scientific proof, which he obtains by inoculating a healthy dog with the virus taken from the medulla of the dead animal and producing the usual sequence of hydrophobic symptoms. In those cases where the head is not obtainable, the patient should then take with him the certificate of the veterinary surgeon who performed the post-mortem examination on the rabid animal, to the effect that it died from or was suffering from rabies. All the inoculations are performed in the flank, the regions just above the iliac crests on both sides of the body; female patients would therefore save themselves annoyance and the operator much time by making a vertical slit about six inches in length in their dress and underclothing, coinciding with the regions above named. It has been stated in the daily press that Pasteur's treatment is painless; this, however, is not quite correct. True it is that some patients are affected by it more than others, and children appear to feel it the least of any; their objections seem chiefly directed to the passage of the hypodermic needle. I have seen strong, well-developed, muscular men doubled up with the pain caused not by the needle only, but by the inoculated virus itself, and which the patients, almost unanimously, described as feeling "like corkscrews going down your legs." It is curious how similarly, though varied in degree, the different patients are affected, some feeling it more at one time than at another. I was much struck by this on one occasion when the virus was used at its strongest—viz., only two days old, and at the termination of the treatment. It then affected a labouring man in my charge more than at any previous time, whilst another of my patients, a somewhat neurotic lady, stated that at no previous inoculation had she experienced so little discomfort and pain; the same amount of virus appeared to be injected and it was of the same strength in both cases, and at exactly the same stage of the treatment.

Whilst observing the cases under treatment, one could not fail to notice that the same train of symptoms follows more or less markedly in every patient, man, woman, or child. Briefly they consisted of: 1. An initial stage of fever followed by varying degrees of prostration, and lasting from two to five days. 2. Some amount of formication, which is generally limited to the lower extremities; together with this is a feeling of intense weight in the legs, accompanied nevertheless with a desire to walk, and in the gratification of which the patient's best efforts fail to satisfy. 3. About the eighth day there is a pause, and, except for the tenderness in the sides at the inoculating area, there is but little to complain of, the former symptoms having for the most part subsided. 4. By the tenth or twelfth day, however, fresh symptoms arise, the chief among which is a sense as of constriction about the chest and throat, which is invariably complained of; some patients say they feel as if they had a sore throat and stiff neck, yet swallowing food or moving the head was unaccompanied by pain. On examining these regions there is nothing abnormal to be detected. These symptoms, as a rule, do not last more than a few days, though I have noticed exceptions.

The injected virus evidently sets up some amount of irritation in the system, though scarcely any at the site of the inoculation, which tends to produce a temporary hysterical condition. This was especially well marked in one of my cases, and most favourable results were obtained by treating her with carbonate of ammonia in doses of four or five grains thrice daily, as suggested by Dr. Silvester. The only cases which are refused treatment at the Pasteur Institute are those where the patient has been bitten by a non-rabid animal. As I have stated, such cases do get sent over to Paris; such persons are soon assured that they have nothing whatever to fear, and are free to return to England as soon as they like. The treatment being entirely prophylactic, there are no in-patients; neither is there any provision or room for such, the whole

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building being occupied by splendid laboratories, cultivating rooms, &c.

In conclusion, it may be mentioned that wounds of the face are usually regarded as the most serious, and persons suffering from them are placed under treatment for a minimum period of twenty-one days, while trivial wounds of the upper and lower extremities are seldom detained for more than fifteen days.

THE SANITARY CONGRESS.

THE eleventh Congress of the Sanitary Institute was opened at Worcester on Tuesday, Sept. 24th, the attendance being somewhat small owing to the inclemency of the weather. After luncheon at the Guildhall, the members adjourned to the Skating Rink, where prizes and certificates were awarded for excellence in medical preparations, water filters, and other articles connected with sanitation.

In the evening Mr. G. W. Hastings, M.P. (President of the Congress), delivered an address at the Guildhall, and called attention to the intimate connexion existing between the public health and the sanitary condition of our houses and habitations. He urged the necessity of having proper appliances for the disposal of sewage, and expressed himself strongly in favour of placing the liquid sewage directly on the land. He then praised the excellent work done by the Plumbers' Company in London by training and registering skilled workmen. He next drew attention to the number of trades and occupations in this country which tended to produce disease and shorten life, and he insisted that it was the duty of the community as well as of employers to endeavour to remove the causes of unhealthiness in our industries. The general principles of sanitation would improve our drainage and remove other general causes of disease; but this would be to a great extent nugatory if industrial occupations were allowed to remain unhealthy. He also expressed his satisfaction at the enactment in the last session of Parliament of a measure for the notification of infectious diseases. It would have an immense effect in diminishing the spread of zymotic disease by enabling medical officers of health to hear of the first outbreak, and to take prompt measures for its suppression. No doubt some portion of the medical profession had raised objections to the measures; but the example of Edinburgh, a city in which the profession were remarkably influential and distinguished, showed that no real injury was done to them by notification. The system there, after years of trial, had been thoroughly approved by the profession. It was to be hoped that the sanitary authorities, both in town and country, would see the expediency of adopting, by every means which the Act provided, this easy and efficacious preventive against the spread of disease.

The Congress met again on the following day, and commenced the sectional sittings.

In Section I., "Sanitary Science and Preventive Medicine," Dr. G. Wilson, M.A., M.D., F.R.S.E., delivered an address on "The Policy of Prevention in some of its Social and Sanitary Aspects." He first glanced at the long roll of diseased conditions and premature deaths which depended on the laws of heredity—hereditary consumption, scrofula, gout, syphilis, cancer, hereditary insanity and nervous ailments, hereditary criminality, hereditary intemperance, hereditary vagrancy. Let them consider for a moment the multitudes of maimed and doomed offspring resulting from unsuitable or imprudent marriages, apart from cases of diseased or unhealthy parentage. Unthriftiness in marriage led too often to intentional neglect of the children, amounting to culpable homicide. It largely accounted for false thrift, under the name of infant life assurance, spreading its baneful influence even into innocent village communities. But public feeling was gradually being aroused to this enormity, and there were at last hopes of effective legislative interference. He doubted whether public opinion was sufficiently advanced to enforce a certificate of health on the part of persons about to marry; but he thought the time was at hand when some check should be put on the appalling waste of infant life which disgraced our civilisation by prohibiting marriages unless the man could produce reasonable proof that he was in a position to maintain a wife. As regarded all classes, it might be said that too early marriages, like marriages which took place too late in life, if not infertile, resulted in the birth of children afflicted with a lowered vitality. Physicians who had carefully studied the subject maintained that no woman should marry before twenty-one, and as regarded the other sex it might generally be said that the responsibilities of married life would be all the more safely faced if marriage were delayed until the age of twenty-five. But a vast amount of sickness might be averted, and a number of lives might be prolonged to mature age, if ordinary medical practice were based as much on preventive as on curative lines. The principal causes of disease were errors in diet, abuse of the luxuries of life, worry and overwork, idleness, want of self-control, irregular modes of life, errors in clothing, and, above all, intemperance. It was these causes that kept the ordinary practitioner busy, and which crowded the consulting rooms of the fashionable physician. It was true that diseases arising from impurities in air and water, unwholesome or insufficient food, and zymotic contagion still contributed largely to ordinary medical practice; but year by year they were becoming less prevalent. There was no disguising the fact that so long as the family medical practitioner continued to be paid to attend only on people when they were ill, and not to conserve the health of the household, there would be a constant drag upon public health progress. Curative and preventive medicine might go hand in hand for the promotion of public health and the abatement of human suffering. All that was required to effect the change was that the ordinary medical attendant should be paid by an annual stipend or retaining fee,—a system largely followed in India and other places abroad, and to some extent even in this country. Medical men were paid so much a year to attend members of friendly societies, &c., but unfortunately the majority of these appointments were scandalously underpaid, because they were regarded by medical men as stepping-stones to general practice. He next glanced at the studies of Pasteur, Koch, and Klein as developing the "germ theory of disease," and expressed his belief that the statistical results of M. Pasteur's treatment of hydrophobia powerfully supported his theory. Coming to the subject of the dangers attaching to our milk supplies, he said that in numerous outbreaks of scarlatina milk had been the medium by which the contagium of the disease had been distributed, and in many outbreaks of typhoid fever the disease had been propagated by washing out the milk cans or diluting the milk with sewage-polluted water. Now the State had enforced the provisions of the Cowsheds and Dairies Order, though it had been practically ignored in most parts of the country.

The President (Mr. Hastings, M.P.,) offered some remarks on the question of the milk supply. In India milk was always boiled before use, consequently India did not know what scarlet fever was. A discussion followed and the Congress adjourned.

THE INFECTIOUS DISEASE (NOTIFICATION) ACT AND THE PROVINCES.

THE Local Government Board have issued a circular to the urban, rural, and port sanitary authorities in England and Wales explaining the provisions of the Infectious Disease (Notification) Act, 1889, as published in our issue of last week. The present circular contains the following additional remarks as specially applicable to sanitary authorities outside the metropolis:—

It will be observed that, except as regards the metropolis, the Act will only extend to urban, rural, and port sanitary districts in which it is adopted by the sanitary authorities and the local authorities under the Act. The expression "port sanitary district" is defined by the Act as meaning the port sanitary district of London, and any port or part of a port for which a port sanitary authority has been constituted under the Public Health Acts.

The Act can only be adopted by a resolution passed at a meeting of the sanitary authority. Fourteen clear days at least before such meeting, special notice of the meeting and of the intention to propose the resolution must be given to every member of the authority. The notice will be deemed to have been duly given if it is either (*a*) given in the mode in which notices to attend meetings of the sanitary authority are usually given, or (*b*) where there is no such mode, then signed by the clerk of the sanitary authority and delivered to the member, or left at his usual or last-known place of abode in England, or forwarded by post in a prepaid letter addressed to the member at his usual or last-known place of abode in England.

When a resolution has been passed adopting the Act it must be published by advertisement in a local newspaper and by hand-bills, and

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otherwise in such manner as the sanitary authority think sufficient for giving notice thereof to all persons interested.

The resolution will come into operation at such time, not less than one month after the first publication of the advertisement thereof, as the sanitary authority may fix; and upon its coming into operation the Act will extend to the district. A copy of the resolution must be sent to the Board when it is published.

The circular concludes as follows:—

The Board suggest that the sanitary authority should take into their early consideration whether, with a view to obtaining additional means of checking the spread of infectious disease in their district, it is not desirable that they should avail themselves of the power which has been conferred upon them of adopting the provisions of the Act.

HUGH OWEN, Secretary.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Kensington.—The parish of St. Mary Abbotts, Kensington, had a death-rate of 15·9 per 1000 living during 1888, and the concurrence of this low general rate with a correspondingly low zymotic death-rate is naturally regarded by Dr. Dudfield as a matter for congratulation. Measles was somewhat exceptionally fatal in Kensington, as indeed in London generally; and this leads Dr. Dudfield to discuss the question of isolation in hospital for this disease. As is well known, the Metropolitan Asylums Board have decided that they have no duty to receive measles cases, and having regard to the natural history of the disease and to the peculiarities of its onset and period of incubation, we incline to agree with Dr. Dudfield that there would be no public advantage in any general system for the removal to hospital of cases of measles. A number of other questions affecting metropolitan public health as a whole, rather than the special needs of Kensington parish, are discussed at considerable length in the report; but there is also much having local interest as to the work carried out by the officers of the vestry in the various departments coming within the supervision of the health officer, and we cannot but feel that this work is carried on in a manner that is worthy of imitation by some other metropolitan health authorities, and especially by such as distribute the sanitary considerations relating to their districts amongst multiple officers, all of whom are expected to advise on the same subject.

Ulverston Urban District.—The report on this district deals mainly with certain occurrences of disease, and a statement as to the principal sanitary circumstances of the district, together with an account of the matters as to which periodical inspections are made, no point of especial interest having arisen during the year. Dr. A. Thompson gives the death-rate from all causes as 18·1 per 1000, the zymotic rate being a low one, namely, 0·8 per 1000.

Ulverston Rural District.—In this rural area, also in Dr. A. Thompson's district, the general death-rate was 14·0 per 1000, and the zymotic rate 1 35. Amongst the deaths making up the latter group were 5 from diphtheria, together with the very suspicious entry of 10 deaths from so-called croup, which was certainly in large part diphtheria, although not of a very definite type. Fortunately the use of the term croup did not hinder inquiry with a view to the adoption of the needed means of prevention, and in one case, where sore throats had preceded genuine diphtheria, it was found that milk was the source of the infection. The disease seems to have started at High Wray, where the sanitary circumstances have been much neglected. These, it is to be hoped, will be forthwith remedied.

Ventnor Urban District.—Dr. Russell Woodford states that during 1888 the general death-rate of Ventnor was 12·8 per 1000 living, and that, if the deaths of visitors who came into the district with advanced disease be deducted, a resident rate of only 5·7 per 1000 remains. With such a rate there is obviously not much to record in the way of preventable disease, and the report is mainly made up of an account of the current sanitary work maintained. The water-supply of the town seems to be excellent; the sewerage is not referred to.

Derby Urban District.—According to Mr. Iliffe, the death-rate of Derby during 1888 was the lowest on record—namely, 16·3 per 1000 living on a population now exceeding 90,000. A full account is given of the infectious diseases which prevailed, beginning with a story of the introduction of small-pox from Sheffield. Scarlet fever was also widely prevalent. In all, 756 cases were reported, and of these 447 took place during the fourth quarter of the year, and all attempts to secure adequate means of hospital isolation broke down; indeed, only 20 per cent. of the total were so isolated. But Mr. Iliffe claims for notification some distinct power to reduce scarlet fever. Thus, judging from mortality, it would appear that during the nine years in which compulsory notification has been in operation, and including the whole of last year's epidemic, there was a total of 206 scarlet fever deaths; whereas in the preceding nine years the corresponding number was 562; and this although during the earlier of the two periods the population was distinctly less—indeed, at its close in 1881 it was nearly 9000 less than now. In all, 998 cases of infectious diseases came to notice during the past year under the compulsory notification clauses, and an account is given of the various steps taken in connexion with these to stay the spread of infection. Mr. Iliffe adds, regarding its working, that "it is scarcely possible for any law to be more loyally obeyed by all sections of the inhabitants." A new infectious hospital has for many years past been a great want in Derby, and we are glad to find that the construction of a very excellent building, of which plans are included in the report, is now rapidly approaching completion.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5284 births and 3117 deaths were registered during the week ending Sept. 21st. The annual rate of mortality in these towns, which had been 16·2 and 16·9 per 1000 in the preceding two weeks, further rose last week to 17·6. During the first twelve weeks of the current quarter the death-rate in these towns averaged 18·6 per 1000, and was 1·7 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 12·4 in Brighton, 12·7 in Derby, 12·8 in Leicester, and 14·2 in Halifax. The rates in the other towns ranged upwards to 22·7 in Plymouth, 25·3 in Sunderland, 26 9 in Newcastle-upon-Tyne, and 27·5 in Preston. The deaths referred to the principal zymotic diseases, which had been 512 and 529 in the preceding two weeks, further last week to 537; they included 279 from diarrhœa, 68 from diphtheria, 58 from scarlet fever, 57 from whooping-cough, 45 from "fever" (principally enteric), 29 from measles, and only 1 from small-pox. These zymotic diseases caused the lowest death-rates last week in Birkenhead, Birmingham, and Leicester, and the highest rates in Norwich, Plymouth, and Preston. The greatest mortality from diarrhœa occurred in Hull, Huddersfield, Salford, Newcastle-upon-Tyne, and Norwich; from scarlet fever in Blackburn and Plymouth; from whooping-cough in Bolton and Sunderland; and from "fever" in Norwich and Preston. The deaths from diphtheria included 44 in London, 5 in Salford, 4 in Manchester, 3 in Sheffield, 3 in Preston, 3 in Derby, and 2 in Birmingham. Small-pox caused one death in Sheffield, but not one in any of the twenty-seven other great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and the London Fever Hospitals at the end of the week was 1171, against numbers increasing in the preceding twelve weeks from 559 to 1111; 128 cases were admitted to these hospitals during the week, against numbers increasing the previous four weeks from 98 to 196. The deaths referred to diseases of the respiratory organs in London, which had been 142 and 152 in the preceding two weeks, declined again last week to 142, and were 53 below the corrected average. The causes of 64, or 2 2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Birmingham, Sunderland, Oldham, Bradford, and in three other smaller towns; the largest proportion of uncertified deaths was registered in Liverpool, Salford, Huddersfield, and Sheffield.

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HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 16·5 and 19·1 per 1000 in the preceding two weeks, declined again to 16·4 in the week ending Sept. 21st; this rate was 0·6 below the rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 9 5 and 12·3 in Perth and Leith to 17·9 in Edinburgh and 22·4 in Paisley. The 419 deaths in the eight towns showed a decline of 69 from the number in the previous week, and included 36 which were referred to diarrhœa, 15 to whooping-cough, 6 to "fever" (typhus, enteric, or ill-defined), 6 to scarlet fever, 6 to diphtheria, 5 to measles, and not one to small-pox; in all, 74 deaths resulted from these principal zymotic diseases, against 66 and 79 in the preceding two weeks. These 74 deaths were equal to an annual rate of 2·9 per 1000, which corresponded with the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of diarrhœa, which had been 24 and 38 in the preceding two weeks, were last week 36, of which 10 occurred in Edinburgh, 8 in Dundee, 7 in Glasgow, 3 in Greenock, and 3 in Paisley. The 15 deaths from whooping-cough exceeded the number in the previous week by 2, and included 9 in Glasgow and 5 in Edinburgh. The 6 deaths from "fever," of which 3 occurred in Glasgow, showed, however, a decline of 5. Four of the 6 fatal cases of diphtheria and 2 of the 6 deaths from scarlet fever also occurred in Glasgow. The 5 deaths from measles, including 3 in Glasgow, were fewer by 4 than the number in the previous week. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 54 and 61 in the preceding two weeks, further rose last week to 66, but were 19 below the number returned in the corresponding week of last year. The causes of 49, or nearly 11 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 18·6 and 24·5 per 1000 in the preceding two weeks, further rose to 28·5 in the week ending Sept. 21st. During the first twelve weeks of the current quarter the death-rate in the city averaged 23·3 per 1000, the mean rate during the same period being 16·5 in London and 15·8 in Edinburgh. The 193 deaths in Dublin showed a further increase of 27 upon the numbers returned in the previous two weeks; they included 18 which were referred to diarrhœa, 8 to "fever" (typhus, enteric, or ill defined), 3 to whooping-cough, 1 to scarlet fever, and 1 to diphtheria. Thus the deaths from these principal zymotic diseases, which had been 33, 15, and 20 in the preceding three weeks, rose again last week to 31; they were equal to an annual rate of 4·6 per 1000, the rate from the same diseases being 2·2 in London and 3·7 in Edinburgh. The deaths referred to diarrhœa, which had been 26, 11, and 15 in the preceding three weeks, rose again last week to 18; and the deaths from "fever" showed a further increase upon recent weekly numbers. The deaths, both of infants and of elderly persons, exceeded the numbers returned in recent weeks. Twelve inquest cases and 9 deaths from violence were registered; and 52, or more than a quarter, of the deaths occurred in public institutions. The causes of 30, or more than 15 per cent., of the deaths in the city were not certified.

VITAL STATISTICS OF FRENCH TOWNS.

The French official statistics, issued annually by the Ministère du Commerce under the title of "Statistique Générale de la France," the volume relating to 1885 having just been issued, deal in considerable detail with the statistics of marriages, births, and deaths, but give no information concerning the causes of death in France, which is essential to supply explanation of the excess of mortality in that country compared with that which prevails in England and Wales. It is satisfactory, therefore, to find that much valuable information bearing on this branch of mortality statistics is now furnished by the Bureau de l'Hygiène Publique at the Ministère du Commerce et de l'Industrie in monthly and annual returns relating to those French towns which had at the date of the last census in 1886 a population exceeding 10,000 persons. In the first place, it is interesting to know that France contains 229 of such towns, which had in 1886 an aggregate population of rather more than nine millions of persons. When we bear in mind that in England and Wales we have a still larger aggregate population living in the twenty-eight large towns dealt with in the Registrar-General's weekly return, each of which had at the time of the last census in 1881 a population exceeding 70,000 persons, it becomes easy to realise how far smaller a proportion of the French population lives in large towns than is the case in this country. If we adopt the same limit for France, we find that in 1881 there were only 16 towns with a population exceeding 70,000, the aggregate population of which does not exceed four millions and a half, and considerably less than half the English population living in towns of the same size. The returns to which we refer deal, however, with all the 229 towns having a population exceeding ten thousand, and, as above stated, an aggregate population of rather more than nine millions. In comparing, therefore, the mortality of these 229 French towns, the majority of them being small towns, with that of the twenty-eight largest English towns, it must be remembered that such comparison should be favourable to the French towns, as, all other conditions being fairly equal, the death-rates of large towns almost invariably exceed those of small towns. The first annual return for these French towns has only just been issued, and relates to the year 1887. It should be stated that, although the return gives very valuable abstracts of facts, no calculated rates are given, and that any useful consideration of the facts necessitates the calculation of rates to population. This defect militates inevitably against the value of the return as a means of influencing public opinion in France in the direction of health-progress and sanitary reform. The marriage-rate in these 229 French towns in 1887 was equal to 15·4 persons married per 1000 of the population, which was fully equal to the mean rate in English towns in that year. The marriage-rate was 16·8 in the 11 largest French towns, and was somewhat lower in the smaller towns. Notwithstanding this fact of a marriage-rate fully equal to that which prevails in the English towns, the mean birth-rate in the 229 towns was only 25·1 per 1000, whereas in the twenty-eight English towns it was 31·2. The range of birth-rates in the French towns was not very wide, but it may be noted that the rate in the eleven largest towns was 26·1 per 1000, while, speaking generally, the birth-rate declined with the size of the town. Owing mainly, of course, to the low birth-rate, but also partly owing to the high death-rate, it is a fact that the deaths in these 229 towns in 1887 exceeded the births, whereas in the twenty-eight English towns the births exceeded the deaths by no fewer than 112,590, equal to an increase of 12 per 1000 of the estimated population. The death-rate in 1887 in the 229 French towns was equal to 25·3 per 1000 of the population, and exceeded by 0 2 the birth-rate in the same towns; in the twenty-eight largest English towns the mean rate in 1887 did not exceed 20·8 per 1000. Speaking generally, the death-rate among the French towns is no higher in the great than it is in the smaller towns. For instance, in the eleven largest towns, including, of course, Paris, the mean rate in 1887 was 25·3 per 1000, corresponding with the rate in the aggregate of the 229 towns. The only group of towns showing a marked excess included thirty-eight towns having populations ranging between 15,000 and 11,000; the mean rate in this group, with an aggregate population of 109,156, was 34·3 per 1000, the excess being in great measure due to the high rates in the following towns—Morlaix 41 5, Gentilly 55·7, and La Seyne 41·5 per 1000. These exceptionally high rates in such small towns may be susceptible of an explanation not readily suggested by the official tables. In Morlaix no less than 218 of the 609 deaths are returned as from unknown causes; 412 of the 775 deaths in Gentilly were of persons aged upwards of sixty years; and in La Seyne the 547 deaths included 238 of adults aged between twenty and forty years. Among the four largest towns it should be noted that the rate was 23·4 in Paris, 22·2 in Lyons, 29·2 in Marseilles, and 25·1 in Bordeaux; and that among the highest rates (again among the smaller towns) were 33·0 in St. Ouen, 38·4 in Ivry, and 38·7 in Bastia. Without at present going further into detail concerning the excess of mortality in French towns, the fact that the mean mortality during 1887 in the 229 towns dealt with in the official return we have had under review was equal to 25·3 per 1000, against 20·8 in the largest and most densely populated of the English towns, stands out conspicuously. In other words, disregarding the

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difference in the size of the towns, which makes the comparison really unfair to England, the mortality in the French towns exceeded that in the English towns by more than a fifth, or 21·6 per cent. We note with satisfaction that the return now issued affords the means of analysing this excess of mortality in the French towns, and we propose on another occasion to deal with the age-distribution of this excess, and the diseases to which it is mainly due. At the same time, it may be hoped that, with a view to the education of public opinion on health matters in France, the French Government will ere long see the necessity of publishing rates of mortality as well as the bare facts, which have no value except for those who have the time and inclination to calculate rates for themselves.

THE SERVICES.

ARMY MEDICAL STAFF.—Brigade Surgeon William Folliott, F.R.C.S. Ireland, is granted retired pay (dated Sept. 25th, 1889).

VOLUNTEER CORPS.—*Artillery:* 1st Cheshire and Carnarvonshire: The undermentioned Acting Surgeons to be Surgeons:—W. Haining, M.D. (dated Sept. 21st, 1889); E. J. Lloyd, M.D. (dated Sept. 21st, 1889). — *Rifle:* 1st Volunteer Battalion, the Prince of Wales's Own (West Yorkshire Regiment): Acting Surgeon A. O. Wiley to be Surgeon (dated Sept. 21st, 1889).—1st Volunteer Battalion, the Leicestershire Regiment: Acting Surgeon R. B. Smith to be Surgeon (dated Sept. 21st, 1889).—2nd Volunteer Battalion, the Royal Scots Fusiliers: William John Lawrie, M.D., to be Acting Surgeon (dated Sept. 21st, 1889).—1st Volunteer Battalion, the Queen's Own (Royal West Kent Regiment): Surgeon A. Young resigns his commission (dated Sept. 21st, 1889).

Correspondence.

"Audi alteram partem."

THE DIFFICULTIES OF THE MEDICAL PROFESSION.

To the Editors of THE LANCET.

SIRS,—If we admit, as many do, that the present times are not prosperous for the profession generally, there must be causes at work to produce such a result. Let us inquire and see if we can arrive at any of them. The general spread of education is one cause. At first sight it would seem to be natural that this would rather enhance the value of so useful a being as the family doctor. But in practice it is not so. The people are now fairly well instructed in physiology. They understand increased temperature; they know more, or imagine that they know more, of the A B C of medical matters than some doctors did forty years ago. Well, they or their children are in a febrile condition. It may be nothing, or a great deal; they assume at first it is nothing. So they go to Mr. Bolus, the nearest chemist, for a bottle of his effervescent saline mixture. They physic themselves and their children. If nothing is really the matter, the febrile temperature cools down and the patient is presently well. Or they do not even go to the chemist. Messrs. Tape and Thread, the drapers, sell a bottle of citrate of magnesia, granulated, at 6½*d.* This is better still. Then some of the family are below par. What is to be done? Why, send to one of the "Stores" or to the draper's and purchase Parrish's Chemical Food at one shilling a pound, cod-liver oil also, and so on. We might multiply this list a hundredfold. Thanks to newspapers and advertising, the superficial mysteries of the medical art are revealed. Sometimes disastrous results arise. They are discovered too late for remedy. A strangulated hernia has been dosed with aperients and castor oil till the damaged intestine has mortified. Or a case of diphtheria is only discovered when the patient is beyond hope and others of the family are infected; or a rheumatic fever, when the heart is damaged beyond repair; or enteric fever, undiscovered till perforation of bowel and death announce it; and so on. Every practitioner knows the evils of amateur doctoring. In this enlightened but feverish age every man strives to be his own doctor, lawyer, and theologian. The results are often very sad, but in the hurry of our present hectic existence unfortunately only too soon forgotten. This is, moreover, the age of quacks. True, Medical Acts of Parliament have been passed, but never was quackery more rampant than now. Not so much as formerly, it may be, in quacks themselves, but in the form of patent remedies and specifics for every disease.

In these advertising days, in medicine, as in everything else, people who know little or nothing of a subject, who presume ignorantly to address the public in the daily and weekly press, attract more notice than those who have devoted their lives to their particular work. It is a misfortune that in this country a very large amount of medical practice (and that the most easy and profitable) is lost to the profession by the fact that almost all chemists prescribe largely. This a great and crying evil. The practice is, instead of diminishing, largely increasing. This should be stopped. The chemist nearly always prescribes, but generally says, to cover himself, "If worse, take patient to a medical man." And so the medical man reaps all the hard work (often without being paid) and the chemist most of the profits. Then, again, hospitals, both special and general, take away largely from the proper, legal, and rightful profits of the profession. The public have a notion that they get advice and medicine of the highest character from the hospitals for nothing, but if they pay for it to the general practitioner they get a second-rate article. This is a bad system. Why not set up legal dispensaries for free legal advice, free places to get married in, free clothing establishments, free meat stores, &c., all paid for by subscriptions or rates? The fact is, the medical profession is gradually and surely committing suicide, and its career on the downward path should be promptly arrested. If we were true to ourselves (which we are not and never have been) the present increase in the profession would be insufficient to supply the needs of the public. But, if we go on working on the "sweating system" (for who sweats more, mentally and physically, than the hard-worked medical practitioner, night and day doing his best to preserve the health and life of the people?), often indeed without reward, then we shall be fools indeed. This idea, that medical services can be had for nothing, and so ought to be paid for at that price, is spreading. We are doing away with all professional reserve. We make everything plain, and it is valued accordingly. The more a profession is lowered in the eyes of the public the less respect it receives.—I am, Sirs, yours faithfully,

Sept. 1889. AN OLD DOCTOR.

NOTIFICATION OF INFECTIOUS DISEASES.

To the Editors of THE LANCET.

SIRS,—I think Professor Corfield must have been the subject of hyperæsthesia when he took personal offence at what I said in *The Times* regarding his previous letter. My remarks were directed against his letter, and not against himself, and I was particular in saying that many others had indited similar epistles, so that he had no need whatever to imagine that I singled him out for special condemnation. He says, however, that in classifying his letter with those of other medical officers of health with which Mr. Ritchie has been abundantly supplied, and still more in commending it as a good specimen of that class, I was guilty of bad taste, "to put it mildly." This addendum shows that the enormity of my guilt is wellnigh unspeakable, and I fear we must let it rest there. Professor Corfield allows that a reduction of 50 in the number of deaths in a town means the saving of 50 lives, whatever the previous number of deaths may have been. But his illustration of its relative importance in the two specified cases is not very felicitous. He says: "Of course, if 1000 deaths from a particular disease in a town are reduced to 950, and in another town 50 are reduced to 0, the same number of lives—viz., 50—are saved in each town; but to argue that the importance of the result is the same is very much like arguing that if one man has £1000 and loses £50, it is of the same importance to him as it is to a man who has £50 and loses all." This is to regard the reducing death-rate from the undertaker's point of view, which is naturally gloomy. Allow me to suggest a different illustration—viz., that of a man who, with an initial debt of £1000, pays it off by periodical instalments of £50. What I contend for is that in paying the last instalment, although the relief to his mind may be considerable from the fact that the debt

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is at length cancelled, the effort required, the labour expended, is not necessarily greater than in paying the first. In reducing the number of deaths from 1000 to 0 there will be at least twenty times as much to do as in reducing 50 to 0, provided zero be a possible limit; and the reductions from 1000 to 950 and from 950 to 900 are by no means easier than other stages in the progress. It is by a regard to *remedial* sanitary administration, and not by a blind trust in any system of notification, that zymotic diseases will be most effectually stamped out. The case of Manchester, as referred to by Professor Corfield, still points the moral. But I fail to see that the dual system is likely to prove superior to the single system in repressing diphtheria. Huddersfield, Oldham, and Portsmouth have not been able to cope with epidemics of this disease one whit better than London has done under no system of notification. In 1887, when the death-rate from diphtheria was high throughout the country, it was, in London, 0·23; in Portsmouth, 0·34; in Oldham, 0·41; and in Huddersfield, 0·42. In Bradford, under the single system, it was only 0·05; in Nottingham, 0·03; but in Norwich 0·23, which, though high for the single system, was surpassed by no less than four towns under the dual system—viz., the three above-named, and Preston. I am, Sirs, yours faithfully,

Kingston-on-Thames, Sept. 21st, 1889. D. BIDDLE.

P.S.—In saying that *The Times* evidently considered his letter as conclusive, Professor Corfield seems to forget that concurrently with the letter in question appeared three others, and that two of these took the contrary part. One of the latter was from me, and has never been answered yet. I could not expect *The Times* to give me space for another letter, when it had already inserted four of mine on the same subject; and the discussion was practically closed there by the passing of the Bill. As a matter of fact, however, I did write again to *The Times*, replying to Professor Corfield by a sentence or two, but devoting the greater part of my letter to Dr. Farquharson, M.P., who, as shown by Mr. Corbett's recent letter to THE LANCET, was grievously mistaken as to facts connected with the medical profession in Kingston.—D. B.

"HINTS TO STUDENTS BEGINNING."

To the Editors of THE LANCET.

SIRS,—If "Experientia Docet" will excuse my correcting him I think he means that the term "physician" is used throughout nearly the whole of the English-speaking world as equivalent to medical practitioner. That is an intelligible proposition, but surely somewhat exaggerated, for though in the United States medical men in general practice are commonly called physicians, the word in the British islands is certainly generally used in a more restricted sense. Doubtless, St. Luke, the beloved physician, and Hippocrates himself were general practitioners dispensing their own drugs; but it is surely not now customary to style a man who prescribes and sells bottles of medicine for from 4*d.* to 5*s.* a physician, whether he be an L.S.A. or an M.D. Lond. It is quite true that the most divergent views are held among educated lay persons and amongst medical men themselves as to what is implied by the word. I may mention a few of these. 1. A physician is merely another term for a medical man, and is thus equivalent to the French *médecin*, the German *arzt*, or the Russian *vrach*, none of whom, by the way, are supposed to dispense. 2. A physician is an M.D. 3. A physician is a somewhat superior sort of medical man. 4. A physician is one who is at least a licentiate of some College of Physicians. 5. A physician must be a member of the London or Irish College of Physicians or a Fellow of the Edinburgh College, or must practise according to the rules enjoined on those holding those diplomas. 6. A physician is a consultant in surgery or medicine who takes no fee under a guinea.

If the first view be held, there is no term to distinguish the qualified proprietor of an open surgery or sixpenny dispensary from the F.R.C.P. who is physician to a great hospital. The second view is never held except by lay people. The third view is that which is held by a number of men, who put "physician" on their door-plates in the hope of making their patients think them superior to their opponents, who content themselves with the old-fashioned title of "surgeon." The fourth view, though it is held by many members of the profession, always seems to me rather senseless, for it can hardly be contended that an L.R.C.P.E. is far superior to an L.S.A.—or, at all events, to an M.B. The fifth view is the one, I think, which most nearly describes the way in which the term has generally been used in professional circles; and the sixth is confined to a small proportion of lay persons.

It is hopeless to expect to get any universally acknowledged definition of the word, and consequently it will, by a process of levelling down, soon come to be what "Experientia Docet" considers it now, the proper appellation of all medical men, and therefore no more distinctive in the profession than the term "esquire" is outside it. I cannot help hoping that this equalisation may take some time. I am, Sirs, yours truly,

September, 1889. THEODORE MAXWELL.

WHY DOES THE UTERUS CONTRACT DURING PREGNANCY?

To the Editors of THE LANCET.

SIRS,—The answer to the question, "Why does the uterus contract during pregnancy?" has so far eluded the investigations of physiologists, or at any rate text-books of obstetric medicine are of one accord in omitting to explain why such contractions occur, though they all present a clear description of the phenomenon itself, and assign to it an important position as one of the most trustworthy indications of the gravid state. In this connexion I venture to suggest that the cause of the continuous rhythmical movement is to be sought in the necessity for a more effectual removal of the blood contained in the utero-placental sinuses than would ensue if its return thence was entirely dependent on the normal forces by which circulation is effected in the natural venous channels. We have the authority of Playfair for the statement that the intermittent contractions occur every five or ten minutes, sometimes oftener, rarely at longer intervals, and that this alternating hardening and relaxation of the womb persists throughout the whole period of utero-gestation. We are all now familiar with the facts that the chorionic villi of the fœtus dip freely into the sinuses of the uterine wall, and that in this situation an exchange takes place between the fluids on the fœtal and maternal sides of the thin villous membrane which alone separates them; that the blood of the mother is thereby charged with excretory products from her offspring, and that the blood of the latter is purified and enriched by receiving oxygen and nutritive material from that of the former. The maternal blood is thus rendered especially impure at a spot where, owing to the anatomical arrangement of its containing structures, there is practical stagnation of the current. This necessarily leads, in time, to the excitement of irritation in the reflex centre governing the movements of the uterus, and as a result the muscular walls of this organ receive the summons to contract and expel the accumulation of carbonic-acid-laden blood as soon as this is gathered in amount sufficient to set the reflex mechanism in action. In this way the regular recurrence of the contraction is clearly to be explained; and also, I venture to think, the reason why almost similar movements of the womb continue when even death of the fœtus takes place a long time prior to its expulsion. In such a case the placental structures have naturally been developed in due course, and continue to be so until the accident happens which terminates the life of the embryo; the sinuses, consequently, continue to exist as blood receptacles, notwithstanding that no further interchange takes place between their contents and the fœtal blood. The supposition I advance also affords an explanation of the variation in rate of contraction noticed in different cases, for it is clear that accordingly as the maternal blood is drawn upon by one or more fœtuses, or by fœtuses varying in size, so will it be more slowly or more quickly depreciated in quality, and the occasion for its more or less rapid circulation in the uterine walls be called forth.

I do not propose to consider here the objections to the above hypothesis, which may be based on the existence of irregular contractions in uteri the seat of tumours other than those following conception. They will not, if duly credited with all the weight attributable to them, invalidate the theory; but their discussion would be out of place in this letter, which I am hopeful you may think worthy of being submitted to your readers.

I am, Sirs, yours faithfully,

Chudleigh, Sept. 12th, 1889. CHARLES H. WADE.

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"ACUTE EPIGASTRIC PAIN IN PREGNANCY ASSOCIATED WITH ALBUMINURIA."

To the Editors of THE LANCET.

SIRS,—Mr. Bailey's accurately described case in your issue of the 14th inst. is worthy of remark. The whole clinical course of the illness might indeed be considered as typical.

In my paper on this subject published in THE LANCET, and to which allusion is made, I drew attention to some of the more leading features of this condition. One characteristic of the pain is apparently its severity, as evidenced by Mr. Bailey's patient and my own, who both considered the consequent labour pains as trivial in comparison. This alone should serve to differentiate it from dyspepsia. It is not constantly present, but rather assumes a rhythmic type of appearance, and it is always referred to as passing from the epigastrium through to the spine. Opium does not seem by any means a desirable or effectual remedy, and Mr. Bailey's observation as to the value of cocaine should be borne in mind. Should any practitioner meet with a similar condition, the question of induction of premature labour will always arise, and I can but think, seeing how rapidly amelioration of all symptoms follows the termination of labour, that much is to be said in favour of such a course. However, until more cases are published, and thus more data are at our disposal, no rules can possibly be laid down for treatment, and we must content ourselves with the scant comfort of knowing that it is unusual in occurrence, but dangerous.—I am, Sirs, yours faithfully,

Grosvenor-street, W. JOHN PHILLIPS, M.D.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Presentation to Mr. Reginald Harrison.

FOR some time past the members of the profession in this city have heard of the intention of Mr. Reginald Harrison, senior surgeon to the Liverpool Royal Infirmary, to leave Liverpool for London. While regretting very much the loss of so able and popular a *confrère*, his medical brethren feel confident that this step will tend to promote his interests and to raise him still higher in the estimation of the profession and the public. Arrangements have been made for presenting him with a testimonial at a complimentary dinner, which is to take place on Saturday, the 5th prox. A large number of subscriptions have already been received by Dr. Alexander Barron, the honorary secretary, and many have already intimated their intention of being present at the dinner. Mr. Harrison's connexion with Liverpool covers a period of thirty years, and has been throughout one of continued success.

The Royal Infirmary (Surgical Wards).

In Mr. Rushton Parker's wards there are at present two cases in which he has recently opened the bladder above the pubes, after the example of Mr. A. F. McGill of Leeds; one for enlarged middle lobe of prostate, which was excised, the other for ulcer of bladder in a tubercular subject in whom perineal section had been twice done without permanent relief. Both cases are so far entirely relieved, and doing perfectly well. The patient was placed in the inverted position, as adopted by Dr. Trendelenburg of Bonn, by which means the intra-peritoneal space was easily and safely reached, without distension of either bladder or rectum. These suggestions are of the greatest importance in the surgery of the bladder. Mr. Parker has also a case of fracture of the neck of the femur in a woman aged seventy-eight. She lies in a Thomas's hip splint, which for this fracture Mr. Parker has during more than ten years found to be all that its author claims for it in preventing non-union. In herniotomy, inguinal and femoral, Mr. Parker has in the last twenty-five cases practised the method of Dr. Macewen of Glasgow, in the treatment of the sac and the management of the wound; he thinks most highly of it. Another of his cases is that of a married woman aged thirty, who has had a tight stricture of the rectum for some years, supposed to be syphilitic. This has been excised entirely, and the patient has not had a day's illness since. For ordinary stricture of the urethra Mr. Parker employs internal urethrotomy with Maisonneuve's instrument. The patient is invariably kept in bed the night after for safety, but gets up next day, and often goes home or to work at once if he so desires. Mr. Parker recently removed a sarcomatous tumour blocking up the pharynx. The patient was a young man, and the tumour not apparently increasing in size. The removal was effected by the fingers and various forceps. The sense of smell and hearing, previously nearly gone, returned at once, and the patient has so far recovered without a bad symptom, in spite of profuse hæmorrhage. In a lad aged sixteen, an ossifying sarcomatous tumour of the left clavicle involving the outer half of the bone and some neighbouring soft parts was excised with rapid healing without fever or suppuration. No confidence is felt yet as to the ultimate result, but so far the patient can use the limb almost unimpaired. For chronic tuberculous lymph glands Mr. Parker performs excision frequently. Occasionally, but very seldom, he finds scraping sufficient, but many cases he has excised have been previously scraped by others, this proving often inefficient.

Liverpool, Sept. 24th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The Scarlet Fever Epidemic.

THE scarlet fever epidemic in the city continues with unabated severity. The number of inmates in the special hospitals at the time of writing is 323; there are also 26 cases outside, in addition to 20 cases in the King's Norton and Aston infectious hospitals. Fortunately the death-rate is very low: thus the zymotic death-rate for last week was 1·7 and the general mortality for the city in the same week was 14·1. The Health Committee are placed in a difficult position in their efforts to cope with the infection, and are endeavouring to get more land for increased hospital accommodation. Some negotiations have taken place with the Lunatic Asylums Committee for a piece of land adjacent to the present site, and after prolonged deliberations a plot has been granted, subject to the approval of the Lunacy Commissioners. This is no time, however, for the play of red-tape officialism, for what is wanted is immediate and energetic action to cope with the rapid spread of the disease, and the treatment in a satisfactory manner of present cases. The staff at the three hospitals number seventy-six. Unfortunately nine of the nurses are *hors de combat* from the disease, and one of the medical officers, Dr. Eustace Hill, lies in a dangerous condition. Some correspondence has taken place between Mr. Chesshire and Dr. Bostock Hill in reference to the aggregation of patients suffering from this infectious disease; but the latter gentleman has shown that the acute cases have at least 1200 cubic feet space, which is probably much in excess of what they would get at their own homes. The other objection raised by Mr. Chesshire, that there is a high probability of the excreta from these patients spreading the disease by contaminating the sewers, need hardly be discussed in the light of modern knowledge of the disease. The President of the Sanitary Congress now sitting at Worcester made some pertinent observations as to the value of the new Act for the compulsory notification of infectious diseases. It is worthy of note that the health committee of this city are fully alive to the desirability of enforcing this Act at the earliest date consistent with its adoption by the city council; they will then have a valuable aid to their efforts to combat and suppress this epidemic. In the meantime there is no occasion for panic, and the utmost confidence is felt in the wisdom and discretion of the authorities.

Catapult Nuisances.

An instance of the danger of this juvenile nuisance was exhibited a few days ago in the case of a boy admitted into the General Hospital with one eyeball completely smashed by a missile from one of these dangerous instruments.

The Ear and Throat Hospital.

A special meeting of the governors of this institution was held on the 20th inst., to consider the proposal to erect a new hospital at which provision shall be made for in-patients as well as out-patients. The mayor occupied the chair. The report showed that there were largely increasing demands upon the usefulness of the hospital; it was stated that in

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the five years ending 1888 the number of cases treated averaged 3198 per annum, as compared with 1730 for the previous five years. Promises of donations towards this object were recorded, and the plans appeared to be feasible and well calculated to meet the requirements needed.

Birmingham, Sept. 25th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle.

ALTHOUGH not strictly an association paper, the lecture which Mrs. Stopes of London delivered on Wednesday, Sept. 18th, on "Women's Dress Considered Physiologically and Psychologically," was as well attended as most of the sectional meetings, and was full of interest on this much-debated subject. Dr. Philipson gracefully presided, and Dr. Embleton joined in the discussion. Mrs. Stopes pointed out in her admirable lecture the various fashionable follies of her sex as regards dress, how many a girl goes out through the day dressed in tweeds and furs, and shivers at night in some of the various miseries of full dress. She said that no woman who wears high heels has the full use of her life or of her brain possibilities. When combined with tight shoes, as they generally are, her feet swell, and exercise becomes unpleasant and painful. She reclines on a sofa, becomes delicate, lames herself, and establishes in civilised Europe an imitation of the Chinese feminine foot. Mrs. Stopes says that the only place where high heels are really valuable is when we are walking up hill. She stated that she had some thought of taking out a patent for movable heels to be screwed on when ascending mountains, but the woman who wears high heels is perpetually walking down hill, and that one must remember the strain of a long-continued descent well enough to understand the effect of this injurious habit. Tight lacing she considers a national evil, and one to which the thousand nameless weaknesses and languors of the sex are often to be justly attributed. Last year, she said, when this subject was touched upon in the Physiological and Anthropological sections of the British Association, she mentioned that the female waist had decreased by two inches during the last twenty-five years. This may have been by the force of fashion during that period, inducing women to compress their figures and risk these evils, or it may have been through their having inherited a lowered vitality from mothers who have laced tightly in the past. The question is worthy, she said, of consideration whether women from any motive are justified in following fashion to an extent that not only tends to lower their own health, but to lower the physique of the whole nation. Any standards of taste recognised by the civilised world were based on the old statues of Greece, fashioned at a time when unhealthy and decrepit children were "put away," when there were no hospitals, and when exercise was a necessary part of education. But the statue of the Grecian Venus was five feet two inches and a half, and the size of the waist was twenty-six inches. "What modern Venus would not be horrified to appear in such proportions as these?" The remedy for these evils of fashion is to be looked for in the help of all women, and fathers, husbands, brothers of women, to elevate and develop a true standard of art-ideal, to "consider what forms of clothing are best fitted to develop the feminine frame naturally, healthily, perfectly." Mrs. Stopes' remarks were loudly applauded. During an interval in the work of the association, Sir H. Acland, K.C.B., accompanied by the Bishop of Newcastle and Dr. Embleton, visited the Newcastle City Hospital for Infectious Diseases. The whole arrangements, especially the provision of single bed wards for private patients, received the commendation of the visitors. Within the last few days a monument has been erected in Jesmond cemetery as a memorial of the late Dr. Luke Armstrong. The structure is of classic design, and is entirely built of polished Aberdeen granite. A committee of Wallsend workmen have purchased a complete ambulance carriage, built to their own order by Messrs. Atkinson and Philipson of this city, and having all the most recent improvements. In this good work the Tyneside workmen have followed the example of their Leeds brethren, and this commendable interest of workmen in ambulance work is increasing.

The Health of South Shields.

Dr. Munro, the medical officer of health for South Shields, states that during the past year the rate of infantile mortality was not only the lowest on record, but was under the average of England and Wales, and considerably under the rate ruling in the urban districts of England. The like held good of the death-rate from zymotic or infectious diseases. The gross death-rate was considerably below the average of the twenty-eight principal towns, and slightly under the average of the fifty smaller towns, although it was slightly above the average of England and Wales. The birth-rate on an estimated population of 69,500 furnished a rate of 36·1 per 1000, the lowest birth-rate on record. The gross death-rate was 18·201 per 1000 of the population, which was the lowest on record save that of 1881.

Northumberland and Durham Medical Society.

Under the presidency of Dr. James Murphy of Sunderland, this Society has taken a new departure in having a night devoted to a special address from an eminent member of the profession outside the Society—Mr. Lawson Tait. From what I can learn, there is likely to be a large gathering on the occasion at the Newcastle New Medical College. After the address on the 4th prox. a banquet will be held, open to all qualified practitioners.

Newcastle-on-Tyne, Sept. 24th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

EDINBURGH.

Edinburgh Cow-houses and the Public Health.

MR. COOPER, the burgh engineer, acting under instructions from the magistrates, has recently been engaged in making a thorough inspection of the Edinburgh cow-houses. From his report it appears that they are almost without exception wanting in some of the essentials of a good sanitary condition. As this has a direct bearing on the milk-supply of the city, the details of the report afford ample food for reflection. Out of 220 byres in which are housed 2781 cows, only eight are "all but" in accordance with "the rules and regulations for cow-sheds, cow-houses, and byres"; that is to say, not a single one is so constructed that no exception can be taken, but there are eight which conform fairly well with rules and regulations; whilst, as will be seen from the following details of Mr. Cooper's report, most of the cow-houses are eminently unsuitable for the purpose for which they are used. He states (1) there are eight byres where the cubic capacity is sufficient, but having a number of more or less serious defects as regards structure, paving, draining, &c.; (2) sixty-two where the cubic capacity is insufficient, but the places are otherwise in fairly good order; (3) twenty-four where the cubic capacity is under standard amount (800 cubic feet for each animal), more than two-thirds of the same having more or less serious defects as regards the structure, paving, drainage, and cleanliness; (4) thirty-three where the cubic capacity is less than two-thirds, but more than one-half of the standard amount, besides having more or less serious defects as above; (5) thirty-four where the cubic capacity is less than a half of the standard amount besides having a number of more or less serious defects as above; (6) fifty-one where entire reconstruction ought to be insisted upon. When it is further considered that many of these byres are built in quite unsuitable localities, and that the cows in many of them are confined from year end to year end, and are under very imperfect veterinary supervision, it is not to be wondered at that when any epidemic does occur amongst them it is almost invariably attended with most disastrous results. Apart from all this, milk allowed to stand for even a very short period in such badly cared-for places must inevitably become deteriorated in quality, and will be more likely to collect various organisms than when the byres are well ventilated and cared for. It is greatly to be desired that the present scare about pleuro-pneumonia, accompanied as it is by a considerable drain on the ratepayers' pockets (through the public health department, by way of compensation for slaughtered animals), will call attention to the fact that by far the most economical plan

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for both producers and consumers will be to build good cow-houses on proper sites. It does not pay any farmer to keep sickly cattle, and many of those whose byres are not in the worst possible condition would be incalculable gainers were they compelled to put up well-ventilated and well-drained cow-houses. The consumers of milk would gain in confidence if not directly in pocket.

Suggested Experimental Station.

Professor Chiene recently sent a letter to the Fifeshire local authority in which he offered to carry out a number of experiments on the inoculability of pleuro-pneumonia in cattle, especially with regard to the particular organism that is the cause of the disease. He thinks that if this could be found there might be some possibility of obtaining a protective virus. He asks the local authority to supply such a station (say, one of the islands in the Forth Inchcolm) and animals for experimental purposes. As his share he offers the use of his laboratory and his assistant to do the work. Such combinations have succeeded in France and in other countries, and there is no reason why equally good results should not be obtained in Scotland, not only in the case of pleuro-pneumonia, but also in the other diseases about the nature of which there is still any doubt.

Post-graduate Classes.

This year the post-graduate classes are not arranged quite as in former years. It has been found by experience that men coming up to study like to get something of everything and everything of one thing. The clinical and general classes are arranged as before, but some of the special courses are more elaborate and occupy a longer time than in previous years. For some of these classes a special fee is charged. How far the change will be acceptable to the graduates still remains to be seen.

Edinburgh, Sept. 23rd.

GLASGOW.

Report on an Insanitary Industrial School.

LAST WINTER an epidemic of a somewhat puzzling character, fully described in THE LANCET at the time, broke out in Abercrombie-street Roman Catholic Industrial School for Boys, Glasgow. The disease was of an obscurely febrile nature, associated in some cases with pneumonia. There were 23 cases and 4 deaths. After most careful investigation, the sanitary authorities of the city reported that the locality and its surroundings were not suitable for so large a school. The school managers and their medical adviser opposed this view, and resisted the suggestion that the school should be removed. A report now issued by Colonel William Inglis, the inspector appointed to visit the certified reformatory and industrial schools of Great Britain, quite bears out our local authorities. He states that this is not the first time that attention has been drawn to the sanitary condition of this school. In 1887 he reported that there was insufficient space for so large a number of children. In the previous year he reported the situation as unhealthy. In 1885 he said: "The school is very subject to epidemics," and referred to two during that year, one of small-pox and one of measles. In 1883 and previous years attention was drawn to the fact that the children when admitted were generally of a very feeble type, and that fresh air and healthy surroundings, with warm clothing, plenty of good food, accompanied by individual care and attention, were especially necessary for them. In view of such a serious report the managers have under consideration the removal of the school, but there is some difficulty in obtaining a site near Glasgow. "If this difficulty is not soon surmounted," states the inspector, "I see nothing for it but to close the school."

Glasgow, Sept. 23rd.

ABERDEEN.

The Health of the City.

DR. HAY, in his report for the month of August, says the health of the city has been very satisfactory. The death-rate from all causes—viz., 13·57 per 1000—is much below that of any previous month in the present year, and is lower than that of the immediately preceding month by 3·8 per 1000. The decline is chiefly evident in deaths among persons under five years of age and persons above sixty, and is due in part to a large decline in the miasmatic death-rate, which has fallen to 9·7 from 29·1 per 10,000 in the previous month. As compared with the same month in the previous ten years, the total death-rate for last month is distinctly the lowest, and is lower than the average by 2·85 per 1000. The epidemic of measles is now rapidly drawing to a close. In December last, twenty cases of measles were reported, and for the first five months of the present year the numbers increased steadily until in May 731 cases were reported. Then in June a decline set in, and for that month the number was less by 200, and in August only 73 cases were reported. The mortality from measles during August was high—viz., 1 in 8, the highest recorded in any month since the commencement of the epidemic. After an absence of a month, scarlet fever again returned, and a few mild cases were reported. The cases of whooping-cough were exceptionally small in number, while the number of cases of diphtheria and typhoid fever was slightly beyond the average, but nearly all of them were mild. At the end of the month there were only seven cases in the City Hospital.

Aberdeen, Sept. 23rd.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Amalgamation of the Dublin Medical Schools.

AT last the amalgamation scheme may be regarded as *un fait accompli*, all difficulties having been removed, and the new Schools of Surgery, Royal College of Surgeons, including the Carmichael College and the Ledwich School, will be an undivided centre of medical education. The new professors &c. will be elected about the latter end of October, and the winter course of lectures will commence as usual on November 1st. The Council of the Royal College of Surgeons have had many difficulties to encounter in carrying to a successful termination the scheme of amalgamation, and deserve the thanks of all interested in medical education in this city for their disinterested services.

The late Dr. Robert McDonnell of Dublin.

Some members of the profession have thought it advisable to have some permanent memorial of the late Dr. McDonnell, whose untimely decease they, in common with many of the community, so deeply deplore. It has been suggested that a marble bust and a portrait, to be placed in the Royal College of Surgeons, of which he was an ex-President, would be a suitable tribute to his memory. A committee, of which Mr. Austin Meldon, President of the College, acts as chairman, has been formed, and Mr. Anthony H. Corley will be the honorary secretary.

New Cavalry Barracks, Dublin.

The new barracks at Grangegorman, near the Phœnix Park, are rapidly approaching completion. The ground covers an area of twenty-five acres, and when some additional works, now under consideration, are finished, it will allow accommodation for about 500 officers and men, with the same number of horses. The dormitories will be well ventilated and supplied with the most approved sanitary appliances; while the recreation rooms will consist of a coffee- and reading-rooms, also fencing and lecture rooms. The cost of the barracks will be about £60,000. The recent cold weather has been felt greatly by the men under canvas in the Park, and it is contemplated that in a week or two one of the two regiments will be moved to the Royal Dublin Society's premises at Ball's Bridge for the winter; while the other regiment will be sent back to the quarters they formerly occupied in the Royal Barracks.

St. Vincent's Hospital, Dublin.

After serving for upwards of thirty years as visiting physician to St. Vincent's Hospital, Dr. Quinlan has relinquished his clinical duties, and has been appointed consulting physician to that institution. Dr. Quinlan retires in compliance with the regulation of the hospital, which limits the tenure of office of the members of the visiting staff to twenty-five years.

Pauperism.

The returns of pauperism for the June quarter of the present year, which have been furnished by the Local Government Board, show a decrease of 1185, or 2·6 per cent., in the average number of workhouse inmates on Saturdays during the quarter, and a decrease of 2228, or 3·4 per cent., in the average number of persons on out-door relief.

Dublin, Sept. 24th.

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PARIS.

(FROM OUR OWN CORRESPONDENT.)

Executions by Electricity.

AT a recent meeting of the Academy of Sciences, the Perpetual Secretary read a paper from Mr. Edison on the application of electricity in place of hanging as a capital punishment. In this report Mr. Edison compares the effects of the continuous currents with those of the alternative currents, and he gives the preference to the latter, as he believes that they will cause death without any pain whatever. He described some experiments which he had performed on several of his own workmen. To a question that was put to him, as to what time it would take to consume a body, Mr. Edison replied that the body would not be consumed, but that its temperature would only be raised by three or four degrees, and that the body would then remain as if mummified. Mr. Edison concluded his communication with the impression that death by electricity may be produced instantaneously and without pain. Mr. Edison's paper was referred to the sections of physics and of medicine, and M. Marcel Desprez, the eminent electrician, is to draw up a report on the subject.

Preventable Mortality in the French Army.

The authorities have been somewhat alarmed at the number of deaths in the army this summer caused by diarrhœa and typhoid fever. These diseases have been attributed to the imprudent ingestion of contaminated water, as well as to meat in a state of decomposition which has been distributed to the soldiers. In a report drawn up by Drs. Poincaré and Macé of Nancy, the authors recalled that contemporary science has demonstrated that there sometimes develop in alimentary substances of animal origin extremely active poisons, the nature and the genesis of which are hardly yet determined. These poisons, called ptomaines, originate in the course of putrefaction. It is to ptomaines and not to microbes that must be attributed the toxic phenomena which follow the use of stale sausages &c. The same authors have also found in a great number of alimentary preserves the presence of living microscopic germs. All preserves, even those that are well prepared, are, it would appear, susceptible of these alterations. Germs which are entombed in these boxes are struck with catalepsy, but they soon become revivified on being exposed to the air. It is therefore considered advisable that immediately a box is opened its contents should be used; when this precaution is not observed, and in spite of every possible care, the rest of the preserve becomes putrid with a rapidity much greater than that of similar substances freshly prepared. The conclusion is that in the alimentary hygiene of the soldier the use of preserves should be abandoned; at any rate, in time of peace. As for alimentary preserves in time of war, this subject is being carefully studied by the military authorities. Among other things, a new sort of compressed bread has been submitted to the Minister of War for examination. This compressed bread, which is manufactured with similar flour to that used for the bread in use among the troops, and without any other addition, takes the form of a thin cake, which is easily softened and broken. Soaked in water for a minute this cake, of 340 grammes in weight, is then exposed to the air for a quarter of an hour. The bread then resumes its original size and its excellent flavour of fresh aliment. This new bread is recommended as being far preferable to the biscuit of old, so fertile of gastralgia and diarrhœa, and which Chenu, the celebrated army surgeon, justly condemned when he asserted that biscuit is to bread what salt meat is to fresh meat, with this difference, however, that the stomach supports salt meat better.

Place of Origin of the Human Race.

M. de Quatrefages, who is a confirmed monogenist, entertained the Academy with the definite results of his researches. He fixes the north of Asia as being the seat of the origin of the three principal types of the human race—the white, the yellow, and the black. Asia has remained the home of the yellow race, Europe was invaded by the white race, and Africa by the proto-semites and the black race. The three types are to be found in the Oceanic Islands. The invasion dates from the tertiary epoch. On the other hand, America was peopled only at the quaternary epoch by the white race.

Civilisation and Disease.

At the same meeting M. Milne-Edwards presented, in the name of M. Certes, an extensive memoir, in print, entitled "The Protozoaires of the Mission of Cape Horn," accompanied by drawings of extreme delicacy. According to the author, there are no pathogenic microbes to be found at Cape Horn. The Fuegians did not know anything about small-pox, measles, scarlet fever, or diphtheria before the inroads of civilised nations. Before the visit of the mission even pulmonary phthisis was unknown. Tuberculosis only commenced to establish itself in the country since 1881. M. Certes has given the drawings of the rhizopodes, the infusoria, brought up from a depth of 7000 metres, by the naturalists of the *Romanche*.

Health of Paris.

Notwithstanding the influx of visitors from all parts of the world to see the great Exhibition, the public health of Paris is considered to be excellent. The municipal report of last week shows a mortality of 867, instead of 890 during the preceding week. The average weekly mortality for the five corresponding previous years was 893.

Paris, Sept. 24th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The German Society for the Promotion of Public Hygiene.

THIS Society has just held its fifteenth annual meeting at Strasburg. Its first sitting was held on the 14th inst. in the Town Hall, and was attended by 220 persons. The secretary of the Society stated that the number of its members was 1160. Dr. Krieger, of Strasburg, the chief medical adviser of the government of Alsace-Lorraine, spoke on the hygienic conditions and arrangements of those provinces. He mentioned that, since the regulation of the course of the Rhine, intermittent fever, which used to be very frequent, and which was followed by goitre and cretinism, had almost disappeared; among the troops garrisoned in Strasburg, for instance, it had sunk from 80 to less than ½ per cent. The chief event of the first meeting was a lively debate on the measures to be taken for the attainment of healthy dwellings. The chief speaker was Dr. Miquel, Burgomaster of Frankfort-on-the-Main, and one of the leaders of the great National Liberal party. He explained and advocated the proposals made by the committee appointed to study the question last year. The debate resulted in the acceptance of the proposals, which will now be laid before the Imperial Government. They are classified under four heads—viz., streets and sites, the erection of buildings, the construction of rooms for human habitation, and the use of such rooms. The second sitting was held on the 16th, and was opened by a lecture delivered by Professor von Ziemssen of Munich on Convalescent Homes. Among the various great advantages of such institutions he mentioned their economy, stating that the average cost of maintenance per patient in the Berlin and Munich hospitals was 2 marks 50 pfennigs (2*s.* 6*d.*) per day, and in the convalescent homes only 1 mark 75 or 80 pfennigs (1*s.* 9*d.* or 1*s.* 9½*d.*). In England, he added, the cost of maintenance in convalescent homes was only 1*s.* 4*d.* He recommended the example of the great convalescent home at Vincennes, which had recently established a branch home in Paris, in which the patients after leaving the home might spend two days looking for work. He recommended the establishment of homes in or very near cities for patients recovering from acute diseases, and of others in rural districts for chronic cases. This discussion was followed by a lecture of still greater interest and importance by Professor Heller of Kiel. Its theme was the prevention of tuberculosis, "the most dreadful and ravaging of all diseases." I much regret that space will not permit me to reproduce this lecture. The speaker was followed by Drs. Dettweiler, Cornet, and Wyss, all three well known as authorities on the subject. Dettweiler exhibited and recommended his pocket spittoon. Wyss went into details on the subject of the relation between the human race and the lower animals in the matter of tuberculosis, laying special emphasis on the fact that frequency of tuberculosis among the cattle of a district invariable goes hand in hand with corresponding frequency among the human inhabitants. The theme of the third and last day was railway hygiene, and was introduced by

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Herr Wichert, Privy Councillor of Public Works in Berlin, in a masterly and exhaustive lecture on the construction of passenger carriages, the arrangement of the seats and bye-rooms (closets &c.), the construction of the seats and the furnishing of the compartments, the lighting, ventilation, heating, and cooling of the same, the arrangements for securing passengers against accidents, the regulations for the use of the seats, the arrangement of passenger carriages of special kinds and for special purposes or times, help in case of accident or illness, and, finally, disinfection. A lively debate followed, Wichert's opinion that the present system of lighting passenger carriages was sufficient, because it was not advisable to encourage people to injure their eyes by reading in trains at all, was met by the remark that one did not read novels only in trains, but also more important publications.

The Prussian Chambers of Physicians.

For the second time since the establishment of the Prussian Chambers of Physicians their representatives have been invited to take part in the deliberations of the highest medical official body in Prussia—viz., the Scientific Deputation for Medical Affairs. At the time when the said Chambers were organised the State granted them the right to be heard by the official authorities on certain general sanitary questions. Each chamber therefore received the right to send one representative to the Scientific Deputation and one to the chief medical official body of its province, and these representatives are permitted to take part in the deliberations, but not to vote. They are now regarded as extraordinary members of the Scientific Deputation, and are invited to take part in its deliberations once every year—viz., in November. The themes of discussion this year are to be the reform of the midwife system and the revision of the official text-book for midwives. These subjects will be introduced by Professors Olshausen of Berlin and Bockendahl of Kiel.

The Society of German Dentists.

The Society of German Dentists met at Kassel on the 15th and 16th inst. The main question discussed was whether the Society should resolve to form a union of guilds or a union of free societies, and the majority resolved to adhere to the former resolution of the Society and form a union of guilds. The Society numbers more than 300 members. Its next year's meeting will be in Leipsic. Hermann of Cologne demonstrated Humm's method of filling teeth with the help of a new sucking apparatus invented by the demonstrator himself, Rauhe of Düsseldorf, the filling of teeth with gold and gold tin, and Mueck of Berlin a new Charnier-lever apparatus, constructed by himself, for turning the axes of wry teeth, and other implements of the same kind.

Professor Anton Nuhn.

Professor Anton Nuhn, who died at Heidelberg lately, aged seventy-five, was, after Joseph Hyrtl of Vienna, the oldest German teacher of anatomy. He was one of the few anatomists of the past half century who made a discovery in descriptive anatomy. In 1845 he discovered the glands, now called by his name, at the end of the human tongue. He was also one of the first who studied the causes of deafness and dumbness anatomically. Among the other subjects on which he wrote, I may mention the connexion of the lymphatics with the veins, the structure of the skin papillæ, the secretion of the gall, and faulty structure of the heart. He was also the author of handbooks of surgical, practical, and comparative anatomy, and of a series of surgico-anatomical tables.

The Propagation of Phthisis.

There is a general agreement among medical men that the tubercle bacillus discovered by Robert Koch in 1882 is the germ of phthisis. Some are of opinion that this bacillus can settle only in the lungs of persons specially predisposed for its reception, owing to the presence of tuberculous disease in their parents, or to general inborn or acquired weakness in themselves. Dr. Cornet, one of Robert Koch's pupils, has been led by his investigation of the manner in which tubercle bacilli spread to a different opinion. He declares that tubercle bacilli are always to be found on the walls of rooms in which consumptive patients have lived, without the necessary care being taken for the removal of their sputum. He thinks that the spread of phthisis is due almost exclusively to the inhaling by healthy persons of tubercle bacilli emanating from the scattered and dried sputum of uncleanly consumptive patients, and that heredity and acquired predisposition are of quite subordinate importance. In order to settle the question, Professor Bollinger of Munich has made a proposal to the Bavarian Government. It is known that in prisons one-third or more of the inmates fall victims to phthisis. Bollinger proposes that one prison ward be as thoroughly disinfected as if cholera patients or plague patients had lain in it, that all prisoners suffering from or even suspected of tuberculosis be removed from it, that the sputum of those that remain be removed as Dr. Cornet prescribes, and that the ward be then observed for a length of time, with a view to ascertaining whether the cases of phthisis prove less numerous than before.

The Anatomical Society will meet in Berlin on Oct. 10th.

A joint-stock company for hygienic purposes has been founded in Berlin with a capital of 750,000 marks (nearly £37,500).

Professor Berlin, of Stuttgart, has been called to Rostock, as Professor of Ophthalmology and head of the University Eye Hospital, succeeding Professor Zehender, who retires owing to his advanced age.

Berlin, Sept. 23rd.

Obituary.

PROFESSOR RUDOLF VOLTOLINI.

PROFESSOR RUDOLF VOLTOLINI, whose death at Breslau we announced last week, was one of the first aurists and laryngologists of his time. His first writings on the treatment of diseases of the ear appeared about the end of the fifties in Virchow's *Archiv*, and in one of the earliest of them he described a new method of illuminating the organ of hearing and other cavities of the body. In 1860 he established himself as a private lecturer (*privat-docent*) in the University of Breslau. In the years immediately following he busied himself chiefly with the practical problem of making the new galvano-caustic method of operation available for the treatment of internal diseases of the larynx and the pharynx. In 1853 Middeldorff, guided by the physicist Gustav Kirchhoff, one of the inventors of spectral analysis, had showed how certain surgical operations could be performed better and more easily with the electrically heated wire loop, a discovery which became much more important when Victor Bruns of Tübingen proved the possibility of operating on the larynx through the mouth. Voltolini published the results of his studies and experience in 1867 in a book on the galvano-caustic method, and its application in diseases of the larynx. In 1868 he was appointed professor of otiatrics and laryngology at Breslau. The titles of his other most important writings are the "Examination of the Nose and the Pharynx," the "Diseases of the Nose," "Polypus of the Nose," and "Acute Inflammation of the Cuticular Labyrinth." He retained his mental powers unimpaired to the last, speaking and writing with great vivacity on question connected with the special subjects of his research.

DR. DE LEO, BEY.

AT the close of last week there died in Milan, on his return from Egypt, the Commendatore De Leo, Bey, the most distinguished Italian consultant in the dominions of the Khedive.

Dr. De Leo was a Sicilian by birth, his native town being Messina. Having qualified at the Neapolitan school just fifty years ago, he graduated in medicine, and was on the threshold of his career when the disturbed condition of his country drove him, like many others, into exile. He made Egypt his home, and threw himself with energy into professional life. He speedily acquired an extensive *clientèle*, not only among his compatriots, but in the European colony generally. He became body physician to the two Viceroys, Abbas and Ismail, and won their confidence in many ways by his medical skill and by his sound, cool judgment as an adviser and a friend. The influence thus

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acquired he employed on behalf of the foreign population, British and French as well as Italian.

On the fall of Ismail he asked and received permission to retire from court, for reasons of advancing age. He still, however, practised as a consultant, and still interested himself in the European community, liberally devoting to charitable objects a portion of the fortune he had honourably amassed. His popularity, particularly with his compatriots, was immense, while the decorations of Commendatore of the Crown of Italy, and Officer of SS. Maurice and Lazarus, received from the Italian Government, attested his country's esteem for him. He possessed also many foreign distinctions, and was corresponding member of numerous scientific bodies in Italy and elsewhere.

"Always holding aloof," says one who knew him well, "from the political imbroglios of Egypt, he occupied himself with medicine pure and simple, and reflected honour alike on science and on himself. He was an ardent lover of his country, and allowed no year to pass without a visit to Italy, sometimes for many weeks." It was on one of these sojourns that he suddenly passed away, at Milan, as we have said, in the Albergo dell'Europa.

J. ADOLPHUS SMITH, M.R.C.S. ENG.,
SURGEON-MAJOR, ARMY MEDICAL STAFF.

SURGEON-MAJOR JAMES ADOLPHUS SMITH died at Bhamo, Upper Burmah, on Aug. 2nd, of intermittent fever, at the age of forty-one. He served in the campaign in the North-West Frontier of India in 1876, and was wounded in the chest; he was specially thanked by the Government of India for his services in a severe epidemic of cholera in Northern India. He was in charge of the 26th Field Company Royal Engineers in the Egyptian War of 1882 (medal and bronze star); and with the Nile Expedition in 1884-5 (clasp). Surgeon-Major Smith was recently in charge of the Station Hospitals at Bellary, South Station Hospital at Bangalore, Mandelay, and Bhamo. Before entering the service he had been house surgeon at St. Mary's, St. Peter's, and the Lock Hospitals in London, and had travelled widely.

H. E. B. FLANAGAN, M.R.C.S. ENG.,
SURGEON, ARMY MEDICAL SERVICE.

SURGEON HAROLD EDWARD BICKERSON FLANAGAN died on Aug. 8th, of typhoid fever, at the age of thirty-one, at Bangalore, Madras, where he had been doing duty at the South Station Hospital. Surgeon Flanagan was a man of very great ability. As a student at Guy's Hospital he achieved considerable distinction, obtaining the gold medal in medicine and various other prizes. In India, in addition to his high professional knowledge and character, he had already distinguished himself as a linguist, for in a few months he passed with ease the examination for the "high proficiency in Hindustani," and shortly afterwards the "higher standard in the Persian language." The Army Medical Staff loses in Surgeon H. E. B. Flanagan one of its most brilliant and promising members.

Medical News.

SUTTON SEWAGE SCHEME.—The Sutton Local Board has decided to purchase, at a cost of £1000, some additional land near the proposed site for the disposal of the sewage, when the scheme in contemplation is carried out.

FATAL FOOTBALL ACCIDENT.—A miner named Fox, of Carlton, twenty-six years of age, died on Sunday last from a fractured spine, sustained whilst playing in a football match between the Carlton Club and Hogg's Field United, Holbeck, on the previous afternoon.

LITERARY INTELLIGENCE.—Dr. Norman Kerr's work on "Inebriety" has been translated into Russian by Professor Kovalevsky of Kharkoff University, and published in Moscow. We understand that Mr. R. W. Partridge and Mr. E. Partridge, barristers-at-law, are about to publish an edited copy of the Lunacy Acts Amendment Act, 1889.

A SITE has been selected for a new station military hospital at Chester, near the Grosvenor-bridge, as part of the buildings connected with the headquarters of the new North-Western Military District. It is proposed to provide accommodation in the hospital for sixty patients.

MRS. MAYBRICK.—The Maybrick Committee have resolved to instruct counsel to apply to the vacation judge at next week's sitting for a writ of *habeas corpus*, on the ground that her sentence of penal servitude was illegal and *ultra vires*.

TRAPEZE ACCIDENT.—Another instance of the dangers attending acrobatic performances occurred at Pesth last week. While flying from one trapeze to another, a performer at Wulf's circus in the town missed his aim, and, falling outside the net, sustained serious injuries.

PRESENTATION.—A cheque for £100, together with a largely signed letter of regret at his approaching departure, has been presented to Dr. Edward Paget Thurstan, M.D. Univ. Camb., M.R.C.S. Eng., who is about to leave Southborough, Tunbridge Wells, and practise in the Canaries. Dr. Thurstan was a member of the local board, and took an active share in many philanthropic movements for the welfare of Southborough, where his presence will be greatly missed.

HUNTLY JUBILEE COTTAGE HOSPITAL.—On the 18th inst., a bazaar in aid of the endowment of the Jubilee Hospital at Huntly was opened in the Public Hall there, in presence of a large number of ladies and gentlemen, by the Duke of Richmond and Gordon. On the following day Dr. Farquharson, M.P., was present, and remarked on the gratifying success which had attended the previous day's proceedings and the excellent arrangements which had been made in the building for the welfare of the future inmates.

ENTERIC FEVER IN WELLINGTON, N.Z. — Mail advices state that enteric fever prevailed at Wellington, New Zealand, during the latter end of July, and the sanitary condition of the town was most unsatisfactory. Mr. Fulton, engineer for the Manawater Railway Company, had succumbed to the epidemic, whilst Captain Savill, aide-de-camp to the Governor, had been in a critical condition, but, according to the latest accounts, was improving. The Countess of Onslow and her children had left Wellington for Nelson, presumably to avoid unnecessary risk.

POISONOUS BERRIES.—On Sunday last three young married men, residents of Kilburn, went for a walk, during which they gathered a quantity of berries, which were taken to their respective homes, made into pies, and eaten. As a result, the members of the three families, numbering nine in all, were taken in the afternoon to St. Mary's Hospital, Paddington, suffering from poisoning. One of the young men soon rallied to treatment, but the remainder were, according to last accounts, still in a serious condition. The berries were of that variety commonly known as "deadly nightshade."

TUBERCULOUS DISEASE AND THE SHEFFIELD BUTCHERS.—On Tuesday a numerous meeting of butchers, attended by deputations from several towns, was held at Sheffield, in consequence of the medical officer of health, instigated by the prosecutions at Glasgow and other places, having condemned the carcase of a young beast which had suffered from tuberculosis. The question is, no doubt, of importance to the trade generally. The butchers contend that, in its primary stage, the disease does not render meat unfit for human food; whilst medical opinion asserts that meat affected by the disease at any period is unwholesome and not fit for consumption.

REPORTED DEATH UNDER CHLOROFORM. — The death is announced of Mrs. Neale, aged twenty-four, residing at Handsworth, Staffordshire, under painfully sudden circumstances. Mrs. Neale had decided to have several teeth extracted, and the family medical attendant, together with a local dentist, were called in. Chloroform was administered, but before she had drawn her breath half a dozen times she suddenly slipped from the chair and expired almost immediately. It is thought that death resulted from syncope brought on by excitement. The professional gentlemen engaged are stated to have taken every precaution in the administration of the anæsthetic.

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AN INSANITARY DWELLING.—At a meeting, last Thursday, of the Vestry of St. James's, Westminster, it was reported that inquiries had been made with respect to the recent death in Berwick-street, when comments were made on overcrowding and insanitary dwellings. The case was that of a coach-painter named Ebers, who lived in a small back kitchen amid the most filthy surroundings. Dr. Jackson of Poland-street described the place as entirely unfit for habitation, and said it ought never to have been inhabited. The Sanitary Committee reported that there was no reason to take action as to the filthy state of the premises, as it was caused by the condition of the occupants.

BEQUESTS AND DONATIONS TO HOSPITALS.—The treasurer of the British Home for Incurables has recently received £20 as a donation from an anonymous friend resident in Somerset, Cape Colony.—The Duke of Portland has intimated his intention to make a donation of £50 towards the funds of the Doncaster Infirmary.—The late Miss Jane Winlaw, of 17, Queen's-road, Aberdeen, has left by her will the following legacies—viz., £2000 to the Royal Infirmary, Aberdeen; £2000 to the Incurable Hospital, Aberdeen; and £500 to the Sick Children's Hospital, Aberdeen.—Mr. John Beaumont, late of Ravensknowle, Dalton, has bequeathed £2000 to the Huddersfield Infirmary.—The net result of a concert held at Southgate on the 17th inst., in aid of the cottage hospital, amounted to upwards of £40.

HEALTH OF THE CITY OF LONDON.—Dr. Sedgwick Saunders, the medical officer of health for the City, reported to the City Commission of Sewers, at their meeting on Tuesday, that in his experience there had never been a summer when the city had been healthier or complaints fewer. The average death-rate was at the rate of 9·24 per 1000 per annum of the population; 741 houses had been inspected, of which eighteen required sanitary improvement. Thirty-three tons of meat had been seized and destroyed as unfit for human food. Serious defects were found to exist in the vaults beneath several of the City churches, and remedial measures were being proceeded with to abolish these insanitary conditions. At the mortuary, sixty-five articles of clothing had been disinfected and fifteen bodies received. There were registered in the City in the past seven weeks sixty-four deaths and ninety-five births.

MANCHESTER ROYAL INFIRMARY.—At the annual meeting of the board of the Manchester Royal Infirmary, Dispensary, and Lunatic Hospital or Asylum, the report, which was adopted, stated that during the twelve months ending 24th June last, 43,985 persons had received assistance at the Royal Infirmary and its allied institutions at Cheadle and Monsall, 36,143 being treated as out- and home-patients, against 33,288 last year. The total income for the year was £22,331 (a reduction compared with the previous year of £1203), and the total expenditure £21,514. The report adds that the "board do not regard with satisfaction the circumstance that so considerable a proportion of the working class of Manchester and the neighbourhood are in the receipt of charitable medical relief. They are of opinion that it will soon be desirable to take such steps as circumstances render necessary to require these patients to contribute much more largely than they have hitherto done to the funds of the institution."

GLASGOW AND OVERCROWDING.—Dr. James Burn Russell, medical officer of health for Glasgow, in his evidence before the Select Committee on Sweating, explained a system of ticketing and inspecting of small houses which had been in existence in Glasgow since 1862. Houses containing not more than three apartments and not more in the aggregate than 2000 cubic feet are measured, and have affixed to them on the outside door a tin-plate ticket on which the cubic contents are marked, and the number of inmates allowed in consequence. These plates are a guide to the night inspectors, who compare the number of inmates they find with the number the house ought to have, and a violation of the bye-law involves a summons before the magistrate. The system works very smoothly, and the authorities are satisfied that it is a great preventive of overcrowding. About 24,000 houses are on the register. The authorities intend asking for legislative powers to increase the allowance of 300 cubic feet of space per adult to 400 feet.

MISSION TO DEEP-SEA FISHERMEN.—Dr. W. T. Grenfell delivered a lecture in the Albert Hall, Leeds, last week in aid of the Mission to Deep-sea Fishermen. An interesting portion of the lecture was that which described the rough-and-ready means formerly used in bringing an injured fisherman to land, and the improved methods now adopted. Formerly a fisherman often bled to death because no means of aid were at hand, but now there were hospital ships, and all the fishing boats were fitted with proper temporary appliances for accident cases. The lecture, which was illustrated by dissolving views, concluded with a collection from the large audience in aid of the mission funds.

PROVINCIAL SUNDAY AND SATURDAY HOSPITAL COLLECTIONS.—The Henley Hospital Sunday collection, on the 15th inst., realised £26 2*s.* 2*d.*—The Friendly Societies' Church Parade, at Barnet, on the 15th inst., produced, after paying the expenses, £15 10*s.*, which has been divided between the Barnet Cottage Hospital and the Herts Convalescent Home.—The receipts of the recent sports of the North London Police and Tradesmen at Tufnell Park, in aid of the funds of the Great Northern Hospital, amounted to £50, which has been paid over to that institution.—The Committee of the Loyal Order of Ancient Shepherds, Bristol, has forwarded to the Royal Infirmary £23, and a like amount to the General Hospital, the Children's Hospital, and the Eye Hospital, Bristol.—The Hospital Sunday Collection at Ware, Herts, in aid jointly of the Hertford Infirmary and Herts Convalescent Home, produced nett about £60.—The Hospital Saturday Collection at Salisbury on the 21st inst. amounted to £58 2*s.* 11*d.*—The Hospital Sunday collection at Falmouth on the 22nd inst., in aid of the Cornwall Infirmary and Falmouth Dispensary, amounted to a little over £22.

CLAYTON HOSPITAL (AND WAKEFIELD GENERAL DISPENSARY).—The 102nd report of this institution, which was founded by Thomas Clayton in 1854, and incorporated with the Wakefield General Dispensary, established in 1887, was adopted at the annual meeting held last July. The report showed no particularly striking feature worthy of remark, the work during the past year having gone on steadily in much the usual manner. There had been an increase in the number of in-patients compared with the previous year, and the daily average number of beds occupied was thirty-one. Of out-patients the average number of cases per week was 877 against 677 in the preceding year. In making an urgent appeal for funds, the committee desire to remind benefactors and subscribers that "dispensary recommendations" are intended for the assistance of people whose weekly earnings are insufficient to meet the additional expenses incurred in times of sickness, and that to give these tickets to persons who are able to pay for advice not only has a pauperising effect upon the recipients, but is a positive injury to those very doctors to whom the institution is so greatly indebted.

COTTAGE HOSPITAL FOR MEXBOROUGH. — The efforts which have been made for some time past to establish a Cottage Hospital for Mexborough have at last met with success, and, owing to the munificence of Mr. A. Montagu, the working men of the district will soon possess an institution fitted up with every requisite. As a mark of gratitude, it has been decided to call the hospital "The Montagu Cottage Hospital." At a meeting of the Committee of the Hospital the following rule applicable to the medical staff was read and approved:—"Every duly qualified and registered medical man within a radius of three miles shall have the right to attend patients in the hospital upon the request of the patient, or his friends, conveyed through the nurse; but no patient, having chosen his medical attendant, shall have the right to change him during his stay in the hospital without the consent of the medical staff. A consultation of the medical staff may be called in serious cases, and shall be called before a major operation. In the absence of any request for a special medical attendant, the patient's ordinary club or private doctor shall be the one consulted. The medical staff shall consist of such duly qualified medical practitioners residing within a radius of three miles of the hospital as will, upon invitation of the Committee, allow their names to be printed in the rules of the institution, and their titles shall be 'surgeons to the Montagu Cottage Hospital;' such staff shall have the power to settle the provisional questions with regard to the carrying on of the work."

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A GIFT TO GLOSSOP.—Mr. John Wood, of Whitfield House, desirous that the ratepayers should not be called upon to provide the additional amount required to complete Wood's Hospital, which his late uncle founded, has forwarded to the Town Council of Glossop, as a gift, a cheque for £1000, which more than covers the sum required. The late Mr. Daniel Wood, in the Jubilee Year, gave £6000 for the purpose of building the hospital, and £19,000 for its endowment.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on September 24th, 1889.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever	Other diseases.	Total.	
Eastern Hospital	236	54	..	52	..	342	442
North-Western Hospital	237	35	..	5	..	277	435
Western ,,	183	13	..	8	..	204	282
South-Western ,,	..	..	..	..	..	..	402
South-Eastern ,,	276	14	1	26	3	320	462
Northern ,,	253	..	..	..	..	253	480
Totals	1185	116	1	91	3	1396	2483

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

CAMPBELL, H. J., L.R.C.P. Lond., M.R.C.S., has been appointed Demonstrator of Biology, Guy's Hospital.

CRISP, J., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon and Secretary to the Stamford, Rutland, and General Infirmary.

HEWLETT, C. W., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Coventry Hospital.

HUNT, ROBERT, M.R.C.S., L.R.C.P.Lond., has been appointed Honorary Surgeon to the Blackburn and East Lancashire Infirmary, vice Dr. Stephenson, deceased.

JOHNSON, FRANCIS, M.R.C.S., has been appointed Medical Officer of the Beaconsfield District, Amersham Union.

JOHNSON, R. S., L.R.C.P., L.R.C.S. Edin., has been appointed Second Assistant Medical Officer to the St. Marylebone Infirmary, vice L. Hickey, M.R.C.S., L.S.A., M.B. Dur., resigned.

JONES, RICHARD L., L.M.K. & Q.C.P., R.C.S.Irel., has been appointed Government Physician for the District of Hanalei, Kauai, Sandwich Islands, vice Sidney E. Craddock, M.R.C.S., L.R.C.P.Lond., deceased.

MATTHEW, C. P., L.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed Medical Officer No. 5 District, Southmolton Union, vice Sanders, deceased.

MOULLIN, C. W. M., M.D., F.R.C.S. Eng., has been appointed Surgeon to the London Hospital, vice Couper.

MILLER, HUGH, M.D., has been appointed Public Vaccinator of the District of Birkenhead, in the Birkenhead Union, vice P. M. Braidwood, M.D., resigned.

O'REILLY, GEORGE HARTLEY, M.B. Lond., M.R.C.S., L.S.A., has been appointed House Surgeon to the Cancer Hospital, Brompton, vice C. E. Valpy, B.A., M.R.C.S., resigned.

PAPILLION, JAS. W., M.R.C.S., L.S.A., has been appointed Medical Officer of Brent Knoll District, Axbridge Union.

REARDON, D. F. B., L.R.C.S. Irel., L.K.Q.C.P. Irel., L.M., has been appointed Medical Officer of the Bruff Dispensary District, Kilmallock Union, vice MacNamara, resigned.

ROBERTSON, CHARLES, M.B. & C.M.Edin., has been appointed House Surgeon to the Birmingham New Workhouse Infirmary.

SIMS, G. S., L.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed Surgeon to the Derby Borough Police.

STARLING, E. H., L.R.C.P. Lond., M.R.C.S., has been appointed Demonstrator of Physiology, Guy's Hospital.

THOMAS, DAVID E., M.R.C.S., L.S.A., has been appointed Medical Officer of the Stradbroke District, Hoxne Union.

THORBURN, J. D., M.B. Toronto, L.R.C.P. Edin., has been appointed Resident Medical Officer to the Manchester Hospital for Consumption, vice Dr. Burnett, resigned.

TUBBY, A. H., F.R.C.S., L.R.C.P. Lond., has been appointed Demonstrator of Physiology, Guy's Hospital.

WHITELEY, D. F., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Wallasey Dispensary, vice F. H. Potts, resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

GATESHEAD DISPENSARY.—Resident House Surgeon. Salary £200 per annum, with furnished apartments in the dispensary, coals and gas.

GENERAL DISPENSARY AND INFIRMARY, Jersey.—Resident Medical Officer. Salary £120 a year, with furnished apartments and attendance.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House Physicians.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, London, W.—Resident Medical Officer. Salary £50 a year, with board and lodging.

PADDINGTON-GREEN CHILDREN'S HOSPITAL, London, W.—House Surgeon for six months. Salary £50 per annum, with board and residence.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Junior House Surgeon. Salary £50 per annum, with board and apartments.

SOUTH DEVON AND CORNWALL HOSPITAL, Plymouth.—House Surgeon. Salary £100, with board and rations.

UNIVERSITY COLLEGE, Dundee.—Professor of Physiology. Salary £350 per annum, with two-thirds of the fees.

UNIVERSITY OF SYDNEY, New South Wales.—Applications to Agent-General for New South Wales, 9, Victoria-street, S.W.:—1. Challis Chair of Anatomy. 2. Challis Chair of Law. 3. Challis Chair of History. 4. Challis Chair of Logic and Mental Philosophy.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Honorary Dental Surgeon.—Also Honorary Surgeon.

Births, Marriages, and Deaths.

BIRTHS.

FENNELL.—On Sept. 17th, at Trumpington, Cambridge, the wife of Dr. C. A. M. Fennell, of a daughter.

HUNT.—On Sept. 19th, at Clydesdale Villa, Sheffield, the wife of Lewis Gibson Hunt, M.D., of a daughter.

MAC DOWEL.—On Sept. 17th, at Edenfel, Omagh, the wife of E. C. Mac Dowel, M.D., of Sligo, of a daughter.

MARTIN.—On Sept. 20th, at Brunswick-street, Sheffield, the wife of Dr. John W. Martin, of a daughter.

PESKETT.—On Sept. 20th, at Oakover, Burnham, Somerset, the wife of A. W. Chalmers Peskett, M.A., M.B., B.C. Cantab., of a daughter.

RENDALL.—On Sept. 8th, at Aix-les-Bains, the wife of Stanley M. Rendall, M.D., of a son.

RINGER.—On Sept. 18th, at Lower Seymour-street, Portman-square, the wife of Deputy Surgeon-General Theobald Ringer, late Bengal Army, of a daughter.

SCHLICH.—On Sept. 17th, at Coopers-hill, the wife of Dr. W. Schlich, of a daughter.

TOLLER.—On Sept. 20th, at Castle House, Ilfracombe, the wife of Charles W. E. Toller, Esq., of a daughter.

WEBB.—On Sept. 20th, at Kingsbridge, South Devon, the wife of W. H. Webb, M.R.C.S., L.R.C.P. Lond., of a son.

MARRIAGES.

DICKMAN—BARNES.—On Sept. 19th, at the Parish Church, Eye, Henry Dickman, M.B., Buntingford, Herts, to Edith Julia, elder daughter of Henry J. Barnes, Esq., J.P., Eye, Suffolk.

EVE—COX.—On Sept. 19th, at St. Mary's, Harrow-on-the-Hill, by the Rev. F. Hayward Joyce, Vicar, and the Rev. T. Smith, Frederic S. Eve, F.R.C.S., of 125, Harley-street, Cavendish-square, to Caroline Ella, only daughter of Herbert E. Cox, of Ashleigh, Harrow. No cards.

MACKENZIE—LOFTS.—On Sept. 11th, at the Presbyterian Church, Kimberley, South Africa, John Eddie Mackenzie, M.B., C.M., to Ethel Marian, second daughter of Frederic F. Lofts, Maude-road, Camberwell, S.E.

MCLEAN—LAWSON.—On Sept. 25th, at All Saints' Church, Fulham, by the Rev. W. Goodwin Kerr, M.A., William W. L. McLean, M.R.C.S.Eng., L.R.C.P. Lond., younger son of J. W. McLean, Esq., of Fulham Park Gardens, S.W., to Minnie, youngest daughter of John Lawson, Esq., of Italian Villa, Hurlingham-lane, S.W.

NEILSON—TULLIS.—On Sept. 19th, at Blackfriars Parish Church, Dennistoun, Glasgow, by the Rev. Thomas Somerville, M.A., assisted by the Rev. Albert Goodrich, D.D., Henry J. Neilson, M.D., Rulwell, Nottingham, to Annie Keil, eldest daughter of John Tullis, Esq., Inchcape, Dennistoun, Glasgow.

PRATT—MOXON.—On Sept. 19th, at St. Giles' Church, Northampton, by the Rev. R. A. White, M.A., W. Sutton Pratt, L.R.C.P. Lond., M.R.C.S., of Weedon, Northants, to Eleanor Mary, second daughter of William Moxon, M.R.C.S., &c., of Northampton.

STOKES—HILLER.—On Sept. 25th, at St. Margaret's, Whalley Range, Manchester, by the Rev. D. Dorrity, John Stokes, M.B., B.S., M.R.C.S., L.S.Sc., Parkgate, Rotherham, to Margaret Amy Hiller, only daughter of Henry Hiller, Stanley-road, Manchester. No cards.

DEATH.

RICHARDSON.—On Sept. 19th, after much suffering, at Camden-road, London, the residence of his sister, Charles Schofield Richardson, M.D., M.R.C.S., of Dursley, Gloucestershire, aged 61.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, September 26th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Sept. 20	29·65	W.	53	48	104	62	49	·14	Fine
,, 21	29·67	W.	49	45	108	60	43	·15	Fine
,, 22	29·64	N.W.	52	49	97	58	44	·08	Overcast
,, 23	29·93	N.W.	45	42	90	59	40	..	Overcast
,, 24	29·54	S.W.	55	54	68	61	44	·20	Raining
,, 25	29·82	N.W.	46	42	96	58	42	·66	Fine
,, 26	30·17	N.W.	47	44	87	58	40	..	Fine

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

ATTITUDE OF DROWNED PERSONS.

Mr. Ellis Lever.—The quotation is not free from "philosophic doubt." It is quite consistent with what we know of the spinal reflex actions when the inhibitory influence of the brain is abrogated—e.g., if you put a male and female frog into water impregnated with strychnia, the former exhibits the attitude of embrace, whilst the latter assumes the more passive state of limb extension. Probably these physiological forces as they die out with the death of the animal leave full play to purely physical forces; and in the case of drowning we should expect in most cases, whichever the sex, that the face would be found uppermost, the buoyant action of the gas in the intestines determining this position. We are, of course, assuming that it is a case of drowning in deep water.

TÆNIA.

To the Editors of THE LANCET.

SIRS,—A young lady, a patient of mine, has during the last six months been troubled with tapeworm (tænia mediocanellata). A year previously her life was for a time made utterly miserable by the presence of thread worms; these, under treatment, were effectually removed, but only to be replaced by the larger worm. The treatment adopted for the latter was two or three days' careful dieting, aperients, and a dose of male fern. Result: the passage of the worm. On three occasions this treatment has been carried out, and in each instance with a like result, and the passage of the head. Between the expulsion of the worm and its reappearance, which in each case has been exactly ten weeks, the greatest possible care has been exercised in avoiding improperly cooked meat.

I should be very much obliged if any of your numerous readers could suggest any treatment likely to prevent the recurrence of this troublesome parasite. I am, Sirs, yours truly,

Sept. 24th, 1889. H. C. S.

TETANUS IN PUERPERY.

To the Editors of THE LANCET.

SIRS,—I observe in THE LANCET of Aug. 17th and Sept. 21st that Mr. Henry Peacock and Mr. Johnson Herbert remark that puerperal tetanus is not described in any obstetric work. Allow me to point out that the subject is fairly treated of in the System of Obstetric Surgery and Medicine by myself and Dr. Fancourt Barnes (see vol. i., p. 376, and vol. ii., p. 381). I am, Sirs, yours faithfully,

Harley-st., Sept. 23rd. ROBERT BARNES.

A CORRECTION.

To the Editors of THE LANCET.

SIRS,—I notice in your Students' Number you recommend as one of the text-books on the Diseases of Children the work of Ashby and Jones. Permit me to correct this, and say that the book is by Ashby and Wright.

I am, Sirs, yours obediently,

Manchester, Sept. 25th, 1889. G. A. WRIGHT.

VACCINATION MEMORANDA.

A CORRESPONDENT having pointed out that the figures we gave in our last issue as to vaccination and small-pox on board the *Preussen* did not account for all the 312 persons referred to, we would add that in addition to the cases quoted there were sixteen persons on whom vaccination was alleged to have been performed, but who showed no evidence whatever of the operation. Whether these should be placed among the vaccinated or the unvaccinated it is impossible to decide. Two were attacked, and both recovered; but one, a girl, was twice vaccinated during the incubation period of her small-pox. The remaining thirteen do not, we find, happen to be referred to for the purposes of the paper under consideration; but a former paper by Dr. Ashburton Thompson shows them to have been persons who had previously had small-pox. Three of them suffered a second time from the disease, but they all recovered.

A. Neville.—We do not prescribe.

ATTENDANCE ON MEDICAL MEN AND THEIR FAMILIES.

To the Editors of THE LANCET.

SIRS,—Might I ask you to give me the benefit of your advice on the subject of attendance on medical men and their families?

The town in which I live is noted for its schools and educational establishments of all kinds. Not a year passes but I am called upon to attend some medical *confrère* who has retired from practice and the members of his family, or the children of men in active practice, pupils at one or other of the schools. Hitherto I have made it a rule not to charge in such cases. A few examples will serve to show you what my experience so far has been. I attended Dr. A. and his daughter on several occasions; in fact, during the whole of their stay here. Dr. A. left without calling or even writing to thank me. Surgeon B. consulted me for a very obscure affection, and was benefited by my treatment. He went up to London to see a celebrity, and I have never heard from him from that day to this, though he had promised most faithfully to let me know the great man's opinion. Dr. C., a well-known consultant, and now a member of one of our governing medical bodies, sent his two daughters to a school here which I attend. Both were very delicate girls, and were taken ill soon after their arrival. In the space of six months I was obliged to make no fewer than sixty-three special visits for these young ladies, and to keep up a long correspondence about them with their father. Dr. C., as a token of his gratitude, sent me a volume of his lectures, market price 5*s.*, and a formal letter of thanks. These are typical, but unfortunately not exceptional, cases, and others of my friends tell the same tale. I should like to know whether I should be justified in pursuing a different course for the future. A word of advice from you on the subject would oblige, Yours very truly,

Sept. 20th, 1889. AN OLD SUBSCRIBER.

*** The best service we can render in this matter is to publish letters such as the above, which set forth "the other side" of this question. It is impossible to maintain that a medical man has a right to claim the services of another medical man at all times and at much inconvenience without consideration and without gratitude. We can advocate nothing that would mar or lessen the feeling that one medical man has in favour of assisting another in any circumstances of illness. But this feeling must not be abused; yet it is easy to see that in such circumstances as our correspondent describes it is apt to be and actually is abused. In a city famed for its educational institutions great labour and hardship may be imposed on a medical man by the thoughtless use of this kindly rule, which was never meant to be indiscriminately applied in such cases.—ED. L.

THE BENTLEY PRIZE AT ST. BARTHOLOMEW'S HOSPITAL.

To the Editors of THE LANCET.

SIRS,—Would you be good enough to correct a mistake which appeared in your issue of Sept. 14th?

The Bentley Prize at St. Bartholomew's Hospital this year was not won by Messrs. F. W. Andrewes and E. A. Edelsten, who were last year's prizemen, but by Messrs. R. H. Elliot and R. F. Standage.

I am, Sirs, yours sincerely,

St. Bartholomew's Hospital, Sept. 25th, 1889. HENRY T. BUTLIN.

Cousin (Lincoln).—When cousins are healthy, and have no proclivity to disease, they may safely marry, but the existence of strongly marked scrofulous or other taint should be regarded as a bar to such marriages. Huth's book might be consulted on the subject of Consanguineous Marriages.

HYDROPHOBIA.

To the Editors of THE LANCET.

SIRS,—Could any of your numerous readers inform me as to the number of cases of hydrophobia treated in the larger hospitals of London during the past year? I am too old and infirm to make the inquiry myself. I was more or less connected with St. George's Hospital from the year 1825 to the year 1870, and I saw but two cases of the disease. Of course, some may have escaped my notice.

I am, Sirs, yours truly,

Buntingford, Herts, Sept. 13th, 1889. T. E. HICKS, F.R.C.S.

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FELDSHERS.

IN rural districts in Russia, where the population is very scattered and towns are a long distance apart, it is impossible to obtain medical aid except on rare occasions, and after a long delay. Provision is, however, made for attendance in minor cases and for what might be called "first-aid" in serious ones by the distribution of partially educated men, denominated *feldshers*, or *feldscheers*, in the villages. The feldsher acts under the orders of the doctor who has charge of the district, and in serious cases summons his principal. The feldsher is a man who has had some training, usually in a special training school and in military hospitals, as a kind of hospital sergeant. He is now obliged to have a very fair general education, as he is not admitted to the feldsher school until he has gone through the four lower forms of a gymnasium or has passed an examination which is probably as difficult as the Arts examination of Apothecaries' Hall or the junior certificate examination of the Oxford and Cambridge Schools Examination Board. Both Latin and Greek were required until recently, but the Minister of the Interior has now issued a notice stating that Greek will no longer be required.

DR. WARD COUSINS' ANTISEPTIC ARTIFICIAL TYMPANUM.

To the Editors of THE LANCET.

SIRS,—I am very pleased to see, from your issue of the 14th inst., that Dr. J. Ward Cousins has brought his new antiseptic artificial tympanic membrane to the notice of the profession. From personal experience of over twelve months, I can frankly state that it fulfils all the qualities claimed for it and even more. For many years I have had a perforation of the right tympanic membrane, but no discharge during the past five years. I consulted several eminent aural surgeons, and used different kinds of artificial drums, but none of them improved my hearing, so that I was, to say the least, somewhat sceptical as to deriving any benefit. However, my doubts were soon dispelled on using one of the drums invented by Dr. Ward Cousins, for I could hear well, and have continued, by the use of the drums, to do so since. Only those who have been afflicted with deafness (even on one side) can appreciate the blessing of restored hearing. I have not experienced the slightest inconvenience from the presence of the artificial drum in my ear; in fact, I much prefer to have it there. Owing to the success and comfort in my own case, I have supplied them to several of my patients, and in all with marked improvement in their hearing. I will only mention two cases, which will, I think, be sufficient to convince anyone that in this new antiseptic tympanic membrane we have a very valuable invention.

J. L——, aged forty-four, a shipwright; very deaf in both ears; perforation of both tympanic membranes of twenty years' duration; no discharge. A drum was placed in each ear about six months ago; since then he has continued to use them and can hear quite well. He changes them twice a week.

The other is a still more remarkable case. E. A——, aged sixty-six years, widow, had used an ear-trumpet for several years, but from the time she commenced to use the artificial drums until her death she was able to hear well, and discarded the ear-trumpet.

I find that patients can easily change the drums by the use of the little instrument which Dr. Cousins has invented for the purpose.

I am, Sirs, yours obediently,

Portsmouth. RICHARD EMMETT.

PROFESSIONAL ETIQUETTE.

To the Editors of THE LANCET.

SIRS,—May I ask you to kindly give your opinion on the following:—

1. A general practitioner, without the permission of anyone, but at the instance of a friend of the patient, visits, examines, and gives an opinion upon a case which he is told at the time to be under treatment and to have been seen by a specialist, and who neither then asked permission of the relatives or doctor in attendance, nor sent any word of his intention.

2. A hospital surgeon and teacher commences practice in the country by elaborate newspaper announcements and by the issue broadcast of a copy of testimonials in the form of a small pamphlet, and the re-issue of these to any new arrivals in the neighbourhood.

I am, Sirs, yours truly,

September, 1889. A LEARNER.

*** The publication of such instances of unprofessional methods is one of the best ways of treating them. They may serve as a beacon to deter others from such violation of medical ethics. They would be a proper subject of protest by the medical men of the neighbourhood.—ED. L.

MEDICAL FEES IN LIFE ASSURANCE.

To the Editors of THE LANCET.

SIRS,—I recently examined a life for The —— Insurance Society, and received in return for my opinion the sum of 10*s.* 6*d.* instead of £1 1*s.*, because the policy was for a sum under £500. Surely this was hardly to be expected when dealing with an office of long-standing and of great financial stability. Will any of your readers tell me whether it is a usual proceeding?—I am, Sirs, yours faithfully,

Sept. 18th, 1889. G. F. H.

*** The question is referred to in another column.—ED. L.

PRINCIPALS AND ASSISTANTS.

To the Editors of THE LANCET.

SIRS,—I see in your issue of this week what appears to me rather a remarkable opinion on "the respective claims of principals and assistants to fees"—viz., that the division of the fee in a court case was right. The assistant is generally engaged to give the principal assistance in all branches of his profession, for which he receives a salary. Surely he has no right to do work for payment and use his energies apart from the practice, as his whole time is paid for. It appears to me that the principal is entitled to *all* fees, and if the assistant were even to write an article for a journal for which he received payment, that sum would be morally the principal's, as the energy which was expended on it was energy paid for by the principal to be expended on the practice. Of course, if the assistant asked for and obtained leave the case would be different. In midwifery cases the assistant, by arrangement, sometimes gets part of the fee. By arrangement, it might become his due in jurisprudence cases. I am, Sirs, yours truly,

Sept. 21st, 1889. PRINCIPAL.

*** We agree with our correspondent, though he carries his argument rather too far when he maintains that a principal is entitled to the fee for a literary article written by an assistant, presumably in spare moments and without neglecting the interests of his principal. We said last week, and in reference to the particular case, that the assistant must be considered as acting for the principal. The division of a fee by the principal is, in the absence of contract, generous. When we said that the division of this particular fee was right we did not mean to imply that the principal was bound so to divide it, but that as an irregular and unexpected sort of fee it was well to divide it. A principal loses nothing by a little liberality in such circumstances.—ED. L.

A. B.—We cannot regard as professional conduct such as that described. We think that remonstrance should be offered; and if this be unavailing, a severance of professional relations should be effected.

THE REGISTRATION OF MIDWIVES.

To the Editors of THE LANCET.

SIRS,—We are glad to see that public attention is at length being called to the crying evil of uncertificated women practising as midwives. The recent cases, reported in various papers, of death through puerperal fever, conveyed to six poor lying-in women by an uncertificated midwife, set forth in a striking manner the need of legislation as to the employment of untrained and irresponsible women. Though there are now many well-trained and certificated midwives in practice, the uncertificated woman will continue to be employed to the great detriment of mothers and infants, and nothing but compulsory registration—that is, by Act of Parliament—will meet the case. It is earnestly hoped, therefore, that the Bill for the Registration of Midwives, notice of which has been given in the House of Commons, will shortly extend to the mothers of England that protection in childbirth which they can command in every other European country. The Midwives' Institute has been quietly and steadily working towards this end for the last eight years, and will gladly supply all information on this subject to anyone desiring it.—I am, Sirs, yours faithfully,

MARGARET NICHOL,

15, Buckingham-st., Strand, W.C. Secretary, Midwives' Institute.

COMBINATION OF ANTIPYRIN AND SALICYLATE OF SODA.

To the Editors of THE LANCET.

SIRS,—During last week I was called upon to visit a patient who was suffering from a rheumatic sore throat and severe pains in the legs, which afterwards proved to be antecedent to an attack of erythema nodosum. To allay the pain I ordered powders containing antipyrin and salicylate of soda. To my astonishment, I found that by the combination of these two drugs a cream resulted after a period of a few hours. Evidently a hygroscopic compound resulted which attracted moisture from the air. A similar cream or syrup is produced by the combination of chloral and camphor, and also by the union of alumen and sulphate of zinc. Does the syrup that is formed result in the formation of a new compound? And, if so, what is its nature and formula? Further, is the pharmacological action of the two drugs destroyed by the combination? Since I discovered the effect of the union of the two drugs I now order them in solution. Later I tried to mix antifebrin and salicylate of soda (both white powders), and I found that a pink powder resulted. What is the change in this case?

I am, Sirs, yours obediently,

Burnley. JAMES MONTEITH, M.B., M.Ch.Edin.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Savage, London; Mr. Butlin, London; Dr. Ewart, London; Prof. E. F. Wells, Chicago; Professor Marshall; Dr. W. S. Colman, London; Dr. Lloyd Tuckey, London; Mr. M. A. de Quadros, Hulme; Messrs. Burroughs and Wellcome, London; Mr. C. Roberts, Uxbridge; Mr. Knight Treves, Margate; Mr. Page, London; Mr. G. A. Wright; Mr. Mark Style, Bromyard; Mr. F. Marsh, Birmingham; Mr. Thomas, Cardiff; Mr. W. B. Cosens, Taunton; Mr. Chick-Lucas, Brading; Mr. H. W. Dodd, London; Dr. A. Duke, Dublin; Dr. Chepmell, London; Mr. H. Thompson, Hull; Dr. G. Thompson, Stapleton; Messrs. MacLehose and Sons, Glasgow; Surg.-General Johnston, Northwich; Dr. Norman Kerr, London; Mr. Anderson, Fressingfield; Messrs. McKesson and

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LETTERS, *each with enclosure*, are also acknowledged from—Mr. Evans, Llangollen; Mrs. Lawrence, Wolverhampton; Messrs. Seabury and Johnson, London; Mr. Craker, Clifford; Mr. Woodward, Tunbridge Wells; Mr. Cook, Chatham; Mr. Tully, Hastings; Miss Pink, South Devon; Mrs. Boyle, Bristol; Dr. Turnbull, Hull; Messrs. Mitchell and Co., London; Mr. Pickworth, Brandon; Dr. Roulston, Wakefield; Dr. Nicholson, Dover; Mr. Sowerby, Yorks; Mr. Johnston, Edinburgh; Mr. Nicholls, Suffolk; Dr. Cochrane, Skye; Miss West, Didsbury; Mr. Smart, Cambs.; Mr. Cooke, London; Messrs. Warren, Bristol; Mr. Evans, Radnor; Mr. Ashworth, Staffs.; Mr. Warner, Wanstead; Mr. Harris, Beds; Mr. Hunt, Winchester; Dr. Heaven, Burslem; Dr. Murchison, Rosshire; Mr. Cantrell, Derby; Dr. Jones, Hammersmith; Capt. Pead, Dulwich; Mr. Burtwill; Mr. Williams, Pembrokeshire; Mr. Kelvin, Manchester; Messrs. Van Houten and Co., Holland; Dr. Toller, Ilfracombe; Mr. Good, Dorset; Mr. Kerr, Glasgow; Mr. Mackay, Sheffield; Dr. Bailey, Bilston; Dr. Fausset, Tamworth; Mr. Hart, Northamptonshire; Messrs. Ormrod and Co., Cumberland; Miss Williams, Leamington; Messrs. Roberts and Co., London; Mr. Heywood, Manchester; Mr. Heap, Wallasey Hospital; Mr. Scott, Flint; Miss Nugent, Kells; Messrs. Thompson and Co., Curtain-road; Mr. Wadlow, Manchester; Messrs. Reynolds and Branson, Leeds; Dr. Jennings, Skibbereen; Messrs. Battle and Co., Paris; Mrs. Monro, Penge; Mr. Ryan, Cork; Messrs. Growse and Co., Suffolk; Mr. Tregaskis, Cornwall; Dr. Haydon, North Devon; Mr. Field, Dunstable; Mr. Beckton, London; Mr. Weekes, Chatham; Dr. Winkworth, Beds.; Dr. Morton, Ashborne; Mr. Capel, London; Mr. Bromilow, Peterboro'; Mr. Bailey, Hants; Mr. Ward, Penarth; Mr. Dawson, Bournemouth; Diogenes; Ashton, London; A. F., London; Alpha, London; Medicus, London; H., London; Lady Superintendent, Nurses' Institute, Jersey; Bromide, London; Vera, London; Owner, Tredrea; Majendie, London; Riviera, London; Cantab., London; J. H. M., London; Lema, London; Speculum, London; Scalpel, London; L. M., Liverpool; Medicus, Vauxhall; K., London; Vigilans, London; Euston, London; H., Staffs.; K. C. E., London; Principal, Portsmouth; A. Z., London; Partnership, Highbury; G., London; Delta, Southport; Cantab., London; Chemicus, London; O. F. F., Balham; F.R.C.S., London; H. O., London; C. B., North Devon; A. C. E., London; Medicus, Margate; E., Lower Tooting; M. G., London; A. B., London; F. F. D., London; Contra, London; Medicus, Penge; Hygiene, London.

East London Observer, Reading Mercury, Weekly Free Press and Aberdeen Herald, Border Counties Gazette (Berwick), Australian Trading World, Hertfordshire Mercury, Western Chronicle, Surrey Advertiser, Mining Journal, Literary World, &c., have been received.

Medical Diary for the ensuing Week.

Monday, September 30.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; and Thursday, 9 A.M.

Tuesday, October 1.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.
SOCIETY FOR THE STUDY OF INEBRIETY.—4 P.M. Mr. H. Ernest Trestrail: Some of the Circumstances which Favour the Development of Inebriety, and how to meet them.—The President (Dr. Norman Kerr): Note on "Is there an Arsenic Inebriety?"

Wednesday, October 2.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.
OBSTETRICAL SOCIETY OF LONDON (the Society's Library, 54, Berners-street, W.).—8 P.M. Specimens will be shown. Dr. Herman: (1) A Contribution to the Anatomy of the Pelvic Floor; (2) On the Changes in the Pelvic Floor which accompany the Slighter Degrees of Prolapse.

Thursday, October 3.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, October 4.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, October 5.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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Introductory Lecture
ON
HIGHER MEDICAL EDUCATION.

Delivered at St. George's Hospital at the opening of the Medical Session, 1889-90.

BY T. CLIFFORD ALLBUTT, M.D., F.R.S.,
COMMISSIONER IN LUNACY.

GENTLEMEN,—The delivery of an address on the anniversary of a school of medicine is an old custom, and one honoured by distinguished men, yet neither age nor distinction has protected it from some adversity of modern criticism. With this royal water the spirit of our time assays all things, great and small, lowly and exalted, and by this test accepts, changes, or rejects them. I believe, however, that a true economy will approve these addresses and use them still. A bare contract may answer the wit, but will not fill the hearts of men, nor kindle the fire of young disciples. To hundreds of young men to-day is a great day, not only because on this day they enter upon a new calling, but even more also because to-day is to them the first day of freedom. How vividly I remember—nay, how keenly I still feel—the emotion of that day in my own life—the day when I first entered my own sitting-room, sat beside my own table, and took my life into my own hands! I took up my life, as now you take up each of you your own, with a joy beyond words and laughter — that joy in the possession of my own faculties, for better or for worse, which is the birthright of certain races of men. We know not then the burden of life, so easily we carry it—so easily that for the first few years we are apt to knock it about a good deal and even to make some lasting dints and scars upon it, not always in very honourable conflict. Still, with all that, the freedom of the city within ourselves is a priceless boon, and one which no brave man would give away, whatever the burdens and hardships that freedom brings with it. Indeed, to take our freedom in both our hands, and to step forth into vacancy therewith, would be a cruel irony; we should be as one that beateth the air. There are adventures before us, work to break our strength upon, olive and wild parsley to win, great captains to follow, and a mistress to worship. Your mistress, gentlemen, is the Art of Medicine, and your freedom is her service. *Studia libertate proveniunt.* You will not begin work with gestures and vociferations, but, as English boys begin a great cricket match, with a seriousness, even a solemnity, of bearing consistent with the deepest intensity of purpose and the hope of standing side by side with the best of us. All men conscious of strength are calm enough to wait till they know where to use it, and will bide their time. The best soldier best loves discipline, and looks most loyally to his commander. He knows his powers are too good to waste, and the stronger he is the deeper his devotion. Those of us who are growing old, whose fires burn lower, whose limbs are laggard, involve ourselves in our wisdom and try to avert our envious eyes from your precious gift of youth. I try sometimes to comfort myself in my age by remembrance of my tingling resentments when, in the former years of my practice—and they seem but as yesterday—I was politely postponed as too young for confidences. My dear young friends, we who pride ourselves on the price of experience, on our sagacity, the gift of time, would give them all twice over for your boon of youth. Some day, when it is gone, you will wistfully look back upon it; but when a man looks back his Eurydice is gone! And what of all qualities of youth is the most precious? That which we older men try to breathe again from you, try to rekindle by the light which is upon your young faces—the quality of enthusiasm. To-day I, unworthy, am to many of you the first teacher of medicine, and the first words you hear in the porch shall be these: Work with us and keep us young. If you keep us young, we shall not destroy the spontaneity of your life; we shall not limit the range of your outlook by the bounds of our dogmatisms. You shall keep our minds flexible, and we will temper your energies. Above all things, know that we call you not here to run your minds into our moulds. We call you here on an excursion—on an adventure—on a voyage of discovery into space as yet uncharted. We have passed before you through the gate of Hercules; we have touched sometimes on the happy islands; we, like the great Ulysses, shall lead you through our experience, "whither gleams beyond an untravelled world." Every hour shall save "from that eternal silence something more, a bringer of new things." Would it be well, then, when we see you upon the threshold of our house, that we should not step forth and give you welcome; that we should leave you to file silently into dusty lecture-rooms, and to stand in tail to inscribe your names on the roll? That would be as dreary a setting forth as a marriage at a registry office; and, if I have but a boxwood flute, I will pipe to you to-day.

Gentlemen, your eyes are to be fixed, not to-day only, upon men; now upon your teachers, who are to be men and not pumps. Those who would set aside all commemoration to-day would to-morrow set aside all courses of lectures. Why, in the name of goodness, say they, is the student to be brought to the lecture-room to hear words drawn from sources open to all; to fill laborious note-books with facts already printed in their manuals. If a lecturer is but a pump, doubtless you would do better to go to the springs for yourselves. But, surely, that which impressed us in our lecture-room days was far less the facts of our profession and far more the character and influence of the men who awakened and liberated our thoughts. I carried away, not rows of note-books—dead arid things—but an impregnation. At St. George's my lessons were the fire, the rapidity, the impatience of fallacy of Bence Jones; the deliberate sagacity of Fuller; the methodical learning and rectitude of Barclay; and in these I speak only of the dead. In Paris I admired the marvellous flexibility, acuteness, and urbanity of Trousseau, the heroic industry and penetration of Duchenne of Boulogne, the philosophic breadth of Bazin, and, if last not least, the great erudition of Daremberg, an erudition which his critical insight and catholic temper enabled him to wield so easily. He happily is yet spared to us, as are the teachers of Cambridge—my *alma mater*—as life-giving to me, but so near me that I cannot here speak of them as I would.

Your lecturers shall, in like manner, inspire you with fervour of spirit, shall teach you the way to handle our materials, the methods of our investigation of them, and the kind of ideas which we think will interpret them. Of finite knowledge we have nothing to fix in you, of finite mental form we have nothing, of systematic doctrine we should offer but a temporary scaffolding. You will not, indeed, have to go over all the ground that we have done. Our fathers saved us many a weary march in barren lands, and you will shorten the labours of your children. Knowledge, you remember, has no royal highways; she may be hidden beside the feet of the humblest wayfarer, and has revealed herself to him whose eyes are open when finer pilgrims have pressed haughtily on. In knowledge there is no great and no small; nay, rather accuracy in what you call small things is not only a virtue of method, but also of morals—an ethical and vital sense of the infinity of creation, and of the patient unsleeping instancy of things; on the other hand, what the world calls great things may be to the eye of wisdom as naught. Of this pride and this humility the lives which we live before you should be an example. Do not think that all this is vague declamation. If it be so, I fail indeed; for, to my mind, the idea of a university consists in a true conception of the force and value of personal teaching. How can an impersonal board be a university? A university is the collective soul of its dead and of its living teachers, an abiding inspiration, a *mater alma philosophiæ*. A university will teach you not to regard your studies within her gates as ends in themselves, but to regard them as progymnasmata or exercises; and if it cannot give a liberal education to every one of its sons, it can at any rate teach them all to know that there are such things as ideas, and to conceive the need of them. A university is a permanent embodiment of the ideal of wisdom as opposed to technical furniture—of the ideal of mental culture as opposed to the collection of "tips" and devices in the memory. Lectures, therefore, should not be comprehensive so much as stimulating, individual, and

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even discursive. They should aim rather at the illumination of life than the direction of study, and cordial engagement to thought rather than to the exhibition and transference of acquirements. Fresh and novel perceptions may be welcome, even if precocious or unfounded, if also they are broadly conceived and keep the mind of the student alert:

> "..... The blossoms of Eternity lie hid
> In the dim kindling buds of dreams that keep
> A fluttering pulse within Time's broken sleep.
> Dreams are not idle, dreams have saved the world."[1]

Again, it is as much the duty of a lecturer to mark off the gaps and crudities in his knowledge as to set forth realised truth. If I seem in this way to be addressing myself more to teachers than to disciples, this is but a seeming, for my first purpose is to reveal to the newcomer of to-day that he comes, not as a subject, but as a junior fellow and colleague. The youngest of you can at any rate beat the bushes for us. *Multi pertransibunt et augebitur scientia.*

Dr. Pusey used to say that "Truth often depends more upon the character of him who enforces it than on its own"; and this, gentlemen, is true not only of your lecturers, but of yourselves. All of you will go forth soon, some of you are now going forth, to teach others, not, it may be, from such chairs as this, but each from his place in the world. What mental habit will you take with you, how will you practise, how will you teach? The humblest of you will have some teaching to do, formal or informal. It has so happened that few men have had the opportunities which I have had of forming judgments of our profession as a whole. On the one hand, in London and in the old Universities I have not ceased to associate with the leaders of medicine; and, on the other, I have in the north of England laboured incessantly with the rank and file. Among the leaders of our own, as of all other callings, we find men of great and varied endowments, who have each their own mastery and faculties too strong and individual to have owed very much to methods of education; but in the rank and file I must say that a certain lack of mental training and impenetrability to ideas too often make themselves seen. I am not now speaking of those practitioners who fulfil no more and have aimed at no more than common usefulness, but I speak of men who should be more than this.

On another occasion I have said, and to-day I repeat, that for personal virtues, for a certain ethical habit, which, in its loftiness, simplicity, and unselfishness, is perhaps incomparable, the general practitioners of medicine offer a noble example to all other men, for they carry their high standard of conduct with a humanity, a moderation, and a modesty which do not invariably adorn the righteousness of other men. Yet with all this breadth of practical ethics we do not generally find a corresponding breadth of mental culture. The master mind of Western civilisation has drawn a distinction between the τεχνικος and the φρόνιμος, between the man who is well equipped as a craftsman, trained to quick observation and ready dealing with the things of to-day, and the man who may or may not be so well skilled in practical matters, but whose knowledge is far wider and deeper; who has, in a word, a training in philosophy. The mere practical man, valuable as he is, has but a simulacrum of knowledge, a kind of sham or surface instruction, and, having no knowledge of principles, he tends to routine and is unprogressive and wasteful. He is a man of opinions, and as science undermines opinions and treats opinions with some irony and sarcasm, perhaps indeed with some injustice, the practical man tends to wince from science, and will even thank God that he is not a philosopher. His usefulness, then, great as it may happen to be, is essentially temporary and provisional.

It is far otherwise with the man whose mind is opened to ideas, who is, moreover, prepared for life not merely by the appropriation of the thoughts of others, but by the enlargement and development of his own intellect; for indeed we should not only become familiar with the laws of phenomena within our own pursuit, but also with the modes of thought of men engaged in other discussions and researches, and even with the laws of knowledge itself—that highest philosophy. Now this mental training, although it happily exists in a few, is not by any means the note of English medical practitioners as a class. This defect is to be referred to two causes—first, to the want of leisure and of contemplative life among them; and, secondly, to the lack of university education.

The duties of the family practitioner are all abroad. Unlike the lawyer, he has not to put his thoughts to the test of pen and paper; and so complete is his divorce from the desk that even his few spare hours are dissipated. In course of time, the ability even to write a letter becomes atrophied. Happily, however, there are compensations for us. Law and medicine both are liberal pursuits, and promote mental and ethical elevation, as opposed to trade, which, when untempered by the arts of invention, is an illiberal pursuit; and in these days of small profits and close industry, when commercial men can no longer find leisure for self-culture, may be, and often is, actually degrading. Indeed, medicine has an advantage over law in this, that it is more in contact with positive truths, while at the same time it is no less in contact with civil and moral phenomena. Hence the practice of medicine, as we see every day, tends especially to cultivate that kind of critical spirit which we call "common sense." Nevertheless, I repeat, the English doctor too often lacks reasoning power, breadth of view, and flexibility of mind. So, you may retort, does the common run of all men. But, gentlemen, on the whole, we have greater advantages in the kind of our calling, and should stand better. Moreover, I am setting no abstract ideal before you. You will observe that I have spoken of English practitioners—of those educated in England, but not at universities. Now, by English I mean not the Scotch, whether practising in England or at home. When called in consultation by a Scotchman, I expected to meet a man of philosophical mind; when by an Englishman, I expected to meet an honourable man, a shrewd man, a practical man, but not a man of philosophical mind. Now, why is this? Because the Scotchman has been educated at a university; his knowledge has been tested in his own university, and at Scotch universities philosophy is held in honour; whereas the Englishman has usually been educated only at a technical school, and his acquirements tested haphazard in a sort of wit combat with a viewless Board wholly unconnected with his schools. Indeed, the very existence of philosophy—the *mater studiorum*—has been unrevealed to him. And now my old friend, Mr. Wheelhouse, the President of that young giant, the British Medical Association (the only organisation of our profession which is based on broad principles and formed for a great future), member of the Medical Council of Education, and whose personal abilities mark him out as one of the most powerful men in our profession at this day—Mr. Wheelhouse proposes to make this state of things ten times worse than before. By submitting youths to a five-years' apprenticeship to working doctors at a time when their minds are expanding and impressionable, at a time when an ardent love for higher study and a yearning for ideas spring up in the heart, he would send them not where they can feel the influence of great men present and past, not where learning is seen in all her variety and in all her provinces, not where they may associate with men of their own age whose minds are occupied with other forms of culture and in training for other callings, but a student is to be confined to one mind, however able, to one profession, however honourable, to one set of ideas, however fruitful. And as a matter of fact, we know that the ruling mind will often be something less than great, the set of notions too often vulgar, and the teaching at best a teaching, and not a cultivation. Gentlemen, this is but to perpetuate the common-mindedness which I suggest is already our danger—a fault due in part to our defective education, in part to our lack of leisure. I say we are already too narrow and channelled in our thoughts, and too shoppy; and we are to improve our education by intensifying this very habit of mind. We are to make our education more comprehensive by shutting up our students with individuals; we are to strengthen their reasoning powers by therapeutical drill; we are to substitute the ideas of the middle-class parlour for the traditions of a university!

But, says Mr. Wheelhouse, your university student comes into practice so confoundedly ignorant; my purpose is, above all things, to make him an efficient practitioner, to teach him how to manage patients and how to recognise German measles. If, Mr. Wheelhouse would say, after doing this he can chatter about Shelley and Herbert Spencer, he is welcome to his accomplishments; but the broad studies must be complete. Certainly, with this I wholly and ardently consent. No one can be more opposed than I am to superficial *Schöngeisterei*—to literary fribbling and dilettanteism—in the place of solid attain-

[1] Afterthoughts. By Joseph Truman.

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ments and practical skill. But one may get roast pig without burning down one's house, and I contend—with an exception to be hereafter discussed—that a man whose mind has been enlarged and strengthened by a university course will, after a briefer drill, make a more skilful practitioner than one whose technical craft is gained by routine and is not vitalised by a comprehension of principles. It is no truism, gentlemen, to repeat in this place that knowledge is one and indivisible, and that he who is content to pick up isolated chapters of learning has no living knowledge at all.

The medical journals of late years have been infested by letters from qualified men, who, although not "M.D.s," desire to use the title of "Dr." They say, with a not quite ingenuous play upon words, that, being called "doctors" in a colloquial sense, they should be entitled "Dr." in the academic sense. They add with more truth that all practitioners approximate in qualification should have an equivalent nomenclature. It is difficult to see where would be the ultimate advantage of holding the title when it had ceased to be distinctive, and the disadvantages of carrying a professional label into general society seem obvious. It would be better that we should all return, like other gentlemen, to the sweet simplicity of misterhood. Meanwhile, however, the grievance is an acute one. A good student is admitted into one of the guilds of the higher class, which, knowing that they have no academic quality about them, honestly decline to allow their craftsmen to use university titles, while an inferior student slips into the profession by way of one of the guilds of the lower class which may have no such honesty, and are said to have connived at the irregular use of university titles. Straightway the worse man puts "Dr." on a red lamp by the side of his better brother, who has to content himself with "Mr." on his more modest brass plate. Nay, further, some universities have degraded themselves *pro vice* into mere examining boards, ignoring the truth that a university degree signifies a formation of mind, a habit of thought engendered by living within the influences of an organisation of all faculties; ignoring the truth that graduation signifies a life, and not a mere register of proficiency. These universities have given degrees without the residence which alone can give character to the student. The mischief all this does is not yet fully seen, although the more thoughtful men of our profession are now aware of it. Not the least of its harm is the baneful effect which it has upon the older universities, which, as at Cambridge, are driven to compete for medical students, not only by the most excellent method of enlarging and improving their apparatus and cheapening costs, but also by the less excellent method of narrowing the scope of their training.

Everywhere an endeavour is made to pursue two incompatible courses—namely, at once to keep up with the vast extension of professional studies, and at the same time to shorten the student's career. To strive with this impossibility men are brought into special studies at an earlier age, and a due civil and philosophical training is denied to them. I am not one of those who regard the classical as the only real education, any more than I so regard the scientific; neither alone suffices. An educated man cannot become so on one study alone, but must be brought under the influence of natural, civil, and moral modes of thought. The late Rector of Lincoln, to whose paper on Oxford Studies, published in 1855, all educational reformers are deeply indebted, then spoke as follows: "The necessary tendency of advancing civilisation is to divide and subdivide the applications, as of labour, so of thought. The professions tend to split up into branches, and skill in one becomes more and more incompatible with skill in another. The more a subject has been explored, the more time does it take each succeeding student to follow the steps of his predecessors. To prevent the disabling effects of this specialty of pursuit it becomes the more requisite to secure at starting a breadth of cultivation, a scientific formation of mind, a concert of the intellectual faculties ..... Clear-sightedness, sagacity, philosophical reach of mind, are to a great degree communicable by training. ..... The difficulty is to get mental cultivation recognised at all by those who have it not. Cleverness, talent, skill, fluency, memory—all these are understood and rated in the market. A cultivated mind, just because it is above all price, is apt to be overlooked altogether. It argues some discernment and a considerable degree of education in a society in which such gifts are even appreciated as useful. And let it once establish itself, even under false pretences, such is its marvellous ascendancy, that, like refined manners, it will conquer, and propagate, and extend itself by sympathy, by imitation, and, above all, by education. In this subject, eminently, it is true that the beginning is everything." These, gentlemen, are words of rare wisdom. Lay this foundation first, put your trust in this, and technical training will come far more rapidly, far more efficiently, and far less wastefully afterwards.

I have hinted, however, that there is one special case in the teaching of our students—a seeming exception to the common rule of mental training first, and technical training second—namely, in respect of the practice of surgery, not in its more abstract functions, but as a handicraft. It is a commonplace in the profession that a philosophical surgeon and a fine operator do not always coexist in the same person. No doubt manual skill must be taught from youth; and in the education of a surgeon, therefore, if not of all persons, some means, not necessarily anatomical, are to be taken from an early age to confer delicacy and dexterity of handling. But you will say we cannot afford all this; *il faut vivre*, and we have neither time nor money to spend on real studies; we must go for bread. Well, then, gentlemen, you have to take a back seat. But is this so? In the first place, excuse my rudeness, but it may be with you as with the *Ewig Weibliches*—the eternal womankind—you are lovely, but there are too many of you. The meshes of the net may be too large. As was said of the profession of the law, there is some room in the upper storeys, but the basement is crammed.

I am sure we could ill spare any one of the ingenuous faces I see before me; but, when you have well sped, you will come over to my side as regards the propriety of largely extending the curriculum, both in respect of preliminary and of special education, even at the cost of lessening our numbers. As it is, we make ourselves, by our very numbers, the prey of the hucksters who too often form the majorities of our local councils, and who are able to point triumphantly to piles of applications from highly qualified men driven by the increasing competition in the ranks of the profession to find rest in any quiet place outside it, however meagre the pay.

Urban or district councillors, conscious of their ability to be as good doctors as any of us, had they not better avocations, say publicly that any handy man can do the sanitary work of a city or a province. They decline therefore to pay for supererogatory qualities. The greatest danger in the future of democracy is its blind hatred to payment for special mental ability; men of but a little more than average ability are scarce; they are a natural sport, and should be selected. They should be secured for the public services at the price of their scarcity and of their profits in private adventure, for none is more wasteful than a dull official person. Your vestryman, however, values all other men at a rate a little under his own. He will boast one day of his success in cutting down the doctor's salary, and on the next expends £1000 upon the researches of Mr. Mullins. In Bunyan's dream, Messrs. Simple, Sloth, and Presumption lay asleep a little off the path with fetters upon their heels. Unhappily, they are now awake, their fetters are struck off, and they are put upon the jury of Vanity Fair, and that brisk lad whom the pilgrims met coming down the crooked lane from the country of Conceit, and whose name was Ignorance, is the justice's clerk. Public bodies dare not evade the charges of the lawyer. Both at home and in the city good law means money, and bad law is too soon found out and Demos discredited. But the evils of bad sanitation are not instantly obvious to the people. Pestilence and death are good old customs with which it is rash to meddle in an innovating spirit. Collectively we call them Providence, and it may be blasphemous to talk of evading them. In any case our sanitary mistakes are soon buried underground, and by the widow and the orphan are remembered in silence. So, unchidden, the tradesmen who too often govern us can satisfy their jealousy of scientific men, and boast in the market place of their penny wisdom.

Now, gentlemen, what is our defence? To turn a saying of Coleridge, we must create the taste by which we are to be appreciated. We must lay hold faithfully of Mark Pattison's words that "such is the marvellous ascendancy of mental cultivation that, like refined manners, it will conquer and propagate and extend itself by sympathy, by imitation, and, above all, by education." But you may

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say, is it not an impertinence in me thus to preach a university education to students who cannot as yet all enjoy it? Is it not an unkindness as well as an impertinence? I trust not. It is in no play with words when I say to you that you are all members of that chief university—the world. This world-university has indeed one drawback. Like Peruvian bark, there is much husk in it, and it needs two stomachs to digest it. The university of the world, gentlemen, has much husk in it, and needs the time of two lives for its digestion.

In local universities, therefore, we form microcosms; we select and compact the properties of the world in alkaloidal forms, so that worldly wisdom may be taken in more readily and less wastefully. When these local universities cease to represent universals—are no longer of the essence of the living world from which they draw their being—they grow sterile as Oxford in the last century. You have then in the world at large that education of which a university is a compendium. This all of you have; it may be less convenient, but it is even more efficacious if you can use it economically. Now, of young men, the world means for one Ouida and the Vaudeville; for another, Mr. Burne Jones, Mr. Oscar Wilde and "Ballades in Blue China;" while for a third a pair of white-legged chestnuts and the prescription of bread pills for old ladies make life itself. Charming things all of them, but not universals. If the world is to be your university, your selection must be early and rigorous. Virility, imagination, and intellect must come first, and if then you retain a taste for trappings and pedlery, they may come afterwards.

When I began to practise, or rather to offer to practise, I had a large share of the contemplative life, and by good luck I turned it to account. I read three books to enlarge my medical mind—namely, Grote's "History of Greece," Gibbon's "Decline and Fall," and Mill's "Logic." Rather by accident than by design, I fell upon these three; but if to these can be added some great work of imagination (every man who has been at school can keep up his Homer with but a little trouble, and in any case has Shakespeare at his side), I think no finer culture could be had. This every student can do. This, and far more than this, an old friend of mine determined to do and did in the spare hours of a practice perhaps the most exacting and unrewarding I have witnessed. So, gentlemen, you may attain to the university mind even if you have not been rubbed against university bricks. But ere long I trust the largest and the richest city in the world will do what Yorkshire and Lancashire have done in their degree—will establish the largest and richest university in the world. Those who see farthest are now calling for it, and it is coming, but, I fear, not during your curriculum. What a chance now for a millionaire, or even for a demi-millionaire, to evade oblivion!

Acquit me, then, of any charge of shrewishness in the words I have spoken, words spoken in sympathy. I trust, indeed, when with returning steps you issue from these gates again into life, that you will show yourselves men as practical as the President of the British Medical Association can desire. It shall be no fault of St. George's if you do not. Nevertheless, I agree with Mr. Wheelhouse that an apprenticeship to the domestic side of your work, a familiarity with its lesser marks and byways, is necessary. These we cannot teach here. After your faculties are trained and strengthened in their main branches, your lesser shoots shall be duly laid in. But with capacities thus enlarged, one year's apprenticeship would do the work of five in earlier age; and an obligation upon young men thus to apprentice themselves before the completion of their studies would have my approbation and active support.

At Cambridge there used to be a step called the Licence to Practise, which was not granted until a year had elapsed after first graduation; this step, now disused, might well be revived in the manner I have indicated. And, thus apprenticed, you would not only receive, but give also. The practitioner who received you would, while finishing your dexterities, learn, in his turn, the freshest ideas of the schools; an ever-new and eager young graduate, year by year, would quicken his thoughts, and not permit them to become atheromatous. Fancy yourselves, gentlemen, not bottle-washers, but missionaries *in partibus*—ministers of light!

Man, like an ant or a rook, is a social animal. Alone he withers, in society he organises himself, and compasses his ends. Mind impregnates and quickens mind, none suffices for itself. Men say, and say ungenerously—not regarding the kind of our art, not regarding the temptations of our calling—See how these doctors differ, see how they love one another! We, and not we alone, gentlemen, give cause for these gibes; let us give cause for gibes and japes no more. We differ from each other in part because progress depends upon differentiation, but in part because we are not large-minded enough to see the principles of things. We have gone through a fixed routine of education which hampers us. We do not see that, if a man really understands his subject, he is able to make that understanding clear to intelligent laymen. We too often pronounce opinions rather than enlighten our subject. "Knowledge and opinion," says Hippocrates, "are two things; the former begets knowledge, the latter ignorance." Where the remedy for this lies I have shown at too great length already. Then we mistrust each other. Why? Because medicine, of all callings, demands the most sensitive personal honour, the most vigilant regard to others, the closest brotherhood; more than divinity, because it is practised for gain; more than law, because it is practised in the closet and not in the forum under the eyes of men. In no profession is selfishness more tempting, in none is detraction more easy and more secret, in none is smartness more immediately rewarded, in none is a vulgar ideal so glittering, or worldly success so near the hand of supple and talented persons. Nowadays we "manufacture our celebrities as we go on," and the pet of the monthly reviews, always something less than the best, is run after by the public with ovine sequacity.

I, who have been in the thick of the fight, now standing aside, may speak more plainly to you than I could do when my own gain or emulation might have seemed to disturb my vision and to warp my sentiments. *Spectatum satis et donatum jam rude quæris.*

I will venture, then, before we part, to offer some advice to those of you who will soon enter life. You will find that, both in respect of competition and of consultation, the elements of mistrust are not inactive. The temptation to score off another man's openings seems to some persons irresistible in spite of the certain turn of the wheel against themselves another day. Perhaps they hope to win on the average. How mean it is! How mean even between rivals! But for a consultant to act thus by word, or even by look or gesture, is cowardly and base indeed. At the moment the consultant has enormous power, and should therefore err on the side of generosity, especially in the absence of his brother practitioner. And yet who does not know the raised eyebrow, the shrug, the "I could an' I would" air of the fashionable consultant, as he listens condescendingly to the patient's report of his own doctor's opinions. *Salus agrotantis suprema lex.* The patient's safety is before all else, that must be clearly posited, but his safety rarely comes even into pretence. The occasions are very rare in which the safety of the patient involves a breach of consent between his doctors. In my experience a family attendant was always very glad to try any plan of treatment which seems reasonable, and it is the duty of the consultant, where treatment is manifestly changed, to speak of the change, not as dictated by himself, but as the result of a joint consultation. In most cases he can truthfully add that a change would not have been made unless the previous treatment had been well tried in vain. Changes of diagnosis, except in case of grave error, can usually be developed gradually, so that sudden declarations of change of opinion are avoided. But the public may say, Is this reticence fair to us? Certainly, if the patient's interests be safeguarded, that is, if the doctor in charge be not an ignorant fool or a shifty knave, and in these cases the consultant must, by letter or visit, keep a sharp eye on the progress of the case—the reticence is not only harmless to the patient, but of the greatest value to him. Nothing does a sick man more harm than to have his confidence shaken in his doctor, and to swap horses in mid-stream is rarely desirable. Even where a difference between two medical men is irreconcilable—and such cases have occurred to me from time to time—the difference can be amicably arranged. In thirty years I never had to supplant my brother on this account. The family doctor must be charged with the duty of setting forth the difference to some sensible friend of the patient, and in my experience this has always been done most conscientiously. Such cases are usually obscure and difficult, and it becomes the consultant in his turn to point this out, and to express a willingness to call in a third physician to aid in the decision. If all parties are straight and unselfish, these diffi-

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culties are readily adjusted. Indeed, with seasoned practitioners, consultations are always smooth, and nearly always welcome on both sides.

It is you touchy young men, just out of the schools, who give us the trouble—who bridle up at the suggestion of a consultation, and declare that nothing more can be done. An older man knows that a good talk over a case is, at any rate, a pleasant meeting, and probably valuable to him at least in bringing about an orderly revision of the symptoms and in refreshing the confidence of his patient. He knows, too, that when a doctor is sick himself he calls out for a consultation sooner than a layman does, and runs from one doctor to another in defiance of all convention. I never knew a sick doctor who failed to consult at least three London physicians in a forenoon, usually concealing from each his visit to the others. The fact is, life is dear not to doctors only: to me it is marvellous, not that patients slip off to consultants, but, with the fear of death before them, they are so loyal to their own advisers.

Always, then, welcome consultations. Anticipate, if possible, the patient's wishes in the matter, or, at any rate, the wishes of his friends. Never repeat the silly boast, "My patient has such confidence in me he does not want a consultation." I used in secret to hear rather too often the other side of that story, and if the patient should not want it, you ought to want it. The public is right in regarding a consultation as at least a tribute to the sacredness of human life, and it keeps doctors up to the mark. For these reasons, if I had my way, no man, not even a pauper, should die of acute or obscure disease without a consultation. State clearly always whom you consider would be the best consultant for the case, but, having done this, meet any honest man the patient really wishes for. In the height of my practice I gladly met any of my juniors, even my own pupils, if things pointed to it; and very pleasant consultations we used to have. At the same time, it is better that professed consultants should not only, of course, never visit any patient alone, but should even discourage frequent calls at chambers if the visits, losing the feature of consultations, begin to merge into sole charge. Under such circumstances I always regarded it as my duty to suggest that an ordinary attendant should be selected, and consultations held as occasion required. But I regret to add that often I never saw the patient again.

I cannot wonder that an honourable reticence has less attraction for us, that a calm and patient temper seems too slow for us, and that the bonds of fraternity are weakened, when self-seeking, ostentation, and *finesse*, if they do not take men into the first rank of our profession, at any rate make a very good thing for very many of them. The spirits of the faithful have thus been tried, not in our day only, but in all times of luxury and pride. But perhaps in all ages, certainly in our own, I am thankful to say that purity, disinterestedness, and devotion not only bring peace with them, but even in the world itself surely win that success which a wise man would seek.

We of our generation prevailed over our fathers, you in your turn will prevail over us, and a mightier reaper shall prevail over us all. Our fathers called us into these halls, and set before us the record of a noble tradition, the example of noble life; we call to you, and you shall call to your children, and thus, so long as sickness and sorrow abide amongst us, we frail men of a day shall still raise our eyes to that lofty conception of our duty which Hippocrates himself set forth in the first chapter of his scriptures, a conception which, with all our shortcomings, I trust and believe has been handed on by his successors undimmed and undefiled to this day.

OPEN SCHOLARSHIPS. — *Guy's Hospital:* The Open Scholarships in Arts have this year been awarded to Mr. William S. Handley, Loughborough Grammar School, and Mr. John Robert Steinhaeuser, Sutton Valence School. The Open Scholarships in Science have been awarded to Mr. John A. Howard, King's College and Guy's Hospital, and to Mr. Arthur H. Leete, University College, Aberystwith. — *St. Thomas's Hospital:* Open Scholarships in Natural Science: First, value 125 guineas, awarded to Mr. T. G. Nicholson; second, value £60, awarded to Mr. A. E. Russell. — *St. Mary's Hospital:* The Open Scholarships in Natural Science have been awarded to Messrs. H. J. K. Bamfield, A. W. Sanders, A. Stanley, and A. E. Wilson; and the two University Scholarships to Mr. A. Senior and Mr. A. E. Shaw, both of Cambridge.

Introductory Address.

A PLEA FOR "THOROUGHNESS."

Delivered at the Yorkshire College, Leeds, at the opening of the Session, October 1st, 1889,

BY W. T. GAIRDNER, M.D. EDIN.,

PROFESSOR OF MEDICINE IN THE UNIVERSITY OF GLASGOW, PHYSICIAN TO H.M. THE QUEEN IN SCOTLAND.

GENTLEMEN,—Some few weeks ago I read in a newspaper somewhere a paragraph, which, whether written in jest or in earnest, I thought at the time might be made the text for some remarks more or less suitable to the present occasion. You will perhaps laugh at me, or suppose that I am laughing at you; but at all events I will pray you to laugh *with* me, when in the presence of this august assembly I venture to read the said paragraph. Here it is:—

"AN AUTOMATIC DOCTOR.—A Dutch apothecary has just taken out a patent for a novel automatic machine in the shape of a wooden figure formed like a man. The figure will be covered with compartments labeled with the names of various ailments. The sufferer has only to place a piece of money in the compartment upon which the name of his illness is inscribed, and forthwith will appear a pill or powder suited to his case. The machine is constructed upon the same principle as the ordinary automatic chocolate and bonbon machine. A Dutch paper predicts a brilliant future for this very original doctor."

Now, I am not going to ask such of the young men now before me as are applying themselves to medical study, "Is this *your* ideal?" That would be not only too absurd, but even (but for its absurdity) insulting to an audience whom I am desirous above all things to attract and to please. But I am entitled at least to ask, Why is this *not* an ideal form of medical advice and prescription for a considerable proportion of those who may require such aid in sickness? In the attempt to answer this question, I believe we shall find a few nuts to crack which may occupy us profitably for some portion, at least, of the time usually devoted to an address such as this. Think, in the first instance, of the immense comfort and convenience of the proposed arrangement. Why, you might have these machines at almost every railway station, always ready for use just as you pop your penny into the slot when in quest of a cheroot, or of the wax vestas to light the same! Only, let us hope, for the sake of the poor doctors who are not automatic, that the "piece of money" to be automatically administered—the fee, in fact—would never degenerate lower than half-a-crown! With this proviso, one seems to see how the thing might work tolerably well in some cases. There are a good many of the "thousand natural shocks that flesh is heir to"—perhaps even a majority of them—very easy to name and very well defined indeed to the sufferer. And some of these are, moreover, very easily put a stop to, if you take them at the very beginning. "Principiis obsta"—here you have it all made clear to the most ordinary capacity; no trouble, no nervousness, no hesitation nor procrastination, no embarrassing or uneasy confidences with a man of skill, only half-a-crown in the slot, and there you are! Liver, stomach, heart, lung, brain, biliousness, colic, blood-spittings, rheumatism, neuralgia — all under control, without a moment's delay, and by the most approved remedies in each case, at every railway station, and in every public place! Surely there is something to be said, *primâ facie*, on behalf of such an arrangement as this!

I am pleading, you observe, the case of the "automatic doctor" as against the living, flesh and blood doctor, in these words; and some of you who are readers of Carlyle may be reminded (*longo intervallo*) of the severe, almost savage, irony (worthy of Dean Swift) of his proposal to substitute "cast-metal parsons" for our spiritual guides and instructors. In both cases the suggestion proceeds upon the lines of economy and convenience; and further, on the assumption that the automatic is nearly, if not quite, as good for certain purposes as the living article. But it might further be maintained, in the case of the "automatic doctor," that it is by no means a necessary part of the case that the machine-made should entirely supersede, or even replace, the living doctor of medicine. If some more or less

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fastidious persons object to be prescribed for anonymously, why should there not be an acknowledged, even a distinguished, living authority behind the dummy? or even more than one? Fancy a well-organised group of "automatic doctors" (perhaps with some distinctive uniform) literally doing the work of Sir William Jenner or Sir Andrew Clark (so far, at least, as prescriptions go) in every railway station in England, by carrying the most famous and successful of their acknowledged recipes, ready made up, in the most economical way possible, to almost every sick person who can define his own ills to himself sufficiently to profit by their skill thus imparted. I am assuming, of course, that there will be a copyright in the recipes thus used, and that the law will protect the authors of them from piracy; so that an automatic doctor who may represent a great physician by using his recipes shall do so only by previous arrangement with him. Can there be a doubt, do you think, that very considerable professional incomes might be made in this way? and that hundreds, nay, thousands, of comparatively poor persons would eagerly avail themselves of the help that could thus be had at every man's door, without a visit to London or from London, and a correspondingly heavy professional honorarium?

You will allow that I have argued the case of the dummy or automatic doctor at least as well as the newspaper from which I derived my information; and, indeed, so as to present it with every possible advantage and in the most really professional form attainable, or perhaps imaginable. I will now proceed to inquire a little more seriously what it is that hinders a manner of treating disease like this from being habitually adopted—or, at least, admitted frankly as in accordance with an enlightened medical opinion? For we may take it as certain that the "automatic doctor" carrying the authority of Sir William Jenner or Sir Andrew Clark is just as remote a contingency as would be Carlyle's "cast-metal parson" doing the work of either Canon Liddon or Mr. C. H. Spurgeon. Why is it, in other words, that in matters of health and disease there is not only no possible substitute for the living man as a counsellor, but that even the living man, to satisfy the just expectations of an enlightened public opinion, must undergo the training, acquire the experience, and generally go through the hard and life-long discipline alike of intellect and of character, which you, my young friends, are now only beginning to appreciate, and which finds its final expression in some of our greatest physicians and surgeons.

Had it been even possible to formulate adequately any considerable portion of the medical art in the manner required for merely mechanical prescription, not only would this have been done long ago, but the progress of the ages would have given such stability to the results that the treatment of disease in this nineteenth century would have been mostly stereotyped (as one might say) beyond the possibility of change or revolution. Instead of this we have the curious fact evidently before our eyes, that in no previous age of the world has so little importance been attached to formulæ, or so much to the labours, experience, and opinions of individual men dealing with disease, as in the present. I am not speaking, observe, of disease as matter of doctrine, or as treated of in books, or in the lecture-room, but disease as occurring in the sick chamber or hospital. You will find it, I believe, to be the simple truth that at no time in the world's history have the medical advisers of the sick been so little hampered by traditions as at present; at no time have the methods, the formulæ, the remedies of past ages undergone more revolutionary changes, and yet at no time have the living influence, the character, the personal status of the physician and surgeon been more adequately maintained than precisely in this latter end of this nineteenth century of ours. So much is this the case that if you take up a book which represents the traditions of even less than half a century ago, you will find these traditions almost entirely superseded, and even hopelessly out of accord, on many points of the first importance, with the matured opinion of almost every one of our greatest masters of the art at this present hour, either in England or in any part of Europe. Not one in a hundred of the medicinal formulæ so copiously scattered over the pages of Copland's Dictionary, for instance, obtains any considerable amount of favour or support to-day; not one acute disease, probably, is treated as he and the greater number of his contemporaries would have treated it; nor is there a single article, perhaps not a single page, of that immense and voluminous work, on which the merest tyro of to-day would not be amply justified in writing numerous emendations and improvements, founded on the instructions and experience of a four-years' medical curriculum; and yet medical opinion, as such, and especially individual medical opinion and influence, far from losing in weight owing to this prodigious amount of destructive criticism and revolutionary change, are of wider scope and further reach than ever before. On all this, considered as historical fact, I have had to expatiate a good deal of late years in various addresses and papers, some of which have lately been collected into a volume.[1] I am therefore the more disposed, in the present instance, to forego the argumentative defence of this position, and to assume it as proved, in order to make its consequences instructive, if possible, for you.

One consequence of this state of things I have already foreshadowed, or rather have affirmed—viz., that *real knowledge*, by which I mean something quite different from learning, or hearsay evidence of mere opinion, about disease and its cure, counts for more in the individual man, even in the most ordinary general practitioner, than it ever did before. Not so very long ago it was possible for a man with a very ordinary amount of industry and of scholastic attainments so to saturate himself, as it were, with the doctrine of a particular teacher or school as to command a certain amount of attention and respect for opinions enunciated in terms of that doctrine, however remote they might be from the facts of a case under observation at the moment. The fever in this man (an actual patient) was, on very slender evidence, adjudged to be a malignant, or a putrid, or a low nervous fever; it arose from this or that depravation of the humours, this or that *materies morbi*, this or that entirely suppositious or hypothetical change in the blood, in the nervous system, in the solids of the body, according as the man speaking to you was a humoralist or a solidist. A very few obvious indications sufficed here for the diagnosis—i.e., to enable the fever to be placed in the nosology, and so to get a name. The treatment followed almost as a matter of course from the name, or rather from the theories or hypotheses connected with the name, according to the school or system of doctrine in which the observer had been trained. Now, I am far from saying that this method of viewing and of treating disease is altogether extinct, even at the present day; but I am free to affirm that it has been very much modified. Any one of you, gentlemen, after even a four-years' curriculum, will be in a position to form a far more direct, sounder, and less ambiguous judgment upon many cases of fever and acute disease than any man who wrote at large upon them, even in the first third of the present century; because you will have to apply tests, and to use methods of observation, and physical means for the detection of local changes, which were then almost unknown. Do not let this assurance, however, make you conceited or contemptuous of our forefathers; there is still plenty of room to say that neither they nor we have anything like a complete knowledge of any fever or any acute disease.

When I hear a man talking at large and dogmatically about "biliousness" (a term of Abernethy's, which neither Abernethy nor anyone else has been able to explain further than that it requires blue pill), or about "congestion of the brain," or anæmia of the same, which he cannot have seen, and does not know at all as really existing, or about "irritation of the mucous membrane" (so beautifully vague that it may mean almost anything), or about "hyperæsthesia" or "hyperæmia," or, to use a more modern phrase, "neurasthenia"—I know that he is in the stage of mental progress represented by those old theoretical views of the fevers to which I alluded a moment ago. He is using words, not to set forth knowledge, but to conceal and gloss over essential ignorance; his diagnosis, and prognosis, and treatment will probably all follow the same lines, and be based upon some intangible theory or current hypothesis of his own or someone else's invention, and not upon the plain facts and carefully studied details of the case before him. Therefore it is that I urge upon you young men to get into the habit of steering clear, if possible, of all such mere vague and misleading phrases. Try to think of diseased phenomena as men do who have and who use (up to a certain point) the means of *knowing them as facts*, and not merely *speculating about them;* men armed with the stethoscope and ophthalmoscope, and laryngoscope, &c., and with chemical and microscopical tests at hand, and the thermometer, sphygmograph, &c., to give the exact indications of fact,

[1] The Physician as Naturalist, 1889. Glasgow: James Maclehose and Sons.

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which should place you out of the bearing altogether of these survivals of ancient, sometimes even of mediæval, theory, which may for a time usurp the place of medical science, but are no more closely related to real knowledge—that is to say, the true *science*—of disease than the atoms of Democritus and Lucretius, or the Vortices of Descartes, are entitled to rank as physical science in the modern acceptation of the words.

Now, the attitude of mind which I am commending to you (for as a mere attitude of mind it is of more value to you than oceans of "cram," or even of crude information about disease, in respect of your future career) must be cultivated; and it must be cultivated early if it is to rule in any considerable degree your education as medical students or practitioners. This is all the more necessary to be said—indeed, to be insisted on—because the opposite attitude, which for distinction's sake I will call the "automatic" attitude, is still widely prevalent, and is much more easily learnt. It did not require the suggestion of an "automatic doctor" to teach us that much of our casual prescribing is, as it were, or was not long since, done by machinery or by rote.

It is very easy to lay hold of one or two leading symptoms or complaints and to call them a *disease*. It is very easy then to take down a little book of *formulæ*—it may be the recipes of very distinguished physicians; to look out the appropriate *name* of the disease supposed to exist, and then have a shot at it with the first *recipe* that comes to hand. That is what I am calling the automatic method. But the true physician knows that the diseases of our poor humanity in their ever-varying aspects are not thus to be formulated; and further, he knows that what he has got to treat, and to cure, if he can, is not the *disease*, as regulated and named by custom, but the *man who is afflicted by the disease*—the whole man, and not only a part of him; all his disordered functions or altered structures, and not only the particular point where he feels the pain. Therefore it is that the "automatic method," easy as it is in many cases to learn and to apply, will not do even for this nineteenth century, and will be thoroughly exploded in the twentieth. Easy? Yes, but just because it is easy it is correspondingly fallacious. It ignores, or sets aside without due consideration, all that a more carefully disciplined modern physician places in the front rank of importance—hygiene, the inquiry into causes, and treatment of the highest order depending upon these. It recognises only the disease and its assumed antidote—and thereby for the most part fulfils Voltaire's well-known sarcasm, that the art of medicine consists in putting a number of drugs of which one knows little into a body of which one knows even less. There is a fatal facility in this method, which has made it specially appropriate for quacks in all ages. To use the words of Hamlet to his faithless friends, Rosencrantz and Guildenstern, when the latter declares his inability to play upon the pipe—"'Tis as easy as lying: look you, these are the stops. Do you think that I am easier to be played upon than a pipe?"

I do most earnestly trust, gentlemen and students of this medical school, that, between those two contrasted attitudes of mind as respects disease and its cure, you will decide early, and be safely guided by your teachers as to which you are to choose. For upon the choice you make depends almost entirely (apart from more individual moral and intellectual characteristics) whether you will be found really advancing the art and science of medicine, or whether you will be of those who sink deeper and deeper into the ruts of routine practice and retrograde theory as life goes on. But I cannot persuade myself for a moment that in a school which can boast of three or four generations of such distinguished and progressive surgeons as the Heys and the Teales, and which even to-day and yesterday has, or has had, such leading spirits as Clifford Allbutt and Wheelhouse, there can be a moment's doubt as to your decision. With such traditions and such examples before you, it is morally almost impossible that you should become, or wish to become, "automatic doctors." I will only in a few words point out to you what is, in my opinion, the most important kind of discipline for enabling you to tread successfully the straight and narrow way that leads, not to the attainment of a high and varied medical culture (as to which you must, in the main, depend upon your teachers and on the authorised curriculum), but rather to the state of mind which alone makes such attainment possible. For you must take it from me that at every step in your career the "automatic doctor," in one insidious form or another, will stand athwart the path of progress, and may even, with some of you, tend to stifle the nobler impulses by proving how very successful he is—with the public. From the merely lucrative point of view, there are but few even of our most successful physicians who could compete with the highly automatic money-making machinery of Holloway's pills and ointment, or old Dr. Jacob Townsend's sarsaparilla. From any other than the merely lucrative point of view, and happily, in the end, with most of you (I trust), even from the point of view of a reasonable worldly prosperity, it is most undesirable that you should yield, in the very slightest degree, to this insidious form of temptation.

Now it is at this point that I find it needful to have a very few words with my friend Mr. Wheelhouse, not, I trust, inappropriate to the present occasion, concerning some of the remarks which he made here a few weeks ago in that most admirable address of his, as president of the British Medical Association. I do not suppose at all that we differ greatly in essentials, or perhaps even in details; certain I am that we have both one object at heart, the advancement of our profession, alike in its essential usefulness and in the good opinion generally entertained of it; which, indeed, forms a part, and a large part, of its usefulness to the public. But some of the remarks in that address appear to me to be open to an interpretation which possibly is not the one intended, but which at all events I desire not to allow to pass current without a *caveat*. It seems to be assumed or suggested that, in order to keep a medical education upon what are supposed to be *practical* lines, it is necessary that every student, before getting his name on the Medical Register, shall have had opportunities of seeing, handling, and in a certain sense treating, almost every kind of common disease and every ordinary type of infectious fever. By parity of reasoning, it would equally be necessary, as a security to the public, that every man admitted to the Register should have done every minor, or even possibly every ordinary major, operation, so that nothing should come to him hereafter so as to find him quite devoid of previous experience. Now, while I am as anxious as Mr. Wheelhouse or anyone else can be to improve, in every reasonable sense, the practical side of a medical education, I venture to say that what I have now put into words of my own as being suggested by the address referred to is not, to my mind, even a good practical ideal. Moreover, if any such ideal is to be carried out, or attempted, it will be absolutely necessary for the General Medical Council to go back on their late resolutions with respect to the "covering" of unqualified medical assistants; for, without some sort of "covering," lawfully or unlawfully, how is this extent and variety of practical experience which is regarded as essential ever to be attained by the majority of students or of undergraduates? It will be conceded that in order to make an experienced as well as a properly instructed practitioner, it would be requisite that he should have had opportunities of setting fractures and reducing dislocations; of performing venesection; of passing the catheter, not only in the normal subject, but through strictures and other difficulties; of treating and of observing throughout, with a certain amount of responsibility, cases of measles, pneumonia, typhus and typhoid fevers, phthisis, small-pox, rheumatism with and without cardiac complications. Why not also of performing operations in strangulated hernia, tracheotomy, ligaturing of arteries and veins, and other cases of emergency which, according to the programme just referred to, ought, if possible, to form a part of the training necessary to fit a man completely for all the necessities of general practice?

I apprehend that it is only necessary to put the case in this form in order to show that there is a fallacy somewhere—I do not say in Mr. Wheelhouse's argument, but in the conclusions to which I suppose his argument will, if carried out logically, apparently lead. I will therefore here affirm that my own view of what is essential to a practical medical education differs in some respects from that which I have presented above, using (it may be erroneously) the name of Mr. Wheelhouse. Speaking from my own experience as a teacher, I hold that the hitherto unsolved problem of a perfect medical education is to be sought in a direction nearly the opposite, or converse, of that just indicated—viz., *not* that the student or candidate for a diploma should have seen and done personally almost everything, or even many things; but that he should have seen and done comparatively a few things in such a way as to give a proper foundation or leverage, as it were, for attempting successfully others which have necessarily lain outside the possibilities of a young man's experience. And accordingly I have come to regard it as of far greater importance that

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every case observed or dealt with in any way by the student, or in his presence, should be *thoroughly* observed, and its treatment *thoroughly* understood, than that a much greater number and variety of cases should be so observed and so treated as to beget habits of imperfect observation and loose thinking—in short, the habits which in their developed form give origin to the "automatic doctor" aforesaid.

This general principle being affirmed (for it would be out of place, I think, to go further on the present occasion), I am content to leave the practical questions arising out of it for settlement by wiser heads than yours or mine, with only one additional remark. It has been several times affirmed by way of criticism on the present curriculum of the schools that a young man may have gone through it all, most carefully and well, and yet never have actually seen a case of measles. Well, that is a misfortune, and to the extent of my own personal influence (under the difficulties arising inevitably from recent sanitary legislation) I have always done my very best to remedy it, or even to render it impossible, in the case of my own students. But I hold it to be far less of an evil that a man should go out into practice, not having seen a case of measles, than that he should have seen, and handled, and treated hundreds of cases of all manner of common diseases, after the frisky manner of Mr. Robert Sawyer and Mr. Benjamin Allen, the undying literary types of the *ancien régime*, under the system of compulsory apprenticeships. And I sincerely trust that, if any attempt is made (as seems likely) to restore to the medical curriculum whatever may have been good in that system, it will be under such wholesome regulations as to time, place, and manner as will effectually give substance and reality to the instruction afforded, and avoid perpetuating in a new generation, or perhaps in two or three of them, the routine practice, and the slovenly and hasty diagnosis, which could alone make the suggestion of an "automatic doctor" a possible thing.

These, however, gentlemen, are considerations not for you (at least in this stage of your career), but for your seniors, and especially for the General Medical Council, and Mr. Wheelhouse as an influential member thereof. I trust I have not in any way exceeded the bounds either of duty or of courtesy in submitting to you and to him these remarks (somewhat longer, perhaps, than I intended) on this most important subject. What remains for you to do is to avail yourselves fully of the splendid opportunities that lie open to you in this medical school and in your magnificent hospital, for laying the foundations, both broad and deep, of a medical discipline that will stand the strain and support the weight of the responsibilities that will by-and-bye be laid upon you. How this is to be done in detail I have already considered in several of the addresses included in the volume I spoke of, and of which this is in part the echo in a somewhat different form. The gist of it all is that the instincts of the naturalist, the love of nature and of fact, the reverent study of the laws of biological science, and of the physical sciences which underlie the phenomena of living as of all other matter, form the salt which redeems all our professional work alike from barrenness and from falsehood in principle. You first encounter these laws and phenomena in your study of chemistry and anatomy, zoology and botany. I advise you to lay the foundations well *there*, and by no means to lay the flattering unction to your souls that any of these are *useless* studies, because they seem not to be immediately *practical*. Apart from their manifold applications in practice, they are of untold value as a discipline. And, as I have insisted elsewhere, this discipline at an early stage of your medical career is of special importance, because it is of a kind almost overlooked in much of your earlier school education. What you learn in these scientific departments—always supposing that they are taught practically, and not *only* in books and lectures—is to come to a closer grip with Nature and with fact, and not to be deceived and deluded either with false shows or learned philosophies and philosophisings. And this is a kind of knowledge, *the knowledge of things as opposed to words and abstract ideas* (for so Michael Faraday called it), which is often greatly deficient even in educated minds, and the want of which is felt at every stage of a medical career. Let *thoroughness*, therefore, enter into all your dealings with these earlier studies—those of your first and second year. It is not merely that you are gaining *information*, but that you are *forming habits*.

Then, as regards the application of the habits so formed to your studies in medicine and surgery proper, I will ask you to-day to receive, and to ponder, only one or two suggestions from a teacher, some of whose early pupils are now grey-haired practitioners. I do not propose to speak of doctrinal instruction, the value or even the correctness of which depends largely on the teacher, but only of clinical instruction. In this, as in everything else, there is a right way and a wrong, and the difference between the two ways consists almost entirely in what I have called *thoroughness*. If you learn *thoroughly* to know even *one* case—diagnosis, prognosis, treatment, and all about it—in a humane as well as a scientific spirit, you may rest assured that you have got something which will remain with you all your life. If you learn, otherwise than thoroughly, to know after a fashion a great many cases, you have also got something that may remain with you as a life-long possession; but that something is simply a bad habit of working, while in the other case it is a good habit, and, over and above this, a valuable addition to your positive knowledge. I can remember now single cases seen by me forty years ago, and some of them are so printed in the memory that they have all the vividness, as well as the value to me, as though they were of yesterday. Now, I am going to say to you what may seem to be, but is not, a reflection upon particular teachers or pupils. There is a way of perking and pluming one's self upon a *diagnosis*, as who should say, "See how rapidly and surely I can do it; a single glance at the expression, a moment with the stethoscope, a word or two of conversation, and the thing is done, and the whole case is before my mind." This, according to my experience, is a very fatal bad habit, both for the teacher and the taught. No doubt rapidity of diagnosis comes with experience, and is not without a certain value; but in teaching, the first and the last lesson is always, or ought to be, *thoroughness;* and thoroughness, in the sense in which I am using the word now, is not consistent with aiming at these lightning-flashes of intuition. A true diagnosis risks nothing; it aims at being exact, not at all at being wonderful or rapid. Therefore it is never a thing to make a show of, or to boast one's self about; and he that does it in that boastful spirit is, in the very act of doing so, setting a bad example and teaching a bad habit.

What shall we say, then, of those out-patient rooms where twenty, thirty, or forty cases are disposed of in an hour, not only as to diagnosis, but also as to treatment? What, again, of those immensely busy practices where the mere multitude of the cases, or the distances to be traversed, make it well-nigh impossible ever to *complete* a diagnosis? Can these be considered as fit fields for gathering sound clinical instruction, or for maturing the crude experience of young aspirants whose chief desire is, according to the programme I mentioned a little while ago, to have personally seen and treated almost every common form of disease? I do not stop, as you will observe, to argue out these questions, for I have no time to do so; but I state, without the slightest hesitation, my own sincere conviction that for sound clinical teaching and for the formation of correct ways of observing, and thinking about, and treating disease—such habits, in short, as will be serviceable for a lifetime—the first and absolute rule is *thoroughness;* there must be no hurry. An hour, or even more, spent over one case (always supposing that the state of the patient admits of this) is out of all calculation more valuable than five minutes each over twelve cases, or even ten minutes each over six cases. And therefore I say again that the maxim which should guide our superiors in laying down the law of practical instruction is *Non multa sed multum;* not a great multitude of cases just seen, or very superficially observed, but a smaller or much more moderate number, the deliberate and careful observation and management of which in detail may form, as Tennyson sings, the stepping-stones on which to rise to the higher levels of a more rare, or a more difficult, or a more advanced experience.

Gentlemen, I have done. I had a good deal more that I should have liked to say to you, but the lapse of time warns me that there will be some of you at least waiting anxiously for the end of my sermon. It now only remains for me, as an outsider, to wish you all possible success and all possible happiness and efficiency in the studies of this medical school during the present session. I have endeavoured to indicate to you only the broad lines on which such success and such efficiency are to be sought. It is for you, so far as lies in you, to make the application.

God bless you all! Farewell!

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ON THE DIAGNOSIS AND TREATMENT OF SCROFULOUS GLANDS.

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(*Concluded from page 634.*)

THE first indication in local treatment is to remove all sources of irritation. Excise the tonsils if enlarged, extract decayed teeth, treat adenoid growths, and try to cure post-nasal or pharyngeal catarrh; in short, if the glands are in the neck, try to get the mouth in a healthy condition and follow the same line of treatment elsewhere.

Local treatment to be successful must be thorough; it is a mistake to meddle with scrofulous glands unless one can get the whole thing away. I am very averse to partial operations; they often set up fresh irritation, arouse slumbering glands to renewed activity, induce increased peri-adenitis, cause fresh healthy glands to enlarge, and in fact leave the patient with a larger swelling and in a worse condition than before he was touched. If I am right in believing that the removal should be thorough, I would ask, "Can anything effect this complete removal except the knife?" I think not; the scoop certainly cannot do so; one constantly finds masses of deposit in glands which are quite hard and cannot by any force be scooped. It may be said, wait till the gland softens, but glands do not always soften, even when they are the seat of deposit, and may remain in the same chronic indurated condition for years. When the deposit does soften, the process is not generally uniform throughout the gland or glands. The softening takes place in separate glands or in patches of the same gland at various periods and at a certain stage of disease in each particular instance. It is not uniform throughout, either as regards individual glands or as regards the mass generally. If the surgeon could find and scoop out these broken-down portions, the patient would be no better off; the remainder of the affected gland or glands would still degenerate and cause trouble. Scooping alone is chiefly applicable to two conditions of the disease—viz., limited superficial gland enlargements which have uniformly softened, and old fistulous tracts kept open by withered caseated glands; it is also useful for scraping away rotten skin, old inflammatory deposits, and for clearing up generally. In the first of these conditions I am not of opinion that scooping is the best plan, as it leaves an abscess cavity which complete or partial excision would avoid. In large masses of scrofulous glands scooping alone would simply hasten the patient's end; these cases must be either excised or left to nature. I have heard and read scooping and excision compared, as if a given case should be treated exclusively by one method or the other. Practically this is not so; the surgeon has to remove all the diseased glands in whatever stage they may happen to be; some glands will be found too hard to scoop, others too soft and broken down to excise; therefore the operator must deal with the glands as he finds them, scrape some and excise others, the only *sine quâ non* being that he should clear away all the disease and leave no lumps to be felt when he has finished. I sometimes use the scoop alone, more often no instrument but the knife; a combined method of excision and scooping is, however, more generally useful than either method by itself. The skin incisions should be free and generally over the mass. If the glands are loose and can readily be shifted so as to be brought into view, one may make the skin cuts in the line of the creases of the neck; if the glands are under the sterno-mastoid, the incision should be along the line of this muscle, either in front or behind, or if the mass be very adherent to the vessels it will require two incisions in this line, one in front of the muscle and one behind. The advantages of a free skin incision are obvious: the surgeon can see what he is about, can more readily remove the whole of the disease, can satisfactorily arrest all hæmorrhage, and, finally, has good means of drainage when he has finished. Nothing is more dangerous than trying to extract glands from the neck through an insufficient opening, and it is a mistake to deal with glands through a small hole. The method of operating in cases where the glands are very adherent I have indicated in a former paper. Some glands are so loose that they can be hooked out by the finger; others can be removed by incising the capsule, some by a moderate dissection, while others will require the very closest dissection. If the surgeon has to dissect, he should always cut *on* the gland. In this way only will he avoid bleeding and wounding important structures. The gland itself is not vascular, the surrounding cellular tissue is very much so. In dissecting, the gland should be *fixed* either by the fingers, a hook, or a thread passed through it; it is not a good plan to dissect a gland which is at the same time slipping and bobbing about. When a solid caseous mass of glands is firmly adherent to the vessels, it is not judicious to try and dissect it off clean; clear as much of the mass as you safely can; slice off the greater portion, and with the fingers or scoop slowly and carefully scrape or peel off the rest. It is surprising what patience and perseverance will do with an apparently hopeless mass, and I have not yet come across a mass of glands that could not be removed—one side of a neck will sometimes take two hours. There is no vascularity in old glands. Inaccessible glands, such as those above the angle of the jaw, may have their capsules freely divided, their contents are as far as possible scraped out, and the capsules gently pulled away with forceps. After removal, resist the temptation to sew up the skin flaps, except in especially favourable cases in which the knife alone has been used. In the neck, more than anywhere else, bagging or retention means serious trouble. Adapt the flaps with the fingers and keep them in position by a sponge or antiseptic wool, which is included in the dressing. I do not, as a rule, use tubes. Absolute rest must follow, no mastication, and the head fixed by sand-bags. As regards scooping, if a gland is scooped, do not be in a hurry to allow the skin wound to close, however perfectly the gland may have been scraped and evacuated; particles of deposit remain behind, or a bit of gland may not have softened sufficiently to enable it to be scooped out. As long as any induration is left, it is well to keep the tube in or the wound open, and there should always be direct and easy communication between the skin opening and the remains of the gland trouble. In combined operations of cutting and scooping, the more the knife is used and the less the scoop the better; the knife causes less bruising, leaves nothing behind, and gives the best result.

Disorganised and unhealthy skin.—If the skin is blue, sodden, undermined, and thin, it is better to cut or scrape it away. Scraping is a test; if it is soft enough to scrape away it is of no use. It is a mistake to leave unhealthy skin under the notion that it will recover, and thus, by rendering a smaller wound necessary, diminish scarring. This is not found to be the case, and some of the puckering one often sees is due to the contraction which takes place during the process of healing in this damaged skin. Nothing but healthy tissue should be left behind, when the wound will heal quicker and leave a better scar.

In dealing with scrofulous glands the matter of scarring is worthy of consideration. Why do some cases show such terrible scars? Are the nature, appearance, and character of the scar dependent on the method which has been adopted for getting rid of the disease? Is it, if bad, due to the fact that the gland has been incised, allowed to break, poulticed, painted with iodine, scooped out, or treated in any other manner? Is a bad scar owing to the injurious influence on the healing process of the scrofulous constitution? I believe that a bad scar is not essentially dependent on one or any of these influences, but that it is generally entirely due to the simple fact that some source of irritation remains behind; that all the disease has not been removed that remains of thickened capsules, gland débris, or small infected glands are left. Nature shows her objection to this, and indicates her desire to get rid of it by a prominent, red, and ugly scar. I have seen glands excised, union by first intention with an almost imperceptible line, and subsequently this line widen. thicken, and become raised and red because other glands scarcely to be felt at the time of operation, and considered too small to need removal, have kept up irritation. On the other hand, I have often had cases in which, from destruction of skin, wide, irregular wounds were necessarily left after operation, recover with a flat, white, improving scar when the removal of the disease has been complete. If every portion of diseased gland tissue has been removed, and if there is no further infection or return after the operation, the scar will be an improving one as time goes on, but if any disease remains or returns the scar will continue to grow worse. A prognosis may to a

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great extent be formed as to the probability of return of the disease in other glands, or the increase or subsidence of small deep glands that may have been left by the condition and progress of the scar. Ugly scars may be removed and the patient's appearance greatly improved, but the cause must at the same time be taken away or the result will be disappointing. The question of early or late removal is a very important one, and can only be answered by the consideration of the special features of each particular case. As a rule, there are decided advantages attending early removal. In the early stages the glands are as a rule more movable and more easily taken away; there is also to be borne in mind, as indicating early removal, the important fact that an infected gland constantly tends to infect others, and is a source of danger so long as it remains; glands too, if left, will often break down, capsule giving way, and discharge, not externally through the skin, but into the cellular tissue of the neck, causing burrowing sinuses and extension generally of the disease. On the other hand, removal whilst the disease is in an early and progressive stage is more likely to be followed by a return than is removal when the disease is in an arrested and quiescent condition. And, *cæteris paribus*, the younger the child the more likely is the disease to recur. No general rule can be given, but each case must be taken on its merits. If the constitutional disturbance set up by the glands is sufficient to maintain increase of temperature, it is better to operate. Of course, the constitutional condition and the local trouble act and react on each other, but generally an indication for action or delay can be got at by deciding as to whether it is chiefly the constitutional condition which, in addition to perhaps local causes, is developing and maintaining the gland trouble; or whether this gland disease, having been started by combined local and constitutional causes, is now in itself injuriously affecting and deteriorating the health. In many of my patients the latter has undoubtedly been the case, and I have numerous charts showing the temperature, which has ranged from 100° to 103° F., dropping to normal shortly after removal, with a corresponding improvement in the general health. But in many cases there are distinct benefits to be obtained by waiting. The glands will not altogether return to their normal condition and size, but they may become smaller, surrounding inflammatory deposits may be absorbed, adhesions may be set free, loosened, or stretched, general health may be improved, and a more favourable state of the patient, both locally and generally, be brought about. The social position of the patient must also influence our action. In the case of a poor child, residence at the seaside, except for a limited period in a hospital, is unattainable, and time is of importance. The well-to-do classes, on the other hand, are averse to submit to operation until less decisive measures have been first tried. Finally, I would say wait, if possible, to establish general health and get disease quiet.

I cannot help thinking that excision of scrofulous glands is an operation which rests on sound surgical principles. We have a diseased, an irreparably diseased, condition in organs which the body can well spare—a condition which tends constantly to cause infection by continuity of adjoining glands, and even by means of the blood, to develop tuberculous disease in distant parts. Why should this diseased product be allowed to remain to work its own sweet will unmolested and undisturbed? Tuberculous disease is removed from all other accessible parts or organs; why should glands be privileged? I submit there is every reason why they should be removed, and removed thoroughly. Take the case of a family of scrofulous tendencies. One member only may actually develop the disease, say, in the form of scrofulous glands; if this child's diseased glands are thoroughly removed, if all sources of irritation are removed and the child's health established by being sent to the seaside, that child is put back in the position of his brothers and sisters who have never had the disease. He is not more likely to have a return of the scrofulous glands than his brothers and sisters are to develop them—in fact, he is cured. The only valid argument that could be used against the excision of scrofulous glands is the possibility of undue risk. Scrofulous glands are situated usually in the midst of important vessels and structures, and their removal might be considered dangerous. I can only state that I have excised scrofulous glands for many years, and that I have never lost a case. I attribute this success partly to good fortune, but mainly to the fact that I never incur, by premature closing of the wound, the slightest risk of retention of discharges or bagging. I have operated on many cases of great enlargement. I have removed more than a pound's weight in glands from one patient, and more than one hundred in number from another. I have excised glands in a case where the mass was sufficiently large to threaten suffocation. My colleagues are doing the same, and we can prove, by a great number of cases, that the operation is not attended with undue risk, and that the results are good.

Margate.

AROSA AS AN ALPINE HEALTH RESORT.[1]

BY WM. EWART, M.D., F.R.C.P.,

PHYSICIAN TO ST. GEORGE'S HOSPITAL AND TO THE BELGRAVE HOSPITAL FOR CHILDREN; LATE ASSISTANT PHYSICIAN AND PATHOLOGIST TO THE BROMPTON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.

AFTER five successive winter visits to the Alps, I am more than ever of opinion that time is working in favour of the Alpine treatment of phthisis. The natural repugnance of most patients to the idea of a glacial winter, and a wise diffidence on the part of the profession, have checked for a long time its wider application; but the delay has been of use as a means of testing its value and of confirming its ultimate success. We now more fully realise that, if phthisis is to be cured by residence in the Alps, the fleeting opportunity must be seized *early;* this circumstance alone has led, during the past few years, to a progressive increase in the size of the winter colony. Moreover, in addition to consumptives, many have found their way to the Alps in whom pulmonary disease was merely *threatened.* And, lastly, the remarkable results obtained in the treatment of early phthisis have awakened most physicians to the capabilities of the Alpine cure in a larger class of cases presenting in common the feature of depressed vitality. Nevertheless, for a considerable number of patients the length and the hardships of the journey to the high Alps have hitherto been an insuperable objection. The winter journey to the Engadine is likely for some years to retain its romantic and adventurous features. But to Davos a railway is already partly laid; this winter it will have reached Klosters, leaving but ninety minutes instead of seven weary hours of diligence journey; and in the following autumn Davos will possess its own terminus, and will doubtless welcome a vastly increased number of visitors, both invalid and healthy. From that day the charm of an Alpine winter holiday will cease to be the secret of the few; and it may safely be predicted that Davos will become the great centre in the High Alps, not for patients only, but for lovers of mountain climbing, of skating, and of the toboggan. On the other hand, instead of being as heretofore an *Ultima Thule*, Davos will henceforth provide ready access to other favoured spots, and residence in the altitudes will admit of greater variety than in the past. Foremost among the members of the Davos group of health resorts must be mentioned Wiesen and Arosa, each differing from the other and from Davos in its climatic virtues, and each excelling in its own special variety. Wiesen has already for several years subsisted as a satellite of Davos, but although it has been brought to notice by the writings of Dr. Tucker Wise, it has not yet achieved the development for which its beautiful climate, and its yet more beautiful scenery, afford secure pledges. Arosa, though later in the field, is likely to equal the fame of its predecessors. Hitherto, but for a paper by Dr. Fritz Egger in the *Correspondenz Blatt für Schweizer Aerzte* for 1886, it is unknown to medical literature. The brief account which follows may therefore present some interest, especially since, through the kindness of Dr. Egger and of Dr. Herwig (the former practising and the latter residing in Arosa), I am able to supplement my own observations with some of the local knowledge acquired by old residents.

Upwards of 400 years ago a handful of adventurous Davoser shepherds crossed the mountains which form the western boundary of the valley of Davos, and founded in the smaller and more elevated neighbouring valley a village, to which they gave the name of Erosen. The new

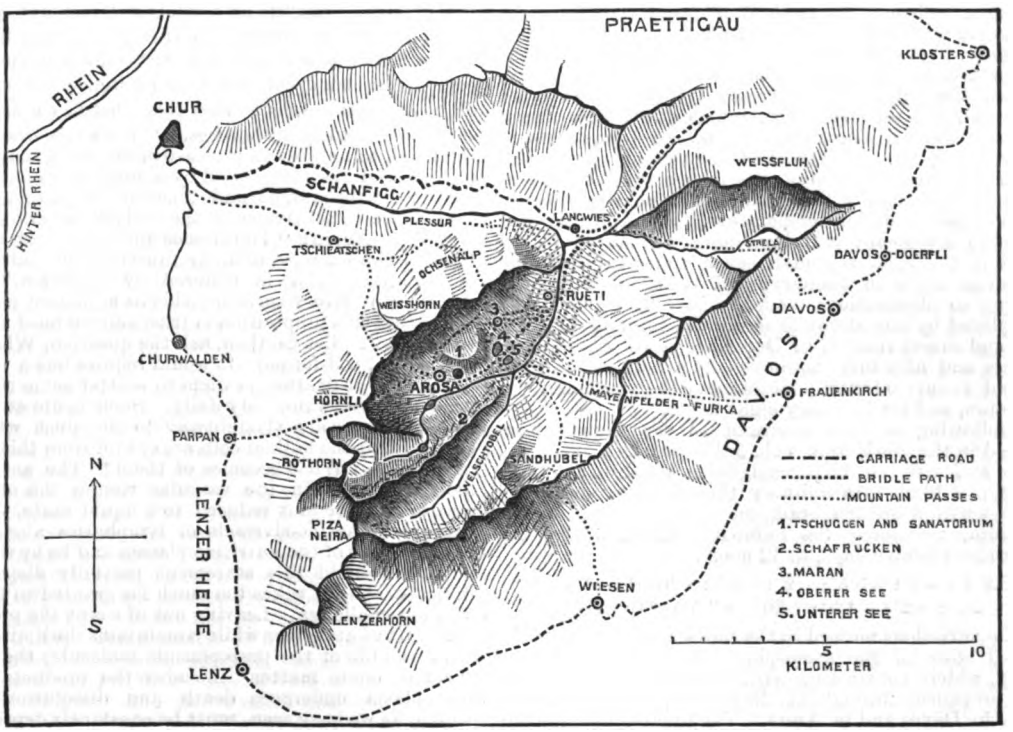
[1] Written at Arosa in February, and communicated in March of the present year.

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settlement remained for a long period within the jurisdiction of Davos; and to the present day a vestige of the former allegiance survives in connexion with the administration of relief to the poor. The colony never acquired any great size; but with the ill-advised sale to the city of Chur of the richest of its woods and of its grazing-alps, it entered upon a long period of decline. Two years ago its permanent population had dwindled to fifty. But Arosa was destined to be colonised once more from Davos, not as formerly with sturdy mountaineers attracted by the fragrance of its pastures, but with patients anxious for a winter shelter under its snow-clad mountains. The fresh immigration was headed, six years ago, by Dr. Herwig, and two years later by Dr. Egger. During the winter 1887–8, in scattered array, a total of eleven visitors were content to put up with primitive accommodation. But, with the onset of the next winter, Arosa, long treasured by the Swiss as a delightful summer refuge, almost untrodden by the foreign tourist, long foretold by experts as the winter station of the future, suddenly sprang into existence as an

MAP OF AROSA,

WITH AN INDICATION OF ITS RELATIONS TO THE DAVOS GROUP.



N.B. The scale of measurement is applicable only to the Valley of Arosa, not to the surroundings, which are merely indicated, without reference to distance.

Alpine health resort. The sanatorium, built by Dr. Herwig during the spring and summer of 1888 for the accommodation of thirty patients, was invaded, even before its completion, by visitors unable to find room in any of the six summer hotels; and during its first winter it has been occupied by twenty-four residents. The patients, mostly German, but including two English ladies, a Belgian, and, strange to say, a Frenchman, have enjoyed the undivided run of this lovely valley, free to toboggan down its long slopes, free to roam on snow-shoes, fearless of the *landjäger*, over its hills, meadows and hurdles, and to exchange distant *jodels* through stillness yet undisturbed by any strange voices; but at times the saddening thought has occurred to them that the same monopoly of privileges will never be theirs again.

The natural advantages of the valley of Arosa are probably unsurpassed. An oblong amphitheatre of mountains surrounds the valley on all sides, except at the north-east corner where the Plessur stream escapes with a sharp bend, between densely wooded hills, into the Schanfigg Thal. This break in the investing heights is guarded by the Weissfluhe; and from this mountain to the Piza Neira a continuous chain separates the Prättigau and the Davos Valley from the district of Arosa. Between the latter and Wiesen intervene the Sandhübel Mountain, the gorge of the Welschtobel and the ridge of the Schafsrücken. The higher or southern part of the valley is included between this ridge and the Weisshorn; whilst into the northern half opens the Welschtobel. The valley is parallel with the valley of Davos and slopes from S.W. to N.E. Its shape would be a perfect oval but for the protrusion, half-way across it, of a small semicircular mountain, the Tschuggen, which renders it roughly kidney-shaped, and divides it into a northern and a southern half. The latter contains, in descending tiers, the elevated Aelpli-see; the Schwelli-see, also of considerable altitude; and the hamlet of Arosa. This is, strictly speaking, the Arosa Valley as opposed to the See-grube on the other side of the Tschuggen. The complete absence of trees and the huge snow-slopes into which it gradually rises impart in winter to this end of the valley a wild arctic aspect.

The sanatorium is built half-way down the southward slope of the Tschuggen, at an elevation of about 6200 ft., near the upper limit of the pine-tree woods, which extend from this point northwards as far as the end of the valley, clothing its bottom and its opposite slopes, and leaving in the See-grube an open surface of tolerably level ground around the two lakes, known as the Unter-see and the Ober-see. The sanatorium, absolutely sheltered from the north wind, is open to the Föhn, which seldom blows, and is taken in flank by the milder touch of the Heiterluft (fine weather air) or west valley wind, which descends every day, across Arosa, from the Hörnli. It faces due south, and receives, in addition to the direct sun rays, much reflected heat from the snow-clad Schafsrücken; it also enjoys a fine view over the picturesque snow-tipped woodland scenery to the north, which contrasts pleasantly with the desolate landscape to the south. From the narrow gully contained between the foot of the Tschuggen and that of the Schafsrücken the valley broadens out northwards into the See-grube, which has a mean elevation of 5800 feet. Here the protection from wind, although not absolute, is as good as need be desired, and I am told by winter residents that during the heavy Föhn-storms the woods afforded a perfectly

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still retreat. On the shores of the Ober-see and of the Unter-see I noticed lovely sites, two of which are already reserved for large buildings. Hitherto valley mists, so common in the still valleys, are almost unknown, even in the See-grube.

Arosa offers ample opportunities for out-door *exercise*. A long level walk extends through the woods to Maran; the other walks are more or less steep, and their choice is limited in winter. Fortunately snow-shoes, almost unknown at Davos and St. Moritz, are here in constant use and have rendered the patients independent of the few bridle-paths with which the natives are satisfied. With their help some of the stronger invalids have ascended the Weisshorn, and even the Rothhorn, and have visited most of the passes. The hill sides are singularly well adapted for the use of the toboggan, and some excellent skating was enjoyed on the lower lakes before the heavy snow-falls. Meanwhile, patients unfit for exercise recline in the sun under rugs or eider-down pillows on the balconies or in the verandah.

The meteorological observations which have hitherto been collected entirely confirm the inference that Arosa is typically a serene altitude. Absolute stillness, which is not an unmixed boon, does not exist here. The *Heiterluft* provides daily for a sufficient renewal of air, and the See-grube possesses an additional air-current passing from the valley of Langwies to the Welschtobel. As to the quality of the air, after a circular journey from Davos to the Engadine, and from the Engadine to Arosa, I found here rather more stimulation than at Davos, and decidedly less stimulation than in the Engadine. As far as I was able to compare notes, the oscillations of the weather were practically the same here during the month of February as at Davos. Although a thousand feet higher than Davos, Arosa possesses a milder temperature. The following fact requires no comment: mid-day dinner was served to the patients in the open verandah seven times in December last, eleven times in January, and twice in February. According to observations made by Mr. P. Haenel, and kindly placed by him at my disposal, the interval between sunrise and sunset reached in December last a minimum of five hours and fifty-three minutes and a maximum of six hours and twenty minutes; for January the maximum was seven hours, and for February eight hours.

The following are the averages of the temperatures registered in the *shade* from Feb. 3rd to the 14th inclusive. Average at 7 A.M.: − 11·7° centigrade; at 1 P.M.: − 7·7°; at 9 P.M.: − 10·3°. An ordinary thermometer, suspended in contact with a wooden beam, on the *sunny* side of the sanatorium, registered the following values during the same series of twelve days, at 12 noon:

+12·5°; −2°; −3·5°; −2°; +22°; +31·5°; −1·5°; +2·7°; −2°; +1·5°; +20°; +3·5° centigrade.

The wide variations noticed in the series are evidence of the unsettled state of the atmosphere during the period in question, widely contrasting with the steady fine weather which prevailed throughout November, December, and January in Davos and in Arosa. The highest temperature registered by the same instrument in December was +34·5° centigrade. The lowest temperature registered in the shade (at 7 A.M. and at 9 P.M.) was −20° centigrade. Although these various observations were not made with protected thermometers, they afford a rough idea of the variations in temperature to which are exposed winter residents in the altitudes, and which the dryness of the air enables them to tolerate without discomfort.

In conclusion, Arosa, the latest addition to the list of Alpine resorts, bids fair to be one of the best; and we may well wonder that so eligible a spot should have been hitherto overlooked. The mountains by which it is so remarkably sheltered have placed it beyond the reach of most invalids. To the present day, Arosa possesses the charm of being accessible only to foot passengers; in winter, by a single path, from Langwies, a stiff walk of from two hours and a half to three hours; but in summer by six mountain passes in addition. A carriage road is, however, in course of construction, and before next winter it will be possible to cover the whole distance from Chur in four hours and a half. Perhaps also before then ample accommodation will have been prepared for a larger winter colony. As regards the sanatorium, the success already achieved among a German *clientèle*, under the able management of Frl. Herwig, renders it more than doubtful whether any room will be left next winter under its roof for the reception of English visitors. But if any should make the attempt to partake of its hospitality, they should come prepared to find themselves in the minority.

Curzon-street, W.

AN ESSAY ON THE

FUNCTIONS OF INDIFFERENT CELLS IN THE HUMAN ORGANISM.

BY JAMES DICKINSON.

(Concluded from page 636.)

THE normal occurrence of the migration of leucocytes must be considered as established. What do they do when they have migrated? Is there in the body any small but constant deposit of cell débris (such as results copiously from an injury) demanding bodily removal, and providing just such a task as the wandering cells in the tissues are competent to perform? It seems extremely likely that there is this deposit. The life of a cell is not in point of duration that of the organism of which it is but a tiny item. It is believed that each cell lives its little life and dies while the complex organism continues its existence. The analogy of all communities tells us that this must be so, and that it is so is recognised by authorities. "We know that an epithelium cell, as notably in the case of the skin, may be bodily cast off and its place filled by a new cell, and probably a similar disappearance and renewal of histological units take place in all tissues of the body to a variable extent." (Foster.) Again: "The tissues and organs of the animal body in the exercise of their functions are subject to loss of material which is restored by nutrition." (Quain's Anatomy.) Every surface yields us abundant material evidence that this proposition is true, and we need not hesitate to accept it. Let us, then, ask the question, What becomes of the dead cell-forms? It would require but a very minute percentage of deaths per diem to scatter some thousands of dead cells about the body daily. Such as die at the surface are free to return straightway to the dust whence they sprang. But the bulk of cells are cut off from this easy mode of disposal. What becomes of them? The authority last quoted says: "In the vascular tissues the old or effete matter must be first reduced to a liquid state, then find its way into the bloodvessels or lymphatics along with the residual part of the nutritive plasma and be by them carried off." No doubt this statement partially disposes of the difficulty, but it takes too much for granted to be accepted without challenge. Leaving out of count the products discharged by katabolism while it maintains the limits consistent with the life of the protoplasmic molecule, the expression "old or effete matter" includes the products left when protoplasm undergoes death and dissolution—products which, as we have seen, must be constantly deposited in the tissue. Now, in the statement just quoted all these products are assumed to be soluble in the lymph stream. But one of the products freed by the natural dissolution of protoplasm is fat, as is seen when a mass of protoplasm cut off from its blood-supply undergoes fatty degeneration. What happens is broadly this. The complex molecule of protoplasm, in the absence of material wherewith to carry on its constructive changes, continues its destructive changes uncompensated till it is fairly broken up into less complicated but more stable molecules, some of which are fatty. We see the same thing in the tissue degenerations of old age, when the machine is nearly run down and destructive metabolism generally is gaining the upper hand of constructive. It is by so carrying its destructive metabolism too far that one conceives all protoplasm ultimately dies, if left to die in the course of nature, a point being at last reached at which no reconstruction is possible and the molecule breaks up into stable residues. It is most probable that all forms of the protoplastic molecule contain, in addition to a proteid basis, fatty and carbohydrate residues. The combination may be in different proportions in different forms, but probably all forms on undergoing natural dissolution yield residues representing these three classes of substances. At all events the facts shew that a fatty residue is almost invariably a product of

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this dissolution. Some forms of protoplasm by natural dissolution yield it in considerable quantity. Nerve tissue especially leaves an abundant fatty residue. Native protoplasm is also highly productive of the same substance, as is seen in a caseating abscess when migrated leucocytes are dying of starvation. Muscle and gland protoplasm leave no inconsiderable fatty residue. But fat is in water the fluid basis of lymph, an eminently insoluble substance. A view that requires all effete products to undergo solution before they can be removed is therefore inadequate to account for the disposal of at least one of those effete products. But this view undoubtedly affords a partial explanation of the means whereby disintegrated protoplasm is removed from the tissues. We know that there are found in all tissues certain nitrogenous crystalline bodies, amongst which kreatin is the most conspicuous. Since they are such bodies as would readily be carried away by the lymph-stream, yet are always present, we infer that they are constantly being formed and as constantly being converted into other bodies and carried away (Foster). These bodies have been called the "wear and tear" products of metabolism. But in the metabolism of protoplasm two processes must be distinguished—*change*, which is anabolism and katabolism within the limits of life, and *death*, which is katabolism beyond recovery. It is probable that the former process gives rise to little or no nitrogenous waste, and it is the latter process to which we must look as the chief source of extractives. In fact, of the three residues which I venture to assume are liberated by the final katabolism of protoplasm, extractives represent the proteid residue. These substances are no doubt taken up by the lymph-stream in which they lie, and so find their way through the lymphatic channels to the blood, and thus to the nitrogen-excreting organs. If any portions are yet available as nutriment, they would take their place among the other foods held in the plasma. But just as constantly as extractives there are found in all tissues—leaving out of count those in which they are special features—substances belonging to the two classes, fats and carbohydrates. This is what we should expect in the light of the foregoing considerations, and the obvious conclusion is that these substances have a source identical with that of the extractives, and that all three represent residues left by that final splitting up which ends the katabolism of the molecule of protoplasm. The carbohydrate residue takes the form of glycogen. Neither fat nor glycogen can be said to be substances which would readily be taken up by the lymph-stream. Glycogen, indeed, is just that less soluble form which carbohydrate assumes (e.g., in the liver) in order, probably, that it may *not* be carried off by the lymph-stream. But if the view be correct that fat and glycogen are constantly though in small quantities deposited in the tissues by the natural death of cells, and if the lymph-stream is inadequate to the effectual removal of such substances, must there not exist some other agency by means of which they may be constantly swept from the tissues and prevented from accumulating? Does not this look like a need such as leucocytes are just qualified to supply—a need more diffused and less intense, but of precisely the same nature as the need we found them supplying in inflammation?

It is established that the migration of leucocytes from the bloodvessels into the tissues is a normal occurrence. It has been shown that it is at least highly probable that there is work for them to perform in the tissues such as is within their powers, and such as we have seen them performing under certain conditions. Have we any certain evidence that they do perform this work? We have. The microscope shows that the protoplasm of leucocytes has always embedded in it granules of various sizes, which irresistibly suggest themselves as prizes picked up and undergoing the process of intracellular digestion. It is, indeed, the presence of these granules that enables observers to distinguish leucocytes among other cells. But what seems to finally establish the soundness of the considerations above given is the fact that most authorities describe these particles as consisting of fat and of glycogen. This is just what, on the foregoing grounds, we should prophesy, and what we should look for with trepidation as a crucial test.

To sum up the results so far obtained. Inflammation, then, is a process to which, in a very mild form, the whole body is subject all its life. It is a cleaning-up process. Leucocytes are the scavengers of the body. Just as their structure and organisation are on the lowliest type, so the work they do is the most menial, though of utmost moment to the body at large. The primitive freedom which they alone retain is, naturally enough, the very thing that makes them of use to their fellows in the community that have resigned it in pursuit of special powers. With all their freedom their life is not their own, but belongs to their community. Their voracious and indiscriminate appetites are utilised in the plan of the body to supply important needs. In the alimentary and respiratory tracts there are special needs which leucocytes supply. Throughout the body is probably a constant and general need of their services as scavengers, a need created by the natural death of individual cells. Among the products of this death is a nitrogenous residue which is removed mainly, perhaps wholly, without their help. But there are also fatty and carbohydrate residues, and leucocytes are concerned in the removal of these. In effecting this removal, they utilise as nutriment all that is yet available of the débris. The tissues are held in constant survey by a procession of leucocytes which are distributed by the bloodvessels, escape thence through the walls, and, traversing the interstices of the tissues, stray ultimately into the proper lymphatic channels, where we will follow them for the present only as far as the first lymphatic gland they chance to meet. Ordinarily the escape from the bloodvessels is not a conspicuous event, but in cases of urgent need it is favoured by some change in the wall which has been called "molecular." Into the blood-channels fresh relays are poured from the lymphatics through the communication in the neck—continuously poured, but with especial vigour during the time absorption at the lacteals is most active. Thus, leucocytes being necessary to all parts of the body, follow precisely the course of circulation taken by the nutritive plasma.

But the physiology of indifferent cells in the human body is not yet fully outlined, for the question next arises, What is the function of the so-called lymphatic glands, which consist chiefly of amœboid elements? Keeping in mind the work of sweeping all débris from the body, it is not difficult to discover a probable use for these organs. For though the sluggish lymph-stream is obviously inadequate to sweep through the interstices of the tissues particles such as are seen in the bodies of leucocytes, it is quite conceivable that particles in a more minute state of division might be so carried off, suspended, without being in solution. Moreover, it seems not unlikely that in the breaking down of a cell structure a fine detritus would be loosened into the plasma. Grant that this be so. Then if it go on unchecked it must end in completely vitiating the plasma as a means of nourishment. It would in fact go on accumulating till it choked the vessels. For no cells could deal with it except such as retain to some extent the amœboid power. The use of the amœboid power is to enable a cell to pick up particles. If it is to become a highly specialised cell, the necessity of picking up food by its own activity must be obviated by its being provided with food in a soluble form. It cannot give up its amœboid powers unless this difficulty be arranged for it. And so we find it in the body where the bulk of cells take up their food or whatever products their functions are concerned with, in a form the assimilation of which calls for no more than a chemically selective action on their part. Leucocytes and some other cells that possess limited amœboid powers are the striking exceptions. Thus we never find particles in a muscle cell unless they be the products of its own degeneration. Supposing, then, a fine detritus to be constantly discharged into the plasma, it would, unless it were removed by special means, go on accumulating, and work two disastrous effects. It would, in the first place, displace useful (because soluble) nutriment; and, in the second place, it would render the flow of plasma through the tissues increasingly sluggish. Starvation of all highly specialised cells would be the climax. Obviously the efficiency of the plasma as a supplier of nourishment to the tissues depends, for one thing, on its being kept clear of suspended matter. The clearer it is the more freely will it permeate the tissues and penetrate into the protoplasm of the cells. If, as seems likely, there is a constant discharge of fine detritus into the plasma, there must be some efficient filtering apparatus constantly at work to clear it away. There are organs which filter the

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blood in a chemical sense, but none have yet been recognised as engaged in a mechanical filtration of suspended particles from either blood or lymph. Yet a lymphatic gland is constructed so as to suggest a filtering apparatus. It may be briefly and diagrammatically described as a dilatation in the course of a lymphatic channel occupied by a fine reticulum, the meshes of which serve to support a loose crowd of leucocytes. The leucocytes, loose only in the sense that they are free, are crowded densely, and through the crowd all lymph has to flow in order to pass from the afferent to the efferent vessel. It would be a miracle if the minutest particle of suspended matter brought by the afferent ever reached the efferent vessel through such a phalanx of phagocytes. The apparatus is calculated to maintain the most rigorous filtration, and probably all lymph on its way from the tissues has to pass through one or more such organs before it is redistributed by the blood-channels. If lymphatic glands have the function here suggested their work is complemental to that of the isolated errant cells that scour the body, and pick up all débris that is too bulky to be carried away by the plasma. We see how naturally errant leucocytes brought by the afferent vessel would take their place among those entangled in the meshes of the reticulum, to join in a work which is but a continuation of their own. We see how other leucocytes would escape on the efferent side of the gland with the lymph, to be carried a stage nearer the portal through which they would ultimately be admitted into the blood-stream; here to begin a new phase of existence as independent leucocytes till brought round once more to the afferent side of the lymphatic gland system. It must be added that lymphatic glands are probably among the chief seats of reproduction of leucocytes, the comparatively inactive life leucocytes lead in these situations being most favourable to that function.

There still remain for consideration certain aggregations of amœboid cells that cannot be classed either with lymphatic glands proper or with those lymphatic masses which, distributed along the respiratory and alimentary tracts, guard the natural gateways of the body. I refer to those aggregations of amœboid cells seen in the spleen and in the red marrow of bone. There can be no manner of doubt that the functions of both these tissues have relation to the red corpuscles. For just as lymph—i.e., plasma without red corpuscles—is discharged freely into the substance of lymphatic glands, so blood—i.e., plasma *plus* red corpuscles—is discharged freely into the substance of the spleen and of the red marrow. By contrast of these relations the inference arises that the spleen and marrow concern themselves with precisely that element that makes the difference between lymph and blood. Observation amply confirms this *a priori* deduction, though we are at present unable to say positively whether the two tissues are identical, or, as seems more probable, complemental in function. Again, we should, on *a priori* grounds, look naturally to leucocytes to provide new red cells and to dispose of old ones, the former corresponding with their organising, the latter with their absorbing, powers. But the final word on this matter has yet to be said, and the exact relations of the spleen and red marrow to the red cells and to each other have yet to be worked out. The elements found in circulating blood that have been described as transitional between leucocytes and red cells are probably leucocytes that have taken into their bodies the disintegrated remains of red cells. Whether such leucocytes do afterwards undergo any transformation has yet to be determined. Lastly, as a function of leucocytes, reference must just be made to the power of organisation which they display under certain conditions. This function concerns chiefly the earliest stages of the organism's development, and in the fully developed organism falls naturally into abeyance until a need for it arises in the shape of destruction of tissue.

Such are the functions of indifferent cells in the human body. These elements can no longer be looked upon as insignificant and useless or harmful. When it is remembered that their functions serve such varied uses as food absorption, antiseptic protection, regeneration, and, most menial, but not least important, the sweeping up of débris, it must be admitted that they are as indispensable to the well-being and continuance of the organism as are the elements of any tissue that has received distinct recognition.

Bridge-road, N.W.

TWO CASES OF

NECROSIS OF THE ALVEOLAR PROCESSES FOLLOWING MEASLES.

BY R. CLEMENT LUCAS, B.S. LOND., F.R.C.S.,
SURGEON TO GUY'S HOSPITAL AND TO THE EVELINA HOSPITAL FOR CHILDREN.

THE cases of acute disease which are treated by physicians not unfrequently leave local weaknesses and degenerate tendencies, which fall, perhaps months afterwards, to the charge of the surgeon. These local affections may in many cases be regarded as direct sequelæ of the acute disease, and particular exanthemata seem prone to produce necrosis in particular situations. The rib necrosis and tibial nodes which may follow typhoid fever are not, so far as I am aware, often found as a result of measles or scarlet fever, nor do I know of any case of typhoid fever which resulted in exfoliation of the alveolar processes of the jaws. The following two cases of alveolar necrosis presenting characters so very similar and resulting in each case from the same cause, I have thought well to place on record together. It is curious also that the two children were of the same age.

J. B——, aged three, was admitted into Guy's Hospital, under my care, on July 31st, 1889, and the report is from notes taken by Mr. Sydney T. Roberts. There was a healthy family history. Five weeks before admission the child suffered from measles and inflammation of the lungs. He was much convulsed during the attack. The illness lasted about a fortnight, but the mother noticed after his recovery that there was something wrong about his mouth. When admitted the child had a fairly healthy appearance. There was a little breaking out about his lips, his mouth was very foul, and the breath extremely fetid. On the front of both the upper and lower maxillæ, and limited to the anterior or central parts of both alveoli, was a greenish-black portion of necrosed bone. That on the upper jaw was quite loose, whilst that on the lower appeared still firmly attached. The disease appeared confined to the alveolar processes. The four incisor teeth had dropped out from the necrosed process of the upper jaw. In the lower jaw the necrosis, besides involving all the incisor sockets, included those of the two canines. On July 2nd, the patient being placed under chloroform, I removed with forceps the necrosed portion of the upper jaw. It came away with great ease. There was more difficulty with the alveolus of the lower jaw, and it became necessary to use a stronger forceps. The piece removed from the upper jaw was nearly quadrilateral, measuring three-quarters of an inch both vertically and transversely, and it contained the sockets of the four incisor teeth. The portion removed from the lower jaw was rather larger. It contained all the incisor sockets, together with half the socket of the canine tooth of the right side, and the whole socket of the corresponding tooth on the left side. The mouth was well washed out with Condy's fluid, and iodoform applied. On July 3rd the patient's mouth was in a much healthier condition, and the fetor much diminished. On the 5th the patient's general health was improved, and the condition of the mouth much sweeter. On the 7th the patient was discharged convalescent.

The second case I take from my Evelina Hospital notes. It is also a case of necrosis of both alveolar processes following measles, but the destruction was of an even more extensive character. By a curious coincidence the initials of the two children are the same, a fact which I mention lest it should be thought there was any confusion in the cases, but the sexes are different.

J. B——, aged three, was brought to the Evelina Hospital on Feb. 28th, 1883. The mother had died of some throat affection eighteen months before. The child took measles in August, 1882, and was ill for six weeks. After this it was noticed that her breath became very offensive. Shortly before being brought to the hospital the alveolar process of the upper jaw, corresponding to the four incisor teeth, dropped out. It was at the same time noticed that the alveolar process of the lower jaw was black and denuded of gum, whilst the breath remained very offensive. She was ordered a disinfectant lotion to rinse the mouth with, and cod-liver oil and steel wine internally. On March 7th, 1883, I removed with forceps the alveolar process of the lower jaw correspond-

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ng to the four incisor sockets and the right canine, and afterwards the alveolar process of the upper jaw bearing the sockets of the molar teeth of the left side. The patient afterwards rapidly recovered, the gum surface granulating over.

It will be noticed that the necrosed portion of the upper jaw separated in each case earlier than that of the lower—a circumstance to be explained by the different texture of the two maxillæ, the lower being much stouter, heavier, and more compact.

Finsbury-square, E.C.

Abstracts
OF
INTRODUCTORY LECTURES ETC.
DELIVERED AT THE
MEDICAL SCHOOLS OF LONDON
AT THE
Opening of the Session 1889-90.

KING'S COLLEGE.

INTRODUCTORY ADDRESS BY SIR ALBERT ROLLIT.

SIR ALBERT ROLLIT said the further men receded from their own school days the greater was the interest they took in the education of others than themselves. He had, therefore, responded to the request of the Principal and Medical Board to distribute the prizes, which was easy, and to address the students, which was difficult, especially those students of whom Carlyle spoke when he said, "I never knew a really clever youth who came of entirely stupid people." Education in London was in a period of transition. The great questions of metropolitan university, higher technical, and commercial education were either in the furnace or upon the anvil of public discussion. All were agreed that the present condition of university matters in the metropolis was unsatisfactory and inadequate, and it was certain that very soon either the University of London must meet the requirements of students and their teachers, or that a new teaching university would be founded, with King's and University as its chief colleges. Moreover, the London M.D. degree had been, from a professional point of view, almost unattainable, and hence an exodus of students took place from London towards other universities. This seemed, indeed, to be a practical and admitted evil, and it would be necessary to place within more reasonable reach a degree which it was now the custom to seek, and which should certainly not be severed from the professional advantages of the metropolis. It was to be hoped, however, that the present honour of the London M.D. and M.B. degrees would not be lost to the profession or their standard unduly lowered; and he suggested that the difficulty might be met by conferring the Doctorate of Medicine, as at Bonn and some other foreign universities, not only as a pass degree, but also as an index of higher qualifications, either *cum laude* or *cum multâ laude*, which was equivalent to honours. And if the proper requirements of a teaching university should not be met by the University of London, and a new one should be founded, let them hope it would be a true University—a school of universal learning, not an institution bearing as its name any such contradiction in terms as the proposed medical or legal universities. For this would not only narrow the course of professional instruction, but introduce into this country the evils of educational competition based on lowered standards and requirements, and followed by diminished reputation—a danger not unlikely to arise from the multiplication of collegiate universities. Having spoken of the English hospital system, and contrasted it with that of other countries, and having referred to the public services of the medical profession, Sir Albert discussed the subject of professional education. Owing to the mass of modern knowledge, the industrial principle, which was being applied in King's College and elsewhere, must, he said, also be applied to those intended for professional pursuits. As there was to be training for trade, so must there be preparation for a profession. Valuable as was classical culture, German was both disciplinary and of service in science, and it was dawning upon men that it might be possible not to be able to set Latin verses and yet to set a leg. He made an urgent plea for the professional, and also the general, study of psychology. For want of this, men, as a rule, ate too much, drank too much, slept too much, and fed and clothed themselves without much regard to their wants. If more adopted Sydney Smith's own prescription, "We cultivate literature on a little oatmeal;" if some dyspeptics appreciated the value of fish on a Friday, and any other day, of exercise on most, and relaxation on some days, such a reasoned and reasonable self-regard, call it selfishness if they chose, would at least mitigate disease, reduce the death-rate by half, and extirpate very much of the sum of human misery. Instead of this, however, the constant cry was that of the impenitent offender, "Oh, Lord, convert me, but not to-day," and so, in dyspepsia, &c., man continued to reap the reward of a guilty stomach. Again, physic and physics were closely connected, both etymologically and practically, and the medical man should therefore be more familiar than some were with the resources of natural science, and of the great physical instruments. To help nature, men must first know nature; otherwise they trust to chance and luck, and call it nature. He was glad, therefore, that physiological physics were prominently taugh at King's College, and a frequent educational defect thus remedied. But, after early education came the lifetime, and their profession offered perhaps the most noble of all careers; while what had been accomplished gave assurance of what was still to do. The world owed to the profession conservative surgery, the antiseptic principle, anæsthetics, and other life and limb saving inventions. The treatment of the insane had also been modified under the influence of such chairs as that of Psychological Medicine, while in the wide field of preventive medicine the labours of the profession had narrowed the kingdom of disease and death. But still the waste of human life was discreditably great, and in the national and civic duty of its reduction theirs would be the most powerful of all help towards that goal of health which society ought to seek and reach. This crusade was for Christ and His people, and the performance of public duty was the chivalry of to-day.

ST. MARY'S HOSPITAL.

INTRODUCTORY LECTURE BY DR. ROBERT MAGUIRE.

Protective Inoculation.

THE *rationale* of Protective Inoculation has been worked out only during the last ten years. In 1700 inoculation for small-pox was practised in Constantinople, and was introduced into England by Lady Mary Wortley Montagu. In 1768 Jenner began his researches on the protection afforded by cow-pox against small-pox. Possibly this was an instance of attenuation of virus by passage through animals of a different species. The more exact investigation commenced with the work of Pasteur on chicken cholera. The germ of this disease had already been discovered, but its relation to the disorder had not been fully worked out. To prove such a relationship it is necessary to show the constant presence of the germ in the subjects of the disease, to isolate the germ from its surroundings by cultivation upon suitable nutrient media, and finally to reproduce the disease by inoculating with such cultivations. The latter proof is wanting in the case of many germs because the lower animals are not always subject to the diseases of man, and the germ disease is too dangerous for an observer to submit himself to experiment. Pasteur applied all these methods to the germ of chicken cholera, and rendered certain its connexion with the disease. Methods of disinfection were then successfully practised, but these did not suffice to prevent further outbreaks of the disease. We can rarely control the action of germs when they are once introduced into the body. The cells of the body may fight the germs and even their spores, the germs may use up all their food and die of starvation, or they may commit suicide by poisoning themselves with their own productions; but medicines are almost useless to further these results. If full protection is desired, the body itself must be rendered incapable of being attacked by the germs. A former attack of the disease, from which the animal has recovered, affords in many cases the desired protection, and to attain this safely is the object of protective inoculation. Pasteur dwelt long upon Jenner's

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discovery of cow-pox vaccine, and at last found that when cultivations of the germ of chicken cholera were allowed to remain exposed to the air for some time, they became incapable of causing the death of a fowl when inoculated; but such a fowl was then proof against the action of a stronger cultivation of the germ. This, Pasteur believed, was due to the action of the oxygen of the air, and he used this theory as a working hypothesis for his experiments on other diseases. Applying himself next to the splenic disease of cattle, the life history of whose germ had been worked out by Koch, Pasteur found that his method was rendered useless by the resistance of the spores of the parasite. These were not formed by the germ of chicken cholera. He observed, however, that at a temperature of 42° to 43° C., near the life-limit of the parasite, the spores were not formed, and then the rods of the germ, when exposed to the air, behaved like those of chicken cholera. Their virulence was diminished, but their vaccinating power remained. Experiments on a large scale were then conducted successfully at Melun in 1881. The researches of Pasteur were afterwards criticised. The vaccinating fluids were found to be not uniform in virulence, and consequently some animals were sacrificed by the process. The immunity was not everlasting, but this objection also applied to Jenner's vaccine. It was said that the immunity was only against the injected vaccine, and not against the acquired disease. But the results of inoculating large numbers of animals proved the value of the process. Other methods of attenuation were then discovered—namely, by heating the germ to 55° C. for ten minutes (Toussaint), by heating it to 47° C. for a longer time, and also by subjecting it to a pressure of eight atmospheres at a temperature of 38° to 39° C. (Chauveau), and by the action of antiseptics (Chamberland and Roux). Again, passage through various animals by inoculation was found to attenuate the virus of certain germs. The germs of chicken cholera and of swine plague were attenuated by passage through rabbits. The germ of sputum septicæmia could be attenuated by passage through guinea-pigs, and later on it was found that the poison of hydrophobia was weakened by being passed through a series of monkeys. Yet in all these cases the attenuated virus rendered an animal proof against the stronger poison. The virulence of these attenuated poisons could afterwards be restored by inoculating first young animals, and from them older ones, showing that the nature of the disease was unchanged. Possibly, Pasteur suggested, the oxygen of the air caused epidemics of infectious diseases to subside, while frequent passage of poisons through the lower animals brought about fresh outbreaks, or even produced new diseases. Pasteur's theory of attenuation by the action of oxygen had been much opposed. Chauveau found that when germs were heated to 47° C. attenuation was more rapid when the air was exhausted. Apparently, then, heat was the active agent. Pasteur had originally thought that he might have been dealing with two poisons, one weak, the other strong, the one counteracting the other. Other observers had found his inoculating fluids contaminated by foreign organisms, so this suggestion may really be true. In his later work on hydrophobia, he again remarked that other influences might be active in producing the attenuation. Yet he still used his first theory as a working hypothesis, and applied it to the investigation of hydrophobia, of which the germ has not yet been discovered. By infecting rabbits with the poison of this disease, he obtained a virus of uniform strength, situated principally in the nerves and spinal cord, and more powerful than that obtained directly from dogs. This could be attenuated by passage through monkeys, but the results were uncertain. By exposing the spinal cords of infected rabbits to dry, sterilised air, an attenuated poison could be obtained capable of protecting even man from the disease without endangering his life. Moreover, the period of incubation of the weakened virus was sufficiently short to enable it to produce immunity before the poison of a bite previously inflicted could become active. The value of this method is conclusively shown by the statistics most recently published by Dr. Ruffer. The lecturer pointed out to his student hearers, as the moral of his address, that they should not neglect the science of their studies, since it led to great practical results, and that, following the examples of the two observers chiefly mentioned, Pasteur and Koch, they should not be discouraged by difficulties, but always be working with such resources as they possessed.

ST. THOMAS'S HOSPITAL.

INTRODUCTORY ADDRESS BY MR. WILLIAM ANDERSON.

THE main subject of this address was a historical review of the growth of surgery in Europe from the beginning of the sixteenth century. After a brief reference to the rise of Greek surgery from the time of Hippocrates to the death of Paulus of Egina, and its transmission in a weakened form by the Arabs, a picture was drawn of an educated European surgeon of the close of the mediæval or conservative period. The chief items of his library and armamentarium were enumerated, and the nature, extent, and source of his professional lore explained. He was found greatly inferior in originality and practical attainments to his Greek predecessors; and, inheriting all the timidity of action of his Arab teachers, allowed the most important branches of his craft to fall into the clutches of a horde of quack bonesetters, stone and rupture cutters, cataract couchers, and the like, while the rivalry of a lower grade of surgeons in France, England, and Germany threatened his complete extinction. An account was then given of the origin and progress of the coming men, the barber-surgeons, and the endeavours on the part of their emancipated brethren in France and England, the military surgeons, to elevate their calling by the formation of associations such as the College of St. Côme in Paris and the Fellowship of Surgeons in London. A new era of surgery opened with the sixteenth century, owing partly to the revival of anatomical study under Berengarius, Vesalius, and others, partly to the necessity for a fresh departure in connexion with the rapidly prevailing use of firearms in warfare, and the invasion of Europe by syphilis. The substitution of clinical observation and pathological research for the study of books of past ages was strongly advocated, and the genius of a few men, almost unaided by the schools, exercised a wide influence upon surgical aims and practice. The chief advances during the period were in the rational treatment of gunshot wounds, the power of controlling hæmorrhage in amputations, and the relief of strangulated hernia; but beyond this a novel and unconventional type of surgical literature in the vulgar tongue played an important part in diffusing knowledge and stimulating inquiry. The services rendered by Ambroise Paré, Pierre Franco, and other representative surgeons of the period, were passed in review. The seventeenth century although illuminated by Harvey's discovery of the circulation of the blood, and the researches of Aselli and Pecquet upon the lymphatic vessels, produced no surgeons of the first order. The treatment of gunshot wounds, however, made considerable progress under Wiseman and Magati, and a few other steps of advance were taken. Surgical education remained in a low state except in Italy, where a system of clinical instruction was established. This long stagnation of surgical enterprise was succeeded in the eighteenth century by the manifestation of forces of a higher and more varied type. The scientific teaching of anatomy and surgery made great strides. Surgical pathology was created by the labours of Hunter, Petit, Pott, and others. Operative surgery attained a development that left nothing to be desired in the directions of boldness and manipulative skill. Important schools were founded in London, Paris, Berlin, Vienna, and Philadelphia; and the scientific and social position of the surgeon everywhere except in Italy, where it had always been high, underwent a great change for the better. The master spirit of the period was John Hunter, who first evolved the broad principles of surgery which were to direct all future research and practice. The present century was referred to as one of phenomenal progress in scientific and practical surgery, especially during the last three decades. The vast extension of professional education, the great development of the medical press, the facilities provided for investigation, and the multiplication of scientific appliances for diagnosis and treatment were commented upon, and the far-reaching effects of the two great surgical discoveries of the age—the means of annulling pain during operation, and the relations of germ infection to the progress of wounds—were discussed in detail. The address concluded with some remarks upon the lessons taught by the history of the evolution of surgery, and a few words of counsel to the portion of the audience just commencing their term of professional education.

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UNIVERSITY COLLEGE.

INTRODUCTORY ADDRESS BY MR. RICKMAN J. GODLEE.

THE lecturer, in opening his address, deprecated the custom, which was becoming obsolete, of giving introductory addresses as being laborious to the giver and useless to the student. He then gave an account of an amputation performed in the sixteenth century by the distinguished French surgeon, Ambroise Paré, in order to show the crudities of knowledge and treatment at that period compared with the advanced state of surgical knowledge at the present day. Reference was then made to the state of surgical knowledge even so recently as twenty years ago, and, by way of illustration, an imaginary case of injury was given with the treatment which would have been accorded at that time. Mr. Godlee went on to show that his supposititious case would to-day not be subjected to amputation at all, but the patient would most certainly have his limb saved, such were the enormous strides that surgery had made in recent years. The importance of scrupulous surgical cleanliness in the performance of operations was strongly insisted upon. He congratulated them upon the improved tone which now prevailed, and which no longer made the term "medical student" one of reproach. He then referred to the great increase in the system of teaching by demonstrations, which he maintained was only of partial advantage; for whilst it no doubt increased the average attainments, it levelled down as well as up, and made the mere acquiring of a degree seem the one thing needful.

WESTMINSTER HOSPITAL.

INTRODUCTORY ADDRESS BY DR. PHINEAS T. ABRAHAM.

THE lecturer, after referring to the honour his colleagues had done him in entrusting to him the duty of opening the school, alluded to the gradual waning of these time-honoured annual meetings of teachers and students, and said some words in favour of such functions. In welcoming the new students, he said that he considered that they had done well in choosing the Westminster Hospital as their *alma mater*. Being a small school there was no fear of their being lost in a crowd, but coming, as they would do, into close contact with all their teachers they might command more personal assistance from them than would be possible, except for a favoured few, in the large schools. They would, moreover, reap the great advantage which the Westminster Hospital affords of an abundance of clinical material in proportion to the number of its students. The lecturer then referred to the great success of Westminster students at the various examining boards. In physiology no less than 83 per cent. had been successful. Examinations, however, were not everything; the teacher had to remember that a medical man had to be always learning, observing, and judging. Medicine was progressive. The student had to be equipped with methods of thought and research, as well as with principles and facts, which would be useful hereafter. The medical curriculum was in a great measure calculated to develop a man's faculties, and to train him to accurately see and interpret natural phenomena; but our system was not yet perfect. He considered that those who aspired to become members of a profession which should be pre-eminently scientific, and which should be second in culture to none in the land, should show evidence of a good general education—e.g., by passing a preliminary examination of the standard of the London matriculation and a substantial knowledge of chemistry and physics, the laws of which really govern all the phenomena of health and disease. The medical course should, in his opinion, be extended to at least five years; for while the subjects of professional education had multiplied and their range enormously extended, the time allotted to their study alone had not increased for many years. It might be objected that if the conditions were made so much more onerous the supply of candidates for the profession would be materially diminished; but would that be an unmixed evil? It was becoming well known that there were already too many practitioners of medicine, and that it was impossible for them all to make an adequate livelihood. He quoted from some lately published statistics of the General Medical Council, which showed that while the rate of increase of population in England in late years had been 1·4 per cent. per annum, the increase of registered practitioners during the same time had been at the rate of 2·42 per cent. It was stated that "the net increase of the profession in England during the quinquennium 1881–86 was no less than 826 beyond what was requisite to keep pace with the population." In London especially the plethora was extreme; in 1886 it contained 1943 registered practitioners over and above its due share. But if fully-fledged doctors were as thick as blackberries, the would-be votaries of the art were still more numerous; for the last five years an average of 1921 entering medical students have annually registered their names. The lecturer did not adduce these figures to discourage his hearers, but he thought that they forcibly indicated two things—(1) that if competition had been severe in the past, it was certain to be still more so in the near future; and (2) that they would all have the greater need for steady work, and for making the most of their opportunities from the very start if they were to succeed in the struggle. He enumerated a long list of the qualities which various authorities, including Hippocrates, had laid down as essential to the success of a medical man, and from these they could judge what paragons of excellence they ought to be. It was true that occasionally some individual of imperfect education in his work, who had not demonstrated to his professional colleagues at least many of these characteristics, attained by "push," and with adventitious aid, to the position of a "fashionable physician," and acquired a certain amount of reputation among the uninstructed, who could not detect the fraud. But such instances were rare. Considering, indeed, the gullibility of a large section of the public, as evidenced by its trust in everything which was sufficiently advertised, it was surprising that the humbug and charlatan were not more to the fore. All this might be beneath our notice; but the fact remained that, while many a competent practitioner is struggling to make two ends meet, fees which legitimately should go to him find their way to the pockets of unscrupulous adventurers, who thrive on the public credulity, and to the general detriment. (Although the interests of the profession are supposed to be in the keeping of great councils and corporations, such matters as the showing up of such impostors was generally, it seemed, left to the private efforts and expense of members of the profession.) It was satisfactory and only fair, however, to say that the great organs of public opinion at the present day show a due appreciation of the *rôle* of our profession, and are not sparing in their acknowledgments of what a London morning journal has recently called "the inestimable services rendered to mankind by physicians and surgeons," whom it describes as "that true Legion of Honour, the members of which, officers and men alike, lead noble lives," &c. Such words are some encouragement in our efforts. The "barber-surgeon" is long since extinct, and the hybrid medical tradesman is becoming obsolete. The physician of to-day is no longer a mere "coprogogue," nor is the surgeon only worthy of the name of "Sawbones;" and Voltaire's often-quoted dictum, that a medico was "a man who poured drugs, of which he knew little, into a body of which he knew less," is not quite so true now as it was. "We can look with pride to the enormous and steady improvement in the public health wherever the modern doctor has had his say. We can point to the fact that London—this seething cauldron of human beings—is the healthiest city in the world (in spite of the profusion of doctors!) as a concrete result of the attention paid to the advice of sanitarians." He had heard a place described as so salubrious that no one could die there; when the old people desired to depart this life they had to go into the next parish! "But this is not a common experience. We have indeed a huge continent of unknown facts in the causation, prevention, and treatment of disease yet before us for exploration. The points of attack are obvious, and there are plenty of willing and able hands for the work; but the 'sinews of war,' which are as necessary in this campaign as in any other, may be wanting. It must be admitted that in recent years the State has more and more recognised its obligations to the public weal, and has done much for the science of health; but a great deal is still left to private effort and generosity. We have had to await the initiation by his Royal Highness the Prince of Wales and his 'Damien Committee,' of a much-needed crusade of investigation, against one of the most terrible scourges of mankind, and we have had to leave gaps in our knowledge of an important therapeutic agent, until

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an enlightened Indian prince comes forward and handsomely defrays the cost of its re-examination. May some of our Croesuses nearer home take a hint from his splendid example." The lecturer desired to enter a plea for a more thorough study of physiology on the part of medical students, who did not always grasp the fact that the subject did not merely consist of tables of constituents, series of functions, divergent theories, &c., to be learnt by heart. If they gave as much time to the things which were shown to them in the lecture-room and laboratory as they did to the names which they labour to commit to memory from their "cram" books, they would not find it dry. "The processes of health and disease are not really different in kind. Physiology and pathology are part and parcel of one science. There is no distinct line of demarcation between them; our knowledge of the latter can be but little advanced except through a knowledge, and by the methods, of the former. It will be to the well-trained physiological mind that the problems of disease will the easier yield." Dr. Abraham then offered some practical suggestions in reference to lectures, note-taking, &c., founded on his own experience. He strongly recommended students to use all their senses, and to satisfy themselves that what they were told was correct. It was a mistake to depend upon books rather than upon practical work. After some further remarks on degrees &c. he expressed his pleasure at seeing in the chair his teacher, the brilliant Professor of Anatomy of the University of Cambridge, and thanked his hearers for the patience with which they had listened to him.

SCHOOL OF PHARMACY.

INTRODUCTORY ADDRESS BY PROFESSOR JOHN MARSHALL.

PROFESSOR MARSHALL was prevented by indisposition, which we trust is of a merely temporary character, from being present to deliver the following address, which was therefore read on his behalf by Professor Attfield. After some introductory remarks on the past history and present position of the school in its various departments, Professor Marshall referred to the action of the Pharmaceutical Society as follows:—"It would ill become me, so much a stranger to your affairs, to appraise the merit of any one of the many personal agencies which have been or which are now engaged in your particular educational field; but I must be allowed to offer my opinion that you have already gathered in a goodly harvest. I speak not alone of the stimulus you may have given by your highest distinctions to original or otherwise valuable and elaborate research; but I would say, as a member of my own profession, and as one of the body politic of this great country, it is no idle boast to proclaim that, of the 14,000 individuals whose names are inscribed on your register, about half—i.e., 7000—have passed either your major or your minor examinations. Now this observation leads me naturally to turn to consider the special function which we are called upon to witness and participate in to-day; I mean the award of honours to those who have just been tested in their respective departments of study, and have distinguished themselves by special merit as to their scientific knowledge or their technical skill. I need hardly say that I desire to offer the successful candidates my sincere congratulations, to which I am sure I may add those of the Council, the professors, and the lecturers, on having earned these hard-won distinctions. I may remind them that the receipt of such honours assuredly involves future responsibilities not to be lightly set aside or carelessly neglected. All prize winners are marked men, and their future career does not pass by unobserved. Early rewards received at the hands of an honoured public institution are not only a recompense for past exertions, but should be regarded as pledging their recipients to future efforts for the maintenance of the reputation not only of the individual but of the Society under whose training they have been earned. Nor, rightly considered, should those who have only relatively failed in a competition for a necessarily limited number of prizes be held exempt from the same obligation; for even in regard to them it is impossible to overrate the value of their methodical training and their individual efforts to succeed, nor the general beneficial effect of the race which they have run against others just a little more successful in their scientific and technical contest. ..... It is not for me to intrude my opinions on those debateable questions which involve the commercial interests of the members of your Society—such, for example, as relate to the competition between co-operative trade associations and private establishments; to the necessity which exists in the former case for attaching definite personal responsibility in regard to the purity of drugs, the accuracy of dispensing, and the sale of dangerous poisons; and, again, to the question of the desirability of the State obtaining a source of income from the sale of patented medicines. But I may be allowed to express, as the representative of the General Medical Council, the sympathy of that body towards every endeavour and every practical suggestion which may be made by this Society, with a view of improving the British Pharmacopœia, the responsibility for framing and publishing which is by law vested in that Council. Hence comes a direct and continuous encouragement to your legitimate aims of advancing pharmacology as a science, and of promoting pharmacy as an art. The immediate object of your Society is, as I understand it, to afford the means of a perfect education, general, scientific, and technical, to all your future Members and Associates, so that each and all may attain to a high state of culture, knowledge, and efficiency. Your past history shows that you will not halt in your efforts, but will even yet improve in your methods and in your results. To this end your future students, many of whom, unhappily, are outside the sphere of your influence and guidance, and must often be imperfectly informed as to the fittest course for them to pursue in regard to their education, should seek early in their career some friendly and trustworthy advice. It might not be beyond the scope of the duty of your Society itself to circulate very widely a brief pamphlet, containing advice especially intended for those who are still in the apprenticeship stage. It should be strongly insisted upon that a good preliminary general education is absolutely necessary to all who aspire to be really accomplished pharmacists and to be worthy Members or Associates of your body. It is of the greatest moment, moreover, that the general education of which I have spoken should really be in fact, as in name, *Preliminary;* and therefore the needful examination tests in it should be passed *before* the systematic scientific training is commenced; whilst this, again, should if possible precede the special technical work. It must of course be granted that this last recommendation cannot always be followed; but, if not, at least the scientific habit and scientific mode of thought should be invariably inculcated, even by the practical teacher, as the ever leading and essential guides, by which to interpret and illuminate the simplest technical procedure. In this way the humblest task is elevated; manual dexterity and mental improvement advance together; and every process thus watched, and every result thus accomplished will yield the reward of intellectual satisfaction, and will excite the pardonable emotions of pride and triumph which spring from the dutiful and successful performance of the humblest work. Finally, I would urge in the most positive manner, that not only socially, but professionally, the greatest probability of real success in life will fall to those who have had the most liberal as well as the best scientific and technical education. On the most interesting but perplexing questions relating to *examinations* I am not now prepared to enter at any length. That examinations cannot be abandoned is clear; that there are evils connected with them is obvious; and hence the conclusion is evident that it is the business of examining bodies and examiners to investigate the charges against them and to aim at their improvement. That some examinations may be too feeble and others too severe must also be true; for examining boards will differ as to what is the proper mean. A due admixture of the systematic and the practical form of examinations is absolutely needful, for theoretical questions cannot well be answered *vivâ voce*, and all technical work must be directly tested. The more of the latter the better, and yet not at the expense of the former. Longer time may be required; but the results will be more satisfactory and more fair. Besides this, 'cram' will sink to a minimum, and be even beneficial, for it must take the practical form of doing actual work. I am a strong advocate for the introduction of what are called 'outside' or 'coadjutor' examiners; but this only in co-operation with the institutional teachers, who best know the aims and the extent of the preceding education. Of course, this remark applies specially to bodies, which both teach and examine, and thus it is surely applicable to your own Society. In regard to purely examining bodies, no particular training institution or school should be over-represented on the examining board. In all cases two examiners at least should work together at every part of

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every subject. As to the subjects which are to be examined in at each time, they are often too many or are too severely represented; either practice is a serious source of overstrain, as well as of illegitimate and unhealthy 'cram.' If the subjects at each examination were fewer, if schedules in certain otherwise enormous subjects were adopted, and if the examinations were more prolonged and practical, 'tutors,' not 'crammers,' would take and keep the field. I cannot close this address without offering your Society my warmest congratulations on the establishment of its research laboratory. It will undoubtedly prove useful, nay, indispensable, to many an advanced student, who, whether trained within your own walls or elsewhere, may aspire to lend his aid in endeavouring to promote real knowledge in ever so simple yet unexplored corner of chemical or pharmaceutical research. But what I would specially refer to is the encouragement which you now offer to the higher and more elaborate and more difficult prosecution of inquiries in what is understood as pure science, undertaken for science's sake. Pharmaceutical chemistry, and, through it, pharmacology, has before it, in the domains of nature, both inorganic and organic, never-ending problems, concerning the constitution and action of remedial substances, which nothing but the highest and most prolonged investigation can pretend to solve. In such inquiries the physiologist must take his share; but, in your own sphere of investigation, they invite you to reap a rich reward, not only in an increased reputation with the outside scientific world, but in the realisation of a corporate pride arising from your own augmented influence, in the increased reliance of the public upon your opinion and guidance, and, I doubt not, in that progressive success which all must desire for you."

ROYAL VETERINARY COLLEGE.

THERE was a large attendance of both old and new students at the opening of the winter sessional course of instruction at this college on Tuesday; the chair was taken by Sir Nigel Kingscote, K.C.B., and Professor Gerald F. Yeo, F.R.S., of King's College, delivered the introductory address. In the course of his remarks he expressed his belief that the mutual distrust between veterinary and human medicine was fast disappearing with the growth of a wider knowledge of each other's methods. It had long been recognised that there was only one physiology of both man and the lower animals, but the mutually supplementary character of human and animal pathology had now become well known, and was daily assuming more importance in each of those branches of medical science. The great progress in pathological knowledge must be attributed to the fact that experimental researches concerning disease in the lower animals have been added to the observations on man. Among the preventive measures of modern times inoculation stood foremost, and it was regrettable that so much scepticism existed as to the efficacy of vaccination. Again, we were receiving every moment more reassuring details concerning the prevention of that uniquely fatal disease, hydrophobia, and no doubt a great future seemed in store for preventive inoculation. But we must not let ourselves be carried too far by the flood of apparent success. In some diseases it fails; in some its efficacy is doubtful; and in some it might be a means of propagating disease.

MEDICAL OFFICERS OF HEALTH.—The annual meeting of the Society of Medical Officers of Health was held at the Guildhall, Worcester, on Saturday, Sept. 28th, Professor W. H. Corfield presiding. At the conference of medical officers which followed, Dr. H. Swete read a paper on the "Actual and Probable Effects of Recent and Prospective Legislation upon Medical Officers of Health." The salaries of such officers ranged from £1000 to £3. He proposed to make the minimum £100 per annum, no private practice to be taken when the salary exceeded £300 a year. Dr. Taylor (Liverpool) thought that no medical officer should be appointed without the highest credentials. He placed no confidence in diplomas. Mr. Willis-Bund, vice-chairman of the Worcestershire County Council, said the question of appointing a medical officer for the county was now under consideration, but there were certain difficulties to overcome first. Dr. Whitelegge, medical officer of health for the West Riding, read a paper on the best means of carrying out the Notification of the Infectious Diseases Act. Numerous speakers took part in the discussion which followed.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ROYAL FREE HOSPITAL.

CASES UNDER THE CARE OF MR. GANT.

ALTHOUGH it is now more than two centuries and a half ago that a loose cartilage was recognised and removed by a Swedish surgeon, Pechlin, it is only since the recognition of the efficacy of antiseptics that a surgeon has undertaken the direct operation for their removal from the knee-joint with anything like confidence. In the following case the body was not completely separated from the synovial membrane, but had a pedicle of sufficient length to enable it to produce symptoms demanding its removal. Formerly the mortality after operation was high; by the direct method Volkmann[1] placed it at 21 per cent., and by the indirect, Larrey's statistics placed it at 12·8 per cent. This did not, however, mean that the others were cured, for in a large percentage when the cartilage was unattached the surgeon had failed to remove it. In the introduction to a case of removal of a loose cartilage from the knee-joint, which we recently published in the Mirror,[2] we mentioned most of the methods of treating the wound after such removal, and some different ways of applying the sutures. Mr. Jacobson,[3] in a paper on the subject of loose cartilage of traumatic origin, has placed the evidence for their occasional derivation from the bone surfaces before the profession. The following notes have been supplied to us by Mr. E. C. Stabb, senior resident medical officer.

CASE 1. *Loose body in the knee-joint; removal; perfect result.*—H. M——, aged forty, was admitted into the Royal Free Hospital, under the care of Mr. Gant, on June 17th, 1889. Ten months previously he had struck his left knee; it was very painful and slightly swollen for a few days. On June 14th, three days before admission, the patient noticed a movable lump on the inner side of that knee. It did not cause him pain or inconvenience in walking, but he had suffered from occasional pains in the joint, especially during east winds, and he was very anxious to have the lump removed. There was no rheumatic history in the family.

On admission there was on the inner side of the left knee-joint a flat, round, firm swelling, about an inch in diameter, freely movable under the skin. On flexing the joint the body slipped outwards under the ligamentum patellæ. The joint was free from effusion, and there was no swelling or redness. The temperature was normal. On June 29th, the patient being anæsthetised, the surface was rendered aseptic, and the body fixed by fingers on the inner side of the joint. A skin incision, an inch and a half long, was made over it; all hæmorrhage being immediately arrested. The capsule of the joint was incised to the same extent. The body slipped partly out, but was found to be attached by a short pedicle about an eighth of an inch in diameter; this was divided; there was no bleeding. Three wire sutures were introduced, not including the capsule. The wound was covered by a strip of oil silk, the surrounding skin dusted with iodoform, and a sal-alembroth dressing applied. The limb was enveloped in cotton wool from the toes to the groin, and over this were placed, in front and behind, strips of Bavarian flannel soaked in plaster-of-Paris, also from the toes to the groin. On July 6th (the eighth day after the operation) the knee was dressed for the first time. The wound was perfectly healed; the stitches were removed. There was no heat or swelling about the joint. The patient had suffered no pain, and his temperature never reached 99°. A dry dressing and the splints were reapplied. On the 12th the splints were discontinued, and the patient was allowed to get up and walk a little, which he did with perfect ease. He was discharged on the 15th, the joint

[1] Holmes' System of Surgery, vol. ii., p. 357.
[2] THE LANCET, vol. ii., 1889, p. 71. [3] Ibid., vol. ii, 1889, p. 363.

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being perfectly free from pain, swelling, or stiffness, and the movements quite free.

The removed body measured three-quarters of an inch in diameter, was flattened and rounded, somewhat elastic, with a slightly nodular surface, and greyish in colour. On microscopic examination it was found to consist of fibro-cartilage. The fibrous portion being small in amount, and the cells very numerous, many of them presenting embryonic characters.

Remarks by Mr. GANT.—The comparative absence of symptoms in this case was unusual, the patient never having experienced sudden locking of the joint in walking, with sickening pain. This may be explained by the somewhat soft consistence of the pedunculated body, and by the fact that it readily slipped into the space behind the ligamentum patellæ. Nevertheless, having regard to the almost inevitable supervention of synovitis, with probable destruction of the joint eventually, it was considered advisable to remove the body from within the capsule, rather than, after the joint had become disorganised from synovitis, to have to resort to operation.

CASE 2. *Epithelioma of leg; amputation; recovery.*—S. G——, aged fifty-nine, married, laundress, was admitted into the Royal Free Hospital on June 17th, 1889, under the care of Mr. Gant. Twenty-six years previously a white spot appeared on the front of her left leg without any apparent cause, and from which she suffered a good deal of pain. The application of ointment was followed by the appearance of a raw surface, which never closed, though on one occasion it scabbed over. The ulcer slowly increased in size, occasionally showing a tendency to heal in parts, but only temporarily. At Christmas, 1888, the patient received a blow on the leg, after which the ulcer became much deeper. For this she was treated with strapping at an infirmary. Before and after this she used to apply zinc ointment to the ulcer. About the beginning of April, 1889, a small hard swelling appeared on a part of the wound, and has gradually increased in size, the pain also being more severe. The patient had worked hard all her life, and had had thirteen children. She had suffered much the last three years from severe attacks of bronchitis, and two years ago had an attack of pleurisy. No family history of tumour could be elicited.

On admission, the left leg was found to be the seat of a long, irregular, ulcerating surface, red and glazed. On the inner part of it over the skin, about midway between the knee and ankle, was a large, irregular elevation, rising in some parts to three-quarters of an inch above the surface, and between three and four inches in diameter. This swelling rose abruptly from the ulcer and was covered with hard nodules, in some parts it was fissured. The skin on the inner side of the elevation was pigmented and infiltrated for a distance of about an inch. There were no enlarged lymphatic glands. The patient complained of severe pain, more or less constant. On June 29th Mr. Gant amputated the limb by anterior and posterior flaps, sawing through the femur just above the condyles, and removing the patella. Wire sutures and drainage-tubes were introduced, the stump was dressed with sal-alembroth dressings, and a posterior plaster-of-Paris splint applied. On July 1st the stump was dressed for the first time and was doing well. It was dressed again on the 5th, when most of the stitches were removed. On the 8th the patient complained of having had a very restless night and a troublesome cough. Temperature 101·6°. Numerous mucous râles were heard all over the chest, and there was dulness at both bases posteriorly. The sputum was profuse, muco-purulent, and nummulated. Up to the 13th the cough and dyspnœa increased in severity. With stimulant expectorants, quinine, and brandy the breathing and cough became easier, and by the 19th the respiratory sounds were nearly normal. The stump steadily improved, and by Aug. 5th the wound was healed and the patient felt strong and well, getting up for the first time a day or two previously.

On microscopic examination of the swelling numerous down growths of the epithelium into the corion were seen, and here and there "bird's-nests."

Remarks by Mr. GANT.—The unusual situation of epithelioma in this case will appear to be due to the fact that the growth had arisen from an old ulcer of the leg, which in itself is not a common mode of origin of epithelioma. The leg was removed above the continuity of the tibia, in order to ensure the less probable return of the growth, and in this connexion it may be observed that the glands were not enlarged. The subsequent course of the case was complicated by a severe attack of bronchitis, but this in no way hindered the primary union of the operation wound, although the patient had attained the age of fifty-nine.

RICHMOND HOSPITAL, DUBLIN.

A CASE OF ABDOMINAL TUMOUR; OPERATION; DEATH; NECROPSY.

(Under the care of Sir WILLIAM STOKES.)

PRIMARY CANCEROUS GROWTH of the stomach is one of the most frequently fatal forms of malignant disease, that viscus being more rarely affected in a secondary manner by extension of growth from without. In the following case the disease appears to have originated in the neighbourhood of the cœliac axis, and to have presented many features rendering the diagnosis uncertain. Operation was performed with the view of giving relief should the nature and attachments of the growth not permit of its removal, and proved of much benefit to the patient, exit being given to a purulent collection and relieving pain. This was not merely a temporary relief, for the patient was free from pain throughout the remainder of his illness, and the operation was more than justified. Another point of interest is the formation of the gastric fistula by sloughing of part of the growth, which had invaded the stomach, some of its contents finding their way through the external wound. For the record of this case we are indebted to Mr. Edgar Du Cane.

J. G——, a farmer aged fifty, was admitted to the Richmond Hospital on Jan. 31st, 1887, under the care of Sir William Stokes (then senior surgeon), suffering from an abdominal tumour. His occupation necessitated a good deal of outdoor work, and before the present illness he had no serious indisposition. He was a moderate drinker, but never smoked. His father died of bronchitis, and his mother after a short illness, with the nature of which he was not acquainted. He had five brothers and four sisters, of whom only two sisters survive, the rest having died in infancy or early childhood. Until Christmas, 1886, he was apparently in perfect health, but at that time he felt slight pains in the abdomen, especially in the left side, and about a week afterwards noticed a tumour, slightly painful and tender on pressure. He saw a medical practitioner in the country, who was of the opinion, after examining him, that he was suffering from an abdominal aneurysm, and advised the patient to apply to a Dublin hospital for treatment. Thus far, beyond the presence of the tumour, no very serious symptoms were present, vomiting and violent pain being entirely absent.

On admission, on Jan. 31st, 1887, the temperature was 98·8°; pulse 85. Urine normal in quantity, pale in colour, and slightly turbid; sp. gr. 1035; no albumen or sugar. The thoracic organs exhibited no trace of disease. He had a pale, anæmic appearance, and complained of wasting, which had rapidly increased for the last three weeks. On examination of the abdomen a hard tumour could be felt by palpation, of an oval form, measuring about five inches by three and a half. It was fairly movable within the abdomen, changing its position according to the posture of the patient; it could be felt at various times in the umbilical, left hypochondriac, and left lumbar regions. The patient preferred to lie on his back, and when in this position the tumour presented itself in the umbilical region, a little above and to the left of the umbilicus. Indistinct pulsation could be felt on palpation, and a peculiar bruit (resembling the bruit de diable of anæmia) was heard on auscultating the tumour. The area over the tumour was dull on percussion. The liver appeared normal in size and position, but percussion over the splenic area yielded a clear resonant sound. Great pain was now complained of in the region of the tumour; frequent vomiting set in; the ejecta contained no blood. The diagnosis was narrowed down to a choice between floating spleen or kidney, and gastric or omental cancer. If there had been a kidney movable to such a degree as this tumour, it would have given rise to severe and constant pain of a sickening character, accompanied by hæmaturia. The absence of splenic dulness, coupled with the bruit, seemed to indicate a floating spleen, yet the tumour had not the characteristic shape of that viscus, and did not present a notched border. The pulsation was not of that expansile nature characteristic of aneurysm, and pressure symptoms were absent. It was therefore thought that the tumour

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might be gastric or omental, but no definite diagnosis was arrived at. The condition of the patient was rapidly getting worse, and he earnestly desired that some surgical procedure should be adopted. After consultation with his colleagues, Sir Wm. Stokes decided to make an exploratory incision, and to remove the tumour if possible.

On Feb. 14th, 1887, Sir William Stokes performed laparotomy with full antiseptic precautions, and found the tumour to be a malignant growth attacking the stomach and omentum, apparently springing from the posterior wall of the abdomen and involving the sheath of the aorta, which sent a large vessel into it. The spleen was pushed far up under the diaphragm, thus accounting for the absence of splenic dulness. While examining the growth there was a discharge of pus from an abscess on its under surface. The extensive attachments of the tumour rendered it impossible to make any further attempt at removal. A drainage-tube was inserted into the abscess and the free end brought out of the external wound, which was then closed and dressed antiseptically. The patient recovered rapidly from the shock of the operation. Evening temperature, 99·4°.

Feb. 15th.—Patient slept well after a hypodermic injection of morphia, and passed a good night free from pain. Ordered milk diet. Temperature: morning, 100°; evening, 101°. Pulse: morning, 90; evening, 108.

16th.—Wound dressed and looking well; pus coming from drainage-tube. Patient feels very well. Hypodermic injection of morphia given night and morning. Temperature: morning, 99°; evening, 100·4°. Pulse: morning, 94; evening, 110.

17th.—The patient ordered milk, beef-tea, brandy, and chicken broth. Wound uniting; pus still coming through drainage-tube. Perfect freedom from pain. Hypodermic injections discontinued.

19th.—Patient takes food well. Wound united except at the upper end, through which pus comes in fair quantity. Several sloughs removed.

21st.—Patient taking plenty of nourishment; free from pain. Large slough removed, and a great quantity of pus.

Up to Feb. 26th he continued much the same, but on that date, while dressing the wound, fluid containing flakes of curdled milk and pieces of egg was observed to flow through the upper end of the wound, and from its chemical characters it was recognised as gastric juice.

28th.—Great flow of gastric juice through the fistula. Any fluid which the patient takes appears on the dressings, which have to be frequently changed. Injections of beef-juice per rectum four times a day.

March 4th.—Case going on as before. Great secretion of gastric juice. On swallowing some milk it immediately gushed through the fistula. The patient, though free from pain, was evidently sinking, and died on the 6th.

At the post-mortem examination, general peritonitis was present, the intestines being adherent to each other and to the abdominal parietes. Adhesions were formed all round the external wound, uniting it to the stomach, and completely shutting it off from the abdominal cavity. A cancerous growth involving the omentum and anterior surface of the stomach attached to the sheath of the great vessels was found. A probe passed easily through the œsophagus into the stomach, and out of the fistulous opening. The liver was marked by a few tubercles of secondary cancerous deposits. The other abdominal organs were healthy. Dr. McKee, after microscopical examination, confirmed the diagnosis of cancer. Mr. Du Cane exhibited the specimen of this case before the Carmichael College Medical Science Association.

Reviews and Notices of Books.

The Physiology of the Domestic Animals. A Text-book for Veterinary and Medical Students and Practitioners. By ROBERT MEADE SMITH, A.M., M.D., Professor of Comparative Physiology in the University of Pennsylvania. With over 400 Illustrations. Philadelphia and London: F. A. Davis. 1889.

THIS is a handsomely got up and much needed work. Veterinary students in this country have absolutely no English work from which they can acquire a good knowledge of the physiology of the animals whose diseases they are called upon to treat. They have to learn their physiology from some of the small text-books on human physiology which contain many facts that are of little service to them in practice, and omit much with which they ought to be familiar. To take a single instance: if the veterinary student reads any recent work on the physiology of digestion in man, he will find many pages devoted to that process as it affects a mixed diet composed of cooked meat and vegetables, but the composition and the digestion of raw vegetable food is entirely passed over, nor is there any detailed account of rumination—points that are of essential importance in the economy of the animals with which he has principally to deal. No doubt a large proportion of human physiology as now accepted rests upon experiments and observations made upon animals; but it is taught with the modifications that experience has shown occur in his organs and under the conditions under which he lives, and not under those of the domestic animals. The foreign student has great advantages in this respect, and in the excellent physiological treatises of Colin and Thanhoffer can learn from masters of the subject both the mode in which physiological investigations should be undertaken and the reliable results that have up to the present time been obtained.

The work before us fills the hiatus of which complaint has so often been made, and gives in the compass of less than a thousand pages a very full and complete account of the functions of the body in both carnivora and herbivora. The first part is devoted to the consideration of cells, cell life, the physical properties of cells and of the tissues they form, and the chemistry of cells and the chemical processes that take place in their interior. The early chapters of the second part are occupied with the consideration of the processes of digestion, absorption, circulation, respiration, secretion, nutrition, and animal heat, and then with the physiology of the nervo-muscular apparatus. The third part is taken up with the reproductive functions. The author has judiciously made the nutritive functions the strong point of the work, and has devoted especial attention to the subject of foods and digestion, which occupy nearly 300 pages. Here there is much that the medical student might read with interest and advantage. Speaking of the food of horses, cattle, and other animals, it is stated that "a horse will eat 262 different kinds of plants, and has been seen to reject 212; the ox will eat 275 and refuse 218, the sheep will eat 387 and refuse 141. The hare will eat 449 and refuse 125; and the pig, which is omnivorous, and yet which can be sustained by vegetable food, has been found to devour 172 different kinds of vegetable matter and reject 171." In regard to the quantity of food consumed, it appears that experience has proved that solipeds should receive daily 2 per cent. of their body weight in solids, and ruminants 2½ per cent. of their weight. At the same time the student is taught that the food should be adjusted with special reference to the demands which are made upon the animal economy, whether for work, fat, or milk production. Good hay is taken as a type of a food for the larger herbivora, which shows a nutritive proportion of one part of nitrogenous matter to 4·8 parts of non-nitrogenous constituents, cellulose being disregarded; and although this, which may be regarded as the normal proportion, can be under circumstances changed to 1 : 8, or contracted to 1 : 4, the digestibility, and therefore the nutritive value, of the fodder is interfered with if these limits be passed. In the case of hay, again, the amount of fatty constituents is to the nitrogenous matters as 1 : 3·7. If this proportion be diminished to 1 : 2·2, the horse will still be able to accomplish its normal quantity of work; but if reduced below this for the horse, or below 1 : 3 for the ox, the full nutritive value of the food will not be obtained. From a consideration of such precepts as these, the medical practitioner might learn many things that are now neglected.

In looking through the other sections of the work, it

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appears to us that a just proportion of space is assigned to each in view of their relative importance to the practitioner. Thus, whilst the subject of reproduction is dismissed in a few pages, a chapter of considerable length is devoted to locomotion, and especially to the gaits of the horse. The work is excellently illustrated throughout; and though most of the woodcuts are from well-known sources, a good selection has been made. In view, however, of the importance of the subject, a still better cut of the changes in the teeth from year to year in the horse and ox might have been made. The volume will prove very acceptable to all those who are interested in the rearing and maintenance of horses and cattle, and will serve a good purpose in spreading useful knowledge amongst the laity as well as amongst professional men.

OUR LIBRARY TABLE.

An Introduction to Pathology and Morbid Anatomy. By T. HENRY GREEN, M.D. Seventh Edition, Revised and Enlarged by STANLEY BOYD, M.B., B.S. Lond. London: H. Renshaw. 1889.—Since the first appearance of this favourite text-book, several other competitors have arisen in the same field, and the subject itself has gained considerably more attention at the hands of teachers and examiners. The preparation of the present edition has been undertaken by Mr. Stanley Boyd, who has certainly spared no pains to bring it up to date, and also to considerably extend its scope beyond its former limits. The result is a work which will, as in the past, doubtless prove very attractive to the student. For it has the great merits of being concise and systematic, and of being also furnished with a number of excellent woodcuts. Amongst the numerous additions to the text we notice a highly interesting section upon the etiology of inflammation, in which the "cryptogenetic" or idiopathic, as distinguished from the "phanerogenetic" or simple, traumatic inflammations are shown to be in all probability due to the operation of pyogenic organisms, coupled with impaired tissue-resistance, the work of Mr. Watson Cheyne being largely drawn upon in support of this contention. There is also a chapter on Fever, where the views so ably expounded by Dr. MacAlister are in the main adopted. Among infective granulomata, leprosy, glanders, rhinoscleroma, actinomycosis—all receive fair notice. The subject of inflammation of the blood-vessels is illustrated by engravings from micro-photographs by Dr. Mott. There is also a chapter upon the vegetable parasites—the only part of the book that is insufficiently illustrated,—which is introduced by an excellent discussion of the process of fermentation. In fact, the student will find, as heretofore, that "Green's Pathology" is a trustworthy and useful guide; and when he has mastered its contents he will be possessed of a considerable amount of knowledge which will materially aid in his conceptions of the nature of disease.

Transactions of the American Association of Obstetricians and Gynæcologists. Vol. I. for the year 1888.—This volume is almost entirely surgical, the subjects of abdominal surgery occupying the lion's share, while operations on the perineum concern three papers. A discussion on extra-uterine gestation occupies the last nine chapters. There are two interesting papers on fibroid tumours of the abdominal wall by Drs. Ill and Reed, the former containing a tabular summary of nineteen cases; and one on heart failure in the puerperium by Dr. Lothrop. As regards the perineal papers, there seems at present to be a fashion of fancy anatomy connected with these regions. Photographs of dissections of normal parts stand side by side with diagrams of the supposed condition after injury, on which are based deductions as to the functions of the various constituents of the perineum, and on these, again, descriptions of "new" operations. In our opinion, this is merely building inverted pyramids, an eminently unsatisfactory style of architecture. The base of all such attempts must be careful dissection of the parts as altered by injury in various cases. As regards the chapters on extra-uterine pregnancy, we would remind our readers that the position is the following:—Mr. Lawson Tait has enunciated theories which are highly novel and highly interesting. Their acceptance or rejection must depend on careful observations made in the future by men capable of trustworthy and unbiased judgment. For A or B to say that he is in thorough accord with Mr. Tait does not advance knowledge, for observations directed specially towards the confirmation or rejection of Mr. Tait's theories cannot be possibly forthcoming for some time to come. For A or B to say that they fully expect to find Mr. Tait's theories correct in the future is not illogical. But what good does it do?

An Elementary Text-book of Chemistry. By WILLIAM G. MIXTER, Professor of Chemistry to the Sheffield Scientific School of Yale University. Second and revised Edition. London: Macmillan and Co. 1889.—It must be presumed that the appearance of a second edition proves that a book was wanted, and in regard to the present text-book it may be said with truth that there is real merit, and even some originality, to recommend it. Some sections—that on Crystallography, for example—are excellent, and there are many well-described and well-illustrated lecture experiments. But there are grave faults to balance these advantages. The periodic classification which has been adopted is, in our opinion, most inconvenient for practical study. Why, except for ideal uniformity, should manganese be described before the alkali metals? or copper, silver, and gold before oxygen? Nitrogen, including, of course, the atmosphere, nitric acid, and ammonia, comes in about the middle of the book; and iron, divorced from manganese, near the end. The arrangement does not elucidate the periodic law, and it must be pronounced confusing and therefore bad. It was, moreover, a mistake to include so many scarce and practically unimportant elements in so very slight a manual; it was clearly caused by a slavish devotion to the great generalisation of Newlands (whose name is omitted) and Mendeljeff. How can it concern a beginner in chemistry to know that ytterbium hydroxide absorbs carbon dioxide from the air?

A Junior Course of Practical Zoology. By A. MILNES MARSHALL, Professor in the Victoria University, and C. HERBERT HURST, Assistant Lecturer on Zoology in Owens College. Pp. 440. London: Smith, Elder, and Co. 1887.—This work, notice of which we regret has been delayed, is written by two accomplished zoologists, both of whom have had large experience in teaching. It is of a thoroughly practical nature, and it is intended by the authors that a specimen of each of the animals mentioned should be obtained by the student, and the several points to which attention is directed in the text should be carefully examined. In this way they hope that a sound knowledge may be acquired of the structure of animals representing the principal types of the animal kingdom. The types given are the amœba, paramecium, opalina, and vorticella for the protozoa; the hydra, the liverfluke of the sheep, the leech, the earthworm, the fresh-water mussel, the edible snail, the crayfish, the cockroach, the lancelet, the dogfish, the rabbit, and the fowl. Why have the authors entirely omitted the amphibia and reptilia? The frog, the coluber, and a lizard are all easily obtained. The description of the several organs, with the mode of exposing them, is very clearly given, though necessarily brief. We fail to see the advantage of the indents or setting back of the paragraphs, which gives the book rather the air of a catalogue. The woodcuts, which are forty-eight in number, are remarkably clearly and

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accurately drawn, and the reference lines and letters, which are of very exceptional occurrence in woodcuts, are easily followed. In each case directions are given as to the mode in which the animal should be dissected. The book is well adapted for what the Germans name self-study, but will prove still more serviceable if the student have access to a good museum containing well-made dissections by a practised hand, which would show him what can be accomplished by patience and care.

Surgical Bacteriology. By NICHOLAS SENN, M.D., Ph.D. Professor of Principles of Surgery and Surgical Pathology, Rush Medical College, Chicago, Illinois. Edinburgh: Young J. Pentland. 1889.—Bacteriology has now an extensive literature of its own, and quite an army of scientific investigators have devoted themselves to this field of research. The fruits of their labour have had a very conspicuous influence on current views of pathology and treatment, and it is therefore of great moment that all physicians and surgeons should be kept to some extent *au courant* with the results of bacteriological discoveries. Unfortunately for many of us, most of the researches are carried on abroad, and the accounts of them are published only in German or French, and are inaccessible to many readers. Dr. Senn has, therefore, attempted a most worthy task in extracting from numerous French and German publications brief digests of the bacteriological writings of the most skilled observers in this department of surgery. The work is very convenient for reference, as the original authors for the most part speak for themselves, and the task of Dr. Senn has been chiefly limited to collating the best work and to making condensed abstracts. Where the results of different observers are opposed, the uncertainty is left, and no attempt is made to close discussions on points which still require further light. We believe the book will be welcome to many of our readers, and all who have not made themselves familiar with this department of pathology ought to avail themselves of Dr. Senn's help.

Analytical Records.

THE ST. BEDE DISINFECTANT.

(THE ST. BEDE CHEMICAL COMPANY, LD., NEWCASTLE-ON-TYNE.)

THIS new disinfectant is sent out in small blocks; and the chief constituents, apart from small quantities of colouring and scenting compounds, seem to be sulphate of sodium, perchloride of mercury, and a little sulphuric acid. The intention is evident: the antiseptic power of corrosive sublimate is well known, and here it is associated with a large excess of sulphate of sodium to make a solution nauseous and violently aperient in case of its accidental ingestion; and with indigo, eucalyptus, and thymol to give it colour and smell. There is ingenuity in the idea, but we fear that so corrosive a mixture will hardly be suitable for general use. Moreover, the value of corrosive sublimate as a deodoriser is not great, and yet deodorisation is one of the most important duties expected from a disinfectant.

FRAME FOOD JELLY.

(THE FRAME FOOD COMPANY, LD., LOMBARD-ROAD, BATTERSEA.)

A fruit-jelly made with "Frame food." It is palatable and highly nutritious.

QUIBELL'S INFALLIBLE DISINFECTANTS—LIQUID, POWDER, AND SOAP.

(QUIBELL BROS., NEWARK, ENGLAND.)

The liquid is brown, syrupy, and concentrated. In odour it suggests cresol and pine oil. With water it gives a white emulsion, which, on addition of soda, clears with separation of some tar oil. Bromine gives a non-crystalline precipitate. In the powder and the soap the same active agents are easily detected. We believe that the preparations, which seem closely akin to some others already extensively used, are valuable as containing some of the most efficient of modern antiseptics.

PERINET ET FILS CHAMPAGNE, RHEIMS, EXTRA SEC, 1884.

(JOHN BARNETT & SON, 21, MINCING-LANE.)

Genuine and very dry champagne, of good flavour. Our analysis gave alcohol by weight 9·85 per cent., equal to 21 5 per cent. proof spirit; extract, dried at 212° F., 2·95 per cent., and ash 0·12 per cent. The wine is well suited for those to whom sugar is deleterious.

DIABETIC SCOTCH WHISKY.

(GEO. BACK & CO., 14, DEVONSHIRE-STREET, E.)

This whisky is almost absolutely free from extractive matter. It yielded to our analysis only 0·0275 per cent. of solid extract and 0·005 of ash. The alcohol amounted to 44·65 per cent. by weight, equal to 91·60 of proof spirit. It has scarcely any colour, and certainly seems to deserve its name.

MARKS' VIENNA FOOD FOR INFANTS AND INVALIDS.

(MARKS & CO., PENTON-STREET, LONDON, N.)

A cooked farinaceous food, as is proved by the microscope as well as by the dextrin reaction. We found wheat starch cells altered by heat, and no adulteration of any kind.

HEINEMANN'S WHEAT COFFEE. MADE ENTIRELY FROM THE FINEST WHEAT MALT.

(F. W. ALSOP, 33, VIRGINIA-STREET, GLASGOW.)

This is a curious, and, we think a valuable preparation. In appearance and odour it resembles coffee, or rather coffee with chicory. Infused as directed it gave an agreeable and nutritious beverage by no means unlike coffee, in which starch and dextrin were readily detected. Such a beverage possesses genuine food value, and will be acceptable to many to whom coffee is too stimulating.

CONCENTRATED WHITE BREAD.

(E. MOGG, ST. MARY-STREET, BRIDGWATER.)

Mr. Mogg evidently prepares excellent bread; but in what respect it claims special notice or why it is described as "concentrated" we do not understand.

NEAVE'S FARINACEOUS FOOD.

(J. R. NEAVE & CO., FORDINGBRIDGE.)

A pure cereal food preparation. The microscope shows the presence of wheat and oat flour, but no sign of any adulteration. It is properly described by its title.

CALLARD'S DIABETIC FOODS.

(S. CALLARD, 146, NEW BOND-STREET.)

No less than ten varieties of Callard's diabetic foods have been submitted to us, and after careful examination we are able to report that all are excellent. For the first five—namely, gluten bread, rolls, rusks, cracknels, and gluten and almond biscuits—it is claimed that they contain no sugar and only a trifling percentage of starch. The remaining five are described as cocoa-nut and almond biscuits, sponge cakes, and Madeira and almond cakes, very slightly sweetened with saccharin. These last are asserted to be absolutely free from starch and sugar. In regard to the samples submitted to us, these statements are entirely true. No sugar or starch was found in the last five, while in the first five there was no sugar but a little starch. Saccharin was present in the last two samples, but in very small and perfectly harmless quantities. In texture and flavour all the samples were admirable, and several would be eaten with pleasure even by persons who were not under diabetic restraints.

UNIVERSITY OF ST. ANDREWS.—A sum of £2000 has, it is understood, been presented to the University of St. Andrews for the purpose of erecting buildings and equipping a chemical laboratory in connexion with the chemical chair in the United College of St. Andrews.

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THE LANCET.

LONDON: SATURDAY, OCTOBER 5, 1889.

IT would be easy to disparage the system of introductory lectures in the initiation of the winter's work of the medical schools, but the discontinuance of it would involve the loss of a great opportunity for impressing students and saying a word to the public on the public bearings of medical education. The significance of these bearings is plain enough, and was well brought out in the address of a layman, Sir ALBERT ROLLIT, on Tuesday. He discussed the grievance of the want of a teaching university in London, and a system of higher education which should involve something like a graduated degree system, and declared with a candour creditable to him as a London University graduate, that unless that university quickly rose to the occasion, it would be supplemented by another body. Low medical education is more and more at a discount, in spite of the strange statement in *The Times* that in poorer districts what is chiefly wanted is attendance on midwifery and the administration of purgatives! This is, indeed, a short compendium of medical art, but scarcely expresses the demands of the classes who suffer most and die most from disease, in which fevers, tuberculosis, rickets, bad habits, and bad hygiene have their chief harvest of victims. It may be confidently stated that the only things which will serve men either in poor districts or in richer ones are sound knowledge, kind dispositions, and professional aptitude. This was the burden of most of the addresses, which give no sanction to the idea of cheap education and easy examinations, and which vie with each other in enforcing the necessity for wider general culture, broader acquaintance with allied sciences, and larger professional experience. We cannot with much detail discuss the individual addresses, which covered a large range of subjects, some being strictly educational in their nature and object, others, such as Mr. GODLEE'S, dealing with the history of the profession or one of its branches. Mr. BLAND SUTTON sounded a high note on the importance of accurate observations in anatomy and pathology, not confined to the human species, and gave some very curious instances, what he called intellectual blindness, which will be read with interest. Dr. MAGUIRE traced the history of protective inoculations from that great beginning of JENNER to the last refinements of PASTEUR. At the Veterinary College Professor GERALD YEO ably discussed the same subject, and enforced the advantage of co-operation between human and veterinary practitioners. He made one startling statement, that students in the Veterinary College are better prepared and "show a much more accurate knowledge of the subjects they have to prepare for examination than the ordinary candidates of other qualifying bodies." We leave the teachers and students of human medicine to answer that charge.

The promoters of the "Practical Element in medical education" have no reason to be dissatisfied with the way in which that subject has been treated, notably in the two Addresses which stand out pre-eminently as model Introductory Addresses—viz., that of Professor GAIRDNER at the Yorkshire College, Leeds, and that of Dr. CLIFFORD ALLBUTT at his old school of St. George's. It is much that the arguments for more attention to useful knowledge and the cultivation of practical aptitudes in medical education have been seriously entertained by such teachers, even if, in the end, they have to express dissent and disapproval of particular methods for securing this great result. The mere discussion of such subjects by such speakers in an Introductory Lecture, and as it were, before the public, is a decided gain. No one should know Mr. WHEELHOUSE'S views better than Dr. CLIFFORD ALLBUTT; but we cannot help thinking that he has unintentionally misrepresented him in saying that he is in favour of a reversion to the old practice of a five-years' apprenticeship to a general practitioner. Mr. WHEELHOUSE may have in some recess of his mind an affection for that old institution, as many practitioners have who had the privilege of having men of character for their masters; but we know of no recent deliverance, either by that gentleman or any other responsible person in favour of so impracticable and antiquated an idea. We may leave Mr. WHEELHOUSE, however, to defend himself on this point. He and Dr. CLIFFORD ALLBUTT are not very likely to come to serious blows: the more so as, fortunately for the cause of this "practical element" point in medical education, Dr. ALLBUTT has conceded the essence of what its promoters have urged—that at some stage of medical education there is a place for a student learning the art of practice; what he calls, with perhaps less than his usual force and felicity of language, the "domestic side" of medical work. After the faculties have been trained and strengthened in the main branches of medical education "one year's apprenticeship would do the work of five in an earlier age, and an obligation upon young men thus to apprentice themselves before the completion of their studies would have my approbation and support." This is a large admission, larger even than some of us may think necessary, but it is sufficient to show that in the opinion of so capable a judge there is something which is not taught at present either by hospital practice or any other part of the necessary curriculum of a medical student. The rest of Dr. CLIFFORD ALLBUTT'S address would tempt us to write at greater length; but we must defer further remark at present than the expression of our general acceptance of his view of the virtues and defects of the ordinary medical practitioner and his arguments for raising the general culture of the profession by insistance on university studies and discipline and the cultivation of the philosophic mind. It is almost enough to reconcile young practitioners to the somewhat excessive leisure of early professional life to think that they can use it as Dr. ALLBUTT did in the mastering of GROTE'S "Greece," of GIBBON'S "Rise and Fall," and of MILL'S "Logic," with "some great work of imagination," and so, almost without a university, attain "the university mind." We hope that our brief notice of Dr. ALLBUTT'S address will lead our readers to study every word of it.

It was a happy thought of the Leeds school to secure an address from Dr. GAIRDNER. He might long ago have abandoned himself to the luxury of his own careful

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studies and consulting practice. But he has preferred to deal deeply and seriously with the very fundamental principles of medical education, and devote a large part of his life to personal teaching. His great text at Leeds was a demand for "thoroughness" in all that students do; not that they should "do many things," but "much." Taking advantage of a humorous newspaper account of the invention of a new automatic machine in the form of a "doctor," which, on the deposit of a penny through a chink, is to supply pills and powders for all "the ills that flesh is heir to," he deprecated routinism, automatism, mechanical prescription in medicine, and vindicated the value of living personal observation and opinion. Men are still fain to be led by other men or by one man. A new heresy in medicine, almost as foolish as any of the old ones, is to swear by the dogmatism of a mystic who lived nearly a century ago—to accept his authority and use his medicine in his doses. Dr. GAIRDNER'S noble defence of freedom mocks all such attempts to bind living medicine with such miserable withes. If men will not be bound by HIPPOCRATES in the nineteenth century, they are not likely to call any other man lord, and of all grave and successful physicians who justify this freedom, none speak with more clear right and note than Dr. GAIRDNER, whose rational treatment has reduced the mortality of whole classes of disease to a minimum, and who is well entitled to say, as he so eloquently did say, "That it is the simple truth that at no time in the world's history have the medical advisers of the sick been so little hampered by traditions as at present; at no time have the methods, the formulas, the remedies of past ages undergone more revolutionary changes, and yet at no time have the living influence, the character, the personal status of the physician and surgeon been more adequately maintained than precisely in the latter end of this nineteenth century." He, too, ran a tilt at Mr. WHEELHOUSE'S views of practical teaching; but he was able to say what we fear many teachers cannot say: that as far as his pupils were concerned, he takes care that they shall not be ignorant of measles and other common diseases. We are too much impressed with Dr. GAIRDNER'S lofty demand for personal work and care in making ourselves *thorough* in teaching and in learning medicine to discuss to-day his criticism of the demand for more practical and technical instruction. We may take other opportunities for that, only remarking here that there is no comparison between the necessity for a practitioner being able to recognise and treat measles or scarlet fever and his being able to operate for hernia. The one duty arises immediately and daily, and failure in it involves immediate disaster and discredit. The other arises rarely, and can, in nine cases out of ten, be devolved without discredit on those who lay themselves out for higher surgery.

THE question of leaving Great Britain for other and better winter climates becomes to a large and increasing class a topic of the first importance, which must be faced during the month of October. This month, although on the average almost the wettest of the twelve, is so frequently mild, that patients are tempted to linger at home until it has run its course; but it is generally recognised that November in this country is not to be encountered with impunity or without grave risk by the class interested in the subject of a winter change of residence. The English winter has the following defects, which render an escape from it desirable to many, and a practical necessity to some. It is a season of short days and sunless skies. Though rarely severe in point of cold as compared with many other lands, it presents great fluctuations as regards temperature and moisture; it is, on the whole, somewhat windy, and especially towards the vernal equinox the winds are parching and depressing. Hence for large classes of sufferers open-air exercise is largely impeded or even entirely hindered, colds and chills are frequently caught, appetite and digestion are apt to become impaired, the general health suffers, and in consequence many diseases are aggravated. It is essential for any accurate conception of medical climatology to recollect that our climate does not act injuriously by any single characteristic, but by a combination of characteristics and by their sum total effect upon the organism as a whole, as well as upon any local affection. Popular language attributes all the defects of the English climate to the damp, whereas our rainfall is small compared with many places in favour as health resorts, and the comparatively low temperature usually prevailing in these islands prevents a very large amount of moisture from being held in suspension in the air. Rainfall, evaporation, relative and absolute humidity, temperature, amount of sunlight, direction, force, and distribution of the prevailing winds—all these factors require careful consideration before any accurate estimate of the effects upon health of any given climate can even be attempted.

As regards the classes who, when means and circumstances permit, may with advantage seek a winter change of climate, we may put the facts generally in this way: all those to whom daily fresh air exercise is indispensable, and who are unable to take such exercise unless under favourable meteorological conditions; all those who from any cause are peculiarly susceptible to changes in temperature and hygrometric condition, and who as a consequence of such changes are prone to catarrhs or deep-seated inflammations; all those in whom a succession of wet or sunless days profoundly depresses the mind and the physical energies. A little reflection will show that the diseases coming under these various categories are—phthisis, bronchitis, rheumatism, marked constitutional delicacy, and delayed convalescence either from a surgical operation, a specific fever, or an acute inflammation.

The advantages of change of climate in phthisis have been known from the earliest times and are universally recognised. The subject is one in connexion with which a large literature is rapidly springing up, and is so extensive that little to the purpose could be said in the course of a leading article. Amidst much controversy on the subject, certain conclusions command at least a very general acquiescence. We are all pretty well agreed that change of climate is the most potent means we have of combating pulmonary tubercle; that it can be recommended with any degree of assurance only when the disease is early and in the main uncomplicated; that the failures are more numerous than the successes, but that the successes are considerable in number, often very striking in character, and sometimes occur in unhoped-for cases; that the sea voyage, the high mountains, and bright sunny, bracing, but not too stimulat-

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ing or exciting climates, are the various alternatives that present themselves to our choice; and that the selection is still a matter of considerable difficulty and obscurity. One broad and elementary principle may probably be accepted as universally true—that no climate will permanently benefit phthisis unless it permits a large amount of fresh air exercise and acts generally as a tonic to the system.

In some of the other conditions enumerated the choice of a winter climate is a much simpler matter than it is in phthisis. Thus, bronchitis, if there be much cough and secretion, calls for a soothing climate, where warmth and equability prevail —conditions that are found at Madeira, the Canary Islands, the Azores, Nassau in the Bahamas, and many similar resorts. If the secretion be very profuse, such as in cases of bronchorrhœa, a drier climate than the ocean islands will often be desirable, and may be found in many of the sanatoria on the Mediterranean seaboard. Rheumatism, again, has indications that are sufficiently precise. Warmth, dryness, and at least fair equability, are here the desiderata. Egypt, Algeria, and Morocco may be mentioned as fulfilling these conditions. We must remember, in reference to this department of the subject, that if a climate be very warm and dry, it cannot in the nature of things be very equable, since the combination of heat and dryness promotes radiation and necessarily causes a considerable difference between the day and night temperatures and those of sun and shade.

Asthma is a disease for which change of climate is often sought, but such change must always be regarded as an experiment which is to be judged by its results. We are unable to lay down any general laws on the subject, except that the disease is very much influenced by locality, that meteorological features seem to have no constant effect, and that, unlike most respiratory affections, asthma is not aggravated, but often relieved, by the impure air of large cities.

Delayed convalescence and constitutional debility are two conditions for which sea air, whether in the form of the sea voyage or of the marine sanatorium, may be recommended with very considerable confidence, provided in the former case there be neither pyrexia nor great nervous irritability. Strumous children, with weak circulation and a proneness to catarrhs, benefit very decidedly by a sea voyage or prolonged residence at a seaside resort. Mr. TREVES recommends that in such cases places such as Margate should be selected, where large tracts of seaweed lie exposed to the sun at low water, rather than resorts where this feature is absent.

The fashion of wintering abroad must not blind us to the very considerable facilities offered by our own country for the selection of a suitable winter resort. A large number of cases of phthisis will be found to do wonderfully well in the south coast watering-places during the winter. Bath offers attractions to the rheumatic and gouty which are not easily surpassed; Malvern, Tunbridge Wells, Leamington, Llandudno, Southport, and Grange, to mention a few out of many, will be found to yield very good results, as winter residences for properly selected cases.

COLONEL INGLIS, in his report upon the Reformatories and Industrial Schools of Great Britain which has just appeared in the form of a Blue-book, discharges himself from the discussion of any broad questions relating to these institutions on the ground that before his observations could be published the old statutes under which these schools have been managed heretofore would be superseded by fresh legislation. Unhappily the event has not justified his forecast. The two Bills which the Government introduced into the House of Lords dealing respectively with reformatories and industrial schools have both suffered shipwreck, and the questions which they were intended to deal with are still outstanding, having indeed been but little advanced towards solution by the fruitless discussions of the past session. We do not quite share Lord NORTON'S sensitiveness on the score of mingling homeless and destitute children with those who have been charged before a magistrate with some offence; the probably criminal with the accused of crime. The two classes have so much in common that it is probably an over-refinement to attempt to separate them. The case is very different of those juvenile offenders whom a second conviction has qualified for detention in a reformatory. In these instances the presumption of vice is so strong that it is only common prudence to treat them as liable to corrupt other children and to separate them accordingly for education in distinct schools. But between the homeless child whom poverty has thrust into vicious surroundings and the petty offender who is accused for the first time the greatest difference generally is that the one has and the other has not been found out. While, therefore, we do not hold with the excessive multiplication or subdivision of correctional schools, we strongly feel, upon the other hand, that it is a great abuse of the industrial school system that it should be converted into a substitute for the workhouse school, and, if possible, it is even worse that parents should be able to find in the industrial school facilities for getting rid of the burden of their children's support and education. Yet such was the finding of the Royal Commission which recently considered this matter. These are serious faults, which demand a legislative remedy, and one which should be applied without delay. We hope that the pleasing picture which Colonel INGLIS paints this year will not have the effect of blinding the public eye to the defects which his canvas conceals.

As regards the health condition of children in reformatories and industrial schools, the report states that "the health of the schools has been, with a few exceptions, most satisfactory." It is, however, further stated: "The death-rate may seem heavy, but when it is remembered from what a low class the children are drawn, and how many of them come with constitutions enfeebled by hereditary maladies or by poverty and starvation, I think the rate may be said to be satisfactory." While fully admitting the force of Colonel INGLIS'S suggestion as to the effect of the probably enfeebled constitutions of many of the children, we are of opinion that this should be mainly, if not fully, counterbalanced by the effect of the good housing, good clothing, good feeding, and constant care and medical supervision which it may be assumed that these children enjoy. Under these circumstances we find it difficult to agree with Colonel INGLIS that a death-rate which may be broadly said to be nearly double the mean death-rate of all

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English children of similar ages, living for the most part under far less favourable circumstances, can be accepted as satisfactory. The tables in the report under notice show that the death-rate among the 22,755 average inmates of the Reformatory and Industrial Schools of Great Britain in 1888 was equal to 5·8 per 1000—to 7·6 in the Reformatory and 5·3 in the Industrial Schools. The report before us does not supply sufficient information as to the ages of the children in these schools, to afford the means for testing these rates in a thoroughly satisfactory manner; but if we assume, which we may probably fairly do, that the bulk of the children are aged between ten and twenty years, we find that the death-rate of all children at these ages in England and Wales in 1888 did not exceed 3·4 per 1000. Judged by this standard, therefore, we find that the mortality of children in these schools in 1888 exceeded the average rate by nearly three-quarters, or by 71 per cent. The rate of mortality among the boys detained in these schools was 5·2 per 1000, against the English average of 3·3; and among the girls it was 8·1, the English average being 3·5. The excess of mortality among these school children was, therefore, far greater among the girls than among the boys. Can this degree of excess of mortality be fairly considered as satisfactory? The subject calls for investigation, and in the first place the statistics of a series of years, with the advantage of more definite information as to the ages of the children, would throw much useful light upon the true cause of this excessive mortality.

Annotations.

"Ne quid nimis."

THE PUBLIC HEALTH DURING THE PAST SUMMER.

THE weekly returns issued by the Registrar-General relating to twenty-eight of the largest English towns, having an estimated population of nearly ten millions of persons, afford the means for judging the condition of the public health during the third or summer quarter of this year. The annual death-rate in these twenty-eight towns during the thirteen weeks of last quarter was 18·6 per 1000, which, although exceeding by 1·7 the unprecedentedly low rate in the corresponding period of last year, was 1·4 below the mean rate in these towns in the third quarters of the seven years 1882–88. The death-rate in London last quarter did not exceed 16·5 per 1000, only slightly exceeding the low rate (16·2) in the summer quarter of last year, and was 2·5 below the mean rate in the corresponding periods of the ten years 1879–88. In the twenty-seven provincial towns, however, the mean death-rate last quarter was 20·0 per 1000, thus exceeding by more than a fifth, or 21 per cent., the rate in London. The death-rate in the summer quarter of the year is, especially in towns, almost directly governed by the mortality from infantile diarrhœa, and it is therefore not surprising to find that the increased mortality in our urban population last summer, compared with the summer quarter of 1888, was mainly due to the greater fatality of this summer disease. The annual death-rate from diarrhœa in the twenty-eight towns last quarter was 2·5 per 1000, against 3·5, 3·3, and 1·5 in the corresponding quarters of 1886, 1887, and 1888. This increase of diarrhœa mortality last quarter was due to the hot summer weather in July; the mortality from the disease, however, fell rapidly after the middle of August. In London the diarrhœa rate did not exceed 1·8, against 1·3 in 1888; while in the twenty-seven provincial towns the mean death-rate from the disease averaged 3·0, against 1·7 in 1888. The excess of diarrhœa mortality last quarter, compared with the corresponding period of last year, was relatively much larger in the provincial towns than in London. It appears, moreover, that if we exclude diarrhœa mortality, the death-rate in our largest towns in the past summer did not materially exceed the unprecedentedly low rate in the summer of 1888; and the same is probably true of the mortality in the whole country. It is especially noteworthy that only 2 deaths from small-pox were registered during the quarter in these twenty-eight towns, of which 1 occurred in Leeds and 1 in Sheffield. The mortality last quarter from each of the other zymotic diseases, except whooping-cough, somewhat exceeded, however, that recorded in the summer of 1888. The most noticeable increase, apart from diarrhœa, was in the recorded deaths from diphtheria, which numbered 678, against 394 in the corresponding quarter of last year. On the whole, the public health last quarter, judged by its mortality statistics, although comparing unfavourably with the exceptionally favourable return for the previous summer quarter, was fairly satisfactory, the drawback being a slightly increased mortality from measles, scarlet fever, and enteric fever, and a marked increase of diphtheria mortality.

THE RULE OF COMPULSORY RETIREMENT OF HOSPITAL PHYSICIANS AND SURGEONS.

THE reasonableness of the rule that requires the retirement of physicians and surgeons after a period of twenty or twenty-five years' service is generally admitted. By this time they are generally in such demand outside as to have but scant time for the discharge of hospital duties, which, if they are to be done well, require, above all things, to be done deliberately. So that, for their own sakes and the good of patients, relief from hospital responsibility and work is generally advantageous. Equally reasonable does the rule appear from the point of view of younger men, who have time to spare and who have gifts for hospital service if the opportunity comes in time. And yet the rule has often appeared to work disadvantageously, and to displace men who were not to be easily replaced. It is not surprising therefore that some hospitals have mollified the rule so as to prolong in a practical way the connexion with officers whose term of duty has expired and who may yet, by their experience and reputation, be of the highest use to the institution. We lately found this to be the case at Norwich, where there is a rule of compulsory retirement, we think, after twenty-five years, or on the attainment of the age of sixty-five. This rule has been made since some of the present staff were appointed. It has been qualified by another, which provides "that three beds shall be assigned to every member of the staff who has retired and become consulting officer, to which he may at pleasure admit cases to be under his control and treatment, and for which he will hold himself responsible." We very recently had the pleasure of seeing Mr. Cadge perform a bloodless, successful lithotrity in a little girl aged four. Even he had never done this operation in so young a female. Had the old rule of compulsory retirement been ruthlessly applied to all, he would have been denied an opportunity of doing what he does so well. In this new rule, we believe Norwich only follows the example of the Leeds General Infirmary, which has a rule to this effect: "That any member of the hospital staff shall retire on the completion of twenty years of office, but that on his retirement he shall be promoted to the position of consulting surgeon, and shall be entitled to the use of six beds, provided that in the aggregate not more than a certain number of beds are so

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occupied by the consulting staff." Under this rule Mr. Teale and Mr. Wheelhouse have retired and yet retain a most important connexion with the institution with which they are so honourably associated. We cannot doubt that this is a good rule, or rather a good qualification of the old rule, and that by adopting it hospitals would secure in their staff the double advantage of what Bacon called "young men and men of age," who have their respective advantages, who are calculated to work well together, to correct each other's faults and stimulate each other's virtues.

CANCEROUS AFFECTIONS OF THE VARIOUS ORGANS IN IRELAND.

WE owe a debt of gratitude to the Registrar-General for Ireland for having taken the lead in supplying statistics of the part or organ affected in fatal cases of cancer. We note with satisfaction that one of the results of the publication of these statistics in the Irish report for 1887 has afforded the means for supplying much more complete statistics for 1888. In the report for 1887 the part or organ affected was not specified in 406, or 19·6 per cent., of the 2067 recorded fatal cases of cancer in Ireland; the report just issued for 1888 shows that in only 67, or 3·3 per cent., of the 2003 deaths from cancer in that year was the part or organ affected by the disease not specified. It is needless to say that the value of these statistics will, apart from their increasing completeness, increase year by year as the records accumulate, and it thus becomes possible to watch the rate of increase or decrease of malignant disease of the various parts or organs. There are, however, one or two facts brought out by the Irish statistics for 1887 and 1888 which deserve notice. In these two years the part or organ affected was recorded concerning 3597 of the 4070 fatal cases of cancer—1578 of males and 2019 of females. If we exclude from the female cases 460 cases affecting the breast and 325 affecting the uterus, the numbers affecting all other parts or organs in the two years are found to be 1578 fatal cases of males and 1228 of females. Of these numbers by far the largest proportion resulted from disease affecting the digestive organs, the pylorus, stomach, liver, intestines, and rectum; the cases so classed in the Irish returns for 1887 and 1888 were 846 of males and 823 of females. The cases attributed to the hand, leg, foot, and to other specified parts not separately classified were 214 of males and 167 of females. There remain to mention the cases affecting the head, face, eye, jaw, tongue, lips, neck, and throat; these numbered 518 of males and 238 of females. Thus while the relative numbers of cases affecting the internal digestive organs were 103 of males to 100 of females, those that we may call the external cases, probably due in great measure to injury from violence, affecting the hand, leg, foot, &c., were relatively 128 of males to 100 of females; and the cases affecting the head, face, eye, jaw, tongue, lips, neck, and throat showed the proportion of 218 of males to 100 of females. If we exclude the cases affecting the head, face, and eye, which may be referred in considerable proportion to injuries, and show less irregularity in the two sexes, we find that the proportion of cases affecting the jaw, tongue, lips, neck, and throat is 333 of males to 100 of females. It would be rash to attempt at present to assign the precise causes for this wide range of difference between the sex proportions of the fatal cases of cancer affecting the various parts or organs of the human body. For this we must wait until a larger basis of facts is available for analysis; and we venture to trust that the Registrars General for England and Scotland will see the advisability of supplying information on this important subject similar to that now furnished in the Reports of the Registrar-General for Ireland. We do not, however, hesitate to affirm that the information is important, as it can hardly fail to throw light upon the cause of the development of the disease, as well as upon the causes of its constantly increasing fatality. Should a larger basis of observations confirm the conclusion, drawn from the Irish figures for 1887 and 1888, that while the sex proportion of fatal cancer affecting the digestive organs is nearly equal, the proportion in cases affecting the jaw, tongue, lips, and throat is 333 among males to 100 among females, it would be strange indeed if it were impossible to discover the true explanation of this remarkable difference. Some deleterious influence specially affecting these parts of the human economy more severely in the male than in the female sex would have to be sought. Without attempting to foreshadow the result of the quest of this deleterious influence in the eventuality alluded to above, it would, for instance, be absolutely necessary to investigate in the most thoroughly scientific manner the effect of tobacco smoking upon the jaw, tongue, lips, and throat, which parts, judged by the figures at present at our command, appear to be more than three times as liable to cancerous disease in the male as in the female.

ALLEGED CASE OF ATROPINE POISONING.

AN inquest was held at Morecambe on the 26th ult. on the body of a boy aged eleven, the son of a Rochdale leather factor, who had been staying at Morecambe during the previous fortnight. Deceased walked to Heysham the previous Sunday (the 22nd) with an elder sister, gathering and eating a few blackberries from the roadside. During the following night he was taken ill, suffering from sickness and diarrhœa. During Monday his mother administered at intervals four or five homœopathic belladonna pilules, which, it was stated, had always suited him very well in previous cases of sickness, and one or two of aconite. Deceased becoming no better, medical advice was sought, but he was then in a comatose state, and died the following morning. The symptoms pointing to poisoning, the deputy coroner ordered a post-mortem examination, which was made by Drs. Clark and Glegg, who expressed an opinion that death was caused by some narcotic or irritant poison, probably atropine or belladonna. Dr. Glegg was strongly of opinion that the pilules administered could not have had any such effect, and it was supposed that deceased must, when out on Sunday, have eaten berries of the deadly nightshade, which are said to grow in the vicinity. After a lengthy investigation the jury returned the following remarkable verdict: "Died from atropine poisoning, and although there was no evidence to show how administered, they believed it to be perfectly accidental." Assuming the above statements, which are taken from the *Liverpool Daily Post*, to be correct, there are several questions which it is to be hoped Drs. Clark and Glegg may be able to answer by a full medical report of the case, poisoning by any of the alkaloids, except strychnia and opium, being comparatively rare, and cases of atropia poisoning being specially interesting. Were any pilules similar to those given to the deceased procured and reserved — because homœopathic pilules are well known to contain, not an infinitesimal, but a very decided quantity of aconite, belladonna, &c., and the quantity contained in four or five pilules would be a very important fact in determining the cause of death? Was the sister asked to indicate the locality and the berries? and what was the exact interval between the eating of these and the occurrence of symptoms? Have the stomach and its contents been preserved, and could not an inspection be made now by some skilled analyst, since it is quite possible to extract and identify the alkaloid which is the active principle of belladonna? Were the symptoms markedly those of atropia and not

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aconite poisoning? The case furnishes an amount of scientific material which, it is to be wished, may not be lost, but fully utilised for the advancement of toxicology. If the "berries" theory be true, it furnishes another warning to children and their parents.

MEDICAL MISSION WORK IN CHINA AND SYRIA.

WE have often remarked on the importance of medical mission work both in itself and as a factor in the promotion of civilisation and Christianity among heathen nations. Two illustrations are before us as we write: one, the Report of the Medical Missionary Society in China for the year 1888, and the other that of the American Presbyterian Mission in Syria. The former, like the latter, owes its origin and chief inspiration to America, having been founded in 1838 by Dr. Parker of Washington, whose death in January, 1888, constituted an era in the Society's history. At the annual meeting resolutions of a most feeling kind were passed conveying a rare tribute to Dr. Parker's memory as a physician, surgeon, statesman, and philanthropist. Dr. J. G. Kerr succeeds Dr. Parker as President. The Society has a hospital, the Canton Hospital, and several dispensaries. The chief work is done in the hospital, which can accommodate 200 patients. The number of in-patients last year was 1324, of out-patients 6870. The table of surgical operations will give the best idea of the important work done, and the impression that must be made by the officers of the Society. Cholera prevailed and interfered with the work of the hospital, and also with that of the missionaries, who itinerated with medical and religious purposes. Sixty-five cases of stone in the bladder were under treatment in the year, all in men. In twenty-four of these lithotomy was performed, and in thirteen lithotrity. All the lithotrities were successful, most of them being done after Bigelow's method, but five of the cases of lithotomy ended fatally. Catheterisation for retention in men was practised 119 times. One remarkable case of retention of urine in a female from retroversion of the gravid uterus is given. The Bible woman who visited the patient found her somewhat indifferent to her teachings, when she explained her sufferings, and said she had had retention for twenty-five days (?) She went to the hospital on the Bible woman's advice. A female student drew off nineteen pounds of urine with the catheter. She was taken into the hospital. The retroversion was reduced by an inflating or pear-shaped pessary. The catheter had to be used for a month, and the patient recovered. A glimpse like this into the hitherto unexpressed sufferings of millions of human beings, with no law against quackery of the grossest kind, may well quicken the Christian nations in their efforts to enlighten China, and even supply her with some of our superfluity. There is an attempt to teach medicine to a class of eleven young men and three young women. The classes are Chemistry, Theory and Practice of Medicine, Anatomy, and Materia Medica. The latter two subjects are taught by natives. This is not a sufficient curriculum; but in a country with no law to regulate medical practice it is a step in the right direction. Some gunshot injuries were met with in Hainan and dealt with antiseptically. The work of translating medical books has been continued. It is gratifying to learn that half the expenses of the hospital are met by payments of patients and by Chinese subscriptions. The medical work in Syria done by the American physicians of the Medical Department of the Syrian Protestant College, appointed by the Order of St. John in Berlin as the medical attendants of the Johanniter Hospital, is of an equally interesting character, associated as it is with educational and religious work of the very best kind. The hospital in Beirut has received during the past year 491 in-door patients and 8390 patients in the Polyclinique. Our readers know from various communications of Dr. Post in our columns that he brings to his task skill and judgment which, in his native land, would have secured him eminence and wealth. It is work like that of Parker and Post which led the late Lord Beaconsfield to speak of "those sublime men, the American missionaries."

THE "PELLAGRA BACILLUS."

THIS bacterium has been the subject of experiments by Professors Lombroso and Cuboni, representing the Italian, and Drs. Paltauf and Heider, the German, school. Cuboni, it may be remembered, maintains the existence of a bacillus in the maize consumed by pellagra patients, the maize, having previously undergone fermentative alteration. Not only does he profess to have found the bacillus in the maize, but even in the alvine dejections of its consumers. His definition of pellagra is, therefore, this: "a microbian malady, due to a poisoning produced by a pathogenic bacillus." Lombroso's findings, however, were much less confident than those of his compatriot. He, too, found a bacillus in the altered maize, but he failed to detect it in the blood of the pellagra patient, and very rarely found in the intestine. His results have now been confirmed by Paltauf and Heider, who also announce that the bacillus does not produce any toxic principle in its cultures, nor does it, when communicated by inoculation to animals, cause pathological phenomena. The bacillus, in fact, which seems identical with that of the potato is, according to these investigators, "non-pathogenic." The practical upshot of the experiments seems now to be that the maize, owing to a bad system of conservation, undergoes a kind of putrid fermentation, and that from this certain toxic substances are generated, the ingestion of which causes in the consumer a disease, epidemic, but non-contagious, in character. The improved methods of treating the maize, particularly the use of the drying apparatus (*essiccatoio*), have greatly diminished the pellagra following the consumption of the grain. Indeed, the universal introduction of the methods above referred to is confidently expected to extinguish the disease in Upper Italy.

SERIOUS CHARGE AGAINST A MEDICAL MAN.

DR. JOHN EADIE, of West Coker, was recently brought before the magistrates charged with having, on Aug. 22nd last, committed an assault on the wife of George Chick, a shepherd, with intent to ravish her. From the evidence it appears that Dr. Eadie had attended the woman for six months for prolapse and ulceration of the womb, and that from time to time he had introduced pessaries. On the day in question he visited the patient, and, according to her statement, assaulted her. She deposed that she did not scream because "she was so taken by surprise." But this evidence she practically neutralised by saying that she was strong enough successfully to resist Dr. Eadie. The door of the house and the chamber window were open at the time, and a neighbour was sitting outside who could easily have been appealed to. Further proof of the groundlessness of the charge was adduced by the evidence of Amelia White, the neighbour referred to. This witness swore that the woman Chick did not complain to her until about 11 o'clock at night—the assault having, it was alleged, been committed about four in the afternoon. Moreover, Mrs. White averred that Chick had told her to say that she had complained to her about ten minutes after the doctor left. In addition to the want of confirmatory evidence, rebutting testimony was forthcoming The woman was medically examined by Dr. Adams of Martock, who testified to the physical disorder of the uterine system.

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This evidence was of such a character as to render an assault of the nature alleged in the highest degree improbable. The magistrates who heard the case placed themselves in a somewhat unenviable position, for, at the close of the case for the prosecution, they said that as the evidence then stood they had made up their minds to commit; whereas after Mr. Watts, defendant's legal adviser, had addressed the court and called his witnesses, the chairman said the majority of the magistrates were of opinion that there was not sufficient evidence to commit. Consequently Dr. Eadie was liberated. The defendant's counsel suggested that the woman made the charge whilst suffering from "hysteria and hallucination." The history of this case is unfortunately not singular; charges of like nature have often been preferred against medical men. It is quite clear that neither committal nor conviction should follow unless there is strong corroborative proof, because in such cases the circumstances almost necessarily place the victim in a defenceless position—defenceless except for what he can rely upon from his professional reputation. It is matter of regret that in Dr. Eadie's case the indictment was made under the Acts 24 and 25 Vic., Chap. 100, Sec. 38. If the proceedings had been taken under Sec. 48-52, Dr. Eadie could have been called as a witness for his defence, but as it was, his mouth was closed. We heartily sympathise with Dr. Eadie, and at the same time congratulate him on the issue of the charge made against him. He has suffered what every member of the profession is liable to in the exercise of a noble calling. It is fitting that every recompense should be made him in addition to the public and judicial exculpation which he has received

ACCIDENTS TO WORKMEN.

AMONG the many interesting discussions which have taken place at Paris during the period of the Exhibition, not the least is that on State provision against accidents to workmen. The sentiment generally exhibited by those who took part in the debate was one of admiration for the German system, by which the compensation is paid with absolute certainty to the injured workman. The annuity is paid in the first instance by the employer. If he fails, the corporation of the trade takes the responsibility, and continues the payment. Should the corporation fail, the State itself undertakes the payment. A large class of accidents is due to faults of machinery. It must be hoped that as time goes on these will be more infallibly detected and removed; for many such often no one in particular is to blame. But the prevailing feeling of the Congress was that as society reaped the advantage, it should bear the cost of any injurious result. Mr. Adolphe Smith referred to the case of those working for sweaters, and who sustained accidents without claiming compensation, believing that the sweaters were too poor to pay. In answer to this, it was said that in France the worker, though obtaining his wages through the sweater, would be able to claim wages from the person who employed the sweater. The German scheme is a gigantic one, as may be gathered from the following figures given in *The Times*. By this scheme payments are made through trade corporations:—"Germany had now 62 trade assurance corporations, divided into 366 sections, necessitating 319,453 inspections, and insuring 3,861,560 workers, whose wages were equal to 2,389,349,500 marks. The corporations had paid 5,373,496 marks for 15,970 accidents verified in the year 1887. The minor accidents, treated as illness because the victim was cured in less than thirteen weeks, amounted to 90,031. To the above figures should be added 259,977 railway servants and 6,978,579 agricultural workers. The latter had been compelled to insure by the law of the 5th of May, 1886." The natural objection to such a system is the danger of developing carelessness among men and even among employers; but this, so far, is not supported by facts. The amount paid by employers is said to be less than under a system of insurance. It was generally recognised in the Congress that inspection of factories was best managed in England, especially with regard to the medical examination of children, and all matters relating to hygiene. The great object ought to be to prevent accidents rather than to compensate for them; but meantime compensation is a most just provision. Madame Tkatcheff gave the principles of a proposed law now under consideration by the Russian Government which contemplates compensation in cases of illness due to unwholesomeness of employment.

ENTERIC FEVER AND POLLUTED WATER AT SUTTON-ON-HULL.

ENTERIC FEVER is prevailing at North Ferriby and at Sutton-on-Hull in the Sculcoates rural district. According to Mr. Walton, the medical officer of health, the outbreak at Sutton is due to the contamination of a well used by the residents of a terrace, the pollution being due to obvious soakage of filth. The water has been analysed and found to be impure, but the owner of the well declines to accept the analyst's decision, and hence a sample is to be submitted to a London analyst. This being the case, the question was "adjourned for one week." It is to be hoped that in the meantime the sanitary authority have seen that a water-supply above suspicion is being provided for the inhabitants of the terrace, and also that, in case a favourable chemical report is received as to the recently collected sample, they will remember that the medical officer of health actually saw excremental filth making its way into the well, and that it was the water of several weeks before the date of their meeting, and not that which was recently collected, that must have occasioned the disease, if the water was at fault. In short, the question they have to consider is not so much one of the chemical constituents of a single sample of water collected after the occurrence of enteric fever, but rather whether a water which before the outbreak was obviously fouled runs the chance of being again contaminated.

THE PRINCIPLE ON WHICH MEDICAL MEN SHOULD BE REMUNERATED.

DR. G. WILSON, of Leamington, speaking in Section I., "Sanitary Science and Preventive Medicine," of the Sanitary Congress, travelled over a wide field, from unthrifty marriages and marriages of persons unsound in health or constitution, to the principle of payment of medical men, maintaining that so long as the family medical attendant is paid to attend only on people when ill, and not to conserve the health of the household, there will be a constant drag upon public health progress. Such wide subjects cannot all be discussed in one paper. The subject is a very difficult one. There is much to be said for the public and for individuals paying medical men to *keep* them well. But, as Dr. Wilson said, all our experience of that system is discouraging. The most eminent of our health officers, men worth more "than armies to the public weal," get a remuneration that would not be accepted by a second or third-rate private practitioner, and then often are treated with scant respect. The payment of club doctors, who are paid without reference to illness, is a scandal unworthy of any respectable and intelligent individual of the working-class. Similarly, we could not expect any adequate remuneration from even well-to-do people. It is only the experience of sickness that teaches the value of the healer of the sick. Gratitude is developed, and the office of the physician or

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surgeon comes to be appreciated. The difficulty of realising obligation to a medical man who simply averts disease is too great to the average practical Englishman. The enjoyment of health is assumed as a natural right—not to be paid for. The very instructions and prescriptions of the physician are lightly esteemed till sickness arises, and the advantage of observing them is experienced, and then the "physician is honoured" by men "for the uses" they "may have of him." Dr. Wilson will not deny that the public spirit and benevolence of medical men make them the great promoters of sound sanitary legislation. Take, for example, their advocacy of vaccination, by which they lose thousands a year, and yet are abused by weak people for doing so with a selfish motive.

THE HOWARD SOCIETY'S REPORT.

IT cannot be said of John Howard that the good he did was "interred with his bones." Apart from the reforms in which he had himself an active share, and which remain as enduring precedents in prison management, the Society named after him continues to labour effectively in the work which he began. Its report for the present year will repay careful perusal. Among other matters it touches on a subject of some importance in referring to the serious and even fatal accidents incurred by some of the inmates of convict prisons in consequence of the dangerous character of their work. Their efforts to effect a change in this particular would appear to be the more needful if, as in a case quoted, coroners' juries are apt to find themselves in some difficulty from the fact that all evidence by gaol officials has to be given in presence of the governor or other superior officers. The natural effect of such restraint may be conjectured. On another page of the report attention is directed to the need which still exists for some system of classification in workhouses and pauper hospitals. The distinction aimed at is one which would separate (1) the vicious or disreputable poor from those who have simply been unfortunate in their worldly circumstances, (2) the sick from fellow inmates whose noisy habits are prejudicial alike to their comfort and their chances of recovery. While the advantage of trained nursing now obtainable in parish infirmaries is felt and acknowledged, it is pointed out, with evident reason, that this in itself can merely palliate the evils occasioned by otherwise defective regulation. It should certainly be possible, in the commodious and well-furnished infirmaries of the present day, to apply such a measure of selection as will guarantee the necessary comfort of patients.

TOBACCO-SMOKING AMONG WOMEN.

TOBACCO-SMOKING, in this country at least, has till recently been regarded as one of the peculiar privileges of the male sex. Of late years, however, the habit has undergone certain important changes as regards the extent of its influence. It has attached adherents by the hundred from among the most youthful of the community, and it has, we might also say, in a great measure changed its sex. Many men, and these as capable, as active, and as worried as their fellows, have always been, and still are, found among the non-smokers; while, on the other hand, a belief seems to be growing that women are largely adopting tobacco in its more æsthetic forms as a feminine perquisite. To its therapeutic charm as an aid to digestion, a soother of worries, and a mild hypnotic, is added its alleged faculty of rendering women more companionable to their husbands or brothers who smoke. On such grounds its wider extension as a social custom has been strongly advocated by some, while others again repudiate it with equal warmth as a veritable poison of domestic womanhood. The question, indeed, is incapable of settlement on purely physiological grounds. It may be freely granted that tobacco does in some degree yield that artificial nerve-rest which is claimed for it; but this will not suffice to silence objection, for its use by the smoker is more than a mere therapeutic method. Like every other luxury, it carries with it something of the slavery of indulgence, and this to an extent not known in the case of the simpler restoratives. While, therefore, we admit that its moderate use is in many instances not only practically harmless, but even beneficial, we cannot allow that its general adoption is at all necessary or likely to prove advantageous. What is true regarding its effect upon men is even more applicable to its influence on women. The companionship of the sexes has, in our opinion, little to gain from the fragrant weed. Concord of the kind suggested is, after all, but a gross bond of union, and the finest common influence we would say is here, as in many other things, not that of "like to like," but of "like in difference."

A PROPOSED MIDLAND UNIVERSITY.

AS a result of the recommendation of the Royal Commission on Higher Education in London that the existing university should so modify itself as to become the representative of the teaching colleges and medical schools in and around the metropolis, or else that a new local university for London should be formed, a meeting is summoned for a very early date in Birmingham of those who are anxious to secure a university for the Midlands on lines similar to those on which the Victoria University has been founded. As any scheme which may be adopted in London to carry into effect the recommendations of the Commissioners will practically put the government of the London University into the hands of London teachers, and provincial interests will thus necessarily take a secondary place, we cannot but feel that there is some reason for the foundation of a Midland University.

INLAYING PORCELAIN IN TEETH.

ONE of the prettiest and most artistic of dental operations for restoring to its pristine beauty a partially decayed tooth is the substitution of its carious portion by a porcelain inlay. We are indebted to Dr. How for having greatly improved the *modus operandi* of this not altogether new course, and bringing it within the region of the practical. Taking, for instance, the somewhat common case of a central incisor requiring filling upon the labial surface close to the gum edge, the cavity is deepened, and with a suitably sized engine burr made perfectly cylindrical, the base of the cavity being left as flat as possible. This being accomplished, a small portion of an artificial tooth, or special sections expressly manufactured for this purpose, which matches the natural one in colour, is mounted by means of shellac on a copper point rotated by the dental engine, and turned down to the required diameter by friction against a corundum file. The section or inlay should then accurately fit the cavity prepared in the natural tooth, and is fastened in position with sandaric varnish or very fluid white stopping. After this is set the surface of the inlay is ground to a proper contour and polished. Should the cavity be oblong two inlays are required, which are fitted separately, and then jointed at the mesial edges, so that the interspace is almost unnoticeable. The applicability of this method is necessarily restricted owing to the varying shape of the cavity; but for many cases of caries of the masticating surface of molars and the buccal surfaces of these and of bicuspids it is useful, though its greatest value is in the case of cavities in conspicuous positions, as in the instance above cited. In such a case it stands in very favourable comparison with any other

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material the dental surgeon has at his command. Amalgam has a ghastly colour, and, moreover, turns the tooth blue; white stopping has only an ephemeral existence; gutta-percha, subject here to friction, soon wears away; and gold—well, whose eyes have not been offended by seeing an otherwise pretty face marred by a glaring mass of auriferous metal?

CURIOUS INQUEST REPORT.

IN the *Kensington News* of Sept. 21st is a description of an inquest held by Dr. Diplock on the body of a child aged about twelve months, found dead in the Grand Junction Canal. A brick was tied round the neck and the body was quite naked. Death had been recent, as the corpse was not yet cold. A medical witness gave it as his opinion that the cause of death was convulsions, and that the child must have been dead when thrown into the water, and the jury endorsed this view, and returned a verdict accordingly. It may be that the newspaper report before us is inaccurate or incomplete. The fact of a brick being tied round the neck raises at least the presumption of foul play, and certainly the evidence should be very convincing to warrant an alternative theory. The signs of death from convulsions are those of asphyxia, the mode in which death is caused by drowning. We are not in possession of knowledge sufficient to enable us to say positively from post-mortem signs alone that convulsions were the cause of death in any given case. The mere fact of water in any quantity being absent from the stomach or lungs does not prove that death was not due to drowning. This applies with greater force in the case of infants. If death was due to convulsions before the child was thrown into the water, what reason was there to dispose of the body in this way? The wish to be free from paying the funeral expenses would surely be overbalanced by the fear of a charge of murder. We trust that some further explanation will be given in this case; for, as at present reported, it is sadly unsatisfactory.

THE REDUCTION OF HERNIA DURING COUGHING.

IT is an undoubted fact that coughing will produce or bring down a hernia; it is therefore somewhat surprising to hear that coughing may be useful in the reduction of herniæ. M. Vandenabeele, however, has frequently found that herniæ which had resisted attempts at reduction by taxis alone yielded when the patient was directed to cough during the manual efforts to compress the sac. M. Vandenabeele's observations included both inguinal and femoral herniæ, and were not confined to either sex. He believes that during the act of coughing the hernial ring dilates somewhat, and that if well-directed taxis is employed just at the right moment most cases will yield.

THE SALE OF HORSE "BEEF."

HOWEVER desirable it may be in exceptional circumstances of siege or famine to have in our midst available for food a constant supply of horseflesh, there are few persons who will not hail with satisfaction the advent of the recent Bill for regulating the sale of this commodity. Custom has, not without reason, assigned to the flesh of the sheep, or even pig, a higher market value than that of their equine cousin. It is true that the latter contains no really injurious ingredients, and that it is, on the contrary, nutritious, and fairly digestible, but it is also necessarily inferior, as being the tissue of a worked and driven animal, and consequently tough and liable to be loaded with excretory products. It is probable that no small proportion of the cheap so-called beef commonly exposed on the stalls of some salesmen is genuine horseflesh, and that not of the best quality. In our day no healthy and active roadster need fear the pole-axe. His vital powers have a much higher value than his carcase. Consequently we need hardly expect to find this kind of "beef" in prime condition, if indeed it is free from disease. The Act just passed provides that the purchaser shall, at all events, be shown by ample advertisement what was the living shape of the meat he buys. The horse in life will remain a horse in death. A system of regular inspection will guarantee as far as possible the protection afforded by the Act, and the question of a choice of food will thus be put to the public in its plainest terms.

OLIVE OIL TREATMENT FOR GALL-STONES.

DR. KISHKIN has published a paper in the *Meditsinskoe Obozrênië* on the employment of olive oil in large doses in cases of gall-stones, a form of treatment which has been especially recommended by certain American physicians. His observations were made on three patients suffering from gall-stones in Professor Cherinoff's wards in Moscow. In one case only were calculi brought away. These were greenish and somewhat soft. The patient did not improve at all in health after their removal. It was found that similar stones could be obtained by giving olive oil to any person suffering from a scanty secretion of bile; and the stones on examination proved not to be biliary calculi at all, and contained no cholestearin, but consisted of oleic, palmitic, and margaric acids with lime soap. They were evidently produced in the bowel by the olive oil, therefore Dr. Kishkin thinks it is a mistake to attribute to the American method any effect upon biliary calculi.

HUNGARIAN MEDICAL SCHOOLS.

AT Clausenburg the new rector, Professor Klug, in an important address delivered on the occasion of the opening of the session on Sept. 8th, dwelt upon the necessity for more provision for medical teaching for Hungarian medical students. At present there are only two Hungarian Universities—Buda-Pesth and Clausenburg. He mentioned that the proportion of medical schools to the population is only 1 to 7,750,000, a smaller proportion than in most other European countries, the others being Austria (1 to 3,333,333), Germany (1 to 2,250,450), France (1 to 1,541,666), Italy (1 to 1,355,237), and England (1 to 1,095,217). He also calculated the average number of medical students to each university as 670 in Hungary, while in Germany it is only 160. This excessive number of students is very detrimental to practical work, for it is impossible for all of them to get satisfactory clinical experience.

DEATH IN A BATH.

A GENTLEMAN named Chapple was recently found dead in his bath, having been killed, it is believed, by fumes generated by a geyser employed for heating the bath water. It is well that the public should be warned against the danger attending the use of geysers, unless proper means of ventilation be carried out. Whilst the water is being heated an enormous amount of gas is consumed, and the products of combustion must seriously vitiate the atmosphere in a small confined space, such as bath-rooms generally are. Then, too, there is a possibility of the gas escaping unburnt. This, however, would probably be recognised by the smell, and so the danger averted. Every geyser should be fitted with a ventilating pipe. The latter should not be carried out of doors, as the wind may blow back the fumes into the bath-room, but should be conveyed into an adjoining corridor or large room. Further, we recommend the precaution of having the bath-room door open whilst the water is being heated. We have it on

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authority that ordinary gas jets are preferable to Bunsen's burners. The best apparatus with which we are acquainted is one which is so constructed that if the water-supply fails the gas flame is reduced to a minimum, thus preventing an explosion of steam should the water come on again, and other serious consequences. It is also furnished with a ventilator.

PLAGIARISM.

IT is, we believe, happily a rare thing for a contributor to this or any other medical journal to adopt as his own "original" contribution the writings of another author. Such, however, we regret to say, has been the case with respect to a paper contributed to these columns by F. W. Allwright, M.D., L.R.C.S.I., entitled "The History and Use of Anæsthetics in Midwifery" (1889, vol. i., pp. 983, 1239; vol. ii., p. 589), which, as our contemporary the *Medical News* (Philadelphia) points out, is practically a transcript of certain pages of the valuable article upon that subject contributed to "Hirst's American System of Gynæcology and Obstetrics," vol. i., by Dr. J. C. Reeve. The first volume of the "System" had been in our possession many months, but had not come up for critical notice, as we felt it would be more convenient to review the work as a whole, after the issue of the second volume, which has lately come to hand. Hence our failure to recognise the near identity of the two articles in question. We have communicated with Dr. Allwright, whose reply we subjoin, and who admits that his paper "obtained its foundation from" Dr. Reeve's article, but who does not seem to be aware of the gravity of the charge of plagiarism which has been fully substantiated against him. Nor does he even apologise to us for having used our pages as a medium for the publication of his unacknowledged transcript. We therefore feel bound to notice the matter thus publicly, and to express to our readers and also to Dr. Reeve our regret that the paper in question appeared in our columns. It is obvious that every journal must have complete confidence in its contributors, and that it is practically impossible to guard against such a practice as that referred to, which for the credit of our profession is, we are sure, of unusual occurrence.

"*To the Editors of* THE LANCET.

"SIRS,—In answer to your favour, the article mentioned obtained its foundation from the American 'System of Gynæcology,' but it was not intended to be a copy, nor, I think, is it. An article in 'Buck's Handbook of the Medical Sciences' contains similar facts upon the same subject, as, indeed, must any other history of the same subject. I am very sorry if an objection has been raised to the article appearing in print. I have practised both the method of administering chloroform and also that of ether which is suggested in the article for some time. Perhaps you will offer my apology, and that any offence against Dr. Hirst was unintentional.

"I am, Sirs, yours obediently,

"Brighton, Sept. 29th, 1889." "FRED. W. ALLWRIGHT.

ALCOHOL IN DISGUISE.

THANKS to the folly of mankind, the position of alcohol as a mischief-worker and destroyer of health is at least as eminent as that which belongs to it in virtue of its right and judicious use. We do not need to remind our readers that it has for long wrought, probably more for evil than for good, under other names than those under which we in this country recognise its familiar combinations. Under a variety of titles it exerts its influence as the potent body of the various liqueurs so common on the Continent. These contain, it is true, other ingredients of more or less stimulant character, but they owe their highly intoxicant qualities without doubt to the presence of a large percentage of alcohol. A fact which is not so generally known has, however, been brought to light in some recent returns, which prove that such apparently harmless compounds as "bitters" and "tonics" are also commonly alcoholic in a high degree. Samples examined have revealed the presence of alcohol to an amount varying from 20 to over 40 per cent. Of the legion of adulterations more or less poisonous which have been from time to time introduced into intoxicating beverages our space will not permit us to speak. It is probable that in this case the real stimulant is often the lesser evil. In the presence of such evidence as this, there can be no question that the machinery of official inspection must be made to work with considerably greater nicety than hitherto, if even one desirable end—the purity of known intoxicants—is to be assured. A somewhat simpler task, though till recently but little suspected, also presents itself to them, and to the too-confiding public—this is the detection and exposure of the fraud implied in selling strongly-intoxicant "non-alcoholic bitter tonics."

MEETINGS OF THE MEDICAL SOCIETIES.

THE Royal Medical and Chirurgical Society will hold its first meeting on Tuesday, Oct. 22nd, and the Clinical Society will commence on the following Friday, both being held in the new home of the former Society in Hanover-square. The new large meeting-room there will not be in a sufficient state of completion to be used, but accommodation will be provided in one of the new rooms of the Library. The Pathological Society will meet on Nov. 5th, and the next sitting of the Obstetrical Society will be on the 6th of that month. The Session of the Medical Society of London commences on Oct. 21st; the Lettsomian lectures will be delivered by Mr. Edmund Owen, the Annual Oration by Dr. E. A. Sansom; the subject for the Fothergillian gold medal for March, 1890, being "Peripheral Neuritis," and that for March, 1891, the "Temporary and Permanent Mental Derangements which follow Surgical Procedures." The Ophthalmological Society will meet on Oct. 17th.

EPIDEMIC OF ENTERIC FEVER AT ST. HELENS.

A VERY serious epidemic of enteric fever is prevailing at St. Helens, in Lancashire. Two hundred and fifty cases have within the last three months been notified to the sanitary authority, and it is estimated that about fifty more cases have occurred. In his last fortnightly report, Mr. McNicoll announced that sixty-five fresh cases and six more deaths had occurred, the total mortality having thus reached forty. The infectious hospital is more than full, and nurses are now being engaged to visit and care for groups of sick persons in their own homes. The cause of this large prevalence is by no means clear. By some it is put down to the tub system of excrement disposal, but it hardly seems likely that such a system, even if neglected, can be made accountable for an epidemic which is so widely diffused as the one under consideration. Tub closets, if a cause of nuisance, act as a rule only as a danger to health in the immediate vicinity in which they are situated.

A CORONER'S DECISION.

ON Sept. 20th, a strong healthy young man named John Owens was found dead in bed at Broughton-road, Dalton-in-Furness. On the evening previously to his death he had partaken of a hearty supper of bread and cheese and tea. A brother who slept with him could not say whether he was alive or not when he left him in bed in the morning. Mr. Plant declined to give a certificate of death, but the coroner on making inquiries issued his order for burial, stating that the deceased died from natural causes. Mr. Plant has publicly objected to the coroner exercising his jurisdiction in this

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summary manner, and, if the report of the case be true and complete, we think he is fully justified in doing so, as the case was essentially one requiring complete investigation. There are cases in which the life history of the deceased, taken with other facts, is sufficient to warrant the coroner in declining to hold an inquisition, and in such cases it would be culpable to waste the public funds. On the other hand, in cases like the present, it is not only expedient but obligatory that an inquest should be held and a post-mortem examination made.

CAUSE OF GASTRIC DISTURBANCE IN PHTHISIS.

DR. GRUSDEFF suggests that the gastric disturbances so frequently associated with phthisis may be, in part at least, due to the copious night sweats, and that the indigestion so often met with in soldiers may very probably be connected with the large amount of perspiration occasioned by their long marches and heavy fatigue duty. He has found by a series of experimental observations that when a large amount of perspiration is induced in healthy subjects, the acidity, the quantity of free hydrochloric acid, and the digestive power of the gastric juice are diminished, and also that the quantity of the fluid secreted by the stomach is less than under ordinary circumstances. These effects, too, are not so transitory as might be imagined; their extent and duration depend upon the condition of the individual, and on the amount of the perspiration. Under some circumstances they persist for twenty-four hours. No effect appears to be produced upon the pepsin of the gastric juice or upon the acids of the urine.

SIR W. B. DALBY.

WE regret to learn that Sir W. B. Dalby has been confined to his bed for the past three weeks from synovitis of the right knee-joint following a sprain. We are glad to be able to state, however, that a turn for the better has taken place, and that the fluid is being rapidly absorbed. Mr. T. Pickering Pick is in attendance, and thinks that his patient will in a week or two be convalescent.

THE SANITARY STATE OF THE GOVERNMENT OFFICES.

NEWS often travels by a somewhat circuitous route; and we are now informed, through the *Northern Whig* office, that renewed complaints are being made as to the sanitary state of some of the Government offices in Whitehall, where several cases of typhoid fever are alleged to have taken place during the last few months, and where the drains are said to be in a very unsatisfactory state. The two offices especially referred to are the Local Government Board and the India Office. There is also complaint as to the "accommodation" of the Government officials, and the blame appears to attach primarily to the Office of Works.

REPORTED DEATH UNDER NITROUS OXIDE.

THE death is announced of Lady Milne, wife of Admiral Sir Alexander Milne, of Inveresk, Midlothian, who is stated to have "succumbed to the influence of 'gas' in a dentist's shop in Edinburgh, where she had gone, in company with her husband and daughter, in order to have a tooth extracted. After the administration of the anæsthetic she never recovered consciousness, the cause of death being presumably due to weakness of the heart." It will be interesting to hear further details concerning this sad event, the number of fatal cases on record being extremely small.

PREVENTING A POST-MORTEM EXAMINATION.

AT an inquest recently held at Farnham, Surrey, it transpired that one of the witnesses (we presume a relative of the deceased) had forbidden a medical man to make a post-mortem examination, although the coroner had issued orders for such. The witness in question asked the coroner if it was not imperative for the doctor to produce his authority when required. The matter ended with the coroner censuring the witness in question. There can be no doubt that the latter acted illegally in obstructing the medical man in the exercise of his duty. At the same time, we are of opinion that the doctor should be prepared to produce the coroner's order if demanded.

DR. BURDON SANDERSON.

DR. BURDON SANDERSON has been suffering from a local inflammatory affection, which has kept him to his room for some weeks. He is now practically convalescent, but has been advised to take a holiday away from home for the present, and will probably be unable to resume lecturing until after Christmas.

DOCTORS IN THE FRENCH CHAMBER OF DEPUTIES.

THE following list of medical men successful as candidates for the Chamber during the recent election in France is given by *La France Médicale*, No. 113. Twenty out of the twenty-two are Republicans, and the number is expected to be doubled by the second ballot. Ain: Dr. Herbet. Allier: Dr. Gacon. Alpes (Basses-): Dr. Isoard. Alpes-Maritimes: Dr Th. David, dentist at Paris. Corrèze: Dr. Labrousse. Dordogne: Dr. Theulier. Drome: Dr. Chevandier. Finistère: Dr. Le Borgne and Dr. Clech. Garonne (Haute-): Dr. Mandeville. Gironde: Dr. Alcée Froin. Hérault: Dr. Vernhes. Loiret: Dr. Viger. Lot: Dr. Rey. Marne: Dr. Thomas. Nièvre: Dr. Ducoudray. Pas-de-Calais: Dr. Haynaut. Pyrénées (Basses-): Dr. Quintaa. Rhin (Haut-): Dr. Grizez. Saône-et-Loire: Dr. Lucien Guillemant. Tarn: Dr. Compayré. Vendée: Dr. Bourgeois. The last Chamber contained fifteen medical men.

DANGERS OF CELLULOID ARTIFICIAL EYES.

DR. MEURER, of the Lyons Ophthalmic Clinic, has published a paper warning medical men against the practice of ordering their patients who may require artificial eyes to get those made of celluloid. Such eyes are cheap, it is true, and have a good appearance. At first, too, they seem to suit very well, but after three or four months they appear to undergo some chemical change and set up a serious amount of irritation. He has repeatedly seen this inflammation disappear on the removal of the celluloid eye by means of simple antiseptic treatment; reappearing, however, as soon as the old eye was put in again, but remaining absent if a glass eye was substituted.

METROPOLITAN HOSPITAL SUNDAY FUND.

WE are glad to learn that this fund has now reached the sum of £41,600, an amount which is just £1000 in excess of the best collection in years past. This is a very satisfactory fact, and one that detractors of the fund will do well to consider.

"THE ELECTROPATHIC AND ZANDER INSTITUTE: A PROTEST."

WE are informed by our solicitors that the Medical Battery Company, Limited, have given formal notice of discontinuance of the action brought by them against the Proprietors of this journal for libel (*vide* THE LANCET, April 20th, 1889, page 804).

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THE report on the composition and quality of the metropolitan water-supply during the month of August, by Messrs. Crookes, Odling, and Meymott Tidy, shows that of the 175 samples examined two manifested a "very slight turbidity." The remaining 173 samples were found to be clear, bright, and well filtered. The improvement in the London waters apparent in July was well maintained during August. Dr. Frankland, in his analysis, states that, taking the average amount of organic impurity contained in a given volume of the Kent Company's water during the nine years ending December, 1876, as unity, the proportional amount contained in an equal volume of water supplied by each of the Metropolitan Water Companies and by the Tottenham Local Board of Health was:—Kent, 0·4; New River, 1·1; East London, 1·2; Colne Valley, 1·3; Tottenham and West Middlesex, 1·6; Southwark and Grand Junction, 1·8; Chelsea and Lambeth, 1·9.

THE Italian Pharmaceutical Association opens its second general Congress in Rome at the close of the present week. The members, upwards of 3000 in number, will be largely represented, many of the leading pharmacists from Turin to Palermo having signified their intention of assisting at the proceedings. Besides discussions on the new edition of the "Pharmacopœia Italica," on the status of the profession, and on its claims to recognition by the Government, the programme will include the special consideration of the higher culture of the pharmacist, for which object the universities will be memorialised to grant greater facilities; while, for the possessors of academic qualifications, the Ministry of Health will be approached with a view to their being made eligible for appointments in the department of State medicine, especially as directors of laboratories of chemistry in its application to public hygiene.

A SERIES of four demonstrations on the subject of Bacteriology are about to be given in Glasgow, by Mr. Ernest Maylard, to practitioners. They will be held in the Pathological Theatre of the Western Infirmary, on Tuesdays and Fridays, commencing on Friday, Oct. 18th, at 2 o'clock. They will be open free to all medical men on intimating to the superintendent of the Western Infirmary their desire to attend.

AT the meeting last Tuesday of the London County Council, on the motion of Dr. Longstaff, it was agreed, "That it be an instruction to the Sanitary and Special Purposes Committee to report to the Council as to the desirability of establishing public slaughter-houses throughout London, and as to the facilities which such a system would afford for the better inspection of the meat-supply."

MR. H. N. MILTON, medical officer at the Kasr-el-Aini Hospital, Cairo, informs us that Porro's operation was performed in the hospital on Sept. 5th. The child was extracted alive, the uterus removed, the pedicle tied with an elastic ligature, and fixed to the abdominal wound. Death of the mother occurred on the third day from septic peritonitis.

THE Gresham Lectures on Heredity or Inherited Characteristics will be delivered on October 8th, 9th, 10th, and 11th, at 6 P.M., by Dr. E. Symes Thompson, at Gresham College, Basinghall-street, E.C. The lectures are illustrated by diagrams.

DR. J. S. CAMERON, medical officer of health for Huddersfield, was on Wednesday last appointed medical officer of health for Leeds, at a salary of £700 a year and allowances, in place of Mr. Goldie, resigned.

AS will be seen in another column, the Committee for the proposed Voluntary Examination in Shorthand for Medical Students have made arrangements to hold this examination on October 11th. It will be interesting to observe to what extent the pursuit of this subject has been followed by those who are entering upon a medical career or who are already students of medicine.

IT is announced from Vienna that an "Anglo-American Medical Association" has been formed in that city (offices, 12, Landesgerichts-strasse), with the object of forming a reunion among the numerous English-speaking medical men who go there for study, and providing them with every information. Such an office, properly directed, should prove of great service.

THE French Congress of Surgery will commence its sittings on Monday next, the 7th inst., in the large amphitheatre of the Faculty of Medicine, under the presidency of Baron Larrey. The serious business of the Congress will begin on the following day.

THE sudden death on Wednesday last is announced of Mr. R. E. Power, L.R.C.P. Lond., L.R.C.S. Edin., the Governor of Woking Female Prison. Mr. Power was for many years medical officer of the Portsmouth convict prison.

MR. JONATHAN HUTCHINSON, jun., F.R.C.S. Eng., has been elected Assistant Surgeon to the London Hospital, in the vacancy caused by the resignation of Mr. Couper.

THE Harveian Oration will be delivered at the Royal College of Physicians on Friday, the 18th inst., at 4 P.M., by Dr. James E. Pollock.

DR. DAVID W. FINLAY, F.R.C.P., has been appointed Consulting Physician to the Royal Caledonian Asylum, in the room of the late Dr. G. Owen Rees, F.R.S.

THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

The British Food Section.—International Free Education Congress.

THAT we must eat to live and not live to eat is an excellent maxim; but, like many other hard-and-fast principles, it is exposed to inconsistent compromises when introduced into actual practice. In visiting the great galleries, the immense stretch of space allotted at the Exhibition to all that is embraced within the generic term "alimentary products," grave doubts will be entertained as to whether we do not live to eat instead of eat to live. The truth presumably lies somewhere between the two propositions; and, though we must eat to live, it is very certain that if eating is not rendered pleasant, we shall not live well. Prominent among the purveyors of food to the world, and acting evidently according to the middle course just suggested, may be mentioned the numerous exhibitors in the British Food Section. It is a curious fact that although France is essentially the country for *bouillon*, yet it is in the English section that the greatest number of broths are exhibited. And here a word of praise must be accorded to the displays made by Messrs. Brand and Co. with their essences of meat, peptones, meat lozenges, and other preparations useful in cases of prostration; as also to the various meat extracts prepared by Baron Liebig, Messrs. Mason and Co., Messrs. Johnston with their "Bovril," and by the manufacturers of "Bouillon Fleet," all of which find patrons amongst the visitors to the Exhibition. But intermingled with all these there are Yorkshire

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pies and turtle soups, sauces and various delicacies, which certainly suggest that it is worth while to live for the sake of eating. This is, indeed, the lesson of the whole section, and the only difficulty is to know how to select out of such an array of so many good things. Commendation is also called for by the displays made by Messrs. Macfarlane, Lang, and Co., of Glasgow, with their biscuits, fancy and otherwise, but notably a digestive biscuit called "Granola;" and by Messrs. Fry and Sons, with their chocolates and other sweets.

By the side of these food exhibits we have numerous stalls where British beverages tempt the thirsty foreigner. English beer enjoys, perhaps, an exaggerated reputation in France. Even in England we are seeking to imitate the German beers, which have the advantage of being much lighter. Thus, the Tottenham, export Pilsener beer has many admirers, whilst ordinary English ales, such as those exhibited by Messrs. J. Stocks and Co., of Halifax, Messrs. Shillingford and Co., and, again, Messrs. Mitchell and Co., of Smethwick, are in great demand. The large sale of English beer in France is undoubtedly a fact of growing importance. First, we are led to ask how far such beer can advantageously replace the wine usually drunk? Will the beer be purer, more free from adulteration than the wine? The increase of dipsomania has been very marked in France since wine has become difficult to procure in consequence of the phylloxera. Can beer, and especially English beer, advantageously take its place? By the immense preference given to German or Strasbourg beer, it would seem that this is not probable.

The increase of drunkenness, especially in the northern parts of France, is due, not only to the dearness of wine and the consequent sale of bad or semi-artificial wines, but also to the increased consumption of spirits naturally resulting from the difficulty of getting good wine. The question then arises whether English distillers could throw on to the French market more wholesome alcohols, and thus in a measure counteract the evil effects produced by the vile spirits drunk in France, especially by the poorer classes. One thing is certain: the Food Section contains some excellent English alcohols, amongst which may be specially mentioned the Irish whiskies of Bushmill's Old Distillery Co., county Antrim, and of Dunville and Co.; the Scotch whiskies of John Stewart, of Edinburgh, and Archibald Lander, of Glasgow; whilst English alcohols are well represented by Holland and Co., Deptford, whose gin seems of excellent and wholesome quality. The stall of the Salutaris Water Company also calls for praise. Important, as likely to promote the cause of temperance, if we admit that excess is largely due to the impurity of wines and spirits, is the very imposing show of the South Australian Wine Growers' Association. This is a collective exhibit, which has received a Government subsidy of £1000. No merchants or intermediaries are concerned in this exhibit; the wines come direct from the wine growers, and it is a Government agent who represents them. Of their purity there can be little doubt; the difficulty will be to get the wines into the hands of the public in a manner as direct as that by which they are exhibited in Paris. These wines reproduce, by imported vines planted and grown in South Australia, some of the most celebrated *crues* of Europe; some also that in Europe have ceased to exist. For instance, the Frontignan grape at Frontignan has been completely killed; but from Australia we now get a very good Frontignac wine. It is such wines—that is, sweet dessert wines—which have been most appreciated at the Exhibition. A wine named Sercial, grown in two or three of the largest vineyards of South Australia, seems to specially flatter the French palate. Then there is also the celebrated Tokay. The Australian Tokay is, however, somewhat lighter and sweeter than what I have tasted in Hungary. Some of these wines are very well suited for mixing with quinine and for other medical purposes. The clarets are about 20 per cent. stronger than French *vin ordinaire*, and, in proportion to strength, about the same price. Of course, they will stand travelling better, and also exposure. There is, or there should be, greater guarantee of their purity, and the supply is evidently destined to become unlimited. Thus, from Australia we may receive the answer to the vexed question how to give the masses a cheap, pure, and wholesome drink that, though stimulating, is not too strong.

An interesting International Congress has been held this week to promote the cause of free education; education free from dogma, from excessive official control, and absolutely *integral*. By this very useful French word the idea of completeness is conveyed; it means that everything is to be taught if the pupil is capable of learning. From the public health point of view the doctrines enunciated by this congress were important. M. Desmoulin, till quite recently Municipal Councillor of Paris, was in the chair at most of the sittings, but after the opening meeting held at the Hôtel de Ville the Congress, out of compliment to the foreign nationalities represented, elected Mr. Adolphe Smith (for England) as President, and Madame Polousky (for Russia) as Vice-President. There were a great many Russian and Polish teachers present, and delegates from Belgium, Italy, Mexico, the United States, and Switzerland. The greater number were teachers, but I noted also a few medical men, and the women delegates were nearly as numerous as the men. So far as the debates bore on questions connected with public health, the following were the principal points elucidated. Firstly, teaching was to be based exclusively on scientific principles, deductions from actual experiments. Instead of being told, the child was to be made to discover, if possible, that which it is desired to teach. Every natural proclivity was to be encouraged; a child should never be forced in any direction, and should never be overworked. The classes were to follow each other in such a manner as to provide the greatest possible change, and thus prevent weariness. But, above all, the children were to be fed, and well fed. The delegates were unanimous in denouncing the hardship endured by underfed children, and the impossibility of teaching under such conditions. The Swiss delegate declared that in primary schools of several cantons not only were free meals provided, but even articles of clothing were given away, so that the children of the poor should not suffer from cold while at their lessons.

For the preservation of the morality of children the congress was strongly in favour of mixed schools. Just as brothers and sisters were brought up together in the family, so ought boys and girls to work together at school, and they should have both masters and mistresses. Each sex had its special capacities, and the children should profit by both. There was far more decency when the sexes were together. Sometimes a master married one of the schoolmistresses; sometimes even among the children playmates later in life became husband and wife; but there was not that immorality which prevails to so large an extent in both boys' and girls' schools or convents where the sexes are separated. The experience of mixed schools in Switzerland and in Germany helped to confirm, the delegates maintained, these theories. Also there was far more emulation when the sexes were mixed.

Mr. Adolphe Smith introduced a resolution demanding that, "In view of preserving public health, it should be obligatory to teach in all schools and to both sexes the elementary laws of hygiene, including the principles of drainage, ventilation, and disinfection." He explained how the mortality in different centres of population in England had been reduced by one-third in consequence of the application of sanitary laws. But it was necessary that each person should be sufficiently acquainted with these laws to apply them in his own home and to vote for the election of such municipal councilmen, vestrymen, and members of Parliament as would promote wise legislation on the subject. For all these reasons it was necessary to teach the good doctrine early; and no better lesson could be given than the object lesson of a school properly built and free from all sanitary defect. In this respect it was fortunate that the Congress was international, for the Congress would have a great deal to learn from English schools so far as the drainage was concerned; but the English had much to learn from France with respect to the unilateral light and to the ventilation and warming of school-rooms which was more scientifically arranged in France. The Swiss delegate, in supporting the resolution, insisted forcibly on the necessity of building schools in accordance with sanitary laws; as the masters would be placed in an absurd position if they taught pupils principles of hygiene which were not applied in the *locale* where the lessons are given A Polish delegate protested that, while most persons talked of hygiene, very few persons knew anything at all about the question. It was time that the science was properly and systematically taught. The Congress then unanimously voted in favour of the resolution.

A considerable sensation was produced by Madame Chéliga-Loévy's report on the condition of education in

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Poland. Everything was done to prevent the free development of thought. The Government wanted doctors and engineers; but, on the other hand, looked on education as a danger, as a power that menaced social order. Hence the universities and the upper schools were checked in their development by all manner of prohibitory decrees. In one province, possessing 7,000,000 inhabitants, there were only twenty schools for secondary education. The children of poor parents were by law excluded from the universities, and only those who were very rich and considered favourable to the Government were admitted. The want of doctors, engineers, and educated men in Russia would soon assume the proportions of a national calamity. Madame Corradi, a Russian delegate, described the torture of children set to uninteresting tasks of Latin and Greek, taught like parrots, not allowed to think, and so uselessly and stupidly overworked that suicide among school children had become quite epidemic in Russia.

The Congress, at its last sitting, decided to constitute itself into an International Association of Educators, and M. Francolin, 174, Faubourg St. Denis, was elected international secretary. The Association will seek to promote in every country the cause of free and scientific education.

SANITATION IN BENGAL.[1]

THE Report of the Sanitary Commissioner for Bengal just issued comprises four subjects: (1) The vital statistics of the general population; (2) general history of the chief diseases; (3) sanitary work (civil); and (4) personal proceedings. As regards the first of these—the vital statistics of the general population,—the system of registration in Bengal is still so very imperfect that no reliance can be placed upon the returns either of births or deaths. Dr. Gregg gives several instances of the results of the imperfect registration of births, and remarks, "it is needless to observe that these figures are ridiculously inaccurate." As regards the deaths, the Lieutenant-Governor, in calling attention to fourteen municipalities in which the reported death-rate ranged between 6·67 and 12·79 per 1000, "is constrained to remark that these results are very discreditable to the municipal committees, especially in the case of those municipalities in which the Act has been in force for many years. It is obvious, as remarked by the Sanitary Commissioner, that the registration both of births and deaths is still so extremely defective that no trustworthy conclusions can be drawn from it, either with regard to the general health of the province, or the healthiness of the year under report, as compared with that of previous years." We hope, though we are by no means sanguine, that the steps recommended to be adopted to improve the registration may result in obtaining more reliable data on these important points.

The history of the chief diseases, though wanting in numerical accuracy as a measure of the death-rate of the people, may be usefully studied as indicating the chief causes of mortality and leading to a study of those measures by which they may be ameliorated or removed. The death-rate in the Province as shown by the returns amounted to 22·94 per 1000 of population, and of this 16·53, or upwards of two-thirds, appear under the head of fever. The months in which the mortality from this cause is highest are October to January inclusive, and those in which it is lowest are June and July. "The high mortality during the last three months of the year is undoubtedly due to malarial fever caused by the marshy and waterlogged condition of the country after the rains." The cause of fever was pointed out many years ago by Dr. D. B. Smith, the late lamented Professor of Hygiene at Netley, to be chiefly want of drainage, partial or complete stagnation of watercourses, and saturation of the soil with moisture. The adoption of a well-devised and efficient system of drainage, therefore, would appear to be the most likely means of combating this source of disease and death, and with it provision should also be made for the supply of wholesome water, as there can be no doubt that a considerable amount of fever is due to the impure and filthy quality of that which is too often the only available. The disease next in importance as a cause of death is cholera, by which in 1888 there were 11,391 deaths registered, being 1·68 per 1000 of the population at the last census. It was most fatal in May and July. "The departmental reports do not cast any new light upon the etiology of cholera. ..... The civil surgeon's reports, however, contain evidence which is in the main confirmatory of the view that outbreaks of cholera are traceable to pollution of drinking water, and that dissemination of the disease is largely dependent on water fouling." This affords an additional reason for improving the water-supply and protecting it from contamination. Of the other diseases none gave rise to a high death-rate; that from bowel complaints was 0·79 per 1000, and from injuries 0·40. Of the latter, wounds and accidents caused one-half, snake-bites and wild beasts one-fourth, and suicide one-tenth. It is worthy of remark that the number of suicides recorded was greater among women than men, in about the proportion of 3 to 2, but it is possible this may be a result of the defective registration. Under the head of "Sanitary Works (Civil)," Dr. Gregg calls attention to the very insignificant amount expended on sanitary works and improvements, such as drainage, water-supply, and public latrines, which are among the most urgent requirements of the province; and he also strongly advocates the disposal of the dead by cremation, which, he states, when completely and properly carried out, is free from anything offensive either to sight or smell. The abstracts of the inspection reports afford melancholy evidence of how little has been done to improve the towns since the last inspection, and of how much remains to be done before they can be deemed in a fairly good sanitary condition.

[1] Twenty-first Annual Report of the Sanitary Commissioner for Bengal for the year 1888, by Surgeon-Major W. H. Gregg, M.B.

HOSPITAL REUNIONS.

St. Bartholomew's.—The annual dinner of the old students of St. Bartholomew's Hospital was held on Tuesday evening in the great hall of the hospital, Mr. John Langton in the chair. About 120 sat down to dinner, and grace was said by the Vicar of the parish, which is completely covered by the hospital. The usual loyal toasts, as well as those of the school, the hospital, the visitors, the chairman, and the secretary of the dinner were drunk with enthusiasm. Dr. Hill, Master of Downing College, Cambridge, a former scholar of the school, was one of the guests of the evening, as also were Professors Humphry and MacAlister, the Registrar of the Royal College of Physicians, and Sir Frederick Abel. After dinner coffee was served in the library.

St. Thomas's.—On Tuesday afternoon the Medical Session at the School attached to this hospital was inaugurated by the usual delivery of an introductory lecture. Mr. W. Anderson gave the address in the afternoon at three o'clock in the large female operating theatre. Mr. Anderson had selected for his subject, the "History of Surgery," and throughout there was the greatest attention paid by the large audience present to a most interesting and learned address. At 6.30 P.M. the annual dinner was held in the Governor's Hall of the hospital, and there was a large meeting of members of the staff, and old and present students of the hospital. The chair was taken by Dr. John Harley, who, after the usual loyal toasts, proposed the "Army, Navy, and Reserve Forces," to which Surgeon Harris, A.M.D., Mr. Mackellar, and Sir W. MacCormac responded. To the toast of "St. Thomas's Hospital," proposed by the Chairman, Mr. J. G. Wainwright, one of the governors, and an almoner of the hospital for sixteen years, responded, in the absence of Mr. Alderman Stone, the treasurer. Mr. Wainwright referred to the financial condition of the hospital and to the good understanding which exists between the medical staff and the hospital authorities. Mr. John Croft proposed the "Health of the Chairman," who briefly replied. Mr. Nettleship, the Dean, responded to the toast of the "Medical School," proposed by Professor Charles Stewart. Dr. Ord proposed the "Old Students," and Mr. H. Lavers of Colchester and Mr. W. F. Haslam of Birmingham replied. The "Health of the Secretaries" (Dr. H. P. Hawkins and Mr. H. B. Robinson) was proposed by Mr. Sidney Plowman, and they each briefly replied. At the termination of the official toast list Mr. W. F. Haslam proposed the "Health of Mr. Plowman," the sentiments to which he gave utter-

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ance being enthusiastically received, and Mr. Plowman briefly replied.

Middlesex.—The annual dinner of the past and present students of this hospital was held on Tuesday evening in the Venetian Salon of the Holborn Restaurant. There was an unusually large number present, and the festival was most successful. Dr. Douglas Powell was in the chair, and was supported by nearly all his colleagues, by several members of the Weekly Board of the hospital, and by a large number of old Middlesex men. After dinner the usual toasts were duly honoured. In a very happy speech Dr. Powell proposed the toast of the evening, the "Middlesex Hospital and Medical School," which was responded to by Mr. Bell-Sedgwick, the vice-chairman of the Weekly Board, who has been a member of the board for over thirty-five years, and by the dean, Mr. Pearce Gould. The toast of the "Past and Present Students," proposed by Mr. Hulke, was responded to by Mr. Freeman, who is now mayor of Bath, and by Mr. Daniel, the senior Broderip Scholar. During the evening Mr. Wilhelm Ganz played a pianoforte solo, and Mr. Hulbert Fullerson and Mr. Charles Ganz sang various songs. The dinner, the speeches, and the music were all declared to be excellent.

St. George's.—At the conclusion of the introductory address by Dr. Clifford Allbutt on Oct. 1st, the usual ceremony of the distribution of the prizes was presided over by Sir Henry Pitman, and, after a few forcible and encouraging words to the students, the following honours and certificates were awarded:—Entrance Scholarships of £125 and £50, to Mr. A. R. Rendle and Mr. E. G. Little; £65 Scholarship for Oxford and Cambridge men, to Mr. G. E. Hale, of Cambridge; the Johnson Prize in Anatomy, to Mr. H. A. Hinge; the Pollock Prize in Physiology, to Mr. N. Elrington; the Acland Prize in Clinical Medicine, to Mr. W. K. Fyffe; Sir Charles Clarke's Prize, to Mr. F. Jaffrey. Mr. H. S. Barkworth obtained the Brackenbury Prize in Surgery, the Thompson Medal, and the Treasurer's Prize. The General Proficiency Prizes were obtained by Messrs. R. M. Walford and R. G. Turner. In the evening the annual dinner of the Medical School was held at the Métrôpole, under the presidency of Dr. A. T. H. Waters of Liverpool. In proposing the toast of the Medical School, the Chairman laid great stress on the want of additional space both for the school and the hospital, a suggestion which apparently met with the unanimous approval of the company present.

Guy's.—The winter session at Guy's Hospital opened with the first meeting of the Physical Society on Tuesday, Oct. 1st, at 8 P.M. Dr. Samuel Wilks occupied the chair and inaugurated the meeting with a kindly welcome to the new students of the hospital and a short address to the past and present Guy's men who formed a large portion of the audience. Dr. Barrs of Leeds then read a paper on "Some Recent Changes in Medical Education," which was well received; and the proceedings terminated with a vote of thanks to the chairman. Tea and coffee were provided, and there was a fine exhibition of photographs, pathological drawings, microscopic sections, and surgical instruments in the large rooms of the student's club.

King's College.—About seventy past students of King's College dined together on Tuesday, Oct. 1st, at Limmer's Hotel, Conduit-street, under the presidency of Dr. John Walters of Reigate. A very pleasant *réunion* took place, and the speeches of the chairman, Mr. T. H. Cheatle of Burford, Oxon., Mr. John Teale of Scarborough, and Dr. Gage Brown, C.M.G., were full of reminiscences of old King's College teachers and students. The Principal, Dr. Wace, replied to the toast of the King's College Medical School and Hospital, and the Dean, Dr. Curnow, proposed the health of Sir A. Rollit, LL.D., M.P., as the lecturer of the day.

The London.—On Tuesday, Oct. 1st, at 7 P.M., close upon two hundred old London Hospital men sat down to a substantial and well-served repast in the new library of the Medical College. Dr. Langdon Down, the senior physician to the hospital, presided, and was supported by Jonathan Hutchinson, Esq., F.R.S., President of the Royal College of Surgeons; F. C. Carr-Gomm, Esq., chairman of the Hospital Committee; Professor George Buchanan, Glasgow; and many other colleagues and friends. After the usual loyal toasts, "Prosperity to the College" was proposed by the chairman, and responded to in a humorous speech by Mr. Rivington, who compared the present state of the College with that of thirty years ago. Mr. Hutchinson proposed the health of his friend and fellow-student, the chairman. During the dinner a telegram was received from Sir Andrew Clark, conveying his sorrow at being unable to be present owing to indisposition, and great regret was expressed by all at his unavoidable absence. The "Health of the Visitors" was proposed by Mr. Frederick Treves, and replied to by Professor Buchanan and Mr. Carr-Gomm. During and after the dinner, which was provided and served by Mr. Holland, the manager of the Students' Club, instrumental and vocal music was provided by Mr. T. Lawler. Dr. Stephen Mackenzie, Mr. Rivington, and Mr. Openshaw acted as secretaries on the occasion. Shortly after 11 o'clock the company separated, after an extremely enjoyable evening.

Westminster.—The session was opened on Wednesday, in the presence of a majority of the staff and of a large number of students and friends, Professor Alexander MacAlister, F.R.S., of Cambridge, occupying the chair. After the dean of the school (Dr. Donkin) had presented his report, which gave a satisfactory account of the general condition of the school, and especially of the successes of the Westminster men at the various examinations, Dr. P. S. Abraham (Lecturer in Physiology) was called upon to deliver the inaugural address. The school prizes were then awarded by the chairman. The prizemen included Mr. A. S. G. Bell (Treasurer's Prize), Mr. W. H. Tebbs (President's Prize), Mr. Yearsley (Bird Prize), Mr. Llewelyn Lewis (Clinical Medicine Prize), and Messrs. Stonham, Byles, G. A. S. Bell, Garrard, Tebbs, Harrison, Brice, A. S. G. Bell, Yearsley, and others (various class prizes and certificates). Professor MacAlister then made some appropriate remarks, and congratulated the school upon its excellent results. In the evening, the staff, several of the governors of the hospital, and many of the past and present students of the hospital, dined together at the Holborn Restaurant, Dr. Dupré, F.R.S., being in the chair. The toast of the evening, the "Westminster Hospital Medical School," was proposed by Professor MacAlister, and other toasts were spoken to by the chairman, Dr. Allchin, Mr. Cowell, Dr. Sturges, Dr. Donkin, Mr. Macnamara, the Rev. Mr. Jones, the Rev. Mr. Echalaz, Dr. Pearse, Mr. Hunt, Mr. Sharman, and others. The proceedings were enlivened by a programme of music rendered by some of the students.

THE SANITARY CONGRESS.

THIS institute resumed its deliberations in congress at Worcester on Thursday, Sept. 26th, at the Guildhall, the president, Mr. G. W. Hastings, M.P., in the chair.

The prophylaxis of diseases.—Sir Douglas Galton, K.C.B., D.C.L., LL.D., F.R.S., in presence of a large audience, delivered an address on the subject of certain groups of diseases which were amenable to the control of preventive measures. These diseases were small-pox, typhus, enteric fever, scarlatina, measles, whooping-cough, diphtheria, cholera, and phthisis. They were now able to point with unerring certainty to the fact that, given certain conditions of impure air, impure water, and a soil saturated with filth, sickness and death from one or other of these preventable diseases would ensue. Commencing with small-pox, the lecturer said that, through vaccination and revaccination, that disease had been almost entirely obliterated in the German army, and largely in German cities. But in England we have not been so careful in enforcing either vaccination or revaccination, and we have suffered, even in recent years, from severe small-pox epidemics. Typhus fever, which was a common and very fatal disease at the beginning of the century, was essentially associated with overcrowding and destitution. It used to be the inhabitant of our gaols, under the name of "gaol fever," which was of so infectious a character that on more than one occasion the judge, the jury, and the bar caught the fever from the prisoners in the court. Typhus was essentially the disease of the pauper and badly housed elements of the community, but wherever it prevailed it might be caught by those around who were within the sphere of its influence. Scarlatina had no such relation to water-supply and drainage as had those other preventable diseases of which enteric fever is a type. Recent investigations appeared to make it certain that the cow suffered from a disease of the nature of scarlatina,

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which was in some way communicable to man through the milk. Hence the necessity of enforcing in our houses and farmyards sanitary conditions of cleanliness and pure air. The laws governing the spread of cholera were well understood by sanitarians. Figures showed that these zymotic diseases, which Dr. Farr has aptly called "filth diseases," had of late years been largely reduced by sanitary means. Sanitation necessarily meant the increased well-being of the people, and especially of the lower class. Epidemics could only be prevented by making the whole population sanitary, and the speaker proceeded to give some valuable advice on the subject of the conservation of the general health, concluding by producing a number of statistics showing the meaning of the preventable cause of death.

Chemistry, meteorology, and geology.—On the following day (Friday, Sept. 27th) Dr. J. W. Tripe opened this section with an address, taking for his special subject winds, with remarks on their sanitary effects. He commenced by minutely describing the constituents of the atmosphere, and considered the direction of the wind in relation to its effect on the general health. Easterly winds in this country were very trying, even to healthy persons, and often fatal to the young and old, causing more deaths in London when combined with fog in one week than the most violent blizzard. He accounted for certain outbreaks of infectious diseases by winds blowing in the direction affected. Some physicians, he said, doubted the possibility of small-pox infection being carried more than a few feet; but he could not understand how, if a disease be set up by a living organism, falling on a soil which it would develop, it should be able to infect a person at 20 ft. distance, and not at 100 ft., or even at half a mile. Surely a living organism could not be destroyed (oxidised) in its passage through the air for half a mile when the wind was travelling at the rate of only four miles an hour; and yet articles of infected clothing and scabs of small-pox they knew would retain infective power for months.

The proceedings of the Congress came to a close on Saturday, Sept. 28th, when Professor W. H. Corfield, M.A., M.D. Oxon., F.R.C.P., addressed a working men's meeting at the Worcester Public Hall on "the Mistakes made in Life and the Remedies for those Mistakes." In infancy parents should, above all, not make the mistake of letting their children be too thinly clad, nor commit the common mistake of supplying infants with improper food. The only proper food for children was that which nature provided—the mother's milk. Boiled bread, tea and starchy foods, should be especially avoided in the case of infants until their salivary powers had developed. The diarrhœa of infancy generally arose from improper feeding and rickets, called by foreigners the "English disease." One of the greatest mistakes, again, in the treatment of children was not to have them vaccinated before they were three years old. As to their exposure to cold, it was a monstrous mistake for parents to send out their children with bare necks, heads, and legs. Children ought to be clothed from head to foot winter and summer. Children required plenty of sleep, plenty of food, together with variety either in work or play. It was, however, necessary that children should go to bed early. The worst of all habits to acquire in youth was that of drinking alcoholic spirits at any time except at meals, and of drinking "nips." On the subject of teetotalism he would not trench. Under no circumstances should tobacco smoking be encouraged in youth. At manhood, the time of marrying and giving in marriage, he cautioned his hearers against intermarrying with members of families in which nervous or consumptive diseases were hereditary, as those diseases would be certain to recur in the offspring. At middle age the most common mistake was overfeeding, and in old age the wearing of scanty clothing leading to bronchitis.

HONG-KONG.

THE annual report of the Colonial Surgeon of Hong-Kong for 1888 shows the health of the Colony, as measured by the death-rate and mean sick of the troops and police, to have been unsatisfactory. Among the European troops the admissions into hospital were 1045, the deaths 12·46, and the mean sick 53·94 per 1000 of strength; among the Asiatic troops they were 803, 28·09, and 28·09 respectively. Although the admissions were lower than in 1887, the deaths in both classes and the mean sick of the Europeans were considerably higher. The deaths among the European and American residents were also much higher than in any of the preceding nine years; but as the numbers living are manifestly incorrectly stated, it is impossible to make an accurate comparison. The increase in the death-rate of the Europeans and Americans appears to have been due to an outbreak of small-pox, which caused 29 of a total of 122 deaths. The death-rate in the police force was 21·90 per 1000; among the Europeans 8·7, the Indians 18·0, and the Chinese 28·6 per 1000 of each class respectively. From an average daily number of 531 prisoners in Victoria Goal the cases of sickness amounted to 808 and the deaths to 28·25 per 1000, both much higher than in the preceding year. The high death-rate was due to choleraic diarrhœa, which was the cause of 7 in a total of 15 deaths. Two of the other deaths were those of prisoners killed in an attempt to escape from the chain gang, and one was by suicide in the cells. As in previous years, the mortality in the Tung Wa Hospital was very high, 1428 deaths having occurred among 2456 patients; 276 of the deaths were from small-pox, and 379 cases were moribund on admission.

In the appendix to the report is a paper on the prevalence of beri-beri among the water police of Hong-Kong by Mr. Atkinson, the Superintendent of the Government Civil Hospital. It appears that of 121 men of this force whom he examined, 17 have had the disease, and during the year 1888 it had been the cause of death of 5 men in a strength of 130. It is stated to be very common in Hong-Kong, and the treatment adopted would seem to bear out the opinion of the Director-General of the medical department of the navy of Japan that this disease depends, in a great measure at least, on the quality of the food of the men (*vide* THE LANCET, July 9th, 1887). In the water police the men provide themselves with food.

In the report of the Government analyst three investigations in connexion with cases in which symptoms of poisoning occurred are noted. The first was a case in which datura alba was supposed to have been mixed with a fish stew; the second was one of alleged tea drugging; and the third one in which twenty-two men of the band of the Northamptonshire Regiment were affected with "burning pain in the stomach and violent vomiting, causing partial collapse," supposed to have been caused by cheese, of which they had partaken for supper. In none of the cases could satisfactory evidence be obtained in confirmation of the charge of poisoning. In connexion with the hospital considerable improvements appear to be in progress, but are not yet completed. Mr. Ayres, moreover, points out the need for the construction of a suitable laundry with a small hospital disinfecting apparatus, and also a building for the reception of all cases of infectious diseases.

SOCIETY FOR THE STUDY OF INEBRIETY.

AT a meeting held on the 1st inst. (the President, Dr. Norman Kerr, in the chair), a paper was read by Mr. H. C. Trestrail, on Inebriety and some of the Circumstances leading thereto. The circumstances of birth, as exemplified in heredity, the use of alcohol during lactation, and defective education were dwelt on, the necessity for self-control being enforced. There should be education as to the action of narcotics. Inebriety was a disease demanding sound scientific and judicious medical treatment. The President, in replying to the question, Is there an arsenic inebriety, responded in the negative, though he had known iodine, arsenic, and other similar substances taken to excess. Only narcotics and anæsthetics, such as opium, alcohol, and ether, gave rise to a true narcomania, though a permanent impress might be made on the nerve-centres by any substances. It was resolved to memorialise the Home Secretary and Government to use their influence to promote the appointment of a Parliamentary Committee to inquire into the results of the working of the Inebriates Acts. Another resolution was passed approving of the leading principles of Mr. Charles Morton's Restorative Homes (Scotland) Bill—viz.: (1) voluntary reception and detention without appearance before a justice; (2) compulsory admission and detention of inebriates unable or unwilling to apply of their own accord; (3) provision at the public charge for the detention and treatment of impecunious

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inebriates. Among those who took part in the discussion were Messrs. Jabez Hogg, H. W. Williams, G. K. Poole, Hazell, Paramore, and Parsons (West Worthing).

EXTENSION OF MARISCHAL COLLEGE.

WITH a view to extending the University Buildings in New Aberdeen, the university authorities some time ago acquired several of the old houses adjoining the College, and, to make way for the present extensions, seven houses are to be cleared away. The new buildings are to be erected parallel to, and between, the south wing of Marischal College and Longacre, and will measure 168 ft. in length, 27 ft. in width, and 57 ft. in height, and will consist of four storeys. Amongst other conveniences, there will be two large animal observation rooms, a hygienic museum, a bacteriological laboratory, a materia medica practical class-room, a physiological practical class-room, a medical jurisprudence practical class-room, and numerous other departments connected with medical study, all designed on the most modern and approved principles. The new buildings, which have been designed by the Government architect for Scotland, Mr. W. W. Robertson, are to be ready for occupancy by March, 1891, and the total cost of the present extensions will be between £5000 and £6000.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Birmingham, City.—Last year, according to Dr. Alfred Hill, Birmingham attained the lowest death-rate it has ever been able to record—namely, one of 17·5 per 1000,—and considerable improvement existed as regards the more preventable diseases, such as fever and diphtheria. The authority are, however, very properly warned that some at least of this satisfactory state of affairs was due to exceptionally favourable climatic conditions; and we may now add that scarlet fever, which last year was just rising from its lowest ebb, has since then given evidence of how such diseases run in cycles; indeed, in 1888 that disease was still lying all but dormant. The infantile death-rate was also low in Birmingham last year in comparison with previous years. As usually, it was to an important extent made up of infantile diarrhœa, and to this disease Dr. Hill devotes some attention, quoting, among other things, the whole of Dr. Ballard's general report to the Local Government Board on the subject. The abolition of the filthy form of midden privy, heretofore almost general, is steadily proceeding; the need for a proper abattoir is becoming more and more pressing; the dairies, milkshops, and cowhouses are looked after, and are especially reported on; as are also the canal boats and the bakehouses. The infectious hospital received 528 cases of scarlet fever and 18 of small-pox, and resort to the hospital for the purposes of isolation is stated to be becoming more and more popular. An excellent disease chart, which, however, includes neither diarrhœa nor small-pox, appears in the report, in addition to other matter both tabulated and in the form of diagrams.

Bollington Urban District.—With a population estimated at 3900, Bollington had last year a death-rate of 18·2 per 1000. Mr. Allen's report is a brief one in so far as the sanitary circumstances of the district are concerned, but it is stated that back yards and streets are still in a very defective state as regards paving, that some improvement has taken place as to dwelling accommodation, that drainage and other nuisances have been attended to, and that the dairies, cow sheds, and milk shops have been inspected as heretofore.

Kingston-upon-Thames.—This district had in 1888 the lowest general and zymotic death-rates on record—namely, 14·2 and 0·68 per 1000 living, the population being 23,490. Diphtheria, formerly somewhat prevalent, almost disappeared last year, and Dr. Shirtliff desires to point out that this result has occurred concurrently with a system of disconnexion of house drains, although he declines to tie himself to the view that the two events are necessarily related to each other as cause and effect. A constant water-supply remains to be provided. The question of the disposal of the sewage is reported to have been most satisfactorily dealt with, and the dual system of notification is referred to as working in a harmonious way.

Ealing Urban District.—Assuming the population of this West-end suburb to be 22,800, Dr. Patten finds the death-rate to have been 10·9 per 1000 for last year. The zymotic mortality was also small; but Ealing is well prepared to meet any emergency by having an excellent isolation hospital, which continues to be resorted to by all classes, and especially by so-called private patients, who have a small isolation room to themselves. Private roads have been improved during the year, and there has been a continuation of good current sanitary work.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5501 births and 3285 deaths were registered during the week ending Sept. 28th. The annual rate of mortality in these towns, which had been 16·2, 16·9, and 17·0 per 1000 in the preceding three weeks, further rose last week to 17·9. During the thirteen weeks ending on Saturday last the death-rate in these towns averaged 18·6 per 1000, and was 1·6 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 7·9 in Huddersfield, 12·5 in Nottingham, 14·7 in Oldham, and 14·9 in Norwich. The rates in the other towns ranged upwards to 27·6 in Sunderland, 28·0 in Blackburn, 31·0 in Preston, and 32·7 in Plymouth. The deaths referred to the principal zymotic diseases, which had been 529 and 537 in the preceding two weeks, declined again last week to 529; they included 258 from diarrhœa, 67 from scarlet fever, 60 from diphtheria, 60 from whooping-cough, 56 from "fever" (principally enteric), 28 from measles, and not one from small-pox. These zymotic diseases caused no death last week in Derby, and the highest death-rates in Blackburn, Preston, and Plymouth. The greatest mortality from diarrhœa occurred in Sunderland, Newcastle-upon-Tyne, Bolton, Wolverhampton, Blackburn, and Preston; from scarlet fever in Blackburn and Plymouth; from whooping-cough in Plymouth and Wolverhampton; from "fever" in Salford, Portsmouth, and Halifax; and from measles in Newcastle-upon-Tyne and Norwich. The deaths from diphtheria included 44 in London, 4 in Portsmouth, 3 in Manchester, 3 in Salford, and 2 in Plymouth. Small-pox caused no death in any of the tweny-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and the London Fever Hospitals at the end of the week was 1247, against numbers increasing in the preceding thirteen weeks from 559 to 1171; 166 cases were admitted to these hospitals during the week, against 196 and 128 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 152 and 142 in the preceding two weeks, rose last week to 189, but were 34 below the corrected average. The causes of 69, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Salford, Oldham, Portsmouth, and in six other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Cardiff, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·1 and 16·4 per 1000 in the preceding two weeks, rose again to 18·8 in the week ending Sept. 28th; this rate exceeded by 0·9 the mean rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 9·5 in Perth, and 16·6 in Edinburgh and in Dundee, to 20·7 in Glasgow, and 25·2 in Leith. The 481 deaths in the eight towns showed an increase of 62 upon the number in the previous week, and included 30 which were referred to diarrhœa, 14 to

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whooping-cough, 11 to "fever" (typhus, enteric, or ill-defined), 9 to diphtheria, 6 to measles, 4 to scarlet fever, and not one to small-pox; in all, 74 deaths resulted from these principal zymotic diseases, against 79 and 74 in the preceding two weeks. These 74 deaths were equal to an annual rate of 2·9 per 1000, which corresponded with the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of diarrhœa, which had been 38 and 36 in the preceding two weeks, further declined last week to 30, of which 13 occurred in Glasgow, 7 in Dundee, and 5 in Edinburgh. The 14 deaths from whooping-cough were within one of the number in the preceding weeks, and included 9 in Glasgow and 2 in Edinburgh. The 9 fatal cases of diphtheria exceeded the numbers in recent weeks; 3 were returned in Leith and 2 in Dundee. The deaths referred to "fever," which had been 11 and 6 in the preceding two weeks, rose again last week to 11, and included 6 in Glasgow and 2 in Edinburgh. Five of the 6 fatal cases of measles were returned in Glasgow, and 2 of the 4 deaths from scarlet fever in Leith. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 61 and 66 in the preceding two weeks, further rose last week to 89, and exceeded by 10 the number returned in the corresponding week of last year. The causes of 58, or more than 12 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 18·6, 24·5, and 28·5 per 1000 in the preceding two weeks, further rose to 31·5 in the week ending Sept. 28th. During the thirteen weeks ending last Saturday the death-rate in the city averaged 24·0 per 1000, the mean rate during the same period being 16·5 in London and 15·9 in Edinburgh. The 213 deaths in Dublin last week showed a further increase of 10 upon the numbers returned in the previous three weeks; they included 23 which were referred to diarrhœa, 6 to "fever" (typhus, enteric, or ill defined), 1 to measles, and not one either to small-pox, scarlet fever, diphtheria, or whooping-cough. Thus the deaths from these principal zymotic diseases, which had been 20 and 31 in the preceding two weeks, were last week 30; they were equal to an annual rate of 4·4 per 1000, the rate from the same diseases being 2·4 in London and 2·0 in Edinburgh. The deaths attributed to diarrhœa, which had been 11, 15, and 18 in the previous three weeks, further rose last week to 23; the 6 deaths from "fever" showed a decline of 2 from the number in the previous week. The deaths of infants showed a considerable increase, while those of elderly persons had declined. Five inquest cases and 7 deaths from violence were registered; and 55, or more than a quarter, of the deaths occurred in public institutions. The causes of 43, or more than 20 per cent., of the deaths in the city were not certified.

THE SERVICES.

ARMY MEDICAL STAFF. — Surgeon David Middleton Greig, M.B., resigns his commission (dated Oct. 2nd, 1889).

ARMY MEDICAL RESERVE OF OFFICERS. — Surgeon Charles Arrol, M.D., 3rd Volunteer Kent Brigade, Cinque Ports Division, Royal Artillery, to be Surgeon-Major, ranking as Major (dated Oct. 2nd, 1889); Surgeon Richard Joseph Bryden, 3rd Volunteer Brigade, Cinque Ports Division, Royal Artillery, to be Surgeon, ranking as Captain (dated Oct. 2nd, 1889).

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Surgeon John Cashin has been placed on the Retired List of his rank; Surgeon Matthew Digan has been allowed to withdraw from Her Majesty's Naval Service, with a gratuity.

The following appointments have been made:—Surgeon John J. A. Costello to be Surgeon and Agent at Carnsore and Rosslare (dated Sept. 26th, 1889); Staff Surgeon Thos. M. Sibbald to the *Canada* (undated); Staff Surgeon George D. Twigg to the *Royalist*, Staff Surgeon Archibald M'Kinlay to the *Egeria*, Staff Surgeon John B. B. Triggs, M.B., to the *Pylades*, Staff Surgeon George W. Bell to the *Tourmaline*, and Staff Surgeon Henry J. Madders, M.D., to the *Hecla* (all dated Oct. 6th, 1889); Surgeon Bowen S. Meuds to the *Canada* (dated Oct. 6th, 1889); Surgeons George Wilson, M.B., and Harold F. D. Stephens, M.B., to the *Pembroke* (both dated Sept. 27th, 1889); Staff Surgeon Michael J. M'Carthy, M.D., to the *Cruiser*, and Staff Surgeon James Porter, M.A., M.B., to the *Scout* (both dated Oct. 3rd, 1889); Surgeon Charles W. Sharples to the *Melita*, Surgeon Octavious W. Andrews, M.B., to the *Duke of Wellington*, and Surgeon Francis M. Puddicombe to the *Royal Adelaide* (all dated Oct. 3rd, 1889).

VOLUNTEER CORPS.—1st Volunteer Battalion, the King's (Shropshire Light Infantry): Acting Surgeon F. K. P. Pigott to be Surgeon (dated Sept. 28th, 1889).—*Memorandum:* Infantry Volunteer Brigade—Eastern Counties Brigade: Surgeon and Surgeon-Major S. M. Hopson, 3rd Volunteer Battalion, the Norfolk Regiment, to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Sept. 28th, 1889).

PROFICIENCY EXAMINATION FOR VOLUNTEER MEDICAL OFFICERS.—An order has been recently issued from the Home District Office notifying, for the information of Officers commanding Volunteer Corps, that the examination of Volunteer Medical Officers for certificates of proficiency on Army Form E 564 will in future be held quarterly on the first Tuesday in each quarter, commencing October 1st, 1889. Names of medical officers desirous of attending these examinations should reach the Home District Office at least a week before the date of examination. In order to prepare medical officers for the examination to be held next January, a course of six lectures will be given by Surgeon Walter Pearce, M.D., B.Sc., 20th Middlesex (Artists) Rifle Volunteers, on Thursday, Nov. 7th, 1889, and following five Thursdays, at the Headquarters of the Queen's Westminster Rifle Volunteers, Buckingham-gate, St. James's-park, S.W. For further particulars application should be made to the Hon. Secretary, R. R. Sleman, 7, St. Benet-place, Gracechurch-street, E.C.

Correspondence.

"Audi alteram partem."

THE USE OF THE ELECTRO-MAGNET IN OPHTHALMIC SURGERY.

To the Editors of THE LANCET.

SIRS,—The efficacy of the electro-magnet in the removal of fragments of steel or iron from the interior of the eye has been attested by too many to permit of any question as to its value; moreover, it rightly finds a place in all the text-books on ophthalmic surgery. I confess, then, it is somewhat disappointing to find a clinical lecture by Dr. Jeaffreson advocating, without allusion to the magnet, methods for removal of splinters of steel or iron from the iris, which were all very well some years ago, but are, to say the least, crude with the knowledge we now possess as to the capabilities of magnets and electro-magnets. There can be no question that numbers of eyes have been saved by the timely use of the electro-magnet which would otherwise have been lost; and it is the sense of this fact, founded on large experience of the employment of the electro-magnet and of accidents previously to its introduction, that impels me to write these few lines. From different regions of the eye I have removed seventy-three fragments of steel or iron; many of these I have recorded from time to time, and the whole have been incidentally alluded to in my address[1] as President of the Yorkshire Branch of the British Medical Association. Of this number, eight have been from the iris and anterior chamber. In such a case of foreign body in the iris as Dr. Jeaffreson mentions, the electro-magnet would have been valuable in two ways: 1. On approaching the electro-magnet to the cornea the presence and nature of the foreign body would have been immediately evident by its springing forward to the back of the cornea, or, if entangled much in the iris, by its dragging that membrane towards the magnet. In some cases it is possible to guide the foreign body in the anterior chamber to a convenient locality for removal, and then to drop it on the iris at the selected point. 2. After making a small corneal incision and advancing the point of the electro-magnet to or inside the wound, the fragment would have been extracted adhering to it, and very probably, as generally happens, without any necessity for removing a segment of iris. Such cases have not only occurred in my own practice, but in that of others,

[1] Brit. Med. Jour., July 13th, 1889

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and it was my good fortune to be present at Moorfields some years ago, when Mr. G. Lawson extracted with my electro-magnet a splinter of metal from the anterior chambers of two patients.

I will merely add that my observations on the use of the magnetic needle, with cases illustrating its value, were put on record some years since.—Yours truly,

Sheffield, Oct. 1889. SIMEON SNELL.

MEDICAL AID ASSOCIATIONS AND FRIENDLY SOCIETIES.

To the Editors of THE LANCET.

SIRS,—An attempt having been made here to start a branch of the National Medical Aid Company, and a Medical Aid Fund for the familes of a Lodge of Oddfellows, a meeting of the medical men of this district was called to discuss the question, and, as a result, the following pledge has been signed by twenty-one out of twenty-three of those either in or retired from practice; one of the exceptions is a retired surgeon, the other a practitioner who has promised to sign it as soon as he is free from his medical refereeship, of which he has sent in his resignation to the National Medical Aid Company. Such societies have been so disastrous elsewhere to our profession, that we feel it necessary to make a stand against their establishment here. I subjoin a copy of the pledge, in order that our profession in other places may be encouraged and strengthened against such combinations against its welfare:—

"We, the undersigned members of the medical profession of Malvern and its neighbourhood, taking into consideration the fact that there are well-established provident dispensaries in our midst, pledge ourselves not to undertake the care of families of members of friendly societies at a contract rate of payment."—I am, Sirs, yours faithfully,

Malvern, Sept. 30th, 1889. STANLEY HAYNES, M.D.

NAPHTHALIN.

To the Editors of THE LANCET.

SIRS,—Referring to the article on naphthalin in THE LANCET of last week, I should like briefly to draw attention to the great temporary value of this antiseptic in cases of infantile diarrhœa and fetid urine. Rickets—by far the greatest creator of infantile diseases, the neurosis maker, the slime producer on respiratory, colonic, and vesical mucous membrane, and the bone deformer—is the chief parent of stinking stools and foul urine. Naphthalin in cachets, containing two grains for each year of the age of the infant, and given twice or three times a day, will alleviate the path of recovery whilst the dietetic errors are being rectified. Naphthalin will not restore health to any mucous membrane flabby from rickets, but it will tend to do so, assisting in the process of recovery. A return from a rachitic constitution to a healthy one can never be brought about unless an attempt be made to increase vitality, whilst the metabolism is brought back to healthy modes of working by, in one word, a diabetic diet. The treatment of rickets, for one week at least, is the treatment of diabetes. A meat diet even without milk, persevered in for a few days, has caused slimy, worm-infested motions to disappear, bronchitis to subside, and nocturnal restlessness to be replaced by calm, refreshing sleep.

I am, Sirs, yours faithfully,

Oct. 1st, 1889. ANGEL MONEY.

INFECTIOUS DISEASE IN LONDON.

To the Editors of THE LANCET.

SIRS,—In view of the remarks made in the first paragraph of your leading article of last week, may I ask you to favour me by inserting in your next number a copy of a letter which I wrote to Mr. Ritchie when the Notification Bill was in Committee.

I have the honour to be your obedient servant,

EDWARD SEATON.

George-street, Hanover-square, Oct. 2nd, 1889.

"August 4th, 1889.

"To the Right Hon. C. T. Ritchie, M.P., President of H.M. Local Government Board.

"SIR,—Having been one of the earliest advocates of the notification of infectious diseases to sanitary authorities, and having taken an active part in securing its adoption and its subsequent practical working, I may address you on the Bill which is now in Committee, and which will soon become an Act of Parliament. I understand that the London County Council is promoting, or intending to promote, an amendment that notification should be made to them. If this proposal means that the County Council claims to be the first to be informed of the existence of infectious disease, I beg to remind you that, at present, that body has no executive duties with regard to those diseases; and that to make it in the first place the recipient of the information would be to the disadvantage of "the executive"—viz., the vestries and their medical officers of health, and consequently to the public. If the proposal means that the County Council desires to receive information periodically as well as the Metropolitan Asylums Board, then it would be easy for them to obtain that information from the Asylums Board, which, as the hospital providing authority for London, is part of "the executive" and has a well-recognised claim on medical officers of health. Information obtained from that Board or given by it once a week would be surely sufficient for any purposes the County Council may have in view. There is precedent for such a course in the case of your honourable Board's medical department, which receives information once a week from the medical officers of health in the notification towns. I cannot think of any valid reason why the County Council should have earlier or more frequent information than that which is supplied to the medical department of your Board.

"I beg respectfully to submit my representation and argument to your consideration, and have the honour to be

"Your obedient servant,

"EDWARD SEATON."

THE MAYBRICK CASE.

To the Editors of THE LANCET.

SIRS,—If judges and juries could see through Dr. Kerr's spectacles would-be poisoners would have a good time of it. When he says that the evidence on every point was very much stronger against Miss Smith than against Mrs. Maybrick, he surely forgets that on the first indictment against the former the verdict was "innocent." I have spoken to many here on the subject of the Maybrick trial, and I have only met with one who did not consider the case "proven" against the prisoner. I leave Dr. Kerr to his own opinions, but believe I am justified in saying that his suggestion that a Scotch jury would have brought in a verdict of "not proven" in the Maybrick case is an imputation on the national intelligence which must be repudiated.

I am, Sirs, yours truly,

Partick, Glasgow, Sept. 30th, 1889. R. KIRK, M.D.

*** The discussion of this subject must now cease.—ED. L.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Scarlet Fever in Birmingham.

AT present there seems to be no abatement in this epidemic. Seventeen new cases were reported on Monday last, as against eleven on the Monday preceding. Seven patients were discharged from the Borough Hospital and eight were admitted. The new wards have been rapidly built, and now afford increased accommodation for forty patients; the number in the hospital stands at 320, so that the additional space will enable the authorities to provide ample room for the purpose required. A letter has been addressed to the local press by the Chairman of the Health Committee, stating that the danger has been much exaggerated. He points out that the city at the present time is suffering from one of those recurring periods when scarlet fever reaches the height of its development, and that, owing to the improved sanitary condition of the town, and the steps taken for isolation and treatment of the patients; the visitations occur at much longer periods and made no appreciable addition to the death-rate. Thus, "during the decade 1870 to 1879 the number of deaths from scarlet fever in this city averaged 419·1 per annum, the numbers in the years 1874 and 1878, when the scarlet fever waves reached their highest points, being 737 and 995 respectively; while during the nine years 1880 to 1888 inclusive they only averaged 114·7 per annum, and up to Sept. 27th the number for this year has been but 87." These facts are conclusive in themselves, and when it is added that most of the cases are of a mild type, it will be recognised that the causes for alarm are not so great as many people are inclined to believe. Among the hospital nurses all the infection has been of a light kind, and, with the exception of two, they are all convalescent. Mr. Eustace Hill, whose condition was at one time reported as dangerous, I am glad to learn is in a fair way of recovery.

Queen's College.

The annual conversazione and distribution of prizes took place on the 1st inst., the Warden, the Rev. W. H. Poulton, presiding. It was stated that the total entry in the medical

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department for full and partial curriculum had been 59, and the number of students on the books 224. This was the first year in which the number of the students had exceeded 200. The passes obtained by students during the year had numbered 178, and of these 3 were at intermediate and 6 at final university examinations, and 128 at intermediate, and 41 at final examinations of licensing corporations.

Mason College.

The opening of the tenth session, and distribution of prizes, took place on the 1st inst. An address was given by Professor R. S. Heath, Chairman of the Academic Board. It was pointed out that there were 704 students in attendance during the past session.

Birmingham, Oct. 1st.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Opening of the College of Medicine of the University of Durham at Newcastle.

THE handsome pile of buildings erected for the College of Medicine of the University of Durham, and of which the Duke of Northumberland laid the foundation-stone about two years ago, was formally opened by the Mayor of Newcastle to-day. There was a large attendance of the profession, students, and the general public, and the proceedings were lively and interesting, and passed off very successfully. The College, which provides for every requirement of students and professors, is designed in the Elizabethan style, stands in a convenient situation, and is built of red brick with terra-cotta dressings, except the mullioned windows and entrance archway, which are of stone. I described the interior arrangements in a previous letter. Dr. Heath, the President of the College, said that so far the building had cost £31,000, and there was still a debt of £10,000 upon it. He made a stirring appeal to the public spirit of the inhabitants of the district for their aid in the removal of this debt, the completion of the building, and the endowment of the chairs, which he said would cost £40,000 altogether. Dr. Heath then delivered an eloquent address on sanitary science, and finished by handing the treasurer the handsome gift of 1000 guineas. It may be remembered that Dr. Gibbs of this city at the commencement of the building also gave £1000 towards the fund. The veteran Dr. Embleton was present, and was congratulated on his good health and spirits. Dr. Embleton, it may be mentioned, was a student in the old and original school of medicine in Newcastle, which was then carried on near the town walls about fifty years ago. To-night a very large attendance is expected at the conversazione in the college.

Hartlepools.

The Marquis of Londonderry last week inaugurated the new Headland Promenade at Hartlepool. It is a sea wall and a massive work costing £25,000. It slopes in thickness from eleven feet at the bottom to eight feet at the top, and varies in height from twenty-one to twenty-seven feet. It stretches from the Corporation-road to the Lighthouse, and placing a broad-based wall in front of the crags that were irregularly worn, a promenade of magnificent proportions is provided for the inhabitants of this ancient borough, whose mayoral list reaches back to 1315. Another function was performed at the same time by Lord Londonderry—namely, the opening of the extension of the Hartlepools Hospital which owes its original erection largely to the munificence of the Burdon family, and which it has been found needful to enlarge to meet the growing needs of the Hartlepools and their increasing population. At all events this extension fully provides for the present wants of the two towns. Lord Londonderry's tasks on the opening day would see the happy completion on our coast of works of difficulty, and objects of usefulness costing together close upon £35,000.

Middlesbrough.

The Middlesbrough Trades Council held their annual Hospital Sunday demonstration on Sunday last under the most auspicious circumstances. They marched through the town in large numbers to the Theatre Royal, where the Mayor (Major Raylton Dixon) presided, whose name is well known in connexion with hospital and ambulance work. The collections which were taken *en route*, and would be devoted to the North Riding Infirmary and Cottage Hospital, considerably exceeded those of last year.

Newcastle-on-Tyne, Oct. 2nd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

EDINBURGH.

Edinburgh University Gathering.

THIS year the admirable example set by Oxford last year has been followed by Edinburgh, and, before the commencement of the regular session, there has been instituted a series of lectures to those interested in science, art, and literature, who have not the opportunity of attending more extensive courses. A most influential committee of ladies and gentlemen has taken the matter in hand, and so far as can be judged from the continued attendance at the lectures, the movement has been attended with most marked success. The objects of the gathering are stated to be—1. To draw public attention to the means provided in the university extension scheme for improving the knowledge and elevating the tastes of the people. 2. To give all who have not had the benefit of a university training an opportunity of getting a little experience of university life, and to awaken in some, if possible, an enthusiasm for some definite line of study. 3. To consider as to organising a reading circle for Scotland. The committee have certainly been most wise in the selection of their lecturers. Professors Tait, Masson, and Crum Brown could scarcely be equalled, and, certainly, not excelled, in any list that could be drawn up. In the section which is of most interest to medical men, that of biological science, Professor Crum Brown leads the way, and is followed by Professors Cossar, Ewart and P. Geddes, and Drs. Barry Haycraft, A. P. Aitken, G. Sims Woodhead, and J. Arthur Thomson. It is, perhaps, fortunate that this gathering takes place during the period that the post graduate classes are being carried on, so that those who wish may listen to some of each of the sets of lectures, and, if they feel so inclined, may attend the conversazione, the special service in St. Giles' Cathedral, or some of the numerous and interesting excursions that have been arranged in connection with the gathering. Edinburgh men might take a note of this, as a factor to be taken into consideration when next year's plans are being matured.

Legacies to Edinburgh Medical Charities.

During the year to 30th September, a sum of £30,444 14*s.* has been left to the Edinburgh Royal Infirmary in the form of legacies and donations of £100 and upwards, and the Convalescent Home has been the recipient of no less than £3237 19*s.* 8*d.*

Edinburgh Health Reports.

During the quarter ended September the death-rate was 14·49 per 1000 of the estimated population, as compared with an average of 15·64 for the last five years. Diseases of the chest accounted for 24·20 per cent., and zymotic diseases for 9·30 per cent. In the Fever Hospital the number of cases admitted during the quarter was 338, and 253 were discharged. The daily average number of patients in hospital has been comparatively high this year: 131, as against 78 in the corresponding quarter of last year. Thirty patients died. It is seen from the report that a step in the right direction has been taken in respect to compensation for confiscated meat. During last month 10,289lbs. of unsound meat were seized as unfit for human food. In the case of one animal suffering from tuberculosis £18 4*s.* 9d. was paid in compensation.

Chair of Physiology in Dundee.

The only Edinburgh name mentioned as yet in connection with the new Chair of Physiology in Dundee, is that of Dr. Noël Paton. Should Dr. Paton decide to compete there can be no doubt that his reputation as a scientific worker and a most successful teacher would gain for him much support in his candidature.

Edinburgh, Oct. 1st.

GLASGOW.

The City's Population in 1889.

Dr. Russell, having obtained the data on which he calculates the population of the city proper every year—namely,

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the return of inhabited houses within the municipality as at June 1st—now sets the number down as 551,478 persons; adding to this 6126, the number of inmates in institutions, as ascertained by special census, the total population is found to be 557,604. This is arrived at by multiplying 116,223 (the number of occupied houses) by 4·745 (the average number of inhabitants per house in 1881). We have thus an increase of 1360 houses over last year, and of 6169 souls. The following is a table of the successive movements of the population since last census in 1881:—

1881 to 1882	increase	19,166 or 3·74	per cent.
1882 ,, 1883	,,	10,228 ,, 1·92	,,
1883 ,, 1884	,,	4,250 ,, 0·78	,,
1884 ,, 1885	decrease	2,383	
1885 ,, 1886	increase	2,025 ,, 0·37	,,
1886 ,, 1887	decrease	1,325	
1887 ,, 1888	increase	7,440 ,, 1·37	,,
1888 ,, 1889	,,	6,169 ,, 1·12	,,
At inter-census rate ..	,,	2,056 or 0·39	,,

Medical Education for Women in Glasgow.

There seems to be some prospect of this matter being taken up in Glasgow, even during the present winter. St. Margaret's College has it under consideration, but there are difficulties in the way, especially as regards provision for clinical instruction. The teachers in Anderson's College medical school are understood to be favourable to the admission of women to their classes, and to be ready to undertake the management of "mixed" classes of male and female students. The Victoria Infirmary, to be opened in January next, would provide an excellent field for the clinical training of ladies, and the governors of that Infirmary are now considering the advisability of throwing their wards open to female students. If this is done, and if the governors of Anderson's College see their way to the admission of ladies to their classes, the work of the medical education of women, which has so far been confined to Edinburgh (among Scottish schools) might be carried on most successfully in Glasgow.

Inspection of Dead Meat.

The Town Council have determined to ask Parliament for powers for compulsory inspection of all dead meat brought into the city for human food. This is intended to bring foreign and American dead meat under inspection as well as that slaughtered in this country. It is well known that enormous numbers of carcases of oxen and sheep are brought into this country from abroad, and that these escape the inspection to which home-fed carcases are subject.

Public Health.

DURING the fortnight ending Sept. 21st there were registered 375 deaths, as compared with 410 in the preceding fortnight. This represents a death-rate of 18·5 per 1000 living, in place of 20·2 (or 17·5 in place of 19·1, according to the new estimate of the population noted below).

Glasgow, Oct. 1st.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Health of Dublin during 1888.

THE report of Sir Charles Cameron, medical officer of health for Dublin, upon the state of public health in that city during last year has been issued, and is one of great interest and well worthy of perusal. In 1888 the births in the Dublin registration district numbered 9884, or 28 per 1000, the average rate for the preceding ten years being 29; while the deaths amounted to 8894. Omitting 233 deaths of persons admitted into public institutions from places outside the Dublin registration area, the death-rate was 24·5, which was 3·9 below the average. Deaths from the principal zymotic diseases amounted to 983, or 2·8 per 1000 persons living. When we examine the city proper, we find that the total deaths from all causes was 6714, as against 8373 in 1887. The death-rate was equal to 26·22, the rate in 1887 being as high as 33·2. Of zymotic diseases, small-pox caused 1 death, measles 70, as against 423, and typhus fever only 25 deaths. Typhus fever has for some time past seemed to be dying out; whilst, on the other hand, enteric fever was more prevalent than usual during the year, 124 deaths having taken place, or an increase of 29. The most fatal zymotic disease during 1888 was whooping-cough, no less than 221 deaths from it being registered, as contrasted with 143 in the previous year. The greatly lessened mortality of 1888 may be chiefly attributed to a falling off in the number of deaths from zymotic diseases and constitutional maladies. As regards infant mortality, it may be fairly alleged that the high death-rate of towns is chiefly due to an excessive mortality of the children of the poor. Measles and other diseases which are rarely fatal in well-to-do families are formidable diseases in the homes of the very poor. The number of deaths of children uncertified in Dublin is something incredible, and is almost as great as the number in London with its immense population. It is, however, satisfactory to learn that in 1888 there has been a considerable decline in the death-rate among children under five years of age. The infantile death-rate was much greater in Dublin last year, as contrasted with London, both as regards its relation to the number of children under one year of age and the number of births, the latter being the most reliable test of infant mortality in a community. As pointed out by Sir Charles Cameron, the really serious factor affecting the death-rates is age-distribution. If it is identical in two towns, then the death-rate in both should be equal, and, if not equal, then that in which it is higher is clearly the more unhealthy.

Meath Hospital and County Dublin Infirmary.

The winter session of 1889–90 will be inaugurated on Monday next, Oct. 7th, when an introductory address will be delivered in the institution at 10 A.M. by Sir George Porter, Bart., senior surgeon to the hospital. The same evening the annual dinner for the *réunion* of old students, annual and life governors of the hospital, will take place at 7 o'clock at the Shelbourne Hotel. Sir Howard Grubb, F.R.S., one of the governors, will preside. Application for dinner tickets must be made on or before Saturday, Oct. 4th, to the honorary treasurer, Dr. L. Hepenstal Ormsby, 92, Merrion-square West. One or two guests may be invited by each governor or old student. It is expected that this *réunion* will be largely attended, judging from the number of names sent in already to the hon. treasurer by gentlemen intimating their intention to be present.

County Wexford Infirmary.

In consequence of the decease of the late surgeon—Mr. Henry H. Boxwell—a vacancy arose, and the governors last Monday met at the infirmary to elect his successor. There were two candidates; Mr. David Hadden, F.R.C.S., being elected by a majority of votes. The emoluments of the post are £120 per annum and a house.

Dublin, Oct. 1st.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Are Professional Services Obligatory?

IT is generally believed in the profession, at all events throughout England and France, that medical men not engaged in public practice or bound by any contract, are free agents, and at liberty to give, or to decline to give, as may to them seem fit, their professional services. It would be news to most of them to learn that in accepting their diplomas they *ipso facto* undertook to discount their liberty of professional action by engaging to be at the beck and call of public authorities or private individuals whenever these might deem it proper to requisition their skill or expert opinion. That, however, the point is a moot one, at least, so far as France is concerned, is evident from the facts which I am about to relate. The liberty of the subject is questioned, and would even appear to be considered restricted, when the subject happens to be a medical man. Curious as this may sound in the nineteenth century, it is nevertheless true. We all know, and often to our cost, that there are many things touching the affairs of members of our profession about which the law appears to be by no means settled; but not many will be prepared to hear that our freedom of action is one of them. The matter is now being brought to an issue in the town of Rodez, where the relations between the medical practitioners and the local authorities have for the past two years or more been somewhat strained. Many things, which it would be useless for my present purposes to recount, have as time went on tended to render these relations more and

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more strained, until they finally culminated in the open rupture which has now taken place. On Aug. 25th last the daughter of a farmer of Solsac, in Aveyron, disappeared from her home. Three days afterwards her body was found, and the local authorities were of course immediately on the alert with a view to elucidate the cause of the girl's death. With this object they sought the assistance of the medical men, one after another, in the immediate neighbourhood and the surrounding district, every one of whom, for various reasons which he stated, declined giving his services. The Procureur-Général of Montpellier was then applied to for advice, and he responded by promptly summoning the medical men before the local police-court, founding his charge against them on, as he alleges, the contravention by the doctors of Article 475 of the Penal Code, which runs: "Those who, being able, refuse either to take the necessary precautions, to give the services, or to lend the assistance which may be required of them in times of accident, riot, shipwreck, flood, fire, or other calamity, as well as in cases of brigandage, pillage, *flagrant délit*, public disturbance, or judicial execution, will be liable to a fine of from 6 to 10 francs inclusive." The matter under this heading came before the local court on Sept. 20th, the doctors being represented by the legal adviser to the Medical Society of Aveyron, which took up the defence. This gentleman made an eloquent and learned defence, too long for detailed reproduction here, but the salient points of which may be summarised as follows. He submitted, in the first place, that there was no article in the Code by the terms of which medical men were obliged to respond to the requisitions of the authorities, and that it would be quite an arbitrary proceeding to include the refusal of private medical practitioners as such, to act within the limits of conduct against which by its terms Article 475 was intended to operate. Confining himself to the strict technicality that the doctors were summoned in their capacity as medical men and not as private citizens, he maintained that Article 475 did not apply; it was, he said, rather a question of the assistance which every citizen should lend whatever might be his social position. Moreover, he continued, there was a fundamental difference between the medical man called as a witness to a fact which passed under his eyes, and the medical expert from whom one expected an intellectual effort requiring a special training, experience and care, which effort he made under the solemnity of an oath for remuneration. Furthermore he urged that even in their capacity as citizens Article 475 could not be said to apply, for the article was framed strictly speaking with quite another object in view. In accidents, wrecks, fires, &c., the assistance of every citizen, whatever his position, might perhaps be legally solicited in the emergency, but the case in point was quite another matter which the article did not include. Finally, he submitted that the absence of any mention of medical men in the article showed that it was not intended to apply to them specially, and that it could take no cognisance of the refusal of the doctors to withhold their services if they thought proper. At the end of the legal arguments the court decided to postpone judgment until Oct. 4th. The decision on the question is awaited, as well it may be, with considerable interest in the profession. It is right to add that the medical men make out a strong case of arbitrary treatment and high-handed proceeding against the local authorities for some time past.

The Heating of Parisian Houses.

As the winter approaches the question of the best and most economical way of heating our dwelling-houses comes again to claim attention. In consequence of the dearness of coal in this city its use is debarred to very many people, especially amongst the poorer classes. Wood, which is the alternative in open fire-places, is on the other hand cheaper, but gives out so little heat that, not to speak of the constant attention which it needs, it has to be burned pretty liberally before it will give enough heat to warm sufficiently an ordinary-sized apartment, so that in the result it comes to be almost as dear as coal. People are thus driven to the expedient of adopting the movable stove for heating purposes, of which the number of patterns offered to the public at tempting prices, or on the hire system, is legend, each pattern being warranted to excel the other in perfection and economy of consumption. The use of these stoves is very general already, while it is still on the increase, and *pari passu* with this increase the number of cases of accidental poisoning by carbon monoxide is largely increased, and goes on augmenting. The carelessness and ignorance attending the use of these stoves are so universal and the fatal accidents to be attributed to them so numerous that public attention was drawn to the matter in an able paper read at the Academy of Medicine by Dr. Lancereaux, in which he condemned the use of the movable stove, pointing out the dangers following in its train, and recommending that the State should be asked to regulate and supervise its use. In this sweeping condemnation he was joined by Dr. Brouardel, the well-known medical jurist, and Professor Gautier, the professor of chemistry at the Paris Faculty. Notwithstanding this, the public seems quite as eager as before to secure stoves of this kind, judging by the number of "new and perfect" models which are being constantly puffed in the daily press under fantastic names. There is reason to believe, however, that the authorities, alive to the danger to the public, will soon place the use of these asphyxiators under official control.

The Continental Anglo-American Medical Society.

The first meeting of the Continental Anglo-American Society took place on Monday afternoon, at the Grand Hotel, Sir Spencer Wells, one of the honorary presidents, taking the chair. The business was limited to the election of the officers of the Society, and arranging for next year's meeting. The same evening most of the members dined together in one of the sumptuous banqueting rooms of the Great Caravanserai. To the trivial all things are trivial, but the medical thinker, especially the physician to the dyspeptic millionaire, knows that proper cookery is half the art of medicine. Parisian doctors have, moreover, the well-merited reputation of being accomplished *gourmets*, and it was therefore no small responsibility that the dinner committee assumed in drawing up the *menu* for so critical a body of diners. What arts and seductions were employed have not transpired; but the practical result was that both wines and dishes were unexceptionable—a thing hitherto unknown in the annals (at any rate, of this town) of public banqueting. The task of proposing the health of the Queen and the presidents of the American and French Republics fell to Sir Spencer Wells, who acquitted himself with his customary *finesse*. Dr. Alan Herbert proposed the prosperity of the new Society, and two gentlemen not on the list followed, congratulating everybody generally. Sir Spencer Wells was then toasted, and the honorary secretary, Dr. Linn, also came in for a very well-deserved share of the honours. The speech of the evening, however, was that of Dr. Worms, who spoke as follows:—"Gentlemen, the French physicians whom you have been kind enough to ask to your cordial meeting have entrusted me with the agreeable mission of thanking you for your kind hospitality and of drinking to the prosperity of your association and its members. There exists between English and American *confrères* a bond of blood and language, and it is in the nature of things that they should consider themselves as brothers, and walk hand in hand in the path of science and in medical practice. The future of your association finds already in these conditions a guarantee of success; but I think also, gentlemen, that in this great city of Paris our English and American *confrères* find the greatest liberty for the development of their professional activity, and that they will never meet with any impediment either from their own compatriots or from us. I believe that I am expressing exactly the thoughts of French physicians, the present as well as the absent, in offering you on their behalf a greeting of cordial confraternity, to which is added a feeling of sincere friendship. French medicine has manifested to several of your number, gentlemen, its affection and its gratitude. I could cite several names, but you must allow me only to mention our illustrious president, Sir Spencer Wells, with whom I have been united in friendship for more than thirty years, and to whom I owe the honour of being amongst you. The name of Sir Spencer Wells is most popular in France, and most respected, and his election to the Academy of Medicine was the proof of this unanimous feeling. This sentiment has its origin in the incomparable services he has rendered to French surgery. It is to his loyal practice, open to all, that Sir Spencer Wells owes the definite acceptation of the operation of ovariotomy in France. That is his title to fame here, and that is why he has merited the gratitude and admiration of my countrymen."

Paris, Oct. 1st.

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Obituary.

COMMENDATORE PIETRO DURANTI.

ON the morning of the 27th ult. the Pisan School of Medicine lost one of its brightest ornaments by the death of Dr. Pietro Duranti, professor emeritus in the University. He formed one of its teaching staff in 1851. He was director of the anatomical theatre, dissecting-rooms, and laboratory, and subsequently dean of the medical faculty, in which he held for many years, with much acceptance, the post of professor of surgery, theoretical and clinical. He was also a prominent member of the Academic Council, and in his appointment as Rector of the University he enjoyed and did justice to the highest honour the school could confer. To quote a Tuscan correspondent, "he was respected and admired for his learning and teaching power, while he was beloved for his sterling virtues and his kindly manners by colleagues, students, and citizens alike. He held numerous honorary posts and distinctions, Italian and foreign, and at the time of his death he was the working president of the Royal Conservatory of Sant' Anna, which owed much to his energy, his intelligence, and his accomplishments." Years of still further usefulness seemed in store for him, when he was struck down very suddenly at the age of seventy-four.

Medical News.

THE ALLEGED LEAD-POISONING AT KEIGHLEY WORKHOUSE.—On Monday an inspector from the Local Government Board made a private inquiry at the workhouse, with regard to the large number of inmates who, it is stated, are suffering from lead-poisoning.

EPSOM COLLEGE: FEMALE ORPHANS.—The Council of the Royal Medical Benevolent College will shortly elect an orphan daughter of a medical man to a scholarship giving free education and maintenance at the school of St. Anne's Society. Particulars will be found in our advertising columns.

THE PASTEUR INSTITUTE.—On the 2nd inst. three more patients—a man and two boys—who had been bitten by a rabid dog at Rugby, were sent to Paris to be treated at the Institut Pasteur at the expense of the Lord Mayor's Fund. This makes a total of twenty-eight persons sent from that source during the last three months.

WEXFORD INFIRMARY.—By the will of Mr. D. Cullimore, late of Longford-terrace, Monkstown, county Dublin, and of Ballyanne Park, county Wexford, and uncle to Dr. Cullimore, of Welbeck-street, W., the Wexford Infirmary has been left over £1000, and the poor of the village of Taghmon, county Wexford, over £8000.

RABIES.—The number of dogs in England officially reported during the week ending Sept. 21st as afflicted with rabies was 6, against 8 in the previous week; of these, 5 were killed and one died. The distribution was as follows:—York (West Riding) 2, and Chester, Kent, Lancaster, and Sussex, 1 each. No cases were reported from London.

HARROGATE BATH HOSPITAL.—This institution is now open for the reception of patients. The committee of management have made energetic efforts to extend the usefulness of the charity, and are making a special appeal for funds to liquidate the debt remaining on the building, which amounts to £10,000. The charity is open to the indigent poor throughout the United Kingdom.

POLICE SURGEONS IN CASES OF MURDER AND MANSLAUGHTER.—A memorandum has been sent to the divisional surgeons of the Metropolitan police, by the direction of the Commissioner, requesting them in all cases of murder or manslaughter to send a report of their post-mortem examination and conclusions as to the cause of death to the Commissioner, "as experience has shown the necessity and great importance of the police having the earliest possible information as to the medical examinations in such cases."

THE DWELLINGS OF THE POOR.—A meeting of the Mansion House Council on the Dwellings of the Poor, of which the Lord Mayor is president, was held on the 2nd inst., in the Long Parlour. Mr. John Hamer (hon. secretary) stated that the Grand Prize had been awarded to the Council by the jurors of the Paris Exhibition. Action in regard to insanitary dwellings had been taken in Finsbury, Marylebone, Shoreditch, Mile-end, Plumstead, and St. Saviour. In Bermondsey and Greenwich revisits of insanitary conditions were reported as having been satisfactory, inasmuch as complete remedies had been applied to the nuisances.

THE LOWESTOFT HOSPITAL.—The annual meeting of the governors of this hospital was held last week. The report, which was adopted, stated that the financial position of the institution was unsatisfactory and demanded the consideration of all interested in the charity. There had been during the past year a considerable decrease in the annual subscriptions, donations, and the proceeds of the Hospital Saturday Fund. The balance sheet showed a deficit of £250 17*s*. The present income from funded capital and other reliable sources amounted to £1000 per annum, and the expenditure, controlled with economy, to £1250. The number of patients treated had exceeded that of any previous year, being, in-patients 235, and out-patients 1330.

FIFESHIRE MEDICAL ASSOCIATION.—Last week the annual meeting of this Association was held at Dunfermline. Mr. James Morris, F.F.P.S. Glas., of Dunfermline, the president, read a paper on "Chloroform and other aids in Midwifery Practice." He stated that during the past seven years he had attended 570 cases, and in the majority of these had used chloroform, the effect of which was that only one mother out of that number had died, and four of the children were stillborn. This result was highly satisfactory, inasmuch as the average death-rate was from 1 to 2 per cent., while with children the average was from 5 to 10 per cent. Similar experiences were given by other practitioners. The officer-bearers were elected for the ensuing year, and the meeting terminated.

FOOTBALL CASUALTIES.—William Mundin, on the 21st ult., whilst playing in a football match at the Central Park, Aberdeen, between the Orion and Black Diamonds Clubs, fell and broke his collar-bone. A few weeks since he, during a football match in the same place, had his right arm dislocated. At a return league football match, on the 30th ult., between Everton and the Wolverhampton Wanderers, a young man named Allen sustained a sprained ankle. On Saturday last, during a match played under the Association rules at Heywood, a young man named Ashworth fell violently to the ground, and was badly injured in his spine. A youth named Hopton, who was injured in a football match at Newport, Monmouth, on Saturday, died in the Infirmary on Monday morning. On Saturday, a boy named Murray, ten years of age, fell down dead whilst playing football with other boys at Preston. He had just scored a goal.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on October 1st, 1889.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	
Eastern Hospital	244	59	..	59	..	362	442
North-Western Hospital	237	34	..	5	..	276	425
Western ,,	165	16	..	9	..	190	262
South-Western ,,	..	..	..	..	..	..	402
South-Eastern ,,	271	16	1	19	3	310	462
Northern ,,	328	..	..	..	..	328	490
Totals	1245	125	1	92	3	1466	2483

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Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BAYLEY, R. L., L.R.C.P. Lond., M.R.C.S., L.S.A., has been reappointed Medical Officer, Oldswinford Second District, Stourbridge Union.

CAMERON, J. S., M.D. Edin., M.R.C.S., has been appointed Medical Officer of Health for the Borough of Leeds.

CAMPBELL, ALFRED W., M.B., C.M. Edin., late Temporary Assistant Medical Officer, Norfolk County Asylum, Thorpe, near Norwich, has been appointed Junior Assistant Medical Officer to the County Asylum, Bicton Heath, Shrewsbury.

D'ARCY, SAMUEL ALGERNON, L.K.Q.C.P. Irel., L.R.C.S. Irel., L.M.R., &c., has been appointed Assistant Master of the National Lying-in Hospital, Dublin.

FARRINGTON, JOHN, M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Pendleton Branch Dispensary of the Salford Hospital.

FRASER, D. A., M.D. Brussels, M.R.C.S., L.S.A., has been appointed Medical Officer and Public Vaccinator of Berry Pomeroy, Littlehempston and Stoke Gabriel, Totnes Union.

GARDNER, ERNEST FREDK., L.R.C.P., M.R.C.S., has been appointed House Surgeon to the Evelina Hospital for Sick Children, vice G. H. Pennell, resigned.

HAINS, L. I. C., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer and Public Vaccinator of Totnes and Darlington, Totnes Union, vice Raby, resigned.

HOFFMEISTER, WILLIAM, M.D. Heidelb., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Cowes Port Sanitary Authority, Isle of Wight.

HOLDEN, G. H. R., M.A., M.B., B.C. Cantab., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to St. Bartholomew's Hospital.

LOMAS, ERNEST C., M.B., Ch.B. Vict., M.R.C.S., has been appointed Senior House Surgeon to the Royal Albert Edward Infirmary, Wigan, vice A. J. Barnard, M.R.C.S., L.R.C.P. Edin., resigned.

MACKINTOSH, DONALD J., M.B., C.M., has been appointed Superintendent and Resident Medical Officer of the Victoria Infirmary, Glasgow.

MCDOUGALL, W. STEWART, M.B., C.M. Edin., has been appointed Assistant House Surgeon to the Cumberland Infirmary, Carlisle, vice T. C. Meikle, M.B., C.M. Edin., resigned.

OGLESBY, H. A., L.R.C.P. Edin., L.M., M.R.C.S., has been appointed Medical Officer, York Union District.

RUTHERFORD, W. G., L.R.C.S., L.M., L.K.Q.C.P. Irel., has been appointed Medical Officer of the Seventh District, Newport Pagnell Union.

SHAW, CECIL E., M.A., M.D., M.Ch., of Belfast, has been appointed Honorary Consulting Ophthalmic Surgeon to the Alexandra Hospital, Ballymena.

STAMFORD, W. A., M.R.C.S., has been reappointed Medical Officer of the Sixth District, Mansfield Union.

STEVENSON, LOUIS E., B.A., M.B., B.C. Cantab., has been appointed House Surgeon to the Cumberland Infirmary, Carlisle, vice J. F. Haswell, M.B., C.M. Edin., resigned.

STYLE, F. W., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for Hucknall Huthwaite, vice T. Shaw, resigned.

TEW, JAS. SCOTT, M.B., B.S. Durh., D.P.H. Camb., has been appointed to the Basford Union Rural Sanitary District, vice P. Boobbyer, appointed to Nottingham.

THRING, EDWARD T., F.R.C.S. Eng., has been appointed Assistant Obstetric Surgeon to the Prince Alfred Hospital, Sydney, and Surgeon to the Children's Hospital, Lewisham, Sydney.

WADE, CHARLES, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health and Public Vaccinator to the Boscastle District of the Camelford Union, vice Arthur Wade, resigned.

WALLIS, FRED. C., B.A., M.B., B.S. Cantab., M.R.C.S., has been appointed Demonstrator of Anatomy at Charing-cross Hospital.

WEARY, GEORGE E., M.R.C.S., L.R.C.P. Lond., has been appointed Resident Medical Officer of the Boscombe Hospital and Provident Dispensary, Boscombe, Bournemouth.

WETWAN, WM. ALBERT, M.R.C.S., L.S.A., has been appointed Certifying Factory Surgeon for the Bridlington District, vice C. F. Hutchinson, M.D., deceased.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

CLAYTON HOSPITAL AND GENERAL DISPENSARY, Wakefield.—House Surgeon. Salary £120 per annum, with residence at the hospital, attendance, coals and gas.

DORSET COUNTY ASYLUM.—Assistant Medical Officer. Salary £120 per annum, with board and residence.

GATESHEAD DISPENSARY.—Resident House Surgeon. Salary £200 per annum, with furnished apartments in the dispensary, coals and gas.

GENERAL DISPENSARY AND INFIRMARY, Jersey.—Resident Medical Officer. Salary £120 a year, with furnished apartments and attendance.

GENERAL INFIRMARY AT LEEDS.—Resident Obstetric Officer. House Physician. House Surgeons. These appointments for twelve months.

HANTS COUNTY ASYLUM, Knowle, Fareham.—Junior Assistant Medical Officer. Salary £100 per annum, with furnished apartments, board, washing, and attendance.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—Resident Medical Officer as House Surgeon, for one year. Salary £50 per annum, with board and residence in the hospital.

LANCASHIRE COUNTY ASYLUM, Rainhill, near Liverpool.—Assistant Medical Officer. Salary commencing at £105 per annum, with furnished apartments, board, attendance, and washing.

LIVERPOOL INFIRMARY FOR CHILDREN, Myrtle-street.—House Surgeon. Salary £85 per annum, with board and lodging.

LONDON LOCK HOSPITAL AND ASYLUM, Harrow-road and Dean-street, W.—Physician and Surgeon to Out-patients.

OWENS COLLEGE, Manchester.—Junior Demonstrator in Physiology. Salary £100 per annum.

PADDINGTON-GREEN CHILDREN'S HOSPITAL, London, W.—House Surgeon. Salary £50 per annum, with board and residence. Appointment for six months.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—House Surgeon for one year. Salary £70 per annum, with board and residence. Also Assistant House Surgeon for one year. No salary, but board and residence provided.

SHEFFIELD GENERAL INFIRMARY.—House Surgeon. Salary £120 per annum, with board, lodging, and washing, with a prospective advance of £10 per year for the second and third years. Also Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing. These Appointments to continue for three years only.

STOKESLEY UNION, Stokesley.—Medical Officer for the Union Workhouse and the Stokesley district. Salary £54, exclusive of vaccination fees, and such extra medical fees as are allowed by the Local Government Board.

UNIVERSITY COLLEGE, Dundee.—Professor of Physiology. Salary £350 per annum, with two-thirds of the fees.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Honorary Dental Surgeon.—Also Honorary Surgeon.

Births, Marriages, and Deaths.

BIRTHS.

BOSWELL.—On Sept. 21st, at Saffron Walden, the wife of Henry St. G. Boswell, M.B., of a son.

CARPENTER.—On Sept. 28th, at Wykeham House, Bedford-park, Croydon, the wife of Arthur B. Carpenter, M.B. Oxon., of a daughter.

DAWSON.—On Sept. 27th, at Heathlands, Southbourne-on-Sea, the wife of Yelverton Dawson, M.D., of a son.

MOODIE.—On Sept. 25th, at Park Avenue House, Stirling, the wife of Robert Moodie, M.D., B.Sc., of a son.

WEBSTER.—On Sept. 27th, at Wribbenhall, Bewdley, the wife of George L. Webster, M.R.C.S., of a son.

WREFORD.—On Sept. 30th, at 260, Clapham-road, the wife of Samuel Wreford, M.R.C.S., of a daughter.

MARRIAGES.

ARNOLD—MAYHEW.—On Oct. 1st, at St. Mary's, Walmer, Samuel Carnelley Arnold, M.B., C.M. Edin., of Minster, Thanet, to Emsie, second daughter of the late Thos. Mayhew, Esq., of Sevenscores, Minster.

BAREFOOT—WALKER.—On Oct. 2nd, at Christ Church, Southport, by the Ven. Archdeacon Clarke, John Richard Barefoot, surgeon, Army Medical Staff, to Lilian Elizabeth Mary, daughter of Henry Walker, Esq., of Mosborough Hall, Derbyshire, and Southport.

BATTAMS—HART.—On Sept. 28th, at the Parish Church, Hornsey, James Scott Battams, M.R.C.S., of 123, Lavender-hill, S.W., late Resident Medical Officer, East London Hospital for Children, to Kate Elizabeth, daughter of the late George Hart, of Wakefield, Yorkshire.

HALES—WARD.—On Sept. 26th, at Christ Church, Gailey, Robert Turner Hales, M.D., son of John Hales, Esq., of Holt, Norfolk, to Alice Mary, third daughter of Henry Ward, Esq., of Rodbaston, Stafford.

HODSDON—RAFFIN.—On Oct. 2nd, at Dornster House, Mayfield-gardens, Edinburgh, by the Rev. W. M. Falconer, M.A., and the Rev. George Davidson, M.A., James W. B. Hodsdon, M.D., F.R.C.S. Edin., to Joan, daughter of the late William Raffin.

MAYLARD—REDDIE.—On Oct. 2nd, at St. Silas's English Episcopal Church, Glasgow, by the Rev. Sholto D. C. Douglas, M.A., Incumbent, assisted by the Rev. T. M. Macdonald, Canon of Lincoln and Rector of Kersal, Manchester, Alfred Ernest Maylard to Jane, elder daughter of Charles Reddie, of Glasgow, and granddaughter of Sir George Burns, Bart., of Wemyss Bay.

MORRISON—TITTERTON.—On Sept. 27th, at the Central Hall, Great Charles-street, Birmingham, by John Morrison, LL.B., brother of the bridegroom, James Thos. Jackman Morrison, M.A., B.C. Cantab., F.R.C.S. Eng., of Birmingham, to Edith Mary, eldest daughter of the late John Ward Titterton, of The Manor, Shifnal, Salop, and niece of Sir Charles B. H. Soame, Bart.

THOMAS—SCOTT.—On Sept. 21st, at St. Matthew's Church, Gosport, William Thomas, M.R.C.S., L.R.C.P., &c., of Rhyl, to Elizabeth Mary, only daughter of W. Scott, Esq., of the Royal Clarence Yard, Gosport.

VACHER—BLECKLEY.—On Oct. 2nd, at St. Andrew's Church, Birkenhead, by the Rev. A. McLeod, D.D., assisted by the Rev. A. M. Symington, D.D., Francis Vacher, F.R.C.S., to Elinor Margaret, daughter of the late Rev. John Mollan Bleckley, A.B., of Wicklow.

DEATHS.

BLUNT.—On Sept. 25th, at St. Martin's, Leicester, Thomas Blunt, M.D., aged 47.

SMITH.—On Sept. 29th, at Park-street, Grosvenor-square, Protheroe Smith, M.D., in his 80th year.

VASSIE.—On Sept. 25th, at Crofton Hill, Lanark, Richard Vassie, M.D. Edin., M.R.C.S., late of Kirkcaldy.

WILLS.—On Sept. 28th, at Orleigh Mount, Torquay, William Wills, M.R.C.S., father of the late Wm. John Wills, Australian Explorer, aged 85.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, October 3rd, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Sept. 27	30·14	W.	59	57	82	67	45	..	Dull
,, 28	29·85	N.W.	57	52	97	63	55	..	Overcast
,, 29	29·83	N.W.	51	46	96	59	47	..	Fine
,, 30	29·70	N.W.	54	51	80	57	48	·01	Showery
Oct. 1	29·90	N.	52	50	90	58	48	·07	Overcast
,, 2	29·91	N.	51	50	91	59	50	·12	Overcast
,, 3	29·84	N.	50	49	67	56	48	·02	Raining

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

HEREDITY OF BONE DISEASE.

JULIUS DOLLINGER of Buda-Pesth has been trying to discover what influence the health of grandparents has upon the tendency to bone and joint tubercular disease in the grandchildren. He has, of course, met with great difficulty; and in the poorer classes, among whom these diseases are most common, patients are often quite unable to give any reliable information as to their grandparents. But his investigations have led him to the conclusion that bone and joint tubercle is found more often in the grandchildren than in the children of those who suffer from pulmonary tuberculosis.

Mr. T. A. Papillon.—The article appeared in THE LANCET of Sept. 29th, 1888, p. 628. Probably Dr. Weigert of Berlin could give further information.

PHYSICAL DEVELOPMENT.

To the Editors of THE LANCET.

SIRS,—Two years ago you courteously published the paper I read on the experimental production of chest types in man. Thanks to the cordial co-operation of Mr. J. E. K. Studd and the Polytechnic authorities, we a few months ago inaugurated a society to practically apply the principles laid down in that paper, and the results have been both so successful and of so much importance that I shall be glad if you will enable me to place them before the profession.

The society already numbers upwards of sixty members, and a fair sample of their measurements—thirty—now lies before me. I find the chest-girth has increased on an average one inch and a half, the range of movement over an inch, and in one-third of the cases the chest-girth has increased from two inches to three inches and three-quarters. These changes have been effected as easily in a chest of thirty-six or thirty-eight inches as in one of thirty or thirty-two inches, and that irrespective of the height. Some of the members are between twenty and thirty years of age, and have had gymnastic and athletic training. Amongst them are clerks, printers, carpenters, tailors, grocers, &c., and they are engaged in their occupations many hours daily. Consequently, the practicability of obtaining a very considerable increase of the chest-girth and the many great advantages that implies is now unquestionably established. We obtained these results by very simple means. The conditions, habits, and surroundings that tend to reduce the breathing capacity were removed or compensated for, conditions, habits, and surroundings that tend to develop the chest were introduced, and the measure of the success with which that was effected is seen in the extent of the increase each member obtained. And I need only point out the immense importance of true physical development in the education of children, in the training of soldiers, and for life assurance, in order to justify an earnest plea for the co-operation of the profession in urging its general adoption.—Yours faithfully,

G. W. HAMBLETON,
President, Polytechnic Phys. Develop. Soc.;
Memb. Occupations Committee.

Dorchester-place.

A BICEPHALOUS MONSTROSITY.

TOWARDS the end of last month a woman gave birth, at Sestri Ponente on the North Italian Riviera, to a fœtus, weighing 1990 grammes, having two distinct heads, two thoracic and two abdominal, extremities quite normal and well-developed—the thoracic being 12 centimetres in length, and the abdominal the same. Both the heads are covered with longish black hair, and reveal, to the touch, large sutures and fontanelles; in both, moreover, the eyes are well-pronounced, with the pupillary membranes distinguishable. One head has a double hare-lip, the fissure towards the left side being the deeper. The same head has an occipito-frontal periphery of 26 centimetres, while that of the other measures 24. The shoulders are covered abundantly with a fine *lanugo*. The smaller head resembles a large fungus with its peduncle planted on the epigastric region of the fœtal body; it is seen, lower down, with the face on the anterior superficies of the neck, as if in the act of kissing, and as if embraced by the thoracic extremities. The abdomen is open in such a way as to render visible the liver, the spleen, the kidneys, and the intestinal mass, while its parietes are extremely thin. Parturition was very laborious, but Dr. G. Tubino, the obstetric physician who had charge of the case, was able to tide the mother over all difficulties, so that she is now in good health. The monstrosity, skilfully preserved, is now on view in the Museo Ostetrico of the Medical School of Genoa.

W. G. E.—Probably FitzWygram on the Horse, and Courtenay's Manual of Veterinary Medicine and Surgery, would be found to answer our correspondent's purpose.

M.B., B.S.—The card is in good taste.

ATTENDANCE ON MEDICAL MEN'S FAMILIES.

To the Editors of THE LANCET.

SIRS,—"An Old Subscriber" has ventilated a grievance of long standing from his point of view, in which he has my hearty sympathy. Allow me to put forward another aspect of the case, from the consultant's point of view.

I am certain that every consultant has pleasure in giving advice gratuitously to his brethren and their families so long as the latter are dependent upon their fathers. The obligation ought, however, to cease when sons are started in life and when daughters are comfortably married. There should, I think, be a delicacy, too, in demanding the aid of a perfect stranger, and perhaps saddling him with an operation and long attendance, when other consultants to whom the sufferer is well known would be able to afford equally capable assistance. But it is of the unreasonable use of telegrams when letters would fulfil every purpose that I complain. A telegram is supposed to mean *urgency*, and it is somewhat trying when one has thrown up other engagements to obey a telegraphic summons to find the doctor out, and to learn that one is not expected. Your correspondent complains rightly of discourteous want of letter-writing. I cannot tell how often I ask a medical man to let me know the after-progress of a case I have seen with him, but I know that the answers are few and far between. Even invitations to dinner are left unanswered for many days, notwithstanding that "an early answer is requested."

I am, Sirs, yours obediently,

September, 1889. A CONSULTANT.

THE JONES FUND.

MR. WILLIAM JONES, L.R.C.P., returns many thanks to those gentlemen who subscribed towards his indemnity fund, and also to Dr. Hunt for the trouble he has taken and the sympathy he expressed.

Alpha.—The Births and Deaths Registration Act of 1874 enacts in Section 48 that the chief resident officer of every public institution shall be deemed to be the occupier of such dwelling, and as such he is bound to act as informant of such death, if no better qualified informant can be obtained. Registrars of births and deaths, however, are specially instructed that in the case of a death in a public institution they should, whenever practicable, obtain the necessary information from a relative of the deceased.

Mr. J. Thomas is not entitled to a fee.

ANTIPYRIN AND SODIUM SALICYLATE.

To the Editors of THE LANCET.

SIRS,—In reply to Dr. Monteith's letter regarding the pasty compound which results when antipyrin and sodium salicylate are mixed together, I may state that two French pharmacists, Prudhomme and Vigur, have investigated the matter, and their results show (see *The Chemist and Druggist*, vol. xxxiv., p. 830) that a solution of antipyrin and the salicylate does not undergo change, and may be preserved indefinitely. Whether the paste or syrup formed when the substances are mixed in the dry state is a new compound or not has not been proved, but I believe that the change is similar to what takes place when chloral and camphor are mixed. The powders do not liquefy, on account of absorption of moisture from the air. I may say that pharmacists are familiar with the change, and when they have an opportunity bring the fact under the notice of prescribers.

I am, Sirs, yours faithfully,

Cannon-street, E.C., Sept. 27th, 1889. PETER MACEWAN.

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MICRO-ORGANISMS IN CHEESE.

PROF. ADAMETZ, of the School of Cheese-manufacture at Sornthal in Switzerland, in the course of his investigations into "caseous pathology," has succeeded in isolating no fewer than nineteen species of microbes in one kind of cheese, and that in the fresh state. For every gramme of this he found bacteria numbering from 90,000 to 140,000, and these multiplied to more than 800,000 in a seventy-days' cheese. In the soft cheese the microbes were still more numerous. Prof. Adametz found 1,200,000 in one gramme of a thirty-four days' cheese, and 2,000,000 in a forty-five days' specimen. These were found in the interior parts of the cheese. On the rim he calculated there were from three to five millions for every gramme. By a series of ingenious experiments the same pathologist demonstrated that the arrest by antiseptic substances of these micro-organisms prevents the cheese from maturing.

Dr. T. P. Atkinson.—We think it reasonable that the officer in question should receive the fee, as provided in the Act.

VENTRO-FIXATION OF THE UTERUS.—MEDICAL FEES IN LIFE ASSURANCE.

To the Editors of THE LANCET.

SIRS,—In one of your annotations in to-day's issue is a quotation from a lecture by Dr. Thiriar of Brussels on the above subject, in which he speaks of the operation as a new one. I think it right, therefore, to say, if only for the credit of my country, that I performed this operation successfully (and purposely not taking it in connexion with ovariotomy) as long ago as 1880, at the Hospital for Women. I used a silk suture in picking up the fundus uteri, and silkworm gut to close the abdominal wound.

In another annotation in the same number reference is made to a letter at page 677 on the subject of medical fees in life assurance. Did "G. F. H." write to the insurance company in question? I think it but fair to state that the Prudential Assurance Co. sent me half a guinea the other day as a fee for reporting on the life of one of my patients, but on my representing that the usual fee was one guinea they at once sent it to me.

I am, Sirs, yours faithfully,

Harley-street, Sept. 28th, 1889. HEYWOOD SMITH.

"A CAUTION."

To the Editors of THE LANCET.

SIRS,—In your valued journal of Aug. 10th, 1889, just to hand by mail of Sept. 7th, I see the letter signed by my father. I deeply regret that anyone should use my name to obtain money, and that surgeons attached to St. Thomas's Hospital (my old school) should have been annoyed by these applications for aid. I am proud to remark they know me, in the instances brought to my knowledge, too well to have been defrauded. I sincerely trust no fellow-student nor any of my hospital friends have been imposed upon. Anyone having letters from the impostor would greatly oblige by sending them to the solicitor named in my father's letter (Basil Greenfield, Esq., 31, Nicholas-lane, E.C.). I am the only James Henry Clark on the Medical Register in this country. For the last twenty years no other James Henry Clark has been in practice here, nor in the Medical Service. I was in England for a few months only in 1883. Am in active practice here.

I am, Sirs, yours faithfully,

JAMES HENRY CLARK,

Jamaica, West Indies, Sept. 9th, 1889. Government Medical Service.

FOREIGN BODIES IN THE EYE.

To the Editors of THE LANCET.

SIRS,—Will you kindly correct two errors which were overlooked in the proof of my lecture published last week? I am made to say that a piece of iron or steel "one or two grains in weight," when lying close under the sclerotic, will deflect the magnetic needle. It should be six or seven grains. Also, in the third line of the lecture, the word "forming" should have been *foreign*.

I am, Sirs, yours faithfully,

Newcastle-on-Tyne, Oct. 2nd, 1889. C. S. JEAFFRESON.

RESECTION OF CERVICAL VERTEBRÆ FOR PARAPLEGIA.

To the Editors of THE LANCET.

SIRS,—With reference to the case of resection of the cervical vertebræ &c. for paraplegia, recorded in THE LANCET of Aug. 17th, 1889, page 315, I have pleasure in stating that so completely has the boy recovered that he not only runs about like other boys, but on Sunday last was seen engaged in a stand-up fight with another street arab.

I am, Sirs, yours very truly,

HENRY THOMPSON,

Hull, Sept. 28th, 1889. Surgeon to the Hull Royal Infirmary.

MEDICAL FEES AT CORONERS' COURTS.

To the Editors of THE LANCET.

SIRS,—Can any of your readers inform me what is most usually done with fees for evidence given in coroners' or other courts when these fees are earned by the assistant? Does the assistant take them? or are they divided between principal and assistant? or does the principal appropriate them entirely?

I am, Sirs, yours faithfully,

Sept. 17th, 1889. X. Y. Z.

THE MEDICAL SCIENCE OF THE ANCIENT EGYPTIANS.

IT would appear from an article by Prof. Hirschberg of Berlin, in the last number of the *Deutsche Medizinische Wochen. Chronik* that a great service has been rendered to the science of medicine by the German writer of fiction, George Ebers. Prof. Hirschberg points out that medicine is indebted to that celebrated writer and Egyptologist for the first real insight into the therapeutics of the ancient Egyptians. He has in that respect not only discovered the most important work (Papyrus Ebers), and published a facsimile of it, but has also just rewritten, translated, and provided with comments and illustration one of the most important sections of that Papyrus. The difficulties, Prof. Hirschberg says, were immense; for even if one had read the letter of the name of an illness or remedy, the question arose how to discover the literal meaning and the medical sense of that letter. But as great as was the difficulty is the advantage derived for the history of medical science. According to George Ebers, his MS. is the hermetic book of the medicaments mentioned by Clement of Alexandria. The MS. was certainly written during the eighteenth dynasty about 1500 years before Christ, at the latest. It is a compilation in which very old and some foreign prescriptions were likewise embodied. Thanks to the excellent translation of, and comments upon, the section of the Papyrus Ebers treating of eye diseases, the medical man is now able comfortably to read this oldest book on medical science, which was written a thousand years before Hippocrates.

H. S. has forgotten to enclose his card.

ABNORMAL EFFECTS OF ANTIPYRETICS.

To the Editors of THE LANCET.

SIRS,—In connexion with Professor Heuchen's observations on the abnormal effects of antipyretics in some instances, commented on in an annotation in your issue of Sept. 14th (page 553), I beg to call attention to the following case. E. P——, between sixty-five and seventy years of age, presents the following peculiar idiosyncrasy to quinine: Whenever she takes a grain of the drug it produces elevation of temperature (104° to 105° an hour after the dose), acceleration of pulse and breathing, rigors, slight delirium, nervous disturbance, thirst, dry parched tongue, and hot dry skin, with general malaise and every appearance of ill-defined fever. These symptoms pass off in from twelve to twenty-four hours, leaving the patient quite well. Similar symptoms have occurred three or four times in the same patient at intervals of some months, and in each instance within an hour or so after the dose of quinine.

I am, Sirs, yours faithfully,

Manchester, Sept. 18th, 1889. LEONARD G. PETERS, L.R.C.P., &c.

A WARNING.

To the Editors of THE LANCET.

SIRS,—Waiting-room tables rarely exhibit works of value; or should not, at any rate. A few antique *Punches*, semi-religious circulars, or quasi-puffs, if the practitioner specialises. But inasmuch as the waiting-room is in nine cases out of ten the centre of the medico's abode, let him be careful what he leaves out on his table overnight after a "read." Within a year I have lost a copy of the Æneid (1672), a valuable work in Japanese, and one on Eastern armour, which I should much like to see again, as my name and address will be found in each. I regret to say I remember that I did not put them back in my library after use.

I am, Sirs, yours faithfully,

Wimpole-street. F.R.C.S.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Henry Acland, Oxford; Dr. Sutherland, London; Dr. Dearden; Dr. Braxton Hicks, London; Mr. Jeaffreson, Newcastle-on-Tyne; Dr. Monteith, Burnley; Mr. Page, London; Mr. W. Jones, Edmonton; Dr. Seaton, London; Mr. J. H. Balfe, Dundee; Mr. Pink, London; Mr. Syers, London; Mr. J. J. Clark; Mr. Symonds, Oxford; Messrs. Allen and Hanbury, London; Dr. Pollard, Somerset; Mr. Hornibrook, London; Mr. Biddle, Kingston; Mr. W. Anderson, London; Mr. J. Bell, Hong Kong; Mr. Finucane, Fareham; Dr. A. Duke, Dublin; Mr. Harrison Cripps, London; Mr. Symonds, London; Messrs. Risien, Rustell, and J. Taylor, London; Dr. J. C. Simpson, Fettercairn; Messrs. Meyer and Meltzer; Mr. R. D. Pedley, London; Messrs. W. H. Smith and Son, Birmingham; Mr. J. H. Clark, Jamaica; Messrs. Burgoyne and Co., London; Dr. G. S. Middleton; Mr. E. R. H. Cory, Buckhurst Hill; Mr. Mac Ewan, London; Dr. E. F. Neve, Kashmir; Dr. Norman Kerr, London; Dr. Macgregor, Wellington, N.Z.; Messrs. Woolley and Co., Manchester; Mr. Bevill, Sydney, N.S.W.; Messrs. Smith and Son, Liverpool; Dr. F. P. Atkinson, Surbiton; Messrs. Leader and Sons, Sheffield; Mr. A. M. Barford, Liverpool; Mr. Clement Dukes, Rugby; Dr. Spender, Bath; Dr. Savill, London; Dr. Heywood Smith, London; Dr. G. W. Hambleton, London; Messrs. Oliver and Boyd, Edinburgh; Dr. Kirk, Partick; Dr. W. H. Ormsby, Dublin; Messrs. Newbery, London; Mr. Sleman, London; Dr. A. V. Bernays, Solihull; Dr. Middleton, Glasgow; Dr. S. Haynes, Malvern; Dr. A. Money, London; Dr. D. H. Cullimore, London; Mr. S. Snell, Sheffield; Mr. Perry, London; Mr. Maish, Bristol; Mr. G. H. Salter,

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Edinburgh; Dr. J. D. Mackay, Hornby; Dr. W. T. Gairdner; Mr. R. Emmett, Portsmouth; Dr. Allwright, Brighton; Dr. E. M. Sympson, Lincoln; Dr. Maguire, London; Dr. Roche, Kingstown; Mr. Milton, Cairo; Mr. G. Thorpe, Walthamstow; Dr. Squire, London; Dr. Emil Dorn, London; Dr. Gowers, London; Dr. Sutton, Bucks; Mr. Bevill, Sydney; Mr. Saunders, Manchester; Dr. Hassall, Italy; Mr. Hilton, London; Mr. Morrison, Birmingham; Dr. Ellis, Newcastle-on-Tyne; Dr. Cunningham, Eastbourne; Dr. Lindley, Stanberry; Mr. Thomas, Liverpool; Mr. Sell, London; Mr. J. B. Browne, London; Mr. Ross, Sheffield; Dr. Macdonald, Dorset; Mr. Sacker, London; Mr. Tigg, Southampton; Mr. Freeman, Soho-square; Messrs. Robertson and Scott, Edinburgh; Mr. Cornish, Bloomsbury; Messrs. Hopkinson and Co., Notts; Mr. Godfrey, Northampton; Messrs. Maw, Son, and Co., London; Mr. McManus, Athlone; Mr. Binks; Messrs. Calvert and Co., Manchester; Mr. Hastings, Sidmouth; Mrs. Semple, Bury St. Edmunds; Mr. Byerley, Portsea; Mr. Blair, Leeds; Mr. Twyford, Hanley; Dr. Laerman, Biggleswade; Mr. Berthier, Paris; Miss Prigg, London; Mr. Birchall, Liverpool; Mr. Lamond, Glasgow; Mr. Russell, Liverpool; Mr. Morris, London; Dr. Whipham; Dr. Ewart, London; Messrs. T. Watt and Son, London; A Consultant; F.R.C.S.; Alpha Beta; Assistant; Alpha; Lema, London; Penelope, London; Lady Superintendent, Hull Sanatorium; K., London; X. Y. Z., Tunbridge Wells; A. B., London; X. Y. Z., London; Secretary, Hants County Asylum; C. J. R.; M. D. B., London; Medicus, London; Maltine Co., London; I., Eastbourne; M.B., B.S.; E. C. H.; J. W. M.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Walter, Manchester; Mr. O'Donnell; Mr. Gray, Bristol; Messrs. Griffin and Co., London; Mr. Harries; Mr. Evans, Llangollen; Messrs. Spurgeon and Son, Maldon; Messrs. Somerville, Edinburgh; Mr. Daniell, Port Talbot; Mr. Dunlop, Southampton; Mr. Monro, Penge; Mr. Thomas, Liverpool; Mr. Thomas, Banbury; Miss Ruck, Dawlish; Mr. Tully, Hastings; Mr. Maclean, Walthamstow; Mr. Thompson, Bourton; Mrs. Levick, Paris; Mr. Bobrownicki, Manchester; Mr. Frost, Cornwall; Mr. Smith, Durham; Mr. Morton, Wingham; Miss Rawlinson, Bath; Miss Hunt, Dublin; Mr. Chrispin, Yorks.; Mr. Luck, Eastbourne; Mr. Stenhouse, Glasgow; Mr. Forbes, Yorks.; Mr. Kelvin, Manchester; Mr. Martyn, Saltash; Dr. Dixon, Arundel; Dr. Main, Newbury; Dr. Maberly, Ventnor; Dr. Maxim, Kent; Mrs. Turner, Finsbury-park; Mr. Wadlow, Manchester; Mrs. Reynolds, South Kensington; Mr. Andrew, Weston-super-Mare; Messrs. Entwistle and Co., Accrington; Dr. Bowes, Oldham; Messrs. Tozer, Hewitt, and Co., London; Mr. Bredin, London; Miss Moorhouse; Messrs. Grouse and Co., Suffolk; Mr. Heywood, Manchester; Mr. Bartlett, South Devon; Mr. Capel, London; Dr. Savage, Lisburn; Messrs. Whittle and Co., Liverpool; Mr. Williamson, Andover; Dr. Popham, East Dulwich; Mr. Pennington, Jersey; Mr. W. Cartin; Messrs. Hooper and Co., London; Mr. Leach, Bristol; Mr. Battams; Dr. Jeans, Isle of Wight; Mr. Wreford, Clapham; Mr. Adam, Paisley; Miss Waugh, Hampstead; Mr. Maylard, Glasgow; Mr. Williams, Aberystwyth; Mr. Denton, London; Mr. Archer, Liverpool; Mr. Vacher, Birkenhead; Mr. Beatley, Aylesbury; Mr. Skinner, Somerset; Dr. Hodsden, Edinburgh; Dr. Hubbusty, Stamford; Mr. Sowerby, Stokesley; Miss Budge, Crediton; Miss Branley, Lincoln; Partnership, Highbury; Nucleus, London; Anthrasosis, London; Secretary, Royal Hospital for Women, Waterloo-road; Final, London; Asterisk, London; Country Town, London; Cornwall, London; Fides, London; Matron, Hereford General Infirmary; R. W. A., London; Statim, London; Assistant, Northwich; Brython, London; Dr. M., London; Z. Y. X., London; Surgeon, London; Yorks., London; Patrick, Bristol; S. Q.; Beta, Surrey; Pressure, London; Davos, Salop; Sigma, London; H. C. M., London; Medicus, London; Medicus, Southwark-street; Chancellor, London; C. S. H., London; L., London; Miss L., London; Viator, London; I. I. H., Durham; A. D., London; A. A., London; Fides, Bath; Physician, London; Alpha, Birmingham; Secretary, Old Kent-road; A. B., London; Querens, London; M. A. A., London; Pleximeter, London; L.R.C.P., London; S.P.Q.R., London; C. R., London; E. B., London; S. L. M., London; Surgeon, Bath; Gentian, Fleet-street; Assistant, Old Kent-road.

St. Helen's Chronicle (Lancashire), Surrey Advertiser, Northern Echo (Darlington), Hertfordshire Mercury, Barrow News, Weekly Free Press and Aberdeen Herald, Western Chronicle, Mining Journal, School, Reading Mercury, Dundee Advertiser, Lincolnshire Herald, Southport Visitor, Durham Chronicle, &c., have been received.

Medical Diary for the ensuing Week.

Monday, October 7.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

Tuesday, October 8.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

Wednesday, October 9.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.
HUNTERIAN SOCIETY.—8 P.M. The President: A Short Address.—Dr. Turner: Two cases treated by Forced Feeding.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Ordinary Meeting.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown by Mr. Lawson Tait, Dr. Bantock, Dr. Edis, Dr. R. T. Smith, and others. Adjourned discussion upon Dr. Dolan's paper on Gynæcological Specialism and General Practice. Council Meeting at 8 P.M.

Thursday, October 10.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, October 11.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, October 12.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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Introductory Address
ON
INTELLECTUAL BLINDNESS.

Delivered at the Middlesex Hospital at the opening of the Session, October 1st, 1889.

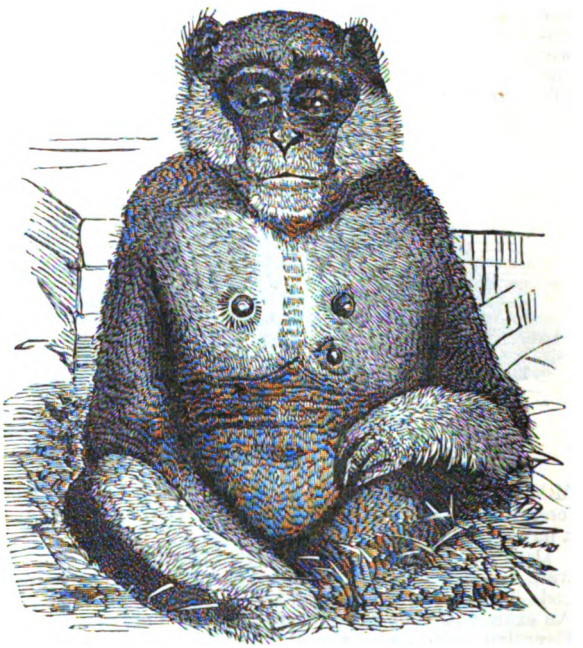
BY J. BLAND SUTTON, F.R.C.S.,
ASSISTANT SURGEON TO THE HOSPITAL.

GENTLEMEN,—To-day I shall speak of a widespread and important defect known as Intellectual Blindness. We shall limit our attention on the present occasion to its two most important forms—blindness in observation and blindness in interpretation. The subject is one worthy our most anxious consideration, for rest assured the success with which we practise medicine and surgery rests in a large measure upon the means with which we endeavour to combat the insidious attacks of this form of blindness. I cannot too strongly impress upon you the importance of observation, seeing that in medicine we adopt essentially the Baconian method, and depend upon observation and induction for the detection of general laws. Very few attempts have been made to introduce the deductive method into the province of biology, and it must be confessed that most examples of this method of inquiry in its application to vital phenomena have only surprised the world with their absurdity. Of late years the inductive method has yielded brilliant results, and it is of great value, inasmuch as it serves to guide men in their inquiries. Doctors are, unfortunately, too often mere observers, whereas a carefully elaborated induction lends immense service by directing the observing faculty and leading to the detection of facts which remained unnoticed when no guiding theory dominated the perceiving power of the observer. Bear well in mind that seeing and perceiving are not identical processes. Often we fail to see things under our very eyes. Frequently we see things which the mind fails to recognise, or if the mind perceives the objective image, it fails to give it any import. Again and again we fail to discriminate accurately between what we observe and what we infer from our observation.

Allow me now to illustrate these forms of intellectual blindness, beginning with blindness of observation. Many of you—the youngest among us—think it is very easy to observe. Quite so; few things are easier. It is as easy as writing a legible letter, examination paper, or prescription, yet how few of us take the trouble to write them clearly or distinctly. To write distinctly requires care and attention, to make an accurate observation we must have our wits about us. It is very marvellous that we only, as a rule, perceive things of which we have previous cognisance. For instance, there is every reason to believe that one man and woman in every ten has three nipples. On one occasion a man came into the out-patient room with a well-marked extra nipple. I set my class, consisting of eighteen students, to explore the man and to make a report. Three students actually touched the nipple, and one, after eyeing it critically, suggested that it was "a very curious pimple," but no one identified it as a supernumerary nipple. I was induced to test the observing faculty of my class in this manner because I had previously practised the same thing on the excellent assistant in the prosector's room at the Zoological Gardens, in the following manner. As supernumerary mammæ and nipples are so frequent in mankind, they ought, theoretically, to be common in quadrumana. At this time about one thousand dead monkeys of divers species had passed under my immediate notice, but I could not remember to have seen a monkey with more than two nipples. On making inquiries of those likely to be acquainted with specimens I could not get any satisfactory information. The assistant was then directed to examine carefully all dead monkeys for this purpose. About a month afterwards, on making my usual visit, a dead monkey was upon the table, and I at once asked the assistant to examine it. He failed to detect anything abnormal. You may imagine his surprise when the large mamma and nipple shown in Fig. 1 was pointed out to him. Since then I have detected the occurrence of supernumerary nipples or mammæ in male and female monkeys, and feel satisfied that many such specimens have passed under my eyes previously, but that I was so blind as not to see them until a special interest in the question attracted my attention to the matter and led to the detection of what I believe to be the only known specimens of accessory mammæ or nipples in quadrumana. These are not selected as isolated instances of gross defects in observation; similar instances occur almost daily, and I think it is capable of explanation.

You must not run away with the notion that because the abnormality in question is so clearly and deliberately marked in the diagrams, it is as easily observed in nature; no one could for a moment examine the drawing and miss the points which it is intended to emphasise; and it is for this reason that the faculty of observation cannot be obtained or cultivated by studying books. Indeed, the great predisposing cause of intellectual blindness is that, as students, we place too much reliance on books. Knowledge of biology obtained merely by studying books, though infinitely better than ignorance, is at best only half knowledge; and it is a source of distress—great distress—to me to see students learning anatomy from a cram-book in a secluded nook of the garden or theatre, at a time when a demonstration is actually being conducted over the part they are reading in an adjoining room.

FIG. 1.



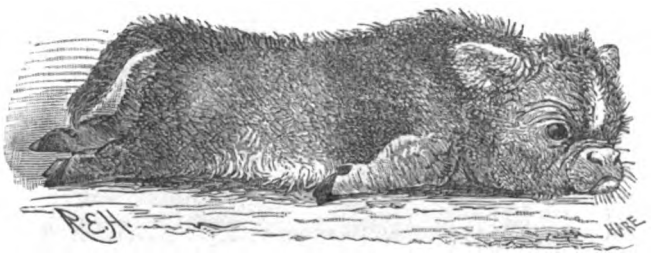
A female monkey with a supernumerary mamma.

Many of us have known men who read their anatomy book so frequently that they could recite pages from memory with the same facility with which, as children, we prattled through the Ten Commandments and the multiplication tables, yet, when brought face to face with the dissected subject, fail to recognise the parts with which in print they were apparently so familiar. Indeed, I assure you that to study anatomy, surgery, and pathology merely in books, rather than practically, can only be compared to hunting over a rough country on a lean old hack without saddle or bridle. The examples of defective observation which have been put before you are in themselves of little intrinsic importance; but it is clear to my mind that if we constantly overlook things of this nature we also miss things of far greater import in our daily examination of patients, in part from haste, in part from imperfect knowledge; for we may safely assume that the more accurate and extensive our knowledge is, the less likely are we to make errors in our observations, for, as a rule, we only inquire for and note those symptoms which our knowledge of the disease leads us to expect. For instance, a

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patient complains of pain in the hip, and a careless or hasty inspection of the patient leads to the inference that it is commencing hip-joint disease. A thoroughly trained and cautious surgeon examines the region of the kidney, and succeeds in detecting as the cause of the trouble a renal calculus or a perinephritic abscess. In order to illustrate still more forcibly the need for training and care in observation, we need only turn for a few moments to the subject of sporadic cretinism. You are aware that many Alpine districts are notorious for cretins; these are idiots of stunted stature, with an enlarged thyroid body (goitre). Until recently it was little thought that cretins occurred in England, until the late Dr. Hilton Fagge published an admirable paper in 1871 showing that we had cretins identical with the endemic cretins of Alpine countries. Sporadic cretins have, since the observation of Fagge, been detected in London and many parts of England, and those who have had opportunities of inquiring critically into the matter are almost unanimous in regarding the sporadic form of the disease as identical with endemic cretinism. My own inquiries into the question have convinced me that the two forms agree in their main characters, and, far from being a rare disease, it is not by any means uncommon. In defence of our blindness in failing to detect these cases until Fagge opened our eyes, it may be urged that the affection has recently appeared among us. To this I may at once reply: Museum specimens clearly attest its existence in England certainly one hundred years ago. The identity of sporadic and endemic cretinism works out in another way. H. Müller, Eberth, and others have described, under the name of fœtal rickets, cretinous calves and lambs. Calf-cretins present easily recognisable characters, and a specimen calved in England, which I examined at the "Bell and Mackerel" public-house in the

FIG. 2.



A calf-cretin calved in England.

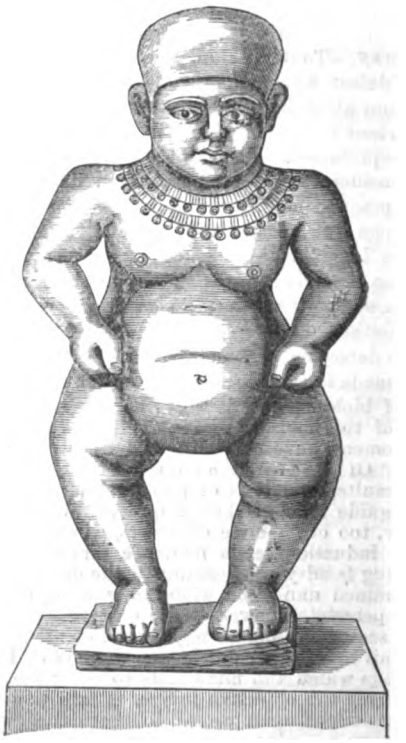
Mile-end-road, is sketched in Fig. 2. It is twelve inches long, its legs two inches, and its head is short like that of a pug dog.

Dr. Parrot of Paris suggested that the ancient Egyptians were acquainted with cretinism, and even had a cretinous god—PTAH—which was particularly venerated at Memphis. An examination of the models of this god preserved in the Egyptian galleries of the British Museum shows that in some PTAH is represented as a big-bellied, squat divinity, with short limbs, not unlike a cretin; in others he is represented as of noble figure, the type of majesty and lordly bearing. The notion that the dwarf models of PTAH were acquired from cretins is, however, very speculative. Certainly the Egyptians entertained queer notions and adopted strange customs, even preserving their anencephalic babies by mummifying them and preserving them in tombs. (Fig. 3.)

You must not think that whilst endeavouring to point out the motes in the eyes of others I am insensible to the beam in my own eye; far from it. Let me detail to you an error of which I am ashamed. Some three or four years ago the subject of avian tuberculosis occupied my attention; the results were embodied in a rather lengthy paper contributed to the *New York Journal of Comparative Medicine and Surgery*, October, 1886. In that paper a parrot's foot is represented (this sketch is reproduced in Fig. 4), with several irregularly rounded nodules upon it, which in their general characters resembled the nodules so common in the tuberculosis of birds. In 1884, Dr. O. Larcher published some observations on these nodular formations, and insisted that they were gouty deposits. It so happened that in several cases in which I had examined the deposits on the feet of birds and in their viscera, tubercle bacilli were present, and as the nodules on the feet of the parrot resembled those in which I had found tubercle bacilli, they were attributed to tuberculosis. This was a grave error on my part, but fortunately the specimen was carefully examined at the Royal College of Surgeons, and the deposits found to contain needle-shaped crystals resembling those found in gouty deposits in man. We should all endeavour to profit by our mistakes, and certainly this little experience has been to me of great advantage, and the subject is certainly of interest to physicians.

It is well known that pigs suffer from a parasitic affection

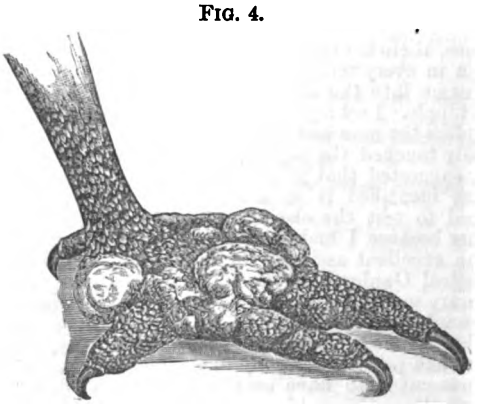
FIG. 3.



The Egyptian deity PTAH, supposed to be a cretin. (From models in the British Museum.

named trichinosis. The parasites (trichinæ) lodge by thousands in the muscles, and become surrounded or encysted by lime salts. On examining trichinosed pork, the parasites are seen as small white specks dotting the lean parts. In 1866 Virchow had submitted to him some ham supposed to be trichinosed because it was spotted with

FIG. 4.



A parrot's foot with gouty nodules.

small white concretions. These deposits were found on chemical examination not to be trichinæ, but collections of crystals of guanin. Since that date few observations have been made on the subject, although it is one of great interest. Guanin is a nitrogenous crystalline body resulting from the metamorphosis of animal tissue; it was first dis-

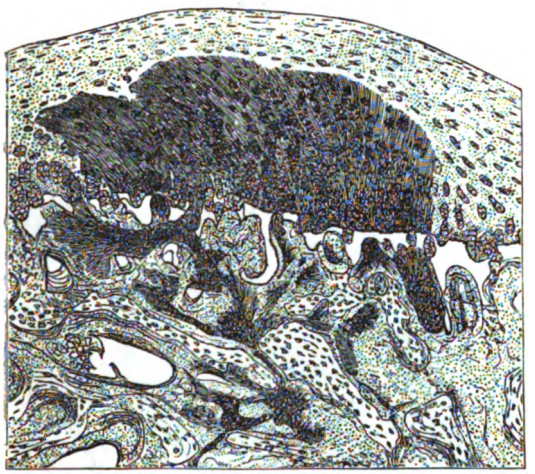
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covered by Unger in Peruvian guano, and its presence in this substance may be accounted for as the scales of fish contain a quantity of guano lime. The guanin deposits in the hog occur in the ligamentous tissues, in the articular cartilages, and in the fibrous septa of muscles in the form of acicular crystals collected together in irregular heaps, and form arborescent figures. (Fig. 5.)

This subject has been admirably investigated by Mendelson, and an excellent account of this guanin gout is furnished by him in the *International Journal of Medical Sciences*, vol. xcv., p. 109. A glance at the drawing of the relation of the crystal to the articular cartilage of the knee-joint will show at once the close resemblance to the deposits of urate of soda in human gout, and serves to show how justifiable it is to apply the name guanin gout to this condition.

Not long ago I ventured to state in a paper that, as far as my observations on disease extended, gout seemed to be one of the few affections peculiar to the human species. Sir Alfred Garrod, known all the world over for the attention he has given to gout, states that certain birds and reptiles, when in captivity, have sometimes concretions around their joints which closely resemble gouty deposits in man. Aldrovandi has noticed them in the falcon, and

FIG. 5.

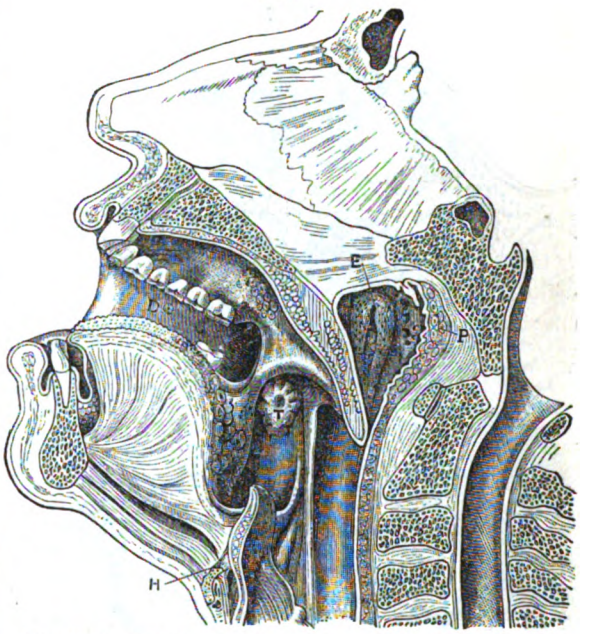


Section of the articular cartilage of the knee-joint of a hog, with deposits of guanin. (After Mendelson.)

M. Berlin of Utrecht has several times observed in the parakeet the presence of masses upon the metatarsal joints and toes composed of a white plastery substance, exhibiting both microscopically and chemically the characters of urate of soda. Garrod then says: "My own very limited examination of tumours upon the legs of birds has given me as yet only negative results." As a matter of fact, these plaster-like masses in the subcutaneous tissues of the legs and toes of birds are very common, and resemble in every way the chalky collections in human gout. Parrots also present deposits in their muscles which in every way resemble the concretions seen in the lean of ham obtained from pigs, the victims of guanin gout, and until someone sufficiently cunning in physiological chemistry takes an interest in the question it will be impossible for us to decide whether the gouty concretions on the legs of parrots are due to urate of soda or guanin. But another circumstance comes in; urate of soda and uric acid are very abundant in birds, but guanin is said not to occur in the urine of the lower mammals or man. Whence comes the guanin in the hog?

It also becomes a matter for inquiry, if, in all cases of human gout, the deposit is constantly urate of soda, may it not occasionally be guanin? This is an interesting question, but on the present occasion the subject is introduced for the purpose of showing how difficult it is in some cases to make accurate observation, and how very easily we may be deceived even in matters of which we are conceited enough to think that we possess adequate knowledge. The value of accurate observation is inestimable; it is impossible to predict the results to which a good observation may lead, and the aphorism "that the unexpected frequently happens in science" is as true in the art of medicine and surgery as in the science of chemistry. This is well illustrated by the advance made in recent years in the treatment of a peculiar affection of the naso-pharynx. In 1868 the eminent anatomist of Tübingen, Luschka, drew attention, in an elaborate and painstaking monograph, to the existence on the posterior wall of the pharynx, at the angle where it joins the roof, of a body which he named the pharyngeal tonsil. Its relation to the surrounding parts is represented in the accompanying diagram. (Fig. 6.) The history of this tonsil is replete with interest, but on the present occasion it would be very inappropriate to enter upon it at any length; indeed, all I need say is, that in general structure it is analogous to the part ordinarily known as the tonsil, and, under the microscope, sections from the guttural and pharyngeal tonsil cannot be distinguished from each other. Surgeons have long known that the tonsils are liable to enlarge in young people, inducing a habit of breathing with the mouth half open, snoring in sleep, and, what is very disagreeable, deafness. In very many cases the removal of the tonsils has sufficed to remedy or relieve these defects, but in a very large number of cases, even after the removal of the tonsils, the deafness still remained. In October, 1869, exactly twenty years ago, and that is one of

FIG. 6.



A longitudinal section of the human pharynx, showing the relation of the pharyngeal tonsil. (Modified from Luschka.)

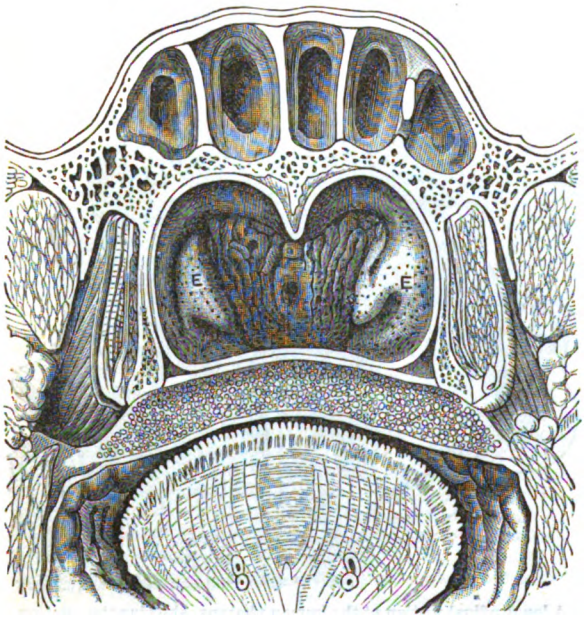
my excuses for mentioning the matter here to day, Meyer of Copenhagen published in the Medico-Chirurgical Society's Transactions an admirable paper, and showed most conclusively that these troubles are often due to what he called "adenoid vegetations of the naso-pharynx," or what may in simpler terms be described as enlargement of the pharyngeal tonsil. It will be seen at a glance, on referring to the transverse section of the head in Fig. 7, that when this tonsil enlarges it must laterally compress the orifices of the Eustachian tubes and induce deafness; anteriorly it projects into the nasal passages, obstructs respiration through the nose, and induces snoring, oral breathing, and imparts a disagreeable sound to the voice. Meyer's claims to our admiration extend beyond this, for he not only discovered the cause of the trouble, but clearly indicated the way to remove it; and though the operation he proposed has been modified by surgeons, the principles of treatment inaugurated by Meyer remain. The results which have followed the general adoption of the operation are best set forth in the words of Sir Morell Mackenzie in his presidential address to the first meeting of the British Laryngological Society, November, 1888. They were to this effect: "The cure of adenoid vegetations has resulted in the prevention of deafness to such an extent that there are probably at least 100,000 persons now hearing well

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who, had it not been for Dr. Meyer's valuable discovery twenty years ago, would now have been hopelessly deaf." The numbers quoted by Sir Morell may sound high, but my own inquiries into this matter leave no doubt in my mind that he has, if anything, understated the good results.

Correct observation is a matter of the greatest necessity, for on what we observe we have to make an interpretation and frame a line of action; consequently, if the observations are faulty, the interpretations we place upon them are as valueless as if, in taking a ship's position at sea, we mistake the star in the tail of ursa major for that in ursa minor. In our daily occupation as physicians and surgeons it is not only necessary for us to make, as far as possible, accurate observations, but also to correctly interpret them, because upon our interpretation the life of the patient not infrequently hangs, and this alone should induce us to make ourselves masters in the art of observation and cunning in interpretation. This is, of course, very difficult, and the saying "Jupiter sometimes nods" merely means that the greatest amongst us occasionally overlooks things. Even men who have been regarded as admirable observers have committed grave errors, both in observation and interpretation. The following case, which was under the care of an excellent physician, illustrates this.

FIG. 7



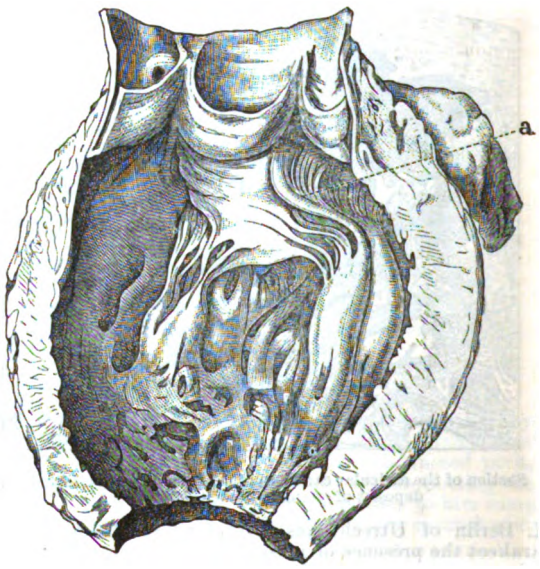
Transverse section of the head, showing the pharyngeal tonsil. (After Luschka.)

A patient from a poor and insanitary neighbourhood was admitted into a large London hospital suffering from symptoms of fever. In addition to a high temperature, the skin was covered with small red spots, which did not disappear on pressure. A peculiar subcutaneous mottling was present, and on turning down the bedclothes a peculiar mouse-like odour became distinctly perceptible. The tiny red spots were regarded as flea-bites, and there were unmistakable evidences of these athletic insects. The mottling of the skin and the mouse-like odour were attributed to the infrequent use of soap and warm water; the temperature was unaccounted for, and the nature of the illness remained for some days in doubt. It soon became clear that the disease was typhus fever; the red spots, subcutaneous mottling, mouse-like odour, and temperature were all characteristic of the affection. Unfortunately the correct diagnosis was made a little too late, as the nurse had carried the affection to a patient on the opposite side of the hospital. This case is by no means an isolated instance of the need for care in observing and interpreting symptoms. The question is an important one for the public at large, as well as for the patient and friends; and I am well within the mark in stating that you will not be many weeks in practice before being called upon to decide some case quite as critical as the one just mentioned.

Let me urge you not to limit your attention to man. Everything that lives has an interest for us. Bacon has said, "No natural phenomenon can be studied in itself alone, but to be understood must be considered as it stands connected with all nature." And if this be true in small things, how much the more must it apply to what John Hunter called the most complicated part of the whole animal creation—man.

It has often struck me what a lot of energy men would save if in their earlier years they would study a few animals besides men, women, and children, and how very simple many apparently obscure phenomena would become. I will illustrate this by one example. In February, 1858, a human heart was exhibited at the Pathological Society, London, and described in the Transactions under the following title: "Heart showing a large patch of striated muscular fibre situated in the substance of the anterior segment of the mitral valve." The description of the specimen leaves no doubt that one of the flaps of the mitral valve in this heart (which was removed from a man twenty-five years of age) contained a piece of muscular tissue the size of a fourpenny piece. (Fig. 8.) The exhibitor then indulged in rather more than six pages

FIG. 8.



The anterior flap of the mitral valve of a human heart, containing a patch of striated muscle fibre.

of close reasoning, and concluded "that it is an instance of a congenital accumulation (amounting to malformation) of the transversely striped muscle fibre, found naturally, but very sparingly, to exist in the part." As a matter of fact, the explanation is simple enough; in the embryo the valves are muscular projections from the cardiac walls which gradually become in man and nearly all mammals tendinous. In birds and some mammals (echidna) the tricuspid valves remain as muscular folds throughout life. The wonder is, not that such a specimen came to hand, but that many more such specimens have not been noticed. In every department of our profession there is the greatest need for caution in interpreting observations; in experimental physiology and pathology, where results are stated with almost mathematical precision, the greatest caution is required. This is so important that it is needful to illustrate it. It is now well known that the sphincter muscle of the mouth in mammals, the orbicularis oris, has distributed to it two distinct nerves, the seventh, or facial nerve, supplying it with motor power, and large branches from the fifth, conferring upon the muscle and its cutaneous covering sensation. The relation of these nerves to each other in the neighbourhood of the mouth of an ass are admirably shown in this bold drawing made by Sir Charles Bell, whose name in this school must always be mentioned in terms of the highest respect and admiration. The fact that the fifth nerve confers sensation and

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the facial motion is to us nowadays so simple that we can scarcely appreciate the difficulty which seems to have existed in the mind of Bell and his contemporaries as to the part played by these nerves individually. Charles Bell had, with others, come to the conclusion that the fifth nerve, in so far as the lips and face were concerned, must be regarded as a sensory nerve. He then endeavoured to substantiate the opinion by experiment, and, as a consequence, fell for a time into grave error. He found that if an ass be tied and thrown, and the superior maxillary branches of the fifth nerve cut on each side, and the animal be let loose, it will not pick up the corn; the power of elevating and projecting the lip, as in gathering food, appears lost. The animal will press its muzzle against the ground and at length lick the oats from the ground with its tongue. From this, Bell came to the conclusion that the power of the orbicularis was lost in consequence of the division of the branches of the fifth nerve distributed to it. In this experiment the observations were correctly made, but they were incorrectly interpreted, and Bell found himself unable to reconcile his observations on man with his experiments on mammals.

These contradictory results were at last reconciled by other experimenters; the ass did not feed after the second division of the fifth nerve had been cut on each side, because the lip, being deprived of sensation, could not feel the oats or grass. Thus we must coincide with the opinion expressed by Bell that in this matter the truth had been nearly obscured by experiments. Conclusions drawn from experiments upon mammals and applied to man must be received with the greatest possible caution. During the last five or six years a large number of experiments have been conducted with the view of determining the best method of suture for mending damaged intestines. In most instances the experimenters have selected dogs. Of all mammals, dogs (and carnivora generally) have the thickest intestines, and they may be handled, clamped, and stitched almost as freely as if they were coils of indiarubber tubing. Human small intestine is of very different texture, especially when distended and inflamed; thin, delicate, easily torn, and liable to inflame with little provocation. With such conditions, is it at all likely the results obtained from experiments on the small intestines of a dog could be possibly expected when attempted on man?

Because I venture to criticise the results of such experiments you must not regard me as hostile to experimental physiology and pathology; on the contrary, I am of opinion that it is of the greatest utility, for, as John Herschel pointed out in regard to natural philosophy, those departments in which experimental inquiry cannot, or from causes beyond our control, has not been carried out, the progress of knowledge has been slow, uncertain, and irregular; while in such as admit of experiment, and in which mankind have agreed to its adoption, it has been rapid, sure, and steady. These remarks apply as forcibly to biology in general as to natural philosophy.

In conclusion, gentlemen, let me urge you to use fully all those powers which God has given you, and struggle hard not to become intellectually blind to any serious extent. Training in the art of observation will be afforded you in the dissecting-room, and practice in observing and interpreting will be furnished in the out-patient room and wards of the hospital, under the guidance of the physicians and surgeons. To those of you who possess in a high degree the power of interpretation, great professional power may lie within your reach. Those of you who are furnished with this power in a moderate degree may yet attain great things by close application; but all must bear in mind that we have no special sense on which we can rely; vision, hearing, touch, and taste cannot be trusted unaided, and may deceive us when we think ourselves most awake and on the alert, cozening and causing us no small amount of mortification. If you read the lives of the greatest men, from Moses, who was a leader, warrior, lawyer, sanitarian, and physician, to Darwin, you will find that those excelled most who were not merely critical and keen observers, but able to place correct interpretations upon what they observed. I do not mean to lead you to believe that the possession of the highest intellectual vision will in this profession induce a Pharaoh to confer upon you a viceroyalty; it may, however, gain for you the friendship of a monarch, and, what is more valuable, the esteem and respect of mankind; whilst the results of your interpretations may confer incalculable good upon your fellow men, and reward you with mental satisfaction inexpressible.

A CASE OF

EXCISION OF BOTH HIP-JOINTS FOR ACUTE DISEASE; RECOVERY.

BY WILLIAM HENRY BATTLE, F.R.C.S.,
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CASES of disease of both hip-joints are fortunately of rare occurrence, and this one presents several unusual features. Amongst these are, the onset of acute disease on each side within a short period of time, the extent of this, the bad condition of the patient when admitted, the *necessity* for excising *both* joints, and the success which has followed the methods of treatment employed during the long period that he was in the hospital. I have waited for some months before bringing the case forward, in order to make certain as far as possible that the recovery is a complete one; now examination shows not only that the hips are firmly healed, but also that the general condition of the boy is good, whilst his power of locomotion exceeds my expectation.

R. L——, aged fourteen, was admitted into the Leopold ward of St. Thomas's Hospital on May 24th, 1887, and left for a convalescent home on Oct. 2nd, 1888. He was admitted under the care of Sir W. Mac Cormac, who kindly gave me permission to treat the case. The patient was said to have always been a delicate boy, but had suffered from no serious illness. There was no history of injury. Eight weeks before admission he went to bed feeling quite well and without any pain anywhere, but on the following morning he complained of pain over the left hip. This pain was very severe and increased in severity, so that he was obliged to take to his bed, where he has since been kept suffering from severe pain in his hips, for pain and swelling came on in the right hip soon after the left hip was affected. The father, a blind beggar, has not been heard of lately. Mother and one sister died of consumption. One sister had something the matter with her hip when a child and walks lamely, one leg being shorter than the other.

On admission the boy was in a most serious condition, and appeared to be suffering acutely from disease of both hip-joints. He refused to straighten either leg, and screamed violently when moved or touched. He lay doubled up, partly on his left side, and partly on his face and chest. There were bedsores over all the bony prominences—shoulders, elbows, heels, and even over the ribs—the bone being exposed over the left scapular spine and prominence of the sacrum. The boy was so thin that the skin appeared to be drawn over the bones. He was sweating profusely, had constant diarrhœa of watery, slimy, very offensive motions, obstinate vomiting, and a most offensive mousy smell. The temperature was high (104·2°). With considerable difficulty it was possible to examine the hips more closely. There were much swelling and œdema about the right, chiefly marked over the front of the joint, but on this side fluctuation was not well marked, and disease did not appear to have invaded the gluteal region. The pain on attempted movement was severe—in fact it was not possible to examine fully without an anæsthetic. The thigh was flexed, but not so much so as on the left side, the right knee crossing the upper part of the left leg, the thigh being slightly abducted. The left hip presented a large globular fluctuating swelling, which extended round the great trochanter and upwards and backwards into the buttock. The top of the great trochanter was three inches above Nélaton's line, and the thigh inverted, adducted, and shortened to a corresponding extent. It was not considered advisable to do anything then beyond procuring relief of pain, the administration of suitable food with the intent to improve his general condition, and the application of antiseptic ointments to the bedsores, with general nursing. He was placed on a water bed. During the 25th and 26th his general condition improved somewhat, but he appeared to suffer very much, screaming continuously, and disturbing the whole ward. The sweating and diarrhœa continued. The temperature on the evening of admission was 104°, at midnight on the same day 101°, and at 9 A.M. next morning 99·2°, rising to 101° at 8 P.M. On the 26th it reached 102° at 8 P.M. The urine was found to have a sp. gr. of 1020

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and to contain one-fourth of albumen. The other organs were apparently healthy.

On the 27th, in the afternoon, it was thought best, considering the boy's temperature, excessive pain, with the presence of so much pus about the left hip, to attempt to relieve him. Ether having been administered, an incision was made, about four inches in length, in a direction from below upwards towards the posterior superior spine, with the limb at an angle of 45° to the trunk, commencing about an inch below the top of the great trochanter and crossing its middle. This gave exit to several ounces of thick pus, and the finger introduced through it felt the head of the bone lying on the dorsum ilii. It was bared, bathed in the pus, and quite devoid of cartilage. The ilium was also bared for some distance around; the acetabulum was bared in a similar manner, but nowhere was there any granulation growth, such as one usually finds in tubercular disease. The head of the bone could not be brought to the acetabulum, so the neck was divided with a saw, and the head removed. After this the sawn surface of the neck could not be made to descend lower than the upper margin of the acetabulum. The cavity was washed out, and then sponged with a solution of chloride of zinc (forty grains to the ounce), again syringed with carbolic solution (1 in 40), a few silk sutures inserted, and a large drainage-tube put in. The wound was dressed with iodoform and salicylic wool. A long outside splint with extension was applied, and the bedsores dressed. The boy's condition did not allow of prolonged anæsthesia. On coming round from the ether he appeared relieved. At night the temperature was 100·6°. No evidence was obtained as to the original point of origin of the disease.

28th.—Passed a comparatively easy night. Says he is much better; is much less noisy, and seems greatly relieved. The diarrhœa continues. Does not complain of the right hip, which is now red and more swollen.

30th.—Placed in a double Thomas's splint (Croft's modification). Between this date and June 7th the temperature for two or three days was quite normal, but usually varied from 100° to 101° at night. He had much improved in general condition, but complained of a great deal of pain in the right hip, the swelling of which was increasing. On this date it was decided to incise the abscess from the front, adopting Parker's incision, with the intent to proceed further should the condition of the joint indicate it. The incision made was about three inches and a half in length, and gave exit to a large quantity of pus. On passing the finger into the joint a loose piece of bone was felt, and extracted, after flexion of the thigh, by means of necrosis forceps. This proved to be the separated, disc-like epiphysis of the head of the femur. As on the left side, there was little granulation growth, and the neck of the femur for a short distance, as well as the acetabulum, was bared and rough. As it appeared that this was a secondary process I did not remove anything further, but, having made a counter-opening behind, the entire wound was washed with chloride of zinc solution (40 gr. to the ounce) and carbolic acid solution (1 in 40), sutures inserted in front, and dressed with iodoform. The wound on the left side was also dressed; it was looking healthy and healing rapidly. He bore the operation very well.

June 14th.—Has been complaining of some pain in the right hip since the operation, but to-day says that he has no pain. Both hips are looking healthy, and there is very little discharge. He complains more of the bedsore over the sacrum; the other sores are healing. He is sleeping well, takes an interest in the ward, is cheerful, and allows movement without screaming. His appetite is improving. There is less sweating, and his body does not smell so offensively, but he is still so dirty in his habits that it is difficult to keep the wounds aseptic. The stitches and tubes were all removed from the left hip. The pressure of the splint at the knee had caused a small sore; the skin cannot bear the slightest pressure; sores form, even with firm bandaging. A mixture containing perchloride of iron was given.

24th.—Has much improved in health. His pulse is stronger and less rapid. The wounds are healthy in appearance, and there is less discharge. He is more cheerful, but decidedly deaf. A Bryant's double hip splint was applied.

26th.—There was a return of the diarrhœa, which was arrested by the addition of ten minims of tincture of opium to the medicine.

July 4th.—The left hip is now quite healed, and there is no pain on pressure. All the bedsores excepting the one over the sacrum are healed. He sleeps and takes food well. Is rapidly improving in every respect.

13th.—Quinine and acid mixture substituted for the iron mixture.

30th.—The improvement continues, though it is slow.

Aug. 12th.—Towards the end of June an abscess was opened in the right adductor region, from which there has been much discharge. The tube was removed this morning.

20th.—Both hips are healed. The boy is putting on flesh. The skin has lost its harshness, and is a better colour. The limbs are in good position. The bedsore over the sacrum still requires attention, though it is much improved.

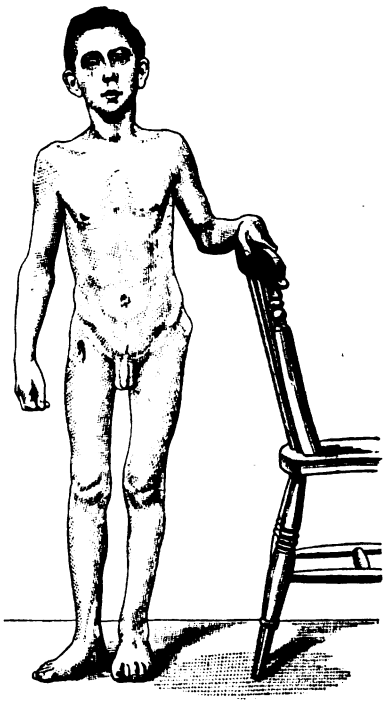
Sept. 2nd.—The tube which was placed in the counter-opening behind the right hip was removed.

14th.—All dressings have now been discontinued to the hips. Massage to be employed gently with cod-liver oil for a quarter of an hour twice daily to the whole body.

30th.—Quinine and iron mixture given. On removal of the splint, the legs were found to be quite parallel and in good position; they were, however, much wasted.

Oct. 22nd.—The massage with cod-liver oil appears to have been most beneficial. It is now employed for half an hour three times a day.

Nov. 13th.—The bedsore over the sacrum is nearly healed.



Pulse still rapid (120). A teaspoonful of Easton's syrup given three times a day.

Feb. 27th, 1888.—From this date until April 1st he suffered from an attack of cutaneous erysipelas, which, commencing in the right thigh, spread up the back to the neck, across the trunk, and down to the toes. The attack was ushered in by vomiting, headache, and shivering, which lasted for two days before the appearance of the eruption. It was also preceded by enlargement of the femoral glands, which had been observed for a period of five days. This enlargement of the glands continued throughout the attack. A double Thomas's splint was substituted for the Bryant in January, as it was lighter and the patient easier to handle in it.

May 1st.—All the sores are healed. He now gets up, can stand by himself, but is not able to walk without help. He is much stouter.

12th.—The patient having been deaf for some weeks was Politzerised a few days ago, and it has been repeated. He now lies in bed with the bedclothes drawn up; looks dull and stupid when roused; complains of headache and dizziness; has vomited, and appears pale and ill. The temperature has continued normal for a long time. These symptoms gradually subsided, no further treatment of the deafness being employed.

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16th.—Mr. Lawford examined his eyes, which had exhibited a tendency to nystagmus since he was admitted. Refraction myopic, astigmatism in each eye; no change in the fundus, excepting great tortuosity of arteries and veins.

June 16th.—About a fortnight ago he was fitted with double apparatus for the hips, there being a pelvic band with iron supports extending down the outer side of each limb, with movable joints at the knees and ankles. The left leg is rather more than half an inch shorter than the right. This apparatus enables him to get along slowly without help.

He was kept in the hospital until Oct. 2nd (a period of 400 days), on which date he was sent to Margate.

With the exception of a few days at the beginning of July, 1887, when the temperature rose two or three degrees at night, it was normal after June 18th of that year, and rarely reached 99·6° during the whole of the after-treatment, excepting during the attack of erysipelas.

Remarks.—The short account of this boy's state on admission shows what excellent attention and care he must have received from the house surgeons, dressers, and nursing staff before he could be brought into what might be called a fair state of health. I regret that I cannot mention them individually. Reference has already been made to the rarity of double hip disease,[1] and the majority of cases recorded have been examples of tubercular caries arising in a second joint whilst the patient was already under care for disease of the other side. The disease has usually been of chronic character. In this case the disease was of an acute nature on each side, and rapidly ran on to complete disorganisation of the joint. The necessity for excision was evident, the choice of time for the operations less so. The patient came to see me on Oct. 2nd of this year, and surprised me by the rapidity with which he could walk without the aid of the apparatus, which he had continued to wear since it was supplied, or other assistance. The woodcut is from a photograph kindly taken by Mr. W. Edmunds more than fifteen months ago. The patient is now taller, and the muscular development, especially below the knees, markedly increased. The left limb is an inch shorter than the right, but this is hardly apparent. In the majority of the cases of hip disease affecting both joints it has only been necessary to employ prolonged rest, with extension and appropriate splints, as when the disease affects one joint, the only operative treatment required being incision of abscesses. In one case, however, which was placed under my care, I excised the left hip-joint, and Mr. H. B. Robinson of St. Thomas's Hospital afterwards found it necessary to operate on the right side; the patient is still under observation. I can only find records of three other cases of excision of both hips. Mr. Croft[2] recorded a case in 1879 of excision of both hip-joints for femoral necrosis, in a girl of four years of age. The duration of the disease was eleven months, and an interval of three weeks elapsed between the operations. The femora were sawn at the level of the base of the great trochanter. The patient made a rapid recovery, and was last seen in October, 1883. She was not able to walk well then. In another case this double operation was performed by Dr. Ashhurst.[3] The patient was a boy about twelve years of age. The right hip had been diseased for eight months, and the left for a longer period. The operations were performed at an interval of seven months and a half. On the right side the head of the femur was carious, and on the left there was a sequestrum in the acetabulum. He recovered, but could not walk without support two years later. Dr. Byrd[4] of Illinois read notes of the case of a girl aged ten years, for whom he had excised both hip-joints. The upper ends of the femora, which were extensively diseased, were removed just above the great trochanter. At the time the case was brought forward, the patient was able to go up and down stairs without crutches, and over smooth ground. In these cases passive movement was commenced not long after the operation, but in the case recorded above the condition of the boy was such as to make any disturbance of the parts undesirable until after too long a period of time had elapsed to make movement of any value.

Harley-street, W.

[1] See paper by Dr. Ridlon, Internat. Jour. of Surgery and Antiseptics, October, 1888.
[2] Transac. Clin. Soc., vol. xiii., p. 66.
[3] International Encyclopædia of Surgery, vol. iv., p. 497.
[4] Med. Times and Gaz., 1883, vol. ii., p. 35.

COCAINE IN DIABETES.

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IN the course of diabetes it is no uncommon thing to find that glycosuria disappears on the development of an illness attended by febrile exacerbations. Towards the termination of diabetes, when phthisis is fully developed, we frequently notice that sugar disappears from the urine as the temperature becomes high. A high temperature, or perhaps more correctly speaking the condition which causes the temperature to become high, is thus seen to be followed by a disturbance of the glycogenic function of the liver. Is it possible that diabetes may be thus cured? Here is a case which lends weight to such a probability. A gentleman in this neighbourhood had been several months under treatment for diabetes. Contrary to medical advice, he went to the races one cold day, where he got chilled. He had shortly afterwards a rigor, which was followed by an atypical pneumonia attended by a considerable rise of temperature. The urine was now found to be quite free from sugar, and it remained free from sugar for more than a year, during which time the patient had quite regained, and felt himself in, his usual good health. From observation of these facts, it would appear as if the employment of medicines of the pyrogenic class might be followed by good results in the treatment of diabetes. Hence my reason for trying cocaine in the following case.

C. H——, aged forty-three, a cabinet-maker, was admitted into the Newcastle Infirmary on March 15th, suffering from diabetes of five months' duration. His mother died in an asylum at the age of fifty; the rest of the family history is on the whole good. Five months previously he had noticed that he was passing too much urine, and that his thirst and appetite were excessive. Prior to this he had suffered much from anxiety and worry in business. His skin is dry and shows here and there patches of psoriasis. Beyond puerile respiration at the apices nothing abnormal is detected in the lungs. His heart is healthy. In the abdomen nothing abnormal is noticed. He has, however, the gait of an ataxic. In walking he sways from side to side, is very unsteady, says he feels as if the floor were going up and down, feels giddy, and complains of numbness in the arms and hands. He does not fall, however, when his eyes are closed. Knee-jerks are present, but the response is slow and the amplitude large. Pupils are normal. He is the subject of delusions. When he awakes during the night he sees various objects with a peculiar colour, particularly men wearing black hats and yellow tassels. Temperature normal. Is passing thirteen to sixteen pints of urine daily, acid, specific gravity 1034; no albumen. The amount of sugar varies from 6000 to 7000 grains daily. He complains of a most obstinate constipation. His bowels are not relieved for six or seven days at a time, even though strong purgatives are employed aided by enemata. He is sleepy. At first I treated him by codeia, and, gradually increasing the dose, it was noticed that the urine fell to eight pints daily and the sugar to 4000 grains. Beyond this diminution in the amounts of urine and sugar eliminated daily, it was noticed that there was no improvement generally; the patient's symptoms remained the same. So I determined to try cocaine. This I gave in quarter-grain doses three times a day. Until now one of the most difficult symptoms to treat in his case was the obstinate constipation, but he had only taken the cocaine a few days when the constipation entirely ceased, and his bowels, which had hitherto refused to act to the strongest purgatives, now began to be moved once or twice daily. His nocturnal delusions also entirely disappeared. On ophthalmoscopic examination, Mr. Williamson, my colleague, reported the existence of a patch of old-standing choroiditis at the inner side of the disc of the left eye, and that the lens and disc in both eyes were normal. His temperature at this period ranged from 97° to 98°. When weighed on April 29th it was found that 6 lb. in weight which he had lost had been regained, and that his bowels continued to act well. In May the patient seemed to be progressing very satisfactorily. Urine varied from six to eight pints daily, and the amount of sugar from 1100 to 3000 grains.

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His delusions had not returned, he was sleeping and eating well, he had lost his vertigo and the swaying movement he felt when walking; also a painful sense of muscular fatigue of which he had previously complained. Instead of constipation the bowels were now moved sometimes twice and thrice daily. At this stage of his illness—that is, about ten days after this last record—the patient was passing from four to five pints of urine, and the daily average elimination of sugar was 1120 grains. The specific gravity of the urine was a little over 1020. Thinking that the cocaine was acting too much upon the bowels, I stopped it. No sooner was the cocaine stopped than almost immediately the urine rose to seven and nine pints daily, and the average amount of sugar to 3900 grains. Very unfortunately, at this stage, when all seemed to have been going well with him, he injudiciously exposed himself in the garden and caught cold. He now began to cough; friction râles were detected at the base of the right lung in front, and also at the back, where in addition a few crepitant râles could be heard. Treatment by cocaine was not resumed, as the chest symptoms attracted most of our attention. Feet and hands became œdematous, and the amount of urine fell to two pints daily. Later on albumen was detected in the urine, but it was only present for a few days. Râles were now more generally heard over the chest, muco-crepitant at the left apex, and friction and crepitant râles over the whole lung. His course was now downward. His temperature ranged from 98° to 101°. Under the administration of small doses of digitalis the dropsy of the feet, legs, hands, and scrotum disappeared, although the abdomen was still found to contain a considerable quantity of fluid. He ultimately died from syncope.

At the post-mortem fluid was found in the pericardium and the abdomen. The substance of the heart was œdematous. The wall of the left ventricle was thickened. The valves were all healthy and competent. There was a cavity at the apex of the left lung. Smaller cavities and tubercular nodules were found scattered all through the lungs, which were œdematous. The liver weighed 38 oz. Numerous white specks were noticed on its surface the size of a pin's head; they were hard, and evidently were miliary tubercles. The kidneys were pale and contained similar small bodies. The spleen appeared healthy; the mesenteric glands were cheesy. The dura mater was healthy; there was subarachnoid effusion of a milky white character. On section, the brain was found to be firm; it looked pale, but otherwise healthy. Each lateral ventricle contained one or two teaspoonfuls of serum. The vessels at the base in the fissure of Sylvius were healthy. Cerebellum healthy.

The points of interest in this case as the result of the administration of cocaine are—the total disappearance of a most obstinate constipation which refused to yield to the strongest purgatives; disappearance of a gait, not unlike that of ataxia; of delusions, and a sense of muscular fatigue; the return of a feeling of improved health and strength, with a gain in weight; a marked diminution in the amount of urine excreted; a very decided reduction in its specific gravity and a very noticeable fall in the daily elimination of sugar. Cocaine failed, however, to raise the temperature.

Newcastle-on-Tyne.

SOME NOTES ON THE VALUE OF HYOSCINE AS A SEDATIVE.

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DURING the last year we have employed hyoscine frequently in an emergency in a number of cases, any of which might have occurred in general practice. By the kind permission of the physicians under whose care the patients were placed we are enabled to bring the results forward in the present paper. The preparation used was in all cases a 1 in 500 solution of the hydrobromate of hyoscine in distilled water. This strength is a convenient one, five minims being equivalent to a dose of $\frac{1}{100}$ gr. of the salt. (Care should be taken to obtain the hydrobromate of hyoscine from a reliable chemist. It is perhaps superfluous to say that it must not be confounded with hyoscamine).

I.—CASES OF MENTAL EXCITEMENT.

Case 1.—William C——, aged thirty-eight, admitted under the care of Dr. Hughlings Jackson, suffering from general paralysis without mental symptoms, but with all the physical indications typically present. He suddenly had a series of epileptiform convulsions, leaving him permanently aphasic, and partially hemiplegic, and he also became very noisy (and, as far as the paralysis would allow, violent), disturbing the ward by his inarticulate cries. The injection of $\frac{1}{100}$ gr. of hyoscine at once quieted him at first. During the next few weeks he had a frequent recurrence of the noisy attacks, and the dose had to be increased, until at one time he required $\frac{1}{75}$ gr. every six hours. No bad effects were at any time observed due to the hyoscine.

Case 2.—Bridget H——, aged twenty, admitted under the care of Dr. Bastian, suffering from a tumour of the cerebellum. One evening she suddenly became maniacal and suicidal, with hallucinations of sight and hearing. On this occasion the injection of $\frac{1}{100}$ gr. of hyoscine produced little if any effect on her mental condition, but some weeks later, when she had two similar attacks of excitement, the injection of $\frac{1}{75}$ gr. of hyoscine had the effect of completely allaying the excitement and producing sleep for several hours.

Case 3.—George H——, suffering from well-marked general paralysis, the mental symptoms, however, having made their appearance only a few days previously. His wife's account was that he had had no sleep for five days, had become irritable, and had threatened her with violence, and had been squandering his money, ordering numerous suits of clothes of his tailor, &c. When seen he was excited, and had delusions. He complained bitterly of his inability to sleep. An injection of $\frac{1}{75}$ gr. of hyoscine was then given, and in five minutes he was sleeping soundly. He slept quietly for six hours till the afternoon, and subsequently had a good night. The mental symptoms temporarily disappeared, and his wife was able to take him home to the north of England next day without any trouble.

Case 4.—Emily C——, aged twenty-one, admitted under the care of Dr. Ramskill, suffering from epilepsy. A few weeks after admission, after a succession of rather severe fits, she became obstinate and refused her food. The next day she rather suddenly became violent and tried to strike the nurses and doctors. An injection of $\frac{1}{75}$ gr. produced sleep in about a quarter of an hour. During the two days which elapsed before her removal to an asylum could be arranged for, she had six similar injections, with an equally satisfactory result.

Case 5.—Ellen C——, aged twenty-seven, admitted under the care of Dr. Hughlings Jackson, suffering from epilepsy. Coincidently with the appearance of the catamenia (which had been suppressed for some months previously), she became sleepless and noisy, with hallucinations of sight and hearing. When she was in this condition, $\frac{1}{100}$ gr. of hyoscine would quiet her within five minutes, usually producing sound sleep, and on awaking she was for some hours free from the hallucinations and much more manageable. She had about twenty such injections, which had no untoward effect on her mental condition, which steadily improved.

Case 6.—James P——, aged twenty-three, admitted under the care of Dr. Ramskill, suffering from epilepsy of twenty years' standing. Early one morning he had an epileptic fit of an ordinary character, but immediately on the cessation of the convulsion he sprang out of bed and ran about the ward, screaming so loudly as to awake those in distant wards. He was with great difficulty held down while $\frac{1}{50}$ gr. of hyoscine was injected. In two minutes he ceased to scream, and in five he was sleeping soundly. As he was discharged from the hospital next day no further observations were possible.

Case 7.—John O——, aged thirty-three; admitted under care of Dr. Bastian, suffering from epilepsy. While in hospital he suddenly became delusional and maniacal, and required the injection of $\frac{1}{75}$ gr. three times in one day. It did not, however, check his excited condition, but it produced such an amount of muscular relaxation that violence was no longer possible.

Case 8.—Minnie E——, aged seventeen; admitted under the care of Dr. Gowers, suffering from epilepsy of eight

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years' standing. After having several fits she became violently maniacal. An injection of $\frac{1}{100}$ gr. was given, but as it produced no effect, it was repeated fifteen minutes later. This had the effect of completely quieting her, and making her limbs quite limp, but did not produce sleep.

Case 9.—Harold W——, aged seventeen, admitted under the care of Dr. Beevor, suffering from hysterical contraction and complete anæsthesia of the right arm. The contracted hand did not relax during ordinary sleep, but it did under the influence of an anæsthetic. On one occasion he became very excited and violent after hypnotism. An injection of $\frac{1}{100}$ gr. of hyoscine was given him, and during the sleep and muscular relaxation which followed not only was there opening of the contracted hand, but a prick or pinch on the arm was followed by a movement of the arm away from the irritant, showing a return of sensibility. After the effect of the hyoscine had worn off the old condition of matters was restored.

II.—CASE IN WHICH HYOSCINE WAS GIVEN AS A SUBSTITUTE FOR MORPHIA, THAT DRUG BEING INADMISSIBLE.

William S——, aged twenty-four, formerly a sailor, who had acquired the opium habit, was admitted under the care of Dr. Hughlings Jackson for neuralgia of the arm, which appeared to commence in the cicatrix of an old injury in the thumb. Removal of the cicatrix produced no relief; antipyrin, bromides, and chloral had no effect on the pain, and opium was inadmissible. Hyoscine was therefore given subcutaneously, at first in a dose of $\frac{1}{100}$ gr.; later $\frac{1}{75}$ gr. was required. This was sufficient during several weeks to procure four or five hours' sleep every night.

III.—IN THE STATUS EPILEPTICUS.

Minnie F——, aged sixteen, admitted under the care of Dr. Hughlings Jackson suffering from left hemiplegia and epileptic fits, which always commenced on the left side, both being probably due to a cortical lesion. One evening she had a succession of such fits, with no appreciable interval. After she had been in this condition for three hours, $\frac{1}{75}$ gr. of apomorphine was administered subcutaneously. This produced copious emesis, but the convulsions continued unchecked, and as there was no improvement at the end of three quarters of an hour, $\frac{1}{100}$ gr. of hyoscine was injected. The convulsions at once became less violent, and ceased altogether within five minutes. It is difficult to judge how far the result was due solely to the hyoscine, but its apparent effect was sufficiently striking to suggest its trial in such cases in future.

IV.—CASES ILLUSTRATING THE OCCASIONAL UNPLEASANT EFFECTS FOLLOWING THE USE OF HYOSCINE.

Case 1.—James H——, aged fourteen years and a half, admitted under the care of Dr. Gowers for epilepsy. Hyoscine was given by the mouth in doses which had been increased until he was taking $\frac{1}{60}$ gr. three times a day. No effect was produced on his fits, but he became strange in his behaviour. He looked bright and rational, but was very restless, trying to leave the ward, and wander he knew not where, saying he heard two voices, one advising a good course, and the other an evil one. His pupils were widely dilated, and his accommodation was paralysed. He returned to his usual condition when the effects of the hyoscine had worn off.

Case 2.—Henry H——, aged thirty-three, admitted under the care of Dr. Gowers, suffering from a condition of spastic paraplegia, due to myelitis. Hyoscine was given in the hope of lessening the rigidity, in doses of $\frac{1}{100}$ gr. subcutaneously every night, increased afterwards to $\frac{1}{75}$ gr. After three of the larger doses there was excessive dryness of the mouth, dimness of sight, and delirium with double consciousness. No effect was produced on the muscular spasm.

We have also had the opportunity of observing its effects (usually negative) on a number of other chronic nervous diseases, but as they were mostly isolated cases they are passed over for the present. In our hands the drug never failed to act as a prompt and powerful sedative in cases of mental excitement, and in none of these cases were there any unpleasant after effects. This agrees with the much larger series of observations published in the *Berlin. Klin. Wochenschr.* by Dornbluth (No. 9, 1888) and Eugen Key (No. 50, 1888). They found it "a certain, rapid, and effective sedative, especially in cases in which there was much violence and excitement." In cases of excitement a large dose is more easily borne, and $\frac{1}{100}$ gr. appears to be a safe initial hypodermic dose for an adult. If no effect is produced in half an hour, a second dose of $\frac{1}{200}$ gr. may be given. In other cases of chronic nervous disease a smaller dose is prudent, $\frac{1}{300}$ gr. being given at first and gradually increased. When given by the mouth, at least double the dose given above is required to produce the same effect.

ON THE

EXTENSION OF THE FŒTUS DURING THE SECOND STAGE OF LABOUR.

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RECENT observations by German obstetricians have shown that during the second stage of labour the advance of the fœtal head takes place by extension of the fœtal trunk, and consequent elongation of the long axis of the fœtus; not by the pressure of the uterus on the fœtal breech, driving it down, but by the pressure of the uterus around the fœtus, straightening it out. These observations have not yet found their way into English text-books, nor, so far as we know, have they been confirmed in this country. We have therefore thought it worth while to test their accuracy. Litzmann[1] noticed that during a pain the fundus uteri reached higher than during relaxation; and observed seventeen cases in which, up to the time at which the head was distending the perineum, the fundus uteri occupied the same position with respect to the umbilicus as at the beginning of labour. He suggested that this might be part of the normal mechanism of labour; but, in the paper quoted from, did not speak as if satisfied that it was so. Schröder and Stratz[2] ascertained that the measurement between the breech and the vertex with the spine flexed is less than that with the spine extended, by, on the average, more than two inches; and that there may be more than four inches difference between the measurements. Therefore if, in labour, extension of the trunk take place, the head may advance to this extent while the breech remains stationary. They have shown by measurement that this extension takes place: that the distance between the breech and the vertex of the fœtus increases during the passage of the head through the pelvic cavity by an amount such as extension of the trunk would produce. They point out that the flexed attitude of the fœtus before labour is not due to compression by the uterine wall, for the child is usually freely movable in the uterine cavity; and when the child lies in an abnormal position the shape of the uterus is altered in correspondence to that of the child. They explain the extension during the second stage of labour by saying that the body becomes extended, because the contraction ring is drawn up over it, and the fœtal trunk can only pass through this by becoming extended. Hence there is a time during which the head advances, while the breech remains stationary. Hoffheinz[3] has made observations in the Königsberg Clinic to test this point. He measured in 100 cases the distance between the upper border of the symphysis pubis and the fundus uteri. He found that the distance between these points was actually a little longer when the head was distending the perineum than when it was in the pelvic brim. He measured also the distance between the fundus uteri and the most advanced point of the fœtal head, and found that during the second stage of labour this distance was increased by upwards of four inches; an increase more than can be accounted for, according to the measurements of Schröder and Stratz, by extension of the spine. He believes that during the birth of the head the breech ceases to be in contact with the fundus, and the feet take its place. He explains the extension of the spine by the contraction of the uterus in all its dimensions, the resistance to the advance of the child causing the contracting uterine body to pull up the cervix

[1] Arch. für Gyn., Band x., S. 409.
[2] Die Schwangere und Kreissende Uterus, Bonn, 1886, S. 78.
[3] Zeitschrift für Geb. und Gyn., Band xv., S. 432.

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uteri; and this resistance, together with the extension of the child, causes the body of the uterus to be pushed higher up at the time when resistance is greatest—that is, when the perineum is on the stretch. His observations were made in the intervals of pains. During the pains he thinks the uterus is pushed up still higher; in this respect following Litzmann.

In this communication we record measurements made in the General Lying-in Hospital to verify the statements of the writers above quoted. All the measurements were made, with callipers, from the upper border of the symphysis pubis to the fundus uteri, during the intervals of pains. The first measurement was taken when the presenting part was engaging the brim, the second when distending the perineum:—

No.	Presentation.	Parity.	Height of fundus, head or breech in brim.	Height of fundus, head or breech on perineum.
1	4th, cranial	1	11 inches	11 inches
2	1st, ,,	1	11½ ,,	11½ ,,
3	1st, ,,	1	10¾ ,,	10¾ ,,
4	1st, ,,	1	10½ ,,	10½ ,,
5	1st, ,,	1	11 ,,	10¾ ,,
6	2nd, ,,	1	11 ,,	11 ,,
7	1st, ,,	1	12½ ,,	12½ ,,
8	3rd, ending 2nd cr.	1	11½ ,,	11½ ,,
9	1st, cranial	1	11 ,,	11 ,,
10	4th, ending 1st cr.	3	10 ,,	10 ,,
11	1st, cranial	1	9 ,,	9 ,, (8 mos.)
12	3rd, ending 2nd cr.	7	10 ,,	10 ,,
13	1st, cranial	1	10½ ,,	10½ ,,
14	1st, ,,	4	7½ ,,	7½ ,, (7 mos.)
15	2nd, ,,	3	10½ ,,	10½ ,,
16	1st, ,,	1	10 ,,	10 ,,
17	1st, ,,	7	10 ,,	10 ,,
18	1st, ,,	1	10½ ,,	10½ ,,
19	3rd, ending 2nd cr.	1	10¾ ,,	10¾ ,,
20	1st, cranial	12	10½ ,,	10 ,,
21	1st, breech	1	10½ ,,	10½ ,,
22	1st, ,,	1	10½ ,,	10 ,,

It will be seen that in no case was the difference greater than half an inch. In all but three of the twenty cases of vertex presentation there was no difference at all. Of those three exceptions, in No. 20 the measurement was half an inch less when on the perineum; in No. 5, a quarter of an inch; and in No. 4, an eighth of an inch.

Measurements were also taken in two cases of breech presentation. In No. 21 the distance between the two points was a quarter of an inch less when on the perineum; in No. 22 it was half an inch less. A few cases were also measured during a pain, the head distending the perineum; in these there was an increase in the measurement varying from an eighth to a quarter of an inch.

In order to guard against any mistake, nearly all the cases were measured two or three times. These measurements, taken with those quoted from other writers, justify the assertion that whether the head or the breech be the presenting part, extension of the fœtal spine is a constant and essential part of the mechanism of the second stage of labour.

Harley-street, W.

DIPHTHERIA AND ACUTE LARYNGITIS.

TWO CASES OF TRACHEOTOMY, AND DEATH RESULTING FROM SUCKING THE TUBE IN ONE INSTANCE.

BY CHARLES ROBERTS, M.R.C.S., L.S.A.

THE following cases present points of interest from the rarity of the operation having to be performed successively in private practice in so short a time, and also from the melancholy sequel to one of the cases. The following are the facts:—On March 28th last I was asked to see, in consultation with Mr. Barry of West Drayton, a little boy aged six years, the son of Mr. C. J. Moore, surgeon, of Yiewsley, who was at that time away from home. The child was suffering from diphtheria, the first symptoms having showed themselves three days previously. On the 29th the membranous deposit had evidently extended to the larynx, and there was croupy breathing, with some dyspnœa. On the 30th the breathing was fairly good, and there were no urgent symptoms. On the 31st, however, the dyspnœa became more urgent, and it was evident that unless relief were given suffocation would ensue. Accordingly, at 4 P.M., the child having been placed under chloroform by my assistant, Dr. Charpentier, and assisted in the operation by Mr. Barry, I opened the trachea and inserted the tube, thereby giving immediate relief, and subsequently several hours of refreshing sleep were obtained. In the early part of the following morning difficulty of breathing was again experienced, and on my arrival at 9 A.M. I found the tube almost completely blocked by false membrane. I immediately removed the inner cannula, and the child at once breathed freely. During the day the tube became blocked on several occasions, and the inner cannula had to be repeatedly removed and cleansed. That night Mr. Moore arrived home, and thinking greater freedom to the breathing would be given removed the inner cannula altogether. The outer cannula then became blocked, and in order to give relief he insisted on sucking the tube in spite of remonstrance from Mr. Barry, who was present at the time, and this he continued to do at intervals until the child's death, although I and others added our remonstrance to that of Mr. Barry. The only precaution he took was to wash out his mouth with a solution of permanganate of potash. The child died on April 3rd, three days after the operation, death being due to exhaustion and impeded respiration; the exhaustion was intensified from the fact that during the last four days the muscles of deglutition were paralysed, and he resisted all attempts to introduce nourishment into the stomach by means of a tube, and the only way of supporting him was by means of nutrient and stimulating enemata.

On April 4th Mr. Moore complained of his throat being sore, and on examining it I noticed the commencement of diphtheritic deposit on both tonsils, and in spite of active treatment this rapidly extended until it covered both sides of the fauces, soft palate, and uvula, which latter became greatly œdematous. Mr. Moore, who was in bad health and suffering from a dilated heart, with œdematous swelling of the legs, rapidly became exhausted, and in spite of all nourishment and stimulant that could be given suddenly expired on the evening of April 7th from failure of the heart's action, six days from the date of having first sucked the tube, and three from the first appearance of diphtheritic deposit.

It will be remembered that I performed tracheotomy on Mr. Moore's child at 4 P.M. on March 31st, and on my arriving home at 5.30 I found an urgent message to attend another child, a girl aged eight years (who was suffering from acute laryngitis) as the parents thought it could not live long. On arriving at the house I found that the symptoms which had been relieved three days previously had returned, and that the child was in imminent danger of suffocation; therefore, with the sanction of the parents, Dr. Charpentier placed the child under chloroform, and I opened the trachea and inserted the tube. The symptoms were so urgent that the child ceased to breathe, and after the introduction of the tube artificial respiration had to be resorted to before animation was restored. For a time the child breathed better, but both lungs became congested, and on the night of April 1st she had several convulsive attacks from which she never rallied, but died on April 2nd, two days after the operation.

Remarks.—Both cases show the value of tracheotomy in prolonging life, for without it the children would undoubtedly have died on the day these operations were performed, whereas one survived three and the other two days. In the first case paralysis of the muscles of deglutition was an unfortunate complication, as it cut off all means of supporting the child by nourishment and stimulants; otherwise the case might have had a different result, for the child was strong and healthy and made a gallant fight for life, and towards the end of the case the bronchi were almost if not quite clear of diphtheritic deposit. An annotation appeared in THE LANCET of April 20th on the death of Mr. Moore from sucking the tube, and I quite agree with the advice given: "We cannot too strongly impress on surgeons and nurses to avoid such a method of clearing a blocked tube." I look upon such a procedure as simply suicidal; and immediately I was told in the presence of Mr. Moore what he had done, the remark burst from me "You are a dead man," and unfortunately my prediction proved only too correct. In THE LANCET of April 27th a letter from a correspondent, "W.," appeared justifying Mr. Moore's rash act on the ground that it was analogous to a person "who can swim trying to save a fellow-

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creature from drowning by jumping into deep water. A more weak and illogical argument I have seldom seen put forward. In the latter instance, when rescuer and rescued have both landed, there usually is an end of the case, and the drowning person does not require to be rescued every few hours, as was done in this case by Mr. Moore repeatedly sucking the tube. And again, when the heroic act of the swimmer is over, there is no fear of deadly inoculation working in the system, disease developing in a few days, and death within a week. This case is instructive as to the period of incubation in diphtheria; the tube was sucked for the first time at 11 P.M. on April 1st, and the first symptoms of the disease showed themselves at 6 A.M. on the 3rd, at which time he expressed his opinion to his wife that he had contracted the disease, as he felt unwell, and his throat was sore; so that the period of incubation by inoculation through the mucous membrane may be taken at thirty hours, but the diphtheritic deposit did not manifest itself until twenty-four hours later.

Uxbridge.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF DYSENTERY TREATED BY INJECTIONS OF SULPHATE OF COPPER.

By W. EASBY, M.D.

THE case narrated in THE LANCET of Aug. 31st by Mr. Hepburn reminds me of a case where injections of sulphate of copper were most successful. The patient, J. O——, aged fifty, was a thin, spare man. He lived in the Cambridgeshire Fens, and in his young days had suffered from ague. The water-supply to his house was very bad; the usual drinking water was rain water kept in a wooden tub, and when this ran short that from the dykes was used. I first saw him on Dec. 31st, 1876; he had all the symptoms of a smart attack of dysentery; these continued for a week, when he was much better. On Jan. 14th, 1877, he had a relapse, but improved by the 20th. On the 21st I heard he was worse, and was passing a lot of blood, and had much tenesmus. I at once prepared an injection of sulphate of copper, 10 gr.; tincture of opium, 1 dr.; and 4 oz. of water. On reaching the house I found him lying in a small pool of blood. He informed me this had been going on all night, and the tenesmus was unbearable, bringing away blood and mucus. I well oiled a large long gum-elastic catheter, and with a finger in the rectum passed it as far into the bowel as it would go, which was at least fifteen inches; through this the copper solution was injected from a small brass syringe; it caused no pain; and in the evening the tenesmus was relieved, and very little blood had passed. On the 22nd he was decidedly better, but more blood in the stools than I liked, so the injection was repeated, and again on the 23rd; and from this date he recovered rapidly. My treatment prior to the copper injection was bismuth, gallic acid, a full dose of powdered ipecacuanha; but nothing gave such rapid and permanent relief as the copper and opium. The diet was purely milk. I have not had such a bad case as this in an adult since, but in children several; and here the same treatment proved successful.

Peterborough.

A CASE OF TETANUS.

By R. A. JAMIESON, M.A., M.D., M.R.C.P.,
CONSULTING SURGEON TO THE IMPERIAL MARITIME CUSTOMS IN CHINA.

IN the case here briefly reported there was a singular lack of proportion between the phenomena induced, rapidly culminating in death, and their exciting cause. The patient had had no contact with horses directly or indirectly, and no case of tetanus had ever been treated in the ward where she lay.

A Chinese woman, aged fifty-one, field labourer, ruddy and well nourished, was admitted to St. Luke's Hospital for Chinese under my care on July 26th, 1889. For seventeen years she had had a slowly growing, somewhat pear-shaped tumour on the posterior surface of the right thigh, just below the gluteal fold. The tumour had attained the size of a melon, was freely movable on the fascia, and was quite indolent. Its apex was ulcerated, the result of native treatment by plasters, but this ulceration already dated back to nearly a year. The growth and surrounding parts were extremely filthy. As a preliminary to removal, frequent washing was ordered, the ulcerated surface was sprinkled with iodoform, and the tumour was enveloped in freshly carded oakum. This was the only treatment that the patient received. The weather was extremely hot, the thermometer in the shade marking 100° F. on July 27th and 28th. The patient ate well and slept well, and in every respect, except as regarded the local trouble, was in excellent health. On the evening of the 28th she sat for a couple of hours outside the ward door on a staircase through which a strong current of comparatively cold air was blowing. Next morning (29th) she complained of pain and stiffness in the muscles of the neck and inability to depress the lower jaw. The incisors could not be separated to a greater distance than three-quarters of an inch. During the day tetanic spasms in the trunk and limbs occasionally occurred. These became more frequent during the night. On the morning of the 30th the lower jaw was immovable. Temperature obtained in axilla 105·8°, and no doubt higher. Spasms became more frequent, but were never violent. Temperature rose to 107°, delirium lasted for about an hour, giving place to unconsciousness, death following in an hour and a half, thirty-six hours after the onset of the symptoms.

Shanghai.

A CASE OF DOUBLE POLYDACTYLISM, DOUBLE HARELIP, COMPLETE CLEFT PALATE, AND DOUBLE TALIPES VARUS.

By F. MARSH, F.R.C.S.,
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THE following case presents features of teratological interest. A male infant, three days old, was brought as an out-patient to the Children's Hospital, Birmingham, on Sept. 9th, 1889. On each hand there was a supplementary digit attached by a narrow pedicle to the skin over the ulnar side of the head of the fifth metacarpal bone. Each digit, including the nail, was perfect, and almost equal in size to the adjoining little finger. Both hard and soft palates were fissured, the cleft in front being distinctly to the left of the mesial line. The double harelip and the talipes were severe examples of their respective deformities. In other respects the infant was normal and fairly nourished. It was, however, very feeble, and died from malnutrition on Sept. 16th. The mother had previously given birth to nine children, all of them healthy and in no way deformed. Careful inquiry failed to elicit any history of polydactylism in any branch of the family. No "maternal impressions" had been received, the deformities being both unexpected by, and inexplicable to, the mother.

The case is an unusual one, if not a unique one, combining as it does deformities the result of three different causes: (1) the extra digits due to developmental excess; (2) the harelip and cleft palate due to developmental arrest; (3) the talipes varus due to fœtal malposition or mechanical pressure in utero.

Birmingham.

GLYCERINE OF BORAX IN THE DIARRHŒA OF INFANTS.

By E. MANSEL SYMPSON, M.A., M.B. CANTAB.

IF we regard infantile diarrhœa as due to the excessive fermentation of food in the intestinal canal causing irritation and a catarrhal condition of the intestinal mucous membrane, it seems reasonable to look for a remedy to act both on the cause and effect. Glycerine itself is an antiseptic of no mean order, and relieves the congestion and pain of inflamed piles, chiefly mucous surfaces, while every

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mother knows the virtues of glycerine of borax when applied to the mucous membrane of the mouth. So it was no great step to introduce it further into the alimentary canal. Whether fed from the breast or brought up by hand, the motions of patients with diarrhœa infantum were like curds of milk, sugesting that the irritated intestine had hurried its contents on as quickly as possible. Again, they were very foul-smelling, suggesting great fermentation. Therefore the glycerine of borax has to do two things: to act as an antiseptic to prevent excess of fermentation in the stomach and intestines, and to soothe the mucous membrane thereof in passing over it. I have found it answer capitally; the children like it, it lessens the griping pains, it renders sweet the offensive motions, and it stops the diarrhœa. One case died while under this treatment; the child was seven months old, had had diarrhœa two days, and was utterly worn out when I saw it. But I suppose there always will be cases which come under our notice too late for cure. I give it as follows: Glycerine of borax, twenty minims; tincture of orange, three minims; distilled water to one drachm. To be given every one, two, or three hours, according to the severity of the case or the age of the patient.

CORNUA CUTANEA.

By H. HOLDRICH FISHER, M.B.

HORNS growing from the skin are considered somewhat uncommon; the following case came recently under my observation in a labouring man of sixty-five years. The horn projected for an inch from the lower lip on the right side; it had a blunt extremity, was firmly adherent, and the skin around at the base superficially ulcerated. He stated that it had first appeared as a small warty growth three years ago, had slowly increased, and after being cut off with a razor on two occasions seemed to grow again quicker each time. On the opposite side of the same lip was what appeared to be another warty growth in its early stages. He was in the habit of holding his clay pipe this side, and not on that from which the horn grew. There were no glands enlarged, and the patient was in good health. The treatment consisted of removing the horn, together with the part of the lip that it was attached to, by a small V-shaped incision under cocaine locally injected, and bringing the edges together with one or two sutures.

Kettering.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA PARK.

A CASE OF ABSCESS OF THE BRAIN COMPLICATING DISEASE OF THE LUNG; NECROPSY; REMARKS.

(Under the care of Dr. SAINSBURY.)

CASES of abscess of the brain, secondary to suppuration elsewhere, but independent of symptoms of general pyæmia, constitute, according to Dr. Gowers, about 10 per cent. of all cases of cerebral abscess. Of this group the primary focus of suppuration is most commonly to be found in the lung. The pathology is somewhat mysterious, and though in the present instance no new light is thrown on the subject, yet the comparative infrequency with which such cases arise makes it advisable that they should be recorded. For the notes of the case we are indebted to Dr. Chaplin, house physician to the hospital.

W. J——, aged forty-six, an engine driver, was admitted into Victoria Park Hospital on July 8th, 1889, under the care of Dr. Harrington Sainsbury. He complained of spitting of blood and phlegm, pain in the right side of his chest from the level of the sixth rib to the right hypochondrium, and considerable emaciation. There was no history of lung disease in his family. He had been in Egypt for three years, and had enjoyed excellent health until December, 1888. In April, 1889, he went through an attack of pleurisy in the right chest. In May he began to expectorate tenacious yellow phlegm, and at the end of June hæmoptysis set in and continued without intermission until his death.

Upon admission he was coughing up daily about three-quarters of a pint of grumous blood, mixed with phlegm and shreddy elements. His temperature was 101·2°, and he complained of pain at the base of the right lung. The following physical signs were made out at his right base:—Impairment of percussion note from the level of the angle of the scapula to the base, vocal vibrations diminished, breathing sounds very feeble, and vocal resonance diminished and altered in quality. An exploring trocar was introduced and some dark grumous blood withdrawn, mixed with pus. In spite of all treatment the hæmoptysis continued without abatement. On Aug. 1st he complained of the fingers of his right hand becoming at times firmly closed, the spasm lasting from a few seconds to a minute before the fingers could be unclosed and stretched out. On the 8th, at about 2.30 P.M., the patient was found unconscious. The pupils were unequal, the left being widely dilated. There was no conjugate deviation of the eyes. The right arm and leg were in a state of clonic spasm. The muscles of the face and neck upon the right side were tonically contracted, and he passed his urine and fæces under him. After remaining in this state for an hour and a half he suddenly had an epileptoid fit. Both pupils were now dilated. The eyes deviated to the right side, and there was tonic spasm of the right leg and arm, giving way after a few seconds to clonic spasm of that side, and then to general clonic spasms of both sides of the body. During the intervals of the fits the pupils were noticed to rhythmically contract and dilate. The patient continued to have the fits until 2.40 A.M., having fifty-five in all. He remained unconscious until he died at 11 A.M. on Aug. 9th.

The necropsy was performed by the pathologist, Dr. Wethered, who found the following morbid appearances:—The dura mater was firmly adherent to the vault of the skull. The arachnoid space contained a large excess of fluid. The anterior convolutions of the left side of the brain were somewhat flattened and soft to the touch. On cutting into the left frontal lobe, a small abscess, filled with pus, about the size of a filbert, was seen situated in the posterior part of the third frontal convolution and extending to the lower part of the ascending frontal convolution. The abscess wall was thin and injected, the brain substance around being œdematous, but otherwise healthy. At the base of the right lung, which was adherent to the diaphragm and chest wall, was an irregular cavity the size of a large walnut, with thin, smooth walls and filled with grumous bloody material. The cavity was near the posterior surface of the lung; it communicated with a bronchus, and a small pulmonary aneurysm of the size of a pea projected into it. This aneurysm contained a soft clot and opened into an artery. The lung substance around the cavity was congested and œdematous. There was nothing else of a morbid nature in the lungs except a few adhesions over the left apex. There was no disease of the valves of the heart.

Remarks by Dr. SAINSBURY.—The following points are, I think, worthy of note. The occurrence of a smooth-walled cavity, in communication with a bronchus, at the base of the lung; the adherent state of the base of the lung to the chest wall and the diaphragm; and the absence of disease elsewhere in the lungs, saving a few adhesions over the left apex; the arising of this state of things in sequence to a distinct attack of pleurisy in April, 1889; the absence of any history of the sudden expectoration of pus such as might have indicated the presence of pneumonia (along with the pleurisy) and its termination in abscess; the absence of any history of lung disease in the family. The conclusion is, I think, fair that the cavity was bronchiectatic in nature. It will be observed, however, that the base of the lung, though adherent by its surface, was not cirrhotic. The occurrence of severe hæmoptysis as a symptom in bronchiectasis is, I think, uncommon. Its dependence upon an aneurysmal dilatation is noteworthy. The expectoration was not fetid; this is probably to be explained by the constant oozing of blood into the small

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cavity, which led to the frequent expulsion of the contents of the cavity—a washing out not wholly desirable. Next we have the occurrence of an abscess in the left cerebral hemisphere, which we must take to be secondary to the lung disease, without there having been any symptoms of blood poisoning. The temperature throughout was but little raised, the maximum rarely exceeding 100° F., the minimum touching or falling slightly below normal; there were at no time rigors or sweatings.

TAUNTON AND SOMERSET HOSPITAL.

DISLOCATION ON TO THE DORSUM ILII IN A CHILD; REMARKS.

(Under the care of Mr. FARRANT.)

DISLOCATIONS at the hip-joint are of such rarity as to make them interesting, especially when they occur in childhood, for in children the femur is very easily broken, yielding to a force which would otherwise be sufficient to produce rupture of ligaments and displacement. Malgaigne gives a list of fifty-one dislocations of the femur, but out of these only one was under the age of fifteen years. Sir Astley Cooper collected a series of fifty-six dislocations of this joint; in forty-five of these cases in which the age is mentioned, only seven were under twenty years of age. Hamilton gives the proportion of dislocations of the hip-joint in children (i.e., under fifteen years of age) as fifteen out of a collection of eighty-four. For the notes of this case we are indebted to Mr. W. B. Cosens, house surgeon.

Chas. T——, aged seven, was taken to the casualty room of the hospital on July 26th, 1889, the father saying that the boy's "hip was out." At the same time he gave the following history of the injury. Whilst playing at a "three-legged race," his right leg being fastened by means of a handkerchief to his companion's left leg, he stumbled and fell, his left leg being under, the other boy falling across him. He felt something "go," and on attempting to rise found his leg powerless. On admission the following was his condition. He complained of pain over the left hip-joint, and the left thigh was semi-flexed, adducted, and rotated inwards, the ball of the great toe almost resting on the dorsum of the right foot; the great trochanter was above Nélaton's line. On attempting to extend the leg, the boy immediately cried out with pain. The head of the femur was easily felt, resting on the dorsum ilii. The dislocation was easily reduced by flexing the thigh on the abdomen, rotating outwards, and quickly bringing the leg down to a straight line with the body, the head of the femur entering the acetabulum with an audible click. A long outside splint was applied and the boy kept in bed for three weeks.

Remarks by Mr. FARRANT.—I think little apology is needed for recording the case owing to the extreme rarity of dislocation of the hip-joint in young children. Erichsen mentions two cases in his book on Surgery—one on to the pubic bone in a child aged one year and a half, another on to the dorsum ilii in a boy of six. In THE LANCET of 1868 Mr. Powdrell recorded a case in which the head of the femur was displaced into the foramen ovale at the age of six months, and reduced by manipulation. The case recorded above has done well, there being good movement in the joint at the end of three weeks, and, at the end of six weeks, the boy was running about as if nothing had happened.

BRECKNOCK INFIRMARY.

A CASE OF TRAUMATIC TETANUS; RECOVERY; REMARKS.

(Under the care of Mr. D. V. REES.)

WE publish below the account of a case of traumatic tetanus which came on five days after the receipt of injury, and terminated, rather more than four weeks after its commencement, in recovery. The symptoms throughout appear to have been of subacute character, excepting for the attacks which affected the muscles of the glottis. In the editorial remarks to a case successfully treated by[1] nerve excision and chloral hydrate, we mentioned at some length various methods of treatment which had been employed, and drew attention to those which had proved most successful. Of these, chloral hydrate was at the head of the list, the larger proportion of recoveries having followed its exhibition alone, or associated with other remedies. The effect produced by the salicylate of eserine will be noted with interest. For the following account we are indebted to Mr. J. R. J. Raywood, late house surgeon.

T. V——, aged seven years, was admitted on May 7th, 1888. He was a fairly well-nourished boy, and had never had any serious illness. On April 30th he burnt his left leg with a hot flat-iron just below and external to the head of the fibula; the wound inflamed and suppurated, though not sufficiently to prevent his going to school. On May 5th his father noticed the boy's face "drawn," and he complained of stiffness about his jaws, and had some difficulty in opening his mouth. On May 6th he was seen by the visiting surgeon, who found his condition as follows. Risus sardonicus and trismus well marked, muscles of back, neck, and abdomen rigid and fixed with occasional tonic spasm; bowels confined; tongue coated with thick white fur; pulse 80 per minute; temperature 98·8°; intellect clear; he spoke in a whisper, and screamed and called out when the spasms came on. There was a small wound just below the head of the left fibula about two inches long by an inch and a half wide, granulating and suppurating. He was ordered five grains of calomel at once and five grains of bromide of potass in two drachms of water every four hours. When admitted on May 7th all the above symptoms were present, and there was also occasional spasm of the glottis and opisthotonos. The spasms came on very often, during which time the heart beat tremulously and the whole body was bathed in perspiration. A hypodermic injection of salicylate of eserine ($\frac{1}{100}$ gr.), every three hours, was now ordered, and the following mixture: ten grains of bromide of potass, half a drachm of the syrup of chloral hydrate, in half an ounce of water; to be taken every three hours, the medicine being given an hour and a half after each injection. Diet, beef-tea and milk.

May 8th.—Slept at intervals during the night; several very severe spasms of the glottis, all the other symptoms the same. Bowels confined. Temperature 99°. To have an enema of warm water when necessary.

9th.—Sleeps continually except when spasms come on; takes nourishment well but mouth firmly fixed and nearly closed. Temperature 98·6°; pulse 76; respiration 17. In the evening had a severe spasm of the glottis, which lasted nearly two minutes, but rallied after warm fomentations to the chest and neck. The injections of salicylate of eserine to be increased to $\frac{1}{60}$ gr. every three hours; the mixture to be continued as before.

10th.—The spasms are less frequent; he is very drowsy; breathing slower; some stertorous breathing, and he sneezes frequently; pupils minutely contracted; the wound on the leg is healthy and dressed with zinc ointment. Temperature 98·8°; pulse 78.

11th.—Sleeps nearly all the time. Spasms not so frequent. Still sneezes frequently; this is followed by a general tonic spasm of muscles of abdomen, back, &c. Pulse weak and compressible. The risus is not so marked, and he opens his mouth a little better. Temperature 98·8°. To have two ounces of brandy daily.

12th.—Two injections were omitted during the night. The spasms are more frequent again; the other symptoms continue the same. Bowels act every day after an enema. Temperature 98·8°.

13th.—Much improved. Rigidity of muscles not so great. Temperature 98·6°.

15th.—The spasms only affect the back and the face now. Pulse strong. Takes nourishment well. Temperature 98·6°.

18th.—Rigidity of abdomen still continues. Can open his mouth widely. There are a few moist râles at both bases of lung. Temperature 99·4°. To omit medicine, and inject eserine ($\frac{1}{80}$ gr.) three times a day. Wound quite healed.

19th.—Risus and trismus almost gone. Had only three slight spasms to-day. Temperature 98·6°; pulse 86; respiration 19. Took a little solid food to-day.

30th.—Can sit up in bed without assistance. Is taking food well. Omit the injection.

June 7th.—All rigidity has now gone. To get up.

17th.—Left to-day quite well, and has gained in weight considerably.

Remarks by Mr. RAYWOOD.—The success attending the treatment of this case is worthy of notice, for in nearly all the published cases of tetanus eserine was either not given, or if given it was not pushed until the physiological effects

[1] Mirror of Hospital Practice, THE LANCET, vol. ii., p. 114, 1889.

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of the drug were shown. Here its action was most marked; for although the bromide and chloral may have assisted to recovery, yet these drugs had no direct control over the spasms, for whenever a dose of eserine was omitted the muscular spasms were stronger and more frequent, and no relapse occurred when the bromide and chloral were discontinued. It was also noticeable that the temperature was never above 99·4°.

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, Oct. 2nd, Dr. A. L. Galabin, President, in the chair.

A report was read on Mr. Stewart Pollock's specimen of Dermoid Ovarian Tumour from a mare, exhibited before the Society in July.

Dr. WILLIAM DUNCAN exhibited: (1) A Dermoid Ovarian Tumour; (2) an Ovarian Cyst; (3) Pyometra and Pyosalpinx, with Suppurating Kidney and Thrombosis of the Renal Artery, from a patient subject to syphilitic disease of the rectum.

Dr. J. PHILLIPS showed some Blue Urine from a case of cyanuria.

Dr. CULLINGWORTH exhibited a Hæmatosalpinx from Rupture of a Varicose Vein in the Fallopian Tube.

Mr. WOODLEY SLYMAN brought forward an Acardiac Fœtus with Rudimentary Heart.

Dr. J. SHAW exhibited a Uterine Douche.

A Contribution to the Anatomy of the Pelvic Floor.—A paper on this subject was read by Dr. HERMAN, in which measurements were detailed which show the great normal variations in the conformation of the parts which form the floor of the pelvis. It was shown that the projection of the pelvic floor varies from none at all to as much as two inches, and that in healthy nulliparæ the distance between the coccyx and anus, the length of the perineum, the distance between the fourchette and the symphysis pubis, and the length of the vagina, are subject to wide variations. It was pointed out that since these variations exist in healthy nulliparæ, peculiarities observed in parous women should not be assumed to be changes due to childbearing unless it has been ascertained that they were not present previous to pregnancy. The clinical importance of these anatomical variations in their bearing on the liability to rupture of the perineum and to prolapse, the adjustment of pessaries, and some forms of dyspareunia and sterility, was indicated.

On the Changes in the Pelvic Floor which accompany the Slighter Degrees of Prolapse.—This subject was also introduced by Dr. HERMAN, who described the descent of the pelvic floor which takes place during effort in health and is morbidly increased in prolapse. Measurements were given which showed that this descent in health probably does not exceed three-quarters of an inch. This descent takes place partly by stretching of the sacral segment of the pelvic floor in an antero-posterior direction, and partly by its recession downwards and backwards from the symphysis pubis, a movement which implies transverse stretching. In the antero-posterior stretching the perineum and the part posterior to the anus take part to about the same proportionate extent. This normal descent of the pelvic floor is accompanied with descent of the uterus into the vagina to the extent of about five-eighths of an inch. These changes may be morbidly increased and their relative extent morbidly altered. The descent of the pelvic floor may exceed two inches. This morbid increase of descent of the pelvic floor may be present without increased descent of the uterus into the vagina. In other cases it may be accompanied with descent and protrusion of the anterior segment of the pelvic floor, with or without the uterus. In such cases, when a protrusion at the vaginal orifice has taken place, further effort increases this protrusion, but does not increase the descent of the sacral segment of the pelvic floor. Backward displacement of the uterus is often present without more descent of the uterus or of the pelvic floor than is present in most healthy women; but in most cases of backward displacement of the uterus the descent of the uterus and pelvic floor is increased. Backward displacement of the uterus is not associated with shortness of the vagina. Although the symptoms of descent are usually relieved by suitable mechanical support, yet the amount of descent of the uterus or of the pelvic floor is not the measure of the severity of the symptoms. There may be symptoms with slight descent in some patients, much descent without symptoms in others, and in the same patient the symptoms may be present at one time and absent at another, although the amount of descent has not varied; showing that the symptoms are conditioned more by the state of the nervous system than by the local mechanical changes.—Dr. GRAILY HEWITT considered that Dr. Herman deserved much credit for his analysis of the phenomena observed in cases of slighter degrees of prolapsus. The subject was of vast importance, for the effects of so-called minor displacements, though not dangerous to life, destroyed all enjoyment of it. The patient's sufferings often became intensified, so that in later years serious impairment of the uterine functions often followed neglect of the symptoms of minor displacements in their earlier stages. Dr. Hewitt was glad to find himself in agreement with Dr. Herman on many points in reference to descent of the uterus and its effects in producing suffering. He believed, however, that in these cases the principal cause of the suffering was the exaggeration and intensification of the version or flexion of the uterus more frequently associated with descent of that organ. Descent of the uterus pure and simple was rare, but descent accompanied with flexion or version was very common. In estimating the effects of the displacement it would be necessary to find out how much of the suffering was due to the mere descent and how much to the increased flexion or version. So far as backward displacement was concerned, Dr. Herman noted that descent was thereby increased. Nothing had been said about anteflexion. Dr. Hewitt believed that anteflexion not yet rigidly set in that shape, the uterus being still fairly movable, might be regarded as not abnormal. The case was quite different when the organ was sharply bent forwards, the fundus low down, and the uterus firmly resisting alteration of shape and position. Dr. Herman noted several cases of cystocele. In these cases the anteflexion was probably an important causative element. Descent of the pelvic floor was chiefly important because it brought about increase of flexion, and consequent increase of discomfort.—Dr. HERMAN regarded anteflexion as one of the natural shapes which the uterus might assume. He had investigated the frequency of anteflexion in the healthy uterus, and laid the results before the Society.[1] Vedeler had made a similar research, with substantially the same result—namely, that acute anteflexion was very common in health. No one else had investigated the question. Backward displacements caused symptoms in but a small minority of cases; not by any effect of the bending of the uterus, but by the torsion and pressure on the broad ligaments which returned the blood from the uterus. In a case described that evening a patient was kept for two months in hospital, and all her symptoms went away, yet the retroflexion remained exactly as it was on admission, showing that it was not an important feature of the case.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

THE opening meeting of the eighth session of the above Society was held on Friday, Oct. 4th, in the board room of the West London Hospital.

Mr. KEETLEY showed some Loose Cartilages removed from two knee-joints; also a portion of a Kidney crushed off by a waggon wheel, and removed through a lumbar incision.

Mr. PERCY DUNN showed some recent additions to the Museum of the West London Hospital.

The PRESIDENT (Dr. H. Campbell Pope) then gave his address on "The Beginnings of Disease." He began by congratulating the members of the Society on its increasing success, and then proceeded to state what was to be understood by the term "beginnings of disease." He quoted Dr. Andrew's remark in his Cavendish lecture, that "all disease begins, mediately or immediately, in the environment," and went on to speak of Dr. Harry Campbell's statement, in his work "On the Causation of Disease," that "the environment is in the last resort the sole cause of

[1] Transactions, vol. xxiii.

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disease." This work, however, discussed the general origin of disease, whereas the President wished to consider the question of disease as affecting the individual. The best way of studying the interactions of organism and environment was by getting to understand the nature of these factors, and how they react on one another. As an example of the influence which environment brings to bear on organism, the case of the Bach family was cited, whose adaptation to musical surroundings during four generations culminated in the production of the great genius, John Sebastian Bach. The effect of environment on structure, both as to development and quality, and in intra-uterine life and after birth, was then discussed. The part which heredity plays in the formation of structure having been referred to, the speaker came to the consideration of the production of disease by the want of harmony between structure and environment. This point was illustrated thus: "Let S (structure) represent a literary man of slight muscular development, and let E (environment) represent his accustomed sedentary work and mental surroundings. We will suppose him to have inherited an average structure, and that his immediate surroundings are free from glaring sanitary defects. We shall here get a fairly normal interaction and a fairly healthy life. But place this S (the literary man) in a fresh E, let him take his place in the blacksmith's smithy for a week, if he has not by the end of that time strained his cardiac valves, or ruptured himself, he has in all probability, from the exposure to great variations of temperature, contracted some catarrh or inflammation. Here S + E = abnormal life or disease. It is, then, best to speak of this as abnormal – E, so far as that particular S is concerned; we thus get S + abnormal E = disease. Similarly, by reversing our example, and putting the blacksmith in the student's library, we might in the same time find him suffering from hæmorrhoids, or exhibiting signs of inhibitory paresis, such as restlessness and the use of unparliamentary language, even if mental alienation had not already occurred. But, on the other hand, these structures are also abnormal to their changed environment—that is to say, S and E are *both* abnormal the one to the other." Having spoken of "inevitably abnormal environments," Dr. Campbell Pope concluded by indicating the bearings of his subject on the ordinary work of the practitioner of medicine.

Reviews and Notices of Books.

Inorganic Chemistry. By IRA REMSEN, Professor of Chemistry in the Johns Hopkins University. London: Macmillan and Co. 1889.

WE close this book with a feeling of disappointment. Professor Remsen had given us so excellent an introductory text-book of organic chemistry, that we hoped to find in this larger manual an important contribution to scientific literature; but in spite of many merits, it is impossible to regard it in this light. It may be briefly described as an elementary primer swelled into a large octavo book of over 800 pages. The style is lucid, the illustrations fairly good, and the printing and paper excellent, but the whole of the matter might with advantage have been condensed into half the space. The periodic arrangement has been adopted, but not followed slavishly, whereby some practical inconveniences are avoided. The plan bears some resemblance to that of the second volume of Miller's "Elements," inasmuch as general principles and laws are for the most part interspersed in the text instead of being treated in preliminary chapters, as in Graham's well-known and admirable "Elements." Thus we find Diffusion described partly under Hydrogen (p. 45) and partly under Silicon (p. 421), and the little that is said on thermo-chemistry is similarly scattered. There are some advantages in this system, but they only accrue when the book is read straight through, and they are balanced by the disjointed manner in which important theories are presented.

The chief faults of the book are the very insufficient space devoted to physical phenomena; the almost entire absence of references to larger works, original memoirs, and the names of discoverers; and the sketchiness and insufficiency of the chemical facts given. Too much space has been devoted to structural formulæ, which are moreover printed with quite unnecessary diffuseness, and the result has been that the accounts of important elements and compounds are often very incomplete. It was part of the author's plan to exclude physics as much as possible, but the exclusion, or rather the compression, has been carried too far, and has marred the usefulness of the whole book. Thermo-chemistry is one of the most important adjuncts to modern chemistry, and it is almost as important to know the calorific equivalent of a reaction as to know the symbols which represent the change of matter. Yet we find nothing here but the baldest generalities, and the heats of combustion, even of such elements as carbon and phosphorus, are not given. The whole subject of spectroscopy, not wholly unimportant to chemistry, is dismissed in two pages of loose description, in which not a word is said of the identification of spectra by wave-lengths. Electrolysis is disposed of in a page, and the account of it is so meagre as to be misleading. Then, again, with regard to specific gravity and solubility. Surely these physical peculiarities do not lie outside the province of chemistry, and yet we are not told the specific gravities of diamond, graphité, sulphur, iodine, or white arsenic, to take a few haphazard illustrations. Of iodine we are told that it "dissolves slightly in water"; of hydriodic acid, that it "dissolves in water in large quantity"; and of white arsenic, that it is "difficultly soluble in water." We could quote many similar instances, but it is enough to say generally that the book is loosely compiled, not original in any true sense, and inferior to less pretentious manuals already well known.

An Appendix of nearly 100 pages gives directions for the performance of experiments in illustration of the matter of the text. Some few of these are novel and good, but the majority are well known, and many hackneyed.

The Elements of Vital Statistics. By ARTHUR NEWSHOLME, M.D. Pp. 326. London: Swan Sonnenschein and Co. 1889.

THIS volume is a valuable and much needed addition to statistical literature. It lays down clearly the principles on which inquiries in the branch of vital statistics should be conducted, and points out the errors into which persons ignorant or regardless of these are likely to fall. It is often said that "figures will prove anything," and so they will at any time, if used dishonestly, and very often if used honestly but ignorantly. The latter we believe to be the more frequent cause of the erroneous results deduced from numerical investigation. It is with a view to lessen as far as possible this source of error that Dr. Newsholme has compiled this excellent guide-book. The work may be said to consist of three divisions: 1st, the method of collecting and arranging the necessary numerical data; 2nd, the use to which, and the manner in which, these may be applied; and, lastly, a brief but clear statement of some of the chief fallacies too often met with in medical statistics. Under each he lays down the principles on which the work should be done, and illustrates these by examples taken, in most instances, from the Registrar-General's Reports. In the last chapter he gives a concise summary of the more important statistical errors, to many of which he had already called attention. These he classifies under the two heads of "Fallacies of Observation" and "Fallacies of Inference," and treats under the following subdivisions:—(1) Errors from paucity of data; (2) from inaccuracy or incomparability of data;

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(3) errors in comparing total deaths in successive years; (4) errors in regard to averages; (5) errors in connexion with average strength; (6) fallacies of hospital statistics; (7) errors from the composition of ratios; (8) fallacies arising from stating deaths in proportion to total deaths. Each of these is illustrated by one or more striking examples, which we do not quote, in the hope that our readers may for themselves carefully study the facts there stated. To those who are not experts in statistical science we recommend this work as containing a clear statement of the principles of vital statistics, intelligible rules for the collection and application of numerical data, and a useful caution against the errors into which, through ignorance, honest inquirers are but too likely to fall. Dr. Newsholme quotes the four chief rules of Quetelet, that great master in statistical science, as "worthy to be held in remembrance—(1) Never have preconceived ideas as to what the figures are to prove; (2) never reject a number that seems contrary to what you might expect merely because it departs a good deal from the apparent average; (3) be careful to weigh and record *all* the possible causes of an event, and do not attribute to one what is really the result of a combination of several; (4) never compare data which have nothing in common. Were these rules constantly followed the science of statistics would be much more respected than it is, and the value of its results would be greatly increased."

New Inventions.

INSTRUMENTS FOR THE TREATMENT OF RECTAL DISEASE.

WE have received from Messrs. Burroughs, Wellcome, and Co. specimens of two instruments designed by Dr. Ward Cousins for use in the treatment of rectal disease. We have given them a long trial, and, as they answer the purpose for which they were invented, can recommend them to the profession. They are (Fig. 1) an ointment intro-

FIG. 1.



ducer, designed for the efficient introduction of ointments within the sphincter, so that they may be the better distributed over the mucous membrane of the rectum. "It consists of a very smooth anal tube, a cylindrical receptacle for the ointment, and a vulcanite piston. The ointment is projected through the anal tube, at the end of which there are perforations, by compressing the piston with the finger." Fig. 2 represents the anal injector, and is intended for the

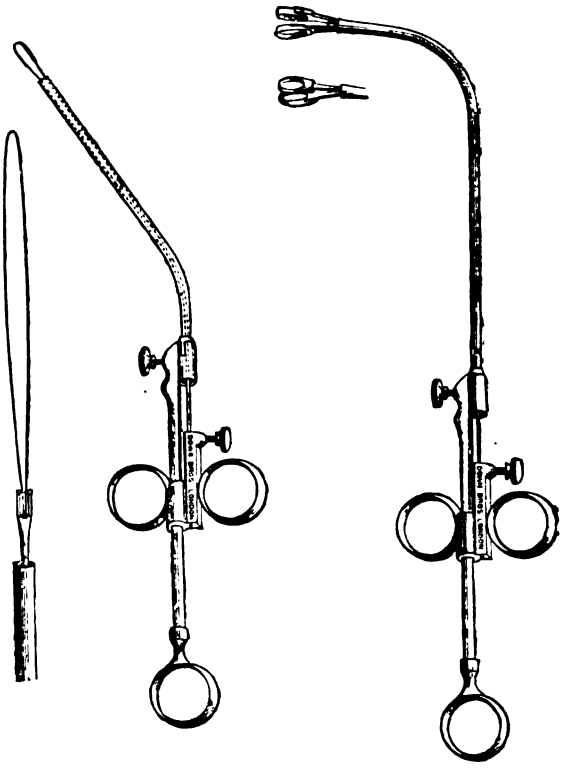
FIG. 2.



introduction of fluid applications to the rectum. It is made with a somewhat similar anal tube, but has a ball syringe attached to it, which will hold a measured quantity of fluid. It will be found very useful for the administration of the glycerine enema.

NEW NASAL SNARE AND LARYNGEAL CURETTE.

THE nasal snare is known as Professor H. Krause's, of Berlin. The special advantage is that the wire loop is a short one, and is attached to the end of a rod running in the cannula and fixed to the handle by a screw, so that the loop is easily adjusted, and when broken is easily replaced. Moreover, it can be at once re-protruded by pushing down the handle. It will be immediately seen that there is an immense saving of time and trouble. It is also very powerful.



The polypus can be cut through or dragged away. The cannula is movable, so that to the same handle can be fitted the laryngeal curette. This is valuable in removing tuberculous infiltrations. There are two terminals—one acting antero-posteriorly and one laterally. Messrs. Down Brothers of St. Thomas's-street, S.E., have made the instruments for me. I have found the nasal snare so valuable that I am sure many will be glad to know of it.

Weymouth-street, W. CHARTERS J. SYMONDS.

ANDERSON'S COLLEGE MEDICAL SCHOOL.

To the Editors of THE LANCET.

SIRS,—In your issue of Oct. 5th, and under the heading "Scotland (from our own correspondents), Glasgow," I have with much surprise read the following statement:—"The teachers in Anderson's College Medical School are understood to be favourable to the admission of women to their classes, and to be ready to undertake the management of '*mixed*' classes of male and female students." In reference to this I feel it to be my duty to say that I am strongly opposed to *mixed* classes; and, further, that I am strongly opposed to the admission of women to our *New* Medical School under any circumstances at the present juncture.—I am, Sirs, yours truly,

A. M. BUCHANAN, M.D.,
Professor of Anatomy and Dean of the Medical Faculty of Glasgow, Oct. 8th, 1889. Anderson's Coll. Med. School.

QUARANTINE.—The British representative at Alexandria telegraphed, on Oct. 5th, that Bombay had been released from quarantine.

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THE LANCET.

LONDON: SATURDAY, OCTOBER 12, 1889.

COMPETITION in medical education is an excellent thing, but it has its inconveniences and unseemlinesses as competition has in other spheres. The truth of this proposition is illustrated particularly by what is going on just now at Glasgow. Since the removal of the ancient university of that city westward and the erection of the Western Infirmary in 1874, the connexion of the University with the Glasgow Royal Infirmary, with its grand clinique of 542 beds, has ceased. This latter is the hospital in which more historical work has been done of late years than perhaps in any other in the world. It was as surgeon to this hospital that Sir JOSEPH LISTER wrote in THE LANCET his first articles on Antisepticism in Surgery, which have revolutionised the art; and it is here that Dr. WM. MACEWEN has performed those brilliant feats of cerebral and osseous surgery the mere description of which last year at the meeting of the British Medical Association in Glasgow led the audience to rise to their feet and cheer the modest surgeon. No wonder that Glasgow medical men sighed when they thought of the comparative effacement of this magnificent institution, and longed to bring it into greater efficiency and prominence as a centre of medical and surgical teaching. It is all very well to write, as some writers do, as if hospitals were injured by being turned to educational uses. On the contrary, they are perfected. The medical officers act under public criticism. The students are ready to help in dressing and in "clerking" the cases, and everything is done systematically and with a minuteness that is not possible without a good medical school. The absence of such a school and the monopoly of the Glasgow University, with its smaller Infirmary, have led the managers of the Royal Infirmary and others to put forth a great effort to establish an efficient College in connexion with the Royal Infirmary, in which not only Medicine but all the other Faculties should be recognised and taught. There has been, since the migration of the University westward, a Royal Infirmary Medical School; but it has not thriven, and the attempt to which we refer is to create a College really worthy of the clinical field of the Royal Infirmary and of other appliances and laboratories connected with it. The effort is most laudable if somewhat ambitious. But for the moment, in the medical world at least, it has excited more criticism than praise. This criticism has reference, chiefly, to the way in which appointments, have been made in the new school called the St. Mungo's College. It is a bold thing for any English critic to venture to interfere in a Scotch fight. Medical school disputes in Scotland are perhaps the most inflammable of all controversies. In Edinburgh men have become more philosophical now, but these fights used to divide universities from colleges, and one set of university professors from another. And, if tradition speaks truly, on a celebrated occasion one eminent Scotch surgeon lay in wait to horsewhip another. But distance in regard to such conflicts is not altogether a disadvantage, and we cannot be indifferent to that which affects the fair name of Medicine and its efficient teaching in such a city as Glasgow. Scotland teaches nearly as many men in Medicine as England does, and a large proportion of them are destined to practise in England. It concerns us to know the genesis of medical schools and the guarantees for their efficiency. We must not speak about other Faculties, but content ourselves with the medical department, and the way in which its chairs have been filled. Even so, we can only state the principal facts, which have been the subject of severe articles in the press, both lay and medical. We ourselves have received a number of highly interesting letters on both sides of this controversy, the drift of which only we can hope to give to our readers, together with the impressions they have left on our minds.

The chief promoters of the St. Mungo's College are a party well known in Glasgow as University Reformers, men who object to the monopoly of higher education by the University, who wish to develop extra-mural genius and merit, and who have naturally seen in the Royal Infirmary a means of attaining their end. Some of their hostility may perchance have a tinge of personal feeling and dissatisfaction. Even in the purest reformers there is apt to be an admixture of such baser elements. But it is not necessary to deny high and disinterested motive to such reformers, with whom we have considerable sympathy. When the appointments to the new College had to be made there were clearly two ways of making them open to the governors: one by advertisement and public candidature and the selection of the fittest; the other by a committee of selection, whose choice should be submitted for ratification to the governors. The latter was chosen. The result is a *casus belli*, which fills the Glasgow medical world with charges of favouritism and jobbery and self-promotion. It is impossible to avoid mentioning one gentleman who is credited with much responsibility in these matters—Dr. D. C. MCVAIL. Dr. MCVAIL is too strong a man to mind having his whole share in these transactions discussed, and we have too much admiration for his individuality and force of character to shirk our duty of criticism, the more so as with perfect candour he has placed before us his statement of the case. Dr. MCVAIL long before the incorporation of the College was a University reformer. Since its incorporation he has become a governor of the College; and previously to his being appointed as a physician, he was a manager of the Royal Infirmary. Moreover, he was already one of the academic committee to which was delegated the selection of professors and lecturers, and he seems to have actively negotiated with men as to the acceptance of particular chairs. Nothing can at first sight be more indefensible than such a mode of selection. Dr. MCVAIL has, as we should expect, the courage of his position, and he defends the selections, including his own appointment as professor of clinical medicine and as extra-physician to the Royal Infirmary, though he had not before been on the staff of that institution. He defends the mode of appointment on three grounds: Firstly, and mainly, that by the articles of incorporation, the managers were to provide, *inter alia*, for "the absorption and continuance of the Glasgow Royal Infirmary

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School as a part of St. Mungo's College. This they liberally interpreted to mean the taking over of the staff of the school to the College. Secondly, it was represented that many of the most indispensable men, especially in the Faculty of Law, though willing to take chairs offered to them, would not respond to advertisements. Thirdly, that the Governors were influenced by precedent in such matters, and that the precedent to follow was that of the Scottish Universities who never advertise, but elect as patrons.

The opponents have shown some considerable flaws in these arguments, though we admit there is much force in them in spite of Dr. MCVAIL having profited much by his own reforms. A reformer must often benefit inevitably by the alterations which he himself has mainly brought about. Witness the case of the late Mr. FIRTH and the government of London. It is to be said in Dr. MCVAIL'S favour that though he has gained *status* as a hospital physician and a professoriate in clinical medicine, the chair is not one which carries any honorarium, so that financially at least he is not a gainer. Moreover, it is quite intelligible that the movement which he mainly represents and which owes its force to him, would collapse if his energy and interest were not in some way engaged. It is undoubtedly unseemly that he appears as appointing himself to offices and wards, especially when a man like Dr. WALLACE ANDERSON, with years of service at his back in the school, which Dr. MCVAIL says they had to incorporate, is left out in the cold. But, on the other hand, we must remember that the Governors of St. Mungo's College are really responsible, and that they include many of the leading public men of Glasgow and the West of Scotland. A perfectly open election would perhaps have been preferable; but there is nothing more cruel and unjust than to invite scores of candidates by advertisement when the selection of certain persons is a foregone conclusion. The fact is this, that the new University Bill gives a new chance to educational reformers in Scotland, who have the power to make use of it. In doing so they incur the suspicion of interested motives and methods. They must accept this fact. The justice of the suspicion must be tested by time and results. We shall be glad if the great hospital of Glasgow becomes so identified with medical education as to support its historical fame, either by affiliation with the University or as a worthy and stimulating rival. This will not be an easy achievement, and if the reformers are actuated by merely personal motives they will soon fail.

NO subject has recently excited more interest or provoked more discussion than extra-uterine gestation. Without, therefore, proposing to write a treatise on the subject, we think it may be well to indicate a few of the points of the greatest importance, and especially to call attention to the present condition of our knowledge of the subject. The fact that the fœtus is not always in the uterus has of course been known for a longer time than the history of medicine extends; indeed, the extreme danger of the condition was sufficient to ensure attention to the subject. It was not, however, till 1859 that KUSSMAUL proved that many alleged cases were not extra-uterine, but were due to pregnancies occurring in a malformed uterus. Such a discovery as this has a violently disturbing effect, for it throws doubt on the great majority of cases previously recorded; and from 1859, therefore, records trustworthy in this point of their pathology may be said to begin. It is surprising, however, to observe how jealously every specimen of alleged extra-uterine gestation near the uterus must even now be criticised, to avoid this very error. It may be briefly said that the differential diagnosis depends on the point of origin of the round ligament of the uterus; since this springs from the uterus, and therefore is internal to the tube, a gestation external to its origin must be tubal, internal to its origin, uterine. The condition of the parts, and the absence of special knowledge on the part of the dissector, not infrequently obliterate this landmark and render the determination of the question difficult, if not impossible. The connexion between extra-uterine gestation and hæmorrhage is obvious, and it will be sufficient here to refer to the work of BERMUTZ, who, in 1848, pointed out the differential diagnosis of intraperitoneal hæmatocele and subperitoneal hæmatoma. The connexion between intraperitoneal hæmatocele and intraperitoneal (abdominal) pregnancy, and between subperitoneal (or extraperitoneal) hæmatoma and subperitoneal (or extraperitoneal) pregnancy is also plain. The occurrence of the latter form of pregnancy was affirmed in 1837 by DEZEIMERIS, and has been lately confirmed by Dr. BERRY HART and Dr. CARTER, in two cases, by frozen sections.

Of all the varieties of extra-uterine pregnancy, most is naturally known of the tubal variety; partly because it includes the great majority of cases, and partly because most of the rarer varieties belong to a later stage of pregnancy, and may have been later developments of cases originally tubal. Since tubal cases generally end early in catastrophe, it is only the surviving and developing cases which come under consideration in any other form. Whether this is the whole truth we do not yet know. Knowledge is desired, indeed urgently needed, on some of the following points:—1. What is the relation of extra-uterine cases advanced in pregnancy (*a*) to the tubes, (*b*) to the peritoneum? In cases ending fatally, and therefore alone capable of minute section and dissection, both these questions, especially the former, are apt to be difficult, and even impossible of elucidation. 2. When the placenta appears to have been planted on the intestines, bladder, or uterus, has this been brought about directly or through the mediation of the tube? 3. Are there such things as primary abdominal pregnancies? It has been asserted that there are only two undoubted instances of abdominal pregnancy on record—those of JESSOP and CHAMPNEYS. Of course early cases of abdominal pregnancy would be very helpful; but where are such cases to be found? It must be acknowledged that this fact is significant, and it may turn out that all abdominal pregnancies were originally tubal or tubo-ovarian; but assertions and prophecies do not help matters which must finally be settled by facts. 4. What are to be accepted as sufficient evidences of extra-uterine gestation? It would appear obvious that the answer to this question must be (*a*) presence of the fœtus, (*b*) presence of the placenta. A recent writer states that, out of forty cases, the fœtus could only be found in twelve, the placenta being found in every one. We must, however, point out that in cases of rupture this proof is often extremely difficult. The placenta

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is a mass of clot, and sections of it show nothing but clot, with spaces which may (or may not) mark the position of the villi. Sections of undoubted placenta show this. What, then, are the proofs in doubtful cases? It is plain that great caution must be exerted in drawing any conclusions or accepting any numerical statements without the exhibition of sufficient evidence. 5. It would be well to know the mortality in (*a*) intraperitoneal hæmatocele, (*b*) intraperitoneal rupture of tubal pregnancies, (*c*) subperitoneal rupture of tubal pregnancies without operation. The difficulties which beset this question and render its answer at present impossible are those of diagnosis. We need only caution our readers against too ready acceptance of such assertions as that the two former are invariably fatal. Indeed this is contrary to experience. Of course (*a*) and (*b*) are more dangerous than (*c*). This proposition is sometimes fortified by an argument in a circle, or begging the question, any recovery from (*a*) and (*b*) being denied as impossible. But it is even asserted that all cases of rupture end fatally without operation, and patients who survive operation are counted as lives saved. There can be no doubt that rupture occurs pretty often without a fatal result, and this arithmetical statement needs revision.

The question of treatment must be reserved for consideration in another article.

MRS. WALLER'S article upon "The Mental and Physical Training of Children" in the current number of the *Nineteenth Century* traverses a wide field, and deals with many topics of which no one will question the importance. The views expressed make no claim to originality, and are practically identical with those enunciated by HERBERT SPENCER in his well-known work upon education. Not the less, however, is Mrs. WALLER'S paper worthy of thoughtful perusal, and probably no one would be more pleased than the writer if her suggestions could be justly regarded as truisms. That a sound physique must take precedence of educational proficiency; that the care and culture of children have higher claims upon reasonable men than the breeding of horses or the training of dogs; that the model nursery is of greater moment than the model farm; that the young mother needs to be soundly instructed in questions of food, clothing, and habit; that the development of the will and the moral faculties must proceed on some recognised principles, and not by caprice and chance;—such are a few of the principles advocated, and the only thing to be regretted is that their advocacy should be still necessary.

"It is really surprising," says the writer, "to see the amount of trouble and pains bestowed upon the proper housing and feeding of horses and dogs, or other domestic animals, while at the same time comparatively little attention is paid to these matters with regard to the rearing of children. Model stables and model kennels abound, while the model nursery is almost unknown. Warming, ventilation, and aspect are subjects which are thoroughly considered in the stable, while as regards the nursery they are generally left for chance to decide, though the health of a child is surely more important than that of a horse or dog." This is only too true, and the explanation of facts so strange is worthy of more than a passing thought. Is it that material conditions are recognised as having a definite and unfailing effect upon the health of the lower animals, and that their not less potent or sure influence upon the human organism is less readily admitted? Or is it that to many men the horse and the dog have a definite monetary value which the child is not felt to possess? Or, lastly, is there a half conscious feeling that the health of the lower animals can be understood by anyone who will take a little trouble, while the health of the human animal is so intricate an affair as to be best left in the hands of the professional adviser? It is likely that each of these reasons has some weight. Mrs. WALLER recommends that two of the best rooms in the house should be set apart for the day and night nursery respectively, and that the importance of sunshine and the evils of overcrowding should be recognised in all the nursing arrangements. She advises that the nursery walls should be painted rather than papered, paint being easily washed and disinfected after the attacks of infectious disease, which in every large family are only too likely to occur. As regards clothing, it is pointed out that in spite of modern improvements in this matter, it is still too much the custom to leave the upper part of the chest and the lower part of the abdomen exposed, and that hence come pulmonary affections on the one hand and bowel complaints on the other. "It is a fact that not only has the child less power of generating heat than the adult, but that it has also a much larger surface in proportion to the mass of its body, and will consequently be far more susceptible to cold. Cold feet cause a large amount of indigestion, and exposure of the large blood-vessels of the thigh during childhood frequently sows the seed of kidney diseases to develop in after life."

Some apt remarks are made upon the question of moral training. "One of the earliest lessons the child has to learn is that it can only have its own way when it is compatible with the comfort and rights of others. ..... As far as possible, a child should be made to feel that punishment is the natural result of his bad action, and not the mere venting of anger and annoyance on the part of the parent or nurse. ..... Let the child find out that bad behaviour in the drawing-room means instant banishment to the nursery; that if he knocks his brother with a stick the result is '*no sticks*'; that, if he refuses to put away his toys one night, he must manage without toys the next night." In these remarks, obvious as they may appear to the less reflective mind, lies, we conceive, one of the most important secrets of moral training. All retribution, to be effective and to carry suasion with it, must possess this character of inevitableness. It must appear to be the direct and necessary, not the arbitrary and fortuitous, result of the delinquent's own act. It must, in fact, serve to impress one of the greatest lessons of life—that as we sow, thus, and in no other way, shall we reap. Mrs. WALLER is decisively against all forms of corporal punishment, a point upon which many of the wisest heads have differed and still differ. Probably the advocates of corporal punishment would not demur to being compared with those who hold the necessity of war. In each case the extreme measure is to be adopted only as a *dernier ressort* when milder measures have failed.

We are disposed entirely to concur in the remarks of the

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writer regarding the best means of beginning intellectual training. "I should begin the teaching of a child as a favour, not as a task; if he is inattentive, I should by no means insist upon the lesson being done, and so give it the air of a task. It is far better to say: 'I really cannot waste my time in teaching, for I have other matters to do, and if you cannot give me a little attention you may go away. With the natural perversity of human nature, the child immediately becomes anxious to learn, and feels at once that you are doing him a favour." It is correctly laid down that all teaching must proceed from the concrete to the abstract. Sight and touch must, as far as may be possible, do the work of the thinking faculties. To an attentive observer of children, nothing is more striking than their great aptitude for observing and their incapacity for sustained thought or abstract argument. The latter power comes later, but the attempt to develop it prematurely is usually not only futile, but injurious. Educators have too little recognised this principle, and have wearied and perplexed many a young brain to little purpose with such subjects as syntax, parsing, and the like, forgetting that such topics are only less difficult than logic and metaphysics, which no one would suggest as suitable subjects for the very young.

The relative value of the comparative attractions of science and language as vehicles of education is touched upon, but is too great a subject to be more than alluded to here. The classical tongues had their long day of virtual monopoly; science for a time threatened seriously to dispossess them; it seems not improbable that we are on the eve of a time when the value of both will be more generously and less contentiously allowed. Few practical men will deny on the one hand that a perfect tongue such as Greek is an admirable means of mental discipline; or, on the other hand, that even very young children will absorb with avidity facts about the world around them and about their own body—the rudiments of physics, botany, astronomy, and physiology—and be all the better for such knowledge.

WE understand that the Committees of the Senate and of the Convocation of the University of London have, after mature consideration, decided upon the principles of the scheme for the reconstitution of the University on the lines laid down by the Royal Commission, and that its details are well advanced, so that we may expect it to be laid at an early date before the members of the University for their sanction or disapproval. In many respects it will follow the plan of reform put forward by Lord Justice FRY'S Committee, and which was rejected by Convocation after a long debate. If the scheme accords with the recommendations of the Royal Commission, it must contain, as essentials, changes which we cannot but think will be unpalatable to most of the existing graduates, and to which only the fear of the formation of a second university in London, although with different aspirations and powers, could possibly bring them to consent. The transfer of power from the present Senate to a Senate largely recruited from the ranks of the London teachers is a leading feature in the scheme of the Commissioners, and must be accepted as the basis of any new Charter that may be applied for by the University; and, of course, this change is strongly objected to by the teaching bodies outside the metropolitan area. A meeting of representatives of provincial Colleges will be held in Birmingham on Thursday next at 3 P.M., to "arrest the progress of the scheme or to suggest modifications which may have the effect of diminishing its unfairness." The University of London is therefore at once confronted with the difficulty of becoming a Teaching University for London and of retaining its hold on external teaching institutions. Professor LAWSON TAIT, at the inaugural meeting of the session of the Northumberland and Durham Medical Society, made some overtures for the affiliation of the Birmingham Schools of Science and Medicine to the University of Durham, and promised a most absolute and uncompromising opposition on the part of those who had the higher education of the Midlands at heart to the establishment of a Midlands University. But many of those who are interested in the higher, and not in technical medical, education will prefer a Midlands University to an affiliation with a remote university, such as that of Durham, which seems to have been looked on by Professor TAIT as merely a convenient body for giving degrees to Birmingham students. The next alteration which must be made by the University in the spirit of the report of the Royal Commission is in the standard of the medical degrees. All medical teachers in London are unanimous in asking for pass medical degrees for their students, and every university, except the University of London, has granted them on conditions which are not unduly severe. Can a Senate which has prided itself on the stringency and severe character of the examinations for these degrees now bring forward a proposal in antagonism to its past history, and one which will be acceptable both to existing graduates, and to those who are urging the lowering of the standard to an average pass? Sir ALBERT ROLLIT, in his inaugural address at King's College, referred to this dilemma, which he, as a member of the Committee of Convocation engaged in drawing up the scheme, must have felt acutely. "It is to be hoped, however, that the present honour of the London M.D. and M.B. degrees will not be lost to the profession or their standard unduly lowered." The Royal Commissioners have set before the authorities of the University a very difficult problem for solution. We shall be glad if they can accomplish the task, provided that fairness and justice are meted out to the London student. They have to become a metropolitan and local University without offending the teaching colleges in other parts of the kingdom, and to frame a system of examinations for a pass degree of the same standard as the Scotch and provincial Universities, without impairing the honour and value of that which is now granted on very much more exacting conditions.

THE death is announced at Doebling, near Vienna, of Dr. Max Leidesdorf, a well-known authority on brain disease. The deceased, who was in his seventieth year, owned a private asylum at Doebling, where numerous personages of note have been treated, among them the Duchess of Cumberland and Prince Joseph Sulkowski. Dr. Leidesdorf, who was frequently summoned for important consultations on mental maladies in Austria and neighbouring countries, certified Sultan Murad and King Louis II. of Bavaria to be insane.

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Annotations.

"Ne quid nimis."

THE CONDITION OF THE BLACKWATER RIVER.

THE polluted condition of the Blackwater stream and the insanitary state of large tracts of the Bagshot sands have been the subject of comment in the pages of THE LANCET for years past. Mr. Haviland referred to it in a lecture published in our columns on a former occasion, and in his communication in our issue of to-day he again directs attention to the matter after having personally inspected portions of the stream. The large area which Mr. Haviland pronounces "a plague-stricken valley" extends even very much beyond the districts he has investigated. Indeed, the greater portion of the low-lying marsh lands of the middle Bagshot sand district is insanitary. The geological formation known as "the Bagshot Sands" (so named from the village of Bagshot, which was till recently the largest village near the centre of the district) consists of three distinct formations, named by geologists (1) Upper, (2) Middle, and (3) Lower Bagshot sands. These are all more or less sandy; but the middle sands are interspersed largely by layers of very tenacious clay, while gravel often caps the upper, and is abundant also in some portions of the lower sands. No two soils can differ more than the Upper and Middle Bagshot sands. While the former is as a rule free from insanitary conditions, the latter is very insanitary indeed, and must be regarded as the source of much of the black filth from which the Blackwater stream derives its name. This black mud is the decomposing dead vegetation which season after season accumulates on the higher lands and filters through the porous sands, till it is intercepted by the impervious clay of the middle Bagshot layer. Here it accumulates till heavier rains wash it by main force to the streams, like the Blackwater, which intersect this district. Within the present generation a large population has collected as offshoots to Wellington College, the Royal Military College, the Staff College, and Aldershot Camp, all of which are unfortunately built on this insanitary Middle Bagshot area. This new and rapidly increasing population adds filth to the Blackwater stream, previously polluted to an insanitary condition. There are persons still living who suffered from malarial fever in this district. Diphtheria is now seldom absent from the Blackwater valley, and is a permanent danger to the boys at Wellington College, to the cadets at the Royal Military College, to the officers and their families at and around the Staff College, to the Camp at Aldershot, and the large civil population necessarily congregated around this military district. Here, as we have before pointed out, we are endeavouring to cultivate our military officers and soldiers to be fitted, by constitutional vigour, to stand against the various climates of our vast Empire, and we are doing it by placing our officers from boyhood to manhood in institutions in and adjacent to what Mr. Haviland describes as a "*plague-stricken valley.*"

SCARLET FEVER IN LONDON.

THE large and steadily increasing number of scarlet fever patients under treatment in the Metropolitan Asylum Hospitals appears to be producing a somewhat false impression as to the prevalence of that disease in London. It is true that since the middle of June, when the number of scarlet fever patients under treatment in these hospitals was 538, the weekly numbers have steadily increased to 1247 on Saturday last, exceeding by 361 the number under treatment at the corresponding date last year. It should, however, be borne in mind that the deaths from this disease have not shown a corresponding increase, and have been continually below the average for the time of year. The annual death-rate from scarlet fever in London during the quarter ending with September last did not exceed 0·18 per 1000, against 0·42 in the twenty-seven large provincial towns dealt with in the Registrar-General's weekly return. The death-rate from scarlet fever in London, which had been 0·40 and 0·22 per 1000 in the third or summer quarters of 1887 and 1888, further fell to 0·18 last quarter, and was scarcely more than half the mean rate in the corresponding quarters of the seven years 1882–88. This low death-rate from scarlet fever, coincident as it is with the large and steady increase of cases under hospital treatment, may be due partly to the prevalence of a mild form of the disease, and partly to the constantly increasing proportion of cases treated in hospital. The proportional case mortality in hospital should throw some light upon the type of the disease. The proportion of deaths from scarlet fever to completed cases (recoveries and deaths) in these hospitals in the three months ending with September, 1888, was 10·8 per cent.; and in the corresponding period of this year the case mortality was 10·6 per cent., or nearly the same. The mortality during August and September last was, moreover, probably unduly raised by the constant increase of admissions, as the case mortality is always highest during the earlier stages of the disease. It may be noted that the deaths from scarlet fever belonging to London in the thirteen weeks ending on Saturday, Sept. 28th, numbered 190, and that they showed the highest death-rates in Mile-end Old Town, Newington, Holborn, Clerkenwell, and Fulham sanitary areas.

BACTERIA AND VIRUS.

THE connexion between bacteria and disease is not explained by the simple fact of the invariable presence of certain microbes in certain diseases, nor by the circumstance that such diseases can be reproduced in animals by inoculations with these microbes. The bacterial theory of disease, like that of fermentation, involves a far larger question. It implies that these parasites are capable of converting the media in which they flourish into chemical substances that have a poisonous action on the body, deranging its normal mechanism and thereby producing various groups of symptoms, and even death. It is well known how of late years attention has been gradually becoming fixed upon the chemical aspect of morbid processes, and there has also been a growing belief in the necessary intervention of bacterial "ferments" to produce the alkaloidal substances known as ptomaines, which are derived from the albuminoid elements, and to which so much has been attributed. Dr. Brieger, whose name is largely associated with this subject, reviewed it in its general bearings in an address delivered at the recent meeting of German naturalists and physicians at Heidelberg. He pointed out (*Berl. Klin. Woch.*, No. 39) how the domain of "infective" disease was widening at the expense of diseases due to nutritional and nervous changes, and proceeded to show that whereas in nature we have everywhere abundant evidence of bacterial chemistry, so in disease analogous effects due to the agency of these minute organisms are to be observed. That the normal vital processess are accompanied by the production of a large number of substances of the aromatic series, such as skatol, indol, carbolic acid, &c., was pointed out by Mischerlich and Hoppe-Seyler; and these products of putrefaction were to be found in the living body or its excreta in greatest amount when the vital powers were much impaired. But these substances are of far less importance than the basic products of bacterial life, which Brieger distinguishes into the highly poisonous *toxine* and the non-poisonous *ptomaine;* the latter, it may be remembered, having been first discovered by Selmi in the cadaver.

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Toxine (using the term in a generic sense), he showed, is produced even in the primary act of digestion, for peptones injected under the skin of animals often produce symptoms of poisoning; and the action of pepsin or fibrin produces a poison that causes paralysis and even death in some animals. The number of similar products formed in the further course of digestion is very large; the most poisonous of such derivatives of albuminoid disintegration being neurin (derived from cholin) and methyl-guanidin (from creatin). The poisonous effects of certain articles of diet—all the cases of mussel-poisoning, sausage-poisoning, &c.—are to be attributed to like principles due to bacterial ferments. Dr. Brieger then showed that up to a certain point various forms of toxine had been obtained from pathogenic bacteria—as the staphylococcus aureus, streptococcus pyogenes, typhoid bacillus (typhotoxin), cholera bacillus, anthrax bacillus, tetanus bacillus, and others, and then referred to the subject of auto-intoxication, which has been so well studied by Bouchard and Gautier. It was shown that there was a parallelism between the fermentations excited by pathogenic bacteria and those of putrefactive organisms, and that a disease—e.g., typhoid or tetanus—owes its specific characters to the special toxine thereby produced. A further development of the subject lies in the explanation of immunity, and the idea that the products of one kind of microbe may neutralise or destroy the effects of other toxines. Infection thus comes to be really an "intoxication," and the susceptibility to infection to depend on the greater or less tolerance of the body to the poison. The whole facts of protective inoculation accord with this view, so that it may be expected that in time immunity may be obtained through the agency of the ptomaine and toxine of the disease concerned. Then, said Dr. Brieger, will the therapeutic aims of medicine—the establishment of rational and therefore of specific measures of cure—be attained; and this can only be by a close connexion being formed between pathology and chemistry.

COMPULSORY GAMES IN SCHOOLS.

THE parents of boys at our public and private schools have been pouring forth their grievances on the hardness of compulsory games. The fact is schoolmasters are at their wit's ends to know how best to occupy their pupils in the intervals of class. One set of parents—and in this they are supported by the medical profession—claim as a right that their sons should not be subjected to more than seven or eight hours class work in the day. The rest of the time not occupied in eating or sleeping has to be provided for, and there appears to be but one way of doing it, and that is by some kind of compulsory athletic exercise. No one can have visited any of our public schools on a half holiday without being struck by the sight of several hundred boys playing cricket in summer, or football in winter. Here, it appears to us, may be witnessed instances of the maximum of good and the minimum of evil in our public school system, which is the admiration of every foreign country. It is only when these compulsory games are carried to extremes that parents have any right to complain. Games are essential to the discipline of every school, for boys of ordinary go and vigour, with a view of increasing their vigour by the physical exercise to which any boy of ordinary constitutional powers has a natural propensity. There are public schoolmasters of high repute who hold that a certain standard of physical vigour is essential in a boy if he is to reap the full advantage of a public school training, and in those instances where this standard is not, and cannot be attained, it would be far better for parents to realise the fact, and not subject a boy to a career for which he is not fitted, and which can only end in their disappointment and probably their boy's ruin. A large number of our public school boys are quite unfitted intellectually and physically to benefit by a public school course of training, and the system is discredited by the inadaptability of such boys to the requirements of a public school. There are "loafers' in class as well as in the playground, and such boys should be removed from among large numbers to private schools where individual attention in work and recreation can be given to them. Such boys are to be pitied rather than blamed, for they cannot bear the jostling of the playground, nor have they the aptitude for the hurry and smartness of the public school class and would be better away from both.

REPORTED DEATH UNDER NITROUS OXIDE.

WE published last week a brief report of a fatality which occurred in Edinburgh, resulting, unhappily, in the death of Lady Milne, but until full particulars of the sad event are before the profession it would be premature to criticise the case in detail. It has been demonstrated by Dr. Dudley Buxton in some careful experimental work that nitrous oxide *per se* does not possess any depressant action upon the heart, but rather tends to strengthen and slow cardiac force and rhythm. When the dentist, however, both operates and administers the gas, there is always a danger lest the anæsthesia should not be profound enough, and so the patient, feeling the pain while in the post-narcotic stage, incurs the risk of reflex inhibition of the heart, so liable to appear at that time. Intent upon his own work, the extractor cannot watch his patient as he should be watched, and thus grave perils are incurred. It is most deplorable that so safe an anæsthetic as nitrous oxide has been proved to be, should be blamed for fatalities which, while occurring under nitrous oxide, are not directly due to that agent. All skilled anæsthetists seem to agree that there is more danger to be apprehended from an insufficient supply of nitrous oxide than from pushing that agent to profound narcosis. Owing to the very transitory period of unconsciousness obtained by nitrous oxide every second of time is valuable, and hence the peril in allowing one individual to undertake a double function—to administer gas and extract teeth—arises not only from the impossibility of operating and watching the patient simultaneously, but also from the loss of time incurred in exchanging the face-piece &c. for the extracting forceps.

THE HOURS OF TRAMCAR AND OMNIBUS MEN.

THE hour (1.30 A.M.) at which the recent meeting of tramcar and omnibus men was held constituted in itself an instructive protest against the system of overwork which forms the chief grievance in this department of labour. The working day, as now arranged, is of uncertain duration. We have reason to believe that the maximum statement of seventeen hours and a half represents an extreme, but not an exaggerated, or even perhaps unusual, condition. It may be regarded as the type of a full day for omnibus and car drivers. The short periodic intervals of rest at a terminal public-house cannot be supposed to lessen materially the strain of the day's work. Of the six and a half remaining hours a certain proportion must necessarily be occupied in going to and from home, in dressing and undressing, and in such meagre domestic civilities as are quite unavoidable. Consequently the sleep of the carman, however sound, must be short indeed, barely sufficient for the easiest liver and quite inadequate for men employed in irksome and continuous duty. It is true that the work done is not very severe, that it allows of free movement, fresh air, and of sufficient, if not regular, nutrition. Thus far it is wholesome. On the other hand, there is hardly any relaxation

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in the vigilance, alertness, and concentration demanded for the exercise of responsible functions, discharged as these often are in spite of bad weather, fog, and the numberless petty worries of street traffic. Serious accidents are happily not common, a fact which may best be attributed to the slow rate of speed allowed, but the tension of such long-continued effort cannot be otherwise than prejudicial to the men employed. It is out of keeping with the customs of labour in other callings, and it is of very dubious public benefit. A change is clearly called for, and in this connexion the demand of the men—a working day of twelve hours, even if accompanied, as it naturally would be, by a diminished wage—is by no means unreasonable. We would be disposed to ask for the further concession of Sunday as a day of rest at least every other week. Under such altered conditions we are certain that the duties now performed by the *employés* would be better done, and probably with no serious loss, if any, to the tramway and omnibus companies. It is to be hoped that both masters and men will have the sense to adjust this matter with due regard to their mutual interests, and without a needless trial of strength amid the risks, the frictions, and follies of a strike.

CENTENARIANISM IN ENGLAND AND IRELAND.

WE recently called attention to some statistics of centenarianism in Ireland contained in the annual report of the Registrar-General for Ireland relating to the year 1888. We pointed out that the deaths of 208 reputed centenarians during last year in Ireland stood out in strong contrast to the number usually registered in England and Wales, averaging about 65 per annum. The English report shows that a remarkably large proportion of the deaths of reputed centenarians are recorded among the Celtic population of Wales, and we were therefore prepared to find a proportionally large number of cases of reputed centenarians among the recorded deaths in Ireland. Bearing in mind that the last census in 1881 showed that 25 per cent. of the Irish population aged upwards of five years could neither read nor write, and that another 16 per cent. could only read, it may naturally be concluded that very hazy and indefinite information as to age prevails among a considerable proportion of the Irish population. It was not, therefore, the number of cases of reputed centenarianism which excited surprise and incredulity, but the statement that "further inquiry having been made, it was ascertained that the ages of the centenarians as given in the records were in *every instance confirmed.*" A letter from a correspondent takes exception to our incredulity of the fact that 208 established cases of centenarianism were recorded in Ireland last year, the above-quoted statement notwithstanding. We did not intend to throw any doubt on the fact that each of these cases had been investigated, but such an unwonted result of investigation of cases of reputed centenarianism appeared inevitably to suggest a desire for information as to the precise nature of the investigation. The late Mr. Thoms published *in extenso* the result of his investigation concerning thirty reputed English cases, only four of which were satisfactorily established as cases of centenarians. The late Dr. William Farr, in the thirty-fourth annual report for England, remarked: "The difficulties attending investigation of cases of reputed centenarianism are no doubt considerable, but the question is one of scientific importance." Any light therefore that can be thrown on the nature of the investigation which was held to establish the authority of the 208 cases registered last year in Ireland would possess undoubted value. Our correspondent, moreover, asserts that in our remarks we took no account of the fact that the Irish population contains a larger proportion of elderly persons than does the English population, a fact to which attention was called by Dr. Grimshaw in his able address as president of the Sanitary Science Section of the Congress of the Sanitary Institute in Dublin in 1884. The census in 1881 showed that 106 per 1000 of the Irish population were aged upwards of sixty years, while in England and Wales the proportion was only 74 per 1000. Aware of this fact, however, we were careful to test the relative proportions of centenarianism in England and Ireland in such a manner as to eliminate this disturbing influence. We found that of the recorded deaths in Ireland of persons aged upwards of seventy-five years, 12·5 per 1000 in 1888 were stated to be those of centenarians; while from the last published English report (that for 1887) we found that of the recorded deaths at these ages only 1·1 per 1000 were those of reputed centenarians. The obvious and natural conclusion from these facts would be that the ages of deceased persons are more incorrectly stated in Ireland than in England. But then we are met with the statement that all the Irish cases were investigated and established. The subject is, as Dr. Farr said, one of such scientific interest, that we should be glad to have full particulars concerning the nature of the investigation to which the Irish cases in 1888 were submitted.

ISOLATION OF THE INFECTIOUS SICK AT SALFORD.

SOME time since we drew attention to the deadlock which has occurred at Salford in connexion with the isolation of infectious diseases, and although both scarlatina and diphtheria are now somewhat widely prevalent in the borough, matters do not seem to be any more promising than formerly. The Wilton Hospital has been purchased by a railway company, and, at any moment, a six-months notice to quit it may be served on the Corporation. It is described as adapted to receive sixty-one patients; but even then the sick would not have the advantages attaching to a properly constructed and efficiently ventilated institution. At the present moment it contains about 110 patients. The Corporation, having decided to erect a new hospital, and having secured the sanction of the Local Government Board to the scheme proposed, are now the owners of a site of some thirteen acres of land at Ladywell; but, owing to opposition in the Council itself to its use, the mayor and several prominent members of the Sanitary Committee resigned their seats on that body, and another Committee, containing the principal dissentients, was appointed some months ago to ascertain what alternative arrangements could be made. As yet none have been entered into, but, in view of the present emergency, efforts are being made to induce the authorities of Monsall Hospital to receive the Salford cases; and it is suggested that this hospital, which already serves for all the existing requirements of Manchester, and professes also to be available for a large number of other sanitary districts, should also be made permanently available for Salford; and this although it is a hospital which in epidemic times receives small-pox, in addition to the other specific fevers. It has also to be remembered that, under the new scheme sanctioned since Dr. Tatham assumed office in Manchester, that city will for the future have additional claims on Monsall by sending its enteric-fever patients there also. The demand now made upon the hospital is therefore an extensive one; and the governing body are taking time before they give a final answer to Salford's new hospital committee. Another scheme foreshadowed is that a pavilion should be erected in connexion with the Pendlebury Hospital for Sick Children, to which Salford could send infectious cases. As to this Mr. Walmsley, M.R.C.S., an alderman of the Salford Corporation, expresses his belief that the Pendlebury authorities will never commit "such a fatal mistake"; and we must admit that the adoption of such a step on any such scale as

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materially to relieve Salford of its infectious cases would be one calling for the gravest consideration. But, under any circumstances, we trust that the present state of affairs, which Mr. Walmsley describes as disgraceful to the borough, will speedily be brought to an end by some satisfactory solution of a difficulty which otherwise bids fair to become very pressing.

COMPULSORY VACCINATION.

A MEETING in condemnation of the Compulsory Vaccination Act was held last week at Guildford, at which the usual misstatements as to the effects of vaccination were made. Thus the audience was told that in Sheffield during the last small-pox epidemic "eight cases, nurses and attendants in a hospital, who had all been revaccinated, occurred, and there were two deaths." Turning to Dr. Barry's report, we find that in the Sheffield small-pox hospitals there were 140 persons in contact with the sick; in addition, there were 21 other persons not themselves necessarily in actual contact with the sick, though in constant communication with attendants on small-pox cases. Of these 161 persons, 18 (11·2 per cent.) had suffered from small-pox prior to 1887–88, and none of the 18 contracted small-pox during the present epidemic; other 62 (38·5 per cent.) had been vaccinated in infancy only, and of these 6 (9·7 per cent.) contracted small-pox, and one died. The 5 non-fatal cases were slight in character. Of the remaining 81, all of whom had been successfully revaccinated, *not one contracted small-pox*. It is not matter for surprise that people who cannot check the statements made at the Guildford meeting are misled. The effects of similar teaching in Leicester are well known, and the inhabitants in that town seem bent upon preparing their children for fatal disease. We learn that during the quarter ending Sept. 29th only 30 children were vaccinated in Leicester out of 1250 births.

SAILORS' RATIONS.

A DISCUSSION has lately been carried on regarding the sufficiency, both as to quality and quantity, of the food supplied on board Her Majesty's ships, and its effect on the health and discipline of the crews. Whilst many affirm that the dietary is insufficient, and compares unfavourably with even that of the soldier, and that the arrangements for the service are bad, others as positively affirm that there is no cause for complaint. The question is one that can be decided by scientific investigation alone; and on this point we believe that Dr. Ralfe, in his "Inquiry into the General Pathology of Scurvy," has very fairly represented the contrast between the sailors' and soldiers' rations, a representation which may be remembered with advantage in deciding the various points raised by the present controversy. Dr. Ralfe says, "The proportion of albuminates in both dietaries is about equal—perhaps, if anything, in favour of the soldier; for, though the sailor receives sixteen ounces of meat to twelve of the soldier, allowance must be made for the weight of salt and the nutritious matter dissolved out into the brine. But the sailor's dietary is below that of the soldier in actual quantity, and this deficiency is caused by the withdrawal of no less than twenty-four ounces of succulent vegetable food, which is poorly replaced by nine ounces of extra flour, five ounces of split peas, and an ounce and a half of currants and raisins. The presence of a considerable amount of chloride of sodium from the salted provisions renders the total weight of the ash higher in the sailor's rations than in the soldier's, otherwise the inorganic constituents are less — notably the potash, — whilst the alkalinity of the ash is considerably lower. This diminution of the alkalescence of the ash has no relation to the deficiency of potash, nor is it caused by the increase of the neutral salts, but is absolute, as can be shown by the fact that if sixteen ounces of fresh meat be given instead of sixteen ounces of salt, the alkalescence is only increased 0·2 grm., whilst the potash is increased 0·8 grm. Dr. Ralfe gives the alkalescence of the ash of the soldier's rations as rather more than half that of the alkalescence of the ash of the sailor's rations. To physiologists, who are aware of the importance of maintaining the normal alkalescence of the blood, and of the tissue changes that ensue when animals are fed on food whose ash is deficient in alkaline salts, as shown by the well-known experiments of Hoffman and Loscar, the above fact is significant, and to it may be attributed to a considerable extent the signs of premature age that are so often observed in sailors over forty years of age. No doubt, since the observations quoted from above were made in 1877, some improvements have been effected in the sailor's dietary, and he may now be able to purchase more luxuries out of his allowance, and, when his vessel is not cruising, procure fresh vegetables and meat in lieu of salted provisions; yet much remains to be effected. The arrangements, by which in the United States Navy, butter, tinned tomatoes, cranberries, pickles, and molasses are added to the rations, should be adopted in ours, and it should not be left to the option of the sailor to purchase these from the purser out of his savings. Again, the hours of the meal should be more in accordance with the men's requirements. The interval between supper at half-past four in the afternoon and breakfast at six the next morning is too long, although the defenders of the system declare the sailor is at liberty to save some of his dinner ration of biscuit and salt pork, and eat it cold for a late supper. We doubt if much would be left provided the sailor were in good health; whilst if the appetite were impaired, we do not think it would be tempted by cold salt pork and dry biscuit for supper. If the meal at half-past four were postponed to half-past six or seven, we believe it would be a great boon to the men, and would be beneficial to their digestion.

THE FALL OF THE YEAR.

THE boisterous winds which have lately prevailed remind us that we have been passing through the weather ordeal of the autumnal equinox. We notice and instinctively feel that the chilly wet of this period bodes nothing good to those who are exposed to its influence. All of disease that goes by the name of "cold" springs up as if in due season, and its wide prevalence even tempts the observer to seek for this commonest of ailments a cause, beyond climatic influences, in one or more of the numerous germ forms by which we are surrounded. Whether such will ever be precisely identified or not, the warning message of the time is one which none of us can afford to disregard. Careful and laborious investigations have shown that about this period the loss of weight which characterises the human body in the winter as compared with the summer months, and the oxidative changes with which it is associated, are wont to take place with especial suddenness. There is consequently a parallel depression of the vital powers, which must render them less able to resist the onset of illness. Whatever the state of the individual, the effect is more or less similar. It may not, indeed, be felt while the vigour of a robust constitution avails to turn aside the attacks of casual chill. It is otherwise with persons who from any cause lack this resistant faculty. Accordingly we find, as if by natural selection, the very young, the old or elderly, and the feeble of all ages—in a word, those of defective development or failing powers—reflect thus the influence of external cold. The danger suggests its own preventive. Into each detail of precaution or of cure we cannot now enter; but one or two

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points are noteworthy. The avoidance of needless exposure is a mere axiom of common sense. The question as to what is appropriate clothing is a more important, though too often forgotten, consideration. In this connexion the value of light moderately thick woollen underwear, which at once conserves heat and allows free transpiration, can hardly be exaggerated. It should also be remembered that however judicious the precautions used, cold will still extort its tax of comfort, health, and life, and therefore that its earliest beginnings, especially in the more susceptible cases we have mentioned, are to be treated seriously. Neglect or mismanagement at this stage has often magnified a trifle of illness into a fatal catastrophe.

HOUSE REFUSE AND TOWN IMPURITIES.

A PAMPHLET on the above-named subject, by Mr. Alexander Bobrownicki, takes its various illustrations from the city of Manchester. The author aims at attaining for populations the highest procurable cleanliness of soil, air, and water, and he contends that an unhealthy town has no other meaning than a proportionate accumulation of decaying or putrescible matter. The causes of the present mischief, as exemplified in Manchester, are overcrowded dwellings badly kept; surface impurities in streets, yards, and corners; sewers of such construction as admits of their structure becoming sodden, and of their charging the surrounding subsoil with filth; with a resulting contamination of the atmosphere above by reason of the exit of foul air through the multiple ventilators inserted in the hope of abating the evils below. The author regards the natural duty of sewers to be "to protect the subsoil against contamination from the surface, and to maintain as steadily as possible the level of the subsoil water"; and he is a strong upholder of the Manchester pail system, which, whilst presenting certain remediable defects, gets rid annually of no less than 241,215 tons of material that might otherwise add to the pollution of soil and air. He also classes as amongst the dangerous impurities of a town the ordinary domestic smoke, and refers to certain experiments which give him hope that the vast and almost abandoned problem of purifying smoke may be practically and usefully resolved.

LEAD POISONING BY POTABLE WATER.

THE prominence given during recent years to the danger which attaches to some of our moorland water-supplies, owing to their action on lead during the passage of the water through lead service pipes, is referred to in a report by Dr. A. Swann, medical officer of health to the borough of Batley, Yorks. The Batley water, like that of other northern towns where lead poisoning has been somewhat rife, is derived from moorland, and it is stated that lead poisoning has been by no means unfrequent amongst the consumers of the public supply, and also that it has ceased on the substitution of iron for leaden service pipes. But whilst there have been a number of cases sufficiently severe to call for attention, Dr. Swann is convinced that there are many more in which mischief which is not so obvious is the result of the same cause; and that whilst a few people get "wrist drop" or other evident sign of the action of lead on the system, many other symptoms of disease, notably kidney troubles and degeneration of the bloodvessels, are being induced from the same cause. He refers also to the circumstance that the danger of lead poisoning is increased where any appreciable amount of organic material is present in the water. Such a condition might to some extent account for the varying effect of a water which is at one time apparently innocuous, at another liable to produce plumbism; and it calls for investigation in connexion with the suggestion made by Mr. W. H. Power, in the Annual Report of the Medical Officer of the Local Government Board for 1887, to the effect that some of the phenomena observed in occurrences of plumbism would, if observed in the biological laboratory in relation with the life processes of one or another microphyte, not be difficult of comprehension. And Mr. Power further suggests that the inscrutable behaviour of some of the moorland waters in this respect may be related to the agency, direct or indirect, of low forms of organic life. Dr. Swann goes on to state that he has learnt, through the librarian of the Société Française d'Hygiène, that no fewer than 907 of the leading physicians and surgeons of France have signed a petition to the Paris Municipal Council praying for the "absolute forbidding of the use of lead piping for the supply of water for dietetic and drinking purposes." Evidently the subject has been under consideration by the Society referred to, and the constantly recurring instances of lead poisoning by potable water which have of recent years been heard of in and about Yorkshire, call for some exhaustive investigation of the subject in our country also. The biological aspect of the question seems especially to call for skilled inquiry and research.

VACCINATION IN ITALY.

ROME now possesses a State Vaccination Office, and its medical director, Professor Ottavio Leoni, has just issued his first report on its operations. Small-pox, it seems, has been causing the death of from 15,000 to 20,000 Italians every year—a terrible life-tax, due, in the first place, to vaccination being non-compulsory, and, in the second, to the very inferior, often adulterated, lymph employed on occasion. Appeals to the public to have themselves vaccinated or revaccinated, even when responded to, were rarely effective, because no attention was paid to the quality of the lymph imported either from the national or foreign vaccigenous institutions. The Government, accordingly, empowered a commissioner to make a tour of inquiry among the chief European States, notably those in which small-pox had been virtually stamped out, to ascertain by what means an unadulterated and sufficient supply of lymph could be obtained, and to report on the system which seemed best adapted to compass this end. The result of this Commission is now seen in the State Vaccination Office of Rome, where all the methods most approved by science and experience for the preparation and conservation of lymph have been in working since the commencement of the year. The success of this office has exceeded the most sanguine expectations of its promoters. Within nine months, Professor Leoni tells us, there has been despatched from it to the communes, and even directly to medical practitioners, a quantity of vaccine lymph ample enough to inoculate more than one million of individuals. For first vaccinations the results have been "costantemente favorevoli" (constantly favourable), and for revaccinations they have been successful, on an average, in eighty-four per cent. of cases. No pains, says Professor Leoni, have been considered too minute or too laborious to secure the absolute purity of the lymph or to remove the risk of conveying through its means the germs of any malady transmissible from animals to man. In fact, before inoculating the calves they are kept for days under surveillance, to ensure their being in perfect health. As soon as the lymph is collected, these calves are killed and their carcases are subjected to a minute histo-pathological and bacteriological search to check the previous diagnosis of their soundness. If the slightest suspicion arises on this point, the lymph obtained from the suspected animal is destroyed. Through the Roman Vaccination Office there is placed at the disposal of every province of the peninsula an ample quantity of the vaccine so guaranteed, and we are informed that the Minister of War will shortly serve out to the army the lymph necessary for the revaccination of recruits,

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greatly diminishing the expense hitherto incurred by each regiment for this purpose, and fraught with results superior to those obtained in the best of recent years. Compulsory vaccination, now *un fait accompli* in Italy, has crowned its efficiency by the means just taken to ensure the purity and due quantity of the vaccine, thus giving a deathblow to the nefarious traffic of the speculator in adulterated lymph, while removing the last obstacle to Italy's assuming her place among the sister Powers as a hygienically safeguarded kingdom.

THE REGULATION OF SLEEP.

INSOMNIA is rightly regarded as one of the marks of an overwrought or worried nervous system, and conversely we may take it that sound sleep lasting for a reasonable period, say, from six to nine hours in the case of adults, is a fair test of nervous competence. Various accidental causes may temporarily interfere with sleep in the healthy; but still the rule holds good, and a normal brain reveals its condition by obedience to this daily rhythmic variation. Custom can do much to contract one's natural term of sleep, a fact of which we are constantly reminded in these days of high pressure; but the process is too artificial to be freely employed. Laborious days with scanty intervals of rest go far to secure all the needful conditions of insomnia. In allotting hours of sleep it is impossible to adopt any maxim or uniform custom. The due allowance varies with the individual. Age, constitution, sex, fatigue, exercise, each has its share of influence. Young persons and hard workers naturally need and should have more sleep than those who neither grow nor labour. Women have by common consent been assigned a longer period of rest than men, and this arrangement, in the event of their doing hard work, is in strict accord with their generally lighter physical construction and recurrent infirmities. Absolute rule there is none, and it is of little moment to fix an exact average allowance provided the recurrence of sleep be regular and its amount sufficient for the needs of a given person, so that fatigue does not result in such nerve prostration and irritability as render healthy rest impossible.

NERVE EXHAUSTION AND OPIUM.

THE revelations following the death of Mr. Wilkie Collins may perhaps tend to increase the pernicious opium habit amongst those who are or who believe themselves to be in need of some extra comfort or support. The accounts given by Mr. Edmund Yates and by Mr. Hall Caine differ in some respects, although they agree as to the relatively large amount of laudanum habitually taken by the deceased *littérateur*. The former speaks of Collins as a martyr to nerves and gout, and seems to infer that the drug was resorted to for the relief of pain. The latter, in an elaborate report of a conversation held early in 1888, professes to give the novelist's apologetic explanation for his practice. He took laudanum "to stimulate the brain and steady the nerves," and he had been in the habit of taking a wineglassful of laudanum many times a day for fully twenty years. Few things are more lamentable than the obvious cost at which much literary work has been accomplished. De Quincey, Coleridge, Bulwer Lytton, and Wilkie Collins stand out as warnings against the folly of over-taxation of mental powers, and as examples of the habitual indulgence in opium. Rosetti, with chloral hydrate, and more recently the actor Damala, with morphine and cocaine, show the same form of weakness in resorting to other remedial (!) measures. It would be invidious to attempt to enumerate well-known names in literary and artistic circles of men whose work has been carried on beyond reasonable limits under the influence of alcohol. The lesson to be learnt is that brain power has its limitations as much as muscular power. Overwork produces exhaustion in both cases. Physiological laws cannot be set at defiance. So far as opium is concerned, it undoubtedly diminishes the susceptibility to external stimuli, and hence may enable a man whose attention is diverted by pain to obtain relief, and perhaps to concentrate his thoughts more fully upon some particular point; but, as a mental "stimulant," its employment is to be deprecated as unsound and dangerous. The constant need engendered by its use does not strengthen the position of a "stimulant," so often erroneously claimed for this drug.

RAILWAY ACCIDENTS IN 1889.

THE tale of fatalities on British railways has been unusually heavy during the first half of 1889, but the causes to which accidents are referred by the inspectors are very much what we have long been familiar with; except indeed that we note with satisfaction the absence from the present report of those frequent references to overwork as a probable cause of the unfitness for duty of peccant officials. It is true that the report is on this occasion a short one, and deals with comparatively few cases, so that perhaps not much can be deduced from the fact here noted. Otherwise one would be glad to think that the pressure of public opinion is making itself felt, and that railway managers are beginning to grapple with the problem of apportioning the work of railway men in such a way as to give them reasonable facilities of rest. In one or two passages the present report awakens a somewhat curious feeling of surprise and testifies afresh to what has often been indicated before—namely, the stultification of good rules by lack of consistency in the regulations, or the acquiescence of responsible officers in the habitual disregard of standing instructions by their subordinates. The following is a striking case in point:—Referring to an accident at the Keith station of the Highland Railway, Major Marindin says: "The evidence of the station-master shows that Rule No. 86 is not properly attended to at this station, for it is clearly not the practice to hold the facing points for outgoing Buckie trains, and it is needless to remark that if the pointsman had been at the points the collision could hardly have occurred. It is worse than useless to issue rules and then allow them to be habitually disregarded, and if it be true, as the evidence would seem to indicate, that the pointsman has sometimes other duties to perform, which prevent him from holding the facing points in accordance with the rule on that head, it would seem to be necessary that the staff should be increased."

THE INDECENT ADVERTISEMENTS ACT.

A MAN described as "shabbily dressed" was charged at the Westminster Police-court last week with distributing bills of an improper character—the said bills being a quack doctor's advertisement. Under the Indecent Advertisements Act, which comes into force on Jan. 1st next, this offence will be punishable by a fine or imprisonment. Under the circumstances the magistrate had no alternative but to discharge the prisoner. It may be well to point out that the Act in question is of a most stringent character, and appears to leave no loophole for evading its provisions. It enacts that "any person who affixes to or inscribes on any house, building, wall, hoarding, gate, fence, pillar, post, board, tree, or any other thing whatsoever, so as to be visible to a person being in or passing along any street, public highway, or footpath, or whoever affixes to or inscribes on any public urinal, or delivers or attempts to deliver, or exhibits to any inhabitant or to any person being in or passing along any street, public highway, or

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footpath, or throws down the area of any house, or exhibits to public view in the window of any house or shop any picture or printed or written matter which is of an indecent or obscene nature," is liable on summary conviction to a penalty not exceeding forty shillings, or to imprisonment for any term not exceeding one month, with or without hard labour. It is gratifying to note that heavier penalties are provided for those who send or employ others to commit the acts enumerated, and also that certain advertisements of a notorious character relating to nervous debility and kindred disorders are, under the Act, deemed to be of an indecent nature. We may, therefore, hope soon to see our streets rid of this pest.

THE HUNTLEY JUBILEE COTTAGE HOSPITAL.

THE opening of a bazaar in aid of the funds of the Jubilee Cottage Hospital at Huntley by His Grace the Duke of Richmond and Gordon seems to have been a most auspicious event. His Grace has been in hearty sympathy with the movement from the beginning, and spoke words of cheer to the ladies and all other promoters in opening the bazaar. Dr. Farquharson opened the bazaar on the second day, and gave his strong opinion in support of such hospitals generally and this one in particular. The building is of granite, costing about £1257. It will contain sixteen or eighteen beds, and is replete with every convenience. Other outlay on grounds, walls, furnishing, &c., will bring the cost up to £1600. The sum of £853 was raised by the bazaar, and it is hoped to invest about £1200 as the beginning of an endowment for the working of the hospital. The Rev. Mr. Burnet, who has been a very active member of the working committee, in moving a vote of thanks to the Duke of Richmond, spoke strongly of the continuous encouragement he had given to the work from the beginning. We congratulate the poor of Huntley on having so valuable an institution provided for them. The hospital will be opened in November.

VISITING DAYS AT THE HOSPITALS.

OUR contemporary, the *Morning Post*, draws the attention of the authorities of one of our general hospitals to the sufferings undergone by those friends of the in-patients who arrive before the time for their admission to the wards. "They are obliged to stand about in the open air in front of the door and on the steps," and are thus exposed to rain and cold winds, with the risks which must follow such exposure. The hospital alluded to is, however, not the only one where indifference is manifested to the comfort of the visitors of the patients, and it would be well if the authorities of some of our other hospitals could see their way to provide shelter for the poor people who, in their anxiety to see as much as possible of their sick friends, arrive before the doors are opened.

THE TREATMENT OF ENDOMETRITIS.

DR. BOCK, assistant physician to the Hôpital St. Pierre, in Brussels, gives in *La Clinique* some notes of a series of cases of endometritis in which very satisfactory results were obtained by the use of Canquoin's paste applied to the interior of the uterus. Dr. Bock does not give the strength of the preparation, and this is not always the same in various continental formularies. The paste is made by mixing one part of chloride of zinc with two parts, or according to some formularies with one part, of flour, and enough water to enable the mass to be kneaded into the required form. For the uterus, of course, the form required was that of a stick of such a length as to reach from the fundus to the external os. A careful measurement had, necessarily, to be previously taken with the sound, and the cavity washed out with a sublimate solution. The stick of Canquoin's paste was then introduced and retained by means of a plug of cotton wool. For three or four hours the patients sometimes suffered a certain amount of pain, but this was by no means unbearable, and frequently there was no pain at all. Vomiting was occasionally produced in very sensitive subjects, but in none of the fourteen cases in which this treatment was adopted was there any pyrexia or other complication. The patients were kept in bed for a few days, and warm antiseptic injections given. The caustic produced a slough to the depth of from two to five millimetres, which came away, sometimes revealing a perfect cast of the interior, and even showing the commencement of the Fallopian tubes. Dr. Bock considers that this treatment is suitable—where the cervical canal is sufficiently patent—in all cases of chronic simple endometritis, as well as in fungoid or hæmorrhagic cases, and that it is peculiarly beneficial in cases of gonorrhœal origin, and he does not find that chronic or subacute inflammation of the uterine appendages forms any contra-indication. His results agree with those of MM. Polaillon and Dumontpallier, who first recommended this treatment, and who were successful in thirty-eight out of forty cases in which they employed it.

THE CHOLERA EPIDEMIC IN MESOPOTAMIA.

THE spread of cholera in Mesopotamia—a daily average of 200 fatal cases having, it is stated, taken place within the last week or two—is causing much anxiety at Constantinople, and fresh efforts are being made by means of sanitary cordons and the like to prevent the extension of the disease both into Palestine and further into Persia. The places most affected are towns and villages on the Euphrates and the Tigris from the Persian Gulf to a distance of several hundred miles inland; Bagdad being still a centre of the disease. The towns and ports hitherto affected on the eastern and western coasts of the Persian Gulf have been largely depopulated by flight, and there has in consequence been a corresponding diminution in the number of fresh cholera attacks.

CESSPOOLS AT BEXLEY HEATH.

A CORRESPONDENT directs our attention to the condition of Bexley Heath, which, for want of any better method, is entirely dependent on the use of cesspools. Many of the houses, he says, have several, and, the ground being porous, the inhabitants are not at the trouble to empty them. Lately, we learn, several deaths have occurred from typhoid fever, and yet so much apathy prevails that no public feeling is created in favour of a system of drainage. In times of heavy rains the cesspools overflow and the streams from which cows drink become polluted. We commend the remarks of our correspondent to the attention of the Local Government Board, in the hope that some step may be taken to rouse the inhabitants to a sense of their danger.

ELASTIC TISSUE.

DR. GALIN has made some experiments in the laboratory of Professor W. W. Podvysotski, in Kieff, on elastic fibres which led him to the conclusion that the elastic tissue can be saturated by a foreign substance circulating in the blood and tissues. This occurs not only when the whole system is saturated with the substance and the organs of excretion are inactive, but also when such saturation does not take place and the kidneys are acting normally. These experiments, as well as those of Blashko, throw a new light on the physiological importance of the elastic tissue, and suggest that it serves as a kind of depôt for the storage of septic and foreign substances, especially when their free excretion—by the kidneys, for instance—is in any way disturbed.

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BREAD MANUFACTURE.

THE promoters of the Bread Union for London are putting forward as one of the benefits which will accrue to the public from the execution of their project the general introduction of cleanly methods of manufacturing bread. It cannot be denied that this is of itself a highly desirable object, for it is much to be feared that of the bread which is consumed in the metropolis a very seriously large proportion has been contaminated by unwholesome surroundings in the making. Although we do not understand how a baker's syndicate is going to accomplish or even to advance improved cleanliness in the manufacture of bread, we gladly bear testimony to the importance of wholesome and scientific methods of bread-making from the point of view of the public health.

FOREIGN UNIVERSITY INTELLIGENCE.

Geneva.—Dr. Vincent has been appointed Professor of Hygiene in place of Dr. Dunant, who has resigned.

Genoa.—Dr. Morselli, Extraordinary Professor in Turin has been appointed Professor of Mental Psychology.

Graz.—*Privat-docent* Dr. Escherich of Munich has been nominated to the Professorship of Pediatrics at Graz, rendered vacant by the transference of Professor von Jaksch to Prague.

Jena.—Professor Knorr of Würzburg has been appointed Professor of Chemistry and Director of the Chemical Laboratory in succession to the late Professor Greuther. Dr. Auerbach of Breslau has been appointed to the newly established chair of Physics.

Lausanne.—Dr. Stilling has been appointed Professor of Pathological Anatomy.

Moscow.—Dr. Schênoff has qualified as *privat-docent* in Physiology.

Munich.—Dr. Haug has qualified as *privat-docent* in Surgery.

Rome.—A new School for Experimental Hygiene has just been opened, and is intended to offer instruction not only to medical men, but to engineers, veterinarians, chemists, and pharmacists.

Vienna.—A new hospital has just been opened in the Tenth district of the city. It will now accommodate 200 patients, and when finished will have beds for 500. Dr. P. Pacher has been appointed Director.

Warsaw.—Dr. Kowalkowski has been appointed to the chair of Hygiene.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. Duboué of Pau; Don R. Barberá y Blay of Zaragossa.—Dr. Maurice Longuet of Bourges, a rising provincial physician. He was the author, in conjunction with Dr. Ledentu, of the article "Lymphatique" in Jaccoud's Dictionary of Medicine.

SIR HENRY ROSCOE, M.P., delivered an address at Birmingham this week as president of the Midland Institute, taking for his subject "The Life-work of M. Pasteur," whose discoveries, he said, had culminated in the cure of that most dreaded and fearful of all maladies—hydrophobia. This was not the result of a happy chance, but the last link in a long chain of discoveries, including the exterminating of cholera, of cattle disease, and of splenic fever. Thus to M. Pasteur we owed the science of bacteriology, which dealt with the minute organisms called microbes, and which bids fair to revolutionise the theory and practice of medicine.

WE regret to have to record the sudden death of Mr. Thomas G. Hewlett, C.I.E., Deputy Surgeon-General, Bombay Army. Mr. Hewlett was waiting for a train at Finchley-road Station on the Metropolitan Railway when he suddenly fell forward on the platform and expired before medical assistance could be obtained. The deceased served in the Indian Mutiny campaign, and was Sanitary Commissioner for the Bombay Presidency until his retirement last year. He was fifty-seven years of age.

PROFESSOR JOHN WOOD, F.R.S., has resigned his chair of Clinical Surgery at King's College and the senior surgeoncy at King's College Hospital. Mr. Wood was first appointed Demonstrator of Anatomy in King's College in 1851, and assistant surgeon to King's College Hospital in 1856.

THE annual meeting of Fellows and Members of the Royal College of Surgeons to receive the annual report of the Council will be held on Thursday, Nov. 7th, at 3 P.M.

DR. VERGA, Senator of the Italian Kingdom, and well known as one of the leading alienists of Italy, is, we regret to hear, lying dangerously ill at Milan.

PROFESSOR EBERTH has succeedeed Professor Weigert as co-editor of the *Fortschritte der Medicin* (founded by the late C. Friedländer) with Dr. Unverricht.

THE FOUL BLACKWATER RIVER IN THE FARNHAM DISTRICT AND ITS DEADLY WORK.

BY ALFRED HAVILAND, M.R.C.S.E., L.A.C.,
LATE LECTURER AT ST. THOMAS'S HOSPITAL ON "THE GEOGRAPHICAL DISTRIBUTION OF DISEASE."

ON Thursday, Sept. 19th, I visited Aldershot, its camp, and the valley of the Blackwater River, with the view of gathering fresh information on the subject of my lecture at the Sanitary Institute in April last: "The Bagshot Sands and their Relation to Health." During this visit I met with two facts: (1) the frightfully polluted condition of the Blackwater River, which rises to the south of Aldershot near Hungry-hill, and skirts the whole of the subdistricts of Frimley and Farnborough as far as their northern boundaries; the parishes of Aldershot and its military camps, Ash and Normandy, and lastly, Frimley and Farnborough, being immediately within range of its pestilential local climate; and (2) diarrhœa of a severe form prevailing in the parish of Frimley. As usual, too, I found the inhabitants loud in their complaints of the filthy state of their river and of the incapacity of the Farnham sanitary authority to deal with the source of their troubles. Since then I have informed myself of the history of the preventable deaths that have occurred during the last ten years and a half in this plague-stricken valley. I shall, however, confine myself to the two great causes of death, diphtheria and diarrhœa, for after a long and wide experience I have, with others of equal or greater experience, come to the conclusion that their causes are sewage-begotten and air-borne. The population of the above parishes and military station amounted in 1881 to 26,097 persons, amongst whom there occurred during the ten years and a half from the 1st January, 1879, to the 30th June, 1889, 197 deaths from diphtheria and 208 deaths from diarrhœa. Omitting, however, the six deaths from diphtheria and the two from diarrhœa, which have occurred this year, the numbers will be 191 and 206 respectively for the ten years 1879–1888, which amount to an annual death-rate to every 10,000 persons living of 7·31 for diphtheria and 7·89 for diarrhœa. But 190 of the 191 deaths from diphtheria occurred during the six years

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1883–1888, so that the annual mortality from diphtheria alone equalled 12·13 deaths to every 10,000 persons living, when it should have been *nil*. On the other hand, in the subdistrict of Farnham, including the parishes of Farnham, Waverley, Frensham, and Dockenfield, the population amounted in 1881 to 13,386 persons, who are out of the influence of the baneful Blackwater and on the southern slope of the water parting. During the ten years 1879–1888, the number of deaths registered in this subdistrict were from diphtheria 64, and diarrhœa 66, which would be equal to an annual death-rate to every 10,000 persons living of 4·78 and 4·93 respectively.

The Blackwater divides the parish of Aldershot with the South Camp and the parish of Farnborough with the North Camp from that of Frimley, the first two being on the left and the last on the right bank. We have seen what has taken place on the Frimley side; let us now see what has obtained in its opposite neighbour, Farnborough. Out of the 19 deaths from diphtheria that were registered in the Farnborough subdistrict, scattered over the North Camp at Aldershot, the parishes of Cove, Hawley with Minley, Yateley, and Farnborough, eight occurred in the small parish of Farnborough during the two years 1885 and 1886, amongst a population of only 3426 persons, giving a death-rate from this cause equal to 11·67. At the time this was occurring on the left bank of the foul river there occurred 56 deaths in the subdistrict of Frimley, 22 of which took place in the small parish of Frimley, amidst a population of only 4012, or at an annual death-rate of 27·41 to every 10,000 living. Such an experience ought to have acted as a motive for immediate action towards the extirpation for ever of the wretched cause of so much disease and death. The two facts I commenced with stare us in the face; and there are other evils impending, for the district registrar had, up to the end of June, already registered 6 cases of diphtheria in the subdistrict of Frimley and 2 in that of Farnham.

The history of the last ten years points to the fact that diphtheria was first fatal in the parish of Farnham, around the source of the Blackwater, during 1879–82, when 6 deaths occurred; up to the last date only one death had occurred in the Frimley subdistrict. In 1883, 12 deaths took place; in 1884, 66; in 1885, 56; in 1886, 25; in 1887, 9; in 1888, 22; and in the first two quarters of this year, 6 deaths. Dr. John A. Lorimer, the medical officer of health, mentions in his report for 1888 that "in York Town and Camberley there were 51 cases of diphtheria reported, 17 of which proved fatal; one in three." In the Frimley subdistrict the fourth or winter quarter is the most fatal; in the Farnham subdistrict the second quarter. Diarrhœa in both subdistricts is most fatal in the third quarter. Both diphtheria and diarrhœa can be clearly traced down the stream, their causes acquiring strength as they go. The river is in a valley of the middle Bagshot sands, characterised by a retentive and peaty soil, and is sheltered on the N.E. and S.W. by the Chobham ridges of the upper Bagshot sand on the right bank, and heights of a similar geological character on the left; the consequence is that free air flushing by the prevailing winds is hindered; and the pestiferous emanations from its foul water and still fouler banks lie about, and overflow into the houses which skirt the valley, like those of Farnborough, Frimley, York Town, Camberley, &c., where they meet with other emanations, the outcome of defective local drainage and an insufficient water-supply. The remedy is simple—as a watercourse the river should be protected according to the law. There is plenty of hungry land on the heights where the sewage would do good. The Upper and Lower Bagshot sands, as I have fully shown in the paper referred to, are eminently conducive to health; but their power for good may be easily destroyed when the springs that arise in them and the rivers that flow through their valleys are polluted. The Aldershot camps are much too near such a foul source of death; and the deaths from diphtheria that have already occurred in the town and the camps should long ago have made it imperative upon the Farnham rural sanitary authority to stop the evil at the fountain-head. In conclusion, I must add that the medical officer of health (Dr. Lorimer) has year after year brought the state of the Blackwater, the defective drainage, the insufficient water-supply, and the deplorable sickness and mortality caused by diphtheria and other preventable diseases, before the Farnham Sanitary Authority, but without the slightest effect. It would be useless for the Hartley Wintney Authority to take the initiative, whilst the pollution comes from above them. All the sanitary authorities should combine towards one end, the removal of the present and the prevention of future nuisance.

Pharmacology and Therapeutics.

SCHUHKRAFFT'S CRYSTALLISED PERUVIAN BARK (OR SOLUBLE QUINQUINA).

MESSRS. BURGOYNE, BURBIDGES & Co., of Coleman-street, have forwarded to us a specimen of the above. It is a preparation intended to obviate the unpleasant grittiness occasionally complained of when cinchona bark is employed. It is guaranteed to contain exactly its weight of the purest bark imported from Bolivia, and thus to be of definite composition. The samples submitted to us dissolve readily in water, and also in any form of wine, giving a solution of agreeable colour and characteristic taste and odour, entirely free from any perceptible traces of woody fibre. The "soluble quinquina" is also prepared in an "effervescent" form, intended to yield a pleasant, acidulated, effervescing saline draught for summer use. In our hands this preparation has not yielded very satisfactory results; the effervescence has been very slight, and the compound has only dissolved slowly. The former preparation, however, will probably find favour with the profession and the public, since the advantages of cinchona bark can be obtained from it without the troublesome necessity of shaking the mixture.

COMPOUND SULPHUR LOZENGES.

These lozenges, prepared by R. Hogg & Son, of Southwick-street, have an agreeable, slightly saccharine taste. They are quite free from grittiness. They form a convenient method of obtaining the general alterative and laxative effects of sulphur.

YELLOW OXIDE OF MERCURY SUBCUTANEOUSLY ADMINISTERED.

Dr. Chernoguboff has made a number of observations in the Miasnitski Hospital in Moscow in regard to the subcutaneous injections of the yellow oxide of mercury in connexion with the treatment of syphilis, and has come to the following conclusions. Two-grain doses cause a quicker disappearance of all symptoms than smaller doses, reducing in 92 per cent. of cases the necessity for professional visits to one or two. In fresh cases an interval of ten or eleven days between the injections is sufficient to prevent salivation, but old cases require a longer interval. The injection should be made into the cellular tissue, and not into the muscles, to avoid the great pain in the case of the latter, and the frequent occurrence of abscesses. The treatment is said to cut short all symptoms, both when the disease is progressing and when it is on the decline; new spots, especially on the mucous membrane, are very rare. In tertiary syphilis, according to Dr. Chernoguboff, early gummata, and those which are breaking down, quickly disappear under the treatment; but in impetigo and rupia iodide of potassium is often required in addition. Local applications do not usually accelerate a cure, except in sore-throat with papular infiltration of the tonsils, which requires heroic treatment. Relapse occurs as in other methods after two or four months. Men and women equally bear well large doses; children from twelve to fourteen years require one grain only. The treatment is contraindicated in severe anæmia which has not been caused by the specific disease, in general exhaustion, undoubted alcoholism, chronic inflammation of parenchymatous organs, and in extensive dental caries; pregnancy is not a contra-indication. Mercury is found in the urine in from four to eight hours after the injection.

A NEW FEVER HOSPITAL AT BOLTON.—On the 2nd inst., Mr. John Wardle, the chairman of the Bolton Rural Sanitary Authority, laid the corner stone of this new fever hospital, which will be erected on the pavilion plan. Hospital accommodation for the isolation of infectious patients has been a long-felt want in this extensive district.

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TENTH INTERNATIONAL MEDICAL CONGRESS, BERLIN, 1890.

THE preliminary steps for the promotion of the forthcoming International Medical Congress were taken on Sept. 17th, when a meeting of delegates was held at Heidelberg, and the organisation as concerns the general arrangements, sections, &c. was framed. It was decided that the Congress should open at Berlin on Aug. 4th and close on Aug. 10th. The organising committee was constituted by Profs. Virchow, von Bergmann, Leyden, and Waldeyer, and Dr. Lassar was appointed general secretary. This committee was empowered to nominate honorary presidents and secretaries; and for each of the several sections a committee was formed consisting of nine associates, whose duty it should be to prepare the work of the sections, each committee having upon it one member residing at Berlin (acting as its chairman) to facilitate the transaction of the business (see appended list, the name of the member thus selected being indicated by an asterisk). It was also decided to hold an international medical and scientific exhibition in connexion with the Congress. The regulations of the Congress as to the admission of members &c. and the general programme were also adopted. There are to be eighteen sections (*vide* below), and besides the sectional meetings there will be general meetings for the transaction of the business of the Congress, for addresses and reports of general interest. The official languages will be German, English, and French, and the programmes and regulations will be printed in all three languages. Communications regarding the work of the sections are to be addressed to the chairmen of the sections, and all other communications to the general secretary, Dr. Lassar, Berlin, N.W. Karlstrasse, 19.

The following is a list of the provisional councils of the various sections:—1. *Anatomy:* Flemming (Kiel), Gegenbaur (Heidelberg), Hasse (Breslau), *Hertwig (Berlin), His (Leipzig), v. Kolliker (Würzburg), Kupffer (Munich), Merkel (Göttingen), Schwalbe (Strasburg). 2. *Physiology and Physiological Chemistry:* *Du Bois-Reymond (Berlin), Heidenhain (Breslau), Hensen (Kiel), Hüfner (Tübingen), Hoppe-Seyler (Strasburg), Kühne (Heidelberg), Ludwig (Leipzig), Pflüger (Bonn), Voit (Munich). 3. *General Pathology and Pathological Anatomy:* Arnold (Heidelberg), Bollinger (Munich), Grawitz (Greifswald), Heller (Kiel), Ponfick (Breslau), v. Recklinghausen (Strasburg), *Virchow (Berlin), Weigert (Frankfort a. M.), Zenker (Erlangen). 4. *Pharmacology:* Binz (Bonn), Böhm (Leipzig), Filehne (Breslau), Jaffé (Konigsberg), *Liebreich (Berlin), Marmé (Göttingen), Penzoldt (Göttingen), Schmiedeberg (Strasburg), Hugo Schulz (Greifswald). 5. *Medicine:* Biermer (Breslau), Gerhard (Berlin), Kussmaul (Heidelberg), Leube (Würzburg), Leyden (Berlin), Liebermeister (Tübingen), Mosler (Greifswald), Naunyn (Strasburg), v. Ziemssen (Munich). 6. *Diseases of Children:* *Henoch (Berlin), Heubner (Leipzig), Kohts (Strasburg), Krabler (Greifswald), Ranke (Munich), Rehn (Frankfort a. M.), Soltmann (Breslau), Steffen (Stettin), Ungar (Bonn). 7. *Surgery:* Bardeleben (Berlin), *v. Bergmann (Berlin), Czerny (Heidelberg), König (Göttingen), v. Lotzbeck (Munich), Schede (Hamburg), Trendelenburg (Bonn), v. Volkmann (Halle), Wagner (Königshütte). 8. *Obstetrics and Gynæcology:* Fritsch (Breslau), Gusserow (Berlin), Hegar (Freiburg), Hofmeyer (Würzburg), Kaltenbach (Halle), Löhlein (Giessen), *Martin (Berlin), Ohlshausen (Berlin), Winckel (Munich). 9. *Neurology and Psychiatry:* Binswanger (Jena), Emminghaus (Freiburg), Erb (Heidelberg), Flechsig (Leipzig), Fürstner (Heidelberg), Grashey (Munich), Hitzig (Halle), Jolly (Strasburg), *Laehr (Berlin-Zehlendorf). 10. *Ophthalmology:* O. Becker (Heidelberg), Eversbusch (Erlangen), v. Hippel (Giessen), Hirschberg (Berlin), Leber (Göttingen), Michel (Würzburg), Schmidt-Rimpler (Marburg), *Schweigger (Berlin), v. Zehender (Rostock). 11. *Otology:* Bezold (Munich), Bürkner (Göttingen), Kirchner (Würzburg), Kuhn (Jena), *Lucae (Berlin), Magnus (Königsberg), Moos (Heidelberg), Schwarz (Halle), Trautmann (Berlin). 12. *Laryngology and Rhinology:* Beschorner (Dresden), *B. Fraenkel (Berlin), Gottstein (Breslau), A. Hartmann (Berlin), Jurasz (Heidelberg), H. Krause (Berlin), Michael (Hamburg), Schech (Munich), M. Schmidt (Frankfort a. M.). 13. *Dermatology and Syphilography:* Caspary (Königsberg), Doutrelepont (Bonn), Köbner (Berlin), *Lassar (Berlin), Lesser (Leipzig), Lewin (Berlin), Neisser (Breslau), Unna (Hamburg), Wolff (Strasburg). 14. *Diseases of the Teeth:* *Busch (Berlin), Calais (Hamburg), Hesse (Leipzig), Fricke (Kiel), Holländer (Halle), Miller (Berlin), Partsch (Breslau), Sauer (Berlin), Weil (Munich). 15. *Hygiene:* Flügge (Breslau), Gaffky (Marburg), Graf (Elberfeld), F. Hofmann (Leipzig), R. Koch (Berlin), *Pistor (Berlin), V. Pettenkofer (Munich), Wolffhügel (Göttingen), Uffelmann (Rostock). 16. *Medical Geography and Climatology* (History and Statistics): Brock (Berlin), Dettweiler (Falkenstein), Falkenstein (Lichterfelde), Finkelnburg (Bonn), Guttstadt (Berlin), *A. Hirsch (Berlin), Lent (Cologne), Wenzel (Berlin), Wernich (Coeslin). 17. *State Medicine:* Falk (Berlin), Günther (Dresden), V. Hölder (Stuttgart), Knauff (Heidelberg), Lesser (Breslau), *Liman (Berlin), Reubold (Würzburg), Schönfeld (Berlin), Skreczka (Berlin). 18. *Military Hygiene &c.:* Abel (Stettin), v. Coler (Berlin), v. Fichte (Stuttgart), Grasnick (Berlin), Grossheim (Berlin), *Krocker (Berlin), Mehlhausen (Berlin), Mohr (Munich), Roth (Dresden).

THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

French Pharmaceutical and Chemical Exhibitions.

CLASS 45—that is, the section devoted to the exhibition of chemical and pharmaceutical products—is situated in the main building, about half-way between the English section and the machine gallery. It is a large exhibit, and not without interest even to those who know absolutely nothing about chemistry. The variety of colour and shape of the crystals is attractive, and by the uninitiated some of the crystals are mistaken for precious stones. The crystallisations of metallic bismuth, shown by Poulenc Frères, are, for instance, very striking. Close by them will be found a remarkable specimen, actually weighing 500 grms., of melted iridium, shown by Messrs. Billault of Billancourt, well-known manufacturers. Several great chemical works exhibit, notably the Société Ancienne de Produits Chimiques. M. Maletra, one of the oldest firms, which, together with that of Coignet and Co., are *hors concours* and members of the jury. We have the Société de Saint Gobain, who were the first to introduce into France the English method of making sulphur from soda residue. They now profess to supply sulphur of a purer quality than the Sicilian sulphur. The Pharmacie Mialhe of Puteaux is also a renowned house, and they exhibit nitrates, chlorhydrates, and synthetic cocaine. Messrs. Vée and Co of Ivry have a special method of congealing concentrated extracts by cold applied in dry vacuum. They exhibit specimens of such extracts, notably of bitter orange extracts, pine wood, tolu cherry, quinine, &c., also photographs of the apparatus they employ for this purpose. The Central Pharmacy of France, which boasts of a capital of £400,000, has a very notable exhibit, including some specimens of the alkaloids of quinine. Together with Messrs. Billault, they have received the grand prize.

In the centre of the section there is a very interesting collective exhibit of French pharmacists, giving the principal results of researches during the last century. There are books, illustrations, chemical apparatus, specimens of plants, and some of the special medicaments that enjoy the highest repute. Among these may be noted Aubergier's syrup of lactucarium. This sedative medicament was approved by the Academy of Medicine in 1862, and inscribed on the Codex. The lactucarium is obtained by incisions made in the stem of the Lactuca virosa altimassa, planted in the specially fertile soil of the Limagne of Auvergne, and is worth about £12 the kilogramme. This syrup of lettuce has a corrective effect on the small quantity of opium which it contains, and ensures results which that same quantity of opium taken alone would never give; hence its position among the useful medicaments of the century. Close at hand Messrs. Adrian and Co. of Paris have a varied and rich exhibition. They show, for instance, a jar of crystallised digitaline, which they estimate at £480, the drug being generally sold at 30 fr. the gramme. They have the whole series of digitalines, terpines,

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and the soluble hæmoglobin with which the Vin Deschiens is made. They have obtained some exceptionally small crystals of iodide of potassium, which are consequently much easier to dissolve. Then they have subnitrate of bismuth eight to ten times lighter than what is generally made. This bismuth is consequently much easier to exhibit. Just opposite this stall is placed the absolutely scientific and non-commercial discoveries and exhibits of M. Tauret which have obtained the highest award, the grand prix. The next to notice is the well-known firm of H. Fournier and Co. Dr. Nogareaud courteously answered all questions relating to these exhibits. One of the most practical innovations is a large assortment of sugar-coated pills, with the composition of the pill printed in very clear, neat letters on the coat. Further, the sugar itself is of different colours, so that mistakes cannot arise, each pill having its distinct colour and bearing its own label. The coating is made with great care, so as to allow of exposure to tropical climates. This firm makes also Dr. Belloc's vegetable carbon—a charcoal powder obtained by the careful carbonisation of poplar tree wood, which, it appears, is preferable to other woods for therapeutic purposes. This firm has largely contributed to introduce guaiacol, which forms 60 to 90 per cent. of the component parts of creasote. The guaiacol they obtain is a colourless liquid, with an agreeable odour; it boils at 200° C., and its specific gravity is 1117 grammes. Where large quantities of creasote are indicated but cannot be supported by the patient, guaiacol may prove of service.

A number of specialties will be seen in this section, such as, for instance, the Capsules Thévenot of Dijon. Composed in part of gum, they are more soluble and more supple than ordinary capsules, and therefore facilitate the administration of larger doses of medicine. The Lin Boggio-Aulagne is a preparation of linseed meal for poultices, from which the fats that become rancid have been removed. Then there is the popular Papier Fayard et Blayn, a favourite in so many French houses, where it is used as a substitute for our poor man's plaster. The Pharmacie Le Beuf exhibits an English specialty—namely, coal tar preparations, lotions, and emulsions. The elixir of Boldo Verne, said to be useful in liver diseases, is presented to the public. The boldo is a plant found in Chili, and has been used considerably, among other authorities, by Professor Gubler. It has therefore its place in the Exhibition. Then there is the Edulcer sugar for diabetic patients, and numerous preparations by Le Perdriel and Co. These latter include fagoglycine, given instead of cod-liver oil, effervescing salts of lithia, &c., and some thapsia plasters, conveniently prepared for general use and travelling. Of course the Papier Rigollet is close at hand, as also the opposition portable mustard leaf, called Papier Moutarde, which has the advantage of being a little cheaper. The Cachet Limousin, the cigarettes Aspic for asthma, are familiar acquaintances; and, as something more novel, we have close by Ad. Langlebert's preparations of the convalilaria majalis. But, among these French preparations, there are one or two missing. For instance, the medicament of all others most pleasant to children, the Tamar Indien, is absent. An aperient which is as good as a bonbon from Boissier or Sirandin is so typical of French refinement and elegance in the little things of life that it certainly should have held a prominent place. Nor could I find Dr. Clin's bromide of camphor capsules, used in Dr. Charcot's clinique, and the Fer Rabuteau. This latter preparation is based on the theory propounded by the eminent French chemist, M. Wurtz, that the principal acid of the gastric juice is chlorhydric acid. By numerous experiments on animals, Dr. Rabuteau established that iron is converted by the stomach into proto-chloride of iron before its assimilation. Hence he sought to prepare an iron in the condition necessary for its assimilation by the system without having to tax the gastric juices for that purpose. The Fer Rabuteau is therefore a proto-chloride of iron, and is certainly one of the most popular ferruginous preparations known in France. M. Chaissaing has the gold medal for his scientific exhibits of pepsin. M. Chaissaing insists very forcibly on the necessity for the practitioner possessing a soluble pepsin of a known strength. The fibrin and albumen should not merely be dissolved, but they should be fully converted into peptones. A pepsin may dissolve a considerable amount of fibrin, but digest only a small quantity. The Vin Chaissaing is known throughout France, and its popularity will increase now that the Chaissaing pepsins have obtained the gold medal.

Just outside the section are some fine exhibits of quinine bark. C. Hoffmann's stall has a very complete collection of every possible variety. There is the trunk of a very large tree from Ceylon, big branches from Java, specimens of second-growth bark, and the cultivated Silvestre of Bolivia. These are the best quinines, whether cultivated or wild, and are used for the Quina Laroche and other well-known French productions. A shipload, by the way, of this preparation of quinine has been despatched to the unfortunate workers who, under the most unhealthy conditions, are trying to pierce the Panama Canal. The Quina Laroche is a mixture of the grey, yellow, and red quinines in a sweet southern wine of eleven to twelve degrees of alcohol, so combined that the bitter taste is almost imperceptible. The firm of Veuve Breton et Fils have also a very large exhibit of chinchonas, &c., and some cantharides. Such briefly are some of the points of interest to be noted in the French pharmaceutical section.

(To be continued.)

SHEFFIELD MEDICAL SCHOOL.

THE introductory address was given by Mr. Charles Atkin. After a few words of welcome to the students, the lecturer gave a brief epitome of the history of Anatomy and its allied science Surgery from the earliest times up to their establishment in Britain. The causes of the association of surgery and barbery were discussed up to their final dissolution of partnership in 1745. Note was made of the absence of allusions to anatomical knowledge in Holy Writ, and the paucity of reference to anything surgical, though sore eyes, roller bandages, and wine and oil dressing for wounds were mentioned. Very little of surgical interest was to be found in the writings of Chaucer or Sir Thomas More. Shakespeare's knowledge of surgery appears to have been limited to the primitive methods of stopping bleeding by cobwebs and flax with whites of eggs. Parmaceti is recommended for an inward bruise, as are plantain leaves for broken shins. Wounds are described as being treated by balsam, tents and caustics, and burns by applied heat. Broken bones when united are stated to be stronger than they were before. Mortifications and gatherings also receive mention. The only allusions to a distinct surgical operation on the *living* body, besides leeching and lancing, are in "Coriolanus," where this warrior is compared to a disease which must be cut away; and in "King Richard II.," where the Duke of York begs that the life of his son Aumerle may be cut off like a festered joint. Shakespeare was certainly conversant with the anatomy of the brain, notwithstanding ecclesiastical denunciations against opening the head as the seat of the soul. Samuel Butler lived in the days of legalised anatomy and the knowledge of the circulation of the blood, so "Hudibras" is replete with surgical allusions, such as "Well! Sidrophel, though 'tis in vain to tamper with your crazy brain without trepanning of your skull," &c., and "anatomists dissect and mangle to cut themselves out work to wrangle"; and, again, "can no transfusion of the blood that makes fools cattle do you good?" This last referred to the craze which had seized the public mind that rejuvenation—the true elixir vitæ—consisted in injecting fresh blood from animals into the veins. Though the necessity of a knowledge of anatomy to the surgeon was insisted upon in the second century, no further progress was made till the middle of the sixteenth. Galen likened a man working in or at a man's body without knowledge of anatomy to a blind man pruning a vine or carving an image and to an architect building without order or plan. And yet to-day, seventeen hundred years after, bonesetters who have never seen the interior of a joint continue to flourish amongst us. With regard to medical education, stress was laid on the value of preliminary training; carpentering for ensuring accuracy and acquiring manual dexterity was recommended, as well as a good foundation in physics, chemistry, and biology. The lecturer expressed the opinion that a higher standard for the preliminary examination was desirable, so that ne'er-do-weels could be weeded out from the first, thus saving much time, trouble, expense, and disappointment. Though a personal fondness for languages was expressed, the lecturer did not

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recommend the study of them to be kept up except for the increasing of delights or for the chance of finishing medical education abroad; everything of value being immediately translated. The natural sciences, on the other hand, were strongly recommended. With regard to examinations, the lecturer made a difference between essentials and fundamental facts, on the one hand, and recondite details on the other, and he gave his opinion that only the latter should be prepared for. Stress was laid on the necessity of students acquiring an all-round knowledge in the specialties, as many of them might wish to practise in the colonies, where they would occasionally have to rely solely on their own resources. The subject of healthy homes was discussed, and not only was disease stated to be often the result of environment, but also drunkenness, immorality, and crime. With regard to hospitals, Mr. Atkin said there was no doubt but that more care might be displayed in checking the attendance of people who could well afford to pay a medical man a reasonable fee, though he considered the majority of hospitals would be acquitted of malversation. After accounting for the differences of medical opinion, and explaining the significance of the emblems of Æsculapius, the lecturer expressed a hope that the gentlemen present would learn to love their work, and that they would all become ornaments to the profession.

HOTELS.

(BY OUR ROVING CORRESPONDENT.)

THE subject of hotels is very important, because signs are not wanting that hotel living is on the increase and will continue to increase. There are many advantages in living in an hotel, and there can be no doubt that in a really well-managed establishment a very remarkable amount of ease and luxury can be obtained at a moderate cost.

In the remarks which follow, the hotels of cities are left out of consideration, and I propose to deal mainly with hotels erected at spots set aside as health resorts or recreation grounds, where those who are sick or jaded go for recovery and change.

It is a remarkable fact that by no means unfrequently the first idea which seizes on the mind of an hotel speculator or his architect is one which is essentially destructive. Having decided to "*exploiter*" this or that district by means of an hotel, he proceeds to erect a building which is absolutely out of harmony with its surroundings, and which tends to destroy, in so far as it be possible for one building to operate in that direction, those very characteristics which have made the locality famous or attractive. It is very difficult for the Cockney, be he architect or inn-keeper, to cast his slough, and the predominating idea in the narrow and self-sufficient minds of Cockneys (be they from London, Paris, Vienna, or New York) is the mere transplanting of a crude slice of a city even into a district which may be the embodiment of Nature in her wildest moods. Having perpetrated such an act, he probably speaks of it as the march of civilisation. Instances will readily occur to the mind of localities which hotel-keepers have done their best to spoil. Notable examples are to be found at Arcachon, where the brute mass of a huge hotel towers above the surrounding villas and pine-trees; at Meiringen and Thun, in Switzerland, where, alongside of rows of *châlets* and quaint mediæval towers, the barren-minded architects have placed buildings of which the best that can be said is that they might pass unnoticed in a fifth-rate Parisian boulevard; and at Augsburg, in Bavaria, where the "Drei Mohren," a hostelry associated with Charles V. and the Fuggers, has been pulled down and re-erected on the model of the "Langham." The first thing which the writer would impress upon hotel architects is to be careful to let the buildings harmonise with the locality. The hotel at which a traveller first alights on visiting a new district ought to serve as an introduction, as it were, and prepare his mind for the pleasures which may be in store for him.

The most common fault in hotels is the fact that the buildings are too high, and occupy an area which is absolutely inadequate for the purpose. In big cities this may be a necessity, but no such necessity exists in country places, and the main reason why country hotels are built on the model of town hotels is probably to be found in the very simple fact that, as I have hinted, most architects are Cockney-minded. The provision of adequate area for the inmates is insisted upon by designers of hospitals, prisons, and similar institutions, and perhaps some day the same wise ideas will prevail with designers of hotels, which are institutions in which the inmates are ready to pay handsomely to be made really comfortable and to be maintained wholesomely. In hospitals an acre of ground is considered desirable for each hundred patients; and, although this allowance may be excessive, it is well to bear in mind that when numbers are congregated under one roof it is absolutely necessary that area in proportion to the numbers be provided, and it is most important also to remember that even an excess of cubic space will not compensate for lack of area. Nearly all hotels stand upon a very deficient area; and almost all hotels when full present a degree of overcrowding which, from a sanitary point of view, is scandalous. Huge towering buildings, with as many floors as a warehouse, and perforated with staircases and hoists, so that each floor is "ventilated" into those above and below, may be tolerated for a short time by those who are hurriedly intent upon business or a whirl of "pleasure," but as places for prolonged sojourn or anything like permanent residence they are most undesirable. A resident in an hotel ought to be able to enjoy at pleasure either society or seclusion. In the public rooms he should find all that movement and gaiety which constitute the sole pabulum of dull minds, and which all of us enjoy at times. While in his own apartment, he ought to have quiet and peacefulness in the highest degree. This end cannot be attained without adequate area, and it is notorious that one of the greatest defects of modern hotels is the impossibility of being quiet until all the inmates are in bed and asleep. In an hotel where prompt service conduces so much to comfort, it is needless to say that the sources of supply should be equally accessible from all the living rooms. How to combine the possibility of seclusion with accessibility to the basis of supply is the problem for hotel architects to solve. It seems to me that the best general plan would be to place the living rooms in a quadrangle, having the common rooms in a distinct and loftier building in the centre, the kitchen being on the top floor of the central building, so that the smell of it would blow completely away. This smell of the kitchen is a terrible fact in most hotels, and it is certainly surprising to find how infinitely rarely do architects take any trouble even to minimise it. I can recall one hotel, and only one (at Royat in Auvergne), where the kitchen is placed on the top floor of the building; but I could name several in which the effluvia of the kitchen are conducted with infinite care into the bedroom corridors. The old-fashioned plan, which was common in England, of building inns round an open court and with open corridors was good, and the fact that the court was really open probably prevented unwholesome effluvia from reaching the bedrooms. In the present day it is common to find the rooms arranged, not round an open court, but around the well of a staircase which is closed, and instead of two tiers of rooms there are seven, eight, or even more. No worse design from the point of view of safety, comfort, or wholesomeness can well be conceived. With such a design there is no escape from noise or effluvia; there is a minimum amount of privacy, a maximum amount of labour in travelling from the front door to the rooms, and when these buildings catch fire we can only say, "God help those who live on the top floors!" And yet this is the commonest form of hotel, and the idea seems prevalent that the height of an hotel is nowadays immaterial, because the hydraulic lift abolishes (for the guests) the labour of going upstairs. That these lofty hotels enable proprietors to increase their accommodation without increase of ground-rent there is no doubt, but there is equally no doubt that from the guest's point of view they offer no advantages whatever, unless (which is very doubtful) they cheapen the cost of rooms. Of the hygienic disadvantages I have already spoken, and it remains only to be said that in order to check the drifting of effluvia and noise from floor to floor it is absolutely essential that staircases and lifts should be placed in buildings projecting from the main building and provided with independent ventilation. The time and labour which are involved by living at or near the top of a lofty building is self-evident. Theoretically, the lift reduces the expenditure of time and labour to a minimum, but practically the guest is often willing to

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incur the labour of mounting by his own effort rather than lose time by waiting for the lift. Now the work done in raising the body vertically to a height is calculated to be equal to about twenty times the labour of walking on a level, so that the man who raises his body seventy feet in order to reach an upper floor of an hotel does an amount of work equal to walking 1400 feet on the level; so that, from the point of view of the labour incurred, it makes no difference to the guest whether his room be seventy feet vertically or 1400 feet horizontally from the front door of the hotel. These lofty buildings may, as I have said, be necessary in great towns, but it is clear that they offer so many physical and hygienic disadvantages as to render them quite indefensible in country places, where the price of land does not preclude the possibility of giving a reasonable area to a building intended for the accommodation of a large number of persons.

(To be continued.)

THE SANITARY INSTITUTE OF GREAT BRITAIN.

THE Session of this Institute was opened on Tuesday evening, the 8th inst., at the rooms of the Institute, Margaret-street, Sir Douglas Galton in the chair. Sir E. Chadwick read an address on "The General History and Principles of Sanitation," and commenced by referring to the earliest-known traces of sanitary science. The terrible scourging plagues that occurred amongst the Greeks, as at Athens, were evidences of low sanitary conditions; and there were then imperfect means for the collection and distribution of water. Yet there were very early sanitary principles described in the Mosaic provisions with reference to the Israelitish camp for removing and burying excreta. Diseases of the most serious character, such as consumption and rheumatism, were the constant effect of damp walls, which were frequently to be found in old houses as well as in those just newly built. It was proved, again, that where the sub-soil drainage of the sites of towns had been effected, phthisis had been reduced by one-half. On the other hand, where emigrants were located on undrained land fully half their children died from insanitary conditions soon after their fifth year. By the ancient law of Sparta, children who were weaklings were destroyed, but in our day it was found that by the application of modern sanitary science to children in their earliest infancy the weaklings were preserved and made good and profitable subjects in a strengthened and prolonged after-life. In conclusion, the lecturer said that the great principle of sanitation upon which it was necessary to insist was circulation *versus* stagnation. The only true and vital sanitary plan was the drawing away at every moment, by an increasing central mechanical power, all the dead human and other animal excreta of communities, and the casting of such excreta upon the land undecomposed, so that they might through the intermediate work of plants break out into life again, and give sustenance to man and animals. An examination of the work of the past seemed to open out a great future, especially for the working classes of the population. Under sanitation, every family might some day be provided with a dwelling-house well drained, well warmed, well ventilated, well lighted, well supplied with water, and with all comforts for the preparation of food and for the enjoyment of wholesome repose.

UNIVERSITY COLLEGE (MEDICAL FACULTY) ANNUAL DINNER.

ABOUT one hundred and forty old and present students of the Medical Faculty of University College met together for their annual dinner on Oct. 1st in the large general library of the College. Mr. William Cadge of Norwich took the chair and was supported by Mr. Erichsen, the President of the College, Dr. R. Quain, F.R.S., Dr. Russell Reynolds, F.R.S., Dr. Graily Hewitt, the Professors of the Medical Faculty, the members of the hospital staff, and old students of the College of almost every period since its foundation. After the customary loyal toasts, the chairman, who was received with great enthusiasm, proposed "Success to University College." After reviewing shortly the causes which led to the foundation of the College, and, alluding to the stimulus it had given to the higher medical education in this country, he expressed his belief that the almost filial love with which its old students look on the College was not due, as it well might be, to the many considerations which might well create a pride in it, but rather to the fact that within its walls they spent the first years of their real education, and laid the foundation of that knowledge which it had been the work of their lives to increase and mature. In conclusion he said, "Let us, then, with all these reminiscences of the past, with proof in abundance that earnest work is the feature of to-day, and with the confident belief that the future will equal or excel the past—let us with full hearts and glasses drink to the success of University College." The President of the College replied in eloquent terms, and concluded his speech by proposing the health of the old students, for whom Dr. Quain, F.R.S., replied. The last toast, the "Health of the Chairman," was proposed by Dr. Ringer, F.R.S., and was drunk with the greatest enthusiasm. During the evening an excellent selection of vocal and instrumental music was given by Dr. F. Roberts, Mr. S. H. Burton of Norwich, Professor Ramsay, and Mr. A. H. Powell of Beckenham.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

On the Sanitary State of the Blackburn Rural District, by Dr. PARSONS.—This report has but little interest beyond the story it tells as to lax sanitary administration, with concurrent needless sickness and death. The houses are in part badly constructed as regards foundations, want of damp-course, proper ventilation, and drainage; and this applies to new houses as well as to old ones. An absence of sewers and very imperfect methods of drainage are also referred to; and the closet accommodation is defective in amount, and is further a source of nuisance owing to faults of construction, dilapidation, and otherwise. Parts of the district have their water from the works of the Blackburn Corporation; elsewhere there are supplies which are liable to be fouled. And notwithstanding the provisions of the Public Health (Water) Act, and the withholding by the medical officer of health of the necessary certificates as to a proper water-supply, the authority allow new dwellings to be occupied. Details as to these various matters are given with regard to the several places in the district, together with statements as to occurrences of such diseases as enteric fever; and further evidence is afforded that where the attention of the authority has been drawn to sanitary defects, and even where notices have been served to remedy them, the matters have been simply allowed to rest. So again the authority complain that they need urban powers; but, as Dr. Parsons points out, they have all the necessary urban powers as to water-supply, sewerage and drainage, and nuisances, and when urged to procure additional ones so as to deal with new buildings, they had declined to do so on the ground that it would involve expense. Fortunately this latter error has been remedied since the report was written, and it is to be hoped that further action will also be taken as to the other matters calling for improvement.

On Epidemic Diphtheria at Sowerby Bridge, by Dr. PARSONS.—The physical and sanitary features of this Yorkshire town, with a population of some 10,000 inhabitants, are largely regulated by its position on the steep slopes of a narrow river valley; the houses being packed together, as a rule back-to-back, in rows one above another on the hill slopes. Some buildings, indeed, constitute a triple house; one a front house, the next a back house, and below a cellar house, one of them being entered from a gallery. Apart from some need for further ventilation of sewers the sewerage system presents no special features, but the interiors of the old houses remain in direct communication with drains by

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means of sink-pipes. Water did not come under any suspicion, and the disposal of excreta and refuse presented no unusual features. According to the former medical officer of health, Dr. Britton, there were some deaths from diphtheria in Sowerby Bridge in 1882-83, and this after some years of freedom from the malady. In 1885 again diphtheritic croup is spoken of as having attacked many, the cause being very obscure. Between 1885 and the close of 1888 nothing further than three "croup" deaths came under notice. But between October, 1888, and May, 1889, 94 households were invaded with diphtheria, 131 cases and 27 deaths occurring. Of 128, concerning whom information was procured, 84 were children between four and fourteen years of age, which may be looked upon as the school-going age; and the outcome of a somewhat laborious investigation is to the effect that one child living in a somewhat damp situation between the canal and river, having in Oct., 1888, suffered from a throat affection which Mr. Horsfall, the present medical officer of health, cannot but regard as one of diphtheria, seventeen attacks followed in November in the school which she attended; and later on the disease attacked other schools, as well as children attending no school at all. Mild attacks, not recognised as diphtheria until the advent of sequelæ, tended to the spread of the disease, and in this way, exclusion of scholars from school who were known to have illness in their houses, failed to stay the malady. School closure, however, for a month stopped the further progress of the disease amongst the children attending the Board schools. Sanitary circumstances can only have played a very incidental part in the diffusion of this outbreak, and Dr. Parsons only refers to the entrance of sewer air into houses in this connexion, adding that there was no conclusive evidence as to its influence. Unfortunately the only hospital available was at Halifax, three miles away, and as a consequence no attempt was made to use it to isolate first cases of diphtheria.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Maidstone Urban District.—Mr. Matthew Adams records the death-rate of this district as 14·4 per 1000 during 1888, and in a tabular form he shows how marked a diminution has taken place since twenty years ago, when the rate was constantly about 25 per 1000. The most serious item in the death-returns consists of 12 deaths from diphtheria—the highest mortality since 23 deaths were distributed over the two years 1882-83. Last year 41 cases were heard of, a special outburst taking place in the district of Tovil. A connexion between this disease and both scarlatina and measles has often been suggested, and Mr. Adams states his belief that it is a real one. And he is inclined to the view that diphtheria generally follows the former diseases, a continued prevalence of which in some way prepares the way for the diphtheria, possibly by reason of the production of excretions favourable to the growth of the specific organism of the disease. But, at the same time, he is none the less convinced that bad sanitary surroundings, and especially bad drainage, often constitute the proximate cause of diphtheria, and he proceeds to enforce this view by recording recent experiences. We regret to learn, incidentally, that the dipththeria of the past year has continued into the present one, and that the causes of its persistence are by no means clear, although they are constantly subject to every investigation on which the ample means at Mr. Adams's disposal can be brought to bear. The system for the disposal of excreta in Maidstone, and the unsatisfactory state of some of the sewers and drains, are matters that would at any time have been important; at the present moment it is most urgent that they should be remedied so as to eliminate all possible causes of persistent disease, and at the same time give a better tone to the general sanitary circumstances of the town.

Stafford Urban District.—Dr. Milnes Blumer estimates that, owing to trade depression, the population of this district has diminished by about 600, and that it now stands at 18,923, on which the death-rate for 1888 would be 21 per 1000; or if corrected for outside deaths in the borough public institutions, 16·9 per 1000. The infantile death-rate was low—namely, 113 per 1000 registered births, and only one such death was due to diarrhœa. Infectious diseases were not numerous or fatal; and it is stated that the clauses as to compulsory notification continue to work smoothly. But, in connexion with certain occurrences of diphtheria and enteric fever, the contamination of local wells is referred to, a condition which should lead to active measures for the abolition of such sources of supply. The question of providing a permanent isolation hospital is to come under consideration. As to this, we would remark that any authority having compulsory powers as to notification would do well to possess such proper means of isolation as they can be assured of having access to at any moment that may be necessary. The existing arrangement, apart from small-pox cases, is with the infirmary authorities, and does not appear to be of this sort.

Batley Urban District.—After dealing with the question of lead-poisoning by water, to which we have elsewhere adverted, Dr. Swann goes on to point to some blemishes attaching to his district which are of very long standing, and which must tend to maintain a low standard of health. Thus he refers to houses either altogether without means of drainage, or fouling watercourses, or having old drains never yet connected with the new system; to houses befouled by contiguity to and soakage from the midden-privies which in this neighbourhood present nearly every feature which should be avoided; and to houses unfit for habitation by various reasons. Something, however, is being done as to midden-privies, but we very much fear it is not action of a sufficiently radical sort. New bye-laws are fortunately in prospect, and this may lead to a change in this respect as regards newly erected dwellings. The zymotic death-rate, though not low, is fortunately less than at any time since 1884, but Dr. Swann takes occasion to remind his authority that last year was one of exceptional death-rates in the country generally, and that nearly an eighth of the year's deaths were in Batley due to causes generally regarded as preventable. The death-rate from all causes was 17·3 per 1000.

Romford Rural District.—Diphtheria was the most important of the infectious diseases occurring in this district during 1888, and a local epidemic of it took place at Ilford, where it is mainly attributed by Mr. Alfred Wright to escape of sewer air from the street ventilators. Some special danger from this cause arises from the fact that in certain sewers the fall is so insufficient as to admit of stagnation of contents, and it is urged that, unless this be dealt with by effective flushings, further danger is likely to arise in the more densely peopled parts of the district. Indeed, after such flushings in the summer of last year, the disease at once ceased. One part of Hornchurch is also spoken of as in a bad sanitary state for want of proper drainage. The general death-rate of the district for last year was comparatively low, namely, 13·6 per 1000 living.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5541 births and 3219 deaths were registered during the week ending Oct. 5th. The annual rate of mortality in these towns, which had steadily increased in the preceding four weeks from 16·2 to 17·9 per 1000, declined again last week to 17·6. During the thirteen weeks of last quarter the death-rate in these towns averaged 18·6 per 1000, and was 1·6 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 10·1 in Derby, 10·7 in Leicester, 11·6 in Cardiff, and 13·2 in Birmingham. The rates in the other towns ranged upwards to 24·0 in Wolverhampton, 25·3 in Newcastle-upon-Tyne, 25·7 in Sunderland, and 25·8 in Manchester. The deaths referred to the principal zymotic diseases, which had been 537 and 529 in the preceding two weeks, further declined last week to 403; they included 147 from diarrhœa, 63 from diphtheria, 62 from "fever" (principally enteric), 52 from scarlet fever, 45 from whooping-cough, 34 from measles, and not one from small-pox. These zymotic diseases caused no death last week in Derby or in Huddersfield, and the highest death-rates in Salford, Wolverhampton, and Plymouth. The greatest mortality from diarrhœa occurred in Brighton, Salford, Bradford, and Wolverhampton; from "fever" in Manchester, Birkenhead, Leeds, and Salford; from scarlet fever in Bolton and Plymouth; from whooping-cough in Preston and Bristol; and from measles in Bradford, Sunderland, and Preston. The deaths from diphtheria included 45 in London, 7 in Manchester, 5 in Salford, and 2 in Liverpool. Small-pox caused no death in any of the twenty-eight great towns;

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and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and the London Fever Hospitals at the end of the week was 1299, against numbers increasing in the preceding fourteen weeks from 559 to 1247; 149 cases were admitted to these hospitals during the week, against 196, 128, and 166 in the three previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 142 and 189 in the preceding two weeks, further rose last week to 225, but were 22 below the corrected average. The causes of 68, or 2·2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bradford, Sunderland, Nottingham, and in eight other smaller towns; the largest proportions of uncertified deaths were registered in Hull, Huddersfield, Oldham, and Liverpool.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 16·4 and 18·8 per 1000 in the preceding two weeks, was 18·6 in the week ending Oct. 5th; this rate exceeded by 1·0 the mean rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 11·6 and 14·0 in Paisley and Greenock to 20·4 in Glasgow and Leith and 22·2 in Perth. The 476 deaths in the eight towns showed a decline of 5 from the number in the previous week, and included 16 which were referred to diarrhœa, 15 to whooping-cough, 13 to diphtheria, 11 to "fever" (typhus, enteric, or ill-defined), 8 to measles, 6 to scarlet fever, and not one to small-pox; in all, 69 deaths resulted from these principal zymotic diseases, against 74 in each of the preceding two weeks. These 69 deaths were equal to an annual rate of 2·7 per 1000, which exceeded by 0·5 the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of diarrhœa, which had been 38, 36, and 30 in the previous three weeks, further fell last week to 16, of which 7 occurred in Glasgow and 3 in Dundee. The deaths from whooping-cough exceeded the number in the previous week by one, and included 11 in Glasgow and 2 in Paisley. The 13 deaths from diphtheria showed a further increase upon recent weekly numbers; 4 occurred in Leith, 3 in Glasgow, and 3 in Edinburgh. The deaths referred to "fever," which had been 6 and 11 in the preceding two weeks, were again 11 last week, and included 6 in Glasgow and 2 in Greenock. The fatal cases both of measles and of scarlet fever showed an increase. Four deaths from measles occurred in Aberdeen, and 3 (both of measles and of scarlet fever) in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 66 and 89 in the preceding two weeks, further rose last week to 99, and exceeded by 20 the number in the corresponding week of last year. The causes of 42, or nearly 9 per cent., of the deaths registered in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 18·6, 24·5, and 31·5 per 1000 in the preceding three weeks, declined again to 26·2 in the week ending Oct. 5th. During the thirteen weeks of last quarter the death-rate in the city averaged 24·0 per 1000, the mean rate during the same period being 16·5 in London and 15·9 in Edinburgh. The 177 deaths in Dublin last week showed a decline of 36 from the number in the previous week; they included 12 which were referred to diarrhœa, 7 to "fever" (typhus, enteric, or ill defined), 3 to whooping-cough, 1 to measles, and not one either to small-pox, scarlet fever, or diphtheria. Thus the deaths from these principal zymotic diseases, which had been 20, 31, and 30 in the preceding three weeks, declined again last week to 23; they were equal to an annual rate of 3·4 per 1000, the rate from the same diseases being 1·9 in London and 1·4 in Edinburgh. The deaths attributed to diarrhœa, which had increased in the previous four weeks from 11 to 23, fell again last week to 12; the 7 deaths from "fever" exceeded the number in the previous week by one. The deaths both of infants and of elderly persons were fewer than those returned in the previous week. Four inquest cases and 4 deaths from violence were registered; and 46, or more than a quarter, of the deaths occurred in public institutions. The causes of 34, or more than 19 per cent., of the deaths in the city were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.—Surgeon-Major Sidney Key worth Ray to be Brigade Surgeon, ranking as Lieutenant-Colonel, vice W. Folliott, F.R.C.S. Ireland, granted retired pay (dated Sept. 25th, 1889).

ARMY MEDICAL RESERVE OF OFFICERS. — Surgeon William John Naismith, M.D., F.R.C.S. England, to be Surgeon-Major, ranking as Major (dated Oct. 9th, 1889).

ADMIRALTY. — The following Surgeons have been promoted to the rank of Staff Surgeon in Her Majesty's Fleet—viz., James Porter, M.A., M.B., Charles James, Thos. Loane, M.D., John Bellhouse Bowden Triggs, M.B., George Robert Deighton Charlton, George Warner Bell, and Francis Austen Jeans (dated Sept. 29th, 1889).

The following appointments have been made:—Surgeon Horatio S. R. Sparrow to the Royal Marine Artillery at Eastney; Mr. Frederick D. Lawson to be Surgeon and Agent at Bridlington (dated Oct. 9th, 1889).

ROYAL NAVAL ARTILLERY VOLUNTEERS (Clyde Brigade). Surgeon James Cowan Woodburn, M.D., to be Staff Surgeon (dated Sept. 24th, 1889).

VOLUNTEER CORPS.—*Engineers* (Fortress and Railway Forces): 1st Devonshire and Somersetshire: Acting Surgeon M. L. Brown, M.D., resigns his appointment (dated Oct. 5th, 1889).

Correspondence.

"Audi alteram partem."

MEDICAL EDUCATION.

To the Editors of THE LANCET.

SIRS,—I am glad to see that the seed I cast upon the soil in my address on Medical Education to the members of the British Medical Association is not unlikely to be fruitful, and that in at any rate two very highly cultivated fields it has taken root, and is already well above the ground. I allude to the addresses delivered at the opening of the medical session at the Yorkshire College in Leeds by Professor Gairdner of Glasgow and at the St. George's Hospital Medical School in London by Dr. T. Clifford Allbutt respectively. I desire nothing more in the interest of medical education than that the subject should be thus freely discussed, that the voice of the profession at large should be heard upon it, and that professional opinion concerning it should, as far as possible, be fully elicited. The ground I took in my address is that, as matters stand at present, the student at the close of his curriculum is not as well prepared as he ought to be, and might be, to cope with the responsibilities of general practice, and that he needs something for which that curriculum has not provided—viz., a knowledge of the more common forms of ordinary illness. He may be, no doubt he is, well versed in the general principles of his profession. He may possess, he unquestionably does possess, in the aggregate a vastly greater amount of medical and surgical knowledge than the recently equipped practitioner of a former age, and yet, for a time at any rate, he is not his equal, inasmuch as he lacks the groundwork and the foundation upon which all his work should rest. My argument is this, that in former times, when the old-fashioned system of apprenticeship was in vogue, the student had the opportunity, greater or less, as the case might be, to see the daily routine of medical practice, of making himself acquainted with ailments and illnesses of which he can see nothing in his hospital experience, and of picking up a vast fund of knowledge whose utility would be of inexpressible value to him to the last day of his career; that *in altogether abolishing apprenticeship* a false step has been taken, and that medical education has been to some extent impoverished. And this, notwithstanding all that may be said by ultra-educationists, and by those who place theoretical knowledge so far in advance

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of practical experience, is, I believe, the opinion honestly entertained by a very great majority of thoughtful medical men of our time. No one values a university education more highly than I do; no one longs more earnestly and profoundly than I that every medical student could enjoy so incalculable a privilege; but what cannot be cannot be, and, for those to whom the university is an impossibility, I hold that the best *attainable* means should be provided. You will now, I am sure, permit me a few words in reply to Professor Gairdner and to Dr. Clifford Allbutt respectively, especially as those words are clearly needed to prevent misunderstanding. The words in my address to which, in each instance, apparently, objection has been taken are as follows:—

"*Medical Education in the Present.*—Year by year and little by little we have been accumulating a burden which, if not absolutely more than the shoulders of the student can bear, is yet heavier than he can possibly carry with credit; and, instead of increasing his opportunities to acquire the strength necessary to bear it, we have curtailed his time, have deprived him of material advantages, and, in accordance with the hurry of the age, have demanded results well-nigh impossible of attainment. The five years of apprenticeship have been swept away, and with them the opportunity to master the groundwork of medical education and to acquire a sound knowledge of the more common forms of ordinary illness has gone also; and in four years, instead of eight, we permit the whole work to be completed. We have determined to ignore the utility of that homely but infinitely useful form of preparation for the higher parts of medical education which apprenticeship or pupilage was pre-eminently calculated to afford; we have determined that from the day on which a boy has been able to pass a very ordinary and limited educational examination he shall be permitted to take his place in a medical school, and we have arranged a curriculum which, if by dint of slavish toil he can master, shall enable him, at the early age of twenty-one, to enter upon the full responsibilities and duties of practice."

Dr. Gairdner's objection comes practically to this, that this familiarity with the conditions which will form the actual environment of the medical man not only in his earlier years but all through his life *is not necessary;* that his general education in the principles of his profession will secure him from disaster; and that experience will come with time; and he goes on to reason that, if it is necessary for him to have *seen* and *done* all the lesser, he ought by parity of reasoning to have also seen and done all the great things also. My answer is, by all means let him have seen, done, handled, and operated on everything that is possible; at least, let him have seen them done by competent hands. Let him, under skilled guidance, have himself performed all the minor operations—the operations he may be called upon to undertake the day he enters on practice; and for the major ones, let him so practise them *on the dead subject*, and so use his eyes and his head, when he sees them done on the living one by his teachers, that when the day of responsible surgical emergency comes upon him, he may feel that he is honestly prepared to meet it. The hospital, or school, or university in which all this cannot be provided must be a poor one indeed; and the "authority" which is satisfied with less falls short of the calls of duty. With the wish so earnestly and eloquently expressed by Dr. Gairdner, that a "few things should be learned thoroughly and well," I am entirely in accord; but can Dr. Gairdner be in earnest in believing that half-a-dozen cases of pneumonia, or of Bright's or any other disease, studied ever so deeply, will stand in the stead of the practical ability to relieve a distended bladder or to reduce a dislocated joint? Can he mean that because a man has with ever so great earnestness, studied "a few cases" to the utmost bounds concerning them, that it is therefore not necessary that he should know measles from scarlet fever, nor be able to recognise small-pox, typhus, or typhoid fevers when he sees them? I cannot credit so great a man with a fallacy so awful, even though his own hand wrote it. And where, except in the homes of the people, is the student to become conversant with these things? not in the general hospitals attached to our schools and universities, for from these they are rigidly and righteously excluded, but *only* in the homes of the people, and to these he has no access except through the general practitioner, or some one of the many public charities, other than the hospitals, with which our happy land is so freely studded. For this state of things I propose a remedy, and the *remedy itself* is one which, I venture to think, meets with very widespread approval, the difficulty being, not the remedy, but the time at which it may most advantageously be taken. On this subject again my words are these:—

"*The most Advantageous Time for Pupilage.*—I hold that the time to acquire simple information is when the mind is eager, inquiring, impressionable, and plastic. In our large county hospitals, workhouse infirmaries, and public dispensaries, which, up to the present time, have been but very slightly utilised, we have a splendid field in which a vast fund of information of this kind which now runs to waste might be gleaned, and of these I would make much greater use than has hitherto been the practice. In pupilage, in one or other of these, in my humble judgment, *a year, or even two,* at the commencement of professional study would prove the very best beginning; and in following the practice to be there seen under the direct guidance and supervision of those who administer them, a youth would see work which in after life would be of incalculable value to him, and would obtain opportunities for a groundwork which, under the present method of education, are wholly thrown away."

I think Dr. Clifford Allbutt can hardly have read my address, for I do not think he would wilfully misrepresent me on so very grave a subject; and yet in his address to the students at St. George's Hospital these are the words he uses:—

"Mr. Wheelhouse proposes to make this state of things ten times worse than before. By submitting youths to a five-years' apprenticeship to working doctors at a time when their minds are expanding and impressionable, at a time when an ardent love for higher study and a yearning for ideas spring up in the heart, he would send them not where they can feel the influence of great men present and past, not where learning is seen in all her variety and in all her provinces, not where they may associate with men of their own age whose minds are occupied with other forms of culture and in training for other callings, but a student is to be confined to one mind, however able, to one profession, however honourable, to one set of ideas, however fruitful. And, as a matter of fact, we know that the ruling mind will often be something less than great, the set of notions too often vulgar, and the teaching at best a teaching and not a cultivation. Gentlemen, this is but to perpetuate the common-mindedness which I suggest is already our danger—a fault due in part to our defective education, in part to our lack of leisure. I say we are already too narrow and channelled in our thoughts, and too shoppy; and we are to improve our education by intensifying this very habit of mind. We are to make our education more comprehensive by shutting up our students with individuals; we are to strengthen their reasoning powers by therapeutical drill; we are to substitute the ideas of the middle-class parlour for the traditians of a university! But one may get roast pig without burning down one's house, and I contend—with an exception to be hereafter discussed—that a man whose mind has been enlarged and strengthened by a university course will, after a briefer drill, make a more skilful practitioner than one whose technical craft is gained by routine and is not vitalised by a comprehension of principles. It is no truism, gentlemen, to repeat in this place that knowledge is one and indivisible, and that he who is content to pick up isolated chapters of learning has no living knowledge at all."

Now, all this as mere declamation is of course superb, and if it were a correct version of the matter in question I would not utter a word; I would sit silent, abashed, and crushed. But as it is exactly the reverse of anything I have ever said, or thought, or written, I cannot permit it to pass without observation and correction. *I would rather go on as we are, greatly as I consider that our plan might be improved, than that we should go back to the system of a five-years' apprenticeship to one man or to one institution.* I hold, and I have ever taught, that to go back to that system would be to waste, hopelessly and absolutely, three years of the very best part of every educational life. My words are clear and explicit, and are not open to the construction put upon them by Dr. Allbutt. "That *one*, or even two years devoted at the commencement of professional study to the acquirement of a knowledge of the ground work, and of the observable phenomena of our science, under the supervision of competent teachers, in some of the insti-

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tutions whose infinitely valuable opportunities are, under the present order of things, entirely wasted would be of incalculable value." And with this opinion Dr. Allbutt, after all, does not appear to disagree, for, a little further on in his address, we find him actually advocating such a measure.

"Nevertheless, I agree with Mr. Wheelhouse that an apprenticeship to the domestic side of your work, a familiarity with its lesser marks and byeways, is necessary. These we cannot teach here. After your faculties are trained and strengthened in their main branches, your lesser shoots shall be duly laid in. But with capacities thus enlarged, one year's apprenticeship would do the work of five in earlier age; and an obligation upon young men thus to apprentice themselves before the completion of their studies would have my approbation and active support."

Wherein, then, lies the great difference between us? Simply as to the time (the old, old question) at which pupilage may be most advantageously taken. I think that rudimentary knowledge should be sought in the earlier years of studentship. Dr. Allbutt, in common with many others, would place it later on; and when a man's mind *has* been expanded by converse with his fellows and by the scientific observation of the phenomena of disease, and is truly and rightly aflame after higher knowledge, higher reasoning, and higher aspirations, he would put him back to the bare study of the Pharmacopœia, and to the acquirement of those rudiments of medical education which can only then be a weariness to his soul and a degradation to his energies. The difference between us, infinitely great as it is, is not one of "principle" after all, but only a question as to the choice of time, and is hardly such as to call for the old story of the Chinaman, who was so devoted to roast pig that he was ready at any time to burn his house down that he might revel in his favourite dish.

I am, Sirs, your obedient servant,

Leeds, October, 1889. C. G. WHEELHOUSE.

WHY DOES THE UTERUS CONTRACT DURING PREGNANCY?

To the Editors of THE LANCET.

SIRS,—Under the above heading, in your last issue, Mr. Wade of Chudleigh, in a letter throwing out a suggestion as to the cause of these contractions—namely, the presence of blood overcharged with carbonic acid, says: "We have the authority of Playfair for the statement that the intermittent contractions of the uterus occur every five or ten minutes, sometimes oftener, rarely at longer intervals, throughout the whole of gestation." I hope it may not be considered a piece of unpardonable egotism if I take this opportunity of pointing out that the subject was first introduced by me in a paper read so long ago as Oct. 4th, 1871, before the Obstetric Society of London, and subsequently added to in papers on the same subject at three International Medical Congresses, and published in their proceedings. The first paper will be found in the Obstetrical Transactions, London, vol. xii. In it, page 219, I remarked: "It may be that the semi-stagnant state of the blood (that is, of course, charged with carbonic acid) in the uterine sinus &c. may provoke contractions, but certainly there is some other excitor than either fœtal movements or the irritation of the various nerves in sympathetic connexion with the uterus." Of course this suggestion is the same in essence as Mr. Wade's; but we both derive our inspiration with the idea thrown out, I think, by Brown-Séquard—namely, that the presence of carbonic acid in excess in the uterine sinuses causes the uterus to contract. I cannot find that he gives "much evidence in proof, but it is a fair working theory; and I also think it may be assumed as one of the factors in the genesis of labour." But there are other agents concerned in the movements of the blood in the walls of the uterus and placenta; and to these I have called attention in a note published in the Proceedings of the Royal Society, 1879: "Note on the Auxiliary Forces concerned in the Circulation of the Pregnant Uterus and its Contents in Woman." These transcendental points seldom get into text-books where Mr. Wade has been looking, or if they do, it is many years after their introduction; and even some text-books of modern date have altogether omitted noticing these contractions and the great help they give in the diagnosis of pregnancy. Mr. Wade, however, remarks: "We are all familiar with the facts that the chorionic villidip freely into the sinuses of the uterine wall, and that in this situation an exchange takes place between the fluids on the fœtal and maternal sides of the villous membrane which alone separates them." I am quite willing to concede an exchange, but not through one membrane alone; and I cannot include myself in the "all," as may be seen in my "Anatomy of the Human Placenta" (Obstet. Trans. Lond.). However this may be, if Brown-Séquard's theory be correct, the retention of semi-stagnant blood, highly and increasingly charged with carbonic acid and effete fœtal matter, is probably the immediate stimulus required to produce the uterine contractions I have pointed out, and which acts as a supplementary heart. The contractions act, it should be observed, independently of any external irritation. Up to the present time I have had no co-worker in this subject; when other observers take it up, probably newer points will be brought to light.

I am, Sirs, yours obediently,

J. BRAXTON HICKS.

George-street, Hanover-square, Oct. 3rd, 1889.

REMARKABLE SURVIVAL AFTER MULTIPLE PISTOL-SHOT WOUNDS.

To the Editors of THE LANCET.

SIRS,—The following case may interest those of your readers who perused the articles in THE LANCET of Sept. 14th, 21st, and 28th, under the heading, "Five Cases Illustrative of Cerebral Surgery."

On the evening of Oct. 13th, 1881, W. L——, aged twenty-one, a rural postman, was seized by a would-be assassin, who fired several shots at him from a revolver, and having expended his own ammunition, called to a companion to "have at him now"; this man then continued the attack, and fired into their victim. *One of the bullets entered the brain, where it still remains, and causes little if any inconvenience*, although for nearly two years he could not bend his head or lean forward without giving rise to great pain and unpleasant symptoms. On making my examination I found a bullet wound on the left side of the head, about half an inch posterior to his ear, and immediately beneath the parietal eminence. Through this wound the brain substance exuded, and a small probe passed directly inwards for a distance of about two inches by merely letting it drop into the wound. On examining with tip of little finger, no spicula could be found. Another bullet entered the left temple just above the zygomatic arch, about an inch and a quarter from the edge of the orbit; it took an inward and downward direction; its course, however, could not be traced. Another hit the angle of the jaw, took an upward direction, and was held between two molar teeth. One entered the left side of the chest on a line with the nipple, an inch and a half posterior to it, passed through the chest, and was extracted from the right axilla. One glanced off the great trochanter, and became lodged in the lumbar muscles. Two passed through the forearm about the middle. One entered the forearm about two inches from the wrist, took an upward course, and was extracted near the elbow-joint. One passed through the hand between the thumb and index finger. The skin on the left forearm and wrist was destroyed, the clothing having been set on fire by the powder. On the right hand the metacarpo-phalangeal joint was destroyed by the charge from a pistol loaded with shot, several grains of which and some of the paper used for "wad" were extracted from the palm of hand. The man was almost pulseless, and, the case seeming hopeless, it was decided by Dr. Allen and myself not to interfere except symptoms demanded it further than to cleanse and dress the wounds, carbolic lotion being used. He was given brandy and new milk or beef-tea every half hour. Coughing was severe for some days, and there was considerable hæmorrhage from the lungs. He had also a sharp attack of double pneumonia. He was kept perfectly quiet and cool, morphia being given in minute doses hypodermically to relieve the cough, which caused terrible pain in his head. On the fifth day after being wounded he had considerable delirium, and could hardly be restrained, as he was "afraid of being taken to an asylum" at one time, while at another he thought his assailants were again attacking him.

This case, besides being interesting, I consider very important from the fact that, although being so fearfully wounded, the man did not lose consciousness till some time after he was brought to the police barracks, where he described one of his assailants and fully identified him. He was also able to describe a man who passed him soon after the attack; he also dragged himself to a house a few

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yards from the outrage, begged to be admitted, and when refused, and feeling faint, hid the mail bags, and after "coming to" crawled to another house, prayed for admission, and to send for a priest. Being again refused, he "dropped down to die." He has no idea how long he lay there, but hearing a car pass he made an effort, and got to the road, where he was found in a fainting state by the police sent to look for him. The bullets removed were ·450, or about the same size as those used for the British bull-dog revolver. I am, Sirs, yours faithfully,

County Infirmary, Longford, Oct. 3rd, 1889. N. MAYNE.

EXFOLIATION OF ALVEOLAR PROCESSES.

To the Editors of THE LANCET.

SIRS,—I see Mr. R. Clement Lucas, in giving notes of two cases of necrosis of the alveolar processes following measles, which appeared in your last impression, says that he does not know of any case of typhoid fever resulting in exfoliation of the alveolar processes of the jaws. As such a case occurred in my practice a year ago, it is perhaps of sufficient interest to place on record.

W. H——, a lad of sixteen, sent for me on Aug. 30th, 1888. I found a well-marked case of typhoid fever, and the patient for a fortnight, or the latter half of September, was in a semi-conscious condition, requiring rousing for a part of that time to take nourishment &c. On Oct. 10th the left half of the lower maxilla was noticed to be swollen, and afterwards there was fetid breath with foul-smelling mouth and gums. On the 17th he had pulled out the two lower left incisors, and the canine molars were found to be loose, whilst the alveolar process was also loose and evidently necrosed. He was sent to the London Hospital, his friends not being able to stand the drain on their resources, and the alveolar process, including the sockets of all the teeth of the left half of the lower maxilla, eventually was taken away, leaving the lad one side of his face fresh and juvenile and the other side very grandmotherly looking indeed.

I am, Sirs, yours truly,

MILLICE CULPIN, L.R.C.P., L.R.C.S.Edin.

Stamford-hill, Oct. 5th, 1889.

NAPHTHALIN.

To the Editors of THE LANCET.

SIRS,—May I ask for space to add my testimony to the value of naphthalin in the class of case Dr. Angel Money refers to in his letter published in your last issue? In conjunction with the diet advocated by him, I have found nothing so serviceable as the drug in question. It is equally serviceable in the epidemic infantile diarrhœa for which Nottingham occupies an unenviable position, together with Leicester and Oldham.

I am, Sirs, your obedient servant,

Nottingham, Oct. 7th, 1889. LEWIS W. MARSHALL.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Session 1889–90.

ON all sides the work of the coming session has begun. The Owens College had its opening day on the 1st inst., when Professor Schuster delivered the inaugural address, taking for his subject, "University Teaching in its relation to the Industrial Application of Science." This makes the fortieth session of the College, and the few who can look back and remember the first of these must be struck by the rapid and wonderful strides the College has made in arriving at its present position. On the same day the half-yearly meeting of the court of governors was held, an interesting feature of which was the presentation to the College by a number of subscribers of a portrait of Mr. Alfred Neild, who for a considerable length of time has been its treasurer. The financial report for the past year was satisfactory, the expenditure having kept within the income. On the evening of the same day the medical department of the College had its own special opening in the shape of a soirée, at which nearly a thousand visitors were present. The guests were received by the dean of the medical school (Dr. Young), and several members of the court of governors &c. Subsequently the dean presented the report for the past year, which shows a highly satisfactory condition of the school from every point of view. Various exhibits, demonstrations, drawings &c. were provided for the amusement and instruction of the visitors, and Professor Dreschfeld gave a very interesting *résumé* of our present knowledge concerning leprosy. On Wednesday, the following evening, the first meeting of the Medical Society was held, and, following a practice which appears to be becoming common, of inviting gentlemen from a distance to give papers at the opening meeting of our societies, Dr. Hughlings Jackson was asked to visit Manchester, and delivered an address upon "Respiratory, Toxic, and Traumatic Convulsions." On Friday evening next the annual medical dinner will take place at the Queen's Hotel, under the presidency of Dr. Little, and after then we may hope to settle down steadily to work all round.

The Proposed New Hospital.

It is with great regret that I have to record the fact that the munificent offer of the Whitworth trustees to Owens College of a sum of some £70,000 has been lost. The trustees undertook to provide money to erect a hospital with sixty beds, and endow it with £2000 per annum, to become the property of the College, but they wished it to be more or less connected with the Royal Infirmary, the latter body to take an active share in its management. After nearly twelve months of negotiations between the two bodies the Infirmary Board at its last meeting declared themselves unable to accept the conditions proposed, and the trustees have now withdrawn their offer. It is an open secret that the relations between the College and the Infirmary have for some time been considerably strained. The College authorities, as representing the medical school, desire to have some control over or voice in the arrangements for the clinical instruction provided for their students, but this the Infirmary has not been willing to accede to; other matters also have caused no inconsiderable friction between the two bodies, but it is to be hoped that in the interests of the Infirmary, the College, and the public at large, some *modus vivendi* may ere long be arrived at, and that this handsome proffered gift may not be irretrievably lost.

Salford and its Fever Hospital.

Owing to the great prevalence at the present time of scarlet fever and diphtheria in the neighbouring borough, great difficulty has arisen in providing hospital accommodation for all the cases which it is desirable to isolate; and it was stated last week that the wards of the Wilton Hospital are crowded far beyond their proper accommodation. If this be so, it is no light matter; for of all patients those suffering from infectious disease are the last that should be stinted in the proper cubic space and air-supply within their wards. In Manchester itself the cases of scarlet fever are also so numerous that the Infirmary Fever Hospital cannot take the surplus Salford patients; and hence the health authorities of the latter are seeking the help of the guardians to provide them with hospital accommodation at Hope. In the meantime the proposed new fever hospital for the Salford Corporation is still in the clouds.

Prevalence of Scarlet Fever.

During the present epidemic of scarlet fever, and now that the notification of infectious disease can, by means of the recent new Act, be easily put in operation, it is to be hoped that all the surrounding smaller districts will at once put it in force, and the whole of the population comprised in "Greater Manchester" thus be placed under the same conditions, so far as obtaining knowledge of the existence of these diseases is concerned.

Unhealthy Dwellings.

At last the Corporation has made a distinct move in grappling with this subject. At the last meeting of the City Council a "presentment" was made by the medical officer, condemning what has long been known as one of the most insanitary areas in the Ancoats district. It was this area to which Dr. Thresh a short time ago drew particular attention in a special report that he made thereon to the sanitary association. It is pleasing to note that Dr. Thresh's work has not gone unnoticed, and he has just been appointed officer of health to Chelmsford.

Manchester, Oct. 8th

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NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle.

FOLLOWING closely upon the opening of the new College of Medicine in Newcastle came the inaugural meeting of the session 1889–90 of the Northumberland and Durham Medical Society. This is the oldest of our medical societies, and was, I believe, originally started by Sir John Fife, Dr. Charlton, Dr. George Robinson, and others as the Newcastle and Gateshead Pathological Society. The opening address by Professor Lawson Tait was most instructive, and was listened to by all with much interest, his subject being "Ectopic Gestation in the Tubo-ovarian Tract." The annual dinner was held afterwards in the Assembly Rooms, Dr. James Murphy of Sunderland being the genial president, and he was supported by the Mayor and Sheriff of Newcastle as well as by many distinguished visitors. I believe that as many as 140 sat down to dinner. Professor Tait, in the course of a characteristic speech, said that the school he was connected with proposed seriously to offer to the College of Medicine of the University of Durham a series of negotiations of which he was for the moment personally the bearer. The proposal was founded upon details which it was far too early to discuss, because they had not yet been formulated, but which he hoped would be entertained by the Durham authorities, by which students of the Colleges of Science and Medicine of Birmingham might obtain degrees from Durham, and still be subservient to that University. He concluded an eloquent speech by saying he never saw anything more perfect in his life than the College of Medicine in Newcastle. He also paid a tribute to Dr. Heath, the president of the college, who had given a thousand guineas to its funds. I may mention that a donation of £200 has since been received for this object per Dr. Drummond. Dr. Heath said that as to the suggestions of Professor Tait, the proposed affiliation would, when brought before the College of Newcastle and the Senate of the Durham University in proper form, "receive their most serious consideration." As regards this meeting, it would be an omission not to say that great credit is due to Professor Oliver, the hon. sec., who spared no pains for the comfort of the very numerous guests who arrived from far and near to this large and very successful entertainment. On all hands I hear notes of satisfaction as to the arrangements.

Durham.

At a special meeting of the Durham Town Council held last week, Mr. Jepson of that city brought the condition of the overcrowded dwellings and the insanitary condition generally of the houses of the working classes before the board, and the result of his statements was the appointment of a special committee to take the matter into consideration. Mr. Jepson said that from what he knew there were no less than 3000 people living in Durham in overcrowded and unhealthy dwellings.—The Misses Pease of Southend have given £500 to the Darlington Hospital, to increase the efficiency of the nursing department.

Sunderland.

Professor Tait gave a demonstration at the Sunderland Infirmary last Saturday afternoon of his operation for ruptured perineum on two patients, and also (on the invitation of Dr. James Murphy) performed a salpingectomy.

Newcastle-on-Tyne, Oct. 8th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

EDINBURGH.

The Social and Sanitary Society.

A CORRESPONDENT writing to one of the Edinburgh papers calls attention to the excellent work that has been done in Edinburgh during the last five years by the Social and Sanitary Society. This Society has certainly done good service in reporting on the insanitary conditions of the houses and courts in the poorer districts of the city. Special attention has been paid to the water supply, and the recommendation of the Public Health Committee that the following regulations shall be enacted, may be looked upon as an almost direct outcome of the work of this Society. These regulations for the inspection of waste-pipes and the cleaning of cisterns are as follow:—1. The occupiers of houses and premises within the burgh shall at all reasonable times give access to the burgh engineer or other authorised sanitary inspector or officer, to examine water-cisterns and pipes and other apparatus connected therewith. 2. In the event of any cistern being found to be foul, the occupier of every such house or premises shall, within six days after receiving notice from the burgh engineer, effectually cleanse such cistern. And in the event of failure, the necessary work may be carried out under authority of the burgh engineer, at the cost of the occupier of such house or premises. 3. Without prejudice to the preceding regulation, all cisterns within the burgh, wholly or partially used for culinary or domestic purposes, shall be cleansed at intervals not exceeding six months. 4. In cases where cisterns exist for common use, and are so placed and used as that individual implement of the obligation to clean by the occupiers of such houses or premises and users of such cisterns is impracticable, such cisterns shall be cleansed by the burgh engineer, under direction of the magistrates and Council, at the rateable cost of the occupiers of the houses or premises using or deriving benefit from such cistern, as the same shall be apportioned and certified by the burgh engineer.

The Edinburgh Veterinary Colleges.

Last week work commenced in both the Edinburgh Veterinary Medical Schools. Very considerable interest attaches to the utterances of those connected with these Colleges, especially at the present time, when tuberculosis and pleuro-pneumonia occupy such prominent positions in the public mind and prints. Perhaps most attention was attracted to the address on "Protective Inoculation against Infectious Diseases with special reference to Rabies," which was given by Dr. Hime of Bradford at the Royal (Dick's) Veterinary College; but the addresses given at both institutions were full of interest, and promise well for the future of veterinary, medical, and surgical science and practice in Scotland.

New Assistant Surgeon for the Edinburgh Royal Infirmary.

For the new post of assistant surgeon several names have been suggested, but only three, so far as can be learnt, are actively working for the appointment—Dr. J. Shaw Maclaren, Dr. Scott Lang, and Dr. D. Wallace. In connexion with appointments, it is stated that Dr. Noël Paton has decided not to offer himself as a candidate for the new chair of Physiology in Dundee.

Edinburgh, Oct. 9th.

GLASGOW.

Faculty of Physicians and Surgeons.

AT the October meeting of the Faculty, held last Monday, the usual annual elections took place. Dr. James Morton retired from the presidentship. He had held office for three years, and had well maintained the dignity and honour of the Faculty. His letter (for he himself was unable to be present), in which he announced his demission of office, contained some sound and valuable hints as to the affairs of the Faculty, and was ordered to be engrossed in the minutes; it also contained a touching reference to his own serious illness, in which he has the warmest sympathy of every member of the profession in Glasgow and of very many beyond it. Dr. Robert Perry was elected president, and Dr. David Yellowlees was elected visitor. The contest for the office of Examiner in Midwifery resulted in the reappointment of Dr. Samuel Sloan. A good deal of irritation was displayed at the meeting regarding the high-handed conduct of the Royal Infirmary managers and St. Mungo's College governors in appointing on the boards representatives of the Faculty without nomination or election by the Faculty. The vacancies had occurred through the resignation of the Faculty's representatives during their term of office; doubtless both institutions acted within the letter of the law in themselves appointing to the vacancies, but it would have been much more courteous and decent had they obtained the mind of the Faculty before making any selection. The incident is the more awkward that one of the appointments is for three years. Another singular fact is this: that up till the present moment the Faculty has had no formal com-

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munication from St. Mungo's governors to indicate what are its principles or rights in appointing representatives on the College Board of Governors. The Faculty knows nothing of its position as regards St. Mungo's except what it may have learnt through the public prints. The Council of the Faculty has, in fact, been instructed to examine into the Faculty's relation to St. Mungo's, and to report whether, in its opinion, it is desirable that it should be represented at all on the Board.

The Royal Infirmary.

At a meeting of Managers of the Glasgow Royal Infirmary held on Friday, the 4th inst., J. Lindsay Steven, M.D., assistant physician to the Royal Infirmary, was appointed pathologist and curator of the museum in the Infirmary. This appointment, under present arrangements, carries with t the lectureship on Pathology in this College.

Glasgow, Oct. 9th.

ABERDEEN.

The Aberdeen University Court.

AT the meeting of the University Court held on the 4th inst., the following gentlemen were appointed examiners for degrees: Anatomy, Mr. William Milligan, M.B., C.M.; Botany and Materia Medica, Dr. F. B. White, Perth; Chemistry and Medical Jurisprudence, Dr. Joshua L. Kerr, Manchester; Natural History and Institutes of Medicine, Dr. Thomas W. Shore, London; Practice of Medicine and Pathology, Dr. P. Blaikie Smith, Aberdeen; Surgery and Midwifery, Dr. A. D. Keith, Aboyne. At the same meeting Mr. H. F. Jones was appointed assistant to the Professor of Chemistry, and Dr. Alex. Macgregor assistant to the Professor of Medical Jurisprudence. The court had also submitted to it remarks by the senatus on the observations made by the University Courts of Glasgow and Edinburgh respectively on the report by the University Court of Aberdeen to the Privy Council in favour of certain alterations of the medical ordinances. The Court resolved to submit a statement to the Privy Council in accordance with the observations.

Health of the City.

During the past week the following cases of zymotic disease were reported:—Measles, 7; scarlet fever, 7; diphtheria, 2; typhoid fever, 4.

Aberdeen, Oct. 8th.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Sanitary Condition of Dublin during 1888.

LAST week attention was directed to Sir Charles Cameron's report for last year on the health of Dublin, and some further observations on the same subject may prove of interest. Of the 8894 deaths registered during last year, 2843, or 32 per cent., were of children under five years of age, and 2250, or 25 per cent., were aged sixty years and upwards. The deaths of infants under one year old were equal to 167 per 1000 births registered, which, high as it was, shows an improvement as contrasted with 1887, when the mortality rate was 200 deaths per 1000 registered births. Sir Charles Cameron is of opinion that the close inspection of the tenement houses which has been carried on for the past few years has resulted in a very substantial improvement of their condition, and must have been an important factor in the more satisfactory state of public health in Dublin recently shown. He considers Dublin is a city peculiarly well adapted for the water carriage of sewage; and although the contamination of the river Liffey by the sewage discharged into it is an evil which steadily grows greater as the water-closet system becomes more extended, he believes that a method of rendering the Dublin sewage innocuous could be adopted at a moderate cost provided that a "clarification" or "precipitation" scheme were carried out.

Royal Academy of Medicine in Ireland.

The seventh annual general meeting of the Academy takes place this year at the College of Physicians on Friday, Oct. 25th, when the annual report and statement of accounts will be submitted, and an election of office-bearers will take place.

Kingstown Main Drainage.

The main drainage of this the premier township is still under consideration, and, although some preliminary work has been done, it is the opinion of those who are best informed that eventually the matter will never be carried out. Whatever sewerage scheme is adopted, it is to be hoped that it will in no way injure the Sandycove bathing place, the best of the kind on the Dublin sea coast. It is thought by many that the intercepting sewer should be carried to Bullock, where the Kingstown township terminates. At present an open sewer discharges in front of Bullock Harbour, which in time will silt up the entrance to the harbour, and it is believed that the nearest and best outfall for the sewage at this point is the place known as Brandy Hole.

The Meath Hospital, Dublin.

The introductory address was delivered on Monday morning by the senior surgeon, Sir George Porter, Bart. Sir George concluded an admirable and eloquent address as follows:—"Men of my age contemplate with no little interest young and ardent spirits entering a profession such as ours. Visions of former days rise before us. The future is to you resplendent with a light and promise which pales and fades to us; but accept the lesson which experience has taught us: it is this, that a happy and prosperous professional life does not wholly, or even largely, depend on mere medical or other knowledge, but rather on probity, honour, a good conscience, temperance, and a heart pulsating with brotherly kindness and charity. You will soon be scattered to different parts of the earth. My earnest hope is that you may prosper, and, as your love and reverence cannot fail to turn to this old hospital as surely as the needle seeks the pole, may we hope that in these recollections a place may be found for us who have had the privilege of taking part in your professional education."

Amalgamation of the Dublin Medical Schools.

I understand that His Excellency Earl Zetland signed the necessary documents on Saturday last sanctioning the scheme of amalgamation of the College of Surgeons School with those of the Carmichael and Ledwich institutions. Advertisements have been inserted for the appointment of the following professors:—One professor of anatomy, one professor of midwifery, one of medical jurisprudence, one of medicine, one of chemistry, one of materia medica, one of zoology and botany, one of pharmacy, and one of ophthalmology. The election will take place on Wednesday, the 23rd inst.

Dr. Atkinson and Mr. Warnock, F.R.C.S.I., have been admitted members of the Royal Historical and Archæological Society of Ireland.

Dr. James Macan, J.P., died at his residence, Sharvagh, Bushmills, on the 5th inst.

Dublin, Oct. 8th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Vision Area in the Encephalon.

IN a note on the seat in the encephalon of the chromatic sense, of the luminous sense, and of the sense of forms, Dr. Veney, after several observations, arrives at the following conclusions: that the chromatic sense resides in the lowest portion of the occipital lobe, probably in the posterior part of the lingual and fusiform gyri; the luminous sense would be found higher, near the upper part of the occipital lobe, and the centre of perception of forms between the two preceding regions. The author had an opportunity of verifying his conclusions in the following case that came under his observation. A woman aged sixty years was seized with cerebral congestion, without loss of consciousness, and accompanied with vomiting. There was a distinct hemiachromatopsia, with partial preservation of the light perception and form. There were no aphasic troubles, no word blindness, no paresis or paralysis of the extremities. The ophthalmoscope revealed no lesion whatever of the optic nerve. This state remained stationary for twenty months. In March, 1888, the patient succumbed in few days to an attack of apoplexy, which produced a hemiplegia of the left side. At the autopsy an enormous hæmorrhagic focus, of recent formation, was found in the

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right cerebral hemisphere; the lesion had destroyed the whole of the centrum ovale, the central ganglia, and had penetrated into the right lateral ventricle. There existed a very old lesion, a hæmorrhagic cyst, at the inferior portion of the left occipital lobe.

Resistance of Trichinæ to Cold.

At the meeting of the Academy of Sciences last week, M. Paul Gibier gave an account of his recent researches regarding the resistance to the action of cold on trichinæ contained in meats. The substances on which his researches were carried out were hams salted with a mixture of marine salt and saltpetre. The trichinæ which were found in them did not resist the action of a temperature of a few degrees under freezing point, maintained for nearly an hour. The case is different, however, when the meat is not salted, as then a low temperature of 25 degrees centigrade below zero, continued even for two hours, is insufficient to render fresh meats containing trichinæ sweet.

Sense of Taste in Criminals.

The following note reproduced in the *Journal de la Santé* may be found interesting. Dr. S. Ottolenghi, a pupil of Professor Lombroso, has studied the sense of taste in criminals compared with that of other individuals. He says that in criminals the sense of taste is manifestly weak relatively to that of ordinary individuals; there is, again, a difference less marked between occasional delinquents and those who are habitual or born delinquents. Female criminals have the sense of taste still more obtuse than men of the same category. The author concludes from these remarks that this diminution in the sense of taste in criminals depends on a defect in the cerebral cortex.

The Administration of Chloroform.

M. Dastre lately made a communication to the Société de Biologie relative to the dangers of anæsthesia by the use of chloroform, and recalled that he had always prevented these dangers in dogs by preceding the administration of the chloroform with a subcutaneous injection of atropine associated with morphia. He remarked that death which occurs during anæsthesia is often due to an irritation of the pneumogastric ganglia, which produces arrest of the heart and death by syncope. The atropomorphinic injection has the effect of preventing the production of this excitation.

Fire at the School of Medicine.

Yesterday, about twelve o'clock, a fire took place in the Amphitheatre of the School of Medicine during the meeting of the International Congress of Surgery. Considerable damage was done, as furniture and paintings of great value were burnt. The fire was traced to the over-heating of a pipe leading from a large stove placed in the cellars for warming the whole building. Fortunately the meeting had just been brought to a close, and the members were able to effect their escape. After nearly two hours the firemen succeeded in putting out the fire, just in time to save the library and the museum of anatomy. A similar accident occurred in the same place about two years ago.

Statue to M. Dumas.

The inauguration of the statue of J. B. Dumas, the celebrated chemist, will take place on Oct. 21st, at Alais, his native town, under the presidency of M. Pasteur, and in the presence of members of the Institute and several members of the Government.

An Incident at the Academy of Medicine.

At the meeting of the Academy on the 1st inst., M. Laborde refuted the statements made by MM. Cadeac and A. Meunier that the ill effects of absinthe drinking should be attributed not to absinthe but to anise, fennel, and other essences with which it is mixed. He demonstrated this by administering to guinea-pigs subcutaneous injections of the essence of anise and that of absinthe. The demonstration was interrupted by a lady visitor of anti-vivisection sympathies, who was removed from the gallery by order of the President.

Paris, Oct. 9th.

NAVAL MEDICAL SUPPLEMENTAL FUND.—At the quarterly meeting of the directors of the Fund held on the 8th inst., T. J. Haran, Esq., Inspector-General in the chair, the sum of £68 was distributed among the several applicants.

Obituary.

SIR W. TINDAL ROBERTSON, M.D. EDIN., F.R.C.P. LOND., M.P.

SIR TINDAL ROBERTSON, whose sad death took place on Sunday last, was the eldest son of the late Frederick Fowler Robertson of Bath and Anne Tindal his wife. Educated at King Edward VI.'s Grammar School, Grantham, he entered the medical profession as house-pupil to Mr. H. P. Robarts, F.R.C.P., of Great Coram-street, London; studied at University College Hospital, and matriculated, in the first class, at the University of London in July, 1846. He became L.S.A. in 1848, M.R.C.S. in 1850, was Junior Resident Medical Officer at the Middlesex Hospital in 1848-50, and Resident Surgeon at the Royal Free Hospital from 1850-51. He subsequently studied at Paris and Edinburgh, taking his M.D. degree at the latter University in 1853. In 1854 he commenced practice in Nottingham, where he held appointments on the medical staff of all the leading charities, being for nearly twenty years physician to the Nottingham General Hospital. In 1874 he was elected a Fellow of the Royal College of Physicians. In 1857, when the British Medical Association held its meeting at Nottingham, Dr. Tindal Robertson was selected to deliver the Address in Medicine, and he took as his subject, "The Rise and Progress of Sanitary Science." Again, at the meeting of the same Association in 1865 he introduced the question, "Why are sanitary measures not always followed by a reduction in mortality?" He initiated at Nottingham, with the help of many of his medical friends, a system of voluntary notification of diseases. Through his initiation, also, the Oxford local examination system was established in Nottingham, and, in conjunction with Mr. Mundella, M.P., he promoted the formation of the corps of Robin Hood Rifles, as medical officer of which he was presented to the Queen. He was instrumental in establishing the Nottingham Literary and Philosophical Society, was one of the local secretaries for the visit to Nottingham of the British Association for the Advancement of Science, and subsequently published the "Record of the Transactions" on that occasion. He was also a member of the Nottingham Town Council; he contributed to Mr. Churchill's "Photographs of Eminent Medical Men" the brief analytical notices of their works, besides many articles in reviews &c. In 1873 his eyesight began to fail, and he retired from practice, and went to reside at Brighton. In 1880 he became chairman of the Brighton Conservative Association, and from that time he took a foremost part in politics. In 1886 he was returned unopposed to Parliament for Brighton in the place of Mr. D. Smith, deceased. Sir Tindal Robertson was a member of the recent Royal Commission on the Blind, Deaf, and Dumb, &c., of which he acted as vice-chairman. At the time of his death he was a member of the Brighton Town Council, trustee of the Gardner Fund for the Blind, one of the vice-chairmen of the Home Counties Conservative Union, a member of the Grand Council of the Primrose League, and of the Council of the National Union of Conservative Associations, a J.P. for Brighton and Sussex, and, as stated above, M.P. for Brighton. He received the honour of knighthood in 1888. He married in 1855 Elizabeth Anne, daughter of Mr. John Leavers, of the Park, Nottingham, by whom he had issue, four sons, who survive him.

We are indebted to Dr. Elborough Scatliff for the following details concerning Sir Tindal Robertson's last illness:—

In May last Sir Tindal Robertson sprained his ankle as he was leaving the House of Commons, and in consequence of this accident he was a good deal confined to his room, and gave up his usual out-door exercise. He had for some time been troubled with weak digestion, and with loss of exercise his dyspeptic symptoms became greatly aggravated. He soon refused solid food and took fluid nourishment mixed with artificial digestives. Then he rapidly became hypochondriacal and despondent, so that he began to fear (in consequence of his continued abdominal discomfort) that he had some structural mischief, malignant or otherwise, producing a partial stricture of the bowel, first at one spot and then at another. On the most careful

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examination no abdominal tumour could be detected, nor was there ever any evidence of obstruction. Still his mind clung tenaciously to this impression, notwithstanding that Dr. Brown-Séquard (who was at that time staying in Brighton) very kindly saw him with me on more than one occasion, and fully concurred in the opinion that I had given. Sir Tindal Robertson had been blind for some years from glaucoma, and had undergone several operations at the hands of Dr. Bell Taylor, Sir W. Bowman, and Mr. Bader. Besides this there was evidence—such as very feeble patellar tendon reflex, slight dragging of the left leg, &c.—that the spinal cord was not in a normal state. Notwithstanding all that was done for his relief, his dyspeptic trouble and depression of spirits still continued, and only last Monday week Dr. Russell Reynolds kindly came down from town on purpose to see him in consultation with me. He also carefully examined the abdomen and corroborated the opinion given. On Saturday last Sir Tindal Robertson went to bed at the usual time apparently in slightly better spirits than of late (perhaps due to a conversation we had had together in the morning). The rest of the tragic story is already well known, so it need not be repeated. At the necropsy about forty-eight hours after death (the abdominal organs only being examined) nothing abnormal was found in the intestine or abdominal cavity, but the walls of the bowel were very thin and the ascending colon slightly dilated.

Dr. Russell Reynolds writes to us as follows:—

On my return from abroad I found a letter from Dr. Scatliff, asking me, at Sir Tindal Robertson's request, for advice upon his case. On the next day (Sept. 22nd) I wrote in reply. The troubles laid before me were mainly those of the abdominal region, with regard to which Sir Tindal had become most anxious, being under the impression that he was suffering from organic disease of the intestine. It had also been observed by his friends and by Dr. Scatliff that his walk had become somewhat feeble, and that he drooped a little on one side. I made in my answer some suggestions as to medicines and board, and I heard, after five days, that he was slightly better, but still very anxious and depressed about himself. He suggested coming to London mainly with the idea of being under my care; but by letter, written on the 27th to Dr. Scatliff, I strongly recommended him to remain in the better atmosphere of Brighton, where he was surrounded by the comforts of his home, and said that, as he was an old college friend, I would again gladly come down and see him before any change was made. On Monday, Sept. 30th, I saw him in consultation with Dr. Scatliff, and we made a most careful examination of him. His abdominal troubles had diminished, but he was still very anxious about them and himself, and complained of the recurrence of distressing sensations over the whole abdomen, with frequent and great distension. At the time of my seeing him the abdomen was so flaccid that a very thorough examination was possible, as a result of which no evidence whatever could be found of any organic disease. This decision was confirmed by the post-mortem examination. He had been taking a carefully arranged diet, and was very solicitous with regard to the kind and the amount of food that would be best for him. He was aware that the patellar reflexes were almost abolished, but I do not think that he knew his walk to be slightly halting on the left side. He was anxious about the condition of his spine; but not so much so as with regard to the abdominal trouble. All the elements of his case, including those which might possibly lead to its sad termination, were fully and carefully considered by Dr. Scatliff and myself, and the result of our consultation was as fully and carefully communicated to his family. Weighing the probabilities of the future, it was to my mind a hopeful sign that Sir Tindal's anxiety appeared mainly about his physical health; that he was most anxious to do everything in his power to get better; that he spoke, after hearing my judgment on his abdominal condition, quite hopefully about himself, and that he never to me made the smallest allusion as to anxiety with regard to himself on other grounds. On the evening of the day that I saw him he dictated a letter to me asking me three questions, each of which had reference to his food or medicines. I entertained and expressed a fair hope and belief that my old friend would again, as he had done before, surmount his terrible depression and distress; but, unhappily, one of those sudden "impulses" occurred which, through physical weakness, he was unable to resist.

PROTHEROE SMITH, M.D. ABER., M.R.C.P. LOND., M.R.C.S. ENG.

DR. PROTHEROE SMITH was born at Bideford, North Devon, in 1809. His father, Dr. William Smith, was a medical practitioner in the same town. At the age of seventeen Protheroe Smith was apprenticed to his father. Having made that experience, he migrated to St. Bartholomew's Hospital, and during his student days resided with Kiernan, the anatomist. In 1833 Mr. Protheroe Smith took the M.R.C.S. Eng., and in 1846 the M.R.C.P. of London, having previously (1844) graduated M.D. of King's College, Aberdeen. He became co-lecturer with Dr. Rigby, at St. Bartholomew's Hospital, upon the subjects of Midwifery and Diseases of Women. In his early days Dr. Protheroe Smith wrote many reviews for our columns. He founded in 1842 the Hospital for Women in Red Lion-square. That institution was later on removed to Soho-square, where it still is, and was the first hospital founded for the benefit of women alone. Dr. Protheroe Smith practised first in John-street, Bedford-row; but in 1847 he removed to Park-street, Park-lane, where he lived till nearly the time of his death.

It is claimed for Dr. Smith that he was the first in England to give anæsthetics in midwifery. Until Simpson sent him chloroform from Edinburgh he used ether in cases of labour. In 1842 he performed his first ovariotomy, so that he was one of the earliest of our operators in that connexion. He performed the operation without the help of an anæsthetic, and the patient is probably alive now, and was certainly living a year or two ago. Dr. Protheroe Smith did not contribute much to the literature of his profession. He turned his attention chiefly to the inventing of instruments connected with his own branch of practice, and to the devising of improvements in them. The list is quite a long one: a chloroform inhaler exhibited at the Royal Medical and Chirurgical Society in 1848; an aspirator or exploring needle trocar, shown at the meeting of the British Medical Association at Dublin, 1867; specula of various kinds. These, and many other instruments, have been associated with Dr. Protheroe Smith's name. He and Sir J. Y. Simpson seem, about the same time, to have planned a uterine sound. The former used the sound, in the first instance, as a measurer of the uterus, the latter employed it as a tactile instrument.

As has been already said, Dr. Protheroe Smith wrote but little, his chief contributions to medical literature being a pamphlet on Cholera, and another on Flexures of the Uterus. He was a man of marked religious views, of the Evangelical school, and made those views prominent in every relationship of his life. In 1887 Dr. Protheroe Smith was seized with great pain in the sigmoid flexure of the colon. It was feared that he was the victim of malignant disease in that region of the bowel; but all those symptoms passed away. In August of this year he suddenly became comatose, but without any clearly defined evidences of paralysis. From that time he gradually sank, and died on Sept. 29th last. When the body was examined post mortem, there was not found any conclusive evidence of the cause of death. The arteries were markedly atheromatous, and the liver afforded an exceptionally well-defined example of the cirrhotic condition, although all his life Dr. Protheroe Smith had been a very abstemious man. The intestines, both in the neighbourhood of the sigmoid flexure and elsewhere, were found to have been healthy. The head was not opened after death.

JAMES MACAN, M.D. EDIN., J.P.

WE regret to have to announce the death of Dr. James Macan, which took place at his residence, Bushmills, co. Antrim, on Saturday, Oct. 7th, after a short illness. Between two and three weeks ago he complained of feeling unwell, but struggled against the symptoms until he was compelled to take to his bed, when symptoms of typhoid fever developed, from which he died. After graduating in Edinburgh in 1852, Dr. Macan began practice in his native town, Bushmills, thirty-five years ago, and by his ability, attention, and kindly disposition rapidly acquired a very large country practice, and in recent years all over the

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north of Antrim he was called in by his medical *confrères* as a consultant in whom both they and the public had very great confidence. At the time of his death he was dispensary doctor of the Bushmills district, and consulting sanitary officer for the Coleraine Union. He was also medical officer of the constabulary and the coastguard, and a magistrate for the county of Antrim. Dr. Macan's death has caused widespread sorrow throughout the north of Antrim, where he was a very great favourite, as well as in Belfast, where he had many warm and attached friends.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in Anatomy and Physiology at a meeting of the Examiners on the 7th inst.:—

G. B. Hillman, H. A. Phillips, J. E. Gains, and E. S. Perkins, students of Yorkshire College, Leeds; P. Withers and Joseph Green, of Owens College, Manchester; H. W. S. Williams, of University College, Liverpool; W. M. Smith, of Cambridge University; Gerald Grace and H. B. Wilson, of Bristol School of Medicine; J. G. Warren, of Trinity School of Physics, Dublin; E. McN. Woods, of Queen's College, Belfast; C. M. Macknight, of Melbourne University; and J. H. Day, of Charing-cross Hospital.

Anatomy only.—A. A. Smith, of Yorkshire College, Leeds; E. Wooldridge, of Queen's College, Birmingham; F. Spurr, of Sheffield Medical School; H. F. Cook, of University College, Liverpool; G. A. Peake, of Bristol School of Medicine; M. P. A. Lesur, of St. Bartholomew's Hospital; and G. H. Jones, of Middlesex Hospital.

Physiology only.—J. G. Rowell and J. H. Staniland, of Yorkshire College, Leeds; L. F. Houghton, of Sheffield and St. Mary's Hospital; H. M. Joynson and E. Smallwood, of University College, Liverpool; Lancelot Kilroy and Edmund Johnstone, of Owens College, Manchester; P. H. Edwards and J. B. Garman, of Queen's College, Birmingham; C. E. Oakeley, of St. George's Hospital; C. G. Mathews, of St. Bartholomew's Hospital; and E. C. Hope, of Melbourne and Mr. Cooke's School of Anatomy and Physiology.

Passed on the 8th inst.:—

Anatomy and Physiology.—J. S. E. Selby, of St. Bartholomew's Hospital; A. J. Harrington, University of Toronto; E. M. Iliewiez, of St. Mary's Hospital.

Anatomy only.—H. C. W. Clarke, of Owens College, Manchester; J. E. Ransford, of Bristol School of Medicine; T. W. Hall, of Carmichael College, Dublin; J. S. Tabb, of Charing-cross Hospital; C. M. Fleury, W. B. Donnelly, and S. Croneen, of Guy's Hospital; F. W. Lewis, of St. Mary's Hospital; G. W. Robertson, of London and Edinburgh University; H. C. Barnes and J. H. Bicket, of London Hospital; C. K. Mosuley, G. A. T. Fox, and Fielding Clarke, of St. Bartholomew's Hospital; N. E. E. McTaggart, of St. Bartholomew's and Mr. Cooke's School of Anatomy and Physiology; R. D. Waghorn, of Westminster Hospital; A. D. Bensusan, of St. Thomas's Hospital; E. J. T. Jones, J. H. F. Way, of St. Thomas's and Mr. Cooke's School of Anatomy and Physiology; W. S. Langworthy, C. H. Chapman, and F. L. Underwood, of University College.

Physiology only.—R. W. Brinacombe, of Queen's College, Birmingham; L. J. G. Carré and J. T. R. Wylie, of St. George's Hospital; G. H. Norris, H. Arathoon, Frank Scorer, Theodore Shütte, and C. S. Palmer, of St. Bartholomew's Hospital; J. P. Jones, of London Hospital; Thomas Ager, of London Hospital and Mr. Cooke's School of Anatomy and Physiology; P. W. Campbell, E. H. Willock, Arthur Haines, and F. Pershouse, of St. Thomas's Hospital; E. E. B. Landon, of Guy's Hospital; T. H. E. Meggs, of Westminster Hospital; G. W. B. Waters, of University College; H. A. Kynsey, of University College and Mr. Cooke's School of Anatomy and Physiology; A. W. C. Herbert and S. W. Sweetnam, of St. Mary's Hospital.

Passed on the 9th inst.:—

Anatomy and Physiology.—John Miller, W. J. Ansorge, E. J. Hawkins, of St. Bartholomew's Hospital; John Griffiths, of St. Bartholomew's and Edinburgh; F. C. Stearn, of Guy's Hospital; G. F. Morley, of St. George's Hospital; E. B. Pickthorn, of St. George's and Mr. Cooke's School of Anatomy and Physiology; J. F. Stockwell, of St. Mary's Hospital; C. E. Reinhardt, of London Hospital; Albert Paling and David Phillips, of Middlesex Hospital; and P. W. H. McKeown and J. T. Campbell, of Toronto University.

Anatomy only.—S. B. Axford, of Charing-cross Hospital; E. E. W. Roe, of Guy's; G. L. Hanwell, of St. Thomas's and Mr. Cooke's School of Anatomy and Physiology; V. B. Jepson and J. H. P. Vivian, of St. Thomas's Hospital; and C. A. N. Knox, of Dublin University and St. Thomas's Hospital.

Physiology only.—J. P. Grieves, of St. Mary's Hospital; L. P. Tomlinson, of St. George's Hospital; J. D. Hessey, of Middlesex Hospital; and J. D. Rawlings and T. St. Stephens, of St. Bartholomew's Hospital.

ROYAL UNIVERSITY OF IRELAND.—The following candidates have passed the Third Examination in Medicine of this University:—

Upper Pass Division.—John A. Adams, G. H. Frost, Andrew Fullerton, Thomas W. Fullerton, K. Maguire, James B. Moore, Hamilton Morton.

Passed.—Joseph H. Anderson, David Bennett, Christopher Bunton, James F. Carroll, Anna L. Church, Michael Coughlan, Frederick Craig, Robert Creighton, Patrick Crowley, William Duff, Maurice Fitzgerald, Robert Fraser, Patrick Goold, Robt. J. Gordon, Edward F. Hanrahan, Henry Harley, Hugh T. Heron, Daniel Hill, Thomas Jackson, John Jamison, Paul Jennings, James Keegan, Joseph F. Kelly, Robert Lyons, Michael McCann, Robert McDowell, John McGennis, James McLaren, William Moody, Henry J. Moore, Jas. Morrow, Timothy Murphy, William O'Gorman, Henry O'Reilly, Joseph A. Sullivan, Alexander Robb, William L. Storey, Hugh Stranaghan, James Thompson, James Ross Thomson, Arthur J. Tonkin, Robert Wagner, George S. Walker, John T. Wallace, Thos. B. P. Wilkinson.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates, having passed the qualifying examination in Medicine, Surgery, and Midwifery, have received certificates entitling them to practise in the same, and have been admitted as Licentiates of the Society on Sept. 12th:—

Slater, Howard, University College.

On the 18th:—

Dalton, James Henry Chesshyre, Cambridge University.
Stone, Emma Constance, Women's Med. Coll. Toronto.
Molson, James Elsdale, Middlesex Hospital.
Smyth, John, Queen's College, Belfast.
Fowler, Frank, St. Thomas's Hospital.

On the 19th:—

Crompton, Alfred, St. Bartholomew's Hospital.
Hicks, John Abernethy, Westminster Hospital.
Kempthorne, Albert Edward, London.
Mitchell, Walter, Sheffield Infirmary.
Rouse, Eusebius Rouse, St. Bartholomew's Hospital.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—Surgeon-Major A. H. C. Dane, having passed the necessary examination, has been granted the Diploma in Public Health of the College.

OPHTHALMIC HOSPITAL FOR HANWELL.—The Local Government Board has sanctioned the borrowing of £24,000 for the purpose of enabling the managers of the Central London School District to erect a new hospital at Hanwell, where ophthalmia has for some time past been prevailing.

CHARING-CROSS HOSPITAL STUDENTS' DINNER.—The annual dinner of past and present students will take place at the Holborn Restaurant on Friday, Oct. 18th, at 6.30 for 7, Surgeon Whitehead, F.R.C.S., in the chair. Tickets can be obtained by applying to A. H. Walker, at the hospital.

CROYDON ROOKERIES.—In order to widen the High-street of Croydon and at the same time abolish a number of tenements described as rookeries, the Town Council have decided to apply to Parliament for compulsory powers to purchase the latter property. It is estimated that the scheme will cost at least £100,000.

LITERARY INTELLIGENCE. — The compendious treatise on Medicine by Dr. H. Eichhorst of Zurich, which has gone through three or four editions, has been translated into French (four vols.; Paris, Steinheil). The work of translation has been shared by a considerable number of young physicians connected with the Paris hospitals.

THE "LION" TRAINING SHIP IN QUARANTINE.—Admiral Sir William Dowell, Naval Commander-in-Chief at Devonport, has directed this ship to be placed in quarantine. An epidemic of scarlet fever and scarlatina has prevailed during the past few weeks in the towns of Plymouth, Stonehouse, and Devonport, and many cases have been sent from the *Lion* to the hospital.

RABIES.—The number of dogs in England officially reported during the week ending Sept. 28th as afflicted with rabies was eight, against six in the previous week; of these six were killed and two died. The distribution was as follows:—Middlesex (excluding London), three; Surrey (excluding London), two; and Chester, Hertford, and York (West Riding), one each. No cases were reported from London proper.

SUPPOSED SUICIDE OF A PHYSICIAN.—Dr. Jeremiah Wase of Huntspill, Somerset, was found dead in his bedroom last Thursday morning, having died apparently from poisoning. He had written a few lines on some blotting-paper, to the effect that he could not stand the strain any longer. Dr. Wase was the principal witness in a child-murder case to be investigated by the bench of magistrates at Bridgwater on the 10th inst., he having made a post-mortem examination of the body of the infant, and it is supposed that the case had caused him considerable worry.

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DARWEN INFECTIOUS DISEASES HOSPITAL.—The formal opening of the new Infectious Diseases Hospital for Darwen took place on the 2nd inst., the members of the Health Committee, the medical staff, and other gentlemen being present. The hospital, which cost £4700, is composed of three separate one-storey buildings; one for small-pox patients, another for patients suffering from fever, and the third to be used as a mortuary.

THE LATE DR. GUTHRIE.—A handsome marble cross has been erected at the grave of the late Dr. Guthrie in the churchyard at Esher. The monument, which cost £54 15*s.*, was erected out of the contributions of, and as a "memorial of loving regard from, 132 patients and friends." A sum of £58 15*s.*, the balance of the amount subscribed, will be applied for the benefit and welfare of the deceased's children.

GRIMSBY AND DISTRICT HOSPITAL.—The annual general meeting of this institution was held on the 7th inst., the Earl of Yarborough presiding. The report, which was adopted, showed that whilst the average yearly expenditure was £1500, the subscriptions only amounted to £550. The chairman, in alluding to the smallness of the subscriptions, said that if the 70,000 population of Grimsby and district only contributed 6*d.* per head the amount would be ample.

NEW MILITARY HOSPITAL IN MADRID.—The military authorities in Madrid are actually beginning to erect a much-needed military hospital. The plans have been prepared by a military engineer, Capt. D. Manuel Cano, and, according to *El Siglo Médico*, leave nothing to be desired on the score of situation or hygienic arrangements, thus presenting a striking contrast to the low, ill-ventilated, insanitary building, the wards of which now form the clinic of the central university.

ST. JOHN AMBULANCE ASSOCIATION, BIRKENHEAD. Surgeon-Major Hutton presided over a large and distinguished gathering at the Town Hall, Birkenhead, on the 1st inst., on the occasion of the distribution of 140 certificates gained by students attending the several St. John Ambulance classes in Birkenhead and Rock Ferry. Surgeon-Major Hutton, in the course of his remarks, said the past year had been most successful in the establishment of classes in Birkenhead, both in first aid and in nursing. The police force of the borough had especially been most effective in obtaining certificates.

PROVINCIAL SUNDAY AND SATURDAY HOSPITAL COLLECTIONS.—At Eckington the recent Hospital Sunday collection amounted to £35 11*s.*—The first Hospital Sunday collection at Wallingford on the 22nd ult. realised £21 18*s.* 1*d.*—A similar collection at Callington on the 29th ult. produced £5 15*s.*—The Hospital Saturday recent collection at Exeter amounted to £21.—The eighth annual Hospital Sunday demonstration of the Middlesbrough Trades' Council, on behalf of the medical charities of the town—the North Riding Infirmary and the North Ormesby Cottage Hospital—realised £26 10*s.* 10*d.*

BEQUESTS AND DONATIONS TO HOSPITALS.—The Cumberland Rugby Football Union have lately made the following donations—viz.: Whitehaven Infirmary, £12; Workington Infirmary, £8; Cumberland Infirmary, £5; Silloth Convalescent Institution, £5; Carlisle Dispensary, £4; and Cockermouth Dispensary, £2; total, £36.—The treasurer of the Bootle Borough Hospital has received £500, being the second moiety of a legacy of £1000 from the late Mr. John Bacon.—The committee of the City Orthopædic Hospital, Hatton-garden, has received from the trustees of the late Mrs. Law French £200 in aid of the extension fund.—The secretary of the Swansea Hospital has received £30, contributed by workmen at the Elba Steel Works.—The late Mr. W. Billings of Leicester has, by his will, bequeathed £100 to the local infirmary.—The Court of Common Council, London, has granted a donation of £210 to Charing-cross Hospital and £210 to the City of London Hospital for Diseases of the Chest.—The late Alderman George, of Leeds, has bequeathed £10,000 to the General Infirmary, Leeds.—Mr. Greswell Williams has given £200 to the funds of the Worcester Dispensary and Provident Medical Institution.—The late Mr. Daniel Procter, of Brook-villa, Whalley Range, Manchester, has bequeathed £1000 to the Manchester Royal Infirmary, £1000 to the Manchester Clinical Hospital, £1000 to the Children's Hospital at Pendlebury, and £2000 to St. Mary's Hospital, Manchester.—The bazaar recently held in aid of the funds of the Bingley Cottage Hospital, including £300 received in subscriptions towards the Bazaar Fund, has produced, net, £1500.—Lady Forster has left £100 each to the Adelaide Hospital, City of Dublin Hospital, and the Orthopædic Hospital, Dublin.—Mr. John Rawdon Berwick, late of Coolfadda House, co. Cork, has bequeathed £300 to the Hospital for Incurables, £300 to the Home for Protestant Incurables, Cork, £300 to the Cork (South) Charitable Infirmary, £300 to St. Vincent's Hospital, £300 to the City of Dublin Hospital, £300 to the Deaf and Dumb Institution, Cabra, £300 to the Stewart Institution for Imbeciles, £300 to the Rotunda Lying-in Hospital, £300 to Sir P. Dun's Hospital, £300 to the Cork-street Fever Hospital, £200 to the Cork Asylum for the Blind, £300 to the Mater Miscricordiæ Hospital, £300 to the Meath Hospital, £300 to Mercer's Hospital, and £300 to the Molyneux Asylum for the Blind.

THE SANITARY INSPECTORS' ASSOCIATION.—The sixth annual general meeting of the Association of Public Sanitary Inspectors of Great Britain was held on the 5th inst., at the Westminster Town Hall, Mr. Hugh Alexander presiding. The report expressed disappointment at the limitation of the compulsory operation of the Infectious Diseases Notification Act to the metropolis, and avowed an intention on the part of the council to use every opportunity which might present itself to amend the Act. It was decided to accept an invitation to hold the next annual provisional meeting at Leamington.

THE BOMBAY NATIVE DISPENSARY.—The third biennial report of the Bombay Native Dispensary shows that during the years 1887–1888 the total number of patients treated was 153,456, or 4676 more than during the preceding two years. Of those treated, 60,952 were Hindoos, 59,660 Parsees, 21,714 Mussulmans, 5048 Christians, and 6082 of "other castes." The report adds that the most healthy season was from November to February, and the most sickly period from August to October, when the severe heat, after the close of the rains, dries the cesspools and low swampy places, producing malarious fevers and their accompaniments.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The first meeting of the thirty-fourth session (1889-90) was held at the Royal Kent Dispensary, Greenwich-road, on Oct. 4th, at 8 o'clock precisely, when the following gentlemen were elected office-bearers for the ensuing year:—President: Mr. Thomas Moore. Vice-Presidents: Mr. J. Poland and Dr. John McGavin. Council: Mr. A. Stewart Brown, Dr. Clarke, Mr. Peter Cooper, Mr. A. Lloyd Jones, Dr. Nicholson, Mr. Charles Parkes, and Dr. George Newton Pitt. Treasurer: Dr. Prior Purvis. Secretary: Mr. H. W. Roberts. Librarian: Dr. Ernest Clarke.

A HOSPITAL FOR KESWICK.—The trustees of the Fitz Park, Keswick, have received an offer from Mr. Henry Hewetson, of Tunbridge Wells, to transfer to them, under certain conditions and for certain purposes, the small farm of Monks' Hall as an addition to the trust already existing. On this land, which adjoins Fitz Park and comprises fourteen acres of land, Mr. Hewetson offers to build, furnish, and maintain a cottage hospital for the benefit of the poorer classes residing in and around the district of Keswick, and proposes to pay over £300 a year during his life as the income for the year, and make provision for a similar yearly payment after his death. This generous offer has been accepted.

EYE AND EAR HOSPITAL, BIRKENHEAD.—The annual report of this hospital just issued shows that there has been a satisfactory increase in the usefulness of the institution. The arrangements reported by the committee last year with regard to dispensing their own medicines had been a success. The saving thus effected over the former system was larger than anticipated. The patients at the dispensary during the year numbered 1212, of whom 120 were admitted free. The total attendance was 7121. The number of in-patients was 56; the beds (six) were occupied 1276 days, giving an average time for a patient of nearly twenty-three days. The balance-sheet showed a small balance in hand. The outstanding accounts amounted to £122 7*s.* 11*d.*

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A COTTAGE HOSPITAL FOR SIDMOUTH.—A communication from an anonymous benefactor has been received by the committee appointed to promote the establishment of a cottage hospital for Sidmouth, offering a donation of £500 towards the object in view. The offer seems to have had the effect of stimulating other well-wishers to the town to the exercise of liberality in the same direction, so that the scheme appears likely to be realised.

ROYAL COMMISSION ON VACCINATION.—The Royal Commission on Vaccination resumed their sittings on Wednesday at Richmond-terrace, Whitehall. There were present Lord Herschell (Chairman), Sir James Paget, Bart., Sir Charles Dalrymple, M.P., Sir W. Guyer Hunter, K.C.M.G., M.P., Sir E. H. Galsworthy, Mr. William Scovell Savory, F.R.S., Mr. Charles Bradlaugh, M.P., Dr. John Syer Bristowe, Dr. William Job Collins, Professor Michael Foster, M.D., Mr. Jonathan Hutchinson, Mr. J. Allanson Picton, M.P., Mr. F. Meadows White, Q.C., and Mr. Bret Ince, secretary. Surgeon-General J. Pinkerton and Dr. Arthur F. Hopkirk were examined.

OPEN SPACES.—There was a long discussion at the meeting of the Newington Vestry on Wednesday night, consequent upon a recommendation from the General Purposes Committee that the consideration of the memorial from the Brockwell-park Committee asking the vestry's assistance in acquiring the park as an open space for the public, by making a grant towards the purchase money, be deferred until the vestry had statutory power to make a contribution. The chairman (the Rev. G. T. Palmer) moved as an amendment that a contribution of £5000 be made, and after a long debate that proposal was adopted.

ASSOCIATION OF CERTIFYING SURGEONS.—A general meeting of the Association of Certifying Surgeons was held in the Victoria Hotel, Manchester, on Wednesday. The meeting, which was a very representative one, was presided over by Mr. Walmsley, Salford, president, supported by Dr. Arlidge, Stoke-on-Trent, vice-president. The president and treasurer submitted reports, which show the Association to be in a flourishing condition both numerically and financially, and well able to carry out any measures necessary for the furtherance of its objects. Several resolutions relating to the sanitary condition of factories &c. were discussed and adopted.

BATH EYE INFIRMARY. — A special general meeting of the governors and subscribers of this institution was held at the Infirmary, No. 1, Belvedere, on the 30th ult., to consider the revised rules framed for the management of the Infirmary, which had been removed to more commodious premises. After the new rules had been adopted, a statement was made as to the financial position of the Infirmary, the cost of purchase and moving from the old house to the present building being about £1550. The patients had increased from 700 to 1200 in a comparatively short space of time, and the hope was expressed that additional support would be accorded to the Infirmary.

PRESENTATIONS.—Dr. J. Wilton of Sutton, Surrey, has been presented by his friends and patients, on his retiring from the profession and leaving the town after a long and honourable connexion therewith, with a handsome testimonial consisting of four massive silver candlesticks, a piece of plate, and an illuminated address on vellum.—On the 7th inst., Dr. W. H. Dawson, consulting physician to the Malvern Rural Hospital, was presented by the patients of the institution and friends with a purse containing £102, a clock, and two bronze statuettes, and a parchment roll with the names of 170 subscribers. Dr. Dawson has gratuitously served the hospital for the past twenty-one years, and was still connected with it as consulting physician.—At Sheffield on Friday, Oct. 4th, Mr. Simeon Snell, M.R.C.S. Eng., L.R.C.P. Lond., was entertained at a complimentary dinner given by some thirty of his medical *confrères* in Sheffield, and was presented with a handsome silver tray, with an appropriate inscription and an illuminated address, on behalf of eighty-one members of the Sheffield Medico-Chirurgical Society, as a mark of their appreciation of the successful and admirable manner in which he had for thirteen years fulfilled the duties of honorary secretary to that society, and which post he resigned at the close of last session.

SCHOLARSHIPS. — *London Hospital:* Mr. C. P. Harris has obtained the first Entrance Science Scholarship of £60, and Mr. G. H. Cowen the second of £40. Mr. C. O. Williams has obtained the first Buxton Scholarship of £30, and Mr. E. J. G. Tucker the second of £20.—*Charing-cross Hospital:* Mr. Thomas Sandells has obtained the first Entrance Scholarship of one hundred guineas, and Mr. Frederick A. L. Hammond the second of fifty guineas. Mr. A. G. Harvey, of St. John's College, Cambridge, has been awarded the Universities Scholarship of fifty guineas.

COMPLIMENT TO A PHYSICIAN.—A number of medical men and other friends met together at the Royal Hotel, Swansea, last week, on the occasion of giving a farewell dinner to Mr. John Farrant Fry, L.R.C.P. Lond., M.R.C.S. Eng., who is removing from Swansea, where he has practised for fourteen years, to Shepton Mallet, Somersetshire, for the benefit of the health of himself and family. Speeches were made lauding Mr. Fry's past services to Swansea, and notably to Swansea Hospital, with which he had been connected for the past eleven years, and wishing him every prosperity in his new home. Mr. Fry replied in appropriate terms, and after a musical interlude, the meeting, which was unanimous and enthusiastic, concluded by a general handshaking with Mr. Fry in token of farewell.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.—At the first meeting for the session held on the evening of the 4th inst. the following gentlemen were elected office-bearers for session 1889-90:—President: Dr. William Macewen. *Section of Medicine:*—Vice-President, Dr. J. Wallace Anderson; Council, Dr. Hugh Thomson and Dr. W. G. Dun; Secretary, Dr. Geo. S. Middleton. *Section of Surgery:*—Vice-President, Dr. David W. Knox; Council, Dr. W. J. Fleming and Dr. J. C. Renton; Secretary, Dr. John Barlow. *Section of Pathology:*—Vice-President, Dr. W. T. Gairdner; Council, Dr. H. Rutherford, and Dr. Joseph Coats; Secretary, Dr. T. Kennedy Dalziel. *Section of Obstetrics:*—Vice-President, Dr. W. L. Reid; Council, Dr. M. Cameron, and Dr. Samuel Sloan; Secretary, Dr. Lawrence Oliphant; Treasurer, Dr. Henry E. Clark; General Secretary, Dr. Walker Downie.

THE AFTER-CARE ASSOCIATION. — The annual general meeting of the members and friends of this Association was held on July 4th at the residence of the Earl of Meath (President), who occupied the chair. There are about 30,000 women of various callings and conditions of life in lunatic asylums in England and Wales, and of these a large number are discharged in the course of the year recovered. Many of these are entirely friendless, but desirous, and often very capable, of earning their own living. The chief objects of this Association are to facilitate the readmission of poor and friendless female convalescents from lunatic asylums into social life, by obtaining for them, when needful, change of air and scene, by grants of money and clothing, and by assisting them to obtain suitable employment. The report, which was adopted, states that funds are urgently needed to carry on and extend the work of the Association, and the Secretary, Mr. H. Thornhill Roxby, "Arden Lea," The Drive, Walthamstow, Essex, will thankfully receive contributions.

SALFORD WORKING MEN'S SANITARY ASSOCIATION.—At the first general meeting of this Association, held recently in Salford, the secretary, Mr. Alfred Settle, gave an account of the work done by the Association since the first appointment of the committee four months ago. They had received numerous complaints from tenants belonging to the working classes as to the insanitary condition of their abodes, and the Association had brought the matters complained of under the notice of the Health Committee, and for the most part they had been attended to with promptness, and the officials had shown great courtesy. Through the action of this Association the Corporation and the property owners had been wakened up, and the latter, who had hitherto neglected their duty, were now doing something to mitigate the evils of the people's surroundings. Several speakers followed, and drew attention to the rookeries and slums which abounded in Salford, and which were unfit for habitation. They urged that the Association should leave nothing undone to compel the town councillors to do their duty in the matter of proper sanitation for the town.

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METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on October 8th, 1889.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever	Other diseases.	Total.	
Eastern Hospital	229	59	..	51	..	339	442
North-Western Hospital	229	26	..	7	..	262	415
Western ,,	161	16	..	6	..	183	262
South-Western ,,	..	..	..	..	..	..	402
South-Eastern ,,	280	16	1	21	3	321	462
Northern ,,	367	..	..	..	..	367	480
Totals	1266	117	1	85	3	1472	2463

BOOKS ETC. RECEIVED.

ALCAN, FÉLIX, 108, Boulevard Saint Germain, Paris.

Madère Station Médicale: Fixe Climat des Plaines, Climat des Altitudes. Par le Dr. G. A. Mourão Pitta. 1889. pp. 101.

CASSELL & COMPANY, London.

A Handbook for the Nursing of Sick Children. With a few Hints on their Management. By Catherine Jane Wood. 1889. pp. 248.

London (Ancient and Modern) from the Sanitary and Medical Point of View. By G. V. Poore, M.D., F.R.C.P. 1889. pp. 128.

CHATTO & WINDUS, Piccadilly, London.

Foods for the Fat. A Treatise on Corpulency, with Dietary for its Cure. By N. E. Davies, L.R.C.P. Lond. 1889. pp. 138.

CHURCHILL, J. & A., New Burlington-street, London, W.

On the Causes, Treatment, and Cure of Stammering. By A. G. Bernard, M.R.C.S., L.R.C.P. 1889. pp. 71.

Leprosy as a Cause of Blindness. With Notes of 41 Cases. By C. F. Pollock, M.D., F.R.C.S. 1889. pp. 88.

GRIFFIN, CHARLES, & COMPANY, Exeter-street, Strand, London.

Year-book of the Scientific and Learned Societies of Great Britain and Ireland. Compiled from official sources. Fourth Annual Issue. 1887. pp. 223.

A Treatise on Gout. By Sir Dyce Duckworth, M.D. Edin. With Frontispiece and Illustrations. 1889. pp. 476.

HAMILTON, ADAMS, & Co., Paternoster-row, London.

Nature Stories, Myths, and Phantasies. Tales for the Young. By Young Pan. 1889. pp. 109.

HIRSCHFELD BROTHERS, Fetter-lane, London.

The Animal Alkaloids, Cadaveric and Vital; or, the Ptomaines and Leucomaines, Chemically, Physiologically, and Pathologically considered in relation to Scientific Medicine. By A. M. Brown, M.D.; with an Introduction by Prof. Armand Gautier. Second Edition. 1889. pp. 252, price 7*s.* 6*d.*

LONGMANS, GREEN, & Co., Paternoster-row, London.

Watt's Dictionary of Chemistry. Revised and entirely rewritten. By M. M. Pattison Muir, M.A., and H. Forster Morley, M.A., D.Sc., assisted by eminent Contributors. In Four Volumes. Vol. II.: Ch—In. 1889. pp. 760, price 42*s.*

MACLEHOSE, JAMES, & SONS, Glasgow.

A Text-book of Physiology. By J. G. M'Kendrick, M.D., LL.D., F.R.S., including Histology, by P. Stöhr, M.D. In Two Volumes. Vol. II.: Special Physiology. 1889. pp. 803.

MACMILLAN & Co., London.

A Text-book of Physiology. By M. Foster, M.A., M.D. With Illustrations. Fifth Edition, largely revised. Part II., comprising Book II.: The Tissues of Chemical Action with their respective Mechanisms—Nutrition. 1889. pp. 846.

SMITH, ELDER, & Co., Waterloo-place, London.

Dictionary of National Biography. Edited by Leslie Stephen. Vol. XX.: Forrest—Garner. 1889. pp. 445.

STATE JOURNAL COMPANY, Lincoln, Nebraska.

Original Investigations of Cattle Diseases in Nebraska, 1886-1888. By Frank S. Billings. With Plates. 1889. pp. 267.

SWAN SONNENSCHEIN & Co., Paternoster-square, London.

Handbook of Practical Botany, for the Botanical Laboratory and Private Student. By E. Strasburger, edited from the German by W. Hillhouse, M.A., F.L.S. Revised by the Author, with additional Notes by Author and Editor. Second Edition, revised and enlarged. With 116 original and 33 additional Illustrations. 1889. pp. 425.

TRUSLOVE & SHIRLEY, St. Paul's Churchyard, London.

Introduction to the Treatment of Disease by Galvanism. By Skene Keith, M.B., F.R.C.S. Edin. pp. 62.

VOGEL, F. C. W., Leipzig.

J.-J. Rousseau's Krankheitsgeschichte. Von P. J. Möbius. 1889. pp. 191.

WHITTINGHAM & Co., Gracechurch-street, London.

Service Chemistry; being a Short Manual of Chemistry, and its applications in the Naval and Military Services. By Vivian B. Lewes, F.I.C., F.C.S. Illustrated. 1889. pp. 521, price 15*s.*

WILLIAMS & NORGATE, Henrietta-street, Covent-garden, London.

An Epitome of the Synthetic Philosophy. By F. Howard Collins. With a Preface by Herbert Spencer. 1889. pp. 571.

WILSON, E., & Co., Royal Exchange, London.

Laurie's Universal Code for Private and Business Telegrams. Compiled by R. Northall-Laurie, M.A., and A. A. Hayes, M.A. 1889. pp. 476.

The Rational Treatment of Constipation, by Thomas Gurney, M.D. L.R.C.P., M.R.C.S. (Henry Renshaw, London, price 6*d.*).—Fourth Annual Report of the State Board of Health of the State of Maine, for the fiscal year ending December 31st, 1888 (Burleigh and Flynt, Augusta, 1889).—Grand Canary: its Climate and Springs, by J. Cleasby Taylor, M.R.C.S. (J. Richardson & Co., Leicester).—Bourne's Handy Assurance Manual, 1889-1890 (second year of publication), by Wm. Bourne, F.S.S. (A. Trengove, John Heywood, and G. Philip & Son, London), price 1*s.*—Simple Shorthand, a revised edition of Taylor's Original System, by W. Heather, F.Sh. S. (Groombridge and Sons, London, 1889), price 1*s.*—Sanitary Condition of Melbourne: Progress Report of Royal Commission to inquire into and report upon the Sanitary Condition of Melbourne, 1889, Parts I. and II. (By Authority: Robert S. Brain, Government Printer, Melbourne).—Index-Medicus: Authors and Subjects, Vol. XI. No. 8, August, 1889 (Trübner & Co., and Lewis, London).—Hydrophobia of 1889: its Causes and Cure; a Plea to commute the sentence of Six Months. Written by a Dog with a Sore Nose; with engravings on wood (W. Roberts, London, price 1*d.*)—Merck's Index of Fine Chemicals and Drugs for the Materia Medica and the Arts: a Guide for the Physician, Apothecary, Chemist, and Dealer; by E. Merck (E. Merck, Jewry-street, London, 1889).—Instructions to Inventors, as to obtaining Letters Patent and Registering Trade Marks and Designs; by Wm. Jordan, Patent Agent (R. Jordan, Public Companies' Registration Agent, London), price 6*d.*—Archives of Surgery, by Jonathan Hutchinson, LL.D., F.R.S., vol. I., No. 2, October, 1889 (J. & A. Churchill, London), price 2*s.* 6*d.*—Leçons sur le Syndrome Bulbo-médullaire, constitué par la Thermanesthésie, l'Analgésie et les Troubles sudoraux ou vaso-moteurs (substance grise latéro-postérieure); par le Professeur J. Grasset; recueillies et publiées par le Dr. G. Rauzier (G. Masson, Paris, 1890).—Contributo allo Studio del Polso Paradosso; per Il. Dr. Eugenio Occhipinti (Gaetano Capra & Co., Messina, 1889).—Magazines for October: Sunday at Home, Boy's Own Paper, Leisure Hour, Good Words, Wit and Wisdom, Scribner's, Sunday Magazine (Isbister), Blackwood's Edinburgh Magazine.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ALTHORP, C. F. M., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Bradford Infirmary, vice W. Horrocks, M.B. Lond., F.R.C.S., resigned.

CHAMBERS, JAMES, M.A., M.D., has been appointed Senior Assistant Medical Officer to the Montrose Royal Lunatic Asylum.

DOLAN, T. M., M.D. Dur., L.R.C.P., F.R.C.S. Edin., has been reappointed Medical Officer to the Halifax Union Infirmary.

DUTT, A. C., B.A., M.B. Camb., has been appointed House Surgeon to the Scarborough Hospital and Dispensary, vice W. B. Russell, B.A., LL.B., M.B. Camb., resigned.

FINLAY, D. W., M.D. Glas., F.R.C.P. Lond., has been appointed Consulting Physician to the Royal Caledonian Asylum, London.

GAYLOR, E., L.R.C.P. Edin., L.F.P.S. Glas., has been reappointed Medical Officer of Belper Rural District, and Alfreton and Ripley Union Districts.

GOUGH, T. HARLEY, L.R.C.P. Lond., M.R.C.S., has been appointed Resident Medical Officer to the Royal Albert Hospital, Devonport, vice R. H. Perks, M.D., F.R.C.S., resigned.

HARTRIDGE, GUSTAVUS, F.R.C.S., has been appointed Surgeon to the Royal Westminster Ophthalmic Hospital, vice Henry Power, F.R.C.S., resigned.

HILL, A. BOSTOCK, M.D. Giessen, L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of the Borough of Sutton-Coldfield.

JONES, HUGH E., M.R.C.S., L.R.C.P., late House Surgeon, has been appointed Honorary Assistant Surgeon to the Liverpool Eye and Ear Infirmary, vice J. Rose, resigned.

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MCNAIR, GEORGE, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of the Fritwell District of the Bicester Union, vice Edward W. Turner, deceased.

MILLIGAN, WM., M.B., C.M., has been appointed Examiner of Anatomy in the University of Aberdeen.

RATCLIFFE, J. R., M.B., C.M. Edin., has been appointed Registrar and Pathologist at the General Hospital, Birmingham.

ROWE, EDMUND LEWIS, L.R.C.P. & L.R.C.S. Edin., has been appointed Medical Superintendent of the Ipswich Borough Asylum, vice B. Chevallier, deceased.

SANTI, PHILIP R. W., F.R.C.S.Eng., has been appointed House Surgeon to the Great Northern Central Hospital, vice C. Mortlock, M.R.C.S., resigned.

STANDEN, PETER, M.B., C.M. Edin., has been reappointed Medical Officer of Health for the Mansfield Rural Sanitary District, Notts.

WILSON, JOHN SMITH, M.R.C.S., L.R.C.P. Edin., Coroner for New South Wales generally, has been appointed one of the Medical Officers to the Berrima District Cottage Hospital, Bowral, New South Wales, Australia.

WRIGHT, HENRY, L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Gainsborough Rural District.

YOUNG, W., M.D. Dur., C.M., L.S.A.Lond., has been appointed Medical Officer of Norton.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BRADFORD INFIRMARY AND DISPENSARY.—House Physician. Salary £100 per annum with board.

BURTON-ON-TRENT INFIRMARY.—House Surgeon. Salary £130 per annum with a prospect of increase, and rooms in the infirmary free, also coals and gas.

CLAYTON HOSPITAL AND GENERAL DISPENSARY, Wakefield.—House Surgeon. Salary £120 per annum, with residence at the hospital, attendance, coals and gas.

DORSET COUNTY ASYLUM.—Assistant Medical Officer. Salary £120 per annum, with board and residence.

FLINTSHIRE DISPENSARY, Bagillt-street, Holywell.—House Surgeon. Salary £100 per annum, with furnished house, rent and taxes free, with a prospect of £20 increase after twelve months; also coal, light, water, and cleaning, or in lieu thereof the sum of £20 per annum.

GENERAL HOSPITAL, Birmingham.—Assistant Physician, for three years. Honorarium £100 per annum.

GENERAL INFIRMARY AT LEEDS.—Resident Obstetric Officer. House Physician. House Surgeon. These appointments for twelve months.

HANTS COUNTY ASYLUM, Knowle, Fareham.—Junior Assistant Medical Officer. Salary £100 per annum, with furnished apartments, board, washing, and attendance.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—Resident Medical Officer as House Surgeon, for one year. Salary £50 per annum, with board and residence in the hospital.

HOSPITAL FOR WOMEN.—London School of Gynæcology, Soho-square, W.—Clinical Assistants in both Out-patient and In-patient Departments.

JOINT COUNTIES ASYLUM, Carmarthen.—Junior Assistant Medical Officer. Salary £100 per annum, with board, lodging, washing, and attendance.

LANCASHIRE COUNTY ASYLUM, Rainhill, near Liverpool.—Assistant Medical Officer. Salary commencing at £105 per annum, with furnished apartments, board, attendance, and washing.

LIVERPOOL DISPENSARY, 34, Moorfields, Liverpool.—Two Assistant Surgeons. Salary £80 per annum each, together with apartments, board, and attendance.

LIVERPOOL INFIRMARY FOR CHILDREN, Myrtle-street.—House Surgeon. Salary £85 per annum, with board and lodging.

LIVERPOOL ROYAL INFIRMARY.—Honorary Surgeon.

NORTH-WEST LONDON HOSPITAL, Kentish-town-road.—Senior Resident Medical Officer. In the event of the Assistant Medical Officer being appointed to the senior post, candidates should state if they will take the Junior appointment.

OWENS COLLEGE, Manchester.—Junior Demonstrator in Physiology. Salary £100 per annum.

PARISH OF EDAY, Orkney, to Inspector of Poor.—Resident Medical Officer. Salary £70 a year and practice.

PUBLIC DISPENSARY, 59, Stanhope-street, Clare-market.—Resident Medical Officer. Salary £105 per annum, with furnished apartments, coals, and gas.

SHEFFIELD GENERAL INFIRMARY.—House Surgeon. Salary £120 per annum, with board, lodging, and washing, with a prospective advance of £10 per year for the second and third years. Also Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing. These appointments to continue for three years only.

ST. MARY'S HOSPITAL, Quay-street, Manchester.—House Surgeon and Resident Obstetric Assistant Surgeon Salary £120 per annum, with board and residence.

THE COUNTIES ASYLUM, Carlisle.—Junior Assistant Medical Officer. Salary £80 with board.

WOLVERHAMPON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—House Surgeon. Salary £100 a year, with board, lodging, and washing.

Births, Marriages, and Deaths.

BIRTHS.

BOTTRELL.—On Aug. 25th, at Villa Rica, Paraguay, the wife of J. F. H. Bottrell, M.R.C.S.E., of a daughter.

BOUCHER.—On Oct. 3rd, the wife of Arthur H. Boucher, M.D., Hertford, of a son.

GEOGHEGAN.—On Oct. 4th, at Shooter's-hill-road, Blackheath, the wife of Surgeon Alfred Geoghegan, Medical Staff, of a daughter.

MARTIN.—On Oct. 7th, at 10, Mansfield-street, Cavendish-square, W., the wife of Sidney Martin, M.D.Lond., M.R.C.P., of a daughter.

MCCONNELL.—On Sept. 13th, at Wood-street, Calcutta, the wife of Surgeon-Major J. F. P. McConnell, M.D., F.R.C.P., of a daughter.

STEVENS.—On Oct. 4th, at High-street, Stoke Newington, N., the wife of A. Felix Stevens, M.D., of a daughter.

MARRIAGES.

BENCRAFT—PERKINS.—On Oct. 8th, at Highfield Church, Southampton Henry William Russell Bencraft, M.R.C.S., of Anglesea-place, Southampton, to Kate Margaret, second daughter of Walter Perkins, of Postwood House, Southampton.

CARTER—RIACH.—On Sept. 21st, by licence, at St. Peter's, Streatham-hill, William J. B. Carter, M.R.C.S. Eng., L.R.C.P. Lond., to Gwendolyne Brae Riach.

COCKBURN—LAW.—On Oct. 1st, at Christ Church, Lancaster-gate, Surgeon-General R. Cockburn, Bengal Army (retired), to Mary Louisa, widow of the late Lieut.-Col. E. A. Law, Royal Dublin Fusiliers, and daughter of the late C. A. Anstey.

COPELAND—HUMPHRIES.—On Oct. 8th, at Rathmichael Church, Shankill, co. Dublin, W. H. Lawrence Copeland, B.A., M.B.Cantab., of Philbeach-gardens, Earl's-court, S.W., only son of the late W. H. Copeland, J.P., Anglesea, to Zoe Jane, eldest daughter of the late Walter Humphries, M.D., Mona, Shankill.

DAVY—CUTCLIFFE.—On Oct. 8th, at Witheridge, Richard Davy, Surgeon to the Westminster Hospital, to Edith, third surviving daughter of George Cutcliffe, Esq., J.P., of Coombe House, Witheridge, North Devon.

FERGUSON—WATSON.—On Oct. 9th, at Charlotte-square, Edinburgh, by the Rev. Charles Watson, D.D., Free Church, Largs, uncle of the bride, James Haig Ferguson, M.B., C.M., F.R.C.P., of Rutland-street, Edinburgh, to Penelope Gordon, elder daughter of Patrick Heron Watson, LL.D., M.D., F.R.C.S.E. and I., Surgeon-in-Ordinary to the Queen in Scotland.

HART—RAWSTHORN.—On Sept. 25th, at Christ Church, Bolton, by the Rev. H. W. Reynolds, B.A., Vicar, George Hart., M.R.C.S. Eng., eldest son of Mr. James Hart, Pharmaceutical Chemist, to Mary (Polly), eldest surviving daughter of the late Mr. William Rawsthorn, of Bolton, Lancs.

LENDON—RYMILL.—On Aug. 26th, at St. Paul's Church, Adelaide, S.A., Alfred Austin Lendon, M.D. Lond., of North-terrace, fifth son of Edwin Lendon, formerly of Maidstone, to Lucy Isabel, younger daughter of Henry Rymill, J.P., of The Firs, East-terrace, Adelaide.

MARSHALL—DONALD.—On Sept. 25th, at St. Mary's, Bathwick, Bath, Arthur Lumsden Marshall, B.A., B.M. Cantab., fourth son of Major-General Marshall, late of the Royal Bengal Artillery, to Margaret Minnie Helen, youngest daughter of the late John Donald, Deputy Inspector-General of Military Hospitals, and granddaughter of the late Major H. B. Adams, Paymaster the Recruiting District, Dublin.

MILWARD—PLUMRIDGE.—On Sept. 26th, Surgeon Edwin Oswald Milward, Army Medical Staff, son of the late John Hartnell Milward, Esq., Ennis, Ireland, to Enid, youngest daughter of the late Admiral Sir James Hanway Plumridge, K.C.B.

STEPHENS—CRIPPS.—On Oct. 2nd, at St. Anne's, Eastbourne, Harold Frederick Dale Stephens, M.B., R.N., of H.M.S. Pembroke, eldest son of E. B. Stephens, Esq., The Lindens, Doddington, Cambridgeshire, to Agnes Grace, youngest daughter of Lieut.-General J. M. Cripps, B.S.C., of Elmcote, Eastbourne.

WATSON—HOLDEN.—On Oct. 8th, at St. Mary's Church, South Luffenham, Rutland, by the Rev. P. G. Dennis, B.D., Rector of North Luffenham, and the Rev. C. O. Watson, M.A., Rector of Morcott, brother of the bridegroom, Deputy Surgeon-General George Alder Watson, Bengal Army (retired), to Beatrice Blandina, daughter of the Rev. Henry Holden, D.D., Rector of South Luffenham, Hon. Canon, Durham Cathedral.

DEATHS.

DICKINSON.—On Oct. 2nd, at Pailton, near Rugby, George Murray Dickinson, Surgeon, aged 73.

FARIS.—On Oct. 1st, at the residence of his brother-in-law, North Great George's-street, Dublin, Surgeon-Major Thomas Faris, Army Medical Department, War Office, London, only son of the late Rev. Francis Faris, Vicar of Donard, County Wicklow, in his 44th year.

HEWLETT.—On Oct. 8th, suddenly, Thomas G. Hewlett, M.R.C.S., of Fairlawn House, Bedford, formerly Deputy Surgeon-General, Bombay Army, aged 57.

KYNOCH.—On Oct. 4th, at Invergordon, Ross-shire, N.B., Robert Keith Kynoch, M.R.C.S. Eng.

TIMES.—On Oct. 8th, at his residence, Manchester-street, Manchester-square, Henry Gorsuch Times, M.R.C.S. & L.M., in his 73rd year.

VOGAN.—On Oct. 5th, at his residence, Ipswich, James Norman Vogan, F.R.C.S. Eng., in his 37th year. Friends will please accept this the only intimation.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, October 10th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Oct. 4	29·45	N.W.	50	49	80	54	46	·29	Foggy
,, 5	29·65	S.W.	51	49	92	59	44	·25	Cloudy
,, 6	29·90	W.	52	49	75	59	48	·06	Fine
,, 7	29·30	S.W.	57	53	95	60	51	·16	Fine
,, 8	29·58	S.W.	49	46	97	61	45	..	Fine
,, 9	29·22	S.W.	50	47	92	58	45	·15	Cloudy
,, 10	29·32	S.W.	48	47	95	61	44	·05	Foggy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

MALCOLM MORRIS INDEMNITY FUND.—FINAL LIST.

THE following additional subscriptions to the above fund have been received:—

Amount previously acknowledged	£466	8	0
Henry C. Burdett, Esq.	5	5	0
Dr. Brodie	3	3	0
Dr. Wharton Hood	3	3	0
Dr. Champneys	2	2	0
Dr. Robert Liveing	1	1	0
Dr. Goodhart	1	1	0
Dr. E. J. Nix	1	1	0
Colonel Stanley Bird	£1	1	0
Surgeon C. C. Manifold	1	1	0
Dr. Marcus Allen (Brighton)	1	1	0
F. O. Lovell, Esq.	1	1	0
D. B. Balding, Esq. (Royston)	0	10	6
Total	£487	18	6

Gentlemen who have promised subscriptions, but have not yet sent them, are requested to forward them to Mr. G. P. Field, 34, Wimpole-street, or to Dr. Sidney Phillips, 21, Upper Berkeley-street, W.

Mr. Thomas Tyler, M.A.—An organisation of the medical graduates into a separate Medical Council with any executive power would not meet the present difficulty.

Dr. Stanley Haynes.—Our correspondent's letter arrived too late for the correction to be made.

ALBUMINURIA.

To the Editors of THE LANCET.

SIRS,—I did not have an opportunity of perusing the discussion on albuminuria at the meeting of the British Medical Association at Leeds, as reported in THE LANCET of Aug. 24th, until a few days since. It appears to me the gist of it is to be found in Dr. Graves' remarks on Bright's disease in his Clinical Lectures, published more than forty years ago, and heard by me, then one of his pupils, as he delivered them several years previously. Dr. Pavy, at the above meeting, said that "albuminuria is now admitted to exist as a functional aberration, as well as associated with structural disease," apparently unmindful of the fact that Dr. Graves showed from various cases that an albuminous state of urine may depend on mere functional disease of the kidney, and that we may have Bright's kidney with albuminous urine, and *vice versâ* (Clinical Lectures, vol. ii., page 268). Dr. Pavy also observed that the above discussion was evidence of a "new departure." If that be so, Dr. Graves "departed" by the "new" road more than fifty years ago.

I am, Sirs, yours faithfully,

Oct. 8th, 1889. A PUPIL OF THE LATE DR. GRAVES.

MEDICAL PRACTICE IN SOUTH AFRICA.

To the Editors of THE LANCET.

SIRS,—My opponent is an unqualified practitioner who was formerly a sailor and deserted from his ship. Afterwards he became in turn a police constable and a butcher. He was attending a child who died yesterday. He is now making its coffin.—Yours truly,

Orange Free State, Sept. 13th, 1889. M.R.C.S., L.R.C.P.Lond.

RECRUITING DUTY IN RUSSIA.

DR. KILDINZHEVSKI, writing in a military medical journal of various local circumstances in connexion with recruiting commissions in Russia, complains that the official instructions for the accommodation of the examining medical officer are frequently not properly carried out. Instead of a light, warm, spacious compartment, the room, especially in villages, is small, low, damp, often extremely cold, and as often overheated, and, as the secretaries work in the same room quiet and silence are unattainable. Under such circumstances, and as the medical officer has to work from 8 A.M. until 4 P.M., a proper examination is hardly possible. The necessary instruments for such examination are wanting, too, such as an aural speculum and tables for the examination of sight, and even clean towels and water are often not to be obtained.

Mr. G. T. Sandiford.—British practitioners are generally excused attending the curriculum for the M.D. of Paris, and are usually excused some of the six somewhat severe examinations required of ordinary students. Special application must be made to the Minister of Public Instruction, who judges each application on its merits, and informs the applicant what examinations he will be required to pass. The fees amount to £50. The *Programme des Conditions d'Admission aux Écoles de Médecine* (Delalain Frères, 56, Rue des Écoles, Paris) can be obtained for a small sum. If the object be to obtain a licence to practise, there is a much simpler diploma—that of *officier de santé*—which will answer the purpose; but it must be obtained in the locality in which it is proposed to practise. Of course, the French language is essential for either diploma. The Brussels M.D. can be obtained without any knowledge of French. Further information can be obtained from the Students' Number of THE LANCET, 1889.

Dr. W. Henry Williams.—The qualification mentioned does not give the right to the title of Doctor.

An Invalid.—We think Florence is to be preferred to Rome.

BRITISH QUALIFICATIONS ABROAD.

To the Editors of THE LANCET.

SIRS,—Having read an article in THE LANCET of Sept. 7th, 1889, upon the effect of British registration in the colonies and abroad, as regards the privileges for medical practice afforded thereby, I wish to direct your attention to the misleading character of your assertions as regards Ontario. While it is true that the Medical Council of Ontario were compelled, previous to the passing of the Imperial Medical Act of 1886, to register legally qualified British practitioners, yet since the passing of that Act, and the insertion of the words "subject to any local law" in Section 6, relating to the privileges of registered persons, they have not been so compelled. Section 23 of the Ontario Medical Act declares that it shall be optional for the Council to admit to registration all such as are duly registered in the Medical Register of Great Britain and Ireland on such terms as the Council may deem expedient. As a result of this Act, the Ontario Medical Council will register only such as pass the Final Examination of the College of Physicians and Surgeons of Ontario, and pay all the fees, amounting to $100. I am myself a graduate in Medicine and Surgery of the University of Aberdeen, registered May 4th, 1888, and upon coming to Toronto to practise was, to my intense surprise and disgust, compelled to undergo the Ontario College of Physicians and Surgeons Examination before being allowed to register in this province. To prevent other unfortunates sharing the same fate unknowingly, I would ask you to give this publicity in an early issue of your journal.

I am, Sirs, yours truly,

Toronto, Ontario, Canada. AUSTIN D. ELLIS.

ANTIPYRIN IN PUERPERAL PYREXIA AND SUPPRESSION OF URINE.

To the Editors of THE LANCET.

SIRS,—The following notes of a case may be of interest to your readers.

Mrs. C——, aged nineteen, primipara, a well-developed and healthy young woman, was delivered of a fine child at 2 P.M., after three hours' labour from first stage to third. Whiffs of chloroform were given. Next morning she seemed very nicely, but had not passed urine. At 5 P.M. she looked flushed and restless. Temperature, 100°. No urine passed. I then administered twelve grains of antipyrin, and two hours later found that the patient had passed urine. She was quite comfortable; temperature normal. She made an uninterrupted and rapid recovery.

I am, Sirs, yours faithfully,

Hornby, Sept. 30th, 1889. IAN D. MACKAY, B.A., M.B., C.M.

CYCLING.

To the Editors of THE LANCET.

SIRS,—Would some of your readers kindly suggest the evils that may arise from steady pressure on the perineum as from a bicycle saddle? Cyclists all look on such pressure as an evil, but I am unable to hear of any case of injury arising therefrom.—Yours faithfully,

Taverham, Norwich, Oct. 6th, 1889. J. A. WARING, M.B. Oxon.

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MEDICAL SERVICE AT THE LEEWARD ISLES.

To the Editors of THE LANCET.

SIRS,—There are two or three vacancies in the medical service of the Leeward Islands, and, as the Crown agents for the colony are probably endeavouring to obtain men to fill these appointments, I think the following facts should be made known to intending candidates.

The pay ranges from £200 to £250; the fees (vaccination, &c.) average £20. There is no pension, no "free quarters," no increase of pay with length of service; an officer on leave of absence goes on half-pay. House rent is high, living is expensive and unsatisfactory, the climate trying and uncomfortable for Europeans; and as for the work, it is simply heartbreaking—the lowest of low practice among the lowest of low Irish is nothing to it. Hitherto the medical officer has looked to his private practice for a means of living, and the very few leading practices in the colony are fairly respectable as to income. But all this is to be altered; the doctors appointed after this are to be transferred to any part of the colony as may seem fit and proper to the governor; the meaning of this is that His Excellency may, by a stroke of his pen, practically ruin a man who has a decent practice and has incurred his displeasure. These islands may be healthy, but they certainly are not so for doctors. The number of medical appointments in the colony is twenty-four, the average filled being twenty-two. Now during the last fifteen years at least sixteen medical officers have died, six have permanently left on account of ill-health, five or six have left for other colonies, and two have been dismissed the service after having been tried for manslaughter and acquitted. The bulk of the good practices are in the hands of colony-born men, and any young fellow coming out would be relegated to a country district, where the society and the chances of making a decent income are very small.

I am, Sirs, yours faithfully,

Sept. 16th, 1889. SENEX.

SULPHONAL.

To the Editors of THE LANCET.

SIRS,—Sulphonal has been lately extolled as a pure hypnotic causing a natural sleep, without any ill-effect or unpleasant sequela. I have now used it in about thirty cases, and find that it certainly has the power of causing sleep, but sleep of a character that can hardly be called natural, since the patients on awaking all more or less complain of a tired feeling, and so marked was this in two cases that the patients were scarcely able to lift their hands from the bed. Another effect I observed in three cases was a dilatation of the pupil and a marked sluggishness about its reaction to light and accommodation, and control doses proved that this was due to the drug. I have generally given it alone, and not in combination, in doses varying from ten to thirty grains, but prefer now to give eight grains twice in an interval of one hour. In combination with codeia, I find it extremely useful after labour, when there is sleeplessness and considerable after-pain.

I am, Sirs, yours faithfully,

Oct. 7th, 1889. C. W. HOGARTH, M.R.C.S., L.R.C.P.L.

THE HYPNOTIC SOCIETY.

To the Editors of THE LANCET.

SIRS,—I have recently received, in common probably with many other members of the profession, the prospectus of a newly formed Hypnotic Society, and as I take great interest in the scientific development of medical hypnotism, and am to a certain extent identified with its practice, perhaps you will allow me a few words.

The existing medical societies and journals afford full opportunities for its discussion, and experiments outside the profession with such a double-edged instrument as hypnotism are as useless as they are objectionable. I imagine few English medical men will be tempted to join such a society, and I believe that its foreign members are ignorant of the state of professional feeling in this country.

I am, Sirs, your obedient servant,

London, Oct. 8th, 1889. CHAS. LLOYD TUCKEY, M.D. Aberd.

RETIREMENT OF IRISH HOSPITAL PHYSICIANS AND SURGEONS.

To the Editors of THE LANCET.

SIRS,—Referring to your remarks last week on the rule in England of compulsory retirement of hospital physicians and surgeons, I may point out that no such rules exist in the Dublin hospitals; and, as a consequence, one finds old men in Dublin, many of them retired from active practice, still on the visiting staff of hospitals. As a result of this system, no young man in Dublin can hope to get on to the staff of a hospital unless a death vacancy occurs. I may instance the "Adelaide," "Steevens," and the "Meath" as at present the worst offenders in this respect. I am sure that most young Irish medical men will agree with me that it is time that some steps were taken to enforce compulsory retirement in Dublin hospitals.—Yours truly,

Oct. 8th, 1889. M.B.

COCAINE IN WHOOPING-COUGH.

To the Editors of THE LANCET.

SIRS,—I should like to take the liberty, through your columns, of asking if any of your numerous readers have tried the effects of cocaine in whooping-cough, and how administered—whether internally, or by inhalation. If the latter, in what form?

I am, Sirs, yours faithfully,

Church, Oct. 2nd, 1889. J. DEARDEN, M.D.

"WARNING TO HOSPITAL VISITORS."

To the Editors of THE LANCET.

SIRS,—The annotation in THE LANCET of the 21st ult., headed as above, recalls a similar case of fatal perforation that occurred here some years ago.

A young gentleman of great bodily strength and vigour was admitted on July 13th, 1881, suffering from *mania à potu*. The mental disease proved of short duration, and he became a voluntary patient on Dec. 17th. In July, 1882, he succumbed to a severe attack of typhoid, from which he was making a good recovery when his mother, who had come here to aid in nursing him, gave him a cupful of Irish moss jelly, which in a few hours was followed by great abdominal pain, collapse, and death. The patient had been most solicitous for food, and his mother was particularly cautioned not to depart from the diet prescribed. She, however, could not withstand his pleadings for solid food, and smuggled a cupful of jelly into the hospital. In the temporary absence of the attendant from his room, the patient eagerly swallowed the whole quantity, and with a fatal result.

In this case the most precise directions and cautions were deliberately and secretly disregarded by a lady of education and apparent sense. The sequel, however, was required to prove to her the danger of evading the regulations of the asylum and the rule of the physician.

The slip enclosed shows how we seek to enforce on the attention of visitors the usual caution as to gifts to patients.—Yours truly,

A. R. URQUHART, M.D.

James Murray's Royal Asylum, Perth, Oct. 3rd, 1889.

DENTITION IN UTERO.

To the Editors of THE LANCET.

SIRS,—It may interest the writers of letters in THE LANCET under the above heading to know that when I was a student at St. Thomas's Hospital I attended a woman in her confinement; the baby, to the surprise of all, had two incisor teeth well developed. I advised that the little one should be named "Richard," and I believe it was so called. The facts were noted at the time, and reported to the obstetric physicians, and are on record somewhere.

I am, Sirs, your obedient servant,

JAMES HENRY CLARK,

Sept. 9th, 1889. Government Medical Service, Jamaica.

Mr. L. H. Ruegg.—The only satisfactory claim to the title of "Doctor" on the part of a medical man is the possession of the degree of Doctor of Medicine from a university. The title can be given by anyone to a medical man with other qualifications as a matter of courtesy; but its proper use is that which we have indicated.

J. C.—Our Students' Number will give the information.

F.R.C.S. has not enclosed his card.

A. S. A.—We think a union would come within the meaning of the term "public body," whereas a mine or works of a similar kind would not.

COMMUNICATIONS, LETTERS, &c., have been received from — Dr. W. Robertson, Newcastle-on-Tyne; Dr. Maguire, London; Dr. Tyson, Folkestone; Mr. C. Plant, Dalton-in-Furness; Messrs. Bennett and Co., Manchester; Mr. H. H. Taylor, London; Dr. Bassano, Marseilles; Mr. M. Culpin, London; Dr. Drzewiecki, Warsaw; Messrs. Back and Co.; Dr. Urquhart, Perth; Dr. Campbell Pope, London; Mr. Bilton Pollard, London; Mr. J. McMunn, Dublin; Mr. Hogarth; Dr. Lloyd Tuckey, London; Mr. C. S. Jeaffreson, Newcastle-on-Tyne; Mr. L. Mark, London; Mr. Ruegg, Sherborne; Mr. Butterworth; Mr. T. H. Gough, Wolverhampton; Dr. Downie, Glasgow; Messrs. Davis and Co., Belfast; Mr. Field, London; Mr. Gubb, London; Dr. Alston, Sandgate; Dr. Warning, Taverham; Dr. Hardwicke, Dovercourt; Dr. H. H. Fisher, Kettering; Dr. Grimshaw, Dublin; Dr. Stanley Haynes, Malvern; Dr. G F. Crooke, Birmingham; Messrs. Kemp and Co., Bombay; Dr. Mayne, Longford; Mr. W. H. Jones, Bury St. Edmunds; Dr. Mallins, Watton; Mr. Barton, London; Dr. John Williams, London; Dr. L. W. Marshall, Nottingham; Dr. Theodore Williams, London; Dr. A. D. Ellis, Toronto; Mr. R. Walker, Aberdeen; Dr. R. Lamond, Glasgow; Mr. C. Hansen, London; Mr. Roxby Walthamstow; Dr. Middleton, Glasgow Mr. Shelswell, Mitcham; Mr. C. G. Wheelhouse, Lee ; Mr. Morton, Sleaford; Mrs. Blissett, Sussex; Mr. Collingridge, London; Mr. Gadd, Lincoln; Mr. Allen, Sheffield; Dr. Campbell, Carlisle; Mr. Walker, Belfast; Mr. Cahill, Brighton; Mr. Huberty, Brighton; Messrs. Willows and Co., High Holborn; Mr. Browning, Manchester; Mr. Callard; Messrs. Richards and Co., Calcutta; Mr. Brittain, Ventnor, I.W.; Messrs. Harrison and Brass, Elgin; Mr. Kempton, Marylebone-road; Messrs. Rankin and Sons, Glasgow; Dr. Hubbersty, Stamford; Mr. McLaren, West Kensington; Mrs. Coppin, Notting-hill; Messrs. Merryweather and Sons, London; Mr. Moore, Liverpool; Mr. Killow; Messrs. Farwig and Co., London; Mr. Walters, Carmarthen; Messrs. Maclehose and Sons, Glasgow; Mr. Johnson, Shrewsbury; Messrs. Stern, London; Mr. Jeanne, Hornsey; Mr. Palmer, Stroud; Messrs. Smith, Elder, and Co., London; Dr. J. W. Martin, Sheffield; Mr. Chittenden, Tunbridge Wells; Dr. Irvant, Seattle; Mr. Reed, Carmarthen; Messrs. Dean Bros., Derby; Dr. J. I. Parsons, London; Dr. F. W. Gibbon, South Shields; Mr. White, Chicago; Dr. Blackburn, Portsmouth; Dr. Josiah

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LETTERS, *each with enclosure*, are also acknowledged from—Mr. Tully, Hastings; Mr. Crossley, Lincoln; Mr. Hart, Wansford; Dr. Moore, Berks; Mr. Greville, Stockton-on-Tees; Messrs. Mottershead and Co., Manchester; Mr. Maclachlan, Upton-park; Messrs. Hewlett and Son, London; Mr. Bobrowinck, Manchester; Messrs. Maw, Son, and Co., London; Dr. Smyth, Hartlepool; Dr. Evans; Messrs. Purdon and Stokes, Birmingham; Mr. Howard, Hitchin; Messrs. Essinger and Co., Hatton-garden; Mr. Pearcey, Taunton; Mr. Owen, North Wales; Dr. Dunn, Preston; Mr. Martin, London; Miss Pink, South Devon; Mr. Weekes, Chatham; Mr. Gabe; Miss Soden, Tunbridge Wells; Mr. Thomson, Boulton; Mr. Hamilton, Yorks; Messrs. Lee and Martin, Birmingham; Mr. Morton, Wingham; Messrs. Bead and Son, Kirkwall; Dr. McClure, London; Messrs. Maclachlan and Co., Edinburgh; Mr. Crassweller, Highbury; Messrs. Wertheimer and Co., London; Mr. Lairman, Biggleswade; Mrs. Semple, Bury St. Edmunds; Mr. Ungent, Cookstown; Mr. Purlands; Messrs. Brady and Martin, Newcastle-on-Tyne; Mr. Hastings, Sidmouth; Dr. Owen, Beaumaris; Mr. Birchall, Liverpool; Mr. Heywood, Manchester; Dr. Bentley, Hyde-park; Mr. Smith, Monmouth; Messrs. Ormrod and Dudgeon, Workington; Mr. Garrett, Boscombe; Messrs. Krohne and Sesemann, London; Mr. Beattie, Omagh; Messrs. Fenwick and Chinery, London; Mr. Lawrence, Dorset; Mr. Whetstone, Liverpool; Mr. Ruck, Ealing; Mr. Davies, Ystrad; Mr. Hunt, Cosham; Mr. Capel, London; Mr. Eschwege, London; Mr. Allsworth; Mr. Mackay, Sheffield; Mr. Walker, Belfast; Mr. Johnston, Aberdeen; Dr. Twynam, Strand; Deputy Surgeon-General Watson, London; Mr. Wakefield, Norton; Mr. Strudwick, London; Dr. Sharkey, London; Mr. Clogg, Bolton; Mr. Murchison, Ross-shire; Dr. Ferrar, Cheshire; J. C. F., Market Drayton; Dispenser, London; Dawn, London; A. B., London; Secretary, Royal Bucks Hospital; Dr. R., Kidsgrove; Albus, King's Lynn; K., Fleet-street; Phenol, London; L. C. M., London; Spero Meliora, London; H. A., London; Beta, London; Secretary, Derby Infirmary; J. W. D., London; Nucleus, London; Secretary, Swansea Hospital; Secretary, Brighton &c. Dispensary; J. Q.; Hon. Lady Superintendent, Nurses' Institute, Bedford; Health, London; Hon. Secretary, Newport; Embolus, London; Junior, Shrewsbury; V. W., London; Medicus, co. Durham; Medicus, London; C. M., Edinburgh; Midlands, London; W. S., Surgeon, London; Allan, London; Irving, London; Ulster Scot, London; C., London; W. R., London.

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Medical Diary for the ensuing Week.

Monday, October 14.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

Tuesday, October 15.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

Wednesday, October 16.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, October 17.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Dr. D. B. Lees: The Treatment of Pneumonia by the Ice Bag.
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Address by the President (Dr. J. Hughlings Jackson, F.R.S.).—Mr. Robert W. Doyne: Case of Recovery from Hemianopsia, and subsequent Autopsy.—Mr. W. E. Cant: Case of Keratitis from Paralysis of Fifth Nerve after Injury. Dr. Reid: Trochoma, its Pathology and Relations. Living Specimens at 8 P.M.:—Mr. Lang: Two cases of Congenital Coloboma of the Iris.—Mr. Poulett Wells: Peculiar Retinal Detachment.—Mr. Quarry Silcock: (1) Exostosis of Frontal Sinus; (2) Double Proptosis, (?) Modified Graves's Disease.

Friday, October 18.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF PHYSICIANS.—4 P.M. Dr. James E. Pollock will deliver the Harveian Oration.

Saturday, October 19.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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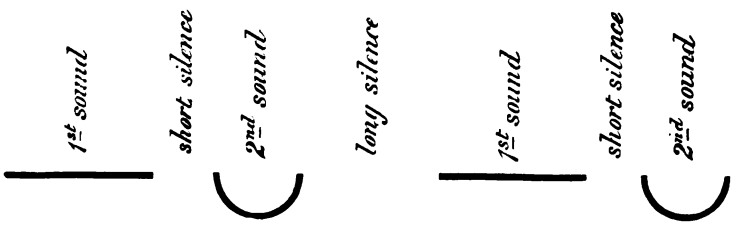
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Lecture
ON THE
SO-CALLED PRESYSTOLIC MURMUR.

By W. HOWSHIP DICKINSON, M.D.,
HONORARY FELLOW OF CAIUS COLLEGE, CAMBRIDGE; SENIOR PHYSICIAN AND LECTURER ON MEDICINE, ST. GEORGE'S HOSPITAL; PRESIDENT OF THE PATHOLOGICAL SOCIETY.

GENTLEMEN,—You have probably noticed of late years occasional expressions of difference of opinion with regard to a cardiac murmur which some call presystolic, while others, who equally recognise it, hold that this term is erroneously applied to it. That the murmur is presystolic is for the present the view of the orthodox—a view which, while it is eminently respectable in its associations, is yet not antiquated, for it carries with it a reminiscence of recency as of something which was formerly new; and while it has the comfortable warrant of an accepted belief, is yet further pleasing as a discovery which belongs to the time of modern enlightenment. The murmur is one of the most characteristic which the diseased heart can produce. In common phrase, it "runs up to the first sound." I say it "runs up to the latter part of the first sound." It begins softly at the end of the silence which follows the second sound, increases in volume as it goes on, and terminates abruptly with a sharp short noise, like a knock or snap, which concludes the systole. The natural sounds of the heart may be, as you have often heard me say, represented by a trochee, with a short pause between each syllable, and a long pause between each foot. (Diagram 1.)

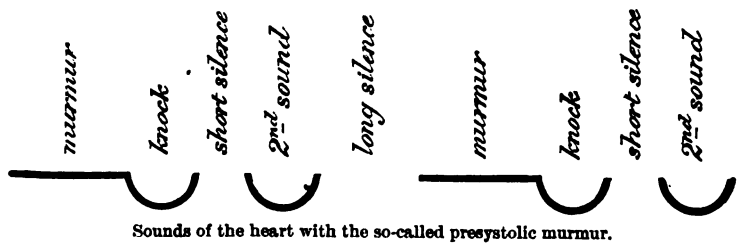
DIAGRAM 1.



Sounds of the heart in health.

When the so-called presystolic murmur is present, the trochee becomes a dactyl, with the first short joined to the long, the second short following after a brief interval. The normal first sound is replaced by two sounds, which are distinct from each other, though separated by no interval: the first is a murmur, a noise of moving liquid; the second conveys the idea of arrest, and the use of such words as "knock," "slap," "snap." The combination of sounds and murmurs would now appear thus (as in Diagram 2).

DIAGRAM 2.



Sounds of the heart with the so-called presystolic murmur.

Let me warn you at starting against a misunderstanding which I have often had to correct. The modified first sound is so much like the second sound in character that I have many a time known the second to be described as a reduplication. Ordinarily there is no reduplication, but two independent sounds, one of which is mitral and systolic, the other aortic and diastolic. One has its maximum at the apex, the other at the base. Let us consider first what this knock or snap is, and what the heart is doing when it occurs. The snap ends the first sound; as to this there is no difference of opinion, though some would say it begins it too. After it comes the brief silence, which is succeeded by the second sound. The snap is generally synchronous with the carotid pulse, or, in other words, has the time of the latter part of the systole, to which the carotid pulse belongs. But more of this anon. Some would have it, indeed the presystolic theory implies, that the snap represents the whole systole; there is nothing before it but the murmur, and the murmur is presystolic. The murmur "runs up to it," as the phrase is. But not only is it beyond our comprehension that the whole of the expulsive action of the ventricle should be transacted within so short a space, but the relation to it of the carotid pulse shows that, when the noise in question is heard, the expulsive action is nearly over, is at least so far advanced that the blood has got into the neck. We cannot but infer that the ventricular contraction has been going on before the snap, which represents not the systole, but the end of the systole.

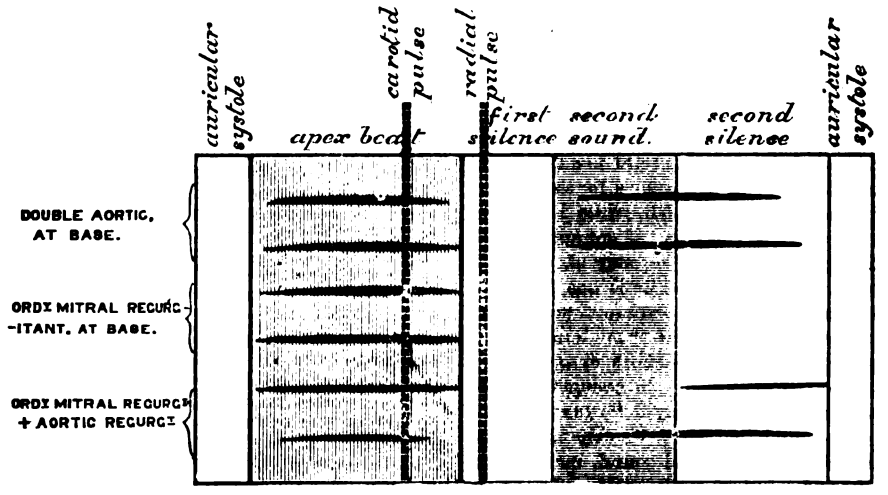
So much for the time of the sound in question. Now as to its origin. In quality it nearly resembles the normal second sound; but it is not this, for this comes after it and is separate from it. The character of the sound suggests that it is made, as is the aortic sound, by percussion. Its place associates it with the mitral valve, and its time at the end of the systole must be that of the closure of the mitral valve, if only that closure be a little delayed and be a little more abrupt than it should be. From clinical evidence, therefore, we should infer that mitral closure makes it, and this corresponds with what pathology shows. When this sound has been heard it is always found, as far as my observation has gone—I have carefully sought for exceptions without finding them—that the mitral flaps are thickened and the orifice contracted so that the valve is able to close, though from its stiffness it is to be presumed that the closure has been delayed, and to close in the manner of hard edges colliding rather than with the gradual yielding adaptation which belongs to the process in health. The mode of production of this sound is of obvious importance in relation to the nature of the murmur which precedes it. That it is due to mitral closure I think there can be no reasonable doubt. Dr. Kingston Fowler stated that he had recognised facets or marks of contact on the opposed sides of a contracted mitral valve in such a case. This to my mind is very important, for it proves the closure, and that by the evidence of an antagonist. And if the time of closure be the end of the systole, as it can scarcely fail to be, the precedent murmur must be within the systole. The closure is retarded by rigidity, as has been said, and may not occur until the sides of the ventricle have been approximated by nearly completed contraction. What, then, is this murmur which "runs up" to the snap? If I am right in placing the snap *at the end* of the ventricular systole, the murmur must be in its earlier part; and if we bring in the sense of touch we shall find that this is the case. The murmur begins with the first appreciable heaving of the apex, or an almost inestimable fraction of time before it, gathers force with it, lasts through the greater part of the impulse, and stops abruptly before its close, the termination being coincident with the snap and with a jar which is conveyed to the hand.

I have said that the murmur may possibly be perceptible just before the apex beat is. Theoretically this should often be so, be the murmur never so systolic; for it is conceivable that the systole should be detected at its very beginning by the sound of leakage, should a leak exist, whereas much must be done before the impulse can reach the finger. But as a matter of observation it is seldom possible to say that the murmur begins before the impulse or the impulse before the murmur; both seem to begin together, increase together, and stop together. Both begin softly and end suddenly in the slap or slam which ends the systole. The nature

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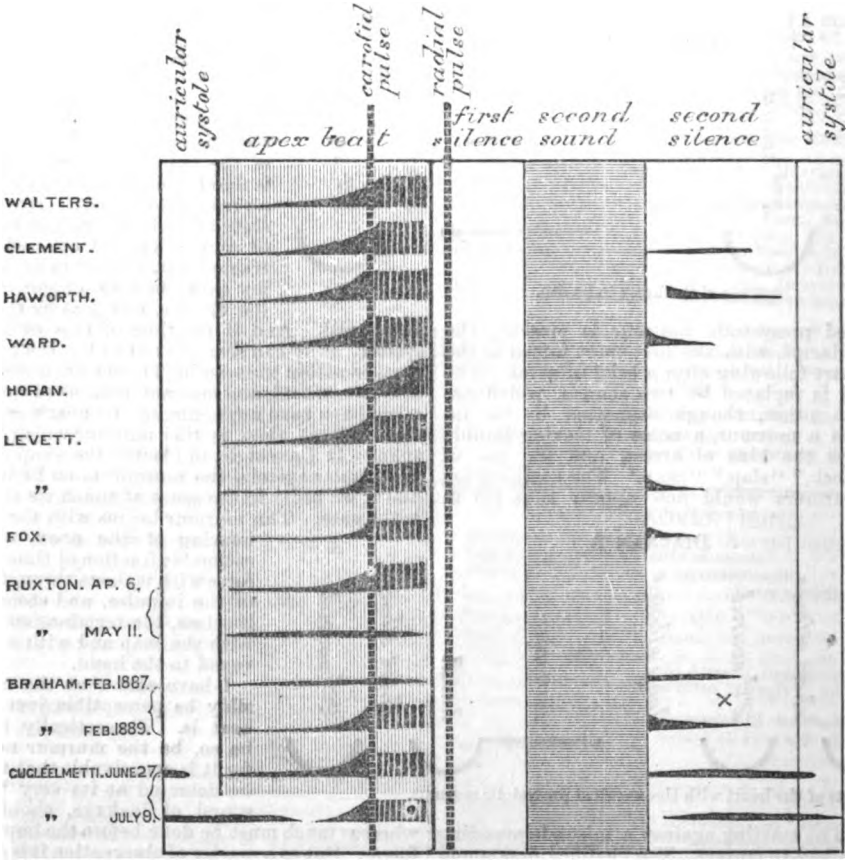
of the peculiar short sound which follows the murmur—the "knock," as I have called it—and its relation to the action of the heart are really at the bottom of the whole question. If the knock represents the systole, the murmur is presystolic. If the knock represents only the end of the systole, then the murmur is systolic. But the sound is one thing and the systole another. That the murmur "runs up to" the *systolic sound* none can question; but as to the *systolic act*, the murmur, I contend, does not run up to it, but arises in it, and runs almost through it. Let us consider what is the cause of the systolic sound. The muscular sound, the sound inherent to contracting muscle, has been

DIAGRAM 3.



Ordinary mitral and aortic murmurs, for comparison with next diagram. The ordinary mitral systolic are shown as going through the whole systole without abrupt stop. The aortic regurgitant begin sometimes within, sometimes immediately after, the second sound.

DIAGRAM 4.



"Presystolic" and diastolic mitral murmurs at apex in mitral stenosis. Murmurs are represented by a continuous horizontal mark, the knock by vertical lines. In many cases the so-called presystolic murmur is accompanied by a short diastolic or direct mitral, from which the presystolic is distinct. The two cases before the last show a not uncommon occurrence—a systolic murmur at one time, and a "presystolic" at another. In the latter phase of the last case the elongation of the diastolic murmur and the abbreviation of the "presystolic" prevented its fitting the table; it is therefore reproduced in the next diagram.

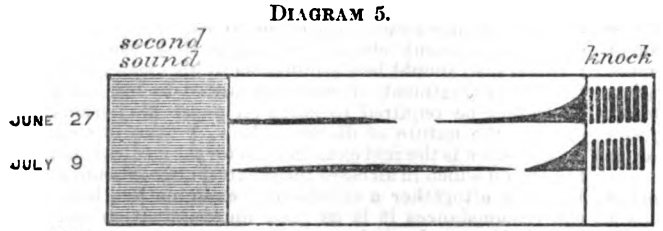
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talked of; but no physician practised in heart disease can doubt that the sound is made within its cavity, or hesitate to accept as its chief factors the impact of blood and the sudden traction of cords, and striking together of valves. I need not seek to enforce what is self-evident. The thicker and more powerful the cardiac muscle the less audible is the sound, the thinner the louder. When the mitral valve fails to shut, not only is there no noise due to its closure, but by the consequent leakage the tension within the ventricle is lessened, and with it any sound which may be due to it. If any proper ventricular note survives in this portion of the systole, it is concealed by the regurgitant murmur which is developed. And so nothing is heard of the first sound until the valve flaps have got together, the regurgitation and the murmur been arrested, and the short sharp sound emitted which represents delayed closure and exaggerated percussion. This is the sound to which the murmur "runs up." Much of the systolic act is before it, together with the murmur which this act comprises.

The association of the murmur with the movement of the heart is best defined by the unassisted, or rather embarrassed, ear. Take a thin person in whom the impulse is well marked, and who has a double mitral murmur, diastolic and so-called presystolic. Familiarise yourself by touch with the heaving of the systole and the jar of the knock which ends it. Then place the ear upon the skin, or with only a thin cloth between, at the point of impulse, and let touch and hearing consent until your mind follows to your satisfaction the alternations of the ventricle. If your senses give like evidence with mine, the "presystolic" murmur will go with the impulse, the diastolic with the absence of it, the two being as distinct, as different, and as alternate as systole and diastole.

I have made a habit, with particular reference to this question, of marking the time of murmurs on physiological diagrams presenting the successive phases of cardiac action, and annex some woodcuts taken from them. Some of the divisions, that, for example, indicating the auricular systole, are matters of physiological rather than clinical observation. The positions of the apex beat, of the second sound, and of the carotid beat are of clinical ascertainment, under the guidance of which, as landmarks, the murmurs have been charted. The position assigned to the so-called presystolic murmur with regard to the apex beat involves the essence of the controversy, and of course is open to dispute. I have endeavoured to record the evidence of touch and hearing, unbiased by any inferences which might seem to be suggested, and have, wherever practicable, corrected or confirmed my own observation by that of others. I place first, for comparison, diagrams of the ordinary mitral regurgitant murmur—that is, of the mitral murmur with an uncontracted valve, and of the aortic regurgitant murmur. (*Vide* Diagrams 3, 4, and 5.)

DIAGRAM 5.



The last case represented in Diagram 4 is perhaps better shown in this, which is differently arranged, giving the second sound and the knock as the only indications of the place of the murmurs. The variable position of the break between the murmurs and the apparently variable length of the systole made it impossible to fit this case into the preceding scheme.

I next indicate in the same way the position of the so-called presystolic murmur, the murmur which is so often found with mitral contraction and never without it. The diagram needs no explanation. The murmur commonly runs through the systole, as I have satisfied myself, about as far as the carotid beat, and then is abruptly replaced by the terminal knock. I have represented the murmur by the uninterrupted black mark, the knock after it by separate vertical lines. But the diagram in many cases shows a second murmur; this is a very little one, and is more often absent than present, though present more often than generally recognised; it follows the second sound—that is, it takes place while the ventricle is expanding and the auricle contracting and the current setting towards the ventricle. What is this? By its time it might be aortic regurgitation; but not by its position, for it is heard only in the mitral area. It is best heard, often heard only, as the patient lies, being lost, or nearly so, in the erect posture. In this also the murmur is unlike aortic regurgitant murmurs; like those which belong to a contracted mitral valve. Neither is it accompanied by the pulse of aortic regurgitation. This little murmur, though of late years nearly lost sight of, will nevertheless reveal itself to the attentive ear in a considerable proportion of cases of mitral stenosis. I think there can be no doubt that it is truly auriculo-ventricular. I would say that it is the only murmur which can be correctly so termed. It is the old direct mitral murmur made from auricle to ventricle through a much-contracted mitral orifice. It is totally different in time and tone from the so-called presystolic which begins after it has ceased, but not immediately after, and rumbles up to near the end of the ventricular systole. If this be a direct mitral murmur, as it certainly is, are we to believe that the so-called presystolic is another? Is the heart to have two direct mitral murmurs with an interval between them? "Mon Dieu! v' la deux." Are both genuine, or is one a delusion? If both are auriculo-ventricular, it is remarkable that they should differ in so many respects—one soft short, and distinctly diastolic; the other intense, prolonged, and closely related to the systole, whether wholly within it, as is the present contention, or only in inseparable contact with it, according to the creed of the presystolic apostles. According to this creed we are to believe that two separate and distinct murmurs may be emitted by the blood as it passes from auricle to ventricle; the current is continuous, but the sound interrupted. It has been sought to explain this discontinuity by supposing that the first murmur, the mitral diastolic, is produced by the flow of the blood from auricle to ventricle, from causes antecedent to the muscular effort of the auricle; the second, the so-called presystolic, by the muscular effort which comes at the end of the flow. But at any rate the two modes of proceeding must be connected; we cannot assume a dead stop between the two, yet this we must do if we are to presume that the two murmurs are made in the same course of transmission.[1] We further find it necessary to accept in connexion with the same mysterious heart the dogma that the blood may change its direction at a valve, stop and go back, and the murmur not lose its continuity or change its tone. This is a hard saying, but not too hard for those who believe in the presystolic murmur. Let me make my meaning clear. It is a common experience for the so-called presystolic murmur to be so mixed with what all agree to call the systolic that it is impossible to say where one ends and the other begins, or to make any separation between the two; the "presystolic runs into the systolic," and with this phrase we are to be content without thinking what it involves. It involves the belief that the blood may flow from auricle to ventricle and murmur as it goes, and that the ventricle may then change from relaxation to contraction, the valve alter its pose, and the blood reverse its direction, and yet there be no jar, hesitation, or loss of continuity in that persistent tune.

Important evidence, or what seems so to me, is to be found in the relation of the carotid pulse to the heart's sounds. The carotid pulse in health comes, as is well known, within the systole, but near its end. I have satisfied myself, by careful and repeated observation, in these "presystolic" cases, with finger on carotid and stethoscope on heart, that the pulse in this artery is, as a rule, syn-

[1] The nearest approach to continuity between the mitral diastolic and the so-called presystolic murmurs was in the case of an Italian woman named Guglielmetti (Diagrams 4 and 5), who generally furnished a typical example of the two murmurs with their usual separation and distinctness; but on one or two occasions the first murmur was so prolonged that there was scarcely any interval between it and the second. The first murmur began immediately after the second sound, the second climbed up to the knock in the usual way; the only break which on one occasion I could detect was near the end of the combination, where shown in the diagram. It was here, I presume, that the direction of the blood was reversed. The shortness and lateness of the interval were exceptional even in this case, the usual condition of which is also shown diagrammatically. I may add that there was no doubt as to the existence of mitral stenosis, and to my mind none that the first as well as the second murmur was mitral.

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chronous with the knock which concludes the murmur. Where the murmur has been unusually long I have sometimes thought the carotid beat to come just before the knock, so as to be within the murmur; but this is reckoning on small differences which may admit of doubt. Of this I am sure, there is no interval between the end of the murmur and the carotid pulse, this pulse becoming sensible to the finger usually at the same instant as the knock to the ear, the murmur equally "running up" to both. Now let us consider what this implies. The systole of the ventricle must go on nearly to its end before the thoracic vessels are filled and the blood lifted into the neck. Were the murmur presystolic—that is, did it depend on the passage of blood *into* the ventricle, not *out* of it—a considerable time must elapse between the murmur and the pulse for the transaction of the systole. But no such interval occurs; the murmur runs up without a halt to the carotid beat. Unless, therefore, the systole can be done up to the carotids in no time at all the murmur is systolic.

Two points in favour of the accepted presystolic theory are not to be ignored—the absence of the murmur from the scapular region and the thrill which accompanies it at the apex. A murmur in the stream from auricle to ventricle should not be heard in the back, away from which it goes; while any vibration the stream conveys should impinge with it at or near the apex. Both conditions hold with the so-called presystolic and not with ordinary systolic murmurs, and must have their due weight in the balance of evidence. But the absence of the murmur from the scapular region may be explained otherwise than as suggested, and attributed to the small amount of blood which regurgitates through the contracted opening which may not suffice to carry the sound as far and widely as does a larger gush. As to the thrill, the significance of this must depend on its time. If the thrill accords, as according to my observation it does, with the heaving of the apex it is systolic and not made as suggested. How it is made I have not to declare. The circumstances of blood thrills may be various.

To sum up the leading points against the presystolic theory they are these: As has been before urged, the loudness, intensity, and suggestion of force which often belong to the so-called presystolic murmur are incompatible with an origin in auricular contraction. Neither would the needful power seem to be provided by the suction action of the ventricle. This expansile action is a force which must be reckoned with; it has been too little regarded, but has importance in many pathological relations. At its utmost, however, it must be much less powerful than the contractile action, and, with mitral stenosis, must be feebler than it usually is owing to the smallness and weakness of the chamber. I assert that this murmur is heard at the same time that the heaving of the apex is felt. Whether the murmur begins a fraction of time before the impulse, as theoretically it should, or the impulse a fraction of time before the murmur, does not matter, so long as both go on together. That they invariably do this and also end together, my senses do not allow me to doubt. Further, the succession of the carotid pulse upon the murmur without an interval is an indication that this belongs to the contraction of the ventricle. In the next place there is a murmur which is made by the passage of the blood from auricle to ventricle, which is not that to which the term presystolic is applied. This is the genuine direct mitral, or mitral diastolic; it is different from the so-called presystolic in time and character, and when it accompanies it is disconnected from it. Finally, post-mortem observations are consistent with the view that the so-called presystolic murmur is regurgitant, and the knock, as it has been called, the sound of closure.

I would end with three questions, which, if they be answered in the affirmative, the rest will follow. Does the lifting of the chest wall as felt with the finger indicate the systole; does the murmur accompany the lifting; does the carotid beat follow the murmur without an interval? If these do so, the murmur is systolic. On these grounds I maintain that the so-called presystolic murmur is systolic, and is due to regurgitation before closure. I have but a limited expectation of converting those who have long held the presystolic theory. Old views, like old tissues, get indurated. My chief appeal is to the rising generation, and my personal belief, if I may be forgiven the expression of it, is that the time will come when the presystolic murmur will take its place among the errors of the past.

ABSTRACT OF

An Address

ON THE QUESTION

WHY SHOULD MEDICAL STUDENTS STUDY PHYSIOLOGY?

Delivered before the Medical Society of University College.

BY PROFESSOR MICHAEL FOSTER.

I WILL ask your permission to speak to you this evening for a short while in a familiar way, as an old medical student to a young medical student, concerning the question why medical students should study physiology. To this there is an answer which I am sure you will all be ready to give me—We study physiology because we are examined in it. I take it that the object of a medical examination—by which I mean, not the fancy examinations which are carried on by our Universities, but the examination which gives the diploma, or licence to practise—is simply to clear the way for the choice of the public. It would be possible for the public to have free choice in its selection of a doctor; it might be open to any patient to choose any man with a view to curing him, but in that case it might often happen that the patient did not live to see the result, and it has been approved by the world at large that a certain preliminary selection of men shall be made; and although it cannot be said that these are sure to cure or relieve, at all events, there is a fair presumption that they will be able to do so. Now, in the selection of these men, the most direct and experimental method that would naturally suggest itself—certainly the most direct means of ascertaining the ability of an aspirant to cure or relieve—would be to put into his charge a certain number of patients, sufficiently large to obviate any errors of chance, and to watch the result; but that, I think, would be a plan very costly and not unattended with danger. Hence society has come to require that a sort of sham tournament should be held, that the would-be medical man should be examined as to his ideas concerning the proper treatment of cases submitted to him, and that he should be required to state on paper his notions concerning the nature of disease. Now, I take it that this examination is the real examination for the medical man, and the one on which in all cases the greatest stress should be laid. It is not altogether a satisfactory examination, but under the circumstances it is as good an examination as can be held. Now, it is obvious that no one is fit to be let loose upon the public to cure their maladies who is ignorant of certain fundamental notions concerning the nature of disease. And these fundamental notions concerning the nature of disease cannot be taken in until certain notions concerning the structure and working of the human body in health have been acquired; hence it has come about that while the final examination is a preliminary selection of men who are probably fit to treat disease, there has been established another anterior preliminary examination in what we speak of as anatomy and physiology. Again, since an adequate knowledge of the structure and working of the animal body is impossible without some previous acquaintance with elementary physical laws, it has come about that there is another still anterior examination in certain elementary principles of chemistry and physics. Now I take it that that is all that ought to be included in a medical examination. A candidate is examined in physics and chemistry, not that he may be a physicist or a chemist, but that he may know enough of these things to enable him to understand the doctrines and teachings of physiology and anatomy, and he is examined in physiology and anatomy, not that he may become a physiologist or an anatomist, but that he may have that knowledge of the structure and working of the human frame which will prepare him for the due and rapid appreciation of the changes which take place in that frame in circumstances of disease, and he ought to know the nature of these changes if he is not to be a rule-of-thumb doctor, but a scientific physician.

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I cannot conceive that the public has a right to demand anything more. There may be other things which are desirable in a doctor, but they are things which in my opinion are unnecessary for the protection of the public, and it is the protection of the public which is the basis of medical examinations. It may be very desirable indeed for the medical man to be a scholar, but the public has no right to demand that he should be one. It is far more needful that he should be a gentleman than a scholar, but you cannot put that into an examination.

The physiology the medical student requires is an acquaintance with its fundamental and elementary rules, but it must be a *real* acquaintance with them. He must know, for instance, thoroughly the laws which govern the movement of the blood, from the small arteries through the capillaries into the veins. And to know physiology really and truly he must be able to judge of the way in which its conclusions have been reached; he must understand its methods, and he must know the instruments, the results obtained by which are the foundation of a large number of the theoretical views. And although you do not want much physiology for an understanding of the principles of medicine and of the nature of disease, yet as wise men you would do well not to present yourselves at the examination loaded simply with just the necessary amount of physiology; you should always leave a margin for accident. I believe there are sometimes accidents in examinations. I know a friend of mine who was floored by the morning paper because he had eaten too hearty a breakfast, and I take it that in an evening examination a too hurried dinner will draw a veil between the examiner and the real ability of the candidate.

But there is another reason why you should go beyond that minimum. A medical examination, as I have said, is only a preliminary selection. It only says that this man is, on the whole, fit to take charge of the sick; your ultimate success in life will be the result of a struggle for existence, and your income will depend not merely upon your having satisfied the examiner, but upon the amount of skill which you will display in your life afterwards. Have you an amount of physiology beyond that minimum required by the examining boards to help you in this struggle? For if it will not help you, I, as a physiologist, have no right to ask you to take the trouble to learn it. But I am sure that it is in your interest to learn a fuller physiology, and though much of what you learn may be compared to scaffolding which must sooner or later come down and be displaced, yet at the same time there is a great deal of "real house," of firm basis, which will remain for all time. These real physiological truths require careful and prolonged attention in order that the student may lay hold of them, and he does this all the more readily if he carries on practical work in the laboratory. The latter work carries with it no special virtue of itself, for it is astonishing how much time the student may spend in the laboratory and yet remain quite free from any taint of physiology. The work to be done must be done not only with the hand, but with the mind, and he only will gain by it who, working in the laboratory at the things themselves, while looking at them reads in those things the lessons which they teach. The physiology which can be of use to medical men afterwards is the same physiology which is required of the candidate at examination—a real acquaintance with fundamental physiological notions; but the value of it will depend upon the way in which it is used. And let me here say how not to use it. You must not take the latest results of the laboratory and apply them direct at the bedside; for physiology is only as yet in its infancy; and in our notions of the nature of disease things are only at the same level. Nothing is to my mind more dangerous than the practice of taking, so to speak, "raw" physiology at once into clinical work; and if you look back on the history of the profession you will find that these attempts to take physiology straight off into practical use have proved delusive, and to my mind a great deal of discredit has been thrown upon physiology by these attempts. When I last addressed this Society eleven years since, I took as my subject the absolute identity between pathology and physiology, and I tried to lay before you the opinion that these two sciences were fundamentally the same; that they were only, so to speak, the two sides of one sheet. The great use of physiology to a medical man is to supply him with ideas which will help him in pathological and clinical investigation. Let him in practice use his physiology as a working hypothesis, and let him combine with this pathological and clinical observation, and out of it will come a true theory which will go far to cure the disease. Think for a moment of that great discovery of antiseptic surgery. Lister started as a physiologist, and the commencement of the antiseptic theory was a physiological idea worked out on pathological, clinical, and experimental lines. Take, again, the surgery of the brain; physiology has gone hand-in-hand with clinical surgery and post-mortem observation, and brilliant results have been attained. But though you may say you have neither time, opportunity, nor ability to make these medical inquiries, yet you can and must be critics and judges. I am astonished and gratified by the amount of physiology which I find has been introduced into practice, the amount of physiological knowledge now found common to the medical profession. But not all the physiology so found is good; much of it, indeed, is bad. Let the student, therefore, so train himself that he may be able to detect the bad—those physiological wolves in pathological sheepskins, which make their way into the medical fold and do so much damage. The greatest use of an adequate physiological training is to enable a man to detect in after-life with tolerable readiness those theories which are worthy, and to separate them from those which are worthless. To attain that faculty, and to let that physiological judgment get into your minds, you must give serious attention to its study. One great evil in life is that it is apt to be dull; the life of a doctor who takes no living interest in his profession is apt to be dull. Nothing will bring brightness to your life—not music, not even good dinners—if you do not find brightness in your daily task; but brightness may be got if you lay hold of your old physiological learning. Physiology has a mystery in her own right and a future of her own; physiology has not only to do with the mending, but with the making of men. If, in the intervals of leisure, you study it, you will find pleasure in it which will always prevent your life from being dull.

Clinical Lecture

ON

MASSAGE SCOOPS AND IRRIGATION IN THE EXTRACTION OF CATARACT.

Delivered at the Ulster Eye, Ear, and Throat Hospital.

BY DR. McKEOWN.

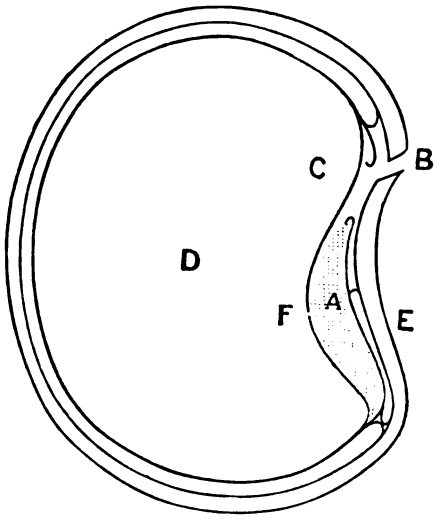
GENTLEMEN,—We shall consider to-day the most delicate and critical stage of the operation of extraction—viz., the removal of residual cortex. I may add also that it is the most uncertain, notwithstanding the accumulated experience of nearly two hundred years; for though a competent operator with a steady patient can make the section with absolute precision in every case, the most experienced cannot in many cases say whether he can or cannot remove the cortex by the ordinary methods of massage and scoop. It may surprise you when I say that these methods, which have been so long in use, are in a broad sense unsuited for the object in view, and therefore unscientific. You have had no opportunity of seeing in this hospital the use of the scoop at all, and massage has only been used in a very mild way, being only regarded and used by me occasionally as an auxiliary to irrigation. I shall try, however, to prove to you what massage is capable of doing and what it is not. To this end you must look at the physical character of the structures, and consider the conditions involved in the problem of extraction—a matter, I fear, which has not had sufficient attention.

You have now before you a rough drawing of the eye with pressure on the cornea exercised after expulsion of the nucleus. (Fig. 1.) This figure will explain to you better than I can do by words the inherent difficulty of removing cortex in any degree resistant. The soft, jelly-like vitreous (D) is the point, or rather cushion, of resistance; the force is applied at E, and causes a depression of the remains of the lens (A) and of the vitreous at F, with a corresponding bulging of

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the vitreous at C, opposite the wound. It is obvious that, whether the remains of the lens (A) will be expelled or, on the contrary, the bulging vitreous at C, depends on the relative resistance of the remains of the lens (A) and the hyaloid membrane at C. If the cortex (A) be soft or, if not soft, be separated from the capsule, it may be rubbed and pressed out; but if neither of these conditions exist the

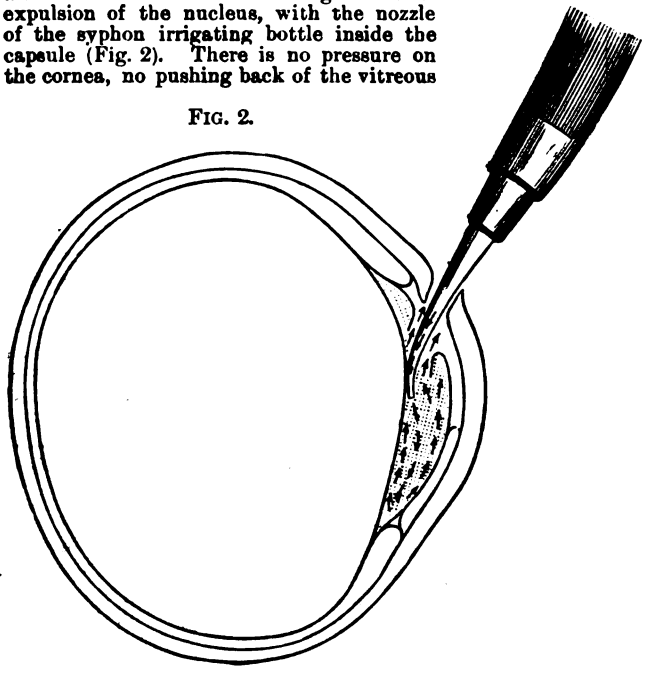
FIG. 1.



A represents cortex imprisoned in capsule after expulsion of the nucleus. B, Corneal section gaping on pressure exercised at E. C, Hyaloid membrane bulging towards wound. D, Vitreous. E, Cornea depressed by finger or scoop.

chances are that, notwithstanding all efforts, it will in great part remain in the eye a source of probable mischief. As you have never seen me perform an operation trusting to pressure and massage, you can have no adequate idea of the trouble and prolonged manœuvres often necessary and often fruitless. Whilst Fig. 1 is before you I show you now a sketch of the conditions in irrigation after expulsion of the nucleus, with the nozzle of the syphon irrigating bottle inside the capsule (Fig. 2). There is no pressure on the cornea, no pushing back of the vitreous

FIG. 2.



no squeezing of the hyaloid membrane towards the section. The current of water, under the control of the surgeon, flows inside the capsule to the periphery, and returns along the anterior and posterior capsule, searching every corner and bringing with it fragments of cortex from every part of the capsule. The force is equable and gentle, and acts not only on the parts we do see but on those concealed by the iris, and quite as well on the parts concealed as on the parts visible. In both cases an iridectomy is supposed to have been performed. With these two figures before you it must be clear that the complete extraction of cataract is simply a question of physics, of relative resistance and relative well-directed and suitable force; and, if I may prophesy, the method which will prevail is that which most accords with physical laws and conditions.

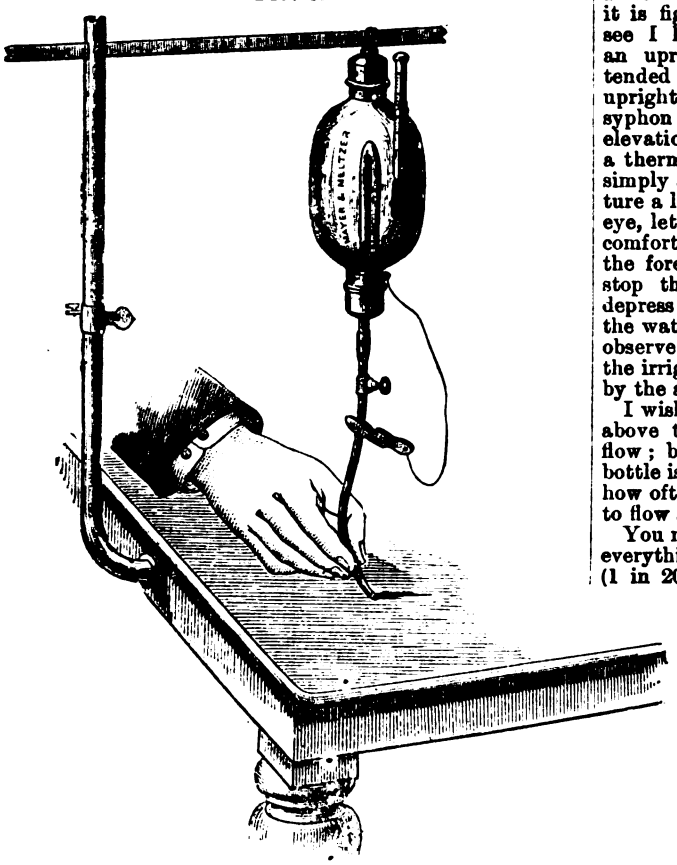
I now come, a little out of order, perhaps, to the use of scoops. The history of scoops is one of which the ophthalmic department of the profession has no reason to be proud. It illustrates very well indeed the tendency of the mind to get into a groove, to adopt views and practice without adequate inquiry and stick to them for generations, though warned of their general unsoundness by daily experience. St. Yves was the first to use a scoop. He removed by it a dislocated lens through a corneal section. For this sort of operation it was a proper instrument, and at this day for a like case it holds its ground. But when Daviel applied corneal section to remove cataracts, not dislocated but remaining *in situ*, he, probably following St. Yves in a way, used a scoop to remove, not the body of the lens, as St. Yves did, but fragments of the lens in the pupil after extraction of the nucleus. I cannot help thinking that, useful though the scoop of St. Yves was, and useful though the curette of Daviel may have been in isolated cases, this use of the scoop has dominated the surgery of cataract not to its advantage. Surgeons have not used enough the critical faculty, but have been too much led by a regard for names and authority. Indeed, from the time of St. Yves till quite recently ophthalmic surgeons have had fitful periods of a mania for scoop invention. They have followed St. Yves and Daviel, and, I think, without any satisfactory reason. I will now examine in a few words, as I did in the case of massage and friction, what the scoop can and cannot do as regards removal of cortex. I will begin with the old classical flap extraction, for a time recently under a cloud, but now happily revived. You know iridectomy was not performed, therefore, after expulsion of the nucleus, the only part of the lens area under view was that of the natural pupil—that is, about one-eighth or one-tenth of the anterior surface of the lens; and as the scoop could only be used to remove fragments seen by the surgeon, it could have any possible application on only the one-eighth or one-tenth of the field. I must speak quite plainly about this; and I say the use of the scoop was inapplicable for about nine-tenths of the field of operation, and even uncertain for the remaining tenth, and therefore was radically bad. But some may think that the combined operation of iridectomy with extraction remedied this to some extent. This is quite true, but, on the most favourable view, just about in proportion to the enlargement of the pupil. If iridectomy enlarged the pupil so as to expose one-fourth of the area of the lens, then the scoop might be used on one-fourth of the field, but on the other three-fourths it could not be used at all. All scoops, therefore, no matter by what distinguished names they may be called, must be condemned as inefficient on the ground I have stated. There are other objections to scoops, but it is a cardinal point in dealing with any question, that if you have an unanswerable objection you should not trouble to discuss minor points.

In view of what I have told you of the physical defects of the methods of pressure, massage, and scoops, you will not be surprised to learn that the bounds of legitimate operations for cataract have been comparatively limited. For the cataract should be of such a character that it could be removed by the methods of massage and scoop—that is, it should either be so firm from centre to capsule as to come out completely at once, or so soft all through, or on the surface, that all the lens could be removed. In fact, conditions were required which left little or nothing for massage or scoop to do. The surgeon judges by appearances, and if he determine that a cataract is ripe, he operates, and the accuracy of his diagnosis can be determined by the operation. So we have this important information, that operators of experience know that the diagnosis of ripe cataract is in a considerable percentage erroneous, and that the operation is attended with unforeseen difficulties. The consequences of such a mistake are very serious for the

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patient, and the surgeon with only massage and scoop is simply powerless. On the other hand, when the surgeon diagnoses a cataract as unripe, he rarely operates, and in

FIG. 3.



Syphon irrigating bottle

cases of such a character there is therefore no means of knowing whether his diagnosis of unripeness is right or wrong. To sum up: when a diagnosis of ripe cataract is made, there is a varying percentage of error as regards the ease of perfect removal and a consequent risk to the patient; and when a diagnosis of unripeness is made, the patient is not subjected to the risks of an operation, but is put aside for months, and often for many years, with the prospect of a miserable life, and perhaps dependence on friends or on the doles of parochial charity.

I think you have seen so much here that you know these difficulties are all faced. With intraocular irrigation as practised here, I do not fear unexpected difficulties in the ordinary cases, and do not hesitate to operate on cases of transparent and sticky cortex—in other words, of unripe cataract. And why? Because I have a well-tried method, at least well tried in this hospital since 1884, and one which makes the surgeon, in a general sense, the master of circumstances. I cannot impress on you too strongly that for success in surgery the surgeon should be armed to meet all eventualities. I need not tell you, though I am sure it would be interesting, of the various stages of development of the method of irrigation and injection. I have devised and used various instruments of various degrees of efficiency and of varying defects, but this I have always had before me, that the force of pure water was the proper force to clear out the residue of the lens, and I have never seen any reason to change my opinion.

I show you now the instruments I have used since the spring of 1884, but I ask your special attention to the last one—the syphon irrigating bottle (Fig. 3). It is flat and holds about four ounces. In the inside of the bottle there is a bent tube, the bend reaching nearly to the top, whilst one end reaches to the bottom of the bottle, and the other end passes through the screwed-on cap at the lower end of the bottle. To the lower end of the tube is attached an indiarubber tube on which are a clamp to stop the flow of liquid and a ring with a screw to press the sides of the tube together and diminish the initial force of the flow. I do not know that the latter is of much use, but as it is figured in the diagram I allow it to remain. You see I have a horizontal bar moving up and down on an upright attached to the operating table, and I intended to have the syphon bottle suspended on the upright bar, but I have found it is better to have the syphon bottle held in the hand of an assistant at a suitable elevation. You see also a hole in the top of the bottle for a thermometer, but I have discarded the thermometer. I simply after charging the bottle with water of a temperature a little above blood heat, before I begin irrigating the eye, let the water flow on the back of my hand till it feels comfortably warm; then grasp the indiarubber tube between the forefinger and thumb just above the nozzle, and thus stop the flow, and introduce the nozzle into the eye or depress the lip of the wound and, relaxing my grasp, let the water flow, and stop the flow when I think it necessary, observe the effect, perhaps use slight massage, and renew the irrigation, being guided as to continuance and repetition by the appearance of the pupil.

I wish you to note specially that until the bottle is filled above the bend of the tube the water will not begin to flow; but once it has commenced it will go on until the bottle is emptied unless stopped by pressure, and no matter how often the clamp is applied the water will at once begin to flow again on its renewal.

You may have observed the care which is taken to have everything aseptic. A solution of perchloride of mercury (1 in 2000) is passed through the syphon bottle, then the bottle is rinsed with distilled water previously boiled, then the bottle is charged with distilled water likewise previously boiled and above blood heat, and the water allowed to flow through the tube before use. The tube in the bottle being of silver and the nozzle being likewise of silver, they are tarnished by the mercurial solution. I do not think that of importance in relation to the tube in the bottle; but I have the nozzle passed through the flame of a spirit lamp, rubbed, and washed by the flow of water before introducing it into the eye. The aseptic precautions described to you may seem unduly troublesome; but I cannot impress on you too much that cleanliness and attention to minute details are of the very essence of surgical success.

(To be continued.)

NOTES ON SOME CASES TREATED BY

SUSPENSION AT THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, QUEEN-SQUARE.

BY J. S. RISIEN RUSSELL, M.B.,
AND
JAMES TAYLOR, M.A., M.B.,
HOUSE PHYSICIANS TO THE HOSPITAL.

BY permission of the physicians, under whose care the various patients were, we are able to publish a list of some of the cases in which the suspension treatment as recommended by Charcot was tried at the National Hospital for the Paralysed and Epileptic, Queen-square. The cases here recorded are, it will be observed, all cases of tabes dorsali- with the exception of two—one of lateral sclerosis, appas rently primary, and the other of postero-lateral sclerosis, the "ataxic paraplegia" of Dr. Gowers. The apparatus used was the ordinary Sayre's apparatus, consisting of tripod with head and arm pieces suspended on a pulley. Suspension was done every other day, and in all the cases recorded here was the only treatment employed. Half a minute to a minute was the time allowed for the first suspension, and this was increased as rapidly as the patient could bear it, up to four minutes, which may be taken as the time of the last four-fifths of the suspensions in each case. In only one case (No. 10) were the suspensions done

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daily; and whereas in the other cases four minutes was the longest time given to any one suspension, in this case three minutes was the limit. Both arm and head pieces were used, and as soon as the patient had acquired confidence he was directed to raise the arms slowly from the sides until the whole weight of the trunk depended from the neck. Patients, as a rule, were able to do this about every half-minute, but they varied greatly in the facility with which they could carry out the movement.

The inconveniences experienced by the patient were in most cases slight. During the first few suspensions some pain was usually complained of at the back of the neck, probably due to a stretching of the muscles in that locality. Occasionally, too, soreness of the jaws from the pressure of the chin-strap was experienced, and pain at the bottom of the back. One or two patients complained of faintness during some of the early suspensions. Two (Nos. 5 and 9) were subject to this even after they were well used to the treatment; one (No. 8) had so much discomfort at each suspension that he begged it might be discontinued, while two others (Nos. 14 and 16) had their symptoms so much aggravated that it was considered unjustifiable to persevere with suspension. There was a remission of the distressing symptoms as soon as the treatment was stopped. In all the cases where the ataxy was a symptom, if the patients were able to walk there was noticed to be some intensification of this symptom immediately after the suspension, and this continued sometimes even for an hour or two.

As to the results of the treatment, all that one is justified in saying is that three of the cases (Nos. 3, 5, and 11) improved while undergoing the treatment. One (No. 10) improved at first, but during the last three weeks he had a relapse, and when he left the hospital was certainly worse than he had been a month before. Another case (No. 4) had between April and June a course of twenty-five suspensions, but experienced no improvement. A month after this the ataxy became much more marked, and the suspensions were resumed. After ten suspensions he began to improve, and this improvement was maintained until he left the hospital. Considering the negative result of the first course of suspension in this case, the improvement during the second course can scarcely be regarded as anything more than a coincidence. Case 2 said that he thought he walked better and was more steady, but neither Dr. Ormerod nor the house-physicians observing independently could say that there was any improvement to be seen. Case 12 was one in which commencing optic atrophy was the prominent symptom, and although the patient himself said he thought his vision was better, careful testing could not confirm this.

In the cases in which improvement did occur, this consisted in a less ataxic gait and a greater steadiness in standing. In no case, however, was there ability to stand with the eyes closed, nor was there a return of the knee-jerk or of the pupil reaction to light. In one case the shooting pains were relieved somewhat, but in none of the cases had those been at once a recent and a prominent symptom.

In the greater number of the cases it will thus be seen that there was no improvement. Most of them remained practically in the same condition, but in more than one

SIXTEEN CASES TREATED BY SUSPENSION AT THE NATIONAL HOSPITAL, QUEEN-SQUARE, W.C.

No.	Name and age.	Physician's name.	Disease.	Prominent symptoms.	Duration of illness.	Number of suspensions	Results.
1	A. B., aged 44.	Dr. Ramskill.	Tabes dorsalis.	Total inability to walk; great incoördination in hands and loss of muscular sense; occasional retention; pupils reacted normally.	18 months.	30	No improvement; hands more useless than before.
2	C. D., aged 31.	Dr. Ormerod.	Ditto.	Marked ataxic gait; Argyll-Robertson pupils; no pains for several months.	2 years.	29	Said he walked more steadily; no objective change apparent to several observers.
3	E. F., aged 40.	Dr. Ferrier.	Ditto.	Marked ataxy; Argyll-Robertson pupils; no pains.	2 years.	30	Decided improvement in walking and greater steadiness in standing.
4	G. H., aged 49.	Dr. Bastian.	Ditto.	Great ataxy; occasional lightning pains; difficulty in micturition; Argyll-Robertson pupils.	7 years.	45	Between April and June had twenty-five suspensions; no improvement observed; in the end of June ataxy became much worse; suspension was resumed; improvement began after eight or ten suspensions, and was maintained.
5	J. K., aged 38.	Dr. Beevor.	Ditto.	Ataxy considerable; pains in loins; joint change in knee; Argyll-Robertson pupils.	3½ years.	33	No improvement until after twenty suspensions, then considerable improvement in walking; loin pain was still troublesome.
6	L. M., aged 49.	Dr. Ferrier.	Ditto.	Marked ataxy; pains in limbs, not severe; difficulty in micturition; Argyll-Robertson pupils.	3 years.	22	No change.
7	P. R., aged 38.	Dr. Ferrier.	Ditto.	Marked ataxy and occasional pains; Argyll-Robertson pupils.	7 years.	18	No change.
8	R. S., aged 41.	Dr. Beevor.	Ditto.	Ataxy; lightning pains and patchy anæsthesia; Argyll-Robertson pupils.	2 years.	18	Ataxy worse; more pain; patient begged to have treatment changed.
9	T. W., aged 34.	Dr. Beevor.	Ditto.	Optic atrophy; no ataxy; laryngeal crises; numbness.	5 years.	19	No change.
10	A. J., aged 41.	Dr. Ferrier.	Ditto.	Ataxy; numbness in limbs; no pains; Argyll-Robertson pupils.	3 months.	41	Improved at first in ability to walk and stand steadily; had a relapse in the last fortnight.
11	B. S., aged 35.	Dr. Jackson.	Ditto.	Marked ataxy; occasional lightning pains; Argyll Robertson pupils.	2 years.	30	Greater steadiness in standing, and gait is less ataxic; pains less severe.
12	C. R., aged 39.	Dr. Anderson.	Ditto.	No ataxy; pains six years ago; optic atrophy (primary); vision: right eye $\frac{1}{100}$, Jaeger 12; left $\frac{1}{18}$, Jaeger 1.	6 years.	30	No objective change while undergoing the treatment; he considers his sight better.
13	D. M., aged 44.	Dr. Ramskill.	Ditto.	Slight ataxy; extreme myosis and fixed pupils.	6 years.	15	No change.
14	E. L., aged 49.	Dr. Ferrier.	Ditto.	Ataxy (slight); Argyll-Robertson pupils; incontinence; diarrhœa; sickness occasionally.	4 years.	12	Had vomiting almost daily; diarrhœa continued; incontinence worse.
15	J. C., aged 25.	Dr. Ferrier.	Lateral sclerosis.	Rigidity of right leg, and consequent difficulty in walking; exaggerated knee-jerks and ankle clonus.	2 years.	30	Worse; rigidity greater; greater difficulty in walking.
16	G. J., aged 42.	Dr. Ferrier.	Postero-lateral sclerosis.	Ataxy; knee-jerks active; no pupil change.	7 years.	4	Always epigastric pain and nausea during suspension.

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there was an evident retrograde tendency. As to the result of the treatment in the two cases at the end of the list—one of lateral sclerosis and one of postero-lateral sclerosis,—the former certainly became worse, as was evidenced by greater rigidity and greater difficulty in walking; the latter had epigastric pain and nausea during each suspension, so that it was considered advisable not to persist in the treatment, after he had had only four suspensions.

ON

TREPHINING THE SACRO-ILIAC JOINT IN SACRO-ILIAC DISEASE; WITH CASE.

BY MAYO COLLIER, M.S. LOND., F.R.C.S. ENG.,
SENIOR ASSISTANT SURGEON, NORTH-WEST LONDON HOSPITAL, ETC.

As the subject of sacro-iliac disease and its treatment is not generally so well understood as diseases of the other joints, I make no apology for placing the following case and the method of treatment I adopted for its relief before the profession. Before doing so, however, I propose to first give a brief sketch of the history, pathology, and treatment of the disease as propounded in this country and America. I am indebted to Dr. Weller van Hook of Chicago for most of the facts contained in this notice. It would appear from inquiry into the literature of the subject that opinions differ widely in this country and America as to the frequency, causation, and treatment of this affection. Professor Lewis Sayre says that in the United States sacro-iliac disease is quite common. Our best authorities here describe it as being a very rare affection. Professor Sayre again says it is always of traumatic origin. It is generally considered in this country as associated with struma or tubercular disease. Again, treatment differs widely. In America, fixation with extension and the application of the actual cautery appear, in the hands of Professor Sayre, to have been attended with very satisfactory results. In this country disease of the sacro-iliac joint is looked upon as a more or less fatal affection, and the treatment appears to be confined to rest in bed without fixation, and the opening or aspirating of abscesses as they present themselves. Mr. Arthur Barker, relating the experience of the surgeons at University College Hospital during a period of ten years in Holmes's System of Surgery, says the results of treatment in these cases have not been encouraging. Out of fifteen cases one is noted as cured, three as having died; five are stated as relieved, three unrelieved, one uncertain; two now in hospital are in a very critical state. With these facts before us we cannot but agree with Mr. Barker that the above results are not encouraging.

Turning to the history of this affection, one finds that the older authors make no mention of sacro-iliac disease. The first mention is by Boyer in 1821, who describes this disease as a chronic affection of the sacro-iliac joint due to a scrofulous taint, and similar to the affection causing spontaneous luxation of the hip-joint. Velpeau three years later describes having found pus in this joint during the puerperium, and looked upon this as an infecting centre of other suppurations found at autopsies. Larrey describes the disease under the term "sacro-coxalgie." He compares it to tumour albus of the other joints. In 1833 an article by Langier appeared in the "Dictionnaire Médicale" on the subject. About this time also Hahn published in German a more or less complete *résumé* on this affection. It would appear that between the years 1838 and 1847 no less than six theses were written on sacro-iliac disease for the Faculty of Paris. In 1853 Gurlt dealt with this disease in his treatise on the joints. In this country Mr. Erichsen was the first to give an intelligible account of this disease. In a lecture published in THE LANCET in 1859, he gave a clinical account of this affection, and clearly fixed many of the chief points in the differential diagnosis. After Mr. Erichsen had directed attention to sacro-iliac disease in this country, the subject was again taken up in France and America. Professor Sayre, from his great experience, was able in 1879 to refer in a clinical lecture to eighteen cases of sacro-iliac disease with one death. In his "Orthopædic Surgery" a short reference is all that is given of this disease, and an account of the operative interferences that he has resorted to in certain cases where abscesses had formed. By the industry of Dr. Van Hook, a summary of over fifty cases of sacro-iliac disease has been collected from the records of this country, America, and the Continent. For reasons which will be apparent, they are divided into two sets: 1. Those attended by suppuration. 2. Those not so attended. In number, 30 of the former and 21 of the latter.

Now, although it would be more satisfactory if the number of cases in these tables was 500 instead of 50, still some glaring facts are apparent. On looking at the table of cases where suppuration did not take place, out of 17 cases kept under observation till the termination 16 recovered, or 94 per cent. On the other hand, among 38 cases where suppuration did take place only 3 recovered without operation—that is, 7·9 per cent. The tendency of the disease is thus readily seen to be strongly unfavourable to life in the moist form; while in the form in which dry granulations persist throughout the disease the prognosis is favourable. Speaking of these figures Dr. van Hook says: "A natural division of therapeutic measures, as well as obvious classification for diagnostic and descriptive purposes, follows from these facts. For, if recoveries amount to 94 per cent. of all cases in which no abscesses form, we have certainly reason to be satisfied with whatever measures of treatment have contributed to that result. And since we know that cases in which the disease exhibited a dry form in the beginning may at a later period exhibit cold abscesses, we must adopt all possible means to prevent such a termination."

Now, it was with this most desirable object in view in the case detailed below, where from the great pain and constitutional disturbance suppuration was threatening, that I opened the sacro-iliac joint with a trephine. The desirability of this procedure to my mind was twofold. In the first place, to relieve tension and so prevent suppuration; and, secondly, if suppuration was present, to direct it to a less dangerous channel. When suppuration takes place in the sacro-iliac joint the pus pursues either an intra-pelvic or extra-pelvic course, rarely both. Of 55 abscesses collected, 21, or 38·2 per cent., were extra-pelvic—i.e., made their way directly posteriorly; while the remaining 38, or 61·8 per cent., entered the pelvic cavity. The fate of these cases was uniformly bad. Of the 21 extra-pelvic abscesses, 18 found their way immediately to the surface, 2 went up to the lumbar region to point there, whilst one only descended to the gluteal region. Turning to the cases of intra-pelvic abscesses, it will be readily understood that the situation of the ileo-psoas muscle immediately over the joint favours the passage of the products of suppuration along its sheath to a very important degree. Thus 4 abscesses dissected up to the lumbar region, while 18 followed this muscle down to lie embedded in the muscle sheath or to point near the insertion itself. The remaining 12 abscesses seemed to travel directly downwards, either, on the one hand, to pass through the sciatic notch, some to point over the gluteus which has been perforated, others to make their appearance on the posterior aspect of the thigh; or, on the other hand, to perforate the rectum, the perineum, or the anus. From this, we learn that an abscess pointing anywhere but directly over the joint is probably intra-pelvic, and the prognosis consequently grave. The following case is chiefly interesting from the fact that, although seen by several distinguished surgeons and physicians, the disease was not diagnosed till it fell into my hands.

C. W——, aged thirty-four, married; home South Africa. Has suffered for the last four years from pain in and about the right hip and lameness. No relief being obtained in South Africa, she came to this country in the early spring of last year for further advice. The case was sent to a well-known hospital physician of this city, who diagnosed the complaint as ovarian irritation, and treated it as such. Under this treatment the case not improving, a specialist on joint disease and surgeon to one of the metropolitan hospitals was consulted. He confirmed the diagnosis of the physician and recommended massage. Mrs. W—— still not improving, I was requested to see the case. At my visit I found her reclining in bed on the left side and supporting the body on the left elbow; she said she could not lie or sit upon the left buttock without pain. In answer to my questions, she said that her mother had died of consumption, her father was alive, but that her brother and sister both were weak in the lungs. She herself had had a severe attack of hæmoptysis two years ago, and was confined to

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bed for eight months. The present trouble was attributed to lifting a heavy box. She was treated in Africa for hip-joint disease. On examination, the right hip-joint was normal, and the thigh was slightly flexed on the abdomen. There was nothing abnormal to be noticed front or back—no tumour or thickening in the pelvis to be made out. The patient complained of pain on walking or sitting on the right tuber ischii, pain on coughing, pain during micturition, radiating down to the pubes of the right side and down the right thigh; pain also on deep pressure in the right iliac fossa; pain on pressing the ilia together; pain also well marked on pressing immediately over the centre of the joint behind; occasional pain down the back of the right thigh and the right knee-joint. On walking, the patient stepped cautiously, inclining the body to the right side and advancing the right leg in front of the left. The toe was not everted. From these symptoms I had little doubt that disease existed in the sacro-iliac joint.

Sir James Paget kindly saw the case with me on the following Sunday and confirmed my diagnosis. A double Thomas' splint was ordered and tonics prescribed. The patient would not submit to counter-irritation in any form, having, as she said, been "nearly killed with blisters in South Africa." After the application of the splint matters did not mend. The patient suffered from almost constant pain, her nights were sleepless, and in fact she was running down very fast. Some local heat was apparent over the joint, but no general rise of temperature was at any time apparent, although the thermometer was used regularly throughout the treatment. With a view to surgical interference, I removed the patient from her apartments to St. Thomas's Home. Here the case was again seen by Sir James Paget, in conjunction with Dr. Edmunds. I proposed to trephine the joint from the outside, and my proposal was not dissented from, although not recommended by my colleagues. With the assistance of Dr. Edmunds and, in the presence of Mr. Makins and others, I proceeded to open the joint with a medium-sized trephine. When on the table a distinct swelling was noticeable over the joint about as large as the palm of one's hand. Examined per vaginam and rectum the pelvis was free from disease. A curved incision, eight inches in length, parallel with, and an inch below, the posterior third of the crest of the ilium, and descending vertically over the joint, exposed the bone sufficiently. The bone was next denuded with the elevator, and now was seen to be distinctly swollen and inflamed. A line being drawn from the anterior superior spinous process to the posterior superior, two inches were measured from this posteriorly. The pin of the trephine was placed on the line, so that the edge of the circle should be on the two-inch limb. The bone appeared softer than natural, the trephine rapidly penetrating to the joint. On removing the button of bone with the elevator a bed of soft fleshy granulation tissue was reached, fully one-third of an inch in thickness. The opposing surfaces of the joint were quite denuded of cartilage, and the bone on the sacral aspect was eroded, hard, and of a distinct yellow abnormal colour. The whole of the granulation tissue and dead bone, as far as could be reached, was removed with the gouge and mallet, the joint swabbed with chloride of zinc (forty grains to the ounce) and subsequently well dusted with iodoform. A large drainage-tube was inserted to the bottom of the opening, and the wound closed and dressed after the usual fashion. I need not weary my readers with the details of the case. Suffice it to say that all pain ceased immediately after the operation. The wound healed throughout by first intention, and at no time was a drop of pus ever present. The patient made an uninterrupted good recovery, and after a subsequent rest in the splint for six months left the home for the seaside, and has now returned to South Africa.

In conclusion, I would recommend that all cases of sacro-iliac disease where suppuration is threatening, or where pain is severe, be treated in a like manner.

New Cavendish-street, W.

ABERNETHIAN SOCIETY OF ST. BARTHOLOMEW'S HOSPITAL.—Mr. Oliver Pemberton, Professor of Surgery in Queen's College, Birmingham, on the 10th inst. delivered the introductory address on the occasion of the opening night of the session of this Society to an assembly of the staff, students, and nurses, the subject being on "The Progress of Surgery—a retrospect of forty years, and as to the measure of aid the School of St. Bartholomew afforded, both previously to and during that period."

THE

TREATMENT OF PURULENT OPHTHALMIA AND DACRYOCYSTITIS BY ANTISEPTIC IRRIGATION.

A NEW CANNULA FOR IRRIGATING THE LACRYMAL DUCT.

BY HUGH E. JONES,

ASSISTANT SURGEON, LIVERPOOL EYE AND EAR INFIRMARY.

THE object of this short paper is to show what success has in practice followed the treatment advocated by Mr. Edgar Browne for purulent ophthalmia and dacryocystitis. For the convenience of readers I have described the methods employed, and for those who may wish to try the treatment, the modifications which experience showed to be advisable. I am indebted to Mr. Richard Williams for permission to add two of his cases of gonorrhœal ophthalmia to those of Mr. Edgar Browne.

In his paper on "Some Points in the Treatment of Purulent Ophthalmia"[1] Mr. Edgar Browne said that the indications for the treatment of that disease were (1) to wash away the infective material as thoroughly and as early as possible; (2) to render the conjunctival epithelium and secretions as nearly as may be aseptic. He then described his own method of following out these indications by prolonged irrigation of the *whole* of the conjunctiva with a ½ per cent. solution of trichlor-phenolate of magnesium. The apparatus used consisted of an ordinary irrigating reservoir and tube and a lid retractor made of fine silver tubing perforated with six holes in the portion which entered the conjunctival sac. No cases of gonorrhœal ophthalmia in which this treatment had been employed were mentioned in that paper, though the results obtained in urethral gonorrhœa were given.

CASES OF PURULENT OPHTHALMIA.

CASE 1.—J. G——, a man aged forty-nine, was admitted to hospital on March 12th, 1886, suffering from gonorrhœa and gonorrhœal ophthalmia complicated by ulceration of the cornea. The lids were painted once with the nitrate of silver lotion (ten grains to the ounce). The conjunctiva was irrigated daily with trichlor-phenol solution. On March 17th the ulcer was healing. On the 22nd the discharge had quite stopped. The patient left well on the 30th.

CASE 2.—J. T——, a man aged thirty, was admitted to hospital on July 27th, 1886, suffering from gonorrhœal ophthalmia, complicated by a perforating ulcer of the cornea. The conjunctiva was irrigated three times a day with trichlor-phenol solution. By Aug. 4th the cornea was healing. There has been no extension of the ulcer since the patient's admission. On Aug. 13th the discharge had ceased. Cornea healed.

CASE 3.—M. P——, a woman aged thirty-eight, was admitted to hospital on Aug. 30th, 1887, suffering from gonorrhœal ophthalmia and deep marginal ulcer of the cornea. The lids were painted, on admission, with the nitrate of silver lotion (twenty grains). Afterwards the treatment consisted simply of irrigation with Panas' solution of biniodide of mercury, and the instillation of eserine. The ulcer began to heal on the day after admission. The patient was discharged on Oct. 18th. The ulcer had healed perfectly without perforation, and there was no permanent impairment of the vision. The long stay in hospital is accounted for by the patient's destitute condition and the depth of the corneal ulcer.

CASE 4.—M. C——, a woman aged twenty-three, was admitted to hospital on Dec. 3rd, 1887, suffering from gonorrhœal ophthalmia and deep marginal ulcer in the right eye, syphilitic iritis of the left, and well-marked syphilide on face and ulceration of tongue. The right eye was irrigated three times a day with Panas' solution, and the cornea dusted with powdered iodoform; the left eye was atropised. The ulcers of the tongue were touched with ac. hydrarg. nitratis and oleate of mercury ointment (10 per cent.) rubbed into the axillæ. The corneal ulcer began to heal the second day. On Jan. 20th the ulcer was quite healed. No discharge. Vision equals $\frac{20}{30}$; Jaeger 1, each eye.

Remarks.—With regard to the antiseptic solutions used,

[1] Meeting of the British Medical Association, Belfast, 1884.

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we found that Panas' solution of biniodide of mercury caused much less smarting than the trichlor-phenol (even when the latter was used as a ½ per cent. solution), and that though the treatment occupied a longer time, the final result was quite as good. In Case 1 Mr. Edgar Browne's irrigating lid retractor was used; in the other three I used an ordinary Eustachian catheter bent to a suitable angle, and found that, when passed well up into the conjunctival sac and moved slowly from one end to the other, it acted as well, or nearly as well, as the more elaborate special instrument.[2] In all the cases ulceration of the cornea had set in before admission to hospital, and in all healing began within a few hours of the first irrigation. The discharge was always much less on the second day, and ceased entirely within a fortnight, so that the patients could be transferred to the general wards. In all the cases I have seen treated by the older methods (nitrate of silver, iodoform, &c.) ulcers have gone on spreading until the discharge had nearly stopped, causing very severe permanent mischief to the cornea, and in some cases total loss. Irrigation was also found very useful in many cases of strumous and membranous ophthalmia, and in some of sloughing ulcer of the cornea with chronic conjunctivitis. In ophthalmia neonatorum, though shortening the duration of the disease very much, it was too troublesome and painful to be made the routine practice.

CASE 1.—A. B——'s (aged two years and a half) eyes became inflamed on June 30th after an attack of diarrhœa. No exanthem. The patient was admitted to hospital on July 5th, suffering from severe membranous conjunctivitis and keratitis. The treatment consisted of irrigation with Panas' solution, iodoform ointment, and gtt. atrop. (two grains to the ounce). On July 6th there was ulcer of the cornea. On the 8th the swelling of the lids had subsided, the membrane had disappeared from the conjunctiva, and the ulcer was healing. The patient was discharged well on July 13th.

CASE 2.—K. G——, aged two weeks, suffering from ophthalmia neonatorum, was seen on June 25th as an out-patient. The conjunctivæ were irrigated with trichlor-phenol. The irrigation to be repeated daily. On June 29th the discharge had quite stopped. The patient was kept under observation until July 20th; but there was no recurrence of the discharge, though the treatment was limited to four irrigations.

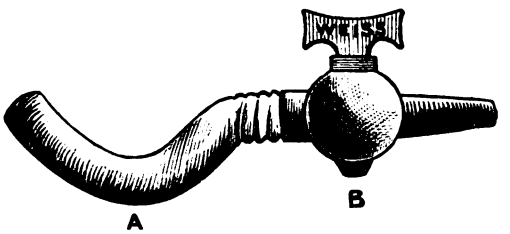
DACRYOCYSTITIS.

In 1886 Mr. Edgar Browne,[3] recognising the important part played by pyogenic cocci—as shown by the researches of Sättler and Widmark—in diseases of the lacrymal sac and duct, applied the principle of irrigation to the treatment of lacrymal disease. As house surgeon it fell to my lot to carry out the details of the treatment. The object to be attained was practically the same as in gonorrhœal ophthalmia—viz., to wash away the discharge and to render the mucous membrane and its secretion aseptic without damaging the epithelium or aggravating the existing inflammation. In the first few cases an ordinary No. 1 gum-elastic catheter, to which the irrigator tube was attached, was passed down the lacrymal duct and trichlor-phenol solution (about ½ per cent.) used; but this was never a very satisfactory arrangement, as it was difficult to pass the catheter, and the solution caused very severe smarting. In all the cases recorded here the following was the method adopted. 1. The lower canaliculus was slit up sufficiently to admit a moderate-sized probe (except in some cases of lacrymal abscess, where the external opening rendered this unnecessary). 2. Weber's stilette and cannula (made by Matthieu, and figured in Juler's "Ophthalmic Science and Practice") were then introduced into the sac, the stilette withdrawn, the irrigator tube attached to the cannula, and about half a pint of Panas' solution run through. 3. Next day, supposing the sac not to be too acutely inflamed, a probe was passed, and afterwards the whole tract irrigated, the cannula being passed down the duct. In chronic cases, where the discharge was too thick and viscid to yield to ordinary means, about a pint of a ten-grain solution of bicarbonate of soda was used before the Panas' solution. 4. When a stricture existed a larger cannula was used every day until the stricture was sufficiently dilated. 5. During the process of irrigation it is necessary for the patient to hold his mouth wide open, for obvious reasons.

[2] A hollow irrigating speculum has been invented by Mr. Treacher Collins (vide THE LANCET, vol. i., 1885). [3] Practitioner, Jan. 1887.

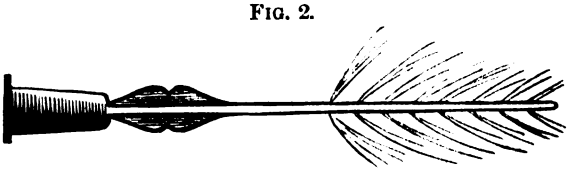
The following objections to the instrument will probably occur to every ophthalmic surgeon: 1. If at all strongly curved, the withdrawal of a stiff, closely fitting stilette must be a difficult and jerky process. 2. If the cannula is introduced up to the hilt, the fluid irrigates not the lacrymal sac or duct, but the nasal mucous membrane. 3. If the cannula be withdrawn ever so slightly, it cannot, owing to its open end, be replaced without reintroducing the stilette. To avoid these difficulties, I got Messrs. Weiss and Son to make a cannula closed and rounded at

FIG. 1.



A, Rubber tubing from reservoir. B, Stopcock.

FIG. 2.



Cannula (small bore).

the distal end, and pierced along the sides by small holes for about one inch of its length. The proximal end was made to fit the tapering nozzle of a small stopcock. No stilette is required, for this cannula can be withdrawn and reintroduced to any extent with perfect ease and without detaching the stopcock; it, moreover, irrigates the whole of the sac, nasal duct, and part of the nasal fossæ at the same time. I used this cannula daily for four months. It serves its purpose admirably, and is kept clean quite easily.

CASE 1.—R. M——, aged thirty-seven. Seven months ago the patient had muco-purulent discharge from the lacrymal duct for three months, culminating in an abscess of the sac. This was followed by mucocele (four months), on account of which he came to the infirmary on Nov. 5th, 1886. The lower canaliculus was incised and a probe passed. On Nov. 6th, 7th, 8th, 12th, 14th, and 16th the duct was irrigated with Panas' solution. On the last-mentioned date the patient was quite well, there being no discharge or epiphora. In reply to questions, he wrote on Feb. 20th, 1889, saying that there was a slight watering of the eye six months after his last attendance, but that there had been no recurrence of the mucocele or abscess. The duration of treatment was eleven days; the number of irrigations six.

CASE 2.—E. A——, aged forty, was seen as an out-patient on July 2nd, 1886, with lacrymal obstruction and blennorrhœa. On July 2nd the lower canaliculus was slit. Probes were passed and boracic acid collyrium was used regularly until Oct. 25th, 1886—i.e., 114 days. From Oct. 25th and every day until Nov. 4th irrigation was practised. On Nov. 4th the mucous membrane was perfectly smooth and there was no discharge or epiphora. The patient remained under observation until Jan. 24th, 1888, without further treatment (except for mixed astigmatism and squint), during which time no recurrence of epiphora took place. Duration of treatment by irrigation eleven days.

CASE 3.—D. B——, aged twenty-six, was admitted to hospital on Jan. 25th, 1887, suffering from an old lacrymal abscess with recent recurrence. The abscess was incised. On Jan. 26th and 27th the abscess was irrigated, and the patient went home. On Feb. 1st fresh inflammation and discharge from the sac supervened. On the 4th the swelling subsided. As the patient lived at a distance, it was not possible to irrigate the duct oftener than once a week, and sometimes a fortnight elapsed without any treatment being applied. On March 4th rough bone was felt in the upper part of the duct. The patient ceased attending on April 19th. On this date he was quite well; no swelling or discharge, and duct smooth. During the whole of 1887

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and 1888 the patient was seen at intervals of three or four months. Sometimes a probe was passed to test the patency of the duct, but no sign of stricture was ever discovered. Duration of treatment eleven weeks; number of irrigations about twelve.

CASE 4.—E. Q——, aged thirty-three. Lacrymal obstruction and blennorrhœa off and on for two years. Threatening abscess. On Aug. 5th, 1887, the canaliculus was slit and probes were passed. The blennorrhœa continued undiminished until Sept. 9th, when irrigation was begun and carried out daily until Sept. 20th, when the patient was quite well. In answer to questions, the patient wrote on Feb. 20th, 1889, that there had been no discharge from, or watering of, the eye since her last attendance in September, 1887. Duration of treatment by irrigation eleven days.

CASE 5.—W. S——, aged twenty-eight. Epiphora for three years, followed by mucocele. The canaliculus was slit and irrigation performed on Oct. 19th, 1886. The irrigation was repeated on Oct. 22nd, 24th, and 26th. On Nov. 19th the patient was quite well. Duct irrigated. Jan. 18th, 1887 (i.e., after two months), there was some thickening over the lacrymal sac, but no epiphora or discharge. On Feb. 20th, 1889 (i.e., two years and three months after cessation of treatment), the patient wrote to say that he was quite well. Duration of active treatment seven days; number of irrigations five.

CASE 6.—J. H——, aged sixty. Lacrymal abscess; ozæna. On May 20th the lower canaliculus was slit, and probes passed daily, without any improvement, until June 17th. The duct was then irrigated with bicarbonate of soda lotion, followed by Panas' solution. This was done once a week until July 22nd, when the discharge had entirely stopped. I was unable to trace this patient, so that I cannot say how long he remained well.

CASE 7.—A. M——, aged thirteen. Abscess of lacrymal sac. The abscess was incised, and irrigated daily for nine days. Two years later the patient was perfectly well. No recurrence of abscess or epiphora.

Remarks.—It may be asked whether this treatment has any lasting effect upon the stricture which, in many cases, has caused the mucocele or abscess. Cases 2 and 4 seem to me to show that it has, and the large number of cases treated during two years and a half have left a firm impression on my mind that the good effect is more permanent than in cases treated simply by the knife and probe, and that the formation of a stricture is more frequently prevented than by the ordinary methods of treatment, including the injection of astringents. Irrigation gains additional value from the fact that by it the nasal mucous membrane is treated simultaneously with that of the nasal duct and lacrymal sac, which must be of considerable importance in cases arising from or complicated by nasal catarrh or ozæna. I find that I have inadvertently included one or two cases which were mentioned by Mr. Edgar Browne in his paper in the *Practitioner*, but as they were then quite recent, and as I have since been able to trace them up to 1889, I have allowed them to remain. Many more cases might be given, but I think the above are sufficient to prove that the treatment advocated yields good results easily and rapidly.

P.S.—Since the above paper was written Mr. Treacher Collins has told me that during his house surgeoncy at Moorfields he used a cannula similar to the one described above, with a syringe. I am inclined to lay some stress upon the advantage of using an irrigating reservoir instead of a syringe.

Liverpool.

SALFORD ROYAL HOSPITAL.—The annual meeting of the subscribers to this institution was held on the 10th inst. in the board-room of the hospital, there being a good attendance. The report showed that during the past year 15,314 patients had been treated, against 14,152 in the previous year and 13,101 in 1887. The income had been £4826 and the expenditure £5955, leaving a deficit of £1129. The board had made an important modification in the way of admitting out and home patients in districts where there were few or no subscribers to the charity, and where there was consequently considerable difficulty in obtaining recommends. They had provided printed forms, which when signed by two householders certifying that the individual was a proper object of charity, entitled the applicant to medical assistance. The report was adopted.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

ON ANTIPYRIN.

BY ADOLPHUS J. RICHARDSON, M.A., M.D. CANTAB.,
ASSISTANT PHYSICIAN TO THE SUSSEX COUNTY HOSPITAL.

THE note on Antipyrin in THE LANCET of Aug. 17th, 1889, by Mr. Wingrave, induces me to give some details of its administration in a series of ninety-six cases, of which I have notes more or less complete. In only four of these has any bad effect been attributed to the drug. In a pregnant woman suffering from left-sided hemicrania, twenty minutes after she had taken ten grains an itching "white raised rash" appeared, diagnosed by a chemist as due to mussel poisoning. She had, however, taken nothing to which I could attribute it save the antipyrin. A patient with tabes dorsalis, after taking twenty grains fainted away, and is said to have lain insensible on the floor. One patient vomited after a dose of twenty grains, and one after a dose of ten grains; both, however, took it during a paroxysm of migraine, so it is very probable that the drug was not wholly to blame. In only the two above-mentioned cases was a larger initial dose than ten grains employed; I shall not repeat it. Thirty-eight of the cases were typical migraine; in nearly all I ordered ten-grain doses, to be repeated in an hour if the pain did not abate. In thirty-two cases the improvement was definite, in two doubtful, and four were unbenefited. In the successful cases, as a rule, not only were the paroxysms relieved, but their frequency was diminished. In three after a time the power of the drug seemed to fail, but an increase of the dose to fifteen grains produced the initial good result. In some cases, although the paroxysms were always relieved, their frequency was in no way affected. In none was the frequency increased. In two of the cases peptonuria was constant; both were relieved as to the migraine. The condition of the urine was observed in intervals as well as in paroxysms. Of the four cases in which the drug failed, one had, I believe, mitral obstruction, through which the migraine might have been aggravated; one vomited the antipyrin, probably before any therapeutic effects could have been obtained; the other two cases were both definitely hemicranias, and I have sometimes been tempted to think that the more definitely the migraine conformed to this type the less good was to be expected from antipyrin. In sixteen cases of head pain, some of which I could not explain at all, and none of which were markedly typical, the drug relieved in eight. A very different proportion to that on migraine, showing that the administration of the drug in a purely symptomatic manner meets with no undeserved success.

To detail the cases in which it failed:—1. Headache in anæmia, with possible gastric ulcer. 2. Violent vertical headache, possibly syphilitic. 3. Headache, associated with astigmatism (unrelieved by glasses) and gastralgia; improved under arsenic. 4. Vertical headache in a phthisical patient. 5. Rheumatism of scalp. 6. Continuous headache "all her life." 7. Temporal headache, possibly middle-ear disease. 8. Temporal headache.

In three cases of anæmic headache in chlorotic patients, contrary to my expectation, the drug relieved. These were not cases of migraine in chlorotic girls, but were headaches which were worse in the morning, unaccompanied by sickness or visual phenomena, and which got better as the day wore on, or on lying down. In four cases of tabes dorsalis, with lightning pains, my administration of the drug met with the most favourable results. All now invariably keep it ready for immediate use. One of the patients suffered from the most distressing nocturnal rectal tenesmus; on this the drug, although tried repeatedly, had no effect, but his lightning pains, of the most severe description, were at once relieved. Four times I have ordered ten grains to be taken at the onset of an attack of asthma nervosa, in all without any relief of the spasm. In three cases of facial neuralgia (in none of the patients was there any dental caries), one was much relieved and two but slightly; and it

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is noteworthy that the most successful case had previously taken in vain croton-chloral hydrate and tinctura gelsemini, whereas one of the but partially successful cases was at once relieved by croton-chloral hydrate. Unfortunately, I know of no difference between the cases. In one case of brachialgia great relief was experienced after a vast variety of drugs had been futilely exhibited. One case of paroxysmal sneezing and two of severe pain in the feet with no apparent cause were relieved.

Hove.

SUICIDE APPARENTLY BY AN ATTEMPT TO CUT OFF THE HEAD FROM BEHIND.

By JAMES LITTLE, M.D.

I NOTICE in THE LANCET of June 22nd, the record of a case under the care of Mr. Hulke of suicide apparently begun by an attempt to cut off the head from behind. The forensic interest attached to this case induces me to publish the details of an even more determined case which occurred in my practice on July 2nd, 1879.

The case was that of a woman, aged thirty-six, who had been discharged apparently cured about a week before from Garlands Asylum, where she had been an inmate about three months, with the symptoms of puerperal insanity. About 8 A.M. on the above date the daughter of the patient came for me saying that her mother had attempted to commit suicide, and on arriving at the house I met a ghastly spectacle. She had a knife in her hand, and on the back of her neck was a huge wound, which had apparently taken half her head off. It had gone through skin, muscles, ligaments, the very bone itself, and had opened into the spinal canal, but had not touched the cord. The head itself, having lost all its connexions at the back, was bobbing about in a manner that would have been ludicrous had it not been so ghastly. The instrument was a blunt and rusty table knife, with which she had been peeling potatoes. On being questioned as to her object in committing suicide, her only reply was that she did not know. Such treatment as was possible was applied, but she died on the sixth day from septicæmia. No post-mortem was obtained.

The chief interest of the case lies in the fact of the wound having undoubtedly been committed by herself, and in the very determined manner in which she had set to work apparently to decapitate herself.

Maryport.

ACUTE PEMPHIGUS RESULTING FROM THE INHALATION OF SEWER AIR.

By MARK STYLE, L.R.C.P.L., M.R.C.S.

I HAVE lately had under my care two cases of what I have ventured to call acute pemphigus, which I attributed to poisoning from sewer gases. Both cases occurred in children, aged five and two years respectively. On being called to the elder child, my first patient, I was informed that he had been ailing for the past fortnight or so, losing colour and appetite. On the previous day two blebs appeared, one on the sole of the foot and another on the shin of the same leg. During my attendance others followed at irregular times during the following fortnight, chiefly on the thighs and legs, and two or three on the abdomen. There was some irritation from them, accompanied by febrile symptoms, anorexia, and constipation. The younger child's was a milder but similar attack, having only two or three bullæ, which did not recur after the first week.

The treatment I adopted was quinine internally, an occasional alterative powder, baths of warm oatmeal and water, and zinc ointment and calamine lotion locally. I find that Hebra and other authorities deny the existence of acute pemphigus, but class all acute bullæ as erythema bullosa, although since several cases have been reported. In my cases there was no erythema; each bulla was distinct, and until it attained some size had no inflammatory redness, even in the immediate vicinity; there were no smaller vesicles, as in herpes; nor was the skin of the part markedly red, as in erythema bullosa. I believe, too, that erythema bullosa occurs chiefly on the trunk and upper extremities; in both my cases the upper extremities were free. As both mother and nurse were particularly careful about the children's diet, which consisted mainly of milk and farinaceous food, I was rather at a loss to account for the presence of the eruption, until on making inquiries I found that a nasty smell had been noticed several times in the passage immediately outside the nursery. On inspecting the bath-room, situated just outside the nursery door, I found that the housemaid's sink was acting as a very efficient ventilator to the main sewer, the overflow pipe from the bath was joined to the down pipe from the sink, and although it had a U bend in it, which probably contained no water, as the bath was little used, there was a clean cut into the lumen of the pipe between the trap and the sink-pipe, so that we had a constant stream of sewer emanations entering the warm nursery by night and day. I concluded from my discoveries that this most insanitary condition of things was the cause of the illness; at any rate the evil was quickly remedied, and the children were soon well again. I may add this house was let with "all the latest sanitary improvements." If these cases were not cases of "acute pemphigus," may I call it pemphigus with acute symptoms?

Bromyard.

HIGH TEMPERATURE IN CHILDREN.

By W. J. TYSON, M.D.

IT is a well-known clinical fact how quickly the body temperature changes in children, and without this knowledge we should be constantly alarmed; yet I am afraid most of us do not really appreciate the above condition until we have been some years in practice. The cases that I am particularly referring to are those in which one is called to at night, with a temperature of 102° to 104°, pulse varying from 100 to 150, but the respiration, as a rule, not increased in the same ratio. On visiting the child the next morning the temperature is normal, or even subnormal, and the child apparently perfectly well. Some men will say that the medicine ordered, such as tincture of aconite, in drop doses frequently, a cooling saline, or a little grey powder, has been the means of lowering the heat. This may or may not be so, but my object in sending this note is rather to seek for a cause of the temperature than for the treatment of it. The most common cause is probably, I suppose, some form of error in diet, the offending food acting as an irritant upon the heat centre; another common cause is, I think, really a sunstroke; children in playing constantly throw off their caps and hats, and are exposed to the sun for many minutes. Doubtless there are other causes, but the above are the ones most commonly met with. The prevalent practice of people keeping their own clinical thermometers leads, in my experience, to the seeking of professional advice rather than the avoidance of it.

Folkestone.

A SIMPLE REMEDY FOR THRUSH AND SORDES.

By W. THEOPHILUS ORD, M.R.C.S., L.R.C.P.,
LATE RESIDENT SURGEON, BIRMINGHAM GENERAL DISPENSARY.

AMONGST the ill-fed children of the poorest residents of our large cities thrush is an extremely common and troublesome complaint. The following lotion, to be applied frequently with a feather or brush to the white patches, kills the oïdium albicans more quickly than any other I know, and removes the patches after a few applications, leaving healthy mucous membrane. It consists of equal parts of lotio nigra and glycerine mixed. I attribute its action to the germicidal power of the mercury. The quantity used is so small as to be quite harmless. Another condition in which I have found the same lotion invaluable is in that of the sordes which collect so abundantly on the teeth, lips, and tongue in many cases of enteric fever. It cleans these parts as if by magic, and renders that unpleasant process known as "scraping the tongue" quite unnecessary. It may also with advantage be painted over the fauces &c. in those unhealthy conditions of the throat which are so common in typhoid. I tried it in one case of catarrhal stomatitis, but it had no effect, whereas chlorate of potash effected an immediate cure. Also in the sordes of advanced phthisis it seems to be of no use. Not having seen this lotion mentioned in any book, and having found

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it superior to any of the usual preparations in use for these affections, I venture to bring it to the notice of the profession, in the hope that it may prove as great a boon to other practitioners as it has been to myself.

Bournemouth.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

PADDINGTON INFIRMARY.

TWO CASES OF HYSTERIA IN THE MALE; REMARKS.

(Under the care of Dr. SAVILL.)

WE give below two instances of the development of hysteria in the male subject, a condition which, as we have already said in the editorial notes of a previous case,[1] is not frequently met with in this country. Dr. Oliver[2] says that he has frequently witnessed its evolution as a traumatic sequel in the apparently robust and energetic labourer, and also adds that in both sexes it is a most intractable disorder, but is more amenable to treatment in the female than in the male. The ages at which this condition is most usually met with in males are about fifteen, or from thirty-five to fifty. We need not mention the special points of interest in these cases, as they are fully indicated by Dr. Savill in his remarks.

CASE 1.—James W——, aged thirty, a valet by occupation, was admitted into the infirmary on July 19th, 1889, complaining of general weakness, occasional sickness, giddiness, and obscure neuralgic pains in various parts of his body, which could not be associated with any objective signs. Indeed, he was a tall, well-built healthy-looking fellow, without any trace of effeminacy. His expression of face was rather suggestive of cunning. The thoracic and other viscera were normal and the testicles were normal in position and size, but on examining the abdomen there was marked hyperæsthesia all over. This hyperæsthesia extended a little way over the costal arches, and downwards over the front of the thighs. It was very accentuated over the inguinal region of both sides, and moderate pressure over this spot, which is known in the female as the ovarian region, gave rise to a choking sensation in his throat, sighing respiration, cries of "Oh, dear!" arching of the back into a condition of opisthotonos, and violent convulsive efforts to remove the pressure, followed by profuse perspiration and exhaustion. The tactile sensation in other parts of the body was normal, and there was no paralysis; but when Mr. Henrey tested the field of vision a few days later there was found to be a well-marked general retraction on both sides, and the field of vision for blue was smaller than the field for red—the order being from without inwards, yellow, red, green, blue; instead of blue, yellow, red, green, as in the normal eye. The fundi appeared healthy. Upon inquiry, he told us that he had been subject to nervous or "fainting" attacks all his life. These attacks occurred as often as every week or two, and would come on after "nervousness," or excitement from any cause. An attack commenced with profuse perspiration, then he would fall down, though without complete loss of consciousness, and after about ten minutes he came round, crying or laughing; an attack, he told us spontaneously, "brings on a bit of hysterics." On one or two occasions he had passed urine involuntarily, and often "ground his teeth," but never bitten his tongue. His mother, his aunt, and his only living brother had been subject to the same sort of nervous attacks. The patient himself had been a heavy drinker, and had indulged in sexual excesses from an early age, but otherwise there was nothing important in his previous history. No specific line of treatment was adopted, and he left the infirmary well on Aug. 14th.

Remarks.—The case presents a typical example of "ovarian phenomena," hysterical dyschromatopsia, and "faintings" in the male subject. In the case of this man, as in one previously narrated,[3] there was a previous history of venereal excess, and also a family history of the hysterical diathesis.

CASE 2.—Charles H——, aged fifty-five, a greengrocer, was admitted into the infirmary on June 7th, 1889. He appeared at first sight very ill, and wore a most distressed unhappy look, an aspect which he never lost and which was in keeping with the gloomy view he took of life. He told us in a whining tone of voice, and with much detail, that his illness dated from an injury he had received to his right ankle twenty-four years ago, that his right leg had been "paralysed" ever since, causing him to walk with a stick or crutch, although he managed to carry on his work; and that his left leg had gradually become paralysed without apparent cause eight months before, since which time he had taken to bed. There had been no incontinence. All his life he had suffered from headaches, had been very "nervous" and easily put out. He had lately been subject to attacks of "hot flushings," followed by "cold shivers" and trembling. In other respects his previous and family histories were negative. On examination, we found that he had a flaccid paresis of both lower extremities, more marked in the right; though it was by no means complete in either, for, or being held up on both sides and told to walk, his legs were thrown out and moved rapidly to and fro in the air like a paddle-wheel out of water. No paralysis elsewhere, but marked wasting of all muscles, especially of the right leg (the one injured), which measured one inch less in circumference than the left. Besides this atrophy no evidence could be discovered of the old injury. Upon striking any muscle or tendon of the body or limbs a very prompt and marked reflex could be obtained. A moderate tap on the patellar tendon of one side would produce a jerk not only in the leg, but also in both arms. Repeated blows of greater force were followed by a transient stiffness of the leg. Reflexes could be obtained also at the wrist, elbow, and lower jaw. Ankle and knee clonus were very marked on both sides, but clonus could not be obtained in the lower jaw. No inguinal tenderness or alteration of sensation. Field of vision not tested. He suffered very much during the first few weeks after his admission from severe frontal headache, but this subsided without treatment. He also had many pains in different parts of the body. We often had an opportunity of observing what the patient meant by "hot flushes and cold shivers." An attack would come on after some excitement, such as the doctor's visit, or perhaps without any cause. The face, and sometimes other parts of the body as well, became red and looked hot, though it did not feel so to the hand; next there would be profuse general perspiration. At this time the patient stated he felt cold, and there was occasionally some shivering. The whole lasted only a few minutes. Beyond the above symptoms no abnormality was discovered, the viscera were healthy, and the temperature was always normal.

The main treatment adopted was eminently psychical. In the infirmary he was of course removed from the conditions under which his disease had arisen, and a strict limit was placed on the visits of sympathetic friends. The patient was daily persuaded that if he only tried sufficiently he would be able to walk. At first this was only done by holding him up on both sides, then on one side; by-and-bye he succeeded with two sticks, then with one, and at the end of a month he was able slowly to walk the length of the ward alone. He was also placed on a liberal diet, given bark and acid internally, and had cold shower baths daily during the last month of his stay. He was discharged able to go to work on Aug. 9th, after two months' treatment, though he still limped slightly with the right leg, and there were still slightly increased tendon reflexes and occasional flushings.

Remarks.—The leading features in the case are: paresis of the lower extremities, irritability of all muscles and tendons, and attacks of flushing, followed by profuse perspiration. That the symptoms presented by this patient were not due to any gross lesion of the nervous system is sufficiently demonstrated by the absence of other symptoms usually associated therewith, and by the speedy cure (albeit after so long a duration) under psychical treatment, shower-baths, and tonics. Not the least interesting feature in the case is the occurrence of the flushings and sweats—

[1] THE LANCET, vol. i. 1889, p. 934. [2] Brain, vol. ix., p. 219. [3] THE LANCET, vol. i. 1889, p. 984.

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due obviously to some vaso-motor disturbance,—as showing the identity of the great neurosis (hysteria) in the two sexes. This symptom no doubt frequently escapes notice in the male, but is often very pronounced in the other sex, especially at the climacteric. I have described this case under the heading of hysteria, but there are two conditions—*species* of the neurosis—to which the case is undoubtedly allied, if not identical. (*a*) The *hypertonic* paresis described by Dr. Hughes Bennett.[4] In the cases to which this author refers the main features are paresis and exaggerated muscular irritability to percussion in varying degrees, and the one now under consideration differs from these in no important particular. (*b*) *Strychnism*, a term used by Professor Charcot[5] to denote the hyper-excitability of the grey matter of the spinal cord, which is presumed to be the anatomical condition attended by increased tendon or muscular irritability, and, if pronounced, by tonic and clonic muscular spasm. The precise anatomical nature of the change in these cases has not yet been demonstrated. It seems to me highly probable that Dr. Bennett's "hypertonic paralysis" and Professor Charcot's "strychnism" are very closely allied to each other, and that the muscular irritability in the case now under consideration belongs to the same category, and may be hypothetically explained by the same reasoning. But, whatever be the true pathological explanation of these cases, the highest importance attaches to their prompt clinical recognition; since with very few exceptions they are readily curable under appropriate means. The second of the two cases above described had been under treatment by several doctors. From what the patient told us, it is very probable that they had recognised the nature of the case, but they were unable, owing to circumstances, to carry into effect the cardinal principle in the treatment of such cases—namely, removal from the surroundings under which the disease had arisen. The patient expressed much gratitude at his cure; but it is doubtful if it will be a permanent one, for relapses are not uncommon in such cases.

HANTS COUNTY ASYLUM.

ACUTE PERITONITIS DUE TO PERFORATION OF INTESTINE IN A CASE OF LATENT TYPHOID FEVER; NECROPSY.

THE physician to a large hospital has opportunities of seeing at intervals examples of latent, or as it has also been called ambulatory, typhoid—cases of typhoid in which the symptoms have not been sufficiently severe to make the patient consider himself ill or abandon his occupation, until the supervention of hæmorrhage from the bowels or the sudden onset of peritonitis. The patient in this case took her food as usual, and, although under daily observation, presented no signs indicative of ill health until the morning of the day preceding death; and yet the fever must have been in progress for some time. Fagge[1] says: "The date at which peritonitis sets in is usually in the third, fourth, or fifth week. Cases have been recorded in which it has been as early as the eighth, ninth, or twelfth day of the patient's illness, but in all probability the disease has then really been of longer duration"; and, in speaking of peritonitis, he points out its possible cause as perforation of a typhoid ulcer due to typhoid "entirely latent." This perforation of a typhoid ulcer and the consequent peritonitis are the most dangerous complications of the fever. Murchison gives it that in this country 1 in every 33 dies of perforation, and that it is found in a fifth of all the post-mortem examinations made on patients who have died from the effects of typhoid. The occasional occurrence of this fatal complication in cases where the fever is so mild as to avoid recognition affords the strongest additional reason for maintaining complete rest and careful dieting in all cases, and especially in those attended only by prostration and so-called low fever. For the following account we are indebted to Mr. Morgan Finucane, senior resident medical officer.

E. C——, a female aged forty-nine, was under treatment in the asylum for mania, with delusions and some dementia. She was a tall thin woman, who had never shown any symptoms of illness until two days before her death. She took her food ordinarily, suffered more or less from constipation (a complaint well known as common amongst the insane), never complaining in any manner to nurses or patients in the same ward.

July 17th.—She complained of pain in the stomach this morning, and for the first time refused her breakfast. Her removal to the infirmary was ordered. A quarter of a grain of morphia given by hypodermic injection. The temperature was 100°. Abdomen quite hard and resistant, legs drawn up, and considerable pain on the slightest movement; tongue clean and moist; no sickness or headache. Temperature, 5 P.M., 99·4°; pulse small and weak. Hot fomentations to be applied and brandy given frequently; in the evening, at 7 P.M., she showed more definite symptoms of peritonitis.

18th.—Temperature to-day 101·2°. Legs drawn up; abdomen swollen and tympanitic; great pain; face pinched and drawn; bathed in profuse perspiration; pulse small and thready; taking brandy very frequently, but is rapidly sinking; hot fomentations frequently applied; no vomiting. Died to-day at 12.15 P.M.

Necropsy (July 19th at 9.15 A.M.).—The intestines were glued together by recent lymph, the surface of them being very much injected. The abdomen was filled with recent exudation. The ileum and large intestine showed undoubted typhoid ulceration with perforation of one of the ulcers in the ileum. The spleen was enlarged, injected, and very soft. Mesenteric glands enlarged.

Remarks by Mr. FINUCANE.—This case illustrates one of the difficulties medical officers have to contend with in asylums whose sanitary condition allows of the prevalence of diseases such as typhoid. The difficulty in the recognition of the disease is doubled in the case of the insane, and it is only by the systematic taking of the temperature of every patient daily (a no mean task in an asylum containing 1000 patients) that the prevention of such an unfortunate occurrence can be secured.

ALICE MEMORIAL HOSPITAL, HONG-KONG.

ANEURYSM OF THE ANTERIOR TIBIAL ARTERY; CURE.

(Under the care of Mr. J. BELL.)

ANEURYSMS below the bend of the knee are very rare, and few having a spontaneous origin are recorded; nearly all were the result of injury, usually wounds of the calf of the leg, and arose from the posterior tibial artery. Mr. Savory and Mr. Adams[1] have each recorded a case of aneurysm of the dorsalis pedis, apparently arising independently of injury. Mr. Erichsen had met with but one case of aneurysm of the anterior tibial artery;[2] it occurred in a man the subject of cardiac and renal disease, and was situated at the lower part of the upper third of the leg. Compression was without avail, and he left the hospital uncured. The cases recorded by Mathelin,[3] Page,[4] and Jamison[5] were of traumatic origin, but are interesting from the method of treatment adopted; and of the cases of Arata and Willard given in the collection of aneurysms of the posterior tibial made by Kinloch[6] the posterior tibial was similarly diseased in both. Willard's patient suffered from renal disease, and died after compression of the femoral.

Fung A. Ki, aged thirty-eight, a Chinese coolie, was admitted on July 19th, from the out-patient department, complaining of pain about the right ankle-joint and swelling of the foot. In the line of the anterior tibial artery and an inch and a half above the joint was a globular, pulsating swelling, about the size of a small orange. The ordinary symptoms of an aneurysm were all well marked, and the artery above and below the tumour was considerably dilated. There was no history obtainable of injury or syphilis, and in all other respects the man seemed perfectly healthy. The tumour was of two months' duration. The following day a consultation of the staff was held, and it was decided to try pressure by Martin's rubber bandage, and this was done. The leg and thigh were tightly bandaged, the sac being of course left full of blood. The knee was forcibly flexed and tied in this position. With the help of hypodermic injections of morphia this was kept on for five hours, but without any effect. Next

[4] Brain, Parts 34 and 38.
[5] Lectures on Diseases of the Nervous System, vol. iii., New Sydenham Society's Translation, pp. 37, 113, and 119.
[1] System of Medicine, vol. i., p. 180.

[1] System of Surgery. Edited by Messrs. Holmes and Hulke, Vol. iii., p. 132.
[2] Science and Art of Surgery, vol. ii., p. 256.
[3] Archives de Méd. et Pharm., 1887.
[4] THE LANCET, vol. i. 1887, p. 522.
[5] New Orleans Medical Journal, 1888.
[6] Journal of the American Med. Assoc., 1881.

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day Mr. Bell applied the same treatment for three hours, but on removing the bandage the pulsation was as distinct as ever. On July 23rd Martin's bandage was again applied, and Esmarch's tourniquet over the femoral above the bandage, the whole limb being wrapped in cotton wool. The pain was very severe, notwithstanding hypodermic injections of morphia, and after about an hour Dr. Thomson very kindly kept the patient under chloroform for an hour and a half. The tourniquet and bandage were then removed, and the students in relays kept up compression of the femoral for seven hours. All pulsation ceased on the application of the tourniquet, and never recurred. The patient was kept in bed, and for a few days wore a McIntyre's splint, to prevent his walking about the ward. At the end of a week he was allowed out for an hour on business, but stopped out all day, and returned at night none the worse for the exercise. On Aug. 19th—twenty-six days after all pulsation had ceased—he was discharged cured. The tumour was quite firm, and had shrunk to less than one quarter its original size. The rarity of this form of aneurysm may be judged from the fact that none of the nine medical men who were present at the consultation had ever seen a case before.

Medical Societies.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

AT the first meeting of the session, Oct. 10th, the PRESIDENT (Dr. Gwynne) delivered the opening address, upon the subject of "The Children of the Poor and their Diseases." He pointed out that the diseases generally observed among hospital patients can be in the main referred to either the scrofulous, the tuberculous, or the rachitic diatheses, and maintained that these various types of disease had their origin in the unhealthy conditions under which children are reared. He sketched out in the case of these three main types the relationship that subsisted between the causes that produced them and the effects produced. He maintained that, as society did not discountenance, but rather encouraged, immature and reckless marriages, the children of such marriages had a substantial claim to look to society for their protection. He deprecated the illogical expenditure of money by charitable organisations in rescuing individual victims, and the utter neglect of the causes that produced such lamentable results. He showed how inadequate medical art was to deal with the enormous mortality among children, and the vast amount of disease that resulted from causes that were in the main preventable. He pointed out the want of systematic instruction in the diseases of children at the medical schools, and recommended that attendance on a course of lectures on this subject and bedside instruction in the children's wards should be made compulsory on all candidates for medical degrees. To check the reckless procreation of children among the pauper classes, he recommended the raising of the legal marriage age, and the imposing of other restraints that might be deemed advisable. To relieve the congestion of the population in towns, he recommended emigration and a systematic method of colonisation in such countries as Western Australia, and the establishment of industrial schools in connexion with such colonies, where children could be trained to trades and employments most suitable to the country. He predicted that the gradual massing of the population in large cities and the resulting moral and physical evils would in the future compel the consideration of such social questions.

A vote of thanks for the address was passed on the motion of Mr. Favell, seconded by Mr. Garrard.

PATHOLOGICAL SOCIETY OF MANCHESTER.

THE annual meeting of this Society took place on Wednesday, Oct. 9th, when the reports of the committee and hon. treasurer were received.

The following officers were elected for the ensuing year:—President: Dr. Dixon Mann. Vice-Presidents: Messrs. G. A. Wright and C. E. Richmond. Treasurer: Dr. H. R. Hutton. Secretary: Dr. Thomas Harris. Committee: Drs. J. Collier, A. Donald, E. S. Reynolds, A. Robinson, W. Thorburn, and R. B. Wild. Auditors: Drs. J. Hervey Jones and P. Yates.

Multiple Exostosis.—Mr. A. H. YOUNG showed preparations from a case of multiple exostosis, and Dr. THOMAS HARRIS showed a patient suffering from the same disease.

Calcified Enchondroma.—Dr. HUTTON showed a specimen of partially calcified enchondroma from the leg of a dog.

Sarcoma of Scapula.—Mr. SOUTHAM showed two specimens of periosteal (round-celled) sarcoma of the scapula. In one case, a male aged fourteen years, where the tumour was confined to the subspinous fossa, excision of the scapula was performed. The patient made a good recovery from the operation, but afterwards succumbed to a recurrence of the disease, secondary deposits occurring in the lungs, liver, and bodies of several of the dorsal vertebræ, death being due to compression of the spinal cord. In the other case, a female aged eleven years, the growth involved the whole of the scapula and encroached upon the axilla. The scapula, together with the arm and outer half of the clavicle, were successfully removed, and the patient was alive and well at the present time, which was two months subsequently to the operation.

Angina Pectoris.—Dr. OWEN showed sections from the left ventricle and aorta of a case of angina pectoris. The muscular fibres, especially those of the musculi papillares, were in a state of marked fatty degeneration. The aorta for an inch from the base and in its whole circumference was roughened internally by atheroma, which rendered the wall rather more than double its normal thickness at this part. The sinuses of Valsalva were similarly involved, and the orifices of the coronary arteries, especially that of the left, to some extent occluded. Isolated patches of atheroma occurred also on the ascending arch. The right posterior valve was roughened with deposit, but the free edge was intact. The patient, a woman aged twenty-nine, had presented distinctive symptoms of angina, and had died somewhat suddenly. There was no evidence of kidney disease or syphilis. The cause seemed due to severe strain, to which the patient had been subjected for some months previously to the onset of the symptoms.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

AT the annual meeting, held on Oct. 4th, the President, Dr. Murphy, in the chair, the hon. secretary, Dr. Oliver, read the financial report for the year. There are now 175 members in the Society. The officers were re-elected for the year.

Professor LAWSON TAIT delivered the annual oration, the subject being "Ectopic Gestation." He dwelt at considerable length upon the pathology of this condition, and showed the relationship which existed between tubal pregnancy and desquamative salpingitis. The operative treatment of the accident was thereafter discussed.—On the motion of Dr. Arnison, seconded by Prof. Philipson, a hearty vote of thanks was awarded to Mr. Tait for his address.

A banquet was held at the Assembly-rooms, Newcastle-upon-Tyne, and 140 members sat down to dinner, presided over by Dr. Murphy.

The first monthly meeting was held on Oct. 10th, the President, Dr. Murphy, in the chair. Nine new members were elected. Professor Lawson Lait was elected an honorary member.

Dr. ROBERTSON exhibited a man suffering from Cancer of the Larynx, upon whom he had performed tracheotomy in February last. There were now several sinuses above the wound leading down to dead cartilage.

Dr. DRUMMOND exhibited a man suffering from Diabetes Insipidus. Six months ago the patient was throttled by a fellow-workman. After the injury he bled at the mouth and nose. Seventeen pints of urine were passed daily, sp. gr. 1003; pulse only 60–64.—Remarks were made by Drs. Gibson, Oliver, and Redmond.

Dr. LIMONT exhibited a man suffering from Abdominal Aneurysm. The symptoms at first were pain and vomiting; now there are pulsation and well-marked bruit. He also exhibited a case of Aneurysm of the Right Carotid Artery. The physical signs were well marked. In both cases there was a history of syphilis. Dr. Limont likewise exhibited a woman suffering from Cerebral Tumour who had been trephined, with the result that she had regained conscious-

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ness, the use of her right arm, and had recovered her speech. The tumour at present was again growing very rapidly.—Mr. Black, Drs. Gowans, and Drummond joined in the discussion.

Dr. OLIVER exhibited a boy suffering from Cerebral Birth-palsy. He detailed the physical signs, and dwelt upon the pathology of the affection.—Messrs. Redmond and Galloway, and Drs. Gibson, Gowans, Drummond, Murphy, Mantle, and Morison made remarks.—Dr. Limont also exhibited, with microscopical specimens, the lungs of a patient who died from Coal-miner's Phthisis.

Dr. BENINGTON read a paper on Gynæcological Work, in which he emphasised the necessity of making a careful physical examination in all cases with pelvic symptoms.

IPSWICH CLINICAL SOCIETY.

THE first meeting of this Society for the winter session was held in the Board-room of the East Suffolk Hospital on Wednesday, Oct. 9th.

Dr. CASLEY showed (1) a case of Strumous Disease of the Knee, in which arthrectomy had been performed; and (2) a case of Hydro-pneumothorax, in which the patient's condition had been much benefited by aspiration performed twice.

Mr. MYDDELTON-GAVEY read notes on a case of Alcoholic Paralysis.

Mr. JULER, F.R.C.S., read a paper on the Value of Ophthalmoscopy in Medical and Surgical Diseases, and specially dwelt on the importance of headache as a symptom of ametropia. He also demonstrated the methods of correcting errors of refraction by retinoscopy.

Notices of Books.

Elements of Pharmacy, Materia Medica, and Therapeutics. By WILLIAM WHITLA, M.D. Fifth Edition. London: Henry Renshaw. 1889. — Although this work appears under a familiar title, and is issued as a fifth edition, it has very obviously received considerably more attention at its author's hands than might have been anticipated. A large portion of the book has been entirely rewritten and several new features have been introduced which will greatly enhance its value. In addition, the arrangement of the different sections is altered. An index to the B.P.C. formulæ has been appended in small type, and the section devoted to non-official remedies has undergone very careful revision. In a concise form this book presents much valuable information, and will probably continue to be of service to intelligent students and to busy practitioners; the former will find that the arrangement facilitates their studies, while the latter may use it to refresh their memories upon subjects acquired in their student days, or to keep abreast of recent combinations and innovations.

Chemistry: General, Medical, and Pharmaceutical; including the Chemistry of the British Pharmacopœia. By JOHN ATTFIELD, F.R.S., &c., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, &c. Thirteenth Edition. London: Gurney and Jackson. 1889.—Thirteen editions, English and American, in twenty-two years would place any book in the front rank of contemporary literature. Dr. Attfield's book is so well known that it needs no praise of ours, but we must once more commend it as one of the clearest, fullest, most accurate, and most generally useful scientific handbooks that any country can boast of. In spite of its compactness and moderate price, it is within its limits an encyclopædia of practical and theoretical chemistry. In the new edition the fame of the book has been well maintained by the revision of old and the incorporation of new matter. Among the additions we notice particularly the interesting account of ptomaines (p. 593), and of the sulphonic compounds, which have recently become so interesting because so important. Saccharin is already well known to be the sulphonic imide of benzoyl, but the new hypnotic, sulphonal, is a comparative stranger. For a wonder, it is not a coal-tar derivative, but boasts for its parents mercaptan and acetone, and for its scientific name, diethylsulphon-dimethyl-methane, or in symbols, $C(SO_2C_2H_5)_2(CH_3)_2$. We have recently had experience of its value in a case of advanced phthisis in a child of thirteen, who for a considerable time obtained refreshing sleep from it without a sign of subsequent ill effect. Dr. Attfield has greatly increased the value of his admirable book by the enormous index, comprising nearly 9000 references, which he has appended to it.

Hints to Travellers, Scientific and General. Edited for the Council of the Royal Geographical Society, by DOUGLAS FRESHFIELD, Hon. Sec., and Captain W. I. L. WHARTON, R.N., F.R.S., Hydrographer to the Admiralty. Sixth Edition. Pp. 430. London: The Royal Geographical Society. 1889.—This is the sixth edition of an excellent work first published in 1854. The information on the various subjects treated has been brought up to date by men in every respect competent for the duty, and whose names are a sufficient guarantee for its accuracy and value. While originally intended for explorers of countries little and imperfectly known, there is much in it, in its present form, which will be found useful for travellers in more civilised regions who wish to make their travels pleasant and profitable in the way of increasing their knowledge. The advice given by Mr. Freshfield in the preliminary hints may be usefully studied by all who go abroad, whether on duty, for amusement, or in search of health, as it may enable them to avoid much annoyance and thus enhance the pleasures of foreign travel. The medical hints by Surgeon-Major Dobson, late of the Army Medical Staff, deserve the careful consideration especially of those who are about to visit countries where medical aid is not easily to be obtained. We miss, however, in his remarks upon the general feeling of lassitude often experienced after prolonged physical exertion a reference to the value of small doses of opium, at least in cases where the strain is likely to be only temporary; nor does he notice the beneficial results obtained from the hypodermic administration of quinine in the graver forms of sunstroke. We recommend the "Hints" strongly to the notice of all vacation travellers and tourists who desire to increase their knowledge and add to the enjoyment of their leisure.

Father Damien, a Journey from Cashmere to his Home in Hawaii. By EDWARD CLIFFORD. London: Macmillan and Co.—It does not fall to the lot of everyone to visit a leper settlement, and to be the means of conferring pleasure on the inhabitants, but this Mr. Clifford, the well-known artist, has been able to do, and to make use of his advantages by writing an interesting little book on Father Damien and his work among the lepers. The substance had already appeared in three articles in the *Nineteenth Century* minus the introduction. Mr. Clifford went out to Molokai with gifts from various people for the afflicted population. He says there is no doubt leprosy has assumed a milder character of late years in the Sandwich Islands, and that as a rule lepers do not suffer severe pain. The length of life usually is four years from the commencement of the disease, after which time it generally attacks a vital part. Mr. Clifford induced Father Damien to try gurjun oil, with marked beneficial results; his appearance was much improved, and after a short time he slept better, and was able to sing, but the disease was too far advanced to be cured. It is well known how beneficial gurjun oil has been amongst lepers in the Andaman islands. Mr. Clifford draws attention to the terrible dangers of leprosy incurred by the natives of India. He quotes Mr. Kirkman, who denounces the defective regulations on leprosy in India.

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Lepers sit about rubbing their sores on the railings of the Elphinstone High School, and school being over, scores of boys sit and lean on these very railings. Lepers also perform their ablutions in the same tank as healthy people. Surely the self-devotion of Father Damien and others who devote their lives to these miserably afflicted people ought to stir up the British Government to make strenuous efforts to prevent the spread of leprosy in India. Mr. Clifford's book contains touching pictures of Father Damien's holy life and death.

Dictionary of National Biography. Vol. XX. (Forrest—Garner). Edited by LESLIE STEPHEN. London: Smith, Elder, and Co.—Volume XX. of this comprehensive work contains over 500 biographies, between twenty and thirty of which have reference to members of the medical profession. Amongst these may be mentioned John Fothergill (1712–1780), who, after graduating at the University of Edinburgh and coming to London to practise in 1740, was admitted a Licentiate of the College of Physicians on Oct. 1st, 1744, being the first graduate of Edinburgh thus admitted; John Milner Fothergill, M.D. (1841–1888), the writer of several well-known medical works; Simeon Foxe, M.D. (1568–1642), President of the College of Physicians from 1634 to 1640, and to which College he bequeathed a sum of £40. Dr. Foxe was buried in St. Paul's Cathedral, and he bequeathed a sum of £20 "towards ye repayring of ye same Cathedrall." The name of Fryer occurs six times, five of the Fryers being medical men. Dr. John Fryer, who was President of the College of Physicians in 1549 to 1550, seems to have possessed some sense of humour. He had attended the Bishop of Rochester in his last illness. On the Bishop's death his goods were seized "to the King's use," so that for twelve days' labour and four nights' watching Fryer received nothing. Thereupon he besought Cromwell's mediation on his behalf, observing: "Except your lordshype be good to me, I shal bothe lose my labour, my frende, and also my physycke; and truely if physycyens shuld take no monye for them that they kyll, as well as for them that they save, theyr lyvyngs shuld be very thynne and bare." As regards the amount of his recompense and reward for his pains, he remarks: "I beseche your lordshyppe it may be so motche the mor lyberall, becawse it shalbe the last payment; for of them that scape, we may take the lesse, becawse we hope they shale ons cum agayne in to our handys." The type and general get-up of the volume are all that can be desired.

Manual of Musical Drill and System of Physical Training, for the use of Schools. By GEORGE CRUDEN, A.M. Pp. 231. London: Simpkin, Marshall, and Co. 1889.—*Manual of Swedish Drill (based on Ling's System), for Teachers and Students.* Compiled and arranged by G. L. MÉLIO. Pp. 79. London: Sampson Low and Co. 1889.—The first of these works has been drawn up by an advocate in Aberdeen, chiefly for the use of teachers in public schools, with a view to promote the physical training of the young. It consists of two parts, the first including marching drill and those exercises in which little or no apparatus is used, and the second those requiring special apparatus, such as is to be found in ordinary gymnasia. The first division has a musical accompaniment for each set of exercises, and both divisions are illustrated by figures showing the manner in which the different exercises are to be performed. It is very much on the principle of Alexander's "Modern Gymnastics," and we have no doubt will be found a useful handbook for teachers. It is evidently the work of a man who thoroughly understands the subject and is careful in his directions. The second work gives a brief biographical sketch of Ling, the inventor of the Swedish system of gymnastics, and full instructions for executing correctly the various movements comprised in his system. It is entirely confined to exercises without apparatus of any description, such as clubs, dumb-bells, and wands, and the use of music is forbidden. At the end of the book a course of ten lessons is given, with the movements illustrated by figures. The system seems one well adapted for introduction into ladies' schools, and might also be adopted with advantage for young and delicate children. If carried out systematically it could not fail to be beneficial.

Emergency Notes: What to do in Accidents and Sudden Illness until the Doctor comes. By G. R. BUTLER, M.D. Pp. 102. New York and London: Funk and Douglas. 1889.—This addition to the literature of first aid to sick and wounded does not seem to have anything very new or special on the subject. It gives the usual information respecting what should be done in accidents, in cases of drowning and of poisoning. The book has the advantage of a copious index.

The Gulstonian Lectures on Secondary Degenerations of the Spinal Cord. Delivered at the Royal College of Physicians, March, 1889. By HOWARD H. TOOTH, M.D., F.R.C.P. London: J. & A. Churchill. 1889.—Some slight conception of the remarkable advances made of recent years in the knowledge of the minuter anatomy and physiology of the central nervous system may be gained from the perusal of Dr. Tooth's Gulstonian lectures. The topic selected appears at first sight to be comparatively limited; but it will be found that the lectures are full of facts gained by assiduous and patient study of the histological changes in degeneration of the nerve fibres and the various tracts in the cord selected by ascending and descending lesions. Dr. Tooth has made an important contribution to the scientific study of a difficult subject.

The Causes and Treatment of Abortion. By ROBERT REID RENTOUL, M.D. Edinburgh and London: Young J. Pentland. 1889.—This is a prize essay, with revisions and additions. It is a laborious compilation, and must be the result of careful reading. In the desire to be exhaustive the author has, especially in the chapter on "Maternal Causes," enumerated many important branches of the subject without much discussion. The chapter on the sequelæ of abortion (perimetritis, parametritis, phlegmasia, &c.), having no special characters in the case of abortion, might, in our opinion, have been omitted. Authorities are collected in a short index, but references in the text to chapter and verse would have enhanced the value of the work.

New Inventions.

"COMBINAIRE."

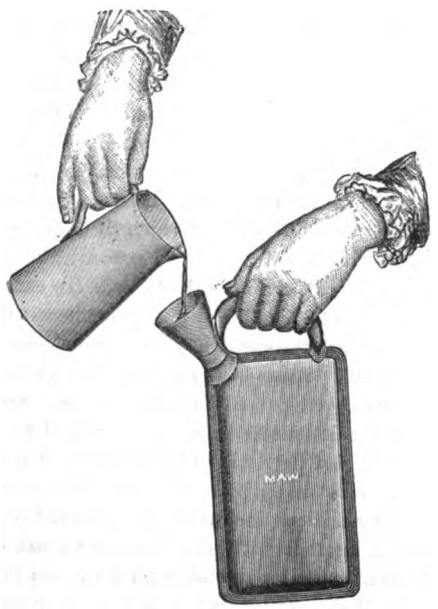
MR. THOS. STOWARD has patented a material produced by the union of indiarubber tissue and felt, to which he gives the name of Combinaire. It appears to be well adapted to many useful purposes, among which the inventor enumerates the lining of horse-boxes or stables and the making of cushions for public conveyances. For the former it appears to be well adapted, being seemingly singularly free from liability to burst under the impact of a sharp blow, and presenting a surface that can easily be cleansed by washing, while at the same time it can be made to afford any required degree of softness and resiliency. For use as a cushion it is of prime importance that a material should be impervious to dust and moisture, especially when seats have to be cushioned which are sometimes exposed—as is the case with railway carriages, omnibuses, and, to some extent, perhaps, with all public conveyances—to showers of rain. We have accordingly subjected a small cushion supplied by the inventor to a very severe test in this respect. The

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cushion before the experiment weighed six ounces, and was first immersed in water for a period of seven hours. It was found to have absorbed no more than a quarter of an ounce of water. Subsequently it was kneaded under water until it ceased to give off air. Very little air in all was given off, and again it was found to have taken up less than half an ounce of water. After being cut open it readily absorbed fourteen ounces of water. We have the satisfaction, therefore, of saying that, so far as the qualities of this new material can be ascertained by experimental tests, they appear to fit it admirably for the purposes for which it has been designed.

IMPROVED HOT-WATER BAG.

MESSRS. MAW, SON, and THOMPSON, of Aldersgate-street, have submitted to our inspection a Hot-water Indiarubber Bag, the pattern of which exhibits a distinct improvement on the ordinary arrangement in apparatus of this kind. This improvement consists in the funnel for filling the bag being placed at one corner instead of in the centre. The difficulty hitherto felt in charging the hot-water bags is, in



the pattern under notice, removed, as the handle is of sufficient strength and rigidity to allow of its being held by one hand whilst the vessel is being filled by the other, and that without the risk of being scalded by the steam of the hot water. The sample forwarded to us is also provided with a plush cover or jacket, which will necessarily enhance the comfort attending the use of the bag.

THE DETECTION OF COLOUR-BLINDNESS.

To the Editors of THE LANCET.

SIRS,—The subject of colour-blindness seems to be occupying considerable attention at the present time, but few seem to be aware of the imperfections of the tests used by the different railway companies. I will not deal with tests which are manifestly useless, but confine myself to that test which is recommended by many as an efficient one. I mean Holmgren's wool test. At an early period in my experiments in colour-blindness I found that there were very grave objections to this test, from a practical as well as from a theoretical point of view. I will confine myself to the practical aspect of the test.

1. Whom are we to reject by this test? If we reject all the (so-called) partially red and green blind, we shall reject many persons who are practically competent. If we only reject the (so-called) completely red or green colour-blind, we shall allow many persons who are dangerously colour-blind to officiate as signalmen. The test is more theoretical than practical, the main object of testing for colour-blindness being apparently lost sight of. Thus it has to be proved that a man who puts a confusion colour with a green wool cannot distinguish between a red and a green light. Then when a man has put a confusion colour with a green wool, there is still the point to be decided whether he has been judging more by shade than by colour. To an uneducated man a light green and a light greenish-grey are very much alike. In my experience, an ignorant four unit colour-blind—that is, a person who is partially colour-blind, but not colour-blind to an extent necessitating his rejection—is more likely to fail than an educated two unit—red-green colour-blind.

2. A person with central scotoma will escape detection if examined by this test. For example, I examined a person with central scotoma with my pocket colour test (in which small pieces of coloured material are ranged in rows), and found him perfectly colour-blind with respect to red, green, and grey. I then examined him with Holmgren's test, and he went through it correctly with the greatest ease. As a light at a distance occupies the central portion of the field of vision, these persons will be found to recognise colours when close to them, but not when they are at a distance.

3. The red end of the spectrum may be considerably shortened, so much so that a person may scarcely be able to distinguish red from black. It is obvious that this will not prevent him from matching a light green wool with other green wools.

4. The test, being based on a fallacious theory instead of upon practical observations, repeats all the errors of this theory. Some of the features of the test are really due to impurities in the colours used.

With regard to the test which should be used. If the persons to be tested have to distinguish between the standard red and green lights, these lights should be used as a basis of the test; because if any other test were used we should still have the same problem before us from a practical point of view. Space will not permit me to go into the details of my test. Briefly, I put the person to be tested in as nearly as possible the same conditions as he would be likely to be in when following his employment.

Thus, in combination with coloured glasses, I used special kinds of neutral glass of different degrees of thickness. These glasses obstruct the light in the same way that the atmosphere or fog does, and therefore puts the examinee in a similar position to that in which he would be likely to be. It is perfectly certain that a colour-blind person cannot judge by the intensity of a colour when there is a thick neutral glass in front of it. Naming colours is certainly the best method under these circumstances, because it is the expression of the idea present in the examinee's mind. Ignorance of colours would be quite as fatal as colour-blindness if a sailor *thought* a red light was called green and steered as directed for a green light. I think the argument that Holmgren uses against naming colours is really one in favour of it. Thus, many uneducated men who would put a light greenish-grey wool with a light green wool would not make this mistake if told to pick out all the greens.

With regard to the person who should conduct the examination for colour-blindness. There seems to me no doubt that the testing should be conducted by a medical man specially trained in colour-blindness. Testing for colour-blindness is not an easy matter, and requires as much experience as using an ophthalmoscope or stethoscope. I am strongly of opinion that we shall make no real advance until a committee is appointed to report on the subject, and to examine and appoint properly trained examiners. I know of one case in which the examiner himself was colour-blind.

I hope that colour-blindness in connexion with railways will be considered before some great railway accident draws universal attention to the subject and the worthlessness of the tests in use.

I am, Sirs, yours faithfully,

F. W. EDRIDGE-GREEN, M.D.

Finsbury Park, N., Oct. 12th, 1889.

UNIVERSITY OF CAMBRIDGE.—Professor Michael Foster has been reappointed a manager of the Balfour Fund for a period of five years.

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THE LANCET.

LONDON: SATURDAY, OCTOBER 19, 1889.

NOTWITHSTANDING the readiness of all classes and companies to laud and magnify the profession of medicine, it is admitted on all hands that it is an underpaid profession. Often the medical man goes unpaid altogether or is paid last of all creditors. And in regard to large sections of the community a most immoral conception of obligation for medical service obtains. The great working and wage-earning class contains comparatively few members who think it proper to provide for themselves and their families a medical man to whom they can honestly and boldly go at any hour of the night or day. Even for ordinary ailments they rush off to the nearest hospital or dispensary, and *a fortiori* for anything extraordinary. Unfortunately this contagion of dependence and pauperism in medical matters has invaded the lower middle and trading classes, and well-to-do people think it quite within their rights to take themselves and their children to the great out-patient departments of our hospitals, and wait for hours in the most promiscuous of all crowds till they are seen by one of the out-patient staff. In the middle of the night when pain presses, at the evening time when matters look threatening, and a certificate of death may be needed to stave off an inquest, the general practitioner is called in, not to save life, but to cover the death of the patient with the semblance of proper attention. In this way several evils have arisen: the wage-earning class and the lower trading and middle classes have become a charge on charities that were never meant to bear such a burden. The medical practitioner who cannot be dispensed with altogether is treated, not as an educated man whom it is an advantage to have as a neighbour and a friend, but as a stop-gap. There is yet a third evil—that the classes who thus escape a reasonable expenditure on medicine are demoralised. Health, which costs them nothing to keep or recover, or but the price of a glass of beer, is lightly esteemed. They are seen in their illnesses or ailments by strangers, who have no social knowledge of them or personal interest in them, and, as they get medicine and advice for nothing, they conceive the idea of getting most other things for nothing. From the medical charity experience they lapse readily into dependence on other forms of charity, and are apt to land as paupers in the Poor-law dispensaries. It is unquestionably true that many a working man who could pay easily £2 or £3 a year to a neighbouring practitioner, and who would blush to get parish medical assistance for himself, thinks it no shame to get hospital advice and medicine for nothing or for a pittance, which is almost more demoralising.

The facility for getting hospital advice and medicine is felt on all sides to be a great evil. Some say that it is quietly encouraged, or at least winked at, by the staffs of hospitals, either in the interest of medical education or for more personal reasons. Dr. RENTOUL says in one of his papers: "A number of practitioners acting on hospital staffs will oppose all efforts to restrict the giving of charity to all, as they hope that, the pay system being introduced, they will receive wages for work done by them." Sometimes the wealthy members of a hospital staff recommend the admission of a private patient rather than take a fee which the patient could easily pay to another surgeon, but which is beneath the dignity of the surgeon he first consults. This is a monstrous evil and an injustice to hospitals and to younger surgeons.

The enormous scale of hospital and dispensary abuse leads to the suggestion of many remedies, some of them, we fear, impracticable, or inadequate, or both. Dr. HUNTER of Paisley proposes to ask the Medical Council to request Government to legislate so that hospitals and medical aid may be paid for by a rate or tax, and a civil medical service for the benefit of the people be organised, the same as is afforded to the army and navy. This is a bold proposal—to ask the Government to pay and appoint the medical attendants of the people, even well-to-do people, who, according to the scheme, have to pay extra. The Government seems to us to have a great many things to do before it will find time to create a civil medical service. Dr. RENTOUL has another remedy—first, the cure of hospital abuses; and, secondly, the elaboration of a medical tariff for all wage-earners making from 20*s.* to 45*s.* a week, including everything, from a visit to an operation for strangulated hernia, for which £1 is to be paid. We think Dr. RENTOUL will do well to concentrate his attention on the removal of hospital abuses. He cannot force the working man to have his operation for hernia done outside a hospital, nor the capable surgeon who does it to be content with 20*s.* There is no power known to the law or to reason for enforcing such elaborate schemes and tariffs. They would shackle medical men in their hard competition with hospitals, and they cannot be enforced. A mere wage-test, too, is very deceptive. One working man with a healthy family and continuous work may be richer with 20*s.* a week than another with 45*s.* Another great defect in Dr. RENTOUL'S plan is, it makes no provision for attendance on families. If the people are to be weaned from hospitals and dispensaries it must be by methods that interest and benefit the families of the working classes, and gives them the sense of having a family doctor who takes a continuous and personal interest in them. Dr. RENTOUL'S scheme, too, includes payments to chemists for medicines, as well as to the medical man for advice. This is a matter for men of experience to determine, but we should say it is vain to expect the wage-earning class to make two payments. The doctor must either dispense or pay the chemist for dispensing. We may return to this subject, but we must, above all things, be practical, if we are to do any good.

THE question of treatment of extra-uterine gestation is too large to be dealt with briefly, but it may be well to indicate what we believe to be the proper procedure under several of the many conditions.

1. Before rupture—i.e., in the first ten to fourteen weeks. Here the difficulty is mainly one of diagnosis, and before diagnosis can be entertained suspicion must precede. It may be safely said that he who has not got the idea of tubal gestation well established in his mind will never

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suspect these cases, for they do not strike the attention. That they are more frequently suspected now than formerly is due to the greatly increased interest which is now excited in the subject—the increase of interest in its turn being due to increased surgical interference, and this again depending on the great improvement of abdominal surgery. But if the diagnosis of uterine pregnancy at a corresponding period is confessedly most uncertain, much less certain is that of extra-uterine pregnancy; and yet it must be made, or at least approached, nearly enough to justify treatment, either by action or inaction. In this connexion it is most helpful to remember that the difficulties in the diagnosis of extra-uterine pregnancy differ according to the different stages of pregnancy; in the early months it is easy to diagnose that a mass is extra-uterine, but difficult to determine that it is due to pregnancy; in the later months it is easy to diagnose pregnancy, but often difficult to diagnose that it is extra-uterine. The diagnosis of tubal pregnancy before rupture being thus necessarily obscure, what amount of probability may we expect to get? We should carefully inquire into the history of the last lying-in, especially with regard to the question of pelvic inflammation; we should ascertain the dates of antecedent pregnancies, especially with regard to the prolongation of the interval between the last pregnancy and the present supposed pregnancy, as compared with former intervals. We should go into the history of recent menstruation, and not be content with general statements, for strict amenorrhœa is not the rule in extra-uterine pregnancy; it is commoner for the patient to go a week or two over her first or second period, and then to have irregular discharges of blood. There may or may not be mammary signs; but these cases commonly concern multiparæ, in whom mammary signs are both less plain and less trustworthy. Serous secretion in one or both breasts may be taken for what it is worth. The discharge of a decidua is a sign of great importance. It is discharged at very variable times, often in connexion with rupture. It is generally lost unless a strict watch is kept on all discharges. If complete, and if empty, it is absolutely diagnostic of abnormal pregnancy, either extra-uterine or connected with a double uterus; but it must not be forgotten that largish sheets of decidua vera may be discharged from a pregnant uterus without abortion. The diagnosis, so far as it is possible, is completed by pelvic exploration. At this stage the uterus is often not palpably enlarged, the cervix is not usually soft, and all that is found is a lump, generally in one or other posterior quarter of the pelvis, displacing the uterus more or less to the opposite anterior quarter. It must not, however, be forgotten that fatal hæmorrhage has occurred from a gestation scarcely larger than a nut, and which could hardly have been detected. This completes our means of judging. It may be added that all these may be present, and be simply misleading; and yet if all are present we must decide on action or inaction. It is for these cases that electrolysis has been recommended, and it is claimed, especially in America, that in many cases the embryo has been killed, the sac has shrivelled, and all has ended happily. A contrast has been drawn between the diffident diagnosis of surgeons familiar with abdominal section and the confident diagnosis of those who do not operate and have, therefore, few opportunities of testing their correctness. Indeed, the acceptance of their diagnosis has been made almost a personal matter by some electrolists. With all respect for the perfect good faith of these gentlemen, we believe that evidence of such occurrences is entirely untrustworthy. It is known that electricity may flay a fœtus alive without killing it, and when we add that some of these cases may be read side by side with others in which after the use of electricity an ovum has been passed *per vias naturales*, and the operator asks his readers to believe, not that he has innocently procured a common abortion, but that he has induced the fœtus to pass from the tube into the uterus, we feel pained to think that so touching an appeal should fall in such unbelieving times as the end of the nineteenth century. What, then, is to be done? In our opinion, abdominal section.

2. The tube has ruptured. Here two conditions at least may obtain: (*a*) the patient is accessible at the time, (*b*) the patient is not accessible till some time after. (*a*) If the patient is accessible at the time abdominal section should be performed, for she may bleed to death, and the general rules of surgery are current here as elsewhere. (*b*) The patient is not accessible till some time after. We feel bound to warn our readers that this includes the great majority of cases which have been operated on, and that it is quite certain that rupture occurs not unfrequently without a fatal issue. If this is so, it is claiming too much to assert that all patients who do not die after operation have had their lives saved. What is to be done? Here there can be no absolute rule, but in most cases we think that the wisest course is to keep the patient under careful and immediate observation. If the lump shrivels, leave it alone; it has died, and at this early stage will be almost or altogether absorbed in many instances. If it grows, or if fresh symptoms of rupture occur, operate. Should the sac become infected from the bowel, it must be treated according to the rules of fetid abscesses.

3. Supposing that the case is not seen till the later months of pregnancy. What is to be done? Here comes in the question of the life of the child. In our opinion, in the face of the tremendous maternal risks, it is bad sentiment, bad morality, and bad surgery to regard the life of the fœtus for a moment. It should be removed, the operator remembering that many cases are subperitoneal, and should not be attacked in the middle line. If the sac can be extirpated, so much the better; if not, the placenta must be left, and the sac drained. It has been proposed to cut off the cord short and close the wound; but this has not gone beyond the stage of proposal. We shall watch with great interest for reports of such proceedings, whether favourable or unfavourable. An operator who decides to open the abdomen under these conditions must remember that the placenta is sometimes planted on the anterior abdominal wall, and that there is no case on record in which an operator, having fairly encountered it in his incision, has succeeded in stopping the bleeding. We feel bound to add this, because the fear of hæmorrhage has been ridiculed as a bugbear. The position of the placenta in these cases may sometimes be determined by palpation, but not by the (incorrectly named) "placental souffle," which has nothing whatever to do with the placenta, and

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in all carefully observed cases has been found to be absent over its site.

What we wish principally to inculcate here is the direction in which facts are required. The affection is far from uncommon, and it may be in the power of any of our readers to render incalculable service to knowledge by bearing the main facts in mind, and watching. The discussion of the subject has been somewhat burning in many quarters. It is, above all things, desirable that personalities should be strictly avoided. The affection is common property, and no one who is worthy to fill the humblest place in our profession can do otherwise than rejoice at any advance either in knowledge or in method by whomsoever made, and condole with any colleague who records failures which may contribute to the successes of others, and to record which requires some unselfishness, as well as faith in the good feeling of his professional brethren.

COINCIDENTLY with the remarkable decline in the recorded mortality from scarlet fever in recent years has occurred an equally remarkable increase in the recorded mortality from diphtheria. These changes have been especially noticeable in London. Thus, while the death-rate from scarlet fever during 1888 in Registration London was 29 per cent. below the mean rate in the ten preceding years, the rate from diphtheria exceeded the same average by 23 per cent. And from another point of view it appears that in the ten years 1861–70 the mortality from diphtheria was less than a sixth of that from scarlet fever, and in the next ten years, 1871–80, it was little more than a fifth; whereas since the beginning of 1885 the mortality from diphtheria in London has actually exceeded that from scarlet fever. This increased mortality from diphtheria coincident with a decreased mortality from scarlet fever is noticeable in the mortality statistics for the whole of England and Wales, but is not so well-marked as it is in the London statistics. This is partly due to the fact that both the decline in the mortality from scarlet fever and the increase in the mortality from diphtheria have been much greater in the large towns than in the rest of England and Wales. It is not our purpose now to consider the possibility of any direct relation between the decline of scarlet fever and the increase of diphtheria, but rather to call attention to the serious increase of fatal diphtheria in our large towns, and especially in London, which is not receiving the notice it calls for. In the Registrar-General's reports diphtheria was classed under the same heading as scarlet fever until the year 1859, when the two diseases were first shown separately. Diphtheria mortality in London was high during the six years 1859–64, and showed a mean annual rate of 239 per million of the estimated population; the rate fell to 135 per million in the next six years, and further to 122 in the ten following years, 1871–80. Since 1880, however, the disease has shown a marked increase of mortality, and the mean annual rate in London in the eight years 1881–88 rose to 228, the highest rate being 305 in 1888, which exceeded the rate in any previous year on record. The increase, moreover, has been more than maintained during the present year, for the annual rate during the first nine months of this year was 351 per million, against but 163 from scarlet fever. The distribution of fatal diphtheria within the metropolitan area is very general, but the death-rate from the disease during the three months ending with September last (when 456 deaths from diphtheria occurred among the London population) was most marked in Paddington, Kensington, Shoreditch, Bethnal Green, St. George-in-the-East, Stepney, Newington, and Lambeth. Nearly twelve months ago the continual increase in the mortality from diphtheria in London was brought to the notice of the Local Government Board, and the Metropolitan Asylums Board was authorised to receive cases of this disease for isolation and treatment in their hospitals. It is still too early to attempt to judge of the effect of this hospital isolation upon the prevalence of diphtheria and upon its mortality. We know, however, that in spite of this action the fatal prevalence of the disease has continued to increase. It is not without interest, moreover, to consider both the amount and the proportion of the metropolitan cases of diphtheria that have been treated in the Metropolitan Asylums Hospitals during the last twelve months. It appears that 582 cases of diphtheria were admitted to these hospitals prior to the end of September last, of which 216 proved fatal, 244 were discharged recovered, and 122 remained under treatment on Saturday, Sept. 28th. The proportion of mortality among the 460 completed cases was equal to 47 per cent. When we consider that this rate of mortality is nearly five times that which prevails among the cases of scarlet fever treated in the same hospitals, it is natural to feel a strong desire to compare these with other case-mortality figures relating to diphtheria. Such case-mortality figures, calculated on a sufficiently large basis, are not, however, readily available, and we must wait before we pronounce upon the effect of hospital treatment upon the mortality of this disease. It remains to consider the probable proportion of the London cases of diphtheria treated in the Metropolitan Asylums Hospitals during the past year. We find that of the 1600 deaths from this disease registered in London during the year ending with September last, 216, or 13·5 per cent., were recorded in these hospitals, while the proportion of the deaths from scarlet fever so recorded was equal to 43 per cent. On the somewhat doubtful hypothesis that the proportional case-mortality is the same in and out of hospital, we may therefore assume that during the last year certainly less than a seventh of the cases of diphtheria in London were treated in the Metropolitan Asylums Hospitals, although the proportion has recently been increasing. It remains to be seen what effect upon this proportion of isolation will be produced by the operation of the new Notification Act.

IN a short communication made to the *Nineteenth Century*, Dr. W. COLLIER raises the question of the Comparative Insensibility of Animals to Pain. There is much to be said on both sides of the question. Taking the human race, where the means of determining the relative degree of pain on the infliction of injury are accessible, it is certain that very great differences of sensitiveness exist. Few things constitute a sharper stimulus to a nerve than the knife, though laceration and bruising sometimes are nearly as severe, as those who have had a tooth drawn are well aware. Yet even the pain produced by the knife is borne with a difference, not only by different races, but by different individuals of the same race. Pain which causes

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one man to faint, will be borne by another without blenching, and there would even seem to be variations in the capability of bearing certain kinds of injury; for whilst negroes will batter each other's heads with blows that would probably prove fatal to a European, but which does them, partly on account of their thick hair and dense skull little harm, yet a blow on the abdomen, or even it is said a cut with a cane, which would cause little more than temporary inconvenience to the European, is seriously depressing or even fatal to them. We may reasonably conclude that if such great variations exist in the human subject they would be still more apparent in animals. That animals are conscious of pain there can be little doubt; nor can we doubt that there are great differences in the susceptibility to pain in different animals. The touch of a whip which will make a dog howl, and a thoroughbred horse to quicken his pace, will apparently be unfelt by an ass. Again, some animals seem to be susceptible to acute pain in certain parts, while they scarcely feel pain in others. A horse or cow will soon feed after a fracture of the leg, but an attack of colic or of peritonitis at once prostrates them, causes them to emit cries and groans, and entirely takes away the disposition for food. That some of the insensibility of the lower races of mankind is due to a much reduced number of sensory nerves seems to have been proved by late researches, but we are not aware that any observations have been made on the relative number of nerve fibres in the nerves of animals as compared with man, though such a research would unquestionably be very interesting. It is often thought that muscular movements show that pain is experienced, but every physiologist is well aware that violent movements can be excited having a tendency to withdraw the part irritated from the cause of irritation without the least perception of pain on the part of the animal. This is most conspicuous where the spinal cord is divided; the contact of a hot spoon with the sole of the foot will cause the leg to be violently drawn up, though neither in animals nor in man is there under such circumstances the slightest consciousness of pain. Cries again afford little information in regard to the endurance of pain, and indeed seem rather to be associated with the emotion of fear, as is shown by the circumstance that many animals caught in a trap will utter no sound, though severely lacerated, whilst they immediately emit cries on the appearance of the hunter. Dr. COLLIER adopts this view, and argues, we think, very strongly in favour of it. He points out that amongst the lower races of men the insensibility to pain is extreme, and refers to an example given in the *Spectator* a few months ago, when a correspondent related the fact that on the introduction of boots into New Zealand the vanity of the natives was so great that when one of them was happy enough to become the possessor of a pair, and found that they were too small, he did not hesitate to chop off a toe or two, stanch the bleeding by covering the stump with a little hemp, and then force the feet into the boots. Dr. COLLIER points out that animals are not liable to shock, and hence after the severest injuries will continue to feed as though nothing had happened; that many animals, as crabs, will throw off an offending limb; and that most animals die in deadly conflict or under the occurrence of sudden wounds, when evidence derived from man shows that little or no pain is experienced. Mr. ROWELL has accumulated in his "Essay on the Beneficent Distribution of the Sense of Pain" a series of remarkable cases, showing the very low sensibility of even the higher animals. He gives, for example, the case of a post-horse, which was running between Botley and Evesham, when it came down with such violence that the skin and sinews of both the fore fetlock joints were so cut that on its rising the bones came through the skin and the feet turned up at the back of the legs, the animal walking on the ends of the leg bones. It was placed in a field till permission was obtained for having it shot, and the next morning it was found quietly grazing, with the feet and skin forced some distance up the leg bones. Dormice, rats, and even monkeys will nibble away their own tails, and an old hyæna kept in the Jardin des Plantes at Paris had its leg broken, and one night bit off the leg at the broken part and ate it. It must be remembered, too, as Mr. ROWELL has pointed out, that pain has its beneficial aspect, being a guard against injury and a check to excesses; the high sensitiveness of the lips in man, for example, preventing the introduction into the stomach of food or fluids at too high a temperature, and the pain of pleurisy or of pericarditis preventing the sufferer from taking any violent exercise. We are quite in accord, however, with Dr. COLLIER, in thinking that a belief in the small amount of pain experienced by animals should not make us less careful in our dealings with them, but should strengthen our belief in the mercy and benevolence of the Creator, and should increase our pleasure in studying their habits and movements.

Annotations.

"Ne quid nimis."

THE SIGNIFICANCE OF THE QUALIFICATION OF L.S.A. PROCURED SINCE 1886.

WE publish in another column a communication furnished us by Mr. Upton, the respected solicitor of the Society of Apothecaries. It is meant to define exactly the legal significance of the licence of the Apothecaries' Society since and under the Act of 1886. Prior to the passing of that Act an apothecary was qualified to practise only in medicine. The licence did not cover the practice of surgery or midwifery. In truth, there was no examination in surgery. Now, however, all that is altered in accordance with those provisions of the Act of 1886 which required—first, that no person should after a certain date be registered in the Medical Register who was not possessed of a qualification in medicine, surgery, and midwifery; and, secondly, that the Medical Council should appoint examiners to assist in and complete the examination of any corporation which, after due endeavours, had failed to combine with any other corporation; so that henceforth its examination should be a test in the three branches of medical practice, and its licence should cover all the three branches. The Society of Apothecaries, and the sister Society in Ireland both took advantage of these provisions, and so saved themselves as qualifying bodies. This is the meaning of Mr. Upton's letter. There is no change in the letters L.S.A. in the qualification column of the Register, following the names of those possessed only of this diploma; but the letters of the title acquired since the Act of 1886 came into force have a threefold signification, and imply as much qualification as the law requires.

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SURGEON-GENERAL MARSTON, C.B.

THE *Gazette* of the 15th inst. intimated the retirement from the active list of the Army Medical Staff of Surgeon-General Marston, C.B. During the last thirty years Dr. Marston has done good and meritorious service as an army medical officer, and has filled with distinction several important appointments. In 1873, while employed at headquarters, he drew up all the details connected with the fitting up of the *Victor Emmanuel* hospital ship for service with the expedition to Ashanti, with most satisfactory results. In 1877, as medical member of a committee appointed by the Secretary of State for War, he drew up the dietary for military prisons which is now in general use. In December of that year he was appointed secretary to the Principal Medical Officer of the British Forces in India, in which capacity he had to prepare the scheme of field hospital organisation which proved so successful in the Afghan wars. He was also member of a committee appointed to consider the steps to be taken for the withdrawal of the troops from Afghanistan after the treaty of Gundamak, in consequence of cholera having made its appearance on the Cabul-Khyber route. For these services he was favourably mentioned in general orders, and was appointed honorary surgeon to the Viceroy. In 1882 he was appointed sanitary officer to the Egyptian Expedition, was present at the battle of Tel-el-Kebir, and was promoted to the rank of Deputy Surgeon-General. He subsequently held the appointment of Head of the Statistical and Sanitary branches at the Army Medical Board, and was nominated a member of the commission appointed to inquire into the education afforded by the Queen's Colleges in Ireland. In 1887, at a very short notice, he delivered a course of lectures on Military Hygiene to the probationers and medical officers at the Army Medical School at Netley, during the illness of Professor De Chaumont. In the autumn of the same year he was sent by the War Minister as the Army medical delegate to the ninth International Medical Congress held at Washington. His valuable report of the proceedings was published as an official document by the Government (*vide* THE LANCET, March 17th, 1888). In 1888 he was sent to Egypt as Principal Medical Officer of the British forces serving there, and organised the medical arrangements connected with the contingent sent to Suakim under Sir F. Grenfell. On his promotion to the rank of surgeon-general, he was transferred to Gibraltar, from which he has returned to retire from the service. In addition to much useful official work, Dr. Marston has contributed some excellent papers to the Army Medical Department Reports. Of these we would only specify a Report on the Fevers of the Mediterranean, in the volume for 1861; on Cerebro-spinal Meningitis, 1866; on Cholera, 1878; Enteric Fever, 1879; Sanitary Report of the Egyptian Expeditionary Force, 1881; and in 1884 a description of huts designed by him for Suakim and hot climates. We cannot but think that the Army Medical Service has sustained a great loss in Dr. Marston's retirement, but we trust it may be a gain to the profession by enabling him to turn to good account the experience he has gathered in his varied service.

DEATHS UNDER CHLOROFORM.

AT an inquest recently held the particulars were given of the death of a child aged six years, who succumbed to chloroform at the Victoria Hospital for Children. The child was admitted for treatment of disease affecting the left hip-joint. He had taken chloroform successfully upon two previous occasions, but on the day upon which the operation was to be performed the boy died, after having inhaled the anæsthetic for fifteen minutes. A post-mortem examination was held, and the medical officer is reported to have said that there was fatty degeneration of the heart, liver, spleen, and kidneys. The above record illustrates the fallacy of two popular beliefs—first, that a person who can take chloroform with impunity upon one occasion will subsequently enjoy an immunity from danger; and, secondly, that children, who proverbially take chloroform so well, are less liable to fatal accidents from its effects than are adults. In the case in question the open method appears to have been adopted, and a careful watch kept upon the child's respiration and pulse; but in spite of this, respiration and cardiac action stopped, and although means of resuscitation were adopted they failed to save the boy's life. Visceral degeneration is so commonly associated with chronic joint and bone disease that it is preferable, we think, in anæsthetising a child having such a malady to select either a mixture of ether and chloroform, or employ ether in succession to nitrous oxide gas. As was shown years ago by Pollock and Warrington Haward, the youngest children take ether well when that agent is properly manipulated. With regard to prolonged operations upon very young children, the chilling effects of ether vapour is a decided drawback to its use, but to meet our requirements in these cases we have the mixtures upon which to fall back. Even when nitrous oxide cannot be given, and the child struggles against ether, a few inspirations of a dilute chloroform vapour will lessen the irritability of the fauces and larynx, and allow the subsequent exhibition of ether without difficulty. There have now been so many deaths of children attributable to chloroform, that it seems time the anæsthetic in question should not continue to occupy the position it has hitherto held of being the routine agent of producing anæsthesia in young people.

Almost before the ink is dry with which we record the above fatality, the report arrives of the death of a woman in a Dublin hospital to whom it was proposed to administer chloroform as a preliminary to amputation of a thumb. It appears before she was fully anæsthetised she collapsed and died. The jury's finding that "the deceased died from fatty degeneration of the heart" does not carry us very far. There has always been a strange fatality about minor operations conducted under chloroform, so that it is hard to understand why, in a case such as that before us, the anæsthetic selected should be the confessedly more potent and perilous chloroform, rather than ether. The most thoroughgoing opponents of ether recognise that its bad effects, whatever they may be, are only shown when considerable quantities are taken, and the operation is a very prolonged one.

STREET IMPROVEMENTS.

MR. DOUBLEDAY, of the London County Council, has been making an ingenious calculation of the cost of narrow streets, which leads him to some very striking conclusions. For example, he contends that the delay to the vehicular traffic consequent upon the congested state of the Strand represents a money loss at the rate of upwards of £47,000 a year. The novelty and ingenuity of this argument cannot be denied; nor, again, can the soundness of his ultimate conclusion be successfully assailed. But we are not at all equally clear that his immediate inference is altogether irreproachable. Indeed, he appears to us to have lost sight of the fact that widened streets imply extended areas, and consequently that it may well happen that the improvement of such a thoroughfare as the Strand in the way of increasing its breadth may add more to the distance of an average business journey than it deducts from the delay in making it. But if we suggest a doubt as to the soundness of Mr. Doubleday's very plausible argument it is not because we

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have any desire to resist his conclusion. On the contrary, it seems to us that it would be difficult to overstate the importance of such improvements as he discusses. The excessive traffic through a narrow way which such a thoroughfare as the Strand exhibits is unwholesome both for body and mind. The turmoil and struggle are distressing to the nerves and destructive of serenity. The turbid atmosphere stirred into omnipresent eddies is laden with germ-infected dust, while the narrow and tortuous channel prevents the free circulation of fresh air, and the high buildings shut out the fitful sunlight. These are faults which it is well worth a liberal outlay to correct, and their correction would be an unalloyed and indisputable gain. We think therefore that there are good grounds for carrying out such work as Mr. Doubleday recommends without regard to his perhaps questionable arithmetic, and we are glad to see that the London County Council is addressing itself to this kind of undertaking. We trust that the considerations which have led to the deferment of this topic at the present time will have no more than a temporary application.

HYPNOTISM RETAIL AND WHOLESALE.

HAPPILY for the credit of the profession, the facts of the hypnotic state are pretty widely known and appreciated. A halo of mystery, a spice of the unknown, a faint suspicion of dalliance with occultism, render the so-called science of hypnotism a refreshing and acceptable change to the overwrought mind of the hard-working medical practitioner, and he is not backward to show his appreciation by joining societies at which hypnotic séances are held, or in other ways to keep himself *au courant* with the matter. But he is not always able to see between the lines and sift the science from the chicane. Against alike all the best feelings of humanity and the ethics of professional etiquette are "show exhibitions" of hypnotic phenomena, when the unknowing public are invited to attend upon paying an entrance fee. As well might the operating theatres of our hospitals, or the wards where our hystero-epileptics are treated, be made a focus for public attention, and afternoon receptions given, the proceeds of payment being of course given to "a charitable object." But we reach the climax of undesirability when the "charitable object" be the promoter of the show, whether he call himself "experimental director," "professor," or what not. Hypnotism, if in any way a remedial agent, belongs to the therapeusis of regular practitioners, and so falls within the scope of existing societies, such as the Neurological, Clinical, and Psychological, and so there can be no *raison d'être* for a concern such as is proposed under the aggressive title of the "Magnetic and Hypnotic Society of Great Britain"; and when we state that the "experimental director" has held public performances, we need hardly offer further arguments against a concern which cannot be deserving of the support of scientists or the public.

SALE OF FOOD AND DRUGS ACT.

A VERY trivial error in a certificate given by a public analyst was a few days ago the cause of an unfortunate collapse of proceedings under this Act against a dairyman for the sale of diluted milk. It is, no doubt, well that great circumspection should be used about the infliction of penalties, and it is right that a tradesman accused of infringing the provisions of the statute should have the benefit of carefully devised machinery for protecting him against false charges or the untoward consequences of official mistake. But, precisely on that account, it is the more important that the utmost care should be exercised by public officers and others who have the conduct of proceedings in a matter of this kind to avoid such a mishap as occurred the other day at the Bath City Police-court. A local milk dealer was, as we have said, charged with selling diluted milk, and whatever may have been the merits of the case, his defence was rested upon the narrow ground that the public analyst had entered the name of a Mr. Montague in his certificate as that of the person who had delivered to him the sample for analysis, whereas he should have entered the name of Gosling in this document. Mr. Gosling is Mr. Montague's assistant, and Mr. Montague, having effected the purchase and sealed up a sample of the milk in question, sent it by the hand of Mr. Gosling to the public analyst. For all ordinary purposes, therefore, it would be held that what Mr. Gosling had done in the capacity of agent to Mr. Montague had been done by Mr. Montague himself, and it is clear that the error of inserting Mr. Montague's name in place of Mr. Gosling's did not in the smallest measure affect the merits of the case. Nevertheless, it was held by the magistrates to be a good objection, and the charge was accordingly dismissed. The moral would seem to be that public analysts must be as careful about the formalities of their procedure as about the substance of their analyses.

TUBERCULOSIS.

DR. GREFFIER (*La France Médicale*, Nos. 115 and 116), writing upon recent researches in tuberculosis, alludes to several papers on this subject read at the recent Heidelberg Congress of German Physicians and Naturalists. In the course of a discussion Professor Rindfleisch declared that there were two different bacilli in phthisis, and that he had observed that the bacillus met with in miliary tuberculosis differed in thickness from that found in phthisis. But, as Dr. Heller pointed out, such differences may arise in the same sputa examined at intervals of a few days; and Dr. Greffier is doubtless correct in regarding this notion as insufficient on which to restore the doctrine of duality of phthisis. Dr. Böllinger finds that dilution of the milk of tuberculous cows deprives that fluid of its infective property, whether the dilution be made with water or with the milk from healthy animals. If this be so, then it is a point in favour of obtaining milk from large dairies, and also should check the practice of consuming milk taken from one cow alone, and unmixed with that from others. Yet it was found that not even a dilution of 1 in 100,000 destroyed the virulence of bacillary sputa. The subjects of heredity and contagion in respect to the transmission of phthisis were also discussed. Dr. Aufrecht held that the former was much more important than the latter, and declared that he had never met with, either in hospital attendants or in private practice amongst married persons, a single undoubted example of phthisis being communicated by contagion. On the other hand, Dr. Heller said that cases of phthisis did arise in hospitals; he had seen cases of croupous pneumonia which, instead of resolving, passed into caseation which he attributed to bacillary infection. In the Section of Hygiene, Dr. Sonnenberger, in a paper on the Risks of Bringing up Infants on Cow's Milk, declared that the number of "tuberculous" (*perlières*) cows in certain parts of Germany averaged 60 per cent., and that in Paris the mortality of infants attributable to the consumption of such milk was frightful. Other drawbacks to the use of cow's milk lay in the fact that certain vegetable poisons mingled with the food of the animal may appear in the milk. He especially pointed to the feeding on grains or bye-products of alcoholic fermentation as liable to render milk poisonous and to account for gastro-intestinal catarrhs in children. Dr. Schottelius finds that inhumation of tuberculous viscera does not, even after the lapse of a year and a half, destroy the bacilli or notably impair their virulence.

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THE DEATH UNDER NITROUS OXIDE.

THE record of so unusual an event as a fatality under this anæsthetic has, through the medium of the daily press, received a widespread circulation, and has produced much alarm and dread of the gas. Now that the facts are fully known, it becomes our duty to allay what at best are groundless fears, and to remove the slur which rests upon nitrous oxide gas, as well as to reiterate that we believe nitrous oxide to be practically without danger if only patients, as well as administrators of the gas, would take a few simple precautions. The patient whose sad death we recorded in a preceding issue was seventy-one years of age, she was suffering from advanced fatty degeneration of the heart, and was fully aware of her condition. Although she breakfasted at nine in the morning, and the teeth were not removed until noon, digestion appears to have been wholly suspended by the intense terror she experienced at the thought of submitting to the operation. She repeatedly told her daughter that she "knew she would not survive the operation." Added to the full stomach, and the extreme apprehension, both conditions liable to tell against even a healthy, much more a fatty heart, the patient wore a very tight corset, so tightly indeed was she laced that it was found difficult to remove the stays even by slitting up the laces with a knife. Although it would appear the dentist warned the patient to loosen whatever she had on which was tight, she merely loosened the neck wraps, leaving the more important corsets tightly laced. As soon as nitrous oxide was commenced to be inhaled, the dentist noticed that respiration was insufficient, and urged deeper inspiration. Doubtless this weak breathing was due to the tightness of the clothing. When eventually the patient became unconscious, two teeth were removed and a hole drilled into the antrum, giving vent to pent-up secretion. Then the patient suddenly changed colour, became livid, while respiration and heart action ceased, it is believed, simultaneously. During the subsequent performance of artificial respiration the undigested contents of the stomach were voided. There seems little doubt in this case that the impairment of respiration from tight lacing, along with distension of the stomach, told upon a heart itself badly diseased and weakened by the fear to which the patient had given way, and the most melancholy result followed. There can be no question that when any known degeneration of the heart muscle exists the recumbent or semi-recumbent posture should be adopted, as can easily be accomplished in a dental chair, and corsets removed and all waistbands and strings loosened. Where fear exists in the patient's mind, it is important to avoid a full stomach; a cup of beef-tea or a basin of bread-and-milk should form the meal preceding the operation. Reviewing all the circumstances of this most sad fatality, there is, we think, no reason for going back from the position which modern anæsthetists have occupied, that nitrous oxide is not only the safest anæsthetic we possess, but that when it is circumspectly given it is practically free from danger, save in cases of very advanced disease of the heart or lungs.

CONFECTIONERS' DISEASE.

DR. RODIGUEZ MENDEZ, Professor of Hygiene in the Medical Faculty of Barcelona, has just published in a new Spanish journal, *La Medicina Prâctica*, some notes of a case of a peculiar affection of the fingers and nails which appears to have been due to the patient's trade, that of a confectioner. Poncet of Paris, and Albertin of Lyons, have also observed the existence of this affection among those who are engaged in the calling of a confectioner. Dr. Mendez's patient was a man about forty years of age. When seen first every finger on both hands was affected, but not to the same extent. The worst was the middle finger of the right hand; here the anterior part of the nail was thickened and flattened, so that it had the appearance of a spatula, which is one of the signs noted by Albertin as occurring in his cases; the base of the nail was covered by a swollen portion of the soft parts which was not adherent to the nail, and which was of a bright-red colour with fissures as well as ridges on its surface. In it there were a number of minute abscesses, from the openings of which little beads of pus could be made to exude by pressure. The disease was evidently a combination of onychia with paronychia, and it was a remarkable point in the history of the case that the man had suffered in a similar manner, only much less severely, some years before, when he first practised the trade of a confectioner, and that when, for some cause totally unconnected with his malady, he had given up the trade, his fingers quite recovered. After a time he again took to the trade, but was at first engaged in making pastry and arranging the ornaments, during which time his fingers remained quite well. As soon, however, as he began to work on *marrons glacées* and on crystallised fruit his fingers began to become sore just as they had done in former times. There could be no doubt that the affection was due to the immersion of the hands in hot and cold syrups and the rubbing in of sugar, which, according to Remy and Broca, has the property of causing the tissues to become gangrenous. Dr. Mendez suggests that in this way openings were made by which pyogenic micrococci obtained access. His treatment consisted in washing the parts with a boracic lotion and wrapping them in boracic cotton wool. Of course the patient was enjoined to discontinue working at his trade.

ENTERIC FEVER AT BALRANALD, N.S.W.

THIS outbreak, which has been made the subject of a very exhaustive report prepared by Dr. J. Ashburton Thompson, occurred in a small and isolated bush township containing a population of 670, of whom no less than 120 suffered from enteric fever and 15 died. Every consideration calling for investigation is dealt with in detail, and by a process of exclusion water comes at last under grave suspicion; much of the material on which this view is based being the outcome of some very careful investigations made by Dr. G. L. L. Lawson, the district government medical officer. The main water-supply is derived from the considerable river on which the township lies, but rain tanks had recently been filled by the rainfall of January, and at that season of the year these tanks afford a much cooler and more attractive beverage than that supplied by the river. One special tank seemed associated with the outbreak. Amongst 124 persons known to use this tank water, there were attacks at the rate of 33·8 per cent.; amongst the remainder of the population the attacks, which numbered 47, were at the rate of 9·4 per cent. But amongst the latter there occurred a number of secondary attacks, and, quite apart from households known to use the tank water, it was incidentally drunk by other unknown persons, and it was supplied to at least one store where it was kept for customers, and also to two hotels, where it was used in the bars and at table. Under these circumstances, it became very difficult to eliminate all sources of error, and to assign every case occurring during the period preceding the secondary attacks absolutely to the tank water; but the general weight of the evidence is strongly confirmatory of the view taken by Dr. Thompson and Mr. Lawson. As to the means of pollution to which the tank may have been subjected, there was unfortunately but little doubt; and what with neighbouring cesspits, overflows, together with the recent filling up of part of an adjoining basement with earth, and this after the occurrence of several cases of fever

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in the house, it can hardly be doubted that means existed by which specific poisoning of the tank water can have taken place. Much pains have evidently been bestowed upon the report, and the perusal of it can hardly fail to assist in educating the people as to the extreme danger of allowing any such conditions to prevail in their midst as will subject their domestic water-supplies to the risk of contamination.

THE HOUSING OF THE WORKING CLASSES.

THERE are probably few Acts of Parliament more complex than those which deal with the improvement of the houses occupied by the poorer portion of the community, and this is especially unfortunate, seeing that the constitution of the London County Council gives promise that the existing legal powers for effecting this improvement will be more fully exercised than heretofore. An effort to make these Acts more intelligible is therefore very welcome, and for this reason we have pleasure in calling attention to an admirable little book on the powers of the London County Council in regard to the housing of the working classes, by Mr. William Chance, Barrister-at-law. This work has the advantage of discussing the whole subject with great clearness in the small compass of some sixty pages. Mr. Chance has selected especially as the texts of his argument those provisions which are the most obscure, and thus the reader is able to learn with little trouble the view which an experienced counsel takes of the intentions of the Legislature. There is one point upon which we are disposed to differ from Mr. Chance—viz., the power of the London County Council to exercise, upon the report of its own medical officer of health, the powers which devolve upon it in the event of the default of a vestry or district board to carry out the provisions of Torrens' Acts. We may, perhaps, be misunderstanding him, and he may be assuming that the Council and the vestries and district boards are arranging by agreement for the making of the services of medical officers of health appointed by the former body available in the districts of the latter boards. There is no indication of this at present. We commend the book to all within the metropolitan area interested in the subject, feeling convinced it will serve to relieve them of much of the difficulty that has hitherto stood in the way of a clear conception of the intention and powers of these Acts.

HYPERPYREXIA IN HYSTERIA.

THE *Centralblatt für Klinische Medicin* translates from a Danish medical journal a notice of a case of hysteria with a rise of temperature to 113° occurring in the practice of Dr. Lorentzen. The patient was a nervous woman, who after an attack of hæmoptysis suffered from severe dyspnœa with cyanosis and temporary asphyxia several times during the night; after the attack the patient lost consciousness for some time, and was then anxious and inclined to hallucinations. During the next two months she had, without any signs of phthisis, repeated attacks of hæmoptysis, with a repetition of the symptoms connected with the respiratory organs, added to which there was retention of urine. The temperature varied for three days from 103° to 104° F.; on the fourth day at noon it rose to 113°. Dr. Lorentzen found the patient without any other symptoms of inflammation, but slightly delirious; the temperature an hour afterwards had fallen to 108°, and in the evening it was 106·3°. The next day, after some paroxysms of dyspnœa, the temperature rose again to 113°, but fell in an hour to 99·5°. It varied in the next few days from 101·3° to 103·1°, and then became normal. The author considers the hæmoptysis without the slightest lung affection as neuropathic, and the rise of temperature as hysterical, as there was no organic disease, and the respiratory disturbance was typically hysterical. It may be remarked that Teale found the temperature in a hysterical patient 122°, and Wunderlich 109·4° (*Archiv der Heilkunde*, vol. ccx.).

THE REDRESS OF CHILDREN'S GRIEVANCES.

SOME instructive notes on the working of the Act for Preventing Cruelty to Children are contained in the October number of the *Child's Guardian*. One of the lessons to be learned from these reports is the necessity of coupling with any fine proposed the alternative of imprisonment. A number of the cases dealt with under the Act have been those of children belonging to poor and dissolute parents, to whom any but the smallest payment would be an impossibility. The abuse of child insurance is deservedly exposed. Its evil influence on the death-rate during infancy might be effectively met by applying the remedy here quoted from a contemporary—namely, that any claim should be discharged not in money, but by providing for needful funeral arrangements. There is difficulty in some cases in getting children who have been cruelly treated to give evidence against their oppressors. The testimony of one boy when called as a witness of his father's ill-usage of him proved, either from fear or some filial regard, probably the former, to be a mere tissue of prevarication. In certain cases also magistrates have had some difficulty in applying the Act. Thus a few days ago a question of liability which is vested by the Act in the child's temporary custodian remained unsettled because a bench of magistrates were unable to decide between the responsibility of a father at sea and a mother at hand. Sometimes the *Child's Guardian* is needlessly severe, as, for example, when it refuses to make allowance for errors of ignorance in infant feeding, and critically censures a jury because it showed in this particular a sensible degree of moderation.

OPEN-AIR TRAVEL IN CONSUMPTION.

DR. H. I. BOWDITCH of Boston (*Med. News*, Sept. 28th) read an interesting paper before the American Climatological Association to prove the value of open-air travel "as a curer and preventer of consumption," basing his remarks upon the records of a journey taken in 1808 by his father, then thirty-five years of age, and threatened with that disease—cough, hæmoptysis, anæmia, diarrhœa, general malaise, fever, and debility being the indications. In this state of health he started with a friend on a tour through New England in a one-horse chaise. After the first day's travel—of twenty-five miles—he was so exhausted, and had so much hæmoptysis, that he was advised to return "to die," but he courageously pushed on, and every day brought him improved health. The benefit thus received made him resolve thenceforward to take daily regular open-air exercise; and when in 1838 he died, at the age of sixty-five, from carcinoma of the stomach, one lung presented "evidences of an ancient cicatrix at its apex, both being otherwise normal." Dr. Bowditch also states that his father married his cousin, who died of chronic phthisis in 1834. Of eight children, two died (at the age of eleven and at birth respectively), but all the others are either now living or arrived at adult life and married, and of the ninety-three direct descendants of his father not one is phthisical. This, Dr. Bowditch thinks, must be largely attributed to the above-named journey, and the subsequent careful regulation by his father of his own health and that of his offspring. We may append a few of the practical remarks which Dr. Bowditch deduces from his own family experiences:—"For my own part, I fully believe that many patients now die from want of this open-air treatment. For years I have directed every phthisical patient to walk daily from three to six miles; *never* to stay all day at home unless a *violent storm* be raging. When they are in doubt about going out, owing to

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'bad weather,' I direct them to '*solve the doubt*, not by staying in the house, but *by going out*.' A cloudy day, or a mild rain, or the coldest weather, should not deter them. If the weather be very cold, let them put on respirators before leaving the house and be thoroughly wrapped in proper clothing for the season. I direct them never to stand still and gossip with friends in the open street, as by so doing they are much more liable to get a chill than while walking. Hence, summer and winter alike, my patients usually get plenty of fresh air uncontaminated in a great part, at least, by the previous breathing of it by themselves or by other occupants of the house. This course, I believe, might be pursued in any part of our common country. I am certain that I know of patients who have become well and able to attend the business of life under this course. May we not also at times send our patients over short distances in open vehicles, instead of thousands of miles off in ill-ventilated cars to an entirely different climate? Have any of us ever sufficiently tried this open-air journeying *at home*, so to speak—that is, in the region of the country where the patient lives, wherever that may be?" There is sound common sense in these words.

STARVING SCHOOL CHILDREN.

THE report prepared by a special subcommittee of the London School Board upon the problem of providing food for the destitute children who are collected in the elementary schools of the metropolis will draw public attention to one of the most valuable channels of philanthropic effort. The work of supplying wholesome food in sufficient quantity to the children of the poor is one that has the merit not only of alleviating present and severe distress, but also of redounding to the future advantage of the recipients and the State. It is quite impossible that starving children can derive any adequate benefit from the instruction provided for them, so that from the point of view of the teacher it is of prime importance that his pupils' hunger should be appeased. Otherwise his labour will be, in large measure, thrown away. But it is not on this ground only, not even on this ground chiefly, that the wisdom of this form of charity is to be vindicated. The privations of childhood are responsible for much of the incurable misery of after-life; and the great principle that "prevention is better than cure" can have no more striking exemplification than is afforded by the sequelæ of an insufficiently nourished childhood. Hence, the benefactions which take the form of providing food for the children of to-day are conferring an incalculable benefit upon the manhood and womanhood of the coming generation. It is, however, made very clear by the committee's report that the vices which commonly attach to unorganised and sporadic effort are abundantly exhibited by the arrangements at present in operation for supplying this need. Thus, after enumerating the principal societies which are doing this work, the report states that "in some districts there is an excess of charitable effort, leading to a wasteful and demoralising distribution of dinners to children who are not in want, while in other places children are starving." It is to be hoped that the state of things thus indicated will not be suffered to continue. The work which these voluntary societies have so worthily commenced is one that, both by its magnitude and delicacy, demands the best efforts of those who undertake its administration. On the other hand, the vast aggregate of 50,000 children who are daily sent to school in want of food presents a problem which by its magnitude rebukes the errors, however venial in themselves, of overlapping activity and disorganised effort which result in the waste of energy and of material, whilst the serious if somewhat insidious danger of pauperising the children and their parents will cause a wise philanthropist to walk very circumspectly in this way. Altogether, therefore, it seems to us that the argument in favour of consolidating the subsisting organisations and placing them under the control of a strong central committee is irresistible, and we hope that the very well considered scheme which has received the subcommittee's endorsement will commend itself to those whose co-operation is necessary to its success.

THE BLOOD IN PHTHISIS AND CANCER.

DR. G. NEUBERT (*La France Méd.*, No. 118, from *St. Petersb. Med. Woch.*, No. 32) has examined the blood in twenty-four cases of phthisis at various stages, and found that in nine the number of corpuscles was normal, in three it was above, and in twelve more or less below, the average. On the whole, there was an average diminution of about 8 per cent. The increase noted in three cases might perhaps be attributed to profuse night sweats. The hæmoglobin showed a reduction to 73 per cent. in the females and 85 per cent. in the males. There was no notable change in the number of leucocytes, but it was observed that multi-enucleated forms predominated. In five cases of cancer of the œsophagus and four of cancer of the stomach there was an invariable diminution in the number of red corpuscles, and also notably of hæmoglobin. It is inferred that the hæmoglobin, being the more "sensitive" element of red corpuscles, is more profoundly affected in cachexia than the stroma of the corpuscles. A distinction was made between the anæmic and marasmic types of cancer, the latter exhibiting an average reduction of 13 per cent. of corpuscles, whilst the hæmoglobin fell to 87 per cent. of the normal; the former showing a corpuscular reduction of 35 per cent.; whilst the hæmoglobin was as much as 70 per cent.

SANITARY WORK IN ISLINGTON.

THE Islington Vestry, on the report of their medical officer of health, Dr. Meymott Tidy, have ordered the demolition of nineteen dwelling-houses in Nelson-place, Holloway, and Aston-buildings, Holloway-road. One vestryman is reported to have said that he had found all the houses thoroughly rotten; not a closet was in repair, and the stench in some of them was fearful; the closets and the cisterns were inside the filthy living rooms. Another vestryman said he was a practical builder, and knew something of the places. Sixteen years ago he had to look at them in the way of business, and then said they could not possibly be put into repair. The brickwork was a complete sponge, and the places were soaked through by every rainstorm; if the lot of them were given him to-morrow, he would pull them down in a week. We are glad to be able to report that the decision of the vestry was unanimous, and this augurs well for the sanitary administration of the parish. It would be well if Acts of Parliament were administered with the same vigour throughout the metropolis.

UNIVERSITY OF SYDNEY.

THE authorities of the University of Sydney are about to endow, with other professorships, a Challis chair of Anatomy. The salary of the new professor will be at the rate of £900 per annum, but without any participation in the lecture fees, which is surely an unwise restriction in the interests of a growing institution. He must devote his whole time to the duties of the office, and will not be allowed to engage in private tuition or practice, or in any profession or business, except with the consent of the Senate, and his salary will commence from the 1st of May next. Applications must be made to the Agent-General for New South Wales before the 19th inst.

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SWIMMING AS A PART OF SCHOOL TRAINING

SOME have impeached the administration of the Board of Education on the ground that it offers, practically without cost, instruction in studies which are not essential to the maintenance of an efficient average of national intelligence. Accomplishments, it is argued, not without reason, may be purchased by those who value them without the expenditure of public money. No such objection, we feel certain, could properly be urged against the incorporation of a fairly extensive system of physical exercise into the ordinary school work. True, in its general application, this assertion is particularly true in its reference to the art of swimming. As a form of gymnastic movement, and an aid to cleanliness, it is alike valuable, especially to children attending town schools. As our principal safeguard against the risk of drowning it is simply indispensable. It is, further, most easy to learn, and once learnt is never forgotten. We have therefore observed with much satisfaction a growing tendency not only in Board schools, but in schools generally, to include the teaching of swimming in the regular course of education. The latest advance in this direction is a very decided one taken by the School Board of Aston Manor, Birmingham. It consists in a resolution to erect swimming-baths for the benefit of the scholars, and the project, it appears, has been approved by the Education Department. Into the financial ethics of this new departure we need not enter. In many districts, happily, no such extensive reform would be required in order to secure the end in view. Public baths are to be found in many inland towns, and might at set times be utilised by the school children. For others educated at the coast no such provision is required. What is in every case necessary is that swimming should be recognised in the regular educational course, and taught by competent persons (who might hold some other office besides) to every boy and girl.

DEATHS FROM PARAFFIN LAMPS.

ON the 9th of this month two inquests were held in Liverpool in regard to deaths occasioned by paraffin lamps. In one case the old mistake was made of trying to extinguish the lamp by blowing down the chimney. The mixture of hot air and vapour in the cistern were ignited and a man was burnt to death. In the other case a woman went to sleep with a lamp burning near her bed. It is said that during the night the lamp exploded and set fire to the bedding, and this time also a life was sacrificed. The causes of such accidents and the conditions of danger have repeatedly been explained, but as ignorance is still rife and fatal disasters still occur very frequently, it is necessary from time to time to repeat the lessons. First, then, let it be remembered that petroleum oil — for it is almost certain that foreign petroleum and not the artificially made paraffin oil was used in the lamps—contains naturally a good deal of the light, volatile, and easily exploded oil known commonly as petroleum spirit. An Act of Parliament directs that this spirit shall be properly removed before the oil is sold in shops, and a vigilant supervision should at all times be exercised over the oil offered for sale to the unsuspicious public. But this supervision is too often eluded or neglected; and if the facts are correctly reported there can be no doubt that, at any rate in the second accident, and probably in the first also, the oil used would not have satisfied the Parliamentary test. If the oil had been examined, the "flash point"—that is, the temperature at which a miniature explosion follows the application of a light to the oil—would almost certainly have been found to be too low. The spontaneous explosion of a mineral oil lamp is fortunately not a common although by no means a novel phenomenon. It points unmistakably to the use of an oil the sale of which is dangerous and illegal. As to the other disaster, it is foolish, dangerous, and totally unnecessary to put out a lamp by blowing down the chimney. When the wick is turned down to a certain point, very easily found, the flame flickers and goes out in a minute or two. But the dangers of mineral oil lamps are by no means confined to the two which were illustrated by the late deaths. An oil lamp should never be carried about, and if, as often happens, it be a small and unstable one, it should stand on a safe shelf or table, where there is no chance of its being upset. In the mean time, we commend to the authorities of Liverpool and other towns and villages the importance of a frequent examination of the oil sold in such enormous quantities in the shops. The use of mineral oil has increased rapidly of late, and has brought with it a great boon to the poor as well as the rich. But this renders it only the more necessary that vigilant care should be exercised in regard to its quality. We see that the Birmingham Watch Committee have decided to call the attention of the Home Secretary to the dangers attending the storage of petroleum in shops. They are quite right, but we trust that, pending their petition, they are using the powers they already possess by scrutinising the quality of the oil which is stored.

EPIDEMIC OF PEMPHIGUS.

AN epidemic of pemphigus has recently occurred amongst young children in Brussels, sixteen cases having been treated in the Hospice des Enfants Assistés under the care of Dr. Max. The ages of the subjects varied from two days to thirteen months. The eruption generally affected the thighs and abdomen, sometimes other parts of the surface, but never the palms of the hands or the soles of the feet. Red patches were first seen, and upon these there soon appeared bullæ, varying in size from that of a lentil to that of a walnut. Their number was usually inversely proportional to their size and to their age, and their contents, which were quite clear, did not become purulent except where the general health of the subject was bad. The cases ran a mild course, and were treated by pricking the bullæ and dusting them over with starch powder or subnitrate of bismuth. A starch bath was also given daily. No case of the transference of the affection to an adult was observed, though it has been demonstrated by Vidal and by Colzat that adults can be inoculated successfully from the liquid in the bullæ, and a special bacillus has been described by Gibier.

CHEMISTS AND THE MEDICAL PROFESSION.

THE ancient grumble against the practice of prescribing by chemists has recently been revived in New Zealand, and has followed familiar lines, and elicited the usual arguments in favour of and against the custom. The Medical Association of New Zealand brought forward a Medical Practitioners Bill which, amongst other things, provides for the imposition of a heavy fine upon anyone who, not being a registered medical practitioner, "practises for gain or uses the designation 'consultant.'" Matters were not improved when, in reply to remonstrances from the pharmacists, it was explained that the Bill was mainly directed against "quacks." So long as general practitioners continue to dispense their own medicines these misunderstandings are certain to arise, and chemists will claim to prescribe common and simple remedies for what they designate trivial ailments. In many cases, doubtless, the patient may recover, but whether on account of the remedies employed, or because the counter diagnosis was correct, is at least open to doubt. The due recognition of the trivial or serious nature of a malady is not a matter of indifference.

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The *vis medicatrix naturæ* may often be trusted, and the chemist may be relied upon not to give dangerous doses; but in spite of these two comforting reflections, there is still an element of danger. Faith healing is beneficial occasionally, but it is not to be trusted too implicitly.

THE USURPATION OF HOSPITAL TITLES.

THE French medical press has found it necessary to issue a protest against the usurpation of titles by medical men, a protest which is perhaps not unneeded on this side of the Channel. It seems that a good many practitioners are fond of describing themselves as *ex internes des hôpitaux*, which is about equivalent to styling oneself "formerly house surgeon (or house physician) to a London hospital." In some cases these men have never been *internes* or even *externes*—a class somewhat equivalent to our senior or full dressers or clinical clerks,—and have never had the temerity to compete for these appointments, which are all given after a competitive oral examination styled a *concours*. In other cases they have really been *internes*, but only in the pharmaceutical department of one of the great hospitals, or perhaps in the wards of some workhouse or other infirmary in Paris or in the provinces, where the competition is not very severe, or where, as in some cases, the appointments are obtained by interest. Another way by which practitioners sometimes endeavour to impose on their patients is by describing themselves as hospital physicians, and in order to give colour to the statement these gentlemen tell their patients to address letters to them at such-and-such a hospital, making it "all right," of course, with the porter, and ostentatiously driving up to the door and letting their carriages be *en évidence* in the court-yard. This reminds us of a well-known story of a cheap dispensary practitioner near London who, it was related, after a "chronic" studentship, succeeded in persuading the somewhat lenient examiners of a certain licensing corporation that he was fit to be entrusted with the lives of Her Majesty's subjects, but who nevertheless was firmly believed by many of his patients to have the sole charge of his old hospital every Sunday. It is difficult to suggest any legal means which would put a stop to the assumption of titles by unauthorised persons, and it is probably hopeless to expect.

THE SEAMEN'S CONGRESS AND THEIR GRIEVANCES.

THE first annual Congress of the Amalgamated Sailors' and Firemen's Union of Great Britain and Ireland was held at Cardiff last week, when about sixty delegates, representing some 70,000 seafaring men, drew public attention to important subjects bearing upon the sanitary environment of seamen afloat, specially to the case of firemen and coal trimmers, a class who are practically the backbone in the steam department of our British Mercantile Marine, upon whose physical health, efficiency, and "staying powers" the engineers anxiously rely for maintaining the high rate of speed of our modern steamships. The grievances of this class may be thus briefly summarised:—Defective ventilation of firemen's rooms when situated on a lower deck near the hot machinery; when located on the upper deck the absence of steam apparatus for warmth and dryness; often no arrangement for drying their wet clothes elsewhere than in their rooms, or by hanging them in a position exposed to the eyes of passengers, objected to, and properly so, by the commander; bath-rooms for personal cleanliness are the exception instead of the rule; their duties too often exceed the regulation four-hour watches, the strain of an extra two hours acting injuriously on their health; that the attention of the ship's surgeon being mostly confined to passengers, he is not only discouraged in any inclination to inspect their rooms, but is only sent for there to see a fireman too ill to walk to the surgery; the surgeon, moreover, is often young and inexperienced. These complaints, we are assured, are based upon facts, and we trust that one practical result of the Congress will be improved sanitation aboard, and on the part of the Seamen's Union a supply of healthy, sober, and efficient firemen.

JAMES PRESCOTT JOULE.

FEW greater or more successful workers in science have ever lived than he who died at Sale on Friday, the 11th inst., after many years of infirm health. It is too soon to appraise the full value of his discoveries, but this much is certain, that the name of Joule will take a place in the history of science parallel with, and in honour hardly inferior to, those of Dalton and Darwin. It may almost be said that Joule made physics an exact science. Such a statement would, of course, be paradoxical, for many good workers preceded, accompanied, and followed him. In his greatest work, the determination of the mechanical equivalent of heat, Joule was not wholly original, for that wonderful genius, Meyer of Heilbronn, a provincial physician, had very shortly before, and unknown to the English physicist, worked out the main conclusions on paper from theoretical considerations. But all this detracts nothing from the glory of Joule, who, by the most patient and intelligent labour, did the work and fixed the equivalent, which is now the starting-point in so many studies in physics, chemistry, and biology. In the lustre of Joule's greatest achievement his minor discoveries may possibly be overlooked. Fortunately, the Physical Society of London have recently collected and printed his works, so that their full value may easily be estimated. In some of them he was associated with Sir Lyon Playfair, who has given to statecraft a mind which was meant for science.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

AN examination for the certificate in psychological Medicine, given by the Medico-Psychological Association, will be held in December. Candidates intending to present themselves for examination are requested to apply for particulars, and give fourteen days' notice in writing (unless unavoidably prevented), to either the general secretary of the Association, Dr. Fletcher Beach, Darenth Asylum, Dartford; the secretary for Scotland, Dr. Urquhart, Murray's Asylum, Perth; or the secretary for Ireland, Mr. Conolly Norman, Richmond Asylum, Dublin, accordingly as they desire to be examined in London, Edinburgh, or Dublin. The exact date of the examination and further particulars will be announced in due course.

DIPHTHERIA.

DR. T. G. ROBINSON of St. Louis, in a paper on Diphtheria read at the Association of American Physicians, concludes that this disease is acutely infectious, doubtless due to a living organism (microbe), the exact identity of which cannot yet be regarded as settled; that it is primarily local, the system being generally infected secondarily through absorption of poison generated at the primary seat of inoculation; that the contagium may be transferred in a dry state through air for limited distances, in foul clothing, and in polluted food and drink, especially milk. Until the problem of the conditions favourable to the growth and development of the germs is solved, and their life history and habitat are understood, no "definite plan can be formulated for the arrest of the contagium, nor for the hopeful treatment of the disease." He points out that although often not strictly a filth disease, nevertheless

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certain kinds of filth—as the ordure of animals, and notably the refuse of cowsheds and dairies—afford favourable conditions for the culture of the diphtheritic germ.

HOT-AIR INHALATIONS IN PHTHISIS.

AT the recent meeting of the Association of American Physicians (*Med. News*, Sept. 28th), Dr. Trudean reported the results of the treatment of four cases of pulmonary tuberculosis by Weigert's method. Clinical evidence did not show any appreciable result, and no effect was produced by the method either in diminishing the number of bacilli in the sputa or impairing their virulence, as tested by inoculation.

A "MUTUAL AUTOPSY SOCIETY."

THE death of General Faidherbe, who was one of its members, has brought this curious Society somewhat prominently into the light. Its existence is not a thing very generally known, although its origin is by no means of quite recent date. According to M. Laborde, the vice-president, who has recently been explaining the objects of the Society to the public, it was founded because up to the time of its foundation the opportunities of making post-mortem examinations were almost entirely confined to hospital physicians, and even then they made the examination on subjects about whose previous history, outside their medical one, very little or nothing was known. But, there being an intimate relation between the structure of the brain and its functions, the members of the "Mutual Autopsy Society" hold that very little real scientific progress will be made until it is possible to study the brains of persons previously known either by their deeds or by their works. The members therefore formed themselves into this Society, which addresses itself to everyone having the interests of humanity and science at heart, as well as to those who, having been useful during life, have the laudable ambition to be useful after death. Enrolled as members are several ladies; and amongst the remarkable men whose brains have been examined by the Society are Gambetta and Broca. The third convolution in the great orator's brain was anticipated to be well developed, and, as a matter of fact, it was found post mortem that this convolution so intimately associated with speech was much more developed than is generally the case, even in intelligent men.

DIPHTHERIA AT UXBRIDGE.

WE learn that diphtheria has become persistently prevalent at Uxbridge, and that the local authority and their officers have, as yet, been unable to ascertain the cause of it. By some it is suggested that insuction into the water mains is responsible for the outbreak; but water pollution, whether by an occasional or a permanent cause, cannot often be credited with the spread of diphtheria. Application has been made to the Local Government Board for an inquiry into the subject, and the visit of a medical inspector has been promised.

"COMPULSORY VACCINATION."

IN our issue of last week under the above heading, we commented on statements made at a recent meeting at Guildford. We said that the audience was told that in Sheffield during the last small-pox epidemic, "eight cases, nurses and attendants in a hospital, who had all been revaccinated, occurred, and there were two deaths." We then proceeded to show from Dr. Barry's report that the story as to Sheffield was without foundation. We have now received a letter from Mr. Alfred Milnes, M.A. Lond., F.S.S., stating that this event occurred at Perth, and asking us to withdraw our statement. He encloses a copy of the *Surrey Advertiser and County Times* of Oct. 5th, which contains a report of his address and which shows clearly enough that Mr. Milnes referred to an outbreak in the Perth Infirmary and not to any occurrence in Sheffield. We therefore owe Mr. Milnes an apology, and desire to state that our comments were based upon a report of his address in the *West Surrey Times* of Oct. 5th, which reported him as follows: "In Sheffield, where the percentage of vaccinated persons was 95, between March and December, 1887, there were 2728 cases of small-pox. Eight cases, nurses and attendants in a hospital, who had all been revaccinated, occurred, and there were two deaths." At the present moment we are not in a position to discuss the accuracy of his story in its relation to Perth, but we may do so on a future occasion.

APPOINTMENT OF MEDICAL OFFICER OF HEALTH AT WOOLWICH.

OWING to some oversight in the legislation of the past, Woolwich has hitherto been in the rather curious position of being under no obligation to appoint a medical officer of health. Now at last the local authorities have been compelled to do as their neighbours do, and so they are proposing to appoint a medical officer at a salary of £100 a year, which, as such appointments go, may be regarded as a fair remuneration, considering the limited area of the town and the fact that a large part of it is under the charge of the military authorities, who usually appoint one of their most efficient medical officers to perform the "sanitary duties." The principal practitioners of Woolwich have petitioned the Local Board to appoint some gentleman who is not in practice in the locality, but who is fully acquainted with the conditions under which practice is carried on.

THE NEW ENTRIES.

THE following is a list of the fresh entries for the current winter session (1889–90) at the various medical schools from which returns have been received, together with a column giving the totals for the winter session of 1888–89, for purposes of comparison.

	Entire Course.	Special, Dental, or Preliminary Classes.	Total.	Totals, 1888-89.
St. Bartholomew's	108	37*	145	128
Charing-cross	55	5	60	68
St George's	31	2	33	33
Guy's	91	53	144	103
King's College	37	41	78	111
London	75	40	115	120
St. Mary's	55	8	63	111
Middlesex	43	68	111	102
St. Thomas's	71	41	112	126
University College	61	93	154	153
Westminster	21	13	34	23
Birmingham	37	50	87	†
Newcastle-on-Tyne	42	21	63	68

* Students for the Preliminary Scientific Examination are not counted as students of this hospital. † No return.

TUBERCULOUS MEAT.

THE recent decision at Glasgow respecting tuberculous meat has naturally occasioned increased vigilance on the part of meat inspectors, and has already caused in Sheffield a movement among butchers to attempt the establishment of some definite rules for the condemnation of the flesh of tuberculous beasts. It is contended that when the affected animal is in the early stage of the disease the meat cannot be considered unwholesome, although this contention, however, did not find favour with the experts examined at Glasgow. This view was, indeed, expressed by a deputation of the Sheffield Butchers' Association to the Health Com-

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mittee on the 10th inst., which requested that the medical officer of health in the examination of carcases of suspicious quality should act in conjunction with a jury of three butchers, and a veterinary surgeon appointed by them. After hearing the deputation the committee adjourned the consideration of the question until its next meeting.

CASEINE.

AN investigation that adds to our knowledge of the nature of a substance of physiological as well as of chemical importance, such as the albuminoid body caseine, cannot fail to be full of interest. Hlasiwetz and Habermann some time back obtained leucine, tyrosine, glutamic acid, aspartic acid, ammonia, and a viscid uncrystallisable liquid by treating caseine with stannous chloride and strong hydrochloric acid. Since then E. Drechsel has turned his attention to the uncrystallisable liquid so obtained.[1] He has found that by treating this liquid with phosphotungstic acid a precipitate is produced. This was washed with dilute sulphuric acid, heated with baryta water, and filtered. The clear filtrate, after removing excess of barium, was then evaporated with hydrochloric acid. In this manner he got the hydrochloride of a strong base, having the formula $C_7H_{14}N_2O_2Cl_2$. This yielded when treated with chloride of platinum long reddish-yellow prisms of the platinochloride $C_7H_{14}N_2O_2PtCl_6+4H_2O$. Platinic chloride gave also with the mother-liquor from the hydrochloride above a platinochloride which, as may be seen from its formula, $C_8H_{16}N_2O_2PtCl_6$, is homologous with the first.

PROFESSOR JOHN MARSHALL.

WE are glad to learn that Professor John Marshall, President of the General Medical Council, has quite recovered from his recent indisposition. It will be remembered that Professor Marshall was prevented by a somewhat severe cold from delivering his introductory address at the sessional opening of the School of Pharmacy, the address being accordingly read on his behalf by Professor Attfield.

INFECTIOUS DISEASES IN SALFORD.

THE want of accommodation for infectious diseases in Salford, together with the existence of overcrowding in the Wilton Hospital, is causing a good deal of feeling in the borough, and the Working Men's Sanitary Association have now taken up the question, and have passed a resolution condemnatory of the present state of affairs. Probably some temporary arrangement will at once be made for the isolation of the excess of diphtheria and scarlatina patients; but we trust that after the present experience no further delay will occur in proceeding to complete adequate permanent accommodation for the borough infectious cases.

FOREIGN UNIVERSITY INTELLIGENCE.

Buda-Pesth.—A special examination was recently held, by direction of the Minister of Education, for the purpose of "Nostrificating" the Edinburgh M.D. held by Dr. John Brodie, who is engaged in attending the workpeople of a company in Nagy-Bánya. As the candidate was not acquainted with the Hungarian language the examination was conducted with the help of a sworn interpreter. The subjects included were Surgery, Medicine, Forensic Medicine, and Hygiene, and the examination seems to have been entirely oral. Dr. Brodie satisfied the examiners, and was granted the *ad eundem* degree of the University, this being the first instance in which such a circumstance has occurred. Usually any foreigner desiring to obtain an Austrian medical degree is required as a preliminary step to become an Austrian subject. It is not stated that this condition was insisted on in the present instance.

Göttingen.—The new surgical clinic in the Ernst-August Hospital has just been opened.

Heidelberg.—Dr. Fritz Bessel-Hagen, whose researches in anthropology are well known, has been raised to the rank of Extraordinary Professor.

Lausanne.—Dr. Bourget of Geneva has been appointed Professor of Materia Medica and Therapeutics.

Liège.—Dr. Fraipont has been entrusted with the theoretical and clinical lectures on Midwifery. A good deal of discussion has recently taken place concerning the medical arrangements connected with the University. Amongst other matters there seems to be a great want of teachers of clinical specialties, and, on the other hand, a redundance of surgical and medical assistants, including several *chefs de clinique*, who are said to be superfluous. Comparisons are freely drawn between this, which is a "State University," and Brussels and Louvain, which are free universities, these latter institutions being, as it would seem, better provided with clinics and clinical teachers.

Munich.—An Extraordinary Professorship of Clinical Medicine and another of Inorganic Chemistry is to be founded, and a Pharmacological Institute established. The last is to cost about £1500.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. Emil Zeising, Assistant Physician in the Dermatological Clinic, Breslau.—Professor Nagous of Lyons, who was, together with a Sister of Mercy, stabbed by a patient upon whom he was about to operate, and who, not being as fully under the influence of chloroform as was supposed, was so enraged at the touch of the knife that he snatched the instrument, and before he could be stopped had plunged it into the hearts of the unfortunate professor and the sister in attendance. The Courts will have to decide how far the man was morally responsible.

THE Library of the Royal College of Surgeons of England will be kept open until 9 P.M. for the remainder of the year. There has been a wish expressed by various members of the profession that the Library might be available for a longer time during the day, and the Council agreed at the quarterly meeting held on Thursday, the 17th inst., to keep it open from 11 A.M. to 9 P.M. Should sufficient readers avail themselves of the advantages thus offered, the hours will probably remain as thus changed.

CESENA, in the Romagna, not far from the Adriatic seaboard, is now a health resort, in which the resources of the place for mineral baths and for the "climatic cure" are intelligently and carefully utilised in a well-appointed establishment. Year by year Italy is availing herself of her natural advantages for such institutions, in pursuance of the movement initiated *ad hoc* at Bologna, and continued at the thirteenth congress, which lately concluded its sittings at Padua.

THE next meeting of the Royal Medical and Chirurgical Society will, as announced in our advertisement columns, be held on Tuesday, the 22nd inst., at the Society's new house, 20, Hanover-square, in a portion of the library temporarily adapted for the purpose.

OF the 557 members returned at the recent general elections to serve in the French Chamber of Deputies, 48 are doctors of medicine, 4 are druggists, 1 is a dentist, and 1 a veterinarian.

[1] Journal für Praktische Chemie [2], vol. xxxix. pp. 425–429.

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Pharmacology and Therapeutics.

TOXIC EFFECT OF CREOLIN VAPOUR.

A CASE of poisoning by creolin vapour is reported by Dr. Stille-Ihlienworth in the *Memorabilien* of July. The author had to procure premature delivery in a case of contracted pelvis, and used as a disinfectant for his hands and instruments an emulsion containing 1½ per cent. of creolin, which from the afternoon until the next morning stood in two open saucers in the next room. In the evening he complained of pain in the right temple and occiput, and his pulse rose from 70 to 100. When he moved about the latter even rose to 120, and the carotids pulsated very perceptibly. These symptoms only ceased a few hours after he had gone into the fresh air. All the other people who had been present in the room became similarly affected, and one suffered more severely, vomiting supervening on the other symptoms. Returning the next afternoon to the patient's house, the writer felt quite well. He again prepared two saucers of creolin, dipped his hands into the solution, examined his patient, removed the catheter, which in the morning had been inserted between the wall of the uterus and the membranes, washed his hands, and carefully disinfected the catheter. The same symptoms reappearing, he entertained no doubt that the creolin vapour was the cause of the seizure. The saucers with the disinfectant were then removed, and only brought back when they were actually wanted, and no further abnormal symptoms appeared.

CHRYSAROBIN IN HÆMORRHOIDS.

Dr. Kosobudski, writing in the *Russkaya Meditsina* on Unna's plan of treating hæmorrhoids with chrysarobin, says that he has employed it—or a modification of it—in twenty-two cases, and has found it on the whole very satisfactory. He does not, however, employ quite such strong preparations as Unna. His plan is to wash the hæmorrhoid with a weak carbolic or creolin lotion and then to dry it well with cotton wool, after which he applies three or four times a day an ointment consisting of chrysarobin 8 parts, iodoform 3 parts, extract of belladonna 6 parts, and vaseline 150 parts. For internal piles suppositories are employed, which are composed as follows: Chrysarobin, 1 gr.; iodoform, ¼ gr.; extract of belladonna, ½ gr.; cacao butter, 30 gr.; glycerine sufficient to enable the mass to be made into the form of a suppository. If there is much hæmorrhage a tannin suppository must be used. After three or four days of this treatment the pain and hæmorrhage disappear, and after three months or so the hæmorrhoids are found to have almost completely shrivelled up.

HYDRASTIS IN MEMBRANOUS DYSMENORRHŒA.

Dr. Franz Jordán relates in a Hungarian medical journal an interesting case of most obstinate membranous dysmenorrhœa in which after many years had been spent in trying all manner of different methods of treatment hydrastis canadensis rapidly effected a cure. Dr. Jordán employed the liquid extract of hydrastis canadensis, twenty-five drops of which he ordered twice a day. This very soon began to produce an appreciable effect, and after a short time the medicine was required only at the time of menstruation or for a few days previously, the loss of blood becoming very slight, and the pain disappearing altogether.

IS PHENACETIN A REMEDY IN WHOOPING-COUGH?

Dr. R. Heimann of Laudau answers the above question affirmatively, having used the drug experimentally in a case in which antipyrin entirely failed. The success was so surprising that he administered the drug in two other cases. It reduced the number of paroxysms, which had been from ten to fifteen per diem, to three, and on some days they entirely ceased, only reappearing at night, when no phenacetin was given. Dr. Heimann gave a boy of three years six grains in four doses of one grain and a half, a girl of two years five grains in three doses, and an infant of seven months three grains in four doses, without observing the slightest ill effects. One grain and a half of phenacetin would, on the average, retain its effect for three hours. The author recommends further trials of the drug.

IODIDE OF POTASSIUM A CARDIAC TONIC.

M. G. Sée has recently pointed out, before the Academy of Medicine, that iodide of potassium, far from being a depressant, is really a cardiac tonic, of almost equal value to digitalis or strophanthus in certain cases. Indeed, he says that iodide of potassium is the real cardiac drug (*vrai médicament du cœur*), since, when prescribed in cases of uncompensated mitral lesions or affections of the myocardium, it increases the cardiac power and raises vascular tension. Thus, by subsequently causing dilatation of the arterioles, it enables the heart to recover its power and affords also better facilities for the coronary circulation, thus improving the nutrition of the heart muscle.

DRY-AIR FROZEN FRESH FISH.

BY J. LAWRENCE-HAMILTON, M.R.C.S.

No. IV.

To obtain an imperishable, cheap, healthy, abundant supply of fish food, it is necessary to bleed, gut, and clean the fish at once on capture, and then forthwith transfer the fish so treated to the dry cold air refrigerator chambers of special steamers at the fishing grounds. Much of this hard frozen fresh fish should be distributed to the fish markets, wharves, and stores situated on canals and rivers by dry-air refrigerator barges or insulated covered barges for shorter distances, whilst seaport towns could receive the fish direct from the refrigerator steamers, as well as towns like London having wide and deep rivers. As far as possible all railways should be avoided. In the United Kingdom their extortionate rates for the carriage of fish have for long oppressed the fish trades to the special injury of the poor. However, if frozen fish has to be sent long distances by rail to towns unprovided with canals, rivers, or lakes, as in some of the American cities, then special refrigerator railway fish cars are advisable.

The treatment of fish on capture.—To preserve fresh fish, free it from moisture and bacteria. Kill as quickly as possible. Where practicable, all fish immediately on capture, prior to the coagulation of the blood, should be gashed under the head just behind the gills, the usual situation of the heart in most fishes, or else above the tail, which has been the practice from time immemorial in Scandinavia and in Holland. Compared with land animals, fish have but very little blood to lose, and hence fish on being bled become at once faint, which rapidly passes into insensibility. Next speedily gut the fish so as to remove its entrails, including the liver and roe. In big valuable fish like the salmon it should also be pithed, by exposing and removing with a gutting knife the comparatively diminutive brain (a characteristic of all fishes), and then push a copper wire into its spinal canal so as to break up the substance of the spinal marrow. Removing its brain abolishes sensation and volition, whilst destroying the spinal marrow arrests all muscular movements. Finally, thoroughly clean each fish inside and outside with abundant washing in clean, fresh-flowing water, sea water being for every class of fish better than spring water. Though gutted fish keep better and longer by the addition of salt or brine into the cavity of the body, I recommend peat moss as being cheaper and much more effective. As peat moss is universally abundant in Ireland, its fishermen should use it freely.

Norwegian fishermen roughly estimate that by bleeding, gilling, and gutting flat fish about one-sixth of the total weight is lost, whilst long fish by bleeding and gutting forfeit about one-fourth of their total weight. In spawning fish, being full of roe, these proportions would be materially increased. A codfish weighing 21 lb. is said to have furnished 12 lb. of roe. Thus, especially for railway borne fish, this economy in freight would mean a great saving to the public—the fish consumers. Later I shall show the avoidable colossal commercial losses incurrred in the United Kingdom by its neglecting to judiciously work up the by-products or waste products of fish and fish refuse, which in the United States of America amounts to upwards of 14 per cent. of the total value of their fisheries.

Use of carrier pigeons and telegrams for sea fisheries.—Fishing fleets should signal by means of carrier pigeons for the refrigerator steamers to come out from the harbours to remove the catch. These carrier pigeons would be useful to the smacks in case of accident and distress, and could also

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be employed by the fishermen to send messages, weighing up to two ounces, to the steamers, also to bring out any articles required by the fishermen, including food, medicines, fishing-nets, tackle, bait, and other requisites. Alighting on the platform of the pigeon house, connected with an electric bell for day and a light for night work, the pigeon announces its own arrival. Fishermen and sailors would soon learn to train and breed these carrier pigeons at a trifling cost. After a while, probably, no fishing smack would put to sea without a few carrier pigeons. The Admiralty should keep ready for use a large number of carrier pigeons, as in case of war along our coasts and colonies, these local marine messengers would be invaluable, especially to ships of war and torpedo vessels defending our coasts, mouths of rivers, and harbours.

Night and day, along the chief Norwegian fishing fiords and grounds, special local telegrams inform the fishing fleets as to the location, the probable destination, and expected time of arrival of observed shoals of fish. Doubtless much might be done on our own coasts by combining and collecting information for telegraphic purposes brought by these carrier pigeons as to the probable course of various migratory shoals of fish. Like the Chinese, the Norwegians, through centuries of acquired observation, are shrewd, trained experts in noticing the habits of fish. Lately, whilst visiting the Norwegian fishing towns from Christiania to the North Cape and back, I was informed that the Norwegian Government gratuitously circulated these trade messages for the benefit and advantage of their fishermen. The Government of the United Kingdom should initiate and imitate similar plans on behalf of our chronically neglected fishermen, as, setting aside the just claims of our brave fishermen for such trade information, this would also cheapen fish, and therefore relieve some of the burdens of the taxpayers.

Dry-air refrigerator steamers.—For carrying the fish from the fishing fleets at the fishing grounds, specially constructed coal-saving refrigerator, swift steel steamers, of about 200 to 300 tons each, would be advisable. The present frozen meat ships have chambers insulated with thick layers of charcoal, though peat moss would be more economical and efficient, whilst in case of repairs from accidents peat moss is much cleaner and weighs less than charcoal. In storing hard frozen fish as far as practicable leave an air space around each big fish, whilst large valuable fish, like meat carcases, are best kept clean and undamaged by a separate canvas shirt or sack. Small fish can be packed in layers of peat moss. Men engaged in handling frozen meat use thick woollen gloves and felt shoes, with canvas suits over their clothes, whilst the engineer's assistant, who has to remove the accumulating snow from the refrigerator chambers about every four hours, is on these occasions dressed in a specially warm thick suit of woollen clothes. In the frozen meat trade for rivers and canals, covered barges insulated with felt (though peat moss would be better) are employed; whilst for longer distances specially constructed insulated covered refrigerator barges are so made that from the frozen meat ships, or else from the refrigerator wharves on shore, cold air can be pumped into them. However, the present refrigerator and insulated barges both admit and invite many economical improvements.

Dry-air frozen fresh fish is imperishable.—In Russian winters fish is naturally frozen for months, and is sawn for the retail customer. Fish is kept frozen naturally by the dry, cold, winter air in the Hudson Bay territories, in the elevated regions of Thibet, and in arctic winter climates generally. The frozen meat ships for a forty-five days passage from London to New Zealand keep fish frozen for their passengers' food, though usually omitting to have such fish previously bled and gutted. For years the Hudson Bay Company shipped frozen salmon (though *unbled* and *ungutted*) to London, Australia, New Zealand, &c., but now the Canadians find that it pays them better to deal with the United States. Salmon brought from Labrador in the s.s. *Diana* kept good frozen for 200 days, whilst in the Canadian Court of the 1883 London Fisheries Exhibition frozen salmon after eighteen months of such treatment was found to be excellent eating. A frozen fish trade is now carried on between Senegambia, in West Africa, and Marseilles. By means of a mixture of ice and salt a large remunerative hard frozen fresh fish trade has long been successfully carried on in the American United States, where refrigerator steamers fetch fresh fish from the fishing grounds, freeze it hard, store it as long as required in specially constructed insulated refrigerator wharves and warehouses, and when necessary deliver it frozen, in specially constructed fish refrigerator railway cars to inland distant districts unprovided with canals, rivers, or lakes. However, this salt and ice process is much dearer than the dry cold air methods.

Refrigerator insulated wharves and stores.—It is only quite recently that the dry air machinery for ships, wharves, warehouses, and railway cars has been sufficiently perfected to work well, cheaply, and regularly, so as to be commercially remunerative. Hence the first losses of the earlier introducers of the frozen-food trades are now avoidable. It is to be expected that in the near future further improvements in the economy and efficiency of the frozen-food trades will be introduced, though already, at home and abroad, several rival plans and patents compete for business. Setting aside minor details, the best processes for food freezing may be thus briefly summarised. The average temperature of the cold air in the special ships and storehouses is turned on at 70° to 80° below the zero of Fahrenheit, or upwards of 100° F. of frost. For meat the cold in these refrigerator chambers can be accurately regulated by the machinery, which usually keeps the chamber at 16° to 22° F., though in the case of fish a less amount of cold is necessary. For this purpose the air to be cooled is so greatly compressed that its temperature becomes elevated to about 240° F. This heated air then passes through a long series of pipes surrounded by cold water, which absorbs the heat of the compressed air, bringing this air down to the temperature of the cool water. This air is next let into another vessel surrounded with cold air where it deposits all its moisture, for it is essential that the air for freezing food should be freed from every trace of water or moisture. By this time the doctored and dried air has become cooled to about 70° F., when it is suddenly and rapidly expanded, and thereby becomes so intensely cold, that the air passes out of the machine at a temperature between 70° and 80° below zero, Fahrenheit, or upwards of 100 degrees of frost. This dry cold air circulates through the refrigerator chambers and afterwards returns to the compressor machinery, to be again further dried and cooled down to 70° or 80° below zero. The refrigerator chambers have walls, floors, and ceilings composed of severals layers of non-conducting or insulating materials, general charcoal, with specially constructed massive insulated doors, so as to hermetically seal the refrigerator compartments. Here the substitution of peat moss for charcoal would be an economy.

Some frozen meat removed from the refrigerator ship *Tainui* to a covered insulated barge maintained three degrees of frost after fifty-five hours, although after the first twenty-four hours had elapsed about half the frozen carcases in their canvas shirts were withdrawn. These stores are kept scrupulously clean, and usually lit up with electric light, so as to avoid injuring the food. Each carcase in its shirt is hung up separately. During 1888 London and Liverpool alone imported 1,924,000 carcases of frozen meat, which was an increase of upwards of 300 per cent. of the amount imported five years previously, or in 1884.

Quantities of imported frozen meat are often retailed by butchers and at restaurants at the high prices of freshly killed prime English meat, and paid for by the consumer as if for English meat, as he, like the skilled analytical chemist and microscopist, is unable to taste or to detect any difference in freshness or flavour between frozen and freshly killed meat. This fraudulent trading should be stopped by a special Act of Parliament, which should also forbid foreign cattle being sold as British beasts.

	Percentage of Foreign Imports.		
	1887.	1886.	1881-5.
Cattle (including calves, but excluding milch cows) ..	36	40	51
Sheep and lambs	51	54	55
Pigs	94	98	97

Cheap, healthy, frozen, fresh fish for the poor.—Freshly caught herrings and sprats, as well as occasionally mackerel and other fish in colossal quantities, at the fishing grounds can both at home and abroad be purchased wholesale at mere nominal prices, as such fish so rapidly decompose or putrefy that frequently coasting vessels, especially on Saturdays, either throw them back into the sea or else dispose of them for manure. Because of the now past impossibility to deliver cheap and coarse fish in a fresh,

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eatable condition, and the prohibitive prices usuriously placed upon such fish by rings of non-fishermen fish auctioneers, fresh fish has not been largely or properly supplied to the poor of the United Kingdom. The dry air frozen fish trades can alone remuneratively supply fresh fish at a low price to command an extensive sale among the poor and the comparatively poor, who should thus in London be able to buy healthy gutted and bled fresh herrings with their roes at ½d. per lb. The average weight of an ungutted herring may be taken at about 7 oz., so about three gutted herrings would hardly weigh 1 lb. avoirdupois. The abnormally high nutritive food value, the light, easy, rapid digestibility and solubility, with its excellent and varied flavours of the flesh, the hard and soft roes, should recommend the frozen fresh herring as the poor man's special healthy food. It is often called a "two-eyed steak," or a "Billingsgate pheasant," and in other parts of the United Kingdom the red herring is variously known in popular language as a "Glasgow magistrate," a "Gourock ham," or a "Norfolk capon." The general introduction of the herring into the daily dietary of workhouses, poorhouses, asylums, prisons and the like, should effect considerable reductions in the general poor rates of town and country districts. Sprats are also excellent cheap food for the poor, and, like the herring, are palatable fresh or cured.

New kinds of food fishes.—The gradual introduction of several home and foreign fish, which, though cheap and nutritious, have by changing capricious custom hitherto been neglected or else gone out of fashion. Hence on capture by our fishermen, being unsaleable in the local markets, such fish are often thrown back into the sea, is a subject which induced some Americans in New York to found an Ichthyophagus, or fish-eaters, Club, with the sole object of introducing hitherto unrecognised fish food. A similar institution would do much good in London.

The distribution of cheap, frozen, fresh fish.—The system of bled, gutted, cleaned, dry air frozen, imperishable fresh fish properly conducted would, in a great measure, do away with the preponderating influence of the middleman, the non-fisherman fish auctioneer, whose market rings or combinations have hitherto kept fish not alone at usurious prices, but have also supplied fish always more or less deteriorated in quality, often uneatable, sometimes unfit for human food, and occasionally even poisonous. By the unavoidable introduction of frozen fish, both the fishermen and the fish vendors themselves will be great gainers, as, with an extended commerce, they will cease to deal in a perishable product, and also no longer require to waste their money on ice. In time, every large town or district will require its own refrigerator stores or depôts, where both frozen fish and meat could be preserved to supply the local traders, who would thus never have to suffer from the pecuniary loss of over-stocking themselves with perishable food. I estimate that, including all freights, costs, and charges, the wholesale selling price of fresh fish in the markets of the United Kingdom now (1889) already exceeds £15,500,000 a year. But by judiciously pushing and developing the dry air frozen fresh fish trades this wholesale commerce for home and export consumption could in a few years be made to exceed £100,000,000 a year. It would be a national disaster if foreign competition were to secure such a trade, which, in addition to its financial aspect, includes the best school in which to train sailors for our navy, a fact long recognised by the Dutch and French.

In 1636 Charles I. accepted upwards of £30,000 to allow the Dutch to finish their year's summer fishing for herrings off the coasts of England. This illustrates the value, even in those days, of the herring fisheries. Returning, however, to fish purveyors and distributors, it must be recollected that the retail markets and the fishmongers combined cannot compete in quantity with the small fish costermonger or perambulating fishmonger, who is the most useful and extensive fish vendor. To the fish costermonger the system of frozen fish would be as great a boon and a blessing as it would be to the poor and to the comparatively poor. These costermongers are generally but small capitalists, and indeed not unfrequently borrowers, requiring to sell their first load before they can afford to purchase a second lot. Hence, as soon as they had sold one cargo, they could with these returns and profits purchase a further supply from the refrigerator stores, and thus, doing an extensive increased business, they would be able to earn more money whilst selling better and cheaper fish to the poor. By a police law of the City no fish carts or barrows may remain near Billingsgate after 9 in the morning; so, should a costermonger require to replenish his stock, even at 11 in the morning, this anomalous market has practically ceased to exist for that day. It is useless for the poor to make hard sacrifices by long strikes so as to get higher wages unless they can also obtain better, cheaper, healthier and more abundant food. Hitherto the chief increase of their wages has been virtually almost useless, because it has not been combined with suitable food at lower prices and better value, an all-important fact which is too often entirely overlooked and ignored. Therefore these strikes practically chiefly benefit the middleman.

Frozen fish at unvarying prices.—The poor are naturally puzzled, perplexed, and frightened at the present ever-varying and fluctuating prices of the same kind of fish under the existing wasteful fish-destroying systems, and is another reason why they will welcome the advent of frozen fish. The total supply of frozen fish will be quite independent of local fogs, storms, calms, and the catch of the preceding twenty-four hours. Frozen fish should therefore remain all through the year at constant prices.

Cheap cooked fish for the poor.—Not alone do the poor require close at hand cheap fresh fish, but as many of them have often to work miles away from their homes, it is to be hoped that the introduction of frozen fish will result in numerous local retailers selling healthy cheap cooked fried fish. It is evident that it is no practical economy for a workman himself, distant from his home, to be able to buy cheap fish if its cooking costs him not alone too much for fuel, but further involves his sacrificing an hour's work or more to make up a fire to cook a single herring for his meal. At present it is a notorious fact that much of the fried fish sold to the poor is fish which is more or less bad and decomposed, and would be unsaleable in the uncooked state. Hence the true commercial saying among some of these fried fish vendors, that "*Frying a fish saves its life.*" It is evident that such fish is likely to produce passing disease among those whom stern necessity, hunger, and poverty compel to eat food which, under a proper system of inspection, could not be sold.

The signs of bad fish.—Among the indications of decomposed fish are external and internal bleeding and clotting, which clotting is intensified by cooking, and is so frequently seen extending along the backbone of cooked fish. Cloudy, opaque, sunken eyes; dry looking gills; flabby, soft, insipid flesh; a fishy smell; loss of brightness and brilliancy about the scales; any luminosity or phosphorescence in the dark. When cooked a sour or acid taste, with darkened clotted blood, indicate decomposed fish. The blackening of a silver spoon indicates sulphur, a product of fish decomposition. In Italy cured fish is tested by introducing a skewer whose subsequent odour indicates the condition of the fish.

THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

The International Congress on Climatology and Hydrology.—The Perfumery Section.

THE International Climatological and Hydrological Congress has just held its sittings at the École de Médecine. This is the second congress of the series, the first being held at Biarritz in October, 1886. Unfortunately the present season is not so favourable. Medical men are thoroughly exhausted by the great number of congresses that have met during the Exhibition, and these have all suffered from mutual competition. Nevertheless fourteen different Governments have sent official representatives to the congress, notably the Belgian, Dutch, Italian, Spanish, Austro-Hungarian, Mexican, and Turkish Governments. There are also unofficial delegates from England, the United States, Switzerland, and other countries. The opening sitting was held at the Trocadero, and the subsequent meetings at the École de Médecine. M. Renou, director of the Observatory of Saint Maur and vice-president of the French Meteorological Society, was elected president, and Dr. Winternitz, of Vienna, delegated by the Austro-Hungarian Government, was elected as foreign president of the congress. In his opening observations the French President said that where good springs existed the climatic and general conditions

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were sometimes unfavourable, therefore it was absolutely necessary to study both questions simultaneously. Unfortunately meteorology and climatology were sciences much behind date. Also there were any number of amateur meteorologists who, by their incorrect observations, caused more confusion than need be. If these amateurs would first consult the meteorological institutions, and would consent to receive instruction and have the accuracy of their instruments tested, much more satisfactory results would be secured.

The afternoon sitting on the second day was opened by the delegate from the town of Pau, who urged the importance of a uniform system of meteorological observations. He complained that the climate of Pau had been misrepresented by Dr. Weber of the London German Hospital, who had quoted Dr. Williams's animadversions against Pau. There are variations of temperature from year to year, and it was necessary to study the average temperature, not of the whole year, but of the months when such towns were frequented by patients. For instance, at Pau it was necessary not merely to indicate the direction of the prevailing winds, but to add the local circumstance that it was precisely to the windward of the town that the pine-wood forests were situated. It was further very necessary to find out what were the "medical hours" of the day. It was not the climate of a station, the average climate that the patient experienced, but the climate of those special and favourable hours that are known as the medical day.

Dr. Danaciano Moralès, professor at the University of Mexico, and delegate of the Mexican Government, gave some description of the various health resorts of Mexico. These in time would, he said, deservedly be as well known and as popular as the similar stations in Europe. At some of these stations there was already excellent hotel accommodation. Being so near to the tropics, and yet enjoying a mild climate in consequence of their elevated positions, these stations offered exceptional conditions and possessed mineral springs of great value. When, however, the speaker entered into an analytic description of these waters, their virtue was challenged by several members of the Congress. M. Labut said that great abuse had been made of iron waters. Those that were serviceable for medical purposes were very rare indeed. In some cases, notably in the neighbourhood of Milan, the chalybeate waters were so strong that they had to be given a teaspoonful at a time, and this mixed with a large quantity of ordinary water. Water containing iron could be found in all directions, but the iron was precipitated by contact with the air, or other chemicals in the water neutralised its therapeutic utility. Thus, in all France no good iron waters could be found. Those of Orezza in Corsica were really suitable for medical purposes, but the accommodation was so bad that patients could not be sent there. Close over the frontier there were some excellent chalybeate springs—those of Spa in Belgium. But even these had been exaggerated. There were also good iron springs in Germany, though they did not equal the waters of Spa. It was, therefore, necessary to be very careful in this respect. A mere analysis did not suffice; waters might contain a great quantity of iron, but not in such a condition as to render its assimilation possible.

After M. Marcailhon had made some remarks on the waters of the Fontaine aux Fromages at Ariège, M. Mendes Guerreiro, civil engineer, and delegate from Portugal, insisted that it was not only the climate that should be studied but also the soil. The climate, if estimated only by meteorological observations, might be excellent and yet the mortality be very high. The soil, under the best of climates, might be the cause of decimating diseases. Thus the piercing of the Panama Canal seems likely to prove a failure because proper precautions had not been taken with regard to the soil. The workers could not live in such a place. The speaker had been sent to build a reformatory in Portugal on a site where the soil was so bad that fever spread among the workmen. The difference of temperature between the day and night was equal to 30°. The dryness in summer was such that the lips cracked and bled and the trees died; yet in the lower part of the district there were marshes, and these spread malarial fever. His first precaution was to prevent the workmen going out of doors in the evening. Then he planted 100,000 eucalyptus trees, which at first had to be watered artificially. In a few years the temperature so changed that the difference between night and day was altered from 30° to only 18°. M. Guerreiro then discussed various methods for observing temperature, and thought the temperature of the soil very interesting. In Portugal he had found that at a depth in the earth of 2·40 metres there were but two degrees centigrade difference between winter and summer. M. Renou replied that at the St. Maur observatory they could discover no difference between night and day temperature if they went lower than one metre. At one metre from the surface of the soil they took daily observations. The maximum of heat at that depot occurred at ten in the evening, and the minimum of heat at ten in the morning. Consequently it was at those hours that the observations were made.

M. E. Renou, director of the St. Maur Meteorological Congress, presented three papers simultaneously. In the first he argued that thermometers were altered by being plunged into boiling water, and also insisted that thermometers were not exact at every point of the scale of degrees. Therefore it was necessary to submit thermometers to very severe checks. In his second paper he complained that observations were made under circumstances that rendered them worthless. Thus, a thermometer outside a window, warmed by the radiations from a house wall, would only fall to 5° C. while it was freezing in the open. It is best under such circumstances to suspend the thermometer in mid-air by means of a silk thread. In the third paper, dealing with weather forecast, the author regarded the barometer as the best, though not an infallible guide, and urged the utility of health stations receiving regularly the reports of the Meteorological Office. Dr. Fines pointed out that for climate stations what was wanted was a record of the temperature taken during the time when most patients went out for exercise; and M. Japa Wada, the Japanese delegate, spoke at length on cyclones and volcanoes, and their effect on the temperature of hot springs. The water he found was generally warmer before a cyclone, though it gave off less steam. Mr. G. J. Symonds said he had heard, with pleasure, that M. Renou had drawn public notice to the real quantity of rain water, and more especially of snow, that fell, for these were questions which had not yet received sufficient attention. As for the real temperature of springs, Mr. Symonds described the journey he had made in the Pyrenees on behalf of the English Royal Society, so as to verify the temperature of the hot springs in that country. He explained the precautions he had taken so as to ascertain the true temperature, even to the twentieth part of a degree centigrade. To the medical men who had assisted him and rendered him valuable service at the various stations he desired to offer his heartiest thanks, and this in the most public manner possible. With their aid he had been able to ascertain how very slight was the alteration of temperature of the springs during the course of the last fifty years.

Dr. Constantin Paul read a paper on Thermal Therapeutics in the Treatment of Cardiac Diseases. Sudden deaths occurring from the imprudent use of baths have led many medical men to warn their patients suffering from heart disease against hydropathic establishments. Nevertheless, symptomatic palpitations connected with chlorosis, anæmia, affections of the stomach, the liver, and even of the lungs are benefited at such establishments. Still more ought this to be the case in nervous palpitations. When, as a consequence of rheumatism, the auriculo-ventricular valves are affected, the waters of Dax have rendered considerable service, as also those of Aix, St. Nectaire, Mont Dore, and Néris. When the aorta or the myocardium is affected then thermal stations are most dangerous. If there is hypertrophy of the heart as the result of catarrhal disease, then relief can be obtained by the waters that reduce or cure the cause of the disease; the waters, for instance, of Eaux-Bonnes, Cauterets, Allevard, St. Honoré, Pierrefonds, and Enghien. Symptomatic hypertrophy, due to gastric affections, may be sent to Ems, Carlsbad, Vichy, Royat, Vittel, and Contrexéville.

Dr. Bouloumié read a very lengthy paper on the treatment of Renal Disease, concluding that it was necessary to study more carefully the value of the hydro-mineral treatment of albumen in urine; the morbid relations between the liver and the kidneys under the influence of mineral waters; the absolute and relative value of different mineral waters in the treatment of renal lithiasis, and particularly in the treatment of gravel in the urine. Dr. Caulet read a paper on Severe Neuralgic, Ovarian, and Uterine Diseases, which he insisted would be specially benefited by the hydro-mineral treatment. Dr. Grimaud followed with a paper on Hydro-mineral Treatment of Tuberculosis of the Bones, and Dr.

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Jules Simon on Sea-bathing for Children. The latter speaker also reviewed at length the various mineral waters, and described the nature of the diseases among children which would be affected by use of these waters.

Dr. Labat, member of the Hydrological Society of Paris, who has visited almost every winter and thermal station of England and Europe, spoke several times during the Congress. He also read a very interesting paper on the classification of these stations. In accomplishing this very difficult task he displayed great impartiality and moderation. There were, he thought, three great categories of climate—the plain, the mountain, and the sea; and these, according to whether they were hot or cold, became summer or winter stations. The mountain stations were quite new in the history of the climatic treatment of disease; but he thought the effect produced was generally due to the change of temperature, and not to the rarefaction of the air. It had been shown that the temperature fell 1° C. for every 165 metres of elevation. The Engadine, St. Moritz, La Maloja, were situated at an altitude of about 1800 metres; Tarasp, Bormio, San Martino, were below 1400 metres; Davos, 1550 metres; the Kaltbad of the Righi, 1440; Panticosa, in Spain, 1600 metres; and Barèges, in France, 1250. At these smaller altitudes the slight reduction in the quantity of oxygen is compensated for by the greater density of the air produced by the cold and by the greater activity of the respiratory movements. Jourdanet's theory on "respiratory diet" can only be applied at such stations as Quito, 3000 metres; or Mexico, 2300 metres, and at Dittinghur, 4700 metres; Darjeeling, 2440 metres, or in Switzerland, at the Hôtel de Viesch, 2500 metres. Because the natives of these elevated regions do not suffer from phthisis, therefore, people had jumped to the conclusion that the climate would cure this dread disease. This, however, did not follow. He had found that these mountain stations were generally situated in a high valley at the foot of a big mountain that sheltered them from the north and left them fully exposed to the sun. The topographical position, in fact, was similar to that of a Riviera winter resort. When the weather was fine and the sun shone there was no harm in taking out-door exercise. To this the German doctors have added cold frictions and "pulmonary gymnastics." Satisfactory results had been obtained. But, after all, what was injurious was not the cold of winter; it was the damp, the wind, and the want of sunshine. It was in this respect that mountain resorts were useful. But great precautions should be taken. Disasters had occurred, and some persons, who thought themselves nearly well, went to the mountain stations to complete their cure; and there, on the contrary, the disease met its fatal termination. With regard to the maritime climates, there was a terrible warfare between the South-west, Pau, Biarritz, &c., and the Riviera, Nice, Cannes, &c. The former had greater stability of temperature, and there was not the terrible mistral wind; but then they had violent south-westerly gales, a damp atmosphere, and a cloudy sky. Dr. Labat was ready to admit that there was much to be said on both sides; but the Riviera in any case had the advantage of a brighter sky, a more beautiful sea, and these could not but have a great mental effect on the patient. The real secret was the selection of the site for the building of the sanatorium. On the Riviera there were climates as bad as the worst that could be found in Europe; but at Carabancelle, at Beaulieu, and at Monte Carlo the shelter was perfect and the climate admirable. There was a warm temperature on the south coast of England, and the west coasts of Scotland, but when the sky is not clear the spirit is depressed by sadness, and this places the patient in a bad condition for recovery. If the sun shines, even though the thermometer does not record a better climate, its generous rays warm the heart and the soul, keep up the activity of the skin, inspire hope, cheerfulness, and predispose the patient favourably.

Dr. Cosse of Ostend, in replying, sought to defend the sea coast climate. The winds were for the most part westerly, warm, and richly charged with ozone, and this killed the microbes. The minimum of ozone at Ostend was greater than the maximum of ozone at Brussels. Also the rain that fell at Ostend was at least a third less than that which fell a little way inland. They had much more sunshine than was generally believed. He did not attribute much importance to the salt supposed to be in the air, for he found that at a very short distance from the sea there was no salt, nor did the rain water take up any chloride of sodium from the atmosphere. It was the bath of air rather than the water which benefited the patient.

Dr. de Valcourt supported the bath and spoke of the treatment of strumous children at Cannes by sea-baths during the winter months, entering into minute details of various cases to show the good results achieved. M. Dolfus of Mulhouse had erected a sanatorium at Cannes for 120 children of the working classes. Some came from Geneva, and they began treatment in 1881. They selected a site on porphyry so that there should be no dust, and at first stopped the bathing on Nov. 15th, now they continued till Dec. 20th. After that date the bath is not compulsory, and they ask for volunteers, but nearly all the children volunteer. It is only during exceptionally bad weather that they do not bathe, so that the children during the depth of winter get something like twenty sea baths per month.

Dr. F. Chiaïs of Mentone made some able remarks concerning the increased radiation of heat resulting from dryness of atmosphere. What was wet for the skin caused the lung to experience greater dryness. When there was more than the normal dryness, then accidents arising from cold increased among those who suffered from diseases of the chest and wintered on the Riviera. The hydrometer was really more useful than the thermometer. While the latter would record the same temperature, the former would show that there was a great change in the character of the air. In January and February especially there were very dangerous perturbations, and during periods of excessive dryness patients had better remain at home. Dr. de Valcourt agreed as to the danger of the very dry air, and urged that it did not suffice to tell patients at such periods to boil water in their rooms. They very often would neglect to do so, but if told to put a few eucalyptus leaves in the water they would have more faith in the beneficent effects of the steam. The discussion continued for a considerable time, when it was urged that the most varied medicaments and climates rendered service, and instead of complaining of their number we ought to learn how better to use them.

On the Sunday the Congress enjoyed a pleasant excursion to Pierrefonds, where there are some sulphurous springs and a small hydropathic establishment. Here the Congress was entertained to lunch, the Mayor of Pierrefonds presiding. Time was allowed to visit the magnificent Castle of Pierrefonds, recently restored by M. Violet le Duc, and also the Château de Compiègne, where, under the Second Empire, hunts used to be organised with so much *éclat*.

The next day the Congress, refreshed by this rest, met in full force, and the discussion was opened by the reading of an important report prepared by Dr. Schlemmer on the Influence of Microbes on Thermal Therapeutics. The first question raised was whether the micro-organisms observed in mineral waters might become the cause of danger. In this respect it must be borne in mind that unless the waters are well protected they may receive microbes from the air or the soil in the immediate neighbourhood of the spring, microbes foreign to the water itself. Taking the waters of the Mont Dore in a sterilised pipette, plunged at considerable depth, he had not found that specimens thus collected gave rise to any cultures. So far he had not discovered that microbes in mineral waters had produced any special effects, whether these were added to the waters or were inherent to the waters, such as the Leptothrix ochracea of chalybeate springs, to which M. Winogradsky attributed an action in reducing sesquioxide of iron. All that science had at present demonstrated as necessary was the careful shielding of mineral springs from external contaminations. Dr. Schlemmer did not think that inhalation of bacterium termo had given any satisfactory results, but believed the study of inoffensive micro-organisms might provide new methods of dealing with digestive troubles. Considering that one single bacterium of vinegar can destroy, in twenty-four hours, a hundred times its weight of alcohol, there is in this, perhaps, a powerful agent for dealing with functional disorders. In respect to the danger of contracting phthisis at thermal stations, he thought this had been exaggerated. The risk of contagion arose solely from the sputa, and, after all, people did not, and as a rule could not, spit in the springs. In conclusion, he urged that to the antiseptic qualities of mineral waters might be attributed in part the good results achieved, and wished that the therapeutic effects of various microbes on functional disorders could be more carefully studied. Dr. Eugenio Fazio of Naples gave

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some account of his researches in the same direction with regard to the mineral waters of Italy. These have been fully reported in the *Giornale Internazionale delle Scienze Medicale*, published at Naples, and Signor Fazio, who sat at the presidential table, was congratulated by the Congress on his methodical and scientific methods of proceeding. He gave illustrations of the sort of pipettes that would best secure samples of water free from outside contamination.

Subsequently Mr. Adolphe Smith opened a discussion on the necessity of Improved Sanitation at various Health and Winter Resorts. He trusted the Congress would not misunderstand the object he had in view; his interests were not connected with those of any locality or nationality. This was an international congress; its sole object was to guide, in a scientific manner, those who suffered so that they might soon be cured; and this must be done on purely scientific grounds, without stopping to consider for a moment the interests of any particular district. He was willing to assent to the asserted inferiority of the English climate; but unfortunately a great number of English patients would not repair to the Continent because they feared to encounter the bad sanitation, especially of the French, Spanish, and Italian so-called health resorts. It was only necessary to compare the death-rates to show the appalling difference that existed. In England, at seaside and health resorts, and in spite of the presence of numerous patients, there were death-rates of 12, 13, and 14 per 1000. A small town in a healthy position, where there were no factories, no accumulations of poor people, but for the most part lodging-house keepers and people fairly well off, should have a death-rate below 15 per 1000 per annum. But he had found in France and elsewhere that the death-rate in such places amounted to 22, and in one case to even 28, per 1000. This was all the more remarkable as there were fewer children in France. With the same proportion of children as in England the mortality in France would be still higher. The reason for this distressful state of affairs was not far to seek. Even to-day new houses were in course of construction with cesspools placed under the front sitting-room, so that they could be easily emptied from the street. The closets were constructed with soil pipes so large that it was impossible to cleanse them; there were no traps, and practically nothing to prevent cesspool gases entering the house. In the kitchens the leaden pipes went straight to the sewers without trap and interception. The houses were simultaneously permeated with sewer air and the emanations from the cesspool. The patient while he was out of doors enjoyed a much better climate than in England. But what was the good of a pleasant walk in the sun for three or four hours if, during the remaining twenty hours, the patient was condemned to breathe sewer air? He could understand that municipalities should hesitate to build large sewers and adopt vast expensive schemes of drainage; but domestic drainage could be very much better managed and at little or no expense. In England, in some health resorts, it was proposed to examine lodging-houses and hotels, and give diplomas as to their sanitary condition, so that visitors might have the option of selecting for residence only such places as were certified to be in a healthy condition. THE LANCET had taken an active and successful part in this campaign, and it served to arouse public opinion. Could not something similar be done on the Continent? Then there was nothing to prevent the letting of rooms where there had been cases of small-pox or scarlet fever, and where no measures of disinfection were applied. Finally, in towns where a good public water-supply existed, he found the inhabitants still supplying their lodgers with contaminated water taken from private wells. In conclusion, he felt convinced that in many health resorts of France, Italy, and Spain, the death-rate might be reduced to the extent of 40 or even 50 per cent., if a proper system of public and domestic drainage were introduced, if a supply of pure water were rendered obligatory and all private wells closed, and, finally, if all persons suffering from infectious disease were isolated and their rooms rigorously disinfected.

Several delegates rose to explain that the condition of their respective towns was not so bad as in the picture Mr. Smith had drawn. M. Labat wanted to enter a protest that it was not to be supposed that everything was perfect in England and everything was bad in France. At Manchester, at Glasgow, he had found a high rate of mortality and some dreadful slums, and he had even discovered a dirty street in Ventnor. Other speakers thought that the giving of diplomas would cause so much quarrelling and so much disturbance as not to be practical. In France the landlords could not be made to do their duty except by the force of the law, and hopes were expressed that the new Parliament would find time to legislate on the matter. M. de Valcourt said the Congress should feel indebted to Mr. Smith for having introduced a subject in which they were all so deeply interested. At Cannes they had to thank the English for what improvements had been realised. But for British tenacity nothing would have been done. A system of diplomas had been introdced at Cannes, but this was principally among the English, who sent their sanitary engineers over to see that their villas were properly drained. The high mortality occurred in the summer months among the children of the native population who lived under less favourable sanitary conditions.

Mr. Adolphe Smith, in reply, said he was just as anxious to save the life of a native child as that of a rich visitor. A high rate of infant mortality was a sure sign of bad sanitation. He willingly associated himself with the protest made by M. Labat. Everything was not perfect in England, and he had spent the last ten years of his life denouncing the bad sanitary condition of various places in Great Britain. Nowhere in Europe had he seen sights more depressing than in the slums of Glasgow. He had examined the flush tanks introduced to cleanse the sewers of Nice, he knew that sanitary bureaux had been installed in various French towns, and acknowledged that some progress was made. This was not, however, the point he wished to raise. He repeated that in small towns where there were no slums, no factories, no overcrowding and misery, the death-rate should be, and in England actually was, below 15 per 1000. On the Continent, where the population was more sober, where there was a smaller proportion of children and a very much better climate, but where in every other respect the same conditions obtained, the mortality, instead of being below 15, was often considerably above 20 per 1000. This was mainly due to sanitary defects which the members of the Congress could materially help to efface if they would take this cause energetically in hand.

On the following day (Tuesday) the Congress went to Enghien and examined the thermal establishment and the celebrated sulphur waters of that pleasant Parisian suburb. They were well received by the Municipality, and entertained to a lunch. On Wednesday the Congress discussed technical details as to the administration of baths, the pulverisation of waters for inhalations, &c.

Dr. de Rouse, the general secretary of the Congress, read a paper on the Utility of Hydrothermal Treatment of serious Utero-ovarian Complaints both before and after surgical operations; and, in the evening, entertained to dinner a number of foreign delegates. Very cordial speeches were interchanged, and the foreign delegates warmly thanked Dr. de Rouse for having afforded them so pleasant a means of establishing intimate international relations.

Thursday morning was devoted to the discussion of the Therapeutic Application of Mineral Waters. The want of better comparisons between the various waters, and of general directions as to when they should be prescribed, was acknowledged by several speakers. Then the Congress debated on the question of including, as part of medical education, a course of lectures on the use of mineral waters and thermatology generally. Dr. Winternitz said that in the cliniques each person would have his own idea, and the discussion should be limited to the teaching of hydrology. He would propose that a special station should be created for the study, both practical and theoretical, of hydrology. The Belgian delegates complained that in their country nothing of the sort was taught, and this often placed the medical practitioners at serious disadvantage. Sometimes they only learnt from their patients what were the special advantages of various thermal and health resorts. A resolution was passed demanding the appointment of a commission to investigate the feasibility of altering the curriculum of medical studies and perhaps of creating chairs of climatology and hydrology in the various universities. The Congress also voted that in the meanwhile it was desirable that a few questions on these subjects should be introduced in the examination papers which medical students had to answer.

After visiting the Museum of Hygiene established by Dr. Proust at the Academy of Medicine, the Congress held its final sitting. The principal discussion related to the

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next place of meeting. There were two invitations—one from Belgium and the other from Italy. The Belgian delegates pleaded with great energy and humour for their own country, while the Italians showed themselves equally anxious to secure the honour in favour of Rome. The Congress greatly enjoyed this tournament, and then proceeded to vote by ballot. Rome headed the poll by a large majority. The next, which will be the third, International Congress of Hydrology and Climatology will be held at Rome three years hence. After this decision, the Congress, having concluded its labours, adjourned amid cordial salutations.

After visiting the chemical and pharmaceutical section it was but natural to glance at exhibits of perfumery and articles for the toilet. The connexion between dress and health is better recognised every day, and I was anxious to see how far the French perfumer had imbibed these new doctrines. The result of the investigation was a complete disappointment. In the exhibits of hair-dressing it must be gratefully acknowledged that occasionally the principles of art have triumphed over the follies of fashion. On the other hand, not only are the laws of health neglected, but no care seems to be taken to preserve even the hair itself. Though little or nothing is known as to how the hair can be made to grow by artificial means, still the principles that govern its natural growth are obvious enough. Hair comes as clothing to protect the skin from the atmosphere or the sun, and will not grow so well, and perhaps not at all, on heads that are covered by unventilated hats. When women wore large chignons or piled up their hair in giant masses on the top of the head they had a tendency to become bald. These are self-evident facts, yet in the hair-dressing sections and in the millinery sections of the Exhibition I did not detect any attempt to act according to these principles. Originality, novelty, fashion, these were the only thoughts of the exhibitors. Sometimes they were actuated by a higher sense of art, but science has not yet influenced the exhibitors who dress the hair and make coverings for the head. In the perfumery section there are any number of hair washes and hair restorers, but nowhere anything new. No guarantee is given that lead, mercury, and other poisons do not constitute the active principle of these "restorers." The elegance of bottles in which they are exhibited, and the extravagant charge made for compounds that literally cost only a few farthings, are the chief attractions which ensnare an ignorant public. With mineral poisons the colour of the hair may be temporarily restored, but the constant use of these toxic substances is not likely to prove beneficial to the general health. Of more use are the various waters exhibited in the perfumery section used for dental purposes. Most prominent among these is the Eau Dentifrice du Docteur Pierre, which for fifty years has maintained its popularity. This exhibit is *hors concours;* a fact that is not surprising, considering that the firm has already received seven bronze, three silver, and seven gold medals. The advantage which Dr. Pierre claims for his dentifrice is absolute freedom from acids and aromatic and astringent qualities. Perhaps the exhibits of the raw materials used in perfumery found the most interesting feature in this section. Many of the largest firms from Grasse, notably Roure Bertrand et Fils, *hors concours* and member of the jury, and M. Cheris, sent specimens of essences, &c. The latter has an interesting series of photographs of his flower fields and his workers at Grasse and in Algeria. The hundreds of workmen and women employed in making scent, the mountains of rose leaves stored in huge barns, give an idea of the large share scents have in the pleasures of life. The oils and essences used by Piver, who has received the grand prix, are also close at hand; and some of the larger French perfumers have little drawing-rooms where there are fountains of scent, rich drapery, highly decorated shelves loaded with various bottles, jars, and art-painted satchels. When, however, I inquired from the graceful assistants who are there to extol the virtues of the perfumes if they had any antiseptic soap, I was greeted with an expressive look of horror by those who understood my question, for some of the assistants did not even know what I meant. How could I, in the midst of so many elegancies, refinements, and pleasures of life introduce a thought recalling the odours of the hospital, the agonies of disease and death? In self-defence I pointed to Rimmel's stall, where there is at least some coal-tar soap and some eau de Cologne, and some perfumed sawdust, that are recommended not so much as perfumes, but because they give off some oxygen, and therefore render the atmosphere purer. But then Rimmel is half an English firm; and Englishmen, according to the French tradition, are always committing some extraordinary and extravagant eccentricity. Under the cover of this excuse I beat a retreat from the perfumery section. The class abounds in luxury and in things of beauty, but there is little or no science. It is a triumph of coquetry over hygiene. The French have certainly not realised so well as the English that the arts of the toilet may be so combined with the care of cleanliness in such a manner as to ensure a better preservation of health; and this so intimately as to render it difficult to draw the line between the two. Here the French perfumers miss a good opportunity of raising their trade to a higher level. With thyme and other aromatics the antiseptic principle may be associated with a pleasant perfume, and thus two objects served at one and the same moment. This has been better understood by the State Perfume Distillery of the Principality of Monaco, which sends to the Exhibition some very agreeable antiseptic scents to be mixed with bath water.

Paris, Oct. 15th.

HOTELS.

(BY OUR ROVING CORRESPONDENT.)

(Concluded from page 761.)

I HAVE incidentally mentioned the effluvia of an hotel. These are chiefly due to humanity, cooking, tobacco, and drains, and in an average hotel the admixture of these four ingredients is, I should imagine, very tolerably equal. It is not necessary to dwell at length on the so-called "sanitary arrangements" of hotels, especially of continental hotels. These arrangements are, as a rule, execrable; the closets are often of the worst type, the supply of water is generally deficient, and the sanitary offices practically always ventilate into the corridors or shafts of the building. In designing an hotel provision ought to be made for placing closets and sinks in turrets approached by properly ventilated lobbies, so that the impregnation of the main building with sewer air may be a little less certain than it is at present. The pig if he has a chance goes outside his sty to obey the calls of nature, and it is only since man has given up following this very salutary example that sewer air has become his *bête noire* and the staple of his conversation. In big country hotels there ought to be (as there is in every country house) proper and ample accommodation provided in the gardens (approachable by a covered corridor if necessary). In this way the strain put upon the internal accommodation would be lessened, and the indecency experienced in a big Swiss kurhaus of a mixture of both sexes "waiting their turn" in the corridors would be avoided. Certainly a gentleman's "garden" ought to be provided as one of the sanitary accessories of an hotel, and it is probable that, properly managed, a similar arrangement would be welcomed by the ladies also. It is inconceivable to what extent this blind and dangerous practice of keeping "sanitary offices" within the walls of the main building is carried. Quite recently I visited one of the best known show places in Switzerland—the top of a mountain to which a railway brings hundreds of tourists daily during the season. Arrived at the summit, luncheon was necessary, and for luncheon a visit was paid to one out of several big hotels. This hotel, built in a place where the price of land can hardly be excessive, was of the usual type, four or five storeys high, with a central staircase and shaft running from the entrance hall to the roof. The entrance hall simply reeked of paraffin and ammonia *plus* hotel. The paraffin came from the lamps, the ammonia from the closets, which opened directly into the central hall. These closets communicated direct, without traps, with cesspools which received the slops and excrement of this huge establishment. To step from the pure air of the mountain top to the fearful atmosphere of this hotel was calculated to impress the mind of one who, having travelled to a spot where the air should have been absolutely pure, found that he was to run no small risk of being poisoned while he ate his lunch. At luncheon one could not but be impressed with the anæmic condition of several of the waitresses, and this was probably accounted for by the insanitary condition of the house.

In the present day, hotel advertisements generally lay

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stress on the fact that there are "lifts," a monosyllable which lets in a flood of light on the general plan of the building, and indicates with absolute certainty that the area of the building is too small for the population it is designed to accommodate. Possibly some day we may have hotel advertisements couched in some such terms as these, "This establishment, standing in extensive pleasure-grounds, has been designed on the model of a luxurious country house. The main building is only two storeys high, and has been so designed that all the bedrooms may be easily reached without any undue effort. The sanitary offices are detached from the main building. The public rooms are also detached, but they are central, equally accessible from all parts of the house, and so arranged that the smell of the kitchen cannot possibly prove an annoyance." It is needless to say that every country hotel ought to stand in sufficient ground to enable it to be independent of any public sewer, and to deal with its own refuse in a manner which shall ensure the safety of the guests, render the soil increasingly prolific, and prove a source of profit to the landlord, rather than a perennial expense and nuisance.

Leaving the question of general design, I shall now consider some of the details of hotels. Thick parti-walls and double doors are absolutely essential to ensure the quiet of the guests. The bedrooms provided with these requisites should be of a convenient form. On the Continent the hotel bedroom is generally too long and too narrow. The window is often too small, and so heavily and ridiculously upholstered as to reduce its light-giving power to a minimum. This arrangement ensures that the end of the room farthest from the window is nearly always dark, and as the looking-glass is placed against one of the side walls, the difficulties of the toilet are very great. The bedrooms are often needlessly high, and not unfrequently there is a space of two feet or more between the ceiling and the top of the window. In "summer hotels" the bedrooms have no chimneys, so that it is impossible to get a current of air through them without opening the door, and the opening of the door generally means the admission of suffocative vapours from the corridor. Every hotel bedroom should have a covered balcony so arranged that in winter it can be enclosed by outside windows. A balcony is in summer a very pleasant addition to a room, but as an adjunct to a hotel bedroom it is necessary, in order to afford the occupant a place for shaking and brushing dusty clothing—a process constantly necessary for a traveller, but one which cannot be performed except in the open air. It is as well to state that the balcony is more common in continental than in English hotels. The thoroughly well-designed hotel bedroom, carefully "fitted" rather than furnished with an eye to the comfort and well-being of the occupant, is one of those things which may be found when upholsterers do not happen to be the chief shareholders in hotel companies. In one particular, hotels on the Continent are uniformly first-rate, and that is in the excellence of the beds. These are always comfortable and very superior to the beds which are found in English hotels. Of the rest of the furniture, the less said the better; but I cannot refrain from commenting on the perverted genius of the man who invented the chest of drawers and washstand in one, so designed that one's clean shirts are almost inevitably invaded by a flood of soapsuds. Your correspondent has been travelling for twenty-eight days, and he has paid 75c. per diem, or a total of 21 fr., for the tin vessel, and some two gallons of water, which the Englishman (especially when engaged in active exercise) has the arrogance to demand for the purpose of cleansing his skin. One need not grumble at the sum paid, but certainly one has a right to grumble at the difficulty often experienced in getting this customary sitz bath. Perhaps, when the Germans have written a few more thousand treatises on "Haut Cultur" these arch-pedants will begin to wash, and hotel proprietors will provide as a matter of course that which is now wrung from them with difficulty. The writer can only recall one hotel in which he has found a sitz bath supplied without asking, and that hotel was at Malta, and it is probable that the landlord had been drilled in this particular by officers of the English garrison.

A few words in conclusion as to hotel feeding. First one would ask whether the time has not arrived for the abolition of the huge Swiss *table-d'hôte* in its present form. The greatest good is got from a summer holiday by spending all day and every day in the open air, and it is extraordinary that people should submit to have their pleasures curtailed by the necessity of dining at a fixed hour, and that often when the hot summer day is at its best. When the noisy dinner-bell of the Swiss hotel kurhaus begins its intolerable clang, and the guests, dragooned by a pompous head waiter, begin to fall into line in the huge comfortless dining-room; and when the soup is served with a sort of military precision at the stroke of a bell, it is difficult to repress the thought that one is the inmate of some charitable institution, and this thought will be intensified if the soup should prove to be a pultaceous gruel, and if, being Saturday night, the English chaplain is making a tour of the room with a view of getting recruits for to-morrow's choir. "It will be something like this in the workhouse, I suppose," is the thought that rises to the mind, but accompanied by the blessed reflection that in "the house" we shall not have to pay five francs a head. The monster *table-d'hôte* is objectionable also because of its tediousness, the intolerable heat and noise, and the risk one runs of being placed in close proximity to people who, from one cause or another, are not congenial. It would be better, I think, from every point of view, to adopt the English plan, and serve a house dinner at a fixed price between certain hours. This dinner, if served at small tables, would allow the guest some degree of liberty as to the time of his meal and the selection of dining companions, and ought to allow of more variety in the *menu* than is possible at the ordinary *table-d'hôte*. Of hotel feeding I have written in previous years, and I am rather afraid that free trade makes a man an epicure. In London we are fed upon selected food drawn from every country in the world, and as a consequence we have a variety of fish, flesh, fowl, farinas, fruit, and vegetables which is to be met with nowhere else. In the days of the Tudors we had the reputation of being the best fed nation in Europe, and there can be little doubt that we deserve that reputation still. This is a matter for congratulation; but, nevertheless, we must admit the drawback that the Englishman on his travels will have to submit to the minor hardship of paying very dear for food which by no means unfrequently seems to him to be very second rate.

SOCIETY OF APOTHECARIES OF LONDON.

THE MEDICAL ACT OF 1886 AND THE TITLE OF L.S.A.

Mr. J. R. UPTON, the clerk and solicitor of the Society of Apothecaries, has forwarded to us the following statement, with a request that it might appear in our columns.

A misunderstanding appears to prevail on the part of persons passing the Qualifying Examination held by the Society of Apothecaries of London, that they are entitled to ask the Medical Council to register them under a title which does not exist—namely, that of Licentiate in Medicine, Surgery, and Midwifery. The Society desires, therefore, to publish an authoritative statement which it is hoped may finally put an end to the misunderstanding, and so avoid further trouble to the Medical Council, the Society, and the Licentiates themselves. If the Licentiates would read the Medical Acts they could never fall into the error which it is the object of this statement to correct. In the first place, no Medical Act has ever sought to define what was the meaning of the titles conferred by the various licensing bodies. The Medical Act of 1858 merely enacted that a person must be registered under one of the titles scheduled to that Act, and that he must only practise what that title allowed of his doing. But the Act of 1858 did not, for example, define what rights the title of L.R.C.P., M.R.C.S., and L.S.A. respectively conferred. That could only be ascertained by reference to the Charters or Acts under which the various licensing bodies existed. Only those who were familiar with those Charters or Acts could say whether a Member of the College of Physicians could legally practise both medicine and surgery, or whether a Licentiate of the Society of Apothecaries could only practise medicine. Without this knowledge no one, by mere intuition, could say whether an L.R.C.P. could practise surgery, or an L.S.A. could not; neither title using words to imply whether the power to practise surgery was conferred or not, and the title L.S.A. on the face of it not even implying the power of practising medicine. The Act of 1858 unintentionally originated or perpetuated an abuse in the fact that a qualified or registered medical man frequently ignored the limitation imposed on him by his licensing body and by the Register, and practised one or other of the subjects for which he had no registrable qualification. The Act of 1886 (so far as its provisions in the above respects are under discussion) was brought in to put an end to this state of things. Like its predecessor of 1858, it did not interfere with or alter the titles which the various bodies had power to confer, but it effectually stopped any medical title being obtained except on conditions which conclusively established that the holder had proved his proficiency in medicine, surgery, and midwifery. To illustrate this, it may be stated that since the passing of the Act of 1886 it is not of necessity, but by choice, that a person passing the examination of the Conjoint Board of the Royal Colleges has himself registered under the diplomas of both Colleges. Provided he has passed the Conjoint Examination, he may, if he please, get on the Register either as L.R.C.P. or M.R.C.S.

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Although the whole point under discussion might be said to be one of interest only to the medical profession (the public never, or practically never, consulting the Medical Register either before or since the Medical Act of 1886, or inquiring what titles a medical man possesses, or what functions they empower him to discharge), it is important to observe that it is only because medical men before 1886 knew that L.S.A. could only practise medicine that they have imported into the title words which are not to be found in it. It cannot be expected that in the space of three years everyone should know that that title, if obtained after 1886, implies a great deal more than it did formerly, but in time this will have become as thoroughly known as gradually after 1815 it became known that L.S.A. meant a Licentiate in Medicine. The reason why it was gradually known after 1815 that the title L.S.A. entitled the holder to practise medicine was because it was so expressed in the diploma then granted by the Society, and that the contents of such diploma became generally known. But in the same manner, now that the Society's diploma expresses on the face of it that the holder can legally practise medicine, surgery, and midwifery, this fact will in time be equally well known, and, indeed, far more rapidly and completely, because, if the present diploma did not show on the face of it that the conditions of the Act of 1886 had been fulfilled, it could not be put on the Register at all, and this must soon become a matter of general notoriety.

Enough has been said to fully justify the Society remaining passive, even if it had not attempted to get the title of its Licentiates altered when the Act of 1886 was being passed. But it is a matter known to all who had to do with that Act before it passed (and the Society was allowed as much indulgence as any other medical body in approaching the Government during the progress of the Bill) that the Vice-President of the Privy Council absolutely, and no doubt wisely, declined to allow the principle of the Act of 1858, as above explained, to be interfered with. The Society, nevertheless, during the present year submitted through its representative, Mr. Brudenell Carter, to the Medical Council the draft of a Bill to be laid before Parliament for (among other things) altering the title of its Licentiates obtained after 1886. The Medical Council declined to countenance such a proposal, and the Society therefore abandoned it; and unless any general scheme should be formulated, either by Government or by the Medical Council, for dealing with the question of medical titles, the Society will not of its own accord take any further step in this direction. Public bodies who have appointments to confer are fully aware of the qualifications conferred by the title of L.S.A. granted since the Act of 1886, the Society having never lost an opportunity of satisfying them on the subject.

POSTSCRIPT.—Since the above statement was forwarded for publication the Society finds that a memorial is about to be presented to the Medical Council by many gentlemen who have obtained its licence under the provisions of the Act of 1886, asking the Council to deal with the question under discussion. The Society, it is needless to say, has no wish to discourage such a memorial, and would point out that in the last paragraph but one of the statement it only explains that after what has already taken place it could not, as one of the representative bodies on the Council, again initiate such a movement. The decision of the Medical Council at its last session rested on a basis which, however unacceptable to those who differ from it, is intelligible—namely, that while, for example, the titles of the diplomas of the Colleges of Physicians and Surgeons identify the holder with the Licensing Body which granted them, the new title suggested for the Licentiates of the Society of Apothecaries would be entirely disconnected, or be liable to be disconnected from the Society, and might therefore even imply that it was a title granted by some other body.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

On the Sanitary Condition of the Buckingham Rural District, by Dr. GRESSWELL.—Dr. Gresswell, who has for some time been giving occasional services to the Local Government Board, enters into a detailed description of the sanitary state of this rural district, which contains a somewhat stationary population of about 9800 people, chiefly engaged on the land, and living in scattered hamlets and villages. The dwelling accommodation has received some local attention; but there still remains much to do in the way of rebuilding and repairing; and there is much lack of that which is proper from both a structural and a sanitary point of view in the matter of the disposal of excreta and refuse. Drainage arrangements are also extremely defective, varying as they commonly do from the mere slop-hole or ditch to drains of bad construction, which admit of being blocked or of otherwise causing nuisance. Such sewers as there are appear to be mere highway drains, but they seem at times to receive privy contents, slaughter-house drainage &c. Water comes from a number of sources, including wells which are imperfectly protected from surface soakage, and are sunk in a soil liable to contamination; and a long account is given of the various available sources of supply, which shows the need that exists for improvement and watchfulness in this respect. Typhoid fever, as might have been expected, is of frequent occurrence, and diphtheria is also far too common. The rate of mortality from respiratory diseases is also excessive, this result being in part, if not largely, due to the damp and ill-ventilated condition of the dwellings. The occurrences of infectious diseases have often been in groups, and have been due to such conditions as local pollutions of water; and Dr. Gresswell, in reviewing this part of his subject, says that the circumstances discovered and narrated afford a strong indication that the sanitary authority have not properly exercised the functions imposed upon them by the Legislature. They have hesitated to use the powers they possess; they have made no bye-laws; they have no means for the proper isolation of infectious diseases; and the advice of their medical officer of health goes unheeded. This officer also receives no encouragement to attend the meetings of the authority, at which they should, properly speaking, take counsel of him. Perhaps the strongest condemnation of a system which imposes on a body of people mainly elected for Poor-law work, that of caring for the health of the community, is contained in the statement that at their monthly meetings they are said to give thirty minutes—or six hours in the course of the year—to the sanitary aspects of their district, and that even this amount of time has recently been sensibly curtailed in order to give attention to the subject of allotments. We fear the Buckingham guardians are not the only ones who thus postpone their sanitary work until the end of a Poor-law meeting. It often happens that but few remain at the Board, since it is market day; and thus when important health considerations come forward they get postponed again and again until they are practically forgotten.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Gateshead Urban District.—Dr. W. Robinson takes occasion, in his annual report for 1888, to advert to the evils of overcrowding in Gateshead, and to point out the methods by which this tends to increase mortality. At the same time he is able to prove by comparative statistics of the last two quinquennial periods that 1884–88 shows a reduction of death-rate from all causes, from zymotic diseases, and as to the proportion of infant deaths per 1000 to registered births, and this although the number of persons per acre had increased from 21·3 in 1881 to 26·0 in 1888. Last year's general death-rate was 17·0 per 1000 in an estimated population of 81,303. The isolation hospital is stated to have again proved of considerable value to the borough, but the number of admissions during the year was only twenty-two in all. The water-supply of Wrekenton, Blue Quarries, and Sheriff Hill is still of a very unsatisfactory character, and the Corporation are met by the difficulty that these places are situated at an altitude above highwater mark, at which the water company is exempt from any liability to provide a supply. Happily the old large open middens are disappearing, although the process is a slow one. Indeed, on the whole steady improvement seems to be going on in Gateshead, which is described as essentially a "workman's town"; and regular sanitary work is systematically in progress.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5642 births and 3201 deaths were registered during the week ending Oct. 12th. The annual rate of mortality in these towns, which had been 17·9 and 17·6 in the preceding two weeks, further declined last week to 17·5. During last quarter the death-rate in these towns averaged 18·6 per 1000, and was 1·6 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 9·3 in Cardiff, 12·3 in Bristol, 13·8 in Derby, 14·3 in Nottingham, and 14·9 in Leicester. The rates in the other towns ranged upwards to 25·6 in Newcastle-upon-Tyne, 27·6 in Sunderland, 28·0 in Preston, and 32·7 in Plymouth. The deaths referred to the principal zymotic diseases, which had been 529 and 403 in the preceding two weeks, further declined last week to 352; they included 116 from diarrhœa, 65 from scarlet fever, 55 from diphtheria, 43 from "fever" (principally enteric), 41 from whooping-cough, 32 from measles, and not one from small-pox. These zymotic diseases caused no death last week in Huddersfield, and the highest death-rates in Preston, Sunderland, and Plymouth. The greatest mortality from

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diarrhœa occurred in Preston, Newcastle-upon-Tyne, and Wolverhampton; from scarlet fever in Salford, Leeds, and Plymouth; from "fever" in Plymouth; from whooping-cough in Oldham; and from measles in Preston and Sunderland. The deaths from diphtheria included 35 in London, 4 in Manchester, 3 in Salford, and 3 in Liverpool. Small-pox caused no death in any of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and the London Fever Hospitals at the end of the week was 1342, against numbers increasing in the preceding fifteen weeks from 559 to 1299; 177 cases were admitted to these hospitals during the week, against 166 and 149 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 142, 189, and 225 in the preceding three weeks, further rose last week to 264, but were 28 below the corrected average. The causes of 63, or 2·0 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Birmingham, Leeds, Nottingham, Leicester, and in five other smaller towns; the largest proportions of uncertified deaths were registered in Hull, Halifax, Liverpool, Preston, and Bolton.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18·8 and 18·6 per 1000 in the preceding two weeks, further declined to 18·3 in the week ending Oct. 12th; this rate exceeded, however, by 0·8 the rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 10·6 and 13·4 in Greenock and Dundee to 21·6 in Glasgow and 23·3 in Paisley. The 469 deaths in the eight towns showed a further decline of 8 from the number in the previous week, and included 19 which were referred to diarrhœa, 14 to whooping-cough, 13 to diphtheria, 7 to measles, 6 to scarlet fever, 5 to "fever" (typhus, enteric, or ill-defined), and not one to small-pox; in all, 64 deaths resulted from these principal zymotic diseases, against 74 and 69 in the preceding two weeks. These 64 deaths were equal to an annual rate of 2·5 per 1000, which exceeded by 0·6 the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of diarrhœa, which had declined in the preceding four weeks from 38 to 16, rose again last week to 19, of which 8 occurred in Glasgow, 4 in Dundee, and 3 in Edinburgh. The 14 deaths from whooping-cough were within one of the number in the previous week, and included 9 in Glasgow and 3 in Paisley. The 13 deaths referred to diphtheria corresponded with the number in the previous week; 6 were returned in Glasgow, 6 in Edinburgh, and 1 in Leith. Of the 7 deaths from measles, 3 occurred in Glasgow, and 2 in Aberdeen. The 6 fatal cases of scarlet fever included 2 in Glasgow and 2 in Perth; and 4 of the 5 deaths from "fever" occurred in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 66, 89, and 99 in the preceding three weeks, declined again last week to 87, and were 21 below the number in the corresponding week of last year. The causes of 41, or nearly 9 per cent., of the deaths registered in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 31·5 and 26·2 per 1000 in the preceding two weeks, further declined to 23·2 in the week ending Oct. 12th. During the last quarter the death-rate in the city averaged 24·0 per 1000, the mean rate during the same period being 15·8 in London and 16·0 in Edinburgh. The 157 deaths in Dublin last week showed a further decline of 20 from the high numbers returned in the preceding two weeks; they included 14 which were referred to diarrhœa, 7 to "fever" (typhus, enteric, or ill defined), 2 measles, and not one either to small-pox, scarlet fever, diphtheria, or whooping-cough. Thus the deaths from these principal zymotic diseases, which had been 31, 30, and 23 in the preceding two weeks, were again 23 last week; they were equal to an annual rate of 3·4 per 1000, the rate from the same diseases being 1·5 in London and 2·0 in Edinburgh. The deaths attributed to diarrhœa, which had been 23 and 12 in the previous two weeks, rose again last week to 14; the 7 deaths from "fever" corresponded with the number in the previous week. The deaths of infants showed a marked decline from recent weekly numbers, while those of elderly persons corresponded with the number in the previous week. Two inquest cases and 3 deaths from violence were registered; and 48, or more than a quarter, of the deaths occurred in public institutions. The causes of 18, or more than 11 per cent., of the deaths in the city were not certified.

THE HIGH DEATH-RATE IN RUSSIA.

Dr. Leinenberg of Odessa publishes in the *Internationale Klinische Rundschau* a lengthy article on the mortality in Russia, which is full of interest for the statistician. He says that in the number of births alone Russia ranks first of all European States, as they annually amount to no less than 48·8 per 1000 of the population. The latter would consequently grow with abnormal rapidity, if an enormous mortality did not make this impossible. This mortality is, according to Janson, 37·3 per 1000, while the Statistical Central Committee reports it at 36·8 per 1000. As to the causes of such high figures, Dr. Leinenberg points out that they depend largely on high infantile mortality. He states that 104·8 boys are born to every 100 girls, and that amongst the Jews the proportion of boys born rises to 128·9 for each 100 girls. The mortality of boys, as of the male sex in general, is correspondingly greater than that of the female sex, in the proportion of 36·7 to 35·2. Of 1000 newly born children 263·4 die before they are a year old. This mortality in the first year of infancy is in the province of Novgorod 281 per 1000, and in the Rusk district of the province of Moscow it reaches the figure of 550·8 per 1000. Even this enormous number has been surpassed by the town of Irbit, which shows a mortality during the first year of life of 560·2 per 1000. The provinces of Ekaterinoslaw and Wilno are distinguished by the lowest infantile mortality, the figures mentioned in the report of the Statistical Central Committee being 139·7 per 1000 for Ekaterinoslaw and 118·9 per 1000 for Wilno. Comparing the infantile with the general mortality in Russia, the author points to the following two important statistical results. Children up to the fifth year of age form more than one-half of the deaths from all causes. Infantile mortality shows a tendency to increase every year. This great infantile mortality in Russia must be largely attributed to the want of proper diet and of sufficient care, especially amongst the agricultural population. In summer, which is the time when nearly all the children die in the country, the parents are in the fields, leaving their infants at home with no supervision and without sufficient food. This sometimes leads to strange and sad accidents, as in a case mentioned by Giljarowsky, in which pigs devoured the buttocks of a child which had been left alone at home for a considerable period. Griasnoff attended a child, which under similar circumstances had been attacked by goats, and had lost every finger on both hands. Dr. Leinenberg also goes on to speak of the health of those who have passed the crisis of the fifth year. Of 1,568,315 boys born in the year 1858, only 750,622 were alive in 1879, and when out of this number 272,974 were examined for the purpose of military conscription, 58,824 men—i.e., 21·5 per cent.—were found to be suffering from various incurable or chronic diseases, and had consequently to be returned as unfit for military service. So that of all boys born in 1858, 47·8 per cent. reached their twenty-first year, but only 37·6 per cent. preserved good health.

THE SERVICES.

ARMY MEDICAL STAFF.—Surgeon-General Jeffery Allen Marston, M.D., C.B., F.R.C.S. England, is granted retired pay (dated Oct. 16th, 1889); Surgeon-Major Charles Healy is granted retired pay (dated Oct. 16th, 1889).

ADMIRALTY.—Royal Naval Artillery Volunteers (Liverpool Brigade): Surgeon Alfred Charles Edward Harris, F.R.C.S., to be Staff Surgeon (dated Oct. 9th, 1889); Surgeon Henry Briggs, M.B., F.R.C.S., to be Honorary Staff Surgeon (dated Oct. 9th, 1889); and George Herbert Pollard, M.B., C.M., to be Surgeon (dated Oct. 11th, 1889).

VOLUNTEER CORPS.—*Rifle:* The Queen's Rifle Volunteer

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Brigade, the Royal Scots (Lothian Regiment): William Henry Miller, M.D., to be Acting Surgeon (dated Oct. 12th, 1889); 2nd Volunteer Battalion, the Royal Warwickshire Regiment: Acting Surgeon W. J. Pickup, M.B., to be Surgeon (dated Oct. 12th, 1889).

Correspondence.

"Audi alteram partem."

THE PRACTICAL ELEMENT IN MEDICAL EDUCATION.

To the Editors of THE LANCET.

SIRS,—A very few words from me will suffice to close, I trust, the controversy with my friend Mr. Wheelhouse, and will at the same time make it apparent that (as I assumed in my Leeds address) "we do not differ greatly in essentials." Certainly I could not possibly claim from anyone, thinking as he does, a more handsome concession than this: "I would rather go on as we are, greatly as I consider that our plan might be improved, than that we should go back to the old system of a five years' apprenticeship to one man or to one institution. I hold, and I have ever taught, that to go back to that system would be to waste, hopelessly and absolutely, three years of the very best part of every educational life." On the other hand, I am fully disposed, from my point of view, to concede that "the present system" is very far from being perfect; and if the Medical Council can devise a plan, consistent in any degree with what I have called "thoroughness," for grafting upon it a larger amount of such practical experience as can be obtained only, or best, in the homes of the sick, it will be a decided gain. My object was, and is, to maintain that "thoroughness" in the *method* of instruction is of more importance than extent in the *range*, as regards the number of cases seen, because clinical instruction, so-called, which is not thorough is even worse than useless, in respect that it inevitably begets, and perpetuates, bad habits both of diagnosis and of treatment. Hence I argued that it was much better to learn, clinically, a few things about disease well, than a great many things badly; and that in any case the much more thorough investigation which is at least possible in the clinique of a well-managed hospital forms a better foundation for practice than almost any amount of so-called experience attained under less favourable conditions. But I am very far from adopting the paradox attributed to me by Mr. Wheelhouse, that "half a dozen cases of pneumonia, or of Bright's, or any other diseases, studied ever so deeply, will stand instead of the practical ability to relieve a distended bladder, or to reduce a dislocated joint." On the contrary, I hold that these very surgical procedures eminently and peculiarly demand thoroughness in teaching certainly not less than the leading facts of medical experience; and the only question about them is, or ought to be, how in the case of the general practitioners of the future this thoroughness can best be secured. I do not think that in these particular instances it can best be secured, or indeed be secured at all, "at the commencement of professional study." All this, however, is matter for the General Medical Council, and I am very well content to leave it to them to arrange when, how, and by whom this kind of instruction is to be conveyed. I will only give, in conclusion, a small contribution out of my own personal experience, just in order to show that in this matter I am not speaking at random nor yet uttering "mere declamation." Although I never, even in the student days of long ago, was conscious of aiming specially at surgical practice, I had in the third year of medical study personally extracted more teeth and performed more venesections than I have ever even thought of doing since; and in the latter case far more numerically than all my pupils together have had a chance of doing for the last thirty years. But I have often since then been led to reflect, who was the better for that? Was the mechanical skill supposed to be attained in this rough-and-ready practice an adequate compensation for its roughness? During the same third year, or rather summer and autumn, I attended some scores, or, I believe, hundreds of cases in their own homes in almost every close and wynd in my native Edinburgh, from Holyrood to the West Port, and certainly managed to see (in a kind of way) almost all the common diseases (epidemic and other) under the nominal "covering" of a chief, but really almost uncontrolled. I am far from undervaluing this experience; but I have no doubt now that I made many mistakes, and might have adopted very "automatic" ways of dealing with disease but for the invaluable and long course of hospital experience which followed, and is not even yet completed. And for the great majority, who cannot in the course of events be expected to undergo a similar training *after* they go into practice, I hold that the hospital training of the student should, above all things, be *thorough*—"Non multa sed multum." But in nearly one hundred separate and carefully managed clinical conferences which go to make up our winter course, and half that number in summer, we do, I trust, in the Western Infirmary here get over a good deal more ground, even in respect of common diseases, than Mr. Wheelhouse, with his allusion to "half a dozen cases" &c., accredits us with doing. At all events, we do our best. It is for the Medical Council to say what more can be done, or attempted, in future; and so it be consistent with "thoroughness" of method, it will not only have no opposition from me, but the contrary.

I am, Sirs, yours truly,

Glasgow, Oct. 14th, 1889. W. T. GAIRDNER.

To the Editors of THE LANCET.

SIRS,—It is a hopeful sign of the times when one finds men like Mr. Wheelhouse and Dr. Clifford Allbutt discussing the vexed question of medical apprenticeship; but the curious part of it is that the question should require discussing at all. It is admitted on all hands that the hospital curriculum does not teach the embryo doctor the routine of private practice, or what our old friend *Mr. Punch* calls a good bedside manner, and, though it teaches him to talk learnedly about such diseases as locomotor ataxy or perityphlitis, which he may see once or twice in five years, it does not teach him to diagnose a case of measles or ordinary sore-throat; indeed, to him sore-throat is always "diphtheritic exudation." Why, in the name of common sense, should a lad of sixteen or seventeen, in our profession, not begin as he does in the law and every other profession and trade by mastering its details and all the thousand little things that go to make success in after-life. Years ago medical men were paid to teach a youth these little but useful minutiæ; now medical men have to teach, or *try to do so*, young men fresh from hospital who think they know more than those who have been successful in private practice for twenty years, and at the same time to pay them £80 or £100 a year for the honour and privilege of doing so.

Some time ago I was talking to the dean of a medical school, and this is the impression he left upon me: That those connected with medical schools make the laws relating to medical education; that if a lad was with a medical man, say two years, he would only need three in hospital instead of four; that this would mean a loss of £40 per student to the medical school; that therefore it is simply that the medical school wants the money that otherwise would reach the medical practitioner with whom the student was apprenticed. If this is so, here is the key of the position. I trust so selfish a policy cannot have foundation in fact.

It is not pleasant to engage an assistant who may be an L.R.C.P. Lond. and all the rest of it, and to find that old women have to correct him; that he rides a horse like a tailor, cannot dispense or fill up a vaccination book, advises paupers to have jellies made, and not to take 1*s.* 6*d.* port-wine, exposes females as they do in lock wards, drives your horse and trap into the ditch, and smashes it as it ought to be smashed, mistakes measles for syphilis and flea-bites for scarlatina, treats itch for a month with liquor arsenicalis; in fact, makes blunders that ruin his reputation and injure his employer, blunders he could not make if he were a pupil for even six months.

To return to the old system of five years' apprenticeship would be absurd; two years is quite enough (I did five, and I never regret it). And if a youth were made to learn practical pharmacy and dispensing during this time, and to pass an examination in it, instead of having to learn such trash as mechanics, he would be none the worse. More than this, two years' probation as an apprentice would show whether a lad was fitted for the profession; and if he were not, it would not be too late, as it is now, to begin one more congenial to his taste. He enters hospital when he ought almost to be at school, and is pledged to go on with

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a profession in which he may be a failure, and thrown, his own master, on a world that he knows nothing about before his character is sufficiently developed to withstand its temptation; in fact, he has finished his curriculum very often while he is still *an infant* in the eyes of the law. The youth who can, after his curriculum is over, hang about hospital "until something turns up" is the exception. Most young men must necessarily go into provincial practice or as assistants, and if they only knew how much better salaries they can command if they know the ins and outs of private practice, if they have mastered its details—which they are too self-opinionated or too proud to do after they are qualified—they would themselves find the remedy; as it is, it strikes one they are in the hands of those who, like Shylock, want the extreme pound of flesh.

I am glad indeed to find Mr. Wheelhouse taking up the cause, and I trust he will go on with it until he has succeeded in improving the present admittedly imperfect state of medical education.

I am, Sirs, yours faithfully,

Sherborne, Oct. 12th, 1889. NATHANIEL EDWARD DAVIES.

To the Editors of THE LANCET.

SIRS,—Having read Dr. Gairdner's address at Leeds, as also Mr. Wheelhouse's letter in your last issue, I shall be glad if you will allow me as a general practitioner to say a few words. Dr. Gairdner speaks as a clinical teacher, and his remarks apply to strict clinical work rather than to general practice. Mr. Wheelhouse treats the subject from a broader point of view, and in maintaining the advantages of the early apprenticeship he has my entire sympathy. I think that every youth should be apprenticed for at least two years, during which time he will have the advantage of learning the routine of surgery work, and also be able to read up the elementary part of subjects he has to face on commencing his studies. I allude to the bones, chemistry, and materia medica. He will thus enter on his curriculum with an advantage not possessed by him who commences otherwise. He is just at the age to receive impressions which will last a lifetime, and erroneous ones will soon be knocked out of him when he comes into the hands of such men as Professor Gairdner at the bedside. As an apprentice he will acquire a knowledge of details which he will never forget, and which are unknown to those who merely attend at a dispensary. These details are too numerous to mention, but consist in a familiarity with drugs, dispensing, and an aptitude of examining and addressing a patient in a natural easy way. To gain the confidence of a patient is half the battle towards success, and this is not to be attained by strict clinical teaching. Again, I am quite sure that he who has served an apprenticeship is much more likely to benefit by clinical teaching, and in a better position to grasp the knotty points of a complicated clinical case than he who joins the profession without a preliminary training. As regards entering on a kind of apprenticeship after having attended lectures, such a procedure is putting the cart before the horse. I think Professor Gairdner and Mr. Wheelhouse are both correct in their ideas, and firmly believe that the youth who follows Mr. Wheelhouse's advice in the early, and Professor Gairdner's advice in the latter part of his studies, will make the best practitioner.—I am, Sirs, yours faithfully,

Oct. 15th, 1889. CYCLOPS.

To the Editors of THE LANCET.

SIRS,—Mr. Wheelhouse's contention is difficult to oppose if his premisses are admitted. May I point out the premiss that I think far too erroneous to be allowed to pass? Mr. Wheelhouse speaks of "*simple information*;" he says "*rudimentary knowledge* should be sought in the earlier years of studentship" (the italics are mine). The "simple information" he specifies is acquaintance with "the more common forms of ordinary illness," ability "to know measles from scarlet fever," &c. There can be no doubt that "rudimentary knowledge," "simple information," should be first learnt. But "the most common forms of ordinary illness" are among the most difficult problems of our art. What the student calls a "good case" of pleuritic effusion, ulcer of the stomach, cerebral tumour, compound fracture, &c., although of greater gravity, is yet infinitely more simple than a case of chronic rheumatism, recurrent headache, doubtful incipient phthisis, and the like. To track out the origin correctly, measure the importance of comparatively slight ailments, and treat them with the greatest amount of success, test the highest powers of the physician, although the prescribing chemist and the pupil who has been three months in a surgery can alike put up a bottle of medicine which will give temporary satisfaction. Simple things should certainly be first learnt; but it is hospital work that is simple, not private practice. I think every student after being qualified, not before, should pass a year or two as assistant to a general practitioner.

I am, Sirs, faithfully yours,

Oct. 14th, 1889. F.R.C.P.

THE ELECTRO-MAGNET IN OPHTHALMIC SURGERY.

To the Editors of THE LANCET.

SIRS,—Mr. Simeon Snell's remarks in your last issue concerning my article on foreign bodies in the eye are calculated very much to mislead. There is a kind of indirect inference that the use of the electro-magnet is not known here, or, at all events, is not duly appreciated, and that we still resort to what Mr. Snell disparagingly alludes to as "the crude methods of years gone by." I think that those who will read my paper carefully will not be thus deceived, and those who have followed my practice will admit that we are quite as alive to what is passing in the ophthalmic world here as they are in Sheffield. I used a magnet for the removal of particles of steel from the eye before Mr. Snell had probably entered the profession, and was the possessor of one of the first electro-magnets used in this country, some time before the somewhat inconvenient instrument which bears Mr. Snell's name was introduced to the notice of the profession. If I did not emphasise the use of the electro-magnet for the removal of pieces of steel from the iris, it was not because I do not believe it to be sometimes of value under these circumstances, but because my remarks were applying in a great measure to particles which are not influenced by magnetic attraction. The reasons why I did not use the magnetic probe in the special case mentioned in my lecture were because in the first instance the instrument was not within my reach, and in the second the piece was so firmly embedded in the iris, and this structure was itself so inflamed and adherent, that iridectomy, I felt, would probably be desirable under any circumstances. The case, indeed, was brought forward chiefly with a view to illustrate the great advisability of using anæsthesia in all these cases, and the danger that is incurred by neglecting this precaution. Had the patient been brought fully under the influence of chloroform, I have no doubt the fragment would have been readily enough removed with the forceps. Indeed, my own experience and that of others prove that it is precisely in these cases (where a piece of steel has become fixed in the iris, and that structure has become inflamed and adherent) that the magnetic probe gives the most unsatisfactory results, and by its failure frequently necessitates our having recourse to the "crude methods" to which Mr. Snell objects. Thus, in a paper[1] in the "Archives of Ophthalmology for 1888," giving Professor Horner's experience in the use of the electro-magnet, we find the following:—"In all six cases of metallic foreign bodies firmly lodged in the iris the magnet was indicated in only three of these, and in two only did it yield any result." And further on: "This agrees pretty well with Hirschberg's results, where, in the most impartial manner, only one case of extraction by the magnet is reported against five others in which extraction had been accomplished by means of the forceps."

Mr. Snell concludes his letter by reminding us that *his* observations on the magnetic needle were published some years ago. I do not doubt this, though I have never had the pleasure of reading them, and in any case I fail to see why others should be deterred from pursuing investigations in the same field of inquiry. Although it is now some ten or twelve years since I first made experiments upon this subject, and have used the magnetic needle occasionally ever since then, I fear neither Mr. Snell nor myself can claim the originality of the idea, which dates from a far more remote

[1] Dr. Neese: Contribution to the Magnet Operation.

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period. After an experience in injuries to the eye which is probably not far short of your correspondent's, I may say, generally speaking, that I consider the electro-magnet a very much overrated instrument; for if it has saved some eyes in the hands of skilful operators, its extensive diffusion has led to not a few being sacrificed to promiscuous and haphazard probings.

I am, Sirs, yours faithfully,

C. S. JEAFFRESON,
Senior Surgeon to the Northumberland, Durham, and
Oct. 19th, 1889. Newcastle Infirmary for Diseases of the Eye.

ST. MUNGO'S COLLEGE, GLASGOW.

To the Editors of THE LANCET.

SIRS,—In your leading article of Oct. 12th regarding the foundation of this College, you say: "When the appointments to the new College had to be made there were clearly two ways of making them open to the governors: one by advertisement and public candidature and the selection of the fittest; the other by a committee of selection, whose choice should be submitted for ratification to the governors. The latter was chosen." That is correct so far. The latter method was *chosen* certainly, but it was not carried out; for, before any opportunity was given to the governors of ratifying the selections made, an official list of professors and lecturers was published in the *Glasgow Herald*. It is within the mark to say that to three-fourths of the governors this came as a complete surprise. One governor, accustomed to weigh his words, said frankly to me that he felt he had been made a fool of; while another layman, who has long occupied in the West of Scotland a first place in the administration of medical charities, told me that he had been compelled by this procedure to resign from the board—a resignation which, in the interests of St. Mungo's College, I am glad to understand has been withdrawn.

I am, Sirs, yours faithfully,

Glasgow, Oct. 14th, 1889. J. WALLACE ANDERSON.

"CURIOUS INQUEST REPORT."

To the Editors of THE LANCET.

SIRS,—In fairness to myself regarding the report in THE LANCET of Oct. 5th in reference to an inquest on the body of a child found in the Grand Junction Canal, I ought to state that the report in the *Kensington News* appears to have been somewhat inaccurate. The facts are these. The body when found was well-nourished and healthy-looking, and from all appearances seemed not to have been very long in the water, so much so that I performed artificial respiration for some considerable time. There were no marks of violence on the body, except that the right humerus was fractured. The string around the neck was very loose, leaving no mark.

At the post-mortem examination I was assisted by my friend Dr. Skinner, and we found that the signs of drowning were absolutely negative, as given by Guy and Ferrier's and Husband's books. There were no injuries to the head, but the brain was quite disorganised. On examining the fracture of the humerus, there was not the least ecchymosis around the injury. We concluded that there was no evidence of drowning, and considered that death had taken place before the body was placed in the water.

I am, Sirs, yours truly,

Harlesden, N.W., Oct. 11th, 1889. HENRY A. BABER.

NECROSIS OF THE ALVEOLAR PROCESSES.

To the Editors of THE LANCET.

SIRS,—In recording two interesting cases of necrosis of the alveolar processes following measles, in your issue of Oct. 5th, Mr. Lucas states that he has not known of any case of typhoid fever resulting in exfoliation of bone in this situation. It may be of interest to mention a case which occurred in my practice some few years ago, in which a boy, aged seven, recovering from typhoid fever, became the subject of acute necrosis of the alveolar process of the left superior maxilla. The disease was somewhat extensive, but the necrosed portion came away quite easily after a time, as a tooth was firmly fixed in it, and by seizing the latter with a pair of tooth-forceps the whole separated.

I am, Sirs, yours faithfully,

Portsmouth, Oct. 7th, 1889. J. G. BLACKMAN.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Presentation and Farewell Dinner to Mr. Reginald Harrison.

THE farewell dinner to Mr. Reginald Harrison took place at the Adelphi Hotel on the 5th inst., amid surroundings of which any surgeon, metropolitan or provincial, might have been justly proud. The company numbered nearly 150, and comprised many friends from a distance. Among the lay guests were the Very Rev. Dr. Lefroy, Dean of Norwich; Mr. H. B. Gilmour, chairman of the Royal Infirmary; Professor Rendall, principal of University College; and Captain Nott-Bower, head constable of Liverpool. Mr. Mitchell Banks, senior surgeon to the Royal Infirmary, presided in a most felicitous manner, the toasts were few and well selected, and the musical arrangements were excellent, the company furnishing an amount of amateur talent sufficient to satisfy any audience however critical. In proposing the toast of "Our Guest," Mr. Banks gave a very interesting sketch of Mr. Harrison's career, which, with some additions, may be advantageously reproduced. It affords a very excellent example to all members of the profession of what may be done by energy and perseverance. He first studied at the Stafford General Hospital, where Mr. Moreton, of Tarvin, was then house surgeon, to whom he expressed himself as being much indebted. Subsequently he studied at St. Bartholomew's Hospital Medical College, and soon after obtaining his diplomas he came to Liverpool in 1859 as house surgeon to the Northern Hospital, not having, as he observed, the acquaintance of one professional friend in this city or neighbourhood. In 1860 he became resident surgeon to the Royal Infirmary, where he remained three years, and after a short absence he commenced practice here, becoming demonstrator of anatomy and registrar at the School of Medicine, and later on surgeon to the Northern Hospital. The School of Medicine was at that time in so languishing a state that it was seriously contemplated to close it altogether, and its resuscitation was work for which Mr. Harrison was thoroughly fitted. In 1868 he became assistant surgeon to the Royal Infirmary, full surgeon in 1874, and senior surgeon in January last on the retirement of Mr. Bickersteth. In 1880 he was elected president of the Liverpool Medical Institution, and in 1883 he delivered the address in Surgery at the annual meeting in Liverpool of the British Medical Association. Mr. Banks concluded an admirable speech by uncovering a handsome silver bowl and two goblets, which, with an album containing the names of all the subscribers, constitute the testimonial. These he formally presented to Mr. Harrison. The latter on rising received an ovation which it was evident he deeply felt. He expressed his gratitude in feeling terms, paid warm tributes to his old master, Mr. Moreton, his colleagues at the infirmary, and his numerous friends, all of whom he hoped often to see again. He has received the appointment of surgeon to St. Peter's Hospital in the place of Mr. Walter Coulson, and leaves Liverpool with the good wishes of all his professional brethren.

Death of Henry Lowndes, L.K.Q.C.P.I.

The circumstances attending the death of Mr. Henry Lowndes make it particularly sad, and its announcement was received with much regret by a wide circle of friends, much sympathy being felt for his widow and other relatives. He had not yet completed his sixty-second year, and up till very recently appeared to be in his usual good health. But he had been subject to varicose veins in his right leg; and one of these recently becoming ulcerated, he was advised to abstain from work for a time. Not wishing, however, to disappoint his patients, he continued to visit them until he became physically unable to do so, and when at last he took to his bed, it was evident to his medical attendants, Dr. Glynn and Mr. George Hamilton, that his case was a very serious one. In spite of all their efforts and of the most devoted nursing, he sank and expired shortly after noon on the 14th. He was educated at the Liverpool Royal Institution, receiving his medical education in Liverpool and Edinburgh. He was house apothecary at the Liverpool Royal Infirmary from 1851 to 1853, and then commenced private practice, becoming honorary surgeon to the South Dispensary, and later on junior surgeon and full surgeon to the Northern Hospital. This office he resigned in 1881, being elected consulting

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surgeon, which office he held at the time of his death. He was always of a very modest, retiring disposition, preferring a quiet domestic life, and employing his leisure time in the study of medical and other literature. He was an accomplished linguist, and published a book of "Poems and Translations," as well as one on "Maintenance of Health." He also contributed many papers and cases to the medical periodicals. His funeral took place to-day, and was attended by a very large number of his medical friends.

Liverpool, Oct. 16th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle.

AT the late presentation of prizes to the evening classes in connexion with the Durham College of Science Professor Garnett spoke of the difficulty of students attending classes in the evening when they commenced work so early as six o'clock in the morning, and he urged the necessity of further rest for the young men, and thought it might be arranged, without loss to the employers, that apprentices should be allowed to lose a quarter in the morning when attending evening classes. Most people who consider the requirements of lads as to sleep will agree with Professor Garnett's suggestion as having a sound physiological basis, and it is to be hoped it may be acted on.—I hear that the affiliation project shadowed forth by Mr. Lawson Tait on his late visit to Newcastle, whereby the colleges at Birmingham might be connected with the University of Durham, in a similar manner as the Newcastle College of Medicine is at present, is now under the consideration of the authorities at Durham. Some doubts are expressed by outsiders as to the feasibility of the scheme; it must, however, be remembered that the doubters have no real knowledge of the full scheme or how the negotiations are proceeding at Durham.—As an instance of the increased interest now being taken by workmen in our medical charities, it may be mentioned that the *employés* of Sir W. G. Armstrong, Mitchell, and Co., at Elswick, have contributed the large sum of £377 for the quarter to the medical charities of this city. Of this the Royal Infirmary takes £243.—Although I cannot quote exact numbers at present, I hear that the entries of students at the Medical College and Royal Infirmary are very large this session.

Sunderland.

Some alarm was caused in Sunderland by the death of a man from the bite of a dog. Dr. Drinkwater, who attended the man and gave evidence, made the matter very clear. He said the man had three severe bites on his arm, and worse bites he had never seen, but that the man was at the same time suffering from heart disease and chronic disease of the liver and kidneys, and that it was owing to these maladies and the shock that he succumbed.

Horse Flesh.

It appears from late police evidence given at Carlisle and Rothbury that there is an extensive traffic in the flesh of old and diseased horses between the north of England and Antwerp. The inspector stated that no less than seventeen old and broken down horses were despatched from Carlisle to Antwerp in one week, where they would be cut up for beef or sausages. Some men were fined also at the Rothbury Police-court last Saturday for cruelty to old horses, driving them when lame and in great pain from the upper part of the county of Northumberland down to the vicinity of North Shields, to be ready for shipment to the Continent. It came out in evidence that a better price was obtained when they were delivered just alive—viz., 2*s.* per stone.

Ambulance Work in the North.

Considerable activity is just now evident in the north as to ambulance work. At Morpeth Dr. MacDowall of the County Asylum and Dr. Brumwell have offered to give instruction to the classes formed at the mechanics' institution. At Bedlington also large classes have been formed, and some have been inspected by Surgeon-Major Hutton.

Memorial to a Medical Assistant.

Within the last few days a very elaborately carved monument has been erected in Birtley cemetery, by a few friends there, as a memorial of the late Mr. Borland, who was for some years assistant to Dr. Wilson of Birtley, county Durham. The feeling is to be commended which commemorates the memory of a faithful assistant.

Newcastle-on-Tyne, Oct. 16th.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

The Opening of the Medical Classes.

IN connexion with the opening of the medical classes this year, it may be pointed out that many of the conditions of student life will be very considerably modified by the opening of the University Students' Union, by the alterations in the regulations for the appearance of candidates at the first professional examination, and by the new departure of granting special examinations on a regular system. Most of these subjects were referred to by one or other of the university professors or extra-mural lecturers in their opening addresses. It is announced, too, that the students have made arrangements to have a grand torchlight procession on the evening of the opening of the union. Referring to the new First Professional regulations, Professor Chiene said that it would be a question for future consideration whether there should not be a short course for junior students in the second summer session. By such a short course the great difficulty which constantly confronted him at the beginning and throughout the whole session—that he was dealing with two bodies of men—would undoubtedly be lessened; the gap between the junior and senior classes would be decreased, and their work, difficult as it was, would to a certain extent be lightened. Such an arrangement might with advantage be extended to other classes. Professor Chiene also referred to the apprentice system. He contended that the disappearance of the doctor's apprentice is by no means an unmixed good, and he dwelt with some fondness on the days when apprentice and dispensary work occupied a much more important position in medical education than they do in the present day. With the demands made by each professor on the time of the students for lectures, practical classes, clinical instruction, ward work, demonstrations, and post-graduate clinical instruction and infirmary residence, one wonders where and when the student is to get time for it all unless he pursues his studies for some such extended period as, say, a decade. If there is too little practical instruction at present there must be too much lecturing. That is the only way out of the difficulty. Professor Simpson took as the subject of his inaugural address, the question of the admission of women to the medical profession. Although he was by no means sanguine in regard to the employment of women in the medical profession in this country, he laid great stress on the fact that there was a very wide field in which they might work in India and elsewhere. Few of the other professors gave a special opening lecture, most of them contenting themselves with dealing with part of the work of the course.

Rearrangements in the Extra-mural School.

Since last session several rearrangements have been made in the lecturing staff in the Extra-mural Medical School. Dr. Craig has removed from Minto House to Surgeons' Hall, where he succeeds Dr. G. A. Gibson as lecturer on Materia Medica. Dr. Gibson now lectures on Practice of Physic at Minto House School of Medicine, and Dr. Ralph Stockman, late senior assistant in the Materia Medica department in the University, has succeeded Dr. Craig. All these gentlemen announced that they would deliver the first lectures of their courses to-day. Dr. Craig, in his opening address, speaking of the extra-academic Medical School, pointed out that it was founded by the Royal College of Surgeons, and that it had been in existence doing good work, for a period of 384 years, so that in sixteen years there would be a celebration of its 400th anniversary. Other changes in the school are the removal of Dr. Scott Lang to the old Dental Hospital and of Mr. Drinkwater to the adjoining buildings in Chambers-street. Most of the classes were crowded, and one wonders where all the students come from. The Anatomy students, however, are not settling down well, many of them appearing to be waiting to see whether Dr. Symington is to be appointed to the Aberdeen chair or not. Nothing has yet transpired as to the course that Lord Lothian will pursue in filling up the

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vacancy, though the Aberdeen men are no doubt as anxious as the Edinburgh men are to have the post filled at once.

Funeral of the late Mrs. Gunning.

Many would hear with feelings of deep regret of the death of the lady whose remains were buried in the Grange Cemetery to-day. Dr. Gunning's name will be handed down in connexion with the numerous munificent prizes given to the University of Edinburgh and the Edinburgh Colleges. He has warm friends in both Scotland and England, many of whom were present at the funeral.

New Prizes in the Extra-mural School.

A valuable gold medal for Materia Medica and Therapeutics has been presented for competition to the Royal College of Surgeons by Colonel William Lorimer, Bathgate, in memory of his father, who was a lecturer on Materia Medica in the Surgeons' Hall. A second prize is one of £20, to be awarded to the best student in Chemistry at the Marshall-street School. It should have been mentioned that Dr. Matheson has commenced a course of lectures on Midwifery and Gynæcology in this school.

The Scottish Universities' Commission.

It appears to be an open secret that the Scottish Universities' Commission held a kind of preliminary meeting on Monday, when arrangements were made for the regular meetings, which are to commence in January next.

Edinburgh, Oct. 15th.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Death from Chloroform in the Richmond Hospital.

A WOMAN named Delaware, aged forty-seven years, died on the 12th inst. during the administration of chloroform. The deceased was suffering from disease of the bone of the left thumb, caused by an injury received about a month previously. An operation being considered advisable, she was brought into the operating theatre last Saturday morning, and, the heart having been examined, a little chloroform was administered prior to the use of ether. Before she was fully under the influence of chloroform dangerous symptoms occurred, and death supervened. A post-mortem examination showed that death took place from fatty degeneration of the heart, and the coroner's jury found a verdict in accordance with the medical evidence, and expressed the opinion that the chloroform had been skilfully and properly administered.

Royal College of Surgeons in Ireland.

Two members of Council have resigned—viz., Messrs. Corley and Kidd, the last named owing to an informality in reference to his election in June, while Mr. Corley retires in order to become eligible as a candidate for a professorship of surgery in the Amalgamated Schools. Mr. Kidd is a candidate for re-election, while Dr. Frazer and Messrs. Swanzy and Lentaigne also seek seats on the Council. The election for these two vacancies will take place on the 22nd inst. On Nov. 7th the Council will elect professors in the subjects of anatomy, physiology, and pathology, and Mr. Heuston, member of Council, will retire, as he seeks election to the chair of anatomy.

St. Vincent's Hospital, Dublin.

Considerable changes have recently taken place in the medical staff of this institution. Dr. McHugh succeeds Dr. Quinlan as visiting physician, and Dr. O'Carroll leaves the Richmond Hospital and becomes attached to St. Vincent's as physician to the extern department. Mr. Pattison will be surgeon for the extern department, and Drs. Moore and Thompson resident medical officers.

The Distribution of Enteric Fever in Dublin.

Enteric fever prevails rather extensively at present in Dublin, and some obeervations on the distribution of enteric fever in the city of Dublin, by Dr. Grimshaw and Sir Charles Cameron, published in an appendix to the latter gentleman's annual report for 1888, may not be out of place at this particular time. When it is remembered that enteric fever is generally considered to be dependent on defective drainage or impure water-supply, it is difficult to understand why for some years the disease has shown a tendency to increase, especially as the water is remarkably good, and the drainage has been steadily though slowly improving. Pettenkofer has shown that the geological condition favourable to the spread of cholera is also favourable to the prevalence of enteric fever, and cholera in 1866 prevailed to a much greater extent on the gravel beds than on the stiff clay, these formations constituting the ground on which Dublin and its suburbs are situated. For example, the deaths on the gravel beds were at the rate of 1 in 365 of the population, while off the gravel the rate was only 1 in 531. One reason why we might expect to find a greater prevalence of enteric fever in the gravel is afforded by the fact that it lies at a lower elevation than the clay, and in many places rises scarcely above high water in the river and its estuary. The gravels in Dublin are, in fact, waterlogged for a large portion of the twenty-four hours. As the gravel everywhere interposes between the clay and the river, the whole of the drainage of the latter, except that portion which enters the sewers, passes into the gravel.

Muzzling Dogs.

By a recent order dogs are prohibited, under a penalty, from going without a muzzle in the South Dublin district; but, strange to say, this rule does not apply to the north part of the city.

Dublin, Oct. 15th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The French Congress of Surgery.

THE fourth Congress of French Surgeons commenced its sittings last Monday in the large lecture theatre at the Paris School of Medicine. Although styled a French Congress, it partakes more perhaps of an international character, for several foreign surgeons of note were present, amongst whom may be mentioned Sir Thomas Longmore of Netley, Tilanus of Amsterdam, Thiriar of Brussels, Démosthène of Bucharest, Roux of Lausanne, Reverdin of Geneva, Bloch of Copenhagen, and others. Baron Larrey, the president, and the descendant of the famous Larrey, the military surgeon of the Napoleonic campaigns, opened the sitting in a neat address, in which he welcomed the foreign surgeons, and referred to the loss French military surgery sustained in the death of Legouest and Perrin. Then began the reading of papers. One of the most interesting of those read so far was that by M. Guyon on the "Immediate and Remote Results of Operations for Local Tubercular Disease," which gave rise to an animated and instructive discussion. M. Guyon gave the detailed record of three cases of tubercular disease of the bladder on which he had operated. One patient had suffered from vesical tubercular disease for two years previously to operation, which was undertaken in July, 1885. He made a good recovery and has had no recurrence. The second case, on which he operated in April, 1887, succumbed in July, 1889, two years after, to suppurating nephritis, a complication which M. Guyon says existed at the time of the operation. At the autopsy the left kidney was found to be completely destroyed, and the right was also deeply involved, but nowhere could the most minute search reveal a return of the tubercular growths. This, of course, was the interesting and important point, and M. Guyon had therefore good reason for believing that had it not been for the kidney lesion the scraping and the application of the actual cautery which the bladder underwent would have cured the patient. The explanation of these encouraging results was to be found in the fact that tubercular disease of the bladder had its origin very superficially. It has indeed been shown to begin in the mucous membrane, and to be there confined for some period, invading later on the deeper coats, so that a time comes when it must be pronounced inaccessible; but how to define this limit is not an easy matter. His third case was one he operated on in 1888 for vesical mischief dating back nine months. The kidneys here also were evidently diseased, yet, as the patient was in considerable pain and could get no repose, being compelled to micturate as often as 100 times in a night, M. Guyon resolved to try to relieve his sufferings. And in this he was successful, for the operation which he practised, a supra-pubic one,

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greatly ameliorated the distressing symptoms, and although he could hardly hope to save one with kidney disease so advanced, still he lived in comparative comfort until carried off by his renal malady a year afterwards. Here, again, at the autopsy, M. Guyon was gratified to find that there was not the smallest trace of a return of the tubercular matter. In these cases he much preferred the supra-pubic operation, as undoubtedly the safer; but how to diagnose when the disease has obtained too great a hold for operation is by no means easy. The symptoms are dated so differently by patients that the fixing of the limit in this way is misleading. Of his three cases, one referred his symptoms back two years, the other two at eight and nine months respectively. Of the three, it will be observed that the only one cured was the first. M. Lavaux thought that in all these cases the kidneys would be found to be irreparably diseased, and that it was beyond our power to arrest the tubercular evolution; and inasmuch as one could alleviate the patient's sufferings by other means, such as by the injection of boricated solutions and cocaine, vesicotomy, with its attendant risks, was hardly justifiable. M. Guyon rejoined that he was not to be understood as being an indiscriminate advocate for a cutting operation. He admitted that one might in many cases relieve the patient by simpler methods, but when these failed, or were no longer beneficial, he would, rather than leave the patient to his sufferings, intervene, as he had done in the examples given. Seeing, too, how greatly the risks of operation were now reduced, and the encouragement to be gathered from the superficiality of the tubercular process in the early stages, he considered it almost his duty, in the interests of his patient, to go further. M. Verneuil did not take a very favourable view, surgically, of tubercular mischief in whatever part of the body it manifested itself. He did not remember to have seen many patients living ten years after they had undergone amputation for tubercular growth; although he allowed that when this disease invaded the upper extremity, it was much more susceptible of cure than when it appeared in the lower limbs. As to immediate results, one had, on the whole, the right to take an optimistic view; but it was otherwise should one take into account the fate in store for those operated upon. Before he was told of the "cure" of one of these cases, he would like to be informed what were precisely the lesions for which the operation was performed; what were the age, family history, and social status of the patient; what was the exact nature of the operation, and what was the treatment both before and after. M. Ollier, comparing the results of amputations with those of resections of the foot in the tuberculous, advocated amputation where there was any visceral lesion or where the patients were no longer young; but when conditions of age and constitution were favourable he preferred the conservative procedure. During the last four years he had resected the tarsus and ankle-joint thirty-two times, with only one death; and it was to be noted that in these operations on the lower limb the patient during convalescence was placed in a less favourable position than when it was a question of the upper extremity, owing to the longer time it was necessary to keep him indoors in the recumbent posture. As regards the remote results in these thirty-one cases, he admitted the time was too short to judge, but he had under observation other patients on whom he had operated five and six years ago, who were in excellent health and in whom he feared no return of the mischief. On the whole, therefore, he would counsel operative intervention in tubercular disease. M. Démosthène said that at the Hospital of Bucharest surgical tuberculosis furnished 15 per cent. of the cases. Of 429 tubercular admissions, he had operated on 281, with a mortality of 4·2 per cent. The immediate results therefore may be said to have fully justified operative interference. As to remote results, he was unable to speak positively, but he was, however of opinion that operation had put a great many of his cases beyond danger from ulterior tubercular trouble. It could not be pretended that surgical action was a specific for tuberculosis; the ideal would be rather to bring about a microbicidic action in the organism, but in the meanwhile, rather than rest with crossed arms, one ought to have recourse to those operations which, while not guaranteeing the future, yet gave results that could not be overlooked. M. Terrillon, speaking of tubercular disease of the genito-urinary organs, said he advised castration when the testicle was involved, and removal of the uterine appendages in cases of tubercular salpingo-ovaritis. He had performed this latter operation six times, with one death. He granted the difficulty of the operation owing to adhesions, as well as that of differential diagnosis, which could be made on general rules only. If, however, there was tubercular lung mischief, that seemed to him a further argument for the removal of the second and accessible focus of disease. The foregoing, in *résumé*, were the most important contributions to the discussion on this question. Another interesting item was the bringing before the Congress, by M. Roux of Lausanne, a patient on whom he had successfully performed the somewhat rare operation of resection of the iliac bone for osteo-sarcoma. Very considerable incisions had of course to be made to circumscribe the bone, and to separate it from its extensive muscular attachments, as well as from the ischium, the latter proceeding proving extremely laborious and difficult. The femur was divided obliquely near its head. Two months after this formidable operation the patient was able to be up and about. He is now quite recovered, and can walk in a sufficiently satisfactory manner. M. Roux was naturally much congratulated by the members of the Congress. M. Thiriar of Brussels next read the notes of a case of enormous fibro-lipoma of the fatty capsule of the kidney weighing no less than eleven kilogrammes, or about twenty-two pounds, for which he had operated. The patient was a female, aged sixty-three years, in whom the operator admitted he had diagnosed a multilocular cyst of the right ovary. The tumour showed itself in the left side first, and was said to have grown rapidly. The growth gave distinct signs of fluctuation, and was quite movable. Percussion was absolutely dull in the right, but resonant in the left, flank. The urine showed nothing abnormal. The operation was carried out under antiseptic precautions. There were no adhesions, but the right ureter and kidney were involved in the growth, and had to be ligatured and removed. The recovery was rapid and good. Three days after operation the urine passed amounted to 1300 grammes, and within a fortnight the patient went out perfectly cured.

Professional Services are Obligatory.

It will be recollected I gave in your columns recently an account of the dispute that has arisen between the medical practitioners of Rodez and the local authorities, in which the former, acting, as they thought, on their rights, declined giving their services to the authorities of the place in a certain emergency. For this the procureur-général of Montpellier sought to incriminate them under a certain article of the Penal Code, and issued summonses against them to appear to the charge at the local court. The medical men, it will be remembered, who were ably defended, stoutly maintained they were not bound to respond, and that, being private and therefore perfectly free practitioners of their profession, they could give or decline to give, as might to them seem fit, their professional services. The judgment, which was then postponed, has now been rendered, and it will surprise not a few who practise physic to learn that the gist of it is that here they are bound to give in good faith their professional services when solicited by those who represent the law. I gave at the time the precise wording of the article under which the medical men of Rodez were charged. The magistrate, in giving his decision, ruled that they were guilty of a contravention of the said article under the phrase *flagrant délit* which occurs in it, and therefore he fined them individually six francs, and collectively the costs of the process. The medical practitioners, I hear, are determined to carry the matter to the Court of Cassation—that is, the parallel in France of your legal House of Lords.

Paris, Oct. 15th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Inoculation against Inflammation of the Lungs in Cattle.

AT the end of last year the Prussian Minister of Agriculture ordered experiments to be made on cattle, in order to decide the extremely important question whether inoculation affords protection against infectious inflammation of the lungs in cattle or not. These experiments were carried out under the superintendence of Professor Schütz and the departmental veterinary surgeon Steffen, in the Government district of Magdeburg, and have recently been finished.

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On Oct. 8th last twelve young bulls were inoculated with fluid and particles from diseased lungs; three with warm and three with cold fluid; three with warm and three with cold particles. Those inoculated with warm fluid contracted the disease most severely. On Oct. 26th all twelve, along with four uninoculated animals of the same age and breed, were placed among cattle suffering from infectious inflammation of the lungs, and their noses were repeatedly brought into the closest contact with those of the diseased animals for hours together. In December and in January all the animals were killed, and the post-mortem showed that the twelve inoculated animals had remained healthy, and that three of the four uninoculated ones had contracted the disease. The experiments were now repeated, special care being taken that all the animals (inoculated and uninoculated) were exposed to as nearly as possible equal degrees of infection, and that the fluid used for inoculation was taken warm from the lungs which had proved most effective. On Nov. 9th twelve young bulls were inoculated with different quantities (0·05 to 1·0 cubic centimetre) of warm lymph. The quantity of the fluid used did not affect the intensity of the local process. One bull died on the thirty-fifth day after inoculation of peritonitis, caused by the spread of the inoculation process. On Dec. 1st the inoculated bulls were placed among bulls suffering from infectious inflammation of the lungs, but did not contract the disease. On Jan. 27th they were taken to another stall, and again placed among bulls suffering from the disease in question. On April 12th the eleven inoculated and two uninoculated bulls were inoculated with warm lymph between the neck and the breast, after which the two latter became severely ill, and one of them died. The previously inoculated animals, on the other hand, showed only slight symptoms at the place of inoculation. On April 12th twenty grammes of warm lymph were mixed with 2000 of warm sterilised flesh broth and sprayed before the nostrils of the inoculated animals. They remained healthy. On May 13th they were again placed among others which were suffering severely from the disease in question. After this no morbid symptoms were observed in them. On June 26th one cubic centimetre of warm lymph was injected into the lungs of each of the inoculated and of two uninoculated bulls. The inoculated animals remained healthy, while the two uninoculated ones contracted the disease in a very severe form, and one of them died. At the end of July the inoculated animals were killed and dissected, and no abnormal developments were found. It therefore now seems to be proved that cattle inoculated with fresh warm lymph are protected against infectious inflammation of the lungs.

Daggeian Fever.

Some days ago the *Kreuz Zeitung*, one of the leading Berlin dailies, published the following communication, received from Athens, dated Sept. 26th:—"For a week past news have come daily from the Piræus to the effect that 'daggeian fever' (*Δάγγειος πυρετός*) has broken out there, but the statement has been persistently denied by the medical and governmental authorities. Yesterday, however, Alexandrogiannis, municipal sanitary councillor in the Piræus, in agreement with the physician Politakis, proved to the mayor in a report of some length that 'daggeian fever' is raging in the Piræus. The first cases were observed three weeks ago, and, as far as has yet been determined, more than a hundred persons have already been seized by the fever, the character of which, however, has proved in all cases to be benign. This fever, which is very frequent in Egypt and Syria, broke out with great violence in Smyrna two months ago, and about 4000 persons are said to have been seized by it there. Within the last few weeks, too, it has been spreading in Constantinople, for which reason the Greek Government forbade the import of clothes and clothing stuffs from Turkey till further notice. Despite this prohibition, however, it has spread to the Piræus. It is rarely fatal, but spreads very rapidly. The first symptoms are intense redness of face, neck, and hands, frequently accompanied by an eruption. The patient then feels violent headache, darting pains in the eyes, and humming in the ears; he cannot work, shuns the light, and sleep cannot be obtained. Gradually other parts of the body are attacked, till the disease settles with special vehemence in the legs, especially in the knees. The crisis comes within three to eight days, after which, with good medical treatment, the patient recovers in four or five days, but generally remains weak for two or three weeks longer. Comprehensive measures are now to be taken by the Government to prevent the further spread of the disease, but in prospect of the approaching festivities, the general anxiety is great." This communication induced Dr. Friedrich Hirtl to write the following remarks to the *Norddeutsche Zeitung*: "The *Kreuz Zeitung* hears from Athens that the 'daggeian fever' has broken out in the Piræus. I am myself by no means an authority on fevers, but suffered about thirteen years ago in Southern China from a disease which the English doctors called 'dengue fever' and the German doctors 'Dengelfieber.' To judge from the symptoms, 'daggeian fever' is identical with that disease. It is less dangerous than painful; it is said, too, to be rapidly and widely contagious, as a case mentioned by Sale in his 'Anglo-Indian Glossary' shows, according to whom the father of an officer who suffered from this fever in the Bermudas was seized by the same disease in England three days after receiving a letter from his son, without, however, the fever spreading further. The name 'dengue' or 'dengy' is said to have come from the West Indies, where the negroes called it 'dandy fever,' owing to the stiff attitude to which it temporarily condemned the patient, which name was brought to Europe by Spaniards, modified into 'dengy.' An epidemic of this disease is stated to have raged on the Coromandel coast in 1780, and in Calcutta, Berampore, and other places in India in 1824, 1853, 1868–69, and 1871–72. On the last-mentioned occasion 70 per cent. of the European and native railway officials in Calcutta are said to have been seized by it. It seems that the disease has spread in the Mediterranean countries from Egypt." The *Frankfurter Zeitung* also prints a letter from Smyrna, dated Sept. 23rd, stating that an epidemic was raging, which, though not dangerous to life, had spread to a quite extraordinary extent, and in that city of 200,000 souls had attacked more than one-half of the population. It was called "deng," began with a shooting megrim, pains in all the limbs, and fever rising to 40° centigrade, and left great weakness, which lasted for a week or a fortnight. It was said to be endemic in Egypt, and not unknown in Spain. It might easily make the tour of Europe, unless winter sets in early to prevent it. The doctors had not yet found out how to deal with it; quinine had no effect on it. For fear of quarantine annoyances people made a home secret of it as much as possible. It nevertheless deserved attention and investigation. It had thrown many disagreeable hindrances in the way of the export business, which was usually very brisk at this season; many offices were closed because all the clerks were ill, and trade was at a standstill.

The Holiday Colony Fête.

The fête given to the poor city children who have been sent to the mountains and forests and shores this summer by the Holiday Colony Society was a great success. The Empress Frederick and her daughters, the Princesses Victoria, Sophie, and Margaret, were present, and were accorded an enthusiastic reception from young and old. Her Majesty expressed the satisfaction she felt at the great and rapid development which the utilisation of the summer holidays for the benefit of the health of poor city children had taken in Germany, and especially in Berlin.

The German Anatomical Society.

The German Anatomical Society, which was founded in 1886, will meet in the Anatomical Institute here on the 10th inst. Its leading spirits are Professor Kölliker of Würzburg, Gegenbaur of Heidelberg, His of Leipsic, Waldeyer of Berlin, and Bardeleben of Jena.

The Imperial Pharmacopœia Commission will meet here on the 11th inst., to discuss the new third edition of the Pharmacopœia, which, it is hoped, will be published next year.

An excellent drawing by Albrecht Dürer was found lately in a medical book in a library at Zwickau. It represents a dying man sitting behind a stove and Death threatening to extinguish the light of life, while a female form personifying the Art of Healing approaches to save.

Berlin, Oct. 8th.

KINGS'S COLLEGE, LONDON.—The Clothworkers' Science Exhibitions of £100 and £50 have been awarded to S. H. Ellis and F. C. Sprawson, and the Sambrooke Science Exhibitions of £60 and £40 to A. Bousfield and W. R. Bryett.

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ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT a quarterly meeting of the Council of the College, held on the 17th inst., the minutes of the ordinary Council of Aug. 1st were read and confirmed. It was agreed, on the recommendation of the Library Committee, that the library be opened on each week-day from the 21st inst. to Dec. 31st next, between the hours of 11 A.M. and 9 P.M., except on Saturdays, when it will close as usual at 1 P.M. It was also agreed, on the recommendation of the same committee, that Professor Muybridge's work on Animal Locomotion be purchased for the sum of £105, including the cost of mounting and binding. The other parts of the report from this committee were approved and confirmed.

The fifteenth report, dated Oct. 11th, of the Committee on the Extension of the College Premises, was read, adopted, and entered on the minutes. The Committee, having obtained the advice of Mr. E. Brace Hall, Chief Officer of the London Salvage Corps, and Mr. Salter, the architect, as to the additional fire apparatus required throughout the College buildings and for the protection of the two new museums, recommend the Council to sanction an expenditure for carrying out the suggestions made by Mr. Brace Hall and Mr. Salter, in accordance with estimates supplied by Messrs. Shand and Mason and Messrs. Higgs and Hill, that of the former amounting to £421, that of the latter to £140. With regard to the New Small Museum, the Committee recommend the Council to sanction an additional expenditure of £7 8s. for arranging the heating apparatus in a more satisfactory way than that originally proposed, and to accept the estimate of £757 by Messrs. Sage and Co. for supplying the wall-cases on the ground floor and first-floor gallery.

The report of the Committee of Management, dated Oct. 7th, was received and adopted. The Council, in pursuance of this, proceeded to the election of a member of that committee, in the vacancy occasioned by the President's retirement, he being eligible for re-election. Mr. Jonathan Hutchinson was elected to the vacancy.

The Council then proceeded to the election of the four Examiners in Public Health nominated by the Committee, and Drs. Stevenson, Ballard, Thorne Thorne, and Corfield were re-elected.

It was referred to the legal advisers of the College to advise the Council on the important question whether the General Medical Council has the power legally to impose on the licensing bodies the conditions on which diplomas in public health are to be granted by them.

The Council approved of the unanimous recommendation of the Committee of Management that the period of professional study should be extended from four to five years, and it was referred to the Committee to consider and report to the two Colleges on the best mode of giving effect to such recommendation.

Mr. John Langton, member of the Court of Examiners in Surgery, and Mr. Morton Smale were elected as members of the Dental Board.

The Council then proceeded to the consideration of the draft of the report to be presented to the Fellows and Members of the College at the meeting appointed to be held on Thursday, Nov. 7th. The report was adopted, and will be presently circulated.

It was agreed, on the motion of Mr. Heath, that it be referred to the Nomination Committee to consider and report to the Council on all vacancies occurring from time to time in the Court of Examiners.

Obituary.

DR. ADOLF FERDINAND DUFLOS.

THIS eminent pharmacist died on the 9th inst. at Annaberg, in Saxony, in his eighty-eighth year. He was born on Feb. 2nd, 1802, at Artenay, near Orleans, where he lost his parents when quite a boy. His uncle, who was a military surgeon in the service of France, brought him with his regiment to Germany and placed him as a pupil in the house of the Rector of the Torgau Lyceum. The boy, having shown a decided talent for chemistry, particularly in its medical aspects, was apprenticed to a professor of pharmacy in Annaberg, and thence, after a six years' probation, he proceeded to Breslau, where he continued to perfect himself in the subject at the famous Olearius Institute for eight years more. Thereafter he was appointed to the post of assistant lecturer in pharmacy in the University of Halle, and gave much satisfaction to his pupils during the three years he held the chair. Having returned to Breslau, he founded there, in conjunction with the eminent apothecary Langsch, a *fabrique* for pharmaceutical preparations, and at the same time inaugurated a course of lectures on Pharmacy as the Handmaid of Medicine. He published also many valuable works on his special subject, and their scientific value, high professional tone, and unusual literary merit induced the Breslau University to bestow on him, *honoris causâ*, its degree of Doctor in Philosophy. In 1842 he became Professor of Materia Medica in that seat of learning, having specially qualified himself by graduation for the post; and during a quarter of a century he drew around him an increasing number of pupils, attracted by his luminous exposition, his neatness and skill in experiment, and the charm with which he invested his subject. Advancing years and the consciousness of failing power led to his retirement in 1866, and till the day of his death he resided at Annaberg, the scene of his earliest studies, retaining to the last an active interest in the science and the profession in which, for so many years, he was an acknowledged master.

DR. PIETRO LAURA.

THIS able and versatile physician has just died at Genoa, after a life of steady medical work and public philanthropy. Like most of his septuagenarian contemporaries, his early studies were broken by the revolutionary upheaval of 1848—a movement in which he took part as "medical volunteer" in the ranks of "Young Italy." He served honourably not only as a surgeon, but as a combatant in the struggle against Austria, which closed so disastrously for his country at Novara, till renewed ten years later, and with victorious results, by the sub-Alpine statesman, Cavour. Having so distinguished himself in the campaign of 1849 as to earn the rank of staff-surgeon, he resumed his medical studies on the declaration of peace, and with other young Italians sought a home in the Argentine Republic, where he soon rose to be Director-in-Chief of the Civil and Military Hospital of Goaleguaychù. Another post he held concurrently with this was that of First Physician to the President of the Argentine Republic, Señor Urquina, whose brilliant achievements included the expulsion from Buenos Ayres of the absolutist adventurer, Rosas.

Dr. Laura exerted himself assiduously to promote the welfare of his countrymen in South America, and contributed to make the Argentine Republic the attractive resort it has long been for the Italian emigrant. He founded the first newspaper—a journal of moderate and enlightened views—ever published there in the language of Italy. Of late years he had come to reside permanently in his native land, and continued to earn the gratitude of his compatriots as a practitioner among the poor till death overtook him in the scene of his honourable labours.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in Anatomy and Physiology at a meeting of the Examiners on the 10th inst.:—

W. A. Perry, student of University College; H. N. C. Atkinson, E. C. Adams and J. L. A. Hope, of St. Bartholomew's Hospital; W. E. de Korte, of Guy's Hospital; J. B. H. Dawson, of St. Mary's Hospital; W. B. Stanford, of Middlesex Hospital; W. H. A. Tebbs, of Westminster Hospital.

Anatomy only.—E. H. Smith, J. Kyffin, and C. E. Dawes, of London Hospital; J. R. Richmond, of King's College and Mr. Cooke's School of Anatomy and Physiology; J. H. Crawshaw and W. H. J. Huthwaite, of University College; W. P. Q. Daly and L. W. Bathurst, of St. Bartholomew's Hospital; R. S. Whitford, of Charing-cross Hospital and Mr. Cooke's School of Anatomy and Physiology.

Physiology only.—T. Stevens, H. D. Senior, H. Gardner, and J. H. Whitehead, of Charing-cross Hospital; D. L. Thomas, F. G. Scott, F. W. Walters, W. R. Mathews, F. J. A. Baldwin, and G. A. Simpson, of London Hospital; R. J. Rastrick and C. H. Willis, of

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St. Bartholomew's Hospital; T. W. Smith and J. B. O. Richards, of King's College; W. J. Covey, of University College; H. W. Ramsay, of St. Mary's Hospital and Mr. Cooke's School of Anatomy and Physiology; W. A. Hayes, of Trinity College, Dublin, and University College.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the necessary examinations, were at the ordinary meeting of the Council on the 1st inst. admitted Members of the College:—

Birkenhead, Harold, L.R.C.P.Lond., Witherby Rectory, Atherstone.
Borrett, George Goss, L.R.C.P.Lond., Philpot-street, E.
Jamieson, Sydney, L.R.C.P. Lond., Melbourne-place, Edinburgh.
Kempthorne, Albert Edwd., L.S.A., Oakley Neath, Glamorgan.
Lewers, Alex., L.R.C.P. Lond., Delamere-crescent, W.
McGowan, Jas. Sinclair, M.B. Victoria Univ., King-st., Oldham.

The following members, having previously passed the necessary Examinations, and having attained the legal age (twenty-five years), were at the same meeting admitted Fellows of the College:—

Dean, Henry P., L.S.A., University College Hospital; diploma dated June 9th, 1887.
Ward, A. H., L.R.C.P.Lond., St. Geo.'s Hospital; Nov. 10th, 1887.

ROYAL UNIVERSITY OF IRELAND.—The following candidates have passed the First Examination in Medicine of this University:—

Upper Pass Division.—Chas. Birmingham, Joseph Boyd, John Burns, William Chancellor, Edmond Kelleher, Purcell Lalor, Wm. McMath, Daniel O'Connor, Michael O'Reilly, John Wallace.
Passed.—Patrick Brady, John Brownless, William Canning, Thomas F. Chambers, John Dunne, Thomas Fennelly, Joseph W. Furey, George Griffiths, Amelia Grogan, James Lawther, John Longford, Florence McCarthy, Patrick McCarthy, Daniel Magee, Samuel Magowan, Jas. Mortell, John Patrick, John H. Thompson, Francis Whitaker.

The following candidates passed the Second Examination:—

Upper Pass Division.—*Alexander Blaney, *Robert Campbell, *Thos. Howard, James Lynass, *Daniel O'Callaghan, Daniel O'Driscoll, Patrick O'Sullivan, R. Torney.

* These may present themselves for the further examination for honours.

Passed.—James Auglim, Thomas Atkinson, Robert Beatty, Patrick Bennett, Michael Boyle, Richard Crosbie, Charles H. Foley, William Gordon, James Graham, William Hamilton, Benjamin H. Hosford, Patrick McGann, Adam Moss, Thomas Murphy, Patrick J. O'Brien, Michael O'Sullivan, David J. Ryan, James A. Scott, and Thomas H. Scott.

ROYAL VICTORIA HOSPITAL, BOURNEMOUTH.—An intimation has been received by the Committee of this hospital that the Prince of Wales has consented to open this hospital on Jan. 16th next.

THE PERSIAN GULF.—The British representative at Lisbon telegraphed under date of Oct. 9th as follows:—"Ports in Persian Gulf declared free from plague, but suspected of cholera."

DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.—An anonymous benefactor has forwarded, through Dr. Robertson, a donation of £50 towards the funds of this hospital.

SERIOUS FOOTBALL CASUALTY.—A young man named Kingston, during a Rugby football match played at Rochdale on Saturday last, between Rochdale Albion and Milnrow Clubs, had his leg broken, besides sustaining internal injuries.

VACCINATION.—Mr. E. Climson Greenwood, L.R.C.P., M.R.C.S., has been appointed by the Privy Council Teacher of Vaccination at the Welbeck-street and Omega-place, St. John's-wood, stations, vice W. A. Limmer, deceased.

NINETEENTH CENTURY ART SOCIETY.—Saturday, the 26th inst., has been appointed for the private view of the Autumn Exhibition (the nineteenth) of the above Society, at the Conduit-street Galleries, and the Exhibition will open to the public on Monday, the 28th inst.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The quarterly court of the directors of the Society was held on Wednesday, Oct. 9th, at the house of the president, Sir James Paget, the necessary alterations in the new premises of the Royal Medical Chirurgical Society in Hanover-square not being sufficiently advanced to allow of the meeting there. Eight new members were elected, the deaths of three announced, and the resignation of one reported. Applications for grants were read from sixty-one widows, fourteen orphans, and three orphans on the Copeland Fund; and it was resolved that £1360 be distributed among them at the next court. The expenses of the quarter were £59 18*s.* 6*d.*

MEDICAL MAGISTRATE.—Dr. Macpherson Lawrie, of Greenhill, Weymouth, has been appointed by the Lord Lieutenant a magistrate for the county of Dorset.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—Entrance Scholarships have been awarded to Mr. E. G. Richards (£60), Mr. A. E. Jerman (£60), and Mr. M. Farrant (£60).

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—At the annual meeting of the Society of Medical Officers of Health, held at the Holborn Restaurant, London, on the 11th inst., Mr. Henry E. Armstrong, medical officer of health for Newcastle-upon-Tyne and the River Tyne Port, was elected president for the ensuing year.

RABIES.—The number of dogs in England officially reported during the week ending Oct. 5th as afflicted with rabies was eight, against a similar number in the previous week. All the eight were killed. The distribution was as follows:—York (West Riding), four; and London, Northampton, Essex, and Kent, one each.

SUICIDE OF AN ARMY SURGEON.—On Monday Mr. H. K. Fuller, M.B., M.R.C.S., an army surgeon, threw himself in front of the up Salisbury train as it was approaching Wimborne Station. The front guard of the engine struck him, and the blow broke his neck. Deceased was thirty-two years of age, and was under treatment for mental infirmity.

A LECTURE ON HYDROPHOBIA.—Sir Henry Roscoe will take the chair at a meeting of the Balloon Society to hear a lecture by Mr. Frank Kerslake on the Cause and Prevention of Hydrophobia, in St. James's Hall (Regent-street entrance) on Thursday, Oct. 24th, at eight precisely. A resolution in support of Sir Henry Roscoe's Bill will be proposed by Dr. Fleming, C.B., President of the Royal Veterinary College. Mr. Victor Horsley is expected to speak. Tickets for reserved seats may be had by application to Mr. Kerslake, 12, St. George's-square, Primrose-hill, N.W.

THE GLASGOW SOUTHERN MEDICAL SOCIETY.—At the annual business meeting held in their rooms on the 10th inst., the following office-bearers were appointed: President, Robert Pollock, M.B.; vice-president, James Erskine, M.A., M.B.; treasurer, James Hamilton, M.B.; secretary, Alexander Miller, L.R.C.P. Ed.; editorial secretary, John Brown, M.B.; seal-keeper, R. A. D. Robb, M.B.; court medical, Drs. Glaister, Morton, Macmillan, Gilmour, and Rankin; extra members to complete council, Drs. Tindal, Barras, and McPherson.

THE HAMPSTEAD DEADHOUSE.—Attention was again called by the jury, at an inquest held at Hampstead on Monday, to the pressing need of a suitable mortuary for the parish, for the reception of the dead. The building at present used for this purpose is a dilapidated shed, absolutely without the necessary conveniences and accommodation for a proper examination of a dead body. The jury added a rider to their verdict, requesting the Local Authority to provide so necessary a sanitary requirement for the parish.

THE REGISTRATION OF PLUMBERS.—At a public meeting recently held in Edinburgh for the purpose of promoting the registration scheme initiated by the Plumbers' Company, the secretary of the Edinburgh District Council presented his report, from which it appeared that 145 plumbers had been registered, and that the council was in a good financial position. Dr. Littlejohn, city officer of health, said he was glad to find a trade asserting itself in the way the plumbers were doing. The clerk of the Plumbers' Company stated that over 5000 plumbers had been enrolled on the company's register.

BOSTON HOSPITAL.—The eighteenth annual report of this hospital, founded for Boston and the neighbouring parishes, shows that during the twelve months ending June 30th, 1889, the number of in-patients was 175, and 123 visits were paid to patients at their own homes. The receipts for the year were £734 9*s.*, and the expenditure £735 15*s.* 11*d.*, leaving a deficit of £1 6*s.* 11*d.*, in addition to which there still remains a deficiency of £196 8*s.* 11*d.* on the building fund, despite the fact that the debt was reduced by about £200 during the year. The committee earnestly appeal for donations to clear this sum off.

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THE VACCINATION COMMISSION.—On Wednesday another sitting of the Royal Commission on Vaccination was held at Richmond-terrace. Lord Herschell (the chairman) presided. Dr. W. Gayton, of the Fever Hospital, Hampstead, and Dr. F. W. Barry, of the Fever Hospital, Sheffield, were examined.

PRESENTATION.—A very handsome tea and coffee service has been presented to Dr. Prance, on his retirement from practice, by his patients and friends, as a testimony of their esteem and regard. Several patients have also given valuable presents. Dr. Prance, on resigning the appointment of honorary surgeon to the Sailors' Orphan School and Home after thirty-three years' service, was accorded a cordial vote of thanks by the committee of management, and his services retained as a member of the committee.

SHEFFIELD PHARMACEUTICAL SOCIETY. — The sessional inauguration of the Sheffield School of Pharmacy took place on the 10th inst., the proceedings being of the usual annual character. In the evening there was a large gathering of students, friends, and local chemists in the large room of the Whiteley's Institute, which is rented by the Society. Mr. Atkins (Vice-President of the Pharmaceutical Society of the United Kingdom), in his address to the students, pointed out the strides made in pharmaceutical education in recent years, and expressed his strong conviction that a prolonged enforced curriculum was still indispensable for students. The future of pharmacy was a matter of anxiety and speculation, but, for his own part, he thought that a process of natural selection would prevail; chemists and druggists would dissolve partnership, the chemist to practise pharmacy with a higher recognised status than he now enjoys, the druggist with a lower qualification, and, it might be, a limited licence, supplying more as a drysalter the varied requirements of the community. Subsequently the annual dinner of the Society was held in the Masonic Hall.

BESTOWAL OF THE CROSS OF THE LEGION OF HONOUR ON A NURSE.—An interesting presentation has recently taken place at Tonkin, where the Governor-General conferred on the Superior of the Sisters of Mercy the Cross of the Legion of Honour, in the presence of the troops. The Governor addressed the recipient in the following terms:—"Sister Maria Theresa, you were only twenty years of age when you first gave your services to the wounded at Balaklava, and were wounded in the execution of your duty; you were again wounded at Magenta. You bravely nursed the wounded through all our wars in Syria, China, and Mexico. You were carried off the field at Wörth, and before you had recovered from your injuries you were again performing your duties. When a grenade fell into your ambulance you, without hesitation, took it up in your hands and carried it to a distance of 100 yards from the ambulance, when it exploded, wounding you severely. No soldier has ever performed his duty more heroically than you have done, or lived more successfully for his comrades and his country. I have the honour to present you, in the name of France and the French army, with the cross, which is only conferred upon those who have shown remarkable bravery in action. Soldiers, present arms!"

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on October 15th, 1889.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever	Other diseases.	Total.	
Eastern Hospital	244	62	..	51	..	357	442
North-Western Hospital	218	16	..	6	..	240	415
Western ,,	165	17	..	6	..	188	262
South-Western ,,	..	..	..	..	..	..	402
South-Eastern ,,	292	18	1	22	2	335	462
Northern ,,	407	..	..	..	..	407	480
Totals	1326	113	1	85	2	1527	2463

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BRACKENBURY, HENRY B., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to the Hospital for Diseases of the Throat, Golden-square, W.

BRODIE, CHAS. GORDON, F.R.C.S., has been appointed Honorary Surgeon to the Western General Dispensary, Marylebone-road, N.W.

CAHILL, JOHN, F.R.C.S., has been appointed Surgeon to St. John's and St. Elizabeth's Hospital, Great Ormond-street.

CRUMP, THOMAS GREENWOOD, B.A.(Cantab.) M.R.C.S., L.R.C.P., has been appointed Assistant House Surgeon to the General Hospital, Birmingham, vice J. P. A. Walker, M.B., resigned.

DOUGHTY, D. S., M.B., M.S.Edin., has been appointed Medical Officer of the Ireby District, Wigton Union.

EDWARDS, F. SWINFORD, F.R.C.S., has been appointed Surgeon to St. Peter's Hospital, Covent-garden, W.C., vice Coulson, F.R.C.S., deceased.

FENWICK, E. HURRY. F.R.C.S., has been appointed Surgeon to St. Peter's Hospital, Covent-garden, W.C., vice W. Coulson, F.R.C.S., deceased.

HARRISON, REGINALD, F.R.C.S., has been appointed Surgeon to St. Peter's Hospital, Covent-garden, W.C., vice W. Coulson, F.R.C.S., deceased.

HARTILL, JOHN T., L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer, Willenhall and part of Wednesfield, Wolverhampton Union.

HUBAND, A. E., L.R.C.P., L.R.C.S., Medical Officer and Public Vaccinator, Sutton District of the Loughborough Union, has been appointed Medical Officer to the Sutton Bonnington Amalgamated Friendly Societies, vice F. J. Hindle, resigned.

HUTTON, JAMES ALFRED, M.R.C.S., L.R.C.P., has been appointed Assistant Demonstrator of Anatomy at the University of Durham College of Medicine, Newcastle-on-Tyne.

MCNAIR, GEORGE, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of the Deddington No. 1 District of the Woodstock Union, vice Edward W. Turner, deceased.

MILLIGAN, WILLIAM, M.B., C.M., has been appointed Assistant Surgeon to the Manchester Ear Institution.

PHILLIPS, JOHN, M.B., C.M., L.R.C.P.E., L.R.C.S.E., L.F.P.S.G., has been appointed Resident Physician to the North London Hospital for Consumption, Hampstead, vice R. A. Bindley, M.R.C.S., L.S.A., resigned.

PRAGER, J. F., L.D.S., has been appointed Dental Surgeon to the Western General Dispensary, Marylebone-road, N.W.

RAWES, WM., M.B., F.R.C.S., has been appointed Assistant in the Physiological Laboratory of the London Hospital Medical College, vice E. Hurry Fenwick, F.R.C.S., resigned.

RAWLINGS, HORATIO E., L.K.Q.C.P.Irel., M.R.C.S., has been appointed Resident Medical Officer to the Swansea Hospital, vice Dr. Kerr.

STEIN, C. G., M.R.C.S., has been re-appointed Medical Officer of Mansfield-Woodhouse.

THORBURN, WILLIAM, B.S. Lond., F.R.C.S., has been appointed Honorary Assistant Surgeon to the Manchester Royal Infirmary, vice F. A. Southam, F.R.C.S.. who has been appointed Honorary Surgeon.

TURNER, EDWIN, M.R.C.S., L.S.A., has been re-appointed Medical Officer, Stourbridge Rural District.

WINFIELD, ROLL G., L.R.C.P.Lond., M.R.C.S., has been appointed House Surgeon, Leicester Infirmary.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BRADFORD INFIRMARY AND DISPENSARY.—House Physician. Salary £100 per annum with board.

BURTON-ON-TRENT INFIRMARY. — House Surgeon. Salary £130 per annum with a prospect of increase, and rooms in the infirmary free, also coals and gas.

CHARING-CROSS HOSPITAL, London.—Surgical Registrar, for one year, at a salary of £40, but the holder is eligible for re-election.

FLINTSHIRE DISPENSARY, Bagillt-street, Holywell.—House Surgeon. Salary £100 per annum, with furnished house, rent and taxes free, with a prospect of £20 increase after twelve months; also coal, light, water, and cleaning, or in lieu thereof the sum of £20 per annum.

GENERAL HOSPITAL, Birmingham.—Assistant Physician, for three years. Honorarium £100 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—Resident Medical Officer as House Surgeon, for one year. Salary £50 per annum, with board and residence in the hospital.

LIVERPOOL DISPENSARY, 34, Moorfields, Liverpool.—Two Assistant Surgeons. Salary £80 per annum each, together with apartments, board, and attendance.

LIVERPOOL EYE AND EAR INFIRMARY.—House Surgeon. Salary £80, with maintenance in the house.

LIVERPOOL ROYAL INFIRMARY.—Honorary Surgeon.

NORTH RIDING INFIRMARY, Middlesborough-on-Tees.—House Surgeon.

NORTH-WEST LONDON HOSPITAL, Kentish-town-road.—Senior Resident Medical Officer. In the event of the Assistant Medical Officer being appointed to the senior post, candidates should state if they will take the Junior appointment. Also Two Clinical Assistants, Department for Diseases of the Skin

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PARISH OF THE UNITED PARISHES OF WHITTLESEY.—District Medical Officer and Public Vaccinator. The Medical District comprises the northern portion of the parish; the Vaccination District comprises the outlying portion of the parish. The salary as District Medical Officer will be £70 per annum, with the usual extra medical fees for midwifery and surgical cases. The fees for vaccination and revaccination will respectively be 3s. and 2s. per case.

PARISH OF EDAY, Orkney, to Inspector of Poor.—Resident Medical Officer. Salary £70 a year and practice.

SALOP INFIRMARY, Shrewsbury.—House Surgeon. Salary £100 per annum, with board and residence.

ST. MARY'S HOSPITAL, Quay-street, Manchester.—House Surgeon and Resident Obstetric Assistant Surgeon. Salary £120 per annum, with board and residence.

THE COUNTIES ASYLUM, Carlisle.—Junior Assistant Medical Officer. Salary £80, with board.

UNIVERSITY COLLEGE, Liverpool.—Lectureship in Children's Diseases. The emolument is derived from the class fees.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's-road, Chelsea, S.W. Ophthalmic Surgeon.

WESTON-SUPER-MARE HOSPITAL.—House Surgeon. Salary £50 per annum, with board and residence in the hospital.

WOLVERHAMPON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—House Surgeon. Salary £100 a year, with board, lodging, and washing.

Births, Marriages, and Deaths.

BIRTHS.

ARNOTT.—On Oct. 9th, at Hamilton-drive, Hillhead, the wife of Surgeon-Major James Arnott, M.D., Grant Medical College, Bombay, of a daughter.

CLARKE.—On Oct. 9th, at Bungay, Suffolk, the wife of G. C. Clarke, L.R.C.P., of a daughter.

HAYES.—On Oct. 12th, at Eversleigh, Sandgate, the wife of J. P. S. Hayes, Surgeon Army Medical Staff, of a daughter.

MATTHEWS.—On Oct. 11th, at S. Owen-street, Hereford, the wife of S. R. Matthews, M.D., of a daughter.

MOUAT.—On Oct. 7th, at Redcliffe-gardens, Southsea, the wife of Surgeon-Major Mouat, M.D., Medical Staff, of a daughter.

POTTER.—On Oct. 11th, at Belsize-terrace, Fitzjohn's-avenue, N.W., the wife of George W. Potter, M.D., of a son.

SMITH.—On Oct. 9th, at Craigholm, Upper Clapton, the wife of Gerard Smith, Surgeon, of a son.

SMITH.—On Oct. 6th, at Kensington-gardens-square, the wife of Dr. Stanley Smith, of a daughter.

MARRIAGES.

CAVENAGH—WHITEHEAD.—On Oct. 9th, at Haslingden, John Paul Cavenagh, of Hull, L.K.Q.C.P.I., L.R.C.S.I., youngest son of the late Francis Cavenagh, Esq., of Dublin, to Annabella, second daughter of Thomas Hoyle Whitehead, Esq., Holly Mount, Rawtenstall.

FASKEN—TOMPKINS.—On Oct. 3rd, at St. Peter's Church, Southsea, William Andrew Durnford Fasken, M.D., Surgeon-Major Bengal Army, to Annie Gregson Tompkins (Dolly), third daughter of the Rev. C. R. Tompkins, Vicar of St. Peter's, Southsea.

FOTHERGILL—ARMOUR.—On Oct. 1st, at Morningside Parish Church, Edinburgh, John A. Fothergill, M.R.C.S., Darlington, to Christian Stewart, second daughter of the late Alex. H. H. Armour, Craigton House, Winchburgh.

GAHAGAN—SMITH.—On Oct. 10th, at Bath-street, Portobello, Edinburgh, Francis Evatt Gahagan, M.B., L.R.C.S.I., Stanningley, Leeds, to Annie Turnbull, youngest daughter of George Smith, builder, Portobello.

LEWIS—HODGSON.—On Oct. 8th, at St. Mary Abbot's, Kensington, Charles Lewis, M.R.C.S., M.S.A., of Folkestone, to Alice Sarah Hodgson, of Cricket-hill, Yateley, Hants, and widow of the late Richard Hodgson, Esq., of Hawkwood, Essex.

PEARCE—ARNST.—On Oct. 15th, at St. Matthew's, Bayswater, by the Rev. Filmer Sulivan, Vicar, assisted by the Rev. O'Brien Hodge, Vicar of St. Peter's, Paddington, Walter Pearce, M.D. Lond., B.S., M.R.C.P., of 63, Montagu-square, eldest son of J. D. M. Pearce, M.A., J.P., Maidenhead, to Christine, eldest daughter of A. Arnst.

PERKS—TREGASKIS.—On Oct. 15th, at Cardiff, Robert Howell Perks, M.D., F.R.C.S., Medical Superintendent of the Adelaide Hospital, Adelaide, South Australia, eldest son of the late Henry Perks, Esq., of Monkton Combe, Somerset, to Frances Mary, eldest daughter of the late Henry Tregaskis, Esq., of Cardiff.

DEATHS.

COCKCROFT.—On Oct. 13th, at Catterick, Yorkshire, William Cockcroft, M.R.C.S., aged 74.

FULLER.—On Oct. 14th, at Wimborne, H. K. Fuller, M.B., M.R.C.S., late of Indian Medical Department, Madras, aged 32.

LOWNDES.—On Oct. 14th, at Catherine-street, Liverpool, Dr. Henry Lowndes, aged 61, fourth and last surviving son of the late William Lowndes, Judge of the Liverpool County Court.

MACKIE.—On Oct. 11th, at Strathview-villa, Brechin, John Mackie, Sen., L.R.C.S. Edin., aged 80.

ROBERTS.—On Oct. 14th, at Alfreton, Theophilus L. Roberts, L.R.C.P. Edin., M.R.C.S.

ROYSTON.—On Oct. 15th, at St. Stephen's-crescent, Westbourne-park, W., suddenly, Charles Royston, M.D., in his 61st year.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, October 17th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Oct. 11	29·45	S.	49	48	65	54	47	·02	Foggy
,, 12	29·64	S.W.	46	44	90	60	43	·10	Fine
,, 13	29·81	W.	41	40	75	57	39	..	Hazy
,, 14	29·96	W.	40	40	65	63	40	..	Foggy
,, 15	29·94	S.W.	50	49	99	61	40	..	Foggy
,, 16	29·77	S.E.	57	56	74	62	50	·02	Overcast
,, 17	29·78	W.	49	48	86	60	47	·20	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE TITLE OF PHYSICIAN, &C.

MR. J. B. PIKE, after alluding to questions of title and vindicating th claim to that of Physician by the Licentiates of the Edinburgh College (having been assured by the College that it is his legal title), and denying the right to it of "the omnivorous M.D.," unless confirmed by a College of Physicians, proceeds to raise various other questions arising out of recent correspondence in our columns, particularly the knowledge of insanity possessed by the average medical man. He says:—

"Another of your writers takes it for granted that the 'average' medical man knows nothing of insanity. At St. Thomas's, and, I believe, at Guy's, there was systematic instruction in that subject twenty years ago. On going with the friend of a patient to an asylum to visit a general paralytic, I was asked by the superintendent, 'Do you know anything about general paralysis?' Of course, some practitioners are not well grounded, as can be seen by reading their certificates; but at the same time any specialist must know that in palpably insane cases it is often the most difficult to put the evidence of insanity in black and white. From another of your correspondents comes the usual jeremiad as to the state of the profession. Oh, for a strong Council, elected by the profession, and acting in its interests! If we had that, titles could be fixed beyond dispute, quackery could be restricted both within and without the Register, the abuse of medical charity could be curtailed, every student could be obliged to pass over that *pons asinorum* of the alienist, general paralysis, and, in fact, a medical millennium might dawn. Meanwhile, we must fight our way as we are able; our own conscience must be our law as to our titles, and we must learn as much about general paralysis as we can."

G. H. G.—We think any public-spirited individual would be glad to make known a "cure" for hydrophobia. But many so-called "cures" have been extolled, and none of them has, so far as we are aware, justified the name.

Mr. H. E. L. Canney.—A solitary case would hardly be of much value.

COCAINE IN THE TREATMENT OF DIABETES.

To the Editors of THE LANCET.

SIRS,—In your last issue Dr. Thos. Oliver gives a very interesting account of his case. But how is cocaine pyrogenic? In cocaine poisoning there is no rise of body heat—at least, in the two cases I have seen there was not. Again, in its physiological action of palliating the effects of starvation, dispelling mental and bodily fatigue, it is not by increased heat, but by reducing the metabolism, that it acts; and, as in the case in question there was no rise of temperature, does not this action account for the decrease of sugar in the urine?—Yours truly,

Oct. 14th, 1889. RICHD. LAKE.

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THE GUTHRIE MEMORIAL AT ESHER.

G. R. P.—The marble cross erected at the grave of the late Dr. Guthrie of Esher was the work of Mr. T. J. Williamson, whose artistic skill was placed at the service of the subscribers gratuitously, in token of his esteem for the deceased gentleman.

Messrs. Holden and Byrne.—We know of no paper containing the information since the preparation of a return by the Local Government Board in 1882, for the purposes of the Select Committee of the House of Commons on Police and Sanitary Regulations, and that return is necessarily now out of date, because the number of authorities then having powers in this matter was comparatively small. But of some fifty towns now having compulsory notification of infectious diseases, we may confidently say that not half a dozen included measles in their original Acts. Some few authorities have, since adopting the compulsory system, secured the approval of the Local Government Board to the inclusion of measles amongst the diseases to be notified as a temporary and tentative measure. But these cases are quite exceptional.

Mr. E. Buller.—Our correspondent is far the best judge. So much depends on the amount and length of attendance, the nature of the services, previous charges, &c., of which we are not informed.

LAWN TENNIS, AND WHAT IT DID FOR ME IN 1889: FROM A HEALTH POINT OF VIEW.

To the Editors of THE LANCET.

SIRS,—When the season began in May last, a veteran aged sixty, I thought that my tennis days were nearly numbered. A walk of four or five miles tired me. Aching and burning in my great-toe joints made walking somewhat painful. I had had rheumatism in my right shoulder for months, so that I was kept awake at night; acute pain at the insertion of the right deltoid accompanied elevation of the arm, and the left shoulder was also uncomfortable. My first day's practice at tennis was disheartening. I could scarcely serve over the net (underhand). My strokes were extremely feeble, and an overhead stroke caused agony at the insertion of the deltoid. Nevertheless I persevered, and by the end of May, after several good warmings at tennis, I lost all my pains, my joints were freer, I could run about with less aching of the feet, my strokes were more severe, and I could elevate my arm for an overhead stroke without pain. After another month's practice, playing two or three times only in the week, so as not to tire the arm too much, I was fit for tournament play, and I ended the season with winning, early in September, an open veterans' singles event. The pleasant exercise and exertion of tennis, taken in moderation, not only drove away my stiffness, my threatened rheumatism, and improved my muscular system so that I could walk fifteen miles a day, or play six or eight sets of tennis in an afternoon without undue fatigue; but it cleared my mental faculties, strengthened my perceptions, gave me a better "grasp of the situation," and rendered me more alert in my ordinary work. I still look forward to the enjoyment of future seasons and coming tournaments. A game that will thus renovate a veteran is invaluable from a medical point of view. If used with discretion, it is to the busy man more available and of greater advantage to keep him in condition than cricket, football, or any other game I know, and the accidents that happen to players of lawn tennis are very few, and not of a serious character.

Consider, moreover, the mental attributes which are called into action, especially in single tennis. Wariness and close observation to note every move of an opponent, to discover his weak and his strong points; judgment and rapid decision as to our own play, especially when to "go for the stroke"; artfulness in varying one's tactics; patience and perseverance in hammering away at an opponent; self-reliance; grasp of the situation; accuracy and precision in bringing off delicate strokes;—all these qualities are one after another repeatedly called into action in a game of lawn tennis. And these same qualities applied to the pursuits of daily life go a great way to ensure success. I have noticed, especially after tournament play and its previous training, that my mental faculties, especially my perceptive power and rapidity of judgment, are very greatly increased.

Viewed thus, then, as a means whereby man's powers, bodily and mental, may be brought into and kept in the best possible condition, lawn tennis as an exercise is pre-eminently useful to those who, still in middle life, can keep up their activity; and, since both sexes can join in the game, its value is still further enhanced. I for one owe it a debt of gratitude. I am, Sirs, yours truly,

ALEXANDER WALLACE,
Colchester, Oct. 10th. Physician, Essex and Colchester Hospital.

"SEQUAH" IN MIDDLESBROUGH.

HOWEVER brilliant the achievements of quacks, they appear always pleased by the smallest testimony from anyone having what seems a regular qualification. At Middlesbrough the cures reported are marvellous, and it seems that some of the clergy are reminded by them of the "second coming of our Lord." The clergy are not always very acute in medical matters. But "Dr. Haworth" seems to vouch for the cures of "Sequah." We should like to know a little more about "Dr. Haworth's" own qualifications. Can any cures of the miraculous kind be guaranteed by two or three competent witnesses?

POISON FOR THE PICKING UP.

A PHARMACEUTICAL CONTEMPORARY, writing on the subject of the ease with which arsenic may be obtained, remarks:—"In ordinary circumstances, to obtain a poison of this character from a chemist, various formalities have to be entered into. As recent incidents have shown, there are other ways in which arsenic can be extracted. In the face of these difficulties it seems strange that in certain parts of the country arsenic can be had for the asking or the taking. It is in recent years that the mineral refuse in the Devon and Cornish mines has been worked to obtain the article which has become such a valuable material in various manufactures; in fact, the heaps of refuse previously regarded as waste have been worked over, in order to extract it, and in Cornwall, if anybody wanted to obtain arsenic for a felonious purpose, it would only be necessary to go to the nearest mine and help oneself. Going up the Tamar, for instance, one cannot help being struck with the long "flues" in which the arsenic is deposited. Some of these deposits, as at the Devon Great Consols, assume the most beautiful and eccentric shapes. It upsets this theory that the means to do ill deeds make ill deeds done when crimes in which arsenic is employed are rarely, if ever, heard of where the article is as common as coal at Newcastle."

Africanus.—Has our correspondent tried sulphur internally? For an adult a level teaspoonful of precipitated sulphur in milk may be taken twice a day. If it purges too much it may be combined with astringents. Locally, boracic acid dredged into the stockings is useful for the feet, and prevents fœtor.

Mr. Machin.—The qualifications named are not understood to carry the title "Physician."

ALBUMINURIA.

To the Editors of THE LANCET.

SIRS,—"A Pupil of the late Dr. Graves" has forgotten that albuminous urine was known long before Bright's time, and that in his day the current explanation given of it was what would be expected from the humoral pathology then dominant in medical opinion. Dr. Bright's splendid pathological and clinical observations dealt humoralism such a blow that it ultimately collapsed. But Bright's opinions met with a good deal of opposition from his contemporaries. Among others, Dr. Graves, great and wise teacher as he was, says in the lecture referred to: "*Those persons are wrong who assert that albuminous urine is the result of organic disease of the kidneys.* Albuminous urine is here, as Dr. Blackall observes, merely an indication of a peculiar inflammatory state of the whole system, and not of degeneration of the kidneys. I may observe that this is not always the case; for I could point out examples where albuminous urine is connected with an apparent opposite condition of the system—in fact, a condition demanding the use of a generous diet and tonics." The case was one of post-scarlatinal dropsy. I do not think that the passage proves anything more than that Graves refused to accept Bright's views, denounced his opinions, and clung to the exploded humoral ideas in which he had been bred. I regret that his pupil has made it necessary to show so plainly that in this respect Dr. Graves shut his eyes to the truth. We are not at all in danger of reverting nowadays to the humoral pathology of Blackall and Graves. We look at albuminuria in the light of many new facts not known to these eminent writers, and now by no means well enough known, or their meaning admitted by the general body of the profession. It was in the hope of doing something towards the better diffusion of this knowledge that the discussion at Leeds was held.

I am, Sirs, yours faithfully,
Birmingham, Oct. 12th, 1889. ROBERT SAUNDBY, M.D., F.R.C.P.

A CHEMICAL TEST FOR CHOLERA.

THE Italian pharmaceutical journal (*Giornale di Farmacia &c.*) has, according to the *Monthly Magazine of Pharmacy*, recently published a very singular note by M. Bujwid, with the title, "A Chemical Reagent for Detecting Cholera." In this note the author makes known a process for recognising the presence of the pathogenetic microbe to which cholera is attributed, and for distinguishing it from any other kind of bacterium. This is what he proposes should be done: To the culture broth, 5 to 10 per cent. of hydrochloric acid (ordinary pure laboratory acid) is added. In the course of a few minutes, he says, a violet colour will appear, and may be seen for several days. This reaction is manifested in gelatine cultures which are no more than twenty-four hours old; and, according to the author, it is perfectly characteristic of the presence of the bacillus of Asiatic cholera. As this test is very easy to apply in times of a cholera epidemic, it would be well if some of our Indian *confrères* would see if it answers in their hands. It is almost needless to state that the same test must be applied under similar conditions to other bacillus cultures, and as often as possible, before complete reliance can be placed upon it.

Mr. H. H. Taylor.—We do not think it advisable at the present juncture to insert our correspondent's letter. The proper method of bringing his views before the Commission would be by communicating with one of its members, and offering to give evidence.

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AUTOMATIC MOVEMENTS OF THE HEAD AFTER STRANGULATION.

DR. KASHKAROFF has published in the *Russkaya Meditsina* an account of some observations on the automatic movements occurring in the heads of very young animals—rabbits and kittens—which have been killed by strangulation. The movements were observed in the heads after they had been severed from the trunk, and consisted in opening and shutting the mouth, movements of the tongue, sucking movements, movements of the neck, of the nostrils, and of the upper lip. These movements are not arrested by the removal of the brain if the medulla oblongata only is allowed to remain. Electrical stimulation of the medulla oblongata of an animal after decapitation causes precisely the same movements as the automatic ones above referred to. The effect of removing the cerebral hemispheres is to increase the excursions of the moving organs. The origin of these movements appears to be the want of nutrition, or so-called "asphyxia," of the medulla oblongata. The observations show that it is in this organ that the nervous centre for sucking movements must be situated.

C. K. H.—The charges made do not appear to us excessive if anything like conscientious work has been done. The small "dots" are often of great value in preventing further decay.—2. The etiquette of dental surgeons charging, or not, medical men for professional attendance is not absolutely fixed, but frequently determined by the circumstances of the individual case.

T. O.—We can hardly express an opinion on a document we have not seen; but such a document as our correspondent describes is not against public policy, and presumably, therefore, may be valid.

CONDEMNATION OF THE INDISCRIMINATE USE OF THE SO-CALLED BRONCHITIS KETTLE.

To the Editors of THE LANCET.

SIRS,—There are many evils incidental to the art of medicine, and among them not the least is the heedless manner in which any practice or treatment advocated by an able and successful man is almost universally adopted by the rank and file in the profession thereof. The steam kettle for affections of the bronchial tubes is an instance, and not the only mischievous one. How it has become so universally and blindly adopted is difficult to be comprehended by anyone who understands the rudiments of physics and has read the first chapters of physiology and of pathology. Experience and observation can have nothing to do with it; for those whose bronchial tubes and minute tissues of lungs are affected are constantly seeking for dry air and declaiming against moist fogs and a high hygrometric state of the air. The workers in manufactories which use steam or vaporised water so as to effect the breathing are ever prone to have lungs and heart affected. All intelligent medical men and other scientific observers have recognised the fact that localities with moist, warm, and still air are the least salubrious for affections of the chest, whereas the dry and movable atmosphere is the contrary. Let anyone ask a patient who sought relief for a chest affection in either Madeira, Glengariff, or Bournemouth, and contrast the answer from a poitrinaire regarding Davos Platz, Malvern, or Mallow. Let any person who believes in the steam kettle try it in his own bedroom. Why, it will upset sleep for nights. Much steam in the air actually prevents aeration of the blood by stopping osmosis. Witness the anæmic state of bleachers and those who are obliged to inhale much steam. Because in the first stage of acute inflammation of the lung tissues the capillary tubes and vesicles become dry and are relieved somewhat by a few whiffs of steam from an inhaler, then, forsooth, every stage and form of bronchitis is supposed to be benefited by inordinate steaming of the bedroom air. There can be no more misleading conclusions, and it only shows, to my mind, how much and what damage the public will submit to. I have seen the bronchitis kettle do harm. I know its use cannot be defended, except by the argument that some have not died from it; and I enter my protest against the empirical manner in which it is applied to diseases of the lungs.

I am, Sirs, yours truly,

JOHN ROCHE, M.D., D.S.Sc.,
Retired Indian Service.

Kingstown.

Mr. C. H. Jones.—It is not satisfactory in an Oxford graduate to use a title not covered by his degree. "C. H. Jones, M.B., Surgeon," is not a bad description. We are assuming that our correspondent has a surgical qualification.

Ignoramus.—It is not usual. But we would refer our correspondent to our remarks on p. 676 of our impression of Sept. 28th.

Mr. Pugin Thornton.—The practice is, we think, objectionable, but is one in which we cannot very well interfere.

MEDICAL FEES AT CORONERS' COURTS.

To the Editors of THE LANCET.

SIRS,—In reply to the letter of "X. Y. Z." in your issue of Oct. 5th, I must say that I cannot understand why there should be any doubt. The assistant is paid by the principal for his services, and, unless there be any agreement to the contrary, all fees earned by that assistant naturally become the property of the principal. The former is working for him, and for him alone, and he obtains a *quid pro quo*.

I am, Sirs, yours faithfully,

Oct. 9th, 1889. JUSTITIA.

ARMY SURGERY IN ITALY.

T.N.—Italians possess an excellent practical work on the science and art of surgery on its military side in the "Manuale di Chirurgia di Guerra" of Dr. Isaac Segré, which, despite its unpretending title, is really an exhaustive treatise, numbering some 600 pages, and provided with admirably executed plates, plans, and drawings illustrative of the text. Brief but comprehensive and clear instructions as to the conduct of the army surgeon in camp or in quarters, in the campaign or on the field of battle, in hospital, or under fire, make up the body of the work—all of them drawn from the best sources, and checked by personal experience. It is now in its second edition (Morano, Naples, 1889), and has attracted the favourable notice of the Italian War Office.

PERINEAL PRESSURE IN CYCLING.

To the Editors of THE LANCET.

SIRS,—The letter of your correspondent, Mr. J. W. Waring, M.B., once more calls up the question of perineal pressure in cycling. In THE LANCET of September, 1884, I called attention to the evils which were, in my estimation, likely to arise from perineal pressure *in the young* if the then prevalent custom of straddling the largest wheel possible were persisted in. Since that time I have heard of several cases of perineal abscess, more than one of stricture, and lately of one case of acute urethritis, which were attributed to injury or irritation caused by the bicycle saddle. But since 1884 a very great change has taken place in cycling, and now, instead of the enormous wheel, the largest that the rider could possibly stretch his leg to form a radius of, we have the small-wheeled "Safety," in which the position of the rider much more nearly approaches that of sitting than standing—as was the case when the large wheel was used—and where much of the weight of the body is supported, as nature intended it should be, upon the ischial tuberosities. Yet notwithstanding this improvement in position of the rider, together with the modern saddle, broad behind, and forming a triangle of soft leather in place of the hard, narrow, horn-shaped saddle of old, which fitted close against the perineum instead of jamming between the adductors of the thighs, as the soft modern saddle does—I say, notwithstanding all these improvements in both bicycle and saddle, a certain amount of pressure is still put upon the perineum in cycling; but that it is sufficient, bar accidents, to cause injury to the healthy subject I am not in a position to admit. I think there can be little doubt that this perineal pressure tends to aggravate the prostatic troubles from which, perhaps, most male cyclists of over sixty years of age suffer; but it is an open question whether the great improvement in general health gained by such cyclists does not more than counterbalance any local irritation so produced. Cycling, as practised in 1884, if persisted in immoderately, must have proved injurious to the young; cycling, as practised in 1889, if indulged in in moderation, may come as nearly to the "unmixed blessing" as any outdoor sport common in this country.

I am, Sirs, yours faithfully,

Oct. 12th, 1889. S. A. K. STRAHAN, M.D., Barrister-at-Law.

PRACTICE IN CAPE TOWN.

M.D. would be glad of information as to the prospect of practice in Cape Town; also condition of climate and other particulars regarding the colony.

ERRATA.—In the notice given last week by our correspondent of M. Chassaing's pepsin at the Paris Exhibition the name was erroneously printed "Chaissaing."—In the letter of "A Pupil of the late Dr. Graves" on Albuminuria (p. 776, twelfth line), for "Bright's kidney with albuminous urine," read "Bright's kidney *without* albuminous urine."

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Barlow, London; Dr. Dickinson, London; Dr. Mott, London; Sir J. Sawyer, Birmingham; M. Patrouillard, Gisors; Dr. Dockrell, London; Dr. T. Oliver, Newcastle; Dr. Crooke, Birmingham; Messrs. Chassaing and Co., Paris; Dr. Grose, Melksham; Messrs. Cadbury; Dr. Hardwicke, Dovercourt; Dr. Saundby, Birmingham; Dr. Strahan; Mr. N. E. Davies, Sherborne; Mr. J. T. Taylor, London; Mr. C. H. Jones; Dr. Wallace, Colchester; Dr. J. E. Pollock, London; Messrs. Dakin Brothers, London; Dr. Auld, Glasgow; Dr. Spender, Bath; Dr. John Brown, Glasgow; Mr. H. A. Baber, Harlesden; Messrs. Masters and Son, London; Mr. C. S. Jeaffreson, Newcastle-on-Tyne; Mr. L. de Havilland, Neuvaldegg; Dr. D. R. Paterson, Cardiff; Mr. Edmund Owen, London; Mr. W. T. Ord, Halesowen; Mr. J. R. Upton, London; Mr. G. Wherry, Cambridge; Mr. Nicholls, Tylehurst; Mr. Pugin Thornton, Canterbury; Dr. Railton, Manchester; Dr. Bourke, Cape Colony; Mr. Glegg, Edinburgh; Dr. Porter, Sheffield; Dr. Fletcher Beach, Dartford; Mr. Barling, Stoke-on-Trent; Dr. T. W. E. Green, London; Mr. M. Harding, Hampstead; Mr. A. E. Nevius, London; Mr. C. F. L. Dixon; Dr. F. Pearse, Southsea; Mr. F. E. Cane, Liverpool; Dr. O'Neill, Belfast; Mr. Blackett, London; Mr. Emmerson, Biggleswade; Mr. Morton, Glasgow; Dr. Gibbon, London; Dr. Wallace Anderson, Glasgow; Dr. Gairdner, Glasgow; Dr. Phillips, Virginia Waters; Mr. Manton, Sheffield; Mr. Frost, London; Messrs. Reed and Co., Bridgwater; Mr. Milnes, Hampstead; Mr. Jeanne, Crouch End; Dr. Paterson, Roverby; Mr. Tinker, Ipswich; Messrs. Dahl, London; Mr. Goldberger, Budapest; Mr. Fraser, Dublin; M. Berthier,

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LETTERS, *each with enclosure*, are also acknowledged from—Mr. Smith, Durham; Dr. Wright, Bath; Mr. Cropley, Foulkingham; Mr. Evans, Llangollen; Mr. Corbett, Kingston-on-Thames; Messrs. Oppenheimer and Co., London; Mr. Maberly, Ventnor; Mr. Cuthbertson, Rhondda Valley; Mr. Tully, Hastings; Dr. Boyd, Hamburg; Mr. Pode, Ivy Bridge; Mr. Harrison, Norfolk; Mr. Thompson, Bath; Dr. Walker, Cardiff; Dr. Honeywill, Bildeston; Mr. Bigg, London; Mr. Bransby, Melbourne; Mr. Hindle, Loughborough; Mr. Browning, Islington; Mr. Denby, Halifax; Mr. Crickmay, Suffolk; Miss Fleming, Ambleside; Mr. Digan, Grimsby; Dr. Williamson, Ventnor; Mr. Hughes, Hansworth; Mr. Todd, Carlisle; Mr. Eadie, Ireland; Mr. Oliphant, Chester; Mr. Smith, co. Down; Mr. Torrington, Bath; Mr. Turner, Mexborough; Dr. Palmer, Stroud; Mr. Walker, Redcar; Dr. Adam, West Malling; Mr. Bartlett, Cullompton; Mr. Craik, Stoke-on-Trent; Dr. Woakes, London; Dr. Redwood, Cardiff; Mr. Jackson, Bradford; Mr. Lumb, Grimsby; Dr. Mandevila, India; Mr. Skinner, Rye; Mr. Linnill, Towcester; Mr. Collins, London; Mr. Gilford, Surrey; Mr. Snow, London; Mr. Huberty, Brighton; Mrs. Jagger, Morton; Mr. Sarjant, Worcester; Mr. Anderson, York; Mr. John, Cardiff; Dr. Tinley, Whitby; Dr. Hicks, Hendon; Messrs. Chester and Co., Birmingham; Mr. Walters, Carmarthen; Mrs. Thompson, Bourton; Mr. Hamilton, Bradford; Mr. Heywood, Manchester; Mrs. Hitch, Hollington; Mr. Skinner, Somerset; Mr. Martin, Birkenhead; Mr. Campbell, London; Mr. Reece, Swansea; Mr. Simpson, Norwich; Dr. Brereton, Salop; Mr. Beale, London; Mr. Porteous, Glasgow; Mr. Hawkins, Banbury; Mr. Capel, London; Mr. Dunlop, Southampton; Garthwaite, Market Drayton; Nemo, Essex; N., Govan; J. G., London; Nucleus, London; M.D., &c., London; Secretary, West Herts Infirmary; E. S. S., London; X. Y. Z., Teddington; Hackney Furnishing Co., London; Medicus, Liverpool; Secretary, Cheltenham General Hospital; Medicus, Hants; Medicus, Bradford; Lady Superintendent, Maidstone; Pedes, London; G. T., Preston; M.D., London; X., London; M. H. O., London; Nucleus, London; Cantab., London; S. A. M., London; Scotia, London; Ambrose, London; A. B. C., London; Coach, London; Physician, London; P., Stoke Newington; Cicero, London; M.B., Bristol; R., Bristol; Agricola, London; Chirurgicus, London; A., London; Beta, London; Sure, London; Miss L., London; Domus, London; E., Surrey; Dr. M., Burton-on-Trent; Beta, Victoria-park; H. A., London; Medicus, West Bromwich; Aston, London; R. C., London; G. T. C., London.

Bury and Norwich Post, Western Mail, Hertfordshire Mercury, Farming World, Weekly Free Press and Aberdeen Herald, Singapore Free Press, Farm and Home, Reading Mercury, Lincolnshire, Boston, and Spalding Free Press, Mining Journal, Shields Daily News, Surrey Advertiser, Pendleton, Salford, Broughton Reporter, Derby Express, The Inquirer, Polytechnic Magazine, &c., have been received.

Medical Diary for the ensuing Week.

Monday, October 21.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. The President's Opening Address.—Sir Andrew Clark, Bart., F.R.S.: On the Non-tubercular Hæmoptysis of Elderly Life.

Tuesday, October 22.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY (at the Society's New House, 20, Hanover-square).—8.30 P.M. Address by the President (Sir Edward Sieveking, M.D.).—Dr. Thomas Oliver (Newcastle-on-Tyne): The Analytical and Clinical Examination of Lead Poisoning in its Acute Manifestations.—Mr. J. Bland Sutton: A case of Ruptured Tubal Pregnancy, with remarks on the Cause of Early Rupture.

Wednesday, October 23.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.
HUNTERIAN SOCIETY.—8 P.M. Mr. F. R. Humphreys: On the Clinical Estimation of the Colouring Matter in the Urine.

Thursday, October 24.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, October 25.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON (at 20, Hanover-square).—8.30 P.M. Mr. Mayo Robson: Case of Cholecystotomy.—Mr. W. Rivington: Case of Potts' Fracture, with Fracture and Displacement of the Astragalus, followed by Symptoms of Tetanus, which subsided after Removal of the Displaced Fragment.—Mr. W. G. Spencer: Case of Recent Dislocation Backwards at the Elbow of both Bones of the Forearm, irreducible from the Lower End of the Humerus, being held like a Button by a Rent in the Anterior Ligament.

Saturday, October 26.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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ABSTRACT OF

The Harveian Oration.

Delivered at the Royal College of Physicians, Oct. 18th, 1889.

BY J. E. POLLOCK, M.D., F.R.C.P.

AFTER a few preliminary remarks, the orator entered upon the main subject of his address as follows:—

Working, as it were, in the dark, with but few ascertained facts to fall back on, and theories which were only embarrassing, to be got rid of by ceaseless experiment, by hourly study of natural phenomena and an independent reasoning which took nothing for granted which he could not prove, Harvey left us an inheritance which it is well indeed that we should from time to time examine. We who live in the light of modern discovery are apt to forget the beginnings of our knowledge—the labour by which every step in advance has been gained, the progressive reasoning, the errors which retarded, the opposition which opposed—and to use, almost without reflecting on its past history, the great heritage which has descended to us. ..... Harvey was modest and reverential as the true student who sat at the feet of Nature and learned her mode; not self-seeking nor vainglorious; not triumphant in the overthrow of adversaries. He had fought his fight; he had established his facts, which were accepted by his fellows in this country; he had declined the highest honour which the College can bestow, and committed its presidency to other hands; and now in his age he reposed on his laurels, confident in the truth, and therefore in the eternity, of his views.

On sitting down to record his last wishes he left us these directions: Remember your benefactors; search out nature by experiment. ..... By benefactors I think Harvey meant workers as well as donors; and I would recall to your attention and that of our visitors to-day that our Fellows are all men selected because they have contributed something to our knowledge. There are no drones among them; but, while the Council in its wise discretion selects only a limited number from among its members to add to its list of Fellows, they are aware that among the juniors and others are found earnest workers, busied in advancing knowledge, who will doubtless take their place in the foremost ranks of our pioneers. .....

Let us shortly consider the state of Europe at the period when Harvey was at work. He was teaching in London in 1619, and published his discovery in 1628. The chief feature of the sixteenth and seventeenth centuries was the struggle between Reformers and Catholics, but in the latter part of the sixteenth century the Reformation was already an established fact, and a difference in religious belief was subservient everywhere to political aims. Politically the contest for supremacy was between Spain and France and England, the latter joining hands against the former. Spain was the stronghold of Romanism; but her civilisation was not equal to that of Italy. In Germany, Switzerland, the Netherlands, and England, the Reformation was well rooted, and the Huguenots were powerful in France, while Queen Elizabeth and Henry IV. of Navarre no doubt had this cause at heart. Then followed the time of England's weakness under the vacillating Stuarts, while in France Richelieu wielded the greatest power of the time. In 1620 the most devastating war which Europe has ever witnessed broke out, and for thirty years the various petty States of Germany, played against each other by the greater Powers of Europe, were desolating their country under the name of religion. In 1648 this was concluded by the Peace of Westphalia. While those great events were agitating men's minds, it was doubtless hard for learning to get a hearing. In Italy during the last forty years of the sixteenth century there was uninterrupted peace, and a remarkable advance of literature and academic teaching, in spite of the formation of an Index Expurgatorius by Paul IV. in 1558, the influence of which extended even to England. The great Italian universities of Bologna, Padua, Pisa, and Pavia lost none of their lustre in the sixteenth century, and medicine and mathematics were especially studied, and public libraries were much increased. This feature of the revival of literature was observable in various countries. ..... There can be no doubt that the Reformation was a means not only of shaking off the spiritual tyranny of Rome and opening men's minds to its corruptions, but there was a general awakening of individual judgment and a necessary rebellion against dogmatism in religion or science. Dogmatism is the tyranny of power over mind, of system over independent judgment, and all teaching had hitherto been dogmatic. Men inherited a reverence for opinion sanctified by ancient authority, and had come to believe that time can sanctify error—nay, inquiry was forbidden as a desecration, and thus the finest intellects were lulled to sleep, or terrified by the prospect of certain defeat if innovations were proposed. But great intellects and great discoveries were brought to light in that age. Galileo and Kepler laid the foundation of astronomy—the former being also the first to make a microscope and thermometer. Then we had Bacon in England, who defined the inductive method, although Macaulay has remarked that it has been used in all times and countries; while literature was represented in Spain by Cervantes, and in England by our Shakespeare, Ben Jonson, and Milton. A remarkable investigator of nature—the monk Sarpi, who was imprisoned for his liberal views of religion, and is well known as the historian of the Council of Trent—must here be mentioned. It has been claimed for him that he discovered the circulation before Harvey. He was, like him, a student at Padua under Fabricius; but I cannot, after a study of the most ancient record in Italian, satisfy myself that he knew the motor power of the heart, although he was aware of the valves in the veins, and believed in a circular movement of the blood.

Let us pause for a moment to reflect on the universal movement of science, when many observers are engaged in the simultaneous study of natural phenomena, and on the synchronous nature of discoveries. Davey had indicated the anæsthetic results of inhaling certain gases, but it remained for Simpson in Scotland to discover chloroform, and at the same moment it was claimed for the United States. Is not the latest planet discovered simultaneously in several parts of the world? and who shall say what is the next step in advance? The next step! We are even now on its edge; the sight may not reach, nor even the most vivid imagination compass it, but it is there—imminent though unseen, impending though unsuspected. The movement of science, like that of the glaciers, is always there, and its progress demonstrable; but we do not see it till some grand but unexpected result is announced ..... It is no derogation either from the homage which we to-day render to Harvey's memory to say that his final discovery did not emanate from one mind, but was indeed the culmination of knowledge which, however slow in its advance and interrupted in its progress, was evidently always striving towards a perfect theory of the observed phenomena of nature. But it is necessary to our highest estimation of his work to recognise that the errors which he had to overcome had been stamped with the *imprimatur* of dominant minds, and that from the days of Hippocrates to Galen, and from Galen to Fabricius, who was the master and teacher of Harvey, the greatest philosophers of their day had formulated errors to which they gave the authority of the best teachers of their time..... The structural arrangement of the heart and vessels was known both by Harvey and his predecessors. The two sets of chambers and their alternate contraction had been observed with care, the valves which separate them, and the vicinity of the lungs, each provided with a much larger vessel than was required for their nutrition. The arrival of a current of blood at one side of the heart, and the means of its exit at the other, were recognised, yet how the circuit was completed remained a problem. The alternate contraction of the auricles and ventricles was witnessed by Harvey, but Galen, Aretæus, and the whole Alexandrian school saw it in their vivisections, as did Silvanus in the early part of the sixteenth century, and many others to the time of Servetus, who immediately preceded Harvey, and many of these teachers had opened the living bodies of animals and seen the cardiac movements. Further, we are now aware, and Harvey came to know, that the great veins did not start from the liver, although returning the used blood from that organ. The mode by which the different arteries terminate and the whole venous system of return currents begins was not known to Harvey with distinctness, for I cannot find it in any of his statements. The vessels which we now call *capillaries*, and

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which intervene between the terminal arteries and the originating veins, were not demonstrated till some thirty years later, when Malpighi, aided by microscopic power, revealed their existence. That the blood did pass, and that the onward current through the arteries filled the veins was known to him without doubt, for without this his "circle" on which the blood moved was not complete; but of the capillaries themselves we have no description.

[Having mentioned the erroneous teaching on these points which prevailed up to Harvey's time, the orator proceeded.]

If this was the teaching which Harvey received at Padua, we can conceive the difficulty of the task that he accomplished, for how many erroneous theories had to be destroyed before the truth was recognised. It is the necessary destruction of received opinions which stifles at the birth the uprising of genius. ..... Harvey was no discoverer by a sudden power of insight; the light did not break upon him as upon Paul, by noonday; there was a certain order of events which preceded his own convictions. He was a worker by inference from facts—what we now call *induction*.

The observations of natural phenomena to which I have called your attention were not all erroneous. Silvius, about the end of the fifteenth century, had inspected the arteries and noticed the valves in the veins. Vesalius was aware of the way in which the valves of the heart and great vessels opened and shut, and he pointed out that the septum ventriculorum was absolutely impermeable. Servetus argued that the pulmonary artery was too large for the nutrition of the lung, and that therefore it had another office. He also noticed that in the fœtus no blood passed into the lungs, and that in the adult the pulmonary blood was crimson. In fact, he may be said to have discovered the pulmonary or lesser circulation. He had his difficulties about the capillaries, but so had Harvey; and although he spoke of a backward and forward motion of the blood, it appears to me from a study of his statement that he knew that the arterial system terminated in the venous. ..... If we were asked, after a careful study of Harvey's treatises and methods, which seemed to be the starting-point of his convictions, we should say that before vital phenomena were weighed and examined the structure of the heart and vessels furnished his first awakenings to the truth. "I see this mechanism repeated again and again in all individuals. I see a similar but single machine of like kind in certain lower animals. I remark that certain doors or valves open only in one direction. I notice in life a contractile motion alternating with another as regularly as the pendulum vibrates from side to side; and I argue that this organ so provided with motor power, and involuntary perpetual action, and guarded mechanism, is a propelling centre of motion, and is, indeed, the mechanical recipient of one current and the origin and outgiver of another." I think this was his line of thought, and that the mechanical aptitude of the heart first struck him; and that the vital phenomena dependent on it came as a secondary revelation. Of these last, indeed, he knew but little. The vast results which arose out of his discovery of the circulation were hidden from his view; but he laid a foundation of facts on which our knowledge of the functions of the whole body absolutely depends.

We must here pause to notice how impossible would have been his task if he had not had recourse to numerous observations of the living body. There were few animals which he did not examine by vivisection, and it is only the truth to assert that without such method he could not have attained to certainty, nor could we have reaped the important fruits of his discovery. Our latest, and perhaps our greatest, pathological achievements would not have been attained without vivisection, of which Harvey was the greatest exemplar, if he were not its originator.....It is to Harvey's fine uncompromising method that we owe much of our modern science. We are to be close and accurate observers; we are to study nature in all her phases; we are to investigate structure, in health and disease; we are to note phenomena of every vital action; with unbiased judgment we are to accept only such facts as are proved by repeated observations; and we are not to permit any theory of even the greatest master to influence our appreciation of the actual. This is high work, difficult work—work which must always be slow, because the phenomena of nature are not apparent on the surface, and because our highest and most cultivated powers do not yet approach the grand simplicity of her method; but it was Harvey's work, and it is the mode which he commends to us his successors. He estimated and knew well the mental effort which it had cost to throw aside the theories and teachings which obscured his way, and the labour which he had to devote to his investigation. Yet he said, and said truly, "This is the way—the only way—to the secrets of nature!" It is known that this announced method, which has descended to us through two hundred years, has acquired strength as it grew older. And while I commend it to you as the humble mouthpiece for the day of the great deceased master, I must say a word as to possible dangers which attend on its absolute adoption. It is applicable to science, and without it there can be no certainty. That which the chemist can analyse, which the microscopist can see, which the anatomist can demonstrate, is true—nay, it is the only truth of its kind. But there is that which cannot be so demonstrated yet may be highest truth; for the spiritual cannot be weighed in a balance, nor can we "by searching find out God."

There is not much to a student of the life of Harvey to indicate his religious belief, but we can state with certainty that after a careful study of the beautiful mechanism of the human body, he arose persuaded of the existence of a creative power. "I perceive," he says, "in the mysteries of nature a kind of image in relief of the omnipotent Creator Himself." We know also that he was humble and reverential, and such an attitude of mind it is which opens the heart and intellect to the reception of the highest truth. It would be mean to imagine that all his work would appear done when he had found the secret of a part of the living machine. We know that he further spent many years—many more years than he had devoted to the problem of the circulation—in investigating the secrets of generation. Here, indeed, he was turned back by an impenetrable problem, as we are. But what hope for the future of science do we not find in his final exhortation to us his successors to search out the secrets of nature by experiment. He had found out one; but he knew how many lay beyond it. To him there was no finality in his discovery; he knew its value, but it was not all. There was much more to do.

We have considered the nature of Harvey's discovery, and the methods which he used; but it is to be remarked that if great observers had not arisen after him, both medicine and surgery must have remained stationary. The machinery for carriage of the blood and the power by which it is conveyed having been demonstrated, it was natural to ask what was the nature of the fluid and to what purpose, and whither was it carried. That lesser circulation by means of which venous was converted into arterial blood by contact of air in the lungs was in evidence; but till the chemical discoveries of Lavoisier and Priestley long after, the uses of the lung circulation remained an unsolved problem. We can scarcely hesitate to affirm that the discovery of oxygen had more influence on physiological science than any other chemical fact whatever. The composition of the blood, the nature of its oxygen-carrying corpuscles, its mode of nutrition of the tissues, its carrying power—alone a wonderful thing to contemplate—by which is conveyed to each secreting organ that which is necessary for its purpose; the order in which each "station," so to speak, is visited by the outgoing current, and the refuse called for at a later period of its circuit; the method by which the temperature of the blood and of the tissues is sustained; the changes which are constantly occurring in its composition; its separate vitality resisting certain agents and decompositions; its resistance to elevated temperatures, and many other peculiarities known to the physiologist, and the subject of the study of many observers at this present day—these are only a part of the view opened to the student of nature by Harvey's discovery.

I desire also to direct your attention for a few moments to certain mechanical results of the same. Regarding the circulation and the structure of heart and vessels as a whole, it will be noticed that the discovery is that of mechanism and a power adapted to work it. As we have just seen, the vital results of blood circulation were as little known as its chemical composition; nor, indeed, could they have been known owing to the deficiency of other knowledge.

[Dr. Pollock then cited, as examples of diseased actions which a correct knowledge of the mechanism of the circulation was capable of explaining, obstruction in the mitral valve, aortic regurgitation, failure of the heart's power due to degeneration of the muscular fibres, the phenomena resulting from embolism, and the various kinds of aneuryam.]

The enumeration of the results to medical science which

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have been gained by our knowledge of the lesser or pulmonary circulation would in itself occupy the time of many lectures, and such details would be unfitted to our present occasion. But I may be permitted to point out a few of the more obvious. All the phenomena of respiration, oxygenation of the blood, the sources of animal heat, and every disease affecting the pulmonary structures, would be unintelligible were we ignorant of the nature and results of the contact of air with the blood in the lungs. The discoveries of Laennec and those who have developed his system of auscultation in this country, by which every structural alteration has been rendered evident to the senses; the advances made by Stokes, Corrigan, by Latham and Williams, would have been impossible, and accuracy of diagnosis, which has now attained to such great precision, could not have been effected. ..... In close connexion with these observations is the use of anæsthetic inhalations, one of the greatest of discoveries, the crown of modern surgery, without which much that is curative would be impossible of attainment, and which as a preventer of pain must rank as among the most substantial triumphs of our art. Among the latest and most important additions to modern science which would have been impossible without a knowledge of the circulation must be enumerated the discovery of minute microscopical organisms in almost all diseases of the zymotic class, and in tuberculous and other pathological products. It will be well, however, not to build up too hasty theories of disease on even such facts. There is a palpable danger of results being mistaken for causes. The invariability of certain morbid products being found is no doubt a proof of the unchangeableness of the diseased process, but it would be surpassing the limits of the Harveian method of exploration by experiment if we were to assume that in all cases these, and these alone, were the causes. The decay of almost every form of organic life ends in a parasite or lower grade, and it may yet be found that our assumed causes were only results. Certainly in regarding the germ theory of disease we cannot multiply observation and experiment too much, but in theorising as to causes we must also account for heredity, the absence of personal communication of disease between individuals closely exposed, and a number of other facts, such as the influence of age and temperament.

Among the great fruits of modern pathology must be reckoned the discoveries of Koch and Pasteur, and the wonderful prophylactic effects of inoculation by a weakened virus. Already many lives have been saved by this method, and its future is most promising. Now, Sir, it has been asked, and it is a question which we should put to ourselves, what effect have all our discoveries and improvements in medical science had on the general health of the country? Are we a healthier nation? Is there a diminution of disease? And do fewer die? Above all, do more individuals survive through the working and useful periods of life, for if so, this is a national gain of power.

[The orator here quoted elaborate statistics from the Registrar-General's returns to show that a marked decline has occurred in the national death-rate in recent years, and that by far the largest proportions of the years added to human life in England, both of male and female, are lived at those ages when the value of life to the community is greatest. It thus becomes possible, he said, to realise how vast will be the national effects of this reduction of the death-rate, which has added an average of two years to the life of each male born in England and Wales, and nearly three years and a half to the lifetime of every female born. These results the orator thought it was but fair to attribute to increased medical knowledge and to the greater recognition of natural laws of health and disease which have been taught by our teaching and enforced with such authority as we possess. After referring to the greatly lessened mortality from phthisis since the passing of the Public Health Acts, and the increase in mortality at the more mature and advanced periods of life, which he suggested might be due to the cares and worries of a higher civilisation, Dr. Pollock concluded as follows:]

I need not say to such an audience as this that *work*—the due exercise of every function given to us—kills no man, and shortens no life. The causes are to be found in what is called our extended civilisation. We are no longer traders to one country, nor for one or two commodities—but the telegraph has introduced us into a widened sphere; and our merchants have investments in every climate, and enter on risks of a kind so varied, that the knowledge of no one man is sufficient to grasp it. Hence there are the anxieties of extended speculation, and a necessary want of the perfect understanding of each. The knowledge of one kind of trade was formerly "power," and led to prosperity; now we are playing games with all the world. Those who are present know well what part of the organism it is which generally fails under such pressure. The public say it is *brain*, but we know that it is *heart*—the motor power which Harvey studied—although, perhaps, he did not foresee to what pressure a modern civilisation and struggle would subject it.

I have spoken but of the trading class and the speculative class, but all classes of society should learn to counteract in themselves the depressing agents of excessive worry, and to beware of the race which, once entered on, may exceed the best of our powers and ruin the machine.

Presidential Address
ON
OPHTHALMOLOGY AND GENERAL MEDICINE.

Delivered before the Ophthalmological Society of the United Kingdom.

BY J. HUGHLINGS JACKSON, M.D., F.R.S., &c.,
PHYSICIAN TO THE LONDON HOSPITAL, AND THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

GENTLEMEN,—No professional honour can be more pleasant to me than is the Presidency of the Ophthalmological Society. I thank you for it with all the greater heartiness because I am already very much in your debt for your selection of me to deliver the Bowman lecture of 1885,[1] and to open a discussion on that most important neurologico-ophthalmological subject, optic neuritis.[2] There is no department of medicine which has greater attractions for me than ophthalmology. It was the first subject I specially worked at after my student life, and I still think what I said when giving the annual address, 1877,[3] before the Medical Society, that it was "the luckiest thing in my medical life that I began the scientific study of my profession at an ophthalmic hospital." Many years ago I had the good fortune to be Mr. Hutchinson's clinical assistant at Moorfields. I suppose it is to his example and teaching that I owe the beginning of the little scientific development I may have. At an ophthalmic hospital one has the opportunity of being well disciplined in exact observation. When a physician sees how carefully and precisely ophthalmic surgeons investigate the simplest case of ocular paralysis, he is getting a lesson in exactness, and will be less likely in his own department of practice to deal in such generalities as that a patient's seizure "had all the characters of an ordinary epileptic fit," and more likely to take pains to describe the convulsion, the place of onset, the march and the range of the spasm. I suppose I must have felt myself under the kind of discipline mentioned when I wrote about twenty-three years ago:[4] "Until physicians work at the muscular disorders of various convulsive seizures as carefully as ophthalmic surgeons do at paralysis of the ocular muscles, our knowledge of convulsions will not advance in an orderly way." One meaning of science is exactness, or, as Dr. Buzzard put it in suggesting a name for a celebrated painting, "science is measurement." The ophthalmic surgeon measures the swelling of the discs in optic neuritis, the degree of error of refraction in hypermetropia, astigmatism, &c., and makes exact charts of the field of vision.

Although I do not congratulate you on your present choice, I think it a good thing that the president of this Society should sometimes be a physician. It will encourage physicians, especially young physicians, to work earnestly at the ophthalmological aspect of cases of patients under their care. By doing so they may repay part of the

[1] Trans. Ophth. Soc., vol. vi. [2] Op. cit., vol. i.
[3] Ophthalmology in its Relation to General Medicine. Journal, May 12th, 1877, et seq.
[4] Roy. Lond. Ophth. Hosp. Rep., vol. v., Part 4, p. 268.

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great debt to ophthalmology which general medicine, and especially neurology, is under. Part of this debt has been paid by Charcot, Westphal, Weir Mitchell, Gowers, Clifford Allbutt, Ferrier, Seguin, Stephen Mackenzie, Bristowe, Wilks, Sharkey, Edmunds, Herbert Habershon, Samuel West, James Anderson, and many other physicians. I would particularly mention Gowers's magnificent work "Medical Ophthalmoscopy," a work esteemed by neurologists throughout the world. The recent researches of Beevor and Horsley on localisation of ocular movements in a particular region of the cerebral cortex of monkeys is an important contribution to ophthalmology as well as to general medicine and surgery.

Since six cranial nerves and the sympathetic nerve supply the eyeball and its apparatus, it is evident that, without a good knowledge of eye diseases, the thorough investigation of very many morbid affections of the nervous system is not to be methodically carried out. It is easy to show that this statement is by no means a mere truism. Unless the physician uses the ophthalmoscope by routine, he will often enough overlook the best evidence—and I am convinced in some cases the only decisive evidence—of gross organic disease of the brain there is to be had; and if, as is most often the case in a physician's practice, sight be good, he will not surmise that there is anything wrong with his patient's optic nerves, and will very likely be incredulous when someone who has looked at them tells him that there is swelling of the discs. It is not very many years since the ophthalmoscope was rarely used except by ophthalmic surgeons. Dr. John W. Ogle was the first physician in this country who used this instrument in the investigation of medical cases. I think it very unlikely that there is to-day a single patient in the National Hospital for the Epileptic and Paralysed whose eyes have not been examined by this instrument.

I was very much struck by the frequency with which Dr. Macewen of Glasgow mentioned optic neuritis in his paper, "The Diagnosis, with especial reference to Localisation, of Intracranial Lesion the Result of Aural Disease," read at the Leeds meeting of the British Medical Association last August. This paper is a most valuable contribution to ophthalmology, otology, and surgery. I urge young physicians to study eye diseases at an ophthalmic hospital or at an ophthalmic department of a general hospital; this nowadays needs no urging on physicians especially interested in neurology. A superficial knowledge will not suffice. Without special knowledge of ophthalmology a medical man may overlook paralysis of a superior oblique muscle altogether—may not know that there is any eye trouble at all; if so, he will misinterpret the vertigo for which his patient consults him. The physician's ophthalmological knowledge should be wide. A neurologist who thought only of those ocular symptoms which pertain to the nerves of the eye and their centres would be thinking too narrowly for practical purposes. Unless more widely trained in ophthalmology, he would overlook hypermetropia as a cause of headache and other nervous symptoms, and might thus treat by drugs a condition only needing spectacles for its cure. Again, the physician may, if he does use the ophthalmoscope, misinterpret what he sees if he does not know the morbid results of strain of hypermetropic eyes on the optic discs; he may erroneously consider swelling of the discs due to hypermetropia as a neuritis signifying serious brain disease, and treat the patient on that hypothesis. I infer that there is some excuse for this mistake when made by a physician, and I confess that I have made it, as I have known more than one highly accomplished ophthalmic surgeon to be, for a time at least, in doubt in such a case.

I hope I shall be pardoned for making one more quotation from the address delivered before the Medical Society; I repeat emphatically that "without a good knowledge of ophthalmology a methodical investigation of diseases of the nervous system is not merely difficult, but impossible."[5] Indeed, no physician will, I submit, doubt this who reads Mr. Swanzy's Bowman lecture, printed in our forthcoming volume of Transactions, a most able and very valuable contribution to both neurology and ophthalmology. I speak again of optic neuritis with gross organic brain disease. I suggest that cases of uniocular neuritis with tumour of one cerebral hemisphere (I have seen only three cases with necropsies) are the cases which, after microscopical examination of the parts concerned, will throw most light on the process by which optic neuritis results from disease of various parts of the encephalon. These cases are most likely to come under the care of physicians. The discovery of this process will be a great gain, not only to ophthalmology, but to neurology also. For, presumably, the process by which the pathological condition for some other symptoms, occurring in cases of gross organic brain disease, is produced is similar. At present there are only hypotheses as to this process. I find that I am sometimes quoted as having concluded that optic neuritis results by vaso-motor action, whereas I have only said, what I still think, that that hypothesis seems to me to be the most plausible of the three hypotheses I spoke of.[6] I would remark that an adequate hypothesis has to explain not the neuritis only, but some other pathological conditions, also produced by intracranial tumours. We may put for answer the more general question, How does a tumour, say of the cerebral hemisphere, produce symptoms not explainable by its destructive action? It is well known that some patients, subjects of optic neuritis, and who for most of their time see well, have frequent temporary losses of sight. It is very remarkable to observe a patient stagger into one's room quite blind and then to find him next minute seeing quite well, although with double optic neuritis. Dr. Samuel West has recorded in our Transactions, vol. iii., p. 136, a valuable case of the kind. So striking and so very definite a symptom demands explanation as much as do epileptiform seizures which often result from the same tumour of the mid-cortex which produces double optic neuritis. Neither of these paroxysmal symptoms can be put down to the destructive action of the tumour. I submit that they depend on diametrically opposite changes; that there is exalted instability of cortical grey matter—a condition induced by the tumour, probably by a local encephalitis, a condition permitting occasional sudden excessive nervous discharges. An acceptable hypothesis has to account for these two symptoms, as well as for optic neuritis. It has still more to account for.

There are other symptoms sometimes occurring along with optic neuritis from intracranial tumour which require explanation; and this I hope physicians will endeavour to give. Dr. Buzzard[7] made the following remarks: "Was it possible.....that the vomiting and the slowing of the pulse might represent an affection of the pneumogastric brought about by the same cause as that which produced optic neuritis, and that the sudden or rapid death which Dr. Hughlings Jackson had mentioned as one of the possible contingencies of optic neuritis from intracranial disease might also be explained by a more severe influence exerted upon the same nerve?" It is very remarkable that many patients with optic neuritis die suddenly or rapidly, and when seemingly in fair general health, sometimes at work, certainly most unexpectedly. I have often urged this on the attention of physicians. In some cases of cerebral tumour the patient may be acutely ill; he may have an illness very like tubercular meningitis in many of its symptoms; there may be slow and unrhythmical pulse and irregular respiration, there are retracted abdomen, constipation, and vomiting. I suppose that when a patient who has post-neuritic atrophy tells us that his sight failed after "bilious" or "gastric" fever, he has had such an acute illness. Dealing with certain cases of optic neuritis in children, Hutchinson wrote:[8] "Nearly always there is a history of a severe illness, which was supposed to be fever, and was marked by delirium and other head symptoms."

The organic or, as one may call them, the "vital" symptoms I have mentioned are of great importance to the physician. Speaking figuratively, a cerebral tumour in producing optic neuritis is trying to make the patient blind; in producing the other pathological conditions, those of the "vital" symptoms, it is trying to kill him. Following up Dr. Buzzard's very luminous suggestion, I advise that when a patient with optic neuritis dies suddenly or rapidly, or dies in an illness with the "vital" symptoms mentioned, the medulla oblongata, as well as the optic nerves and tracts, should be searched microscopically. There is, however, something to be said against the location of the changes under remark in the medulla. It is perfectly certain that the organic parts, although represented directly in the medulla oblongata, are indirectly repre-

[5] Journal, May 12th, 1877, p. 575.

[6] Trans. Ophth. Soc., vol. i., p. 90.
[7] Trans. Ophth. Soc., vol. i. 1881, p. 98.
[8] Roy. Lond. Ophth. Hosp. Rep., vol. v., 1866, p. 307.

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sented (represented over again or re-represented) in the mid-cortex of the brain; hence it may be thought the "vital" symptoms spoken of are owing, not to morbid changes induced in the medulla, but to such changes provoked by the tumour in the cortex in its neighbourhood, especially as it is unquestionable that the tumour does produce the changes round about itself on which epileptiform seizures depend. This I think unlikely, especially when the tumour is in one half of the brain. I now wish particularly to mention that, as Fagge[9] pointed out, some patients die of cerebral tumour by rapid respiratory failure. In one case under my care artificial respiration was tried, so respiratory, so to speak, was the condition. I cannot but think that in death by failure of respiration in cases of intracranial tumour there have been morbid changes akin to optic neuritis induced in the respiratory centres of the medulla oblongata. It must be borne well in mind that, strictly speaking, optic neuritis is not a symptom, although it is the custom to call it one, but a pathological condition; often enough it exists without any symptom (defect of sight) attending it. Hence it compares, not with convulsion and the "vital" symptoms, but with the pathological conditions of the cortex or medulla on which they depend.

There is no end to speaking of the integration of ophthalmological and neurological knowledge. The ophthalmic surgeon studying nystagmus is helping towards the elucidation of the nature of tremor, in which the neurologist is greatly interested. Great attention should be paid, both by ophthalmic surgeons and physicians, to the tremor in cases of Graves's disease—one of the four varieties of "vibratile tremor" of Charcot.[10] Work done on miner's nystagmus is valuable to the general body of scientific medical workers, as helping to complete the homologous series of professional spasms, of which writers' cramp is the commonest example. The work the ophthalmic surgeon has done on the symptomatology of cases of paralysis of ocular muscles gives the clue, as Wundt long ago suggested, to the interpretation of incoördinations experimentally produced by destructive lesions of nervous centres in animals. I think it gives the clue also to the interpretation of all disorders of coördination in man, including writers' cramp and other occupation spasms, from negative lesions. It explains the squinting resulting from hypermetropia; I think, too, that it explains the seeming alterations in the size of objects after instillation of atropine and eserine, a thing of importance, since these alterations occur at the onset of some epileptic fits.

In the field of the eye we are most likely to be able to trace the ascending complexity, speciality, &c., in the evolution of movements from the ocular muscles to their representation in most complex movements in the highest motor centres—that is, in the physical bases of visual ideas. Whilst a man is looking at anything, there is at that time engagement of all orders of centres from highest to lowest, and thence on to ocular muscles.

Much valuable material has been accumulated for the study of the evolution of ocular movements by Graefe, Hutchinson, Priestley Smith, Vulpian, Prevost, Ferrier, Horsley, Beevor, and others. We have clinical observations on ocular paralyses from disease of (1) nerve trunks, of paralyses from disease of (2) lowest motor ocular centres (ophthalmoplegia externa), of ocular paralyses (as in lateral deviations of the eyes), from lesions of (3) still higher centres ("motor region" of the cerebral cortex, or, as I call them, middle motor centres), and I hope we shall have such observations of ocular paralyses from lesions of (4) motor centres still higher—the highest motor centres, the physical basis of visual and of other mental states. I have considered this subject in the Bowman lecture (1885).

There is no task I would rather accomplish than this, for by doing it we should do very much towards showing that the organ of mind is sensori-motor, as is the rest of the nervous system. We should thus place the study of epilepsy proper and insanity on a realistic basis. I have long urged a study of the evolution of movements, and first of all in ophthalmic journals. "If such an expression be permitted, there is a gradual increase in intelligence in movements from the lowest nerve trunks to the highest nervous centres." This, written in 1866,[11] expresses crudely what I think can be scientifically stated as a basis for investigation.

[9] Prin. and Prac. of Medicine, vol. i., p. 10, Second Edition.
[10] Diseases of the Nervous System, vol. iii., Sydenham Society's Trans., p. 186.
[11] Roy. Lond. Ophth. Hosp. Rep., vol. v., Part 4, p. 290.

Alienist physicians, being more than any other physicians directly interested in the anatomy and physiology of the nervous system as they correspond to psychology, are of necessity interested in ophthalmology, and are in great debt to it. I hope they will be interested in the scheme of work suggested on evolution of ocular movements; but I now speak of something more definite. I do not see how any question can be more important or more fundamental in nervous physiology, as it expressly corresponds to psychology, than whether mental states do or do not occur with the "outgoing" current as well as with the "ingoing" current.

Now the battlefield of this question is the case of paralyses of ocular muscles when the full symptomatology of those cases, particularly "erroneous projection," is considered. There are reasons more on the surface why alienist physicians should coöperate with ophthalmologists. Much has been done in the study of ocular symptoms of cases of insanity (Westphal, Allbutt, Wiglesworth), but much remains to be done in this direction. Great good would come from investigation of such an insanity as general paralysis by skilled ophthalmic surgeons conjointly with experienced alienist physicians and other neurologists. I very much wish this joint investigation could be made.

Physicians should try to help ophthalmology by bringing forward cases little likely to come under the notice of ophthalmic surgeons. Cases of spasmus nutans with nystagmus (a variety, I think, of spinal, or rather spinal-system chorea, a symptomatic condition akin to canine chorea) would, as "living specimens," interest all our members. I wish surgeons who see cases of so-called traumatic tetanus would settle whether the muscles of the eyeballs do or do not suffer spasm in the exacerbations of this disease. If the ocular muscles are not involved, their escape is a matter of great importance and significance, especially to neurologists. Physicians and ophthalmic surgeons ought to note the motor condition of the eyes in the tetanus-like seizures sometimes occurring in cases of tumour of the middle lobe of the cerebellum. Very much more could be done by physicians in the observation of the development and the order of development of ocular movements in cases of epileptiform seizures from mid-cortical disease. I hope that Horsley's promised demonstration before the Society of the representation of ocular movements in certain parts of the monkey's cortex cerebri will be a stimulus to our medical members to note very carefully the behaviour of the eyes in the "cortical fits" of man.

I think aural surgeons could bring before us cases of great ophthalmological interest. I have published the case of a man who had ocular movements during a paroxysm of auditory vertigo,[12] and that of a woman[13] in whom lateral movements of the eyes were producible by pressure on a diseased ear. Mr. Laidlaw Purves gave me most important help in the investigation of the woman's case, as did also Mr. Couper. If such cases are met with by Mr. Purves, I hope he will let us see them, especially as he, having great ophthalmological knowledge, would investigate the ocular as well as the aural side of the cases thoroughly. Dr. Kipp, of Newark, New Jersey,[14] has recorded several very important cases of abnormal ocular movements in cases of ear disease. He refers to cases recorded by Bürkner, Urbantschitsch, Jacobson, Gruber, and Moos, as well as to the two I have reported. I think all ophthalmic surgeons will be interested in Dr. Kipp's researches. Speaking of otology, I admit that a knowledge of this department of medicine as well as of ophthalmology is of vast importance to the neurologist. I regret very much that I did not years ago pay as close an attention to otology as I did to ophthalmology, especially as the cases just referred to show that the two are related. Let young neurologists take warning, so that they may not afterwards have like regrets.

I have illustrated the relation of ophthalmology to general medicine by its bearing on neurology; it has, of course, much wider relations. I can best conclude this address by adopting the words with which Dr. James Anderson ends a paper:[15] "It seems to me the best and most hopeful feature of ophthalmology that it has relations, closer or more remote, with every branch of medicine and surgery—indeed, with almost every branch of science."

[12] Brain, April, 1879.
[13] Trans. Ophthal. Soc., vol. iii., 1883, p. 261.
[14] Trans. American Otological Society.
[15] Some Ocular and Nervous Affections in Diabetes and Allied Conditions, Ophth. Review, February to April, 1889.

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SOME REMARKS ON

THE NON-TUBERCULAR AND NON-CARDIAC HÆMOPTYSIS OF ELDERLY PERSONS.[1]

BY SIR ANDREW CLARK, BART., M.D.,
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MANY years ago, when examining the evidence of the arrestment of phthisis and endeavouring to determine the conditions in which it occurred, I was struck with the large numbers of cases of hæmoptysis occurring in elderly persons who were at the time and remained afterwards free from signs either of pulmonary tuberculosis or of structural disease of the heart. Being in those days completely influenced in my views of hæmoptysis by the teaching of Dr. Walshe, I ascribed every case of pulmonary hæmorrhage in which there was no heart disease or aneurysm, or malignant growth, to tubercular disease of the lung. Perhaps I carried to an extreme issue the opinions of this distinguished master; at any rate, I must confess that the consequences were not satisfactory for the patients or for me. At last, however, there occurred in the wards of the London Hospital a case of fatal hæmoptysis which not only made plain the error of my views, but revealed a cause, hitherto, I believe, unnoticed, of pulmonary hæmorrhage. The patient, a man between fifty and sixty years of age, was admitted for an attack of subacute bronchitis. He had been for many years the subject of a moderate progressive osteo-arthritis, and during the last four or five winters had suffered from severe bronchial catarrh. The attack from which the patient suffered on admission was of the ordinary character; there were signs of some congestion at the posterior bases and of emphysema of the front parts of both lungs, but nothing was found to suggest the existence of tubercular disease. The heart and bloodvessels were sound, there was only moderate fever. The patient was placed upon a light diet and treated with alkalies, alterative aperients, and counter-irritants to the chest. About a fortnight after admission the patient began to cough up blood in small quantities at short intervals, and in spite of all that could be done according to the approved therapeutical teaching of the time—in spite of absolute rest, the strictest regulation of supplies, the application of ice to the chest, and the liberal use of various astringents—the bleeding persisted, and within a week the man died. The post-mortem examination revealed to the naked eye little that was unusual and nothing that was expected. The heart, the larger vessels, and the arterial valves were free from obvious structural change. The bronchial mucous membrane almost everywhere was swollen, congested, violet-coloured, and coated with a muco-purulent secretion. The anterior parts of both lungs were pale, dry, and emphysematous, and curious patches of emphysema surrounded by hæmorrhagic extravasations were noticed in back and lower part of both lungs, which were loaded with blood. Nowhere could there be discovered the smallest evidence of tubercular disease, of any malignant growth, or of any sort of coarse structural change which could account for fatal hæmorrhage. A most minute examination carried out with the aid of the microscope brought plainly to light two important facts. The first was that the seat of the hæmorrhage was in the immediate neighbourhood of the emphysematous patches, and the second was that the minute vessels, the terminal arteries for the most part, were in those localities always diseased. And finally, it appeared in the highest degree probable that there existed a direct causal relationship between the condition of the bloodvessels, the emphysema, and the hæmorrhage. For wherever there was an emphysematous patch there was a diseased artery; wherever the artery was much diseased the capillaries and venous radicles were also affected; and generally, although not always, where the terminal artery was obstructed and degenerating there was adjacent hæmorrhage. Through the observation of these facts and their relations I was led to conclude that the order of events issuing in the hæmorrhage arose and proceeded in the following way. I inferred that the initial visible movement in the malady had been some minute structural change in a terminal branch of the pulmonary or of the bronchial artery, and in consequence of this there had been brought about a more or less complete obstruction of the supply of blood through the territory involved; that following this there arose degeneration of the capillaries and venous radicles determining a true atrophic emphysema, and that the integrity of the bloodvessels being thus impaired, the formation of thrombi or recurrent condition of pressure had brought about the hæmorrhage which ended in death.

Now arose the cardinal question presented by this case, and necessary to be answered if any fresh knowledge were to be derived from it: "What was the intimate nature of the structural vascular changes to which I have adverted? There were two ways of replying to this question, each was distinct in itself, and the one which was most regarded was of the least importance. The small question was, What were the visible characters of the structural alterations in the bloodvessels? The large and crucial question was, What was the nature of the primitive dynamic changes, and which alone gave them form and meaning? In them and not in the vascular changes lay the importance of the case. The structural changes discovered in the affected bloodvessels were limited to nuclear proliferation in the middle coat, and an amorphous and hyaline infiltration of it and of the intima. When I endeavoured to determine the significance of these changes, and for this purpose studied the life history of the case, when I saw that the patient had been for years an arthritic, that he had suffered on many occasions from many of the constitutional manifestations of this diathesis, and that the structural changes in the pulmonary bloodvessels were akin in character to those which are found in the diseased articulations, I permitted myself to conclude that the malady was of an arthritic nature, and that I had seen and dealt with a case of what might be called without serious scientific impropriety, "arthritic hæmoptysis."

About fifteen years ago, in conjunction with Dr. Wall, I had the opportunity of closely studying throughout its course another case of fatal hæmoptysis which in all essential points resembled the case which I have just related. The patient was a stout, fair, florid, healthy-looking man of about fifty years of age. He consulted me for a troublesome bronchial catarrh, and told me that he was rheumatic, and that of late he had been getting fat, short-breathed, eczematous, and indolent. The digestive organs were in fair order, the urine habitually about 1012, but free from albumen and casts; the heart and systemic vessels were free from obvious change, and there were no signs of objective disease in the nervous system. In the lungs there were evidences of general bronchial catarrh, of congestion at both bases, and of emphysema in the front part of both lungs. The finger joints were rimmed or nodulated, a few minute subcutaneous nodules were found in both arms, and eczematous patches existed in various parts of the body and limbs. The treatment consisted of diet and exercise, of occupation and early hours, of alkalies and alterative aperients. The patient became much better, and I saw nothing more of him till twelve months afterwards, when I was summoned to visit him in consultation with Dr. Wall. From him I learned that the patient had relaxed into a careless mode of life, that he had recently caught a severe cold, and that the day before he had been seized with a moderate hæmoptysis which recurred every three or four hours. Such an examination of the patient as was at the time justifiable brought little to light. There existed a catarrhal state of the digestive organs; the urine was still low in density, limpid, and free from albumen; there was no cardiac murmur; the pulse, of fair volume, was about 80; the cervical veins were a little full; and the patient complained of a cough, of frequent frothy, sanguinolent expectoration, and of considerable oppression of the chest. Over the upper portions of both lungs were heard moist mucous râles; over both posterior bases coarse crepitations and increased resonance. The patient was treated in the usual manner by absolute rest, careful feeding, ice to the chest, aperients, and the strongest astringents in large doses at short intervals; but nothing proved of the smallest avail, and on the fifth day the patient became suddenly exhausted and died. A carefully conducted necropsy revealed the appearances of bronchitis, emphysema, pulmonary congestion, and scattered small hæmorrhagic extravasations. And here again, as in the case first related, were found, in significant conjunction

[1] A paper read at the Medical Society of London on Oct. 21st, 1889.

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the emphysematous patches, the diseased bloodvessels and the extravasated blood. Except that the kidneys were rather small and hard, nothing of moment was found elsewhere. Plainly enough the source of the fatal hæmorrhage lay in the diseased bloodvessels, probably the disease was of an arthritic nature, and, pardonably enough one might venture to say again, here is another case of arthritic hæmoptysis. Since 1875 I have seen in persons over fifty some twenty cases of hæmoptysis of the kind which I have now described, and as in the ordinary annals of medical literature I have been unable to find any clear account of such a variety of pulmonary hæmorrhage, and as the treatment pursued in ordinary forms of hæmoptysis is not successful in this form, I have thought it right, in the hope of further knowledge, to bring the subject to the notice of the profession.

It is not my intention upon this occasion to enter into any systematic account of this variety of pulmonary hæmorrhage, this arthritic hæmoptysis, as I have ventured to call it. But as the cases related have led me to discontinue the ordinary method of treatment by astringents, and to try another method which seems to be more rational, and hitherto at least has proved more successful, I propose to relate two other illustrative cases seen in consultation with other practitioners. Some seven years ago Sir William Jenner, Dr. Wilson Fox, and I were summoned together to consult about a lady suffering from an incoercible hæmoptysis. She was a Jewish lady over sixty years of age, very stout, very "rheumatic," and always ailing. She had nodular finger joints, frequently recurring bronchial asthma, and occasional outbreaks of either eczema or of urticaria. Ten days before our visit, when suffering from an ordinary catarrh without accompanying fever, the patient began to cough up blood, and had continued to do so in small quantities at intervals of three or four hours since. The patient had a somewhat large heart, but there was no murmur, and there was no evidence of systemic arterial disease. Within the previous two days the pulse had become quick and frequent, and the temperature had risen to close upon 100°. In the lungs there were signs of generalised bronchial catarrh, of emphysema, and of basic congestion. The patient complained of frequent cough, of great oppression of chest, and of growing difficulty in expectorating. She had, furthermore, a loaded tongue, thirst, loss of appetite, a swollen liver, and all the signs of a gastro-enteric catarrh. She had been carefully treated by absolute rest, fluid food, ice to the chest, and in succession by lead, gallic acid, and hypodermic injection of ergotin. After full discussion, it was determined that another method of treatment should be tried. The patient was ordered to have a light and rather dry diet, to be sparing in the use of liquids, to discontinue the ice, to have a calomel pill at night, followed by a saline cathartic on the succeeding morning, and to take an alkaline mixture with ammonia between meals twice in the day. Within thirty-six hours the bleeding ceased, and the patient made a speedy and complete recovery. About a year and a half ago the patient consulted me at my house for subacute rheumatic arthritis. She told me that since she saw me first she had had one attack of bleeding, and that it was quickly cured by calomel and salines.

About six years ago I was summoned to meet Mr. MacLaren in consultation about the case of a solicitor who had been suffering from an obstinately recurring hæmoptysis of small amount. The patient was over sixty years of age, had been always delicate and often suffered from incomplete attacks of what was considered to be rheumatic gout. He had rimmed finger-joints, patches of dry eczema, and occasional nervous headaches. A few weeks before our consultation he had contracted a feverish bronchial catarrh and was confined to the house. After a fortnight's cold he began to have some oppression of chest and to be short breathed. This was followed by a small hæmoptysis which gave relief, but the hæmoptysis recurred, and at our consultation there was no sign of its cessation. The patient had no fever and only a slight hurry of circulation. There was a general bronchial catarrh, the fore parts of the lung were emphysematous, and there was some basic congestion, greater on the right side than on the left. The tongue was furred. There was anorexia with some thirst. The bowels were inadequately relieved, and the urine was pale and of low density, but free from albumen. The patient was directed to rest and keep warm, to live upon a light, semi-solid diet, to be sparing in the use of liquids, to be freely counter-irritated over the chest, to have a succession of small doses of calomel at bedtime, supplemented by saline aperients in the morning, and to take between meals, twice or thrice in the day, a mixture containing iodide of potassium, bicarbonate of potassium, and ammonia. This treatment was not particularly agreeable to the patient, who had medical views of his own. Nevertheless, it was adopted, and appeared so far successful that within four days of its adoption the hæmorrhage had ceased. I heard of this patient from a relative some months ago, and I was told, although he led a too sedentary life, he was well and at work

Many additional illustrations of this variety of hæmoptysis could be given, but as in each case there is a close resemblance to each other, and as in all the cases the interpretation of the pathological conditions accompanying the hæmorrhage and the treatment employed for its relief were substantially the same, it would be unpardonable to occupy the time of the Society with the reproduction of details which could prove neither interesting nor instructive to the Fellows. I content myself with having brought to the notice of the Society this curious form of pulmonary hæmorrhage, and believing that a critical discussion of the subject will lead to broader and juster views concerning it. I conclude with a statement of the propositions which I have framed out of the results of my own inquiries.

These propositions are as follows:—

1. That there occurs in elderly persons, free from ordinary diseases of the heart and lungs, a form of hæmoptysis arising out of minute structural alterations in the terminal bloodvessels of the lung.

2. That these vascular alterations occur in persons of the arthritic diathesis, resemble the vascular alterations found in osteo-arthritic articulations, and are themselves of an arthritic nature

3. That although sometimes leading to a fatal issue, this variety of hæmoptysis usually subsides without the supervention of any coarse anatomical lesion of either the heart or the lungs.

4. That when present this variety of hæmorrhage is aggravated or maintained by the frequent administration of large doses of strong astringents, and by an unrestricted indulgence in liquids to allay the thirst which the astringents create.

5. That the treatment which appears at present to be the most successful in this variety of hæmoptysis consists in diet and quiet, in the restricted use of liquids, and the stilling of cough; in calomel and salines, in the use of alkalies, with iodide of potassium, and in frequently renewed counter-irritation.

ON THE

RHYTHM OF THE PRESYSTOLIC MURMUR,

INCLUDING CERTAIN POINTS IN CONNEXION WITH THE PHYSIOLOGY OF THE CARDIAC VALVES.

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AND

WALKER OVEREND, B.A. OXON., B.SC. LOND.,

RADCLIFFE TRAVELLING FELLOW.

PART I.

IN the present paper we communicate the results of some observations on the time of closure of the semilunar valves, and the behaviour of the auriculo-ventricular valves during the course of the cardiac cycle. In the concluding sections we contribute certain facts in regard to the rhythm of the presystolic murmur, with remarks on the causation of mitral obstructive murmurs in general.

1. *The relation of the aortic second sound to the cardiogram.*—As is well known, Chauveau and Marey[1] introduced elastic bags within the cardiac cavities of horses, and connected them with registering tambours. A small eminence occurring in the curves obtained from the left ventricle, near the end of the descent, which represents the ventricular relaxation, was thought to be due to closure of the semilunar valves. Fredericq[2] auscultated the second sound in the slowly beating hearts of horses, and simultaneously observed

[1] Gaz. Méd., 1861. [2] Centralblatt f. Physiologie, No. 1, 1888.

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the lever of the cardiograph, writing on a blackened cylinder. His results were in perfect accord with those of Chauveau and Marey. Edgren[3] auscultated the first and second sounds together, and recorded these simultaneously with the cardiographic tracings. He thought the second sound occurred somewhat later—that is, just about the bottom of the descent, which indicates the ventricular diastole. Landois[4] referred the closure of the aortic and pulmonary valves re-

FIG. 1.



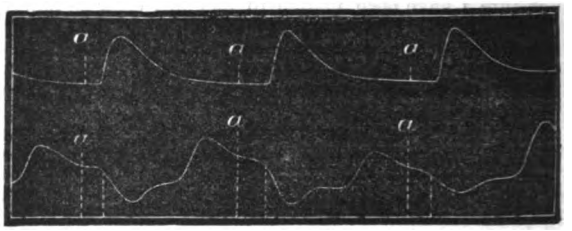
Cardiogram from a case of exophthalmic goitre. The lever magnified 30 times.

spectively to two small elevations which occasionally occur in the cardiogram, during the period when the ventricle is comparatively empty but remains contracted (*Verharrungszeit*, Baxt,[5] Moens[6]). Thus, in the cardiogram, represented in Fig. 1, Chauveau and Marey think the closure occurs just before *c* is reached, Edgren about this point, while Landois refers the time of this event to some spot intermediate between the letters *c* and *d*.

It will be profitable, perhaps, at this stage to summarise briefly the views of Martius[7] of Berlin, who has devoted considerable attention to this subject. His interpretation is as follows: The closure of the valves occurs at *c*, thus the period *a*–*c* corresponds to the interval between the first and second sounds. At the point *a* the tension of the auriculo-ventricular valves takes place; at *b* the semilunar valves open, and blood commences to pour out of the ventricles. At *c* commences the *Verharrungszeit*, of which we have already spoken. This period lasts till *d*, when the ventricles commence to relax, and blood to enter them from the auricles. This influx of blood is not represented on the tracing, since the axis of the ventricle now recedes from the chest wall; at the point *e* these two compensate each other, however, and the diastolic filling begins then to make itself manifest. Martius thinks the first undulation, *f*, is caused by the wave of blood, reflected against the root of the aorta, after the arterial beat is over. The elevation, *g*, is due to influx of blood into the ventricle during the auricular systole. When the diastole is long there may be an intermediate rise, which Martius also ascribes to a second wave reflected from the aorta.

In our observations we used a Marey's tambour with button for application to the heart's apex, and connected with a registering tambour. On the same stand as the latter a second registering tambour was fixed, and connected with an indiarubber capsule containing air. The capsule was tapped with the finger synchronously with the first or second sound, as heard through the binaural stethoscope. The rubber tubes connecting the capsule and cardiograph with the registering tambours were of equal length and calibre. In experiments of this kind it has been demonstrated that there is no reaction time,[8] since the mind, once accustomed to the rhythm, anticipates the sound, and the finger makes the signal, exactly at the time of its occurrence. The method is virtually the same as that which Donders[9] used to estimate the time interval between the first and second sound, and with practice the errors of experiment become quite insignificant.[10] Immediately after each revolution corresponding points of the levers were recorded by allowing them to write vertical lines while the cylinder remained stationary. This was done for the purpose of accurate comparison, any other method of determining these points being open to error. In Fig. 2 the lower inscription is a normal cardiogram: the upper registers the second sound. The letters *a a* indicate corresponding points. The result of many series of observations demonstrates the fact that the second sound occurs in the *immediate vicinity* of that portion of the cardiogram which indicates the *commencement of the ventricular relaxation*. It is probable,

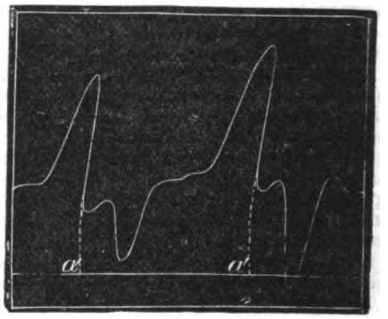
FIG. 2.



A normal cardiogram. Beats 84 per minute. *a*, Aortic second sound auscultated. *a*, *a*, Corresponding points of the two levers.

however—and we shall emphasise the statement hereafter—that the *actual closure* of the valves takes place immediately after the flow has ceased—that is, about the letter *c* in Fig. 1, while the *sound* is produced at the period we have just indicated. On the other hand, in a case of exophthalmic goitre where no valvular mischief existed, and in which we auscultated both sounds separately, the second sound occurred at the letter *a'* in Fig. 3, corresponding with *c* in Fig. 1. The

FIG. 3.



Cardiogram of exophthalmic goitre. Beats 120 per minute. Second sound auscultated, *a'*.

heart was beating 120 per minute; nevertheless the results are trustworthy, since on auscultating the first sound the latter exactly corresponded with the ventricular upstroke. The position of the second sound appears, then, to depend on the amount of aortic tension, and in this way it is possible that the conflicting results of various observers may be explained. This does not affect the sequence of events within the heart itself, since, as we have already insisted, the valves are closed when the flow of blood ceases.

In the cardiogram of Fig. 1, the part of the curve from *c* to *d* corresponds with the empty and contracted final period of Moens. We have assumed the existence of this period, but it is possible that the portion from *b* to *c* at least represents a disfigured part of the cardiogram, the deformity arising from the rush of blood out of the ventricles. No such *Verharrungszeit* exists in curves taken from the excised and bloodless hearts of mammals, and in cardiograms of aortic regurgitation the phase is scarcely recognisable. We venture to suggest that the assumption of such a period is not justifiable, and that the ventricle commences its diastole some time between the letters *b* and *c* (Fig. 1).

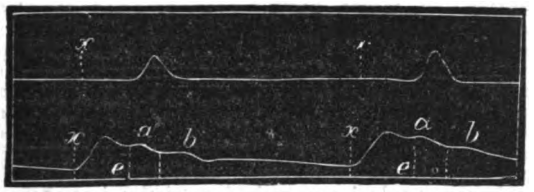
2. *The relation of the aortic second sound to the sphygmogram.*—The cardiograph was used to record the carotid pulse, and the signals were made as described in the previous section. Thus, in Fig. 4 *a* represents the predicrotic wave, which in the carotid pulse is always relatively well marked; *b* is the dicrotic eminence. On the upper line the signals are registered, while *x x* are corresponding points of the two levers. On measurement, it is found that the *second sound* coincides almost exactly with the *predicrotic*

[3] Cardiographische und Sphygmo-studien, Scandinavisches Archiv. für Physiologie, 1889.
[4] Graph. Untersuch. über d. Herzschlag., p. 48, 1876.
[5] Du Bois' Archiv, 1878. [6] Ebenda, 1879.
[7] Zeitschrift fur Klinische Med., vol. xiii., pp. 3-6, 1888.
[8] Martius, loc. cit.; Byrom Bramwell and Murray, British Med. Journal, Jan., 1888.
[9] Vide Rollett's article, Hermann's Handbuch d. Phys., Band iv., S. 155.
[10] Control experiments with metronome showed an experimental error only, amounting on the average to about 1 per cent. (Donders).

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notch; and after allowing one-tenth of a second (Waller) for the transit of pulse waves from the heart to the carotid, it is evident that the *sound corresponds with the dicrotic notch.* Since, therefore, the sound occurs previously to the formation of the dicrotic wave, we adopted the following

FIG. 4.



Carotid pulse-curve (normal). *a*, Predicrotic. *b*, Dicrotic wave. *x*, *x*, Corresponding points. *e*, Second sound.

view as a picture of the events which occur *at the root of the aorta* when blood enters it from the heart.

The blood which leaves the ventricle when the semilunar valves open is temporarily lodged in the commencing portion of the aorta, the latter dilating as the result. At the moment when the so-called *Veharrungszeit* of Moens ensues the flow of blood suddenly ceases, and a negative pressure,[11] due to the inertia of the fluid, appears behind the moving column. The aspiration induced by this diminished pressure produces a momentary reflux, which slightly dilates the root of the aorta, and originates the predicrotic wave, while simultaneously closing the valves. By virtue of its elastic walls, the aorta reduces its calibre, and tends to assume, for the moment, a new position of equilibrium, depending on the amount of influx, and necessarily coinciding with a higher position of the recording lever than that immediately preceding the ventricular systole. Having reached this position of equilibrium, however, the aorta passes beyond it (dicrotic notch), and immediately re-expands. During the primary recoil the valves are tightened by the impact of blood, and are set into vibration (second sound);[12] while the secondary expansion generates a new wave (the dicrotic or second beat).[13]

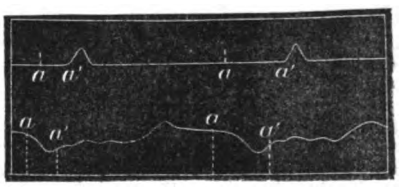
3. *On the mechanism of closure of the auriculo-ventricular valves.*—In order to obviate the possibility of regurgitation, it has been supposed that the flaps of the auriculo-ventricular valves are approximated during the progress of diastole. Paladino[14] thought the curtains were elevated by muscular contraction about the time of the auricular systole, and longitudinal muscular fibres have been described, which run from the auricles into the valves.[15] It has also been suggested that the papillary muscles contract earlier than the rest of the ventricular wall, or may even commence to act during the *earlier* part of the diastole.[16] On the other hand, a mechanical view has been preferred by some physiologists, according to which a reflux of blood takes place during diastole, which, insinuating itself between the valves and the ventricular walls, floats up the curtains into a position better adapted for their early closure. While some authors have thought[17] that the valves become convex to the auricle during the systole of the ventricle, according to others they become horizontal.[18] Kürschner[19] and Purkinje, however, asserted that the valves are drawn down during the systole, and that the complete emptying of the ventricular cavity is in this way secured. Nega,[20] also, states that, having introduced the finger within the beating hearts of calves, the valves were drawn downwards towards the apex of the heart during its contraction. A sphincter-like action of the muscles surrounding the auriculo-ventricular valves has also been described,[21] which must largely participate in their effectual closure.

In order to determine the relation of the contraction of the papillary muscles in point of time to that of the ventricle itself, we opened the cavities of the hearts in rabbits, the latter being removed from the body, and still beating vigorously. It was perfectly obvious that the papillary muscles contract exactly at the same moment as the rest of the ventricular wall. We also cut away part of the wall of the left auricle at a point some distance above the valves, and observed the latter *in situ*, while we supplied the heart with saline solution (0·6 per cent.) at the normal temperature. We observed no movement of the valves during auricular systole. The flaps lie tolerably slack during diastole, and occupy a position intermediate between the axis of the ventricle and its walls. Immediately the ventricular systole begins the flaps are floated up, rendered tense, and come to occupy a horizontal position, there being no trace either of depression of the valves or regurgitation. A slight sphincter-like action at the same time is observable at the auriculo-ventricular orifice, but this is by no means so evident as the results of Ludwig and Hesse would lead one to expect. It is possible, however, that the hearts, in their experiments, after being placed in a hot solution of bichromate of potash, represent a somewhat abnormal or exaggerated condition of the systolic phase. Since the valves remain horizontal during systole, it follows that there must be a certain amount of blood left in the ventricle after each systole is over,[22] and Roy,[23] having introduced the finger through a small opening made at the apex, convinced himself that such was indeed the case. With regard to this question we used the following method. A rabbit is anæsthetised, artificial respiration commenced, and the heart exposed. A moment is selected when the beats are powerful and tolerably slow, and while one of us placed a pair of Spencer Wells' forceps over the left auricle, just above the valves, immediately the auricle has executed its beat, the other clamped the root of the aorta in a similar manner, immediately after the corresponding ventricular systole was over. The heart was then removed, the left ventricle opened, and the clamping of the left auricle tested. We found that there is some residual blood, and think the method, which is quite practicable, might be useful in determining the relation between the amount of the latter and the capacity of the ventricle under varying conditions.

PART II.

4. *The presystolic murmur.* — We were fortunate in securing cases of this lesion, where the beats were regular—a condition indispensable for accurate measurement.[24] Case 1: Eliza A——, aged seventeen. She has not had rheumatic fever or scarlatina. Cardiac dulness not increased on percussion; a well-marked thrill at apex; accentuation of pulmonary second sound; a loud presystolic murmur audible at the apex, beginning immediately after the second sound, and lasting throughout diastole; pulse slow. Fig. 5 represents the cardiogram

FIG. 5.



Mitral stenosis. *a a'*, Corresponding points. *a'* in lower tracing indicates commencement of murmur.

and the signals. The letters *a a'* respectively, in the two lines, represent corresponding points of the two levers. It is obvious that the murmur commences immediately after the depression—that is, at *a'* in the cardiogram. The apex beat was feeble, but three undulations occurring in the

[11] From observations on the veins, Moens concluded that this negative pressure occurs during the systole and coincides with the commencement of the comparatively empty but contracted period of ventricular contraction (Du Bois' Archiv, 1879). Whether the negative pressure which exists when the auriculo-ventricular valves open is a remnant, as it were, of the above—a view we are inclined to accept,—or is produced by a so-called suction power on the part of the ventricle, we cannot here discuss.

[12] Talma (Pflüger's Archiv, 1880) asserts that the second sound is not so much due to vibrations of the valves as to that of the fluid column which is impacted against them. Webster (Journal of Physiology, vol. iii.) thinks that both are factors concerned in its production, but that it is impossible to determine their relative importance.

[13] Burdon-Sanderson (Handbook to Phys. Lab.) showed that a dicrotic wave may occur in a schema devoid of valves. When these are present, however, it is possible that the wave may be intensified. (Rückstonswellen. Landois.)

[14] Hermann's Handbuch d. Phys., Rollett's art., vol. iv., p. 161.

[15] Gussenbauer, Sitzungsberichte d. Wien. Acad., vol. lvii., 1868.

[16] Mayo Collier, Illust. Medical News, vol. iii., p. 63, April, 1889.

[17] Burdon-Sanderson, Handbook to Phys. Lab., p. 257.

[18] Sandborg and Worm-Müller.

[19] R. Wagner's Handwörterbuch der Phys., ii., p. 42, 1844.

[20] Vide Hermann's Handbuch, Band iv., p. 163

[21] Ludwig and Hesse, Du Bois' Archiv, 1880.

[22] Sandborg and Worm-Müller.

[23] Brit. Med. Jour., Dec. 13th, 1888.

[24] The tambour for application to the apex must not be too large; otherwise there is no space left for auscultation.

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diastole are fairly well represented. As far as the cardiogram shows, the left auricle does not appear to be hypertrophied, and there were no physical signs of the same.—Case 2: Mary S——, aged thirty-one. She has had rheumatic fever twice; anæmic; apex beat in nipple line; area of cardiac dulness increased; a presystolic bruit, apparently commencing about the middle of diastole and ending abruptly at the first sound. A well-marked systolic bruit; pulse 80 and regular. In Figs. 6 and 7 cardiograms of this case are given. In Fig. 6, when the patient was

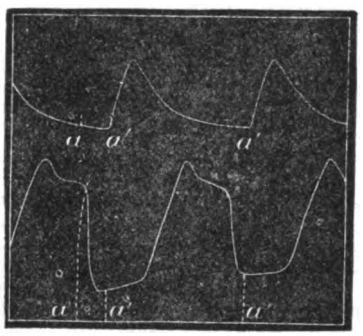
FIG. 6.



Mitral stenosis. Patient perfectly quiet. a' = commencement of murmur.

perfectly quiescent, the murmur occurs immediately before the upstroke, which represents the ventricular systole, and during the auricular beat. After exertion the murmur becomes longer and intensified, as seen in Fig. 7. We

FIG. 7.



Mitral stenosis (same case as Fig. 6) after exertion. a, Commencement of murmur.

have also timed the thrill. We did not find it possible to compare the thrill with the cardiogram in the same manner as the murmur, since the area where the thrill was felt most plainly was encroached upon by the cardiograph itself at the apex. But when one of us signalled the thrill and the other the murmur, we found them to be identical in time.

5. *Causation of mitral diastolic murmurs.*—These murmurs have been classified as "early," "mid," and "late"—that is, according to the position they occupy in the cardiac diastole.[25] The mid-diastolic is identical with the post-diastolic of Hayden. The late-diastolic was first regarded as presystolic by Fauvel (1843), and later, as occurring during the period of the auricular beat, by Gairdner (1862). The early and mid-diastolic have both been attributed to the so-called suction power of the left ventricle (Dickinson,[26] Bristowe,[27] Rolleston[28]). At the present time it seems to be generally admitted that these murmurs owe their origin to the vibration of fluid veins, produced by the rushing of blood through a stenosed orifice into a wider space. If such be the case, it ought not to be a difficult matter to produce such murmurs in the beating hearts of animals. Through the kindness of Professor Schmiedeberg of Strasburg, who placed the resources of his laboratory at our disposal, we were enabled to perform a series of experiments in this direction. A rabbit, having been rendered completely anæsthetic by means of morphia, was fastened to a Czermak's holder, and tracheotomy performed. The tracheotomy tube was connected with an apparatus for artificial respiration, constructed by Miescher of Basle. The chest was opened, the internal mammary artery secured, and the heart laid bare. In the first experiment we passed a curved needle, threaded with fine gut, through the right auricle close to the septum, and tied the ends over the left auricle, thus producing a partial constriction just above the auriculo-ventricular valves. In about forty seconds a distinct presystolic bruit became audible. Since there was some slight oozing from the right auricle, in our subsequent experiments we employed graduated compression over the left auricle, just above the valves, by means of fine forceps. After a short interval, on listening with the binaural stethoscope over the ventricle, a well-marked presystolic murmur was heard. It is obvious, then, that such murmurs may be produced by vibrating fluid veins.[29]

Dr. Bristowe, in felicitous language, has compared these mitral obstructive murmurs to "the fitful or accidental roarings of a continuous torrent," and the question at once arises, What are the disturbing factors which induce these momentary exacerbations of force? We have already remarked that the early and mid-diastolic have been ascribed to a so-called suction power of the left ventricle. In mitral stenosis, however, the cavity of the left ventricle becomes smaller, and its walls tend to become atrophied. The negative pressure of such a ventricle cannot be very significant, and its elastic expansion certainly cannot continue after the auricular blood has entered it; since the latter, held back during systole by the mitral barrier, is increased in quantity, while the capacity of the left ventricle is diminished. On the other hand, it is possible that such a negative pressure occurring in the *right ventricle* in cases where there is a deficient quantity of blood in the vessels (anæmia, pernicious anæmia, Quincke) may be instrumental in the production of the so-called *bruit de diable*. As is well known, this murmur is continuous, or rhythmic and diastolic, increased by inspiration, and conditions, as Chauveau demonstrated, favourable to the production of fluid veins exist in the veins at the root of the neck.

Balfour[30] has drawn attention to the increased pressure which necessarily prevails in the pulmonary circuit in cases of mitral stenosis. This increased tension of itself, we imagine, might lead to the induction of an audibly vibrating jet of fluid, where pathological conditions, as a stenosed mitral orifice, are suitable (fluid vein, Chauveau; pressure steam, Niemeyer). The negative pressure of the left ventricle, granting the existence, too, of stenosis, would only be available as a disturbing factor at the very beginning of diastolic expansion, and we are inclined to attribute the *early diastolic* murmur to the two factors combined—viz., the *vis a tergo* of the pulmonary tension with the evanescent *vis a fronte* of the negative pressure arising in the left ventricle. This early diastolic murmur is sometimes mistaken for aortic regurgitation, and, we believe, it has recently been referred to pulmonary regurgitation (Graham Steell[31]).

In the production of the mid-diastolic mitral the *vis a tergo* of the intra-pulmonary pressure plays the essential part. It may be urged that, if such be the case, the early diastolic mitral should always accompany it. But a little reflection will show that this is not necessarily the case. But we know, as yet, too little about these early diastolic murmurs and their variations to dogmatise. It has been also objected that in mitral regurgitation diastolic mitral murmurs are not present. But at the moment the mitral contains flap back, the ventricular systole being over, there is no constricted orifice to favour the develop-

[25] Vide Bristowe on Mitral Obstructive Murmurs, THE LANCET, Nov. 12th, 1887.
[26] THE LANCET, Oct. 1st and 8th, 1887. [27] Loc. cit.
[28] St. Bartholomew's Hospital Reports, vol. xxiv., 1888. Dr. Hilton Fagge thought that in extreme mitral stenosis the auricle begins to contract earlier, and goes on contracting longer. (Guy's Hosp. Reports, 1871.)

[29] Mr. Gotch of Oxford first suggested to one of us the artificial production of a presystolic murmur. Marey (Phys. Méd. de la Circulation, 1863) produced a like murmur, but in an artificial schema, by introducing a perforated plug between auricle and ventricle, but only when the auricular pressure reached a certain height.
[30] THE LANCET, Oct. 29th, 1887. [31] Med. Chronicle, Dec. 1888.

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ment of a vibrating jet of fluid, although there may be an accumulation of blood in the auricular chambers, and an increased intra-pulmonary pressure. It has been asserted that reduplication of the second sound, audible *only* at the apex, is an impossibility (Bristowe[32]). The latter physician explains the reduplication by a lagging of the aortic valves. But in mitral stenosis, conditions exist which cause the aortic valves to close rapidly—viz., a diminished quantity of blood in the left ventricle, and the pulmonary valves to close later—that is, congestion of the right ventricle. On the other hand, Dr. Sansom[33] distinctly states, and in this he is supported by Dr. Cheadle,[34] that reduplication heard *only* at the apex and *not at the base* is possible. Dr. Sansom thought this was due to vibrations of the mitral valve. We think this is a very probable explanation, since the chordæ tendineæ must gradually become tighter with the progress of the diastole (Ludwig and Hesse).[35] Moreover, the mid-diastolic mitral murmur may run off from this so-called reduplicated sound. With regard to the presystolic murmur, Barclay[36] and Dickinson[37] have argued that this, as a matter of fact, is really systolic. This view presupposes the existence of an incipient noiseless stage in the ventricular beat of the normal heart. Our cardiograms, however, as in Fig. 6, clearly demonstrate that when the presystolic murmur is of a short sudden character, and the beats regular, the murmur commences immediately before the ventricular contraction, as indicated by the rise of the lever. The bruit is thus presystolic, both as regards sound and contraction; and Gairdner suggested that the systole of the auricle gives to the moving column of blood an additional impetus, as it were, which increases the velocity through the stenosed aperture, producing a vibrating jet of fluid, audible as the presystolic murmur. This is undoubtedly the case, and we venture to suggest that a short, rough, presystolic murmur is seldom, if ever, present, unless the auricle is acting well. Dr. Sansom states,[38] he has observed in many cases that "though there has been present a prolonged presystolic murmur, commencing in the long pause immediately after the second sound, cardiographic evidence has shown that the auricular systole occupied its normal position and extent." Such a case we have represented in Fig. 5. The same author[39] relates a case where the auricle was found post mortem to be exceedingly thin, and lined by an old laminated blood-clot. For prolonged murmurs of this kind, we think the increased pulmonary tension is the essential factor; in other words, if the pressure in the pulmonary circuit is sufficiently high, it may induce a combined mid and late diastolic mitral mumur, apart from any auricular assistance whatever. It is obvious, moreover, that there must be an intimate interdependence between the intra-pulmonary tension and the presence or absence as well as the duration of diastolic mitral murmurs. According to Balfour,[40] "whenever the intra-pulmonary blood-pressure gets lessened under the influence of tricuspid regurgitation, then the force of the auriculo-systolic or presystolic begins to fail, and ceases." Sansom[41] also relates a case in which the converse happened; thus, "the systolic murmur which was in the tricuspid area subsequently disappeared, and the presystolic murmur became louder."

Small elevations in the cardiogram, occurring during the diastole, have been already mentioned. By some authors they have been ascribed to the auricular systole, and it has even been asserted that three auricular contractions may occur to one ventricular beat. Gaskell showed that, by clamping the auriculo-ventricular groove, the sequence of the cardiac cycle might be changed, and two or more auricular beats might correspond to one contraction of the ventricle. But these diastolic waves occur in the normal cardiogram, and we have already referred to Martin's explanation of these elevations. But since they occur very frequently in mitral stenosis, where the reflection of waves from the aorta is not so well marked as in the normal circulation, we are inclined to refer them to the influx of blood from the auricle and its subsequent vibration. Moreover, such diastolic eminences are also well seen in cases of free aortic regurgitation (Galabin).[42] The third elevation is evidently due to the entrance of blood during the systole of the auricle itself.

6. *Summary.*—(*a*) The occurrence of the second sound coincides with the commencement of the relaxation of the ventricle, as indicated by the cardiogram. In the carotid pulse curve, making allowance for the time the waves take to travel, the second sound corresponds with the dicrotic notch, and therefore takes place before the formation of the dicrotic wave. (*b*) The auriculo-ventricular valves occupy a horizontal position during the systole of the ventricle, while the papillary muscles contract simultaneously with the rest of the ventricular wall. The ventricle does not empty itself completely, there being a certain amount of residual blood. (*c*) The mid-diastolic mitral murmur in mitral stenosis owes its existence to the influence of the high pulmonary tension. The latter also plays an indirect part in the production of the early and late (presystolic) mitral murmurs; but the immediate exciting cause of the early diastolic is the negative pressure of the left ventricle, while the late diastolic is usually due to the force of the auricular contraction. The murmur and the thrill coincide with each other in the cases we have examined. In conclusion, we embrace the opportunity of acknowledging our indebtedness to Professor Schmiedeberg of Strasburg for the use of his laboratory; also to Professor Burdon-Sanderson, who kindly lent us cardiographic apparatus.

[32] THE LANCET, Nov. 12th, 1887
[33] Transactions of the Medical Society of London, vol. v., p. 204.
[34] THE LANCET, May 11th, 1889.
[35] Du Bois' Archiv, 1880. Summarised by Dr. MacAlister, British Medical Journal, Oct. 1882.
[36] THE LANCET, March, 1872. [37] Ibid., Oct. 1st, 1887.
[38] Lettsomian Lectures, 2nd edit., p. 119, 1886. [39] Op. cit., p. 120.
[40] THE LANCET, Oct. 29th, 1887. [41] Op. cit., p. 136.

ON THE RADICAL CURE OF HYDROCELE BY EXCISION OF THE SAC.

BY F. A. SOUTHAM, M.B.OXON., F.R.C.S.ENG.,
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IN a paper on the radical cure of hydrocele, which appeared in THE LANCET, Sept. 10th, 1887, I called attention to the method of treatment by excision of the sac, and described several cases in which this plan had been adopted with very satisfactory results. Since that date I have carried out the same treatment in three additional cases, and as these serve to illustrate some of the conditions in which this method of radical cure is indicated, a brief description of each is given below. A full account of the operation will be found in the article referred to, and further experience has shown that in addition to the ordinary measures for maintaining as far as possible an aseptic condition of the wound, the essentials for success are as follows:—1. A healthy condition of the patient.[1] 2. Removal of the whole of the parietal layer of the tunica vaginalis, so that two serous surfaces are not left in apposition. 3. Complete arrest of all hæmorrhage before the wound is closed. 4. Free drainage for the first few days. 5. Uniform pressure on the scrotum by means of the dressings, in order to maintain the deep surfaces of the wound in apposition. 6. Elevation of the scrotum during the period of healing. If attention is paid to these points, I believe that the operation is attended with little risk, and also that it is the most certain method of radical cure, it being practically almost impossible for a recurrence of the hydrocele to take place.

CASE 1. *Recurrence of hydrocele with adhesion of testis to anterior layer of tunica vaginalis after tapping and injection with iodine; excision of sac; cure.*—The patient, aged forty-four years, came under my care as an out-patient, suffering from a scrotal swelling, which presented all the appearances of an ordinary vaginal hydrocele, except that the testicle was situated at the anterior part of the tumour, forming a distinct prominence on the front of the scrotum. The hydrocele, which had been present for four or five years, had been tapped several times, and on the last occasion, about four months previously to coming to the hospital, it had also been injected with iodine. He stated that after the injection he was confined to bed for ten days,

[42] Guy's Hospital Reports, 1875.

[1] Provided the constitution is sound, the operation may be safely performed in adults of all ages up to sixty years; in three of my cases the patients were aged respectively fifty-three, fifty-five, and fifty-eight years.

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as the part was extremely painful. As soon as he began to get about, the hydrocele gradually returned, and he noticed that the position of the testicle had altered from the back to the front of the swelling. The patient was admitted into the hospital, and a free incision having been made into the tumour along the outer side of the scrotum, about twelve ounces of clear, yellow fluid escaped. It was then found that the testicle was fixed to the anterior part of the tunica vaginalis by numerous firm adhesions; these were divided, and the whole of the parietal layer of the tunica vaginalis, which was somewhat thickened, was excised with scissors. The wound was closed with sutures, free drainage being provided for by a tube brought out at the upper and lower ends of the incision; on the eleventh day it was healed, and on the fourteenth day he left the hospital. When last seen, six months after the operation, there was no recurrence of the hydrocele.

CASE 2. *Extreme thickening and induration of the tunica vaginalis; excision of sac; cure.*—The patient, aged fifty-five years, came to the out-patient room on account of a scrotal swelling, the size of a fist. He stated that it first showed itself about three years previously and that it had been tapped three times, a quantity of clear fluid being drawn off on each occasion. The swelling resembled an ordinary vaginal hydrocele, except that it was much firmer than usual and quite opaque on examination by transmitted light. The history of the case and the conditions just mentioned pointed to the presence of a hydrocele with a thick sac wall, and this opinion was confirmed on exploring the swelling with a hypodermic syringe, a few drops of clear yellow fluid being drawn off. On account of the thickened condition of the sac the case was considered a suitable one for the excision treatment, and the patient was accordingly admitted into the hospital. On laying open the cavity of the tunica vaginalis several ounces of clear yellow fluid escaped. As was expected, the sac wall was found much thickened (measuring from a quarter of an inch to half an inch in thickness), and extremely indurated, cutting almost like cartilage. The whole of the parietal layer was excised, and the wound then closed with sutures, a drainage-tube being inserted. The wound readily healed except at its centre, where several of the sutures cut through, a superficial granulating surface the size of a shilling remaining. This was still unhealed at the end of three weeks, and did not cicatrise until a few weeks later after its margins had been refreshed under cocaine and brought together by three wire sutures. When the patient was last seen, about three months after the operation, there was no return of the hydrocele.

CASE 3. *Suppuration in tunica vaginalis, and sloughing of sac wall after tapping; excision of sac; cure.*—The patient, aged fifty-eight years, presented himself at the out-patient room, suffering from a painful fluctuating swelling, the size of a cocoa-nut, involving the left side of the scrotum, the tissues of which were œdematous and inflamed. He stated that he had been troubled with a swelling for about three years, and that it had been tapped eight or nine times. A few days after the last tapping, which had been performed a fortnight previously to coming to the hospital, the scrotum began to swell and become extremely painful. The inflamed condition of the scrotal tissues, the fluctuating nature of the swelling, and its rapid reappearance after tapping, all pointed to the presence of pus in the cavity of the tunica vaginalis, and the diagnosis was confirmed by an exploratory puncture with a small trochar and cannula. The patient was admitted into the hospital, and a free incision having been made into the swelling, about ten ounces of thick purulent fluid escaped from the cavity of the tunica vaginalis. As the tunica itself was much thickened (being coated over with layers of lymph, and presenting in places a sloughy, almost gangrenous, appearance), the whole of its parietal layer was removed by means of scissors. The cavity, having been washed out with carbolic lotion and dusted with iodoform, was plugged from the bottom with strips of lint dipped in carbolic oil, no attempt being made to close the wound on account of the inflamed condition of the scrotal tissues. It rapidly granulated up from the bottom, and the patient left the hospital at the end of a fortnight with the wound almost healed. When last seen, twelve months subsequently, he was free from any recurrence of the hydrocele, the seat of the operation being marked by a depressed cicatrix.

Manchester.

A CONTRIBUTION TO THE

STUDY OF CHRONIC VALVULAR DISEASE OF THE HEART,

BEING

AN ANALYSIS OF ONE HUNDRED AND FIFTY CONSECUTIVE CASES SEEN AT THE GLASGOW ROYAL INFIRMARY DISPENSARY, WITH A SPECIAL LIST OF CASES BEARING ON THE INFLUENCE OF PREGNANCY IN CHRONIC VALVULAR LESIONS.[1]

BY GEO. S. MIDDLETON, M.A., M.D.,

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THE analysis on which this paper is based was originally prepared for presentation to the Glasgow University Medico-Chirurgical Society, one of my chief objects being to bring before the students the subject of cardiac valvular disease from the dispensary point of view, so as to give them a less unfavourable impression of these diseases than they are apt to derive from the cases seen by them in the hospital wards. The analysis has since been extended, and it has been thought that, though the numerical basis is too narrow for definite generalisations, the statistics and the facts brought out by them are of sufficient interest to be placed on record.

The cases on which this paper is based were seen at the dispensary or out-door department of the Glasgow Royal Infirmary during a period of thirty-four months in the years 1885–89. Cases of cardiac disease without murmur, of anæmia and of chorea with murmur, and of aneurysm of the arch of the aorta have been excluded from consideration, and only those have been brought under review in which a diagnosis of chronic valvular disease was made. Those who are conversant with the amount of work that has to be done at the hospital dispensaries will be aware of the possibility of errors in diagnosis having been made, partly from the necessarily brief time that can be devoted to each case, and partly from the fact that, as many cases are only seen once, there is no opportunity afforded of correcting or modifying the diagnosis. But care has been taken, as far as possible, to exclude all doubtful cases from these statistics. Bearing this in mind, then, I would direct attention to various points in connexion with valvular disease educed from an analysis of these cases.

Frequency.—The total number of cases was 150, which may be taken as certainly not less than one in 40 of all the new cases seen, which seems a large proportion. When we remember the number of cases excluded from review in which the heart was more or less involved, this would indicate a very large proportion of cases in which the condition of the heart has to be reckoned with as part of the disease.

Sex.—Of these cases, 78 were males and 72 females. Rather more males than females seek advice at the dispensary, so that these numbers probably indicate an equal liability to cardiac disease in the two sexes—a statement, however, which will be modified later.

Age.—From an analysis of the ages of the cases it would appear that up to the age of forty females are more liable than males, and it is worthy of note that in each of the first four decades of life the number of females exceeds the number of males. After the age of forty, on the other hand, the males affected greatly outnumber the females, the excess in this case also being observed at each decade. So far, then, as these statistics go, age would seem to have a considerable influence on the incidence of cardiac disease on the two sexes.

A. TABLE OF AGES.

Age.	Males.	Females.	Totals.
1 to 10	1	3	4
11 to 20	6	12	18
21 to 30	15	18	33
31 to 40	9	15	24
	31	48	
41 to 50	25	13	38
51 to 60	13	7	20
61 to 70	9	3	12
71 to 80	0	1	1
	47	24	

[1] A paper read at the Glasgow Medico-Chirurgical Society, Feb. 15th, 1889, and since extended.

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The greater frequency in females during the first four decades is probably to be referred to the fact that females seem to be more liable to rheumatism than males (see below). The increased frequency in males after forty, on the other hand, may with probability be referred to the effects of degenerative changes (partly due to the mode of life as regards various excesses) and of strain from heavy work, these showing themselves in the most marked form in the fifth and sixth decades, when the wear and tear of life may give rise to valvular lesions without the intervention of rheumatism. This view will receive some confirmation when we come to consider the influence of rheumatism and the incidence of the various valvular diseases on the two sexes. The relative infrequency of valvular disease after sixty years of age may reasonably be attributed to death having already claimed many victims.

Causation.—In determining the causation considerable difficulty was frequently encountered, the class of people with whom we are dealing being in general ignorant, and inattentive to the influence of long-antecedent events in their lives. As will be seen from the table, however, in a very large number, 63, a history of rheumatic fever was obtained, thus confirming the view generally entertained as to the influence of this disease in the causation of cardiac affections. Bearing in mind that cardiac disease not unfrequently follows the mildest attacks of rheumatism, direct inquiry elicited the fact that thirty others had been subject to more or less severe so-called rheumatic pains or to

B. TABLE OF CAUSES.

Rheumatic fever in	63 = 42 per cent.	94, or 62·6 per cent.
Rheumatic pains in	30	
Gonorrhœal rheumatism in	1	
No rheumatic history in	56 (or 37·3 per cent.)	
History of strain in	6 (5 aortic).	
,, ,, bronchitis in	3	
,, ,, fright in	2	
,, ,, fits in	3	
,, ,, chorea in	1	

severe growing pains, and that one had had gonorrhœal rheumatism. There is thus a total of 94, or 62·6 per cent., in whom rheumatism might be suspected to be the cause. In 56 cases there was no history of any kind of rheumatic attack, and very few of these could offer any suggestion as to the cause of their disease. Six of them referred their condition to strain or hard work, and there can be little doubt that that is a tolerably fruitful source of cardiac disease, especially aortic, as we shall see. Two blamed a fright, which may be supposed to have given origin to symptoms from a previously latent disease. The same may be said of the cases in which fits were accused. The bronchitic cases are readily explained, the lesion being tricuspid regurgitation. The case attributed to chorea is included in the list, because the chorea dated many years back, and the lesion was mitral stenosis.

With regard to the 63 cases that had suffered from rheumatic fever, it is very noteworthy that there was a marked disproportion between the sexes, there being only 23 males, as against 40 females. Of those, on the other hand, who had a history of rheumatic pains, 17 were males and 13 females, and those without rheumatic history numbered 37 males and 19 females. These figures tend to support the view that rheumatic fever is more common among females than among males.

The average age of 23 males with a history of acute rheumatism was thirty-seven years, of 17 with rheumatic pains forty-one years, and of 37 with no rheumatic history forty-five years; while of the females 40 with a rheumatic history gave an average age of thirty-four years, 13 with a history of rheumatic pains an average of thirty-seven, and 19 without rheumatic history an average of thirty-five. The only point of note in this respect is the difference among the men of the average age of those with and without a rheumatic history.

Incidence of disease on the various valves.—This will be seen from the annexed table. The most outstanding feature of these numbers is the comparative immunity of the valves on the right side of the heart. It is, of course, well known that in extra-uterine life the valves on the right side are extremely rarely primarily attacked by disease; but it is also generally recognised that tricuspid regurgitation is by no means a rare consequence of old-standing bronchitis and of mitral stenosis. Considering the number of cases of chronic bronchitis that present themselves at the dispensary, and the number of mitral lesions above recorded, it is a matter of surprise to me that I have met with so few instances of tricuspid regurgitation, especially as I have been on the look out for that lesion. Of the seven cases seen the three pure cases occurred in association with chronic bronchitis, and the other four in combination with mitral lesions. The one case recorded as probably stenosis of the pulmonary artery was regarded as congenital, and it was supposed that there was in addition patency of the foramen ovale or of the inter-ventricular septum. An account of the case was published in the *Glasgow Medical Journal*, July, 1888. The statistics further show the great preponderance of affections of the mitral valves, there being 80 cases of pure mitral lesion, as against 46 of pure aortic. It is generally believed that the mitral valve suffers most from having to bear the strain of the ventricular systole; but this applies only to cases of rheumatic endocarditis. Of the 80 mitral cases there were 55 with a history of acute rheumatism or of rheumatic pains, while of the 46 aortic only 27 had such a history. The table further indicates a great majority of females affected with mitral disease, the respective numbers being 48 females and 32 males, which may be accounted for by the greater prevalence of rheumatism among the female patients, as indicated above. The large number of cases in which pure mitral stenosis occurred is also worthy of note. The ages of the patients with pure mitral disease are given in the following table,

C. TABLE SHOWING VALVES AFFECTED.

Mitral	Pure stenosis: males 10, females 20 =	30
	Pure incompetency: males 21, females 15 =	36
	Combined stenosis and incompetency: males 1, females 13 =	14
		80
Aortic	Pure stenosis: males 3, females 3 =	6
	Pure incompetency: males 4, females 3 =	7
	Combined stenosis and incompetency: males 27, females 6 =	33
		46
Mixed aortic and mitral lesions: males 9, females 7 =		16
Mixed mitral and tricuspid lesions		4
Tricuspid.—Pure incompetency		3
Pulmonic.—Stenosis (?)		1

D. AGES OF CASES OF PURE MITRAL DISEASE.

Age.	Males.	Females.
1 to 10	0	2
11 to 20	4	10
21 to 30	10	13
31 to 40	2	10
	16	35
41 to 50	10	7
51 to 60	3	5
61 to 70	3	0
71 to 80	0	1
	16	13

which also shows the greater liability to mitral disease that females lie under up to the age of forty, thus accounting for the greater frequency of cardiac disease in females in the first four decades, as already pointed out.

When attention is directed to the cases of pure aortic lesion, the first thing that strikes one is the comparative infrequency of cases of single lesion, as contrasted with the number of cases of single lesion of the mitral valve. Yet the fact that six cases of pure aortic stenosis were observed seems to me to indicate a larger proportion than might have been expected, considering the well-known infrequency of that as a lesion by itself. As was to be anticipated, most of the aortic cases presented the double murmur. The disproportion between the sexes is extremely striking, and is also brought out in the annexed table, which takes account of all the double aortic murmurs met with, whether purely aortic or combined with mitral disease. From this it will be seen that, between the ages of thirty-one and sixty, there were 24 males as against 8 females, a disproportion due, I believe, to the fact that males are so much more liable

E. CASES OF AORTIC DOUBLE MURMUR.

Age.	Males.		Females.	
Under 21	1		0	
21 to 30	2		2	
31 to 40	6		2	
41 to 50	11	24	4	8
51 to 60	7		2	
61 to 70	4		1	

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than females to disorders of the valves arising from strains. This may be inferred from the history of these cases; of the 24 males, 12 had no rheumatic history, 5 had had rheumatic pains, and 7 had had acute rheumatism; while of the 8 females, one had no rheumatic history, 2 had had rheumatic pains, and 5 had had rheumatic fever.

In contrast with the great frequency of valvular disease may be mentioned the fact that during the period under survey only three cases have presented themselves in which pericarditis was suspected, exclusive of cases in which pericardial adhesion might have been present. In one of these there was pericardial effusion along with endocardial mischief, and the case proved fatal a few days after being seen. In two others there was a suspicion of pericardial friction. It is to be supposed that, in the stages of friction and effusion, cases of pericarditis are too ill to undertake the exertion of a visit to the dispensary, those conditions generally coming on in the midst of an acute attack of rheumatism, and not developing out of the indefinite seizures that frequently give origin to valvular disease.

Symptoms.—I do not propose to discuss the well-known symptoms of cardiac disease, but I wish to direct attention to a few points in regard to these. The first is the absence of severe or even of any symptoms in many cases—a fact which was emphasised in that remarkable paper which Sir Andrew Clark read at the Brighton meeting of the British Medical Association.[2] Many of my cases did not spontaneously complain of symptoms suggestive of cardiac disease, but in the great majority direct inquiry elicited a history of some cardiac symptoms or indications at a past date. Giving a much more liberal interpretation to what may be regarded as indications of cardiac affections than was done by Sir Andrew Clark, I find that in only 24 out of the 150 cases could absolutely no history of symptoms be obtained. In these and in many others the valvular mischief was discovered through examination of the heart being practically made a part of the routine to which patients are submitted.

Among the less common conditions suggestive of cardiac origin I would point out such as hæmaturia, of which there were two cases, and enlarged and painful spleen, of which there was one case, these being all regarded as of embolic origin. The only other embolic lesion noted was hemiplegia, of which there were seven cases, who were either suffering from that when seen or had a history of previous seizures. Besides these it may be noted that in one case melæna was a prominent symptom, and in three epistaxis. In one case an aortic lesion was associated with painful cramps affecting both legs and the left arm, which at first I was inclined to suppose might indicate embolism, but further observation tended to that idea being discarded. In three the disease was associated with fits, in one with purpura hæmorrhagica, and in one with herpes zoster.

Prognosis.—The question of prognosis resolves itself into a determination of the duration of the disease. Now, in the class of patients with whom we are dealing there is great difficulty in discovering when the cardiac disease originated, the great majority of them being quite ignorant of the fact that any such disease was present. Some were able to tell that the heart had been said to be affected at the date of some previous illness; but generally reliance had to be put upon the date of a rheumatic attack and the date of origin of symptoms as guides in determining this point, and it was found that the history was more clearly obtained in mitral lesions, and especially stenosis, than in any others, from the frequency with which hæmoptysis occurred as an early symptom. In regard to this relation to rheumatism, however, it must be borne in mind that, perhaps not unfrequently, cardiac valvular lesion develops, not at the time of a rheumatic attack, but some time afterwards. It must also be premised that the cases were but rarely followed up to a termination, so that the actual duration could seldom be determined.

In 41 cases, or 27 per cent., the disease had in all probability lasted five years at least, and in 22 of these for ten years or more—viz., 7 aortic (6 double murmur, 1 pure regurgitation), and 15 mitral (6 stenosis, 8 incompetency, and 1 the combined lesion). These figures tend to confirm the teaching of Dr. Gairdner, that mitral lesion (perhaps especially mitral stenosis) is the form of valvular affection which is most compatible with prolongation of life.

(To be concluded.)

[2] British Medical Journal, Feb. 1887.

ON A CASE OF

UNUNITED FRACTURE OF THE RADIUS SUCCESSFULLY TREATED BY THE GRAFTING OF RABBIT'S BONE.

By A. F. McGILL,

PROFESSOR OF SURGERY IN THE YORKSHIRE COLLEGE, AND SURGEON TO THE LEEDS INFIRMARY.

THE treatment of ununited fracture of one of the bones of the forearm has, as far as I know, always been unsatisfactory. The reason is not difficult to find. In performing the usual operation of resection, it is necessary to remove portions from the end of each fragment, and it is then impossible to get the two portions into apposition. If the radius is broken the ulna prevents apposition, and if the ulna, the radius. To overcome this difficulty it has been proposed to cut down on the unfractured bone and remove a piece corresponding in size to the gap left by the resection. The bones being then wired there seems to be no reason why union should not occur. I have treated one case in this way, but the result was unsatisfactory. When the case which is the subject of this paper came under my care, it occurred to me that it was advisable to follow the line of treatment first suggested by Dr. MacEwen in a case of destruction of the shaft of the humerus from acute necrosis—viz., the building up of new bone by the transplantation of bone fragments. The fragments in my case were taken from a young growing rabbit. The following are the notes taken by Mr. Kellett:—

J. N——, aged twenty, was admitted into the Leeds Infirmary, under the care of Mr. McGill, on March 9th, 1889, suffering from an ununited fracture of the right radius. In February, 1888, he fractured his right forearm; the fracture was compound, the wound being on the radial side. Through the wound the broken ends of the radius protruded. The ulna united perfectly, but the fragments of the radius would not join. Three months after the accident a surgeon exposed the ends of the bone, refreshed them, and wired them together. The wound healed, but the fragments did not unite. On admission, the radius was found to be fractured at the junction of the lower with the middle third. Over this position is the scar of a perfectly healed wound about two inches and a half in length. The two fragments of the radius are absolutely ununited, the utility of the forearm is much impaired, flexion of the fingers and adduction of the thumb being most imperfect. On March 19th, an Esmarch's bandage having been applied, Mr. McGill made an incision two or three inches in length in the situation of the old scar. Having exposed the ends of the bone, he found that there was no sign of union, and that the two fragments were rounded at their extremities and covered by a thick membrane resembling periosteum. This was removed by means of a file, and bone tissue was thus bared. When this part of the operation was complete, an interval of about three-quarters of an inch was left between the fragments. In the meantime a rabbit, six weeks old, had been killed, and small portions, one or two lines in length, had been chiselled from its femur. With these the interval between the fragments was filled up, thirteen pieces being inserted. The bones were not wired together. The skin wound was stitched up tightly with numerous catgut sutures. No drainage-tube was used. Firm pressure was applied by means of salicylic wool and bandages, and the forearm was placed on an anterior splint. The elastic tourniquet was not removed till the dressings were applied. On March 29th, the tenth day after the operation, the wound was dressed for the first time. There was no suppuration and very little discharge; the wound had healed, except a small superficial spot. The wool dressings were continued till April 16th, when there was slight irritation of the skin; they were consequently discontinued. The patient left the hospital on April 27th with the bone firmly united. In August he was shown at the meeting of the British Medical Association, when the injured arm was as useful as the other.

Leeds.

BRISTOL MEDICAL SCHOOL.—The annual dinner will take place at the Montague Hotel on Tuesday, Oct. 29th, F. P. Lansdown, Esq., in the chair.

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CHLORALAMIDE.

BY D. R. PATERSON, M.D., M.R.C.P.

TWENTY YEARS have now passed since Liebreich introduced the hydrate of chloral to the notice of the medical profession as a trustworthy and efficient sleep-producing agent. In that time its fortunes, like those of all new remedies, have fluctuated greatly. From the outset the marked hypnotic power possessed by the new drug, standing out, as it did, in such bold relief, led in an incredibly brief period to its recognition as a remedy of the utmost value. Scarcely, however, had twelve months gone before it became known that chloral exerted a powerful influence on the circulation, and reports of cases presenting alarming symptoms, and not infrequently ending in death, soon rendered imperative the exercise of the utmost caution in its administration. Since that time many substances have striven to displace it; most of them, indeed, do not affect the blood-pressure or heart, but none of them command its somnifacient power. Therapeutists are still in want of a hypnotic which shall at once be efficient and safe, and it is with the hope of achieving this desirable end that Professor von Mering has brought forward the latest claimant for consideration, to which he has given the name of chloralamide. Chloral formamide or chloralamide is a synthetical product derived from chloral anhydride CCl_3CHO, and formamide CHO,OH_2, and has the formula $CCl_3CH <^{OH}_{NHCHO}$. It forms colourless crystals, and is said to be soluble in nine parts of water and in one and a half parts of 96 per cent. alcohol. The taste is mild, slightly bitter, but not astringent, while the aqueous solution which ought to be produced by a temperature not exceeding 140°F. is stable. Neither the alcoholic nor the aqueous solution is altered by the addition of nitrate of silver or weak acids. On the other hand, the caustic alkalies readily decompose it, the alkaline carbonates more slowly. As a consequence, chloralamide cannot be given in alkaline solutions, but may be administered in weak acidulated ones. Experiments have shown that its physiological action is on the higher cerebral centres in the first place, the lower being only slightly affected, and that much later. Kny[1] injected frogs with ¾ gr., which produced after twenty-five to thirty minutes a drowsy state, in which the reflexes were considerably diminished, though not abolished. In the course of two or three days the animals had fully recovered. Doses of 25 to 45 gr. given to rabbits by the stomach induced after an interval of twenty to twenty-five minutes a deep sleep of from ten to twelve hours' duration, from which the animals awoke quite lively. In one instance a rabbit, thirty-five minutes after a dose of 25 gr., lay fast asleep on its side, twitching only on strong irritation, the heart beating powerfully, and the respiration being deep, regular, and twenty-four in the minute.

With the view of testing the efficacy of the new remedy, I have given it in fourteen cases of insomnia, including simple sleeplessness and that resulting from phthisis, heart disease, enteric fever, &c. These trials were all carried out in hospital patients. Each case was watched by the nurse previous to and after the administration, the duration and the character of the sleep being noted, while the patient's statements were compared with these data and checked. The doses ranged from 15 gr. to 45 gr. dissolved in warm water, the addition of a few drops of rectified spirit increasing very materially the solubility, which is hardly as great as the figure given above. I may say here that several observations were made on the temperature, pulse, respiration, and urine, with a negative result. Taking first the results in simple insomnia, we have four cases in which the drug was given, two of them being above sixty years of age. In one instance—an old woman of sixty-four, who had not slept for some time, and used to spend the night sitting up in bed—30 gr. produced on consecutive nights, after an interval of from thirty to forty minutes, a tranquil sleep of eight and nine hours respectively. On both occasions there was some giddiness on awakening, while on the second morning, in addition, she felt sick and remained drowsy during the forenoon. The dose being then reduced to 15 gr., sleep did not result on an average earlier than from half an hour to an hour and a half. It lasted, however, nearly eight hours, and was free from any of the former unpleasant after-effects; in fact, after taking half-a-dozen doses, she stated her appetite was much better than it had been for some time. A man sixty-two years of age, convalescent from an attack of jaundice, and complaining much of resting badly at night, received 30 gr. on several occasions. A sleep of eight hours on an average ensued in from forty to seventy-five minutes after administration. The sleep was unbroken and very sound, and he declared it removed the dull headache from which he had been suffering. Here the drug was used on alternate evenings, and clearly showed its beneficial effect. In a woman aged fifty, 30 gr. doses were followed by from seven to eight hours' sleep, and disappearance of a paroxysmal cough which was very troublesome. After the first dose there was next morning a feeling of sickness, but this, however, was not observed on any subsequent occasion. The fourth case was a man who had been carefully watched, and was absolutely sleepless for some days after his admission to hospital. Doses of 15 gr. to 30 gr. induced from two to four hours' rest on several occasions, and were sufficient to break, as it were, the sleepless habit.

Its influence on the insomnia associated with phthisis I found, on the whole, satisfactory. A night's rest of from six to seven hours frequently resulted from doses varying from 15 gr. to 40 gr. In a girl of eighteen, who had slept but indifferently, 30 gr. induced after thirty-five minutes a nine hours' unbroken sleep, from which she awoke with a clear head and fresh. In two out of the three cases of phthisis in which it was tried there was present, besides moderate insomnia, copious night sweating. The effect in checking this most troublesome and exhausting symptom was marked in both cases. Thus, in a man of forty years of age, who had had profuse night perspiration and indifferent sleep, 30 gr. shortly after his admission gave him the first dry night he had had for some time, besides affording him a fair rest. On the following evening the drug was omitted. He slept very lightly, and was quite wet in the morning. The administration of 40 gr. of chloralamide the evening after gave him an unbroken sleep of nine hours, and he awoke perfectly dry. During the following afternoon he fell asleep for an hour and perspired very much. The efficacy of chloral hydrate in similarly influencing the night sweating of phthisis was pointed out some years ago, I think, by the late Professor Hughes-Bennett. This action is one which has received little or no attention. It is more general than is supposed, and is certainly possessed to a considerable degree by somnifacient agents, and I can fully confirm the statement of Böttrich,[2] that one of the most recent of our hypnotics (sulphonal) is very often an efficient remedy, in doses of from 7 gr. to 10 gr., in checking profuse sweating, whether in phthisis or pyæmia. According to Hagen and Hüfler,[3] chloralamide has in some cases no action on the insomnia of phthisis, while in others it produces considerable general malaise.

The results obtained in two cases of heart disease were encouraging, and would compare favourably with those of any other hypnotic. Doses of thirty grains in a man suffering from aneurysm of the aorta gave fair rest, easing the pain and relieving the cough. There were no disagreeable accompanying effects, the patient bearing the drug well. In a case of emphysema and dilated right heart with orthopnœa 30 gr. had little or no influence; 45 gr. induced slight wandering and a feeling of intoxication, which did not, however, last long. Two nights after 45 gr. were again given, and this time sleep was much more sound, and none of the unpleasant symptoms of the previous evening occurred. Later on 60 gr. were exhibited, producing within twenty minutes a sleep of six hours. Beyond a somnolent tendency during the whole of the day following, no untoward effect was observed. The restlessness and delirium of enteric fever were treated by this drug in two cases. In a strongly built man who had been ill for some time quantities of 30 gr. and 45 gr. produced feelings of sickness and dryness of the mouth on awakening. The amount of sleep obtained, however, was very satisfactory. In a case in an early stage smaller amounts (15 gr. to 30 gr.) materially quieted the delirium and procured a tranquil night. In neither of these two cases was there any influence on the pulse. In a case of Bright's disease where the sleep was seriously

[1] Therapeutische Monatshefte, Heft 8, 1889.

[2] Therapeutische Monatshefte, Heft 3, 1889.

[3] Münchener Medicinische Wochenschrift, No. 30, 1889.

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disturbed by almost constant headache, for which several remedies had been tried, 45 gr. led, after the space of thirty minutes, to a sleep of eight hours and a half—"the best night's rest he had for many a day." The effects were here tested on alternate evenings. After the third dose (30 gr.) giddiness came on, and the patient, getting out of bed, staggered about the ward as if he were drunk. All next day he felt so heavy and "queer" that he declined to take any more of the substance. Insomnia and restlessness resulting from pain were little, if at all, influenced by chloralamide. In two cases—one suffering from disease of the ankle with starting of the foot at night, and the other from dysentery with cramp-like pain in the abdomen,—doses of 45 gr. caused, indeed, sleep, but which an attack of pain readily broke.

From these few observations it would appear that the new hypnotic is not altogether free from some of the disadvantages attending those already in daily use. Doses of 30 gr. and 45 gr. have been followed by giddiness, feeling of sickness, dryness of the mouth, and even slight delirium—symptoms which, though not alarming, are certainly disagreeable, but which seem to be inseparable from the action of almost all our sleep-producing agents. A comparison of the action of chloral with that of the amide shows that the latter is not so rapid, sleep coming on half an hour to an hour after its administration; whereas after chloral it often results in fifteen minutes. This slight disadvantage, however, is more than compensated for by the almost entire absence of action which chloralamide has on the circulation. Thus Kny[4] has shown that, while the introduction of chloral hydrate into the stomach of a rabbit will produce a fall of 50 mm. to 80 mm. in the blood pressure, chloralamide administered similarly or by intravenous injection does not cause more than 17 mm., a figure which may be reached in normal sleep. This makes the drug an invaluable agent where we have to treat sleeplessness resulting from, or co-existent with, cardiac mischief or other diseases where the circulation is in any way affected. In one of the cases cited above—emphysema and dilated right ventricle—as much as 60 gr. were given with good result, and no bad effect on the heart. Hagemann and Strauss[5] cite three cases of valvular disease where doses of 30 gr. induced tranquil sleep without producing any untoward effect on the pulse; while Reichmann[6] has shown by a series of pulse tracings that chloralamide—in contradistinction to chloral hydrate—is without influence on the circulation. This manifest absence of action is explained by Kny on the supposition that the drug is split up slowly by the free alkali of the blood into chloral hydrate and formamide—the depressing effect of the former on the circulation being counterbalanced by the latter, like all bodies of the NH_2 group, stimulating the vascular centre in the medulla and increasing the blood pressure. Sulphonal, likewise, has very little injurious influence on the heart, but Schwalbe[7] and Ewald,[8] amongst others, have shown that it is of little or no value as a hypnotic agent in insomnia resulting from heart disease, the latter reporting that he "had seen little or no success from the use of sulphonal in the sleeplessness of organic cardiac disease, especially in valvular affection, fatty heart, arterio-sclerosis, emphysema, &c." The dose recommended by von Mering is 45 gr., while, in a recent advertisement by an English firm, the quantity given is as much as 60 gr. These amounts, however, are too large to begin with, more especially if the patient is a female or has been ill for some time. Usually 30 gr. to 45 gr. suffice in the case of a man, while 20 gr. to 30 gr. will give satisfactory results in a woman. In experiments carried out by Alt,[9] 60 gr. produced in two strong healthy women severe giddiness, symptoms of intoxication, with great excitement, and in one great nausea and retching. Chloralamide has no action on the digestive organs, and the appetite remains unimpaired. That this drug will be a valuable addition to our therapeutical armamentarium is undoubted. More extensive observation is, however, required to fix its position more definitely. So far as can be judged from the published reports, we are justified in considering that as a hypnotic it has proved itself efficient, but whether equal to chloral remains as yet doubtful; while its freedom from injurious action and the safety with which it can be administered give it a claim which merits our highest consideration.

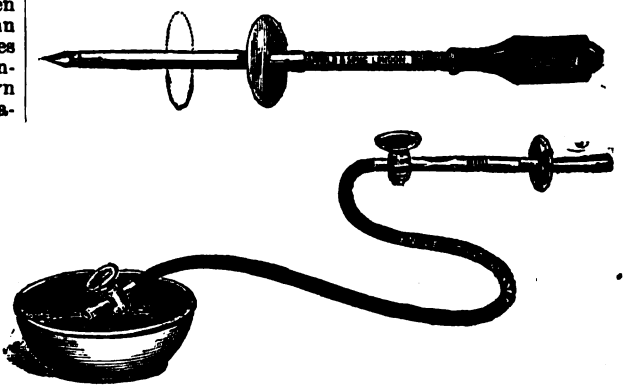
Cardiff.

[4] Loc. cit. [5] Berliner Klinische Wochenschrift, No. 33, 1889.
[6] Deutsche Medicinische Wochenschrift, No. 31, 1889.
[7] Ibid., No. 35, 1888, p. 725.
[8] Berlin. Klin. Wochen., No. 25, 1888, p. 516.
[9] Ibid., No. 36, 1889

AN ANTISEPTIC EVACUATING TROCAR AND CANNULA FOR HEPATIC ABSCESS.

By W. C. BROWN, M.D.

THE surgical treatment of so-called tropical abscess of the liver has until now been confined to the adoption of one of two methods—either to attempt evacuation of the pus by the aspirator, or to cut down on the abscess cavity, lay it freely open, wash it out with an antiseptic and drain. Both methods are faulty in theory and unsatisfactory in result. A cavity in hepatic tissue that has been evacuated by the aspirator cannot heal up without the secretion of more pus in the very act of granulation and contraction, and for one case of hepatic abscess that is successfully treated by this method twenty have to be reaspirated again and again, and the great majority of these have finally to be incised and drained. It may safely be said that when we have a large abscess to deal with, aspiration is utterly useless in itself, and, by the waste of time that it occasions, is, generally speaking, a dangerous procedure. In very small localised abscesses it is probably the best treatment; but these cases are so difficult of diagnosis that they are almost beyond the range of practical surgery; and I find it impossible to endorse the opinion of many surgeons that it does a patient no harm whatever to run an aspirating needle at random here and there through his liver in search of an abscess. Treatment by incision has been more successful and satisfactory, but it also has its drawbacks. One of the principal dangers, and one that has



so far been underrated, is the escape of pus into the peritoneal cavity. A considerable experience of cases of pyæmic hepatitis following dysentery leads me to believe that unless the abscess forms actually on the surface of the liver, there will be no perihepatitis, and consequently no adhesion. Case after case of large abscess of the liver has come to my notice in which there had been no external inflammation whatever, and where the peritoneum was absolutely free. Any incision into liver tissue in instances of this sort must be fraught with the gravest danger. But the most serious complication that surgeons in the tropics have to contend with is the frequency with which the wound becomes septic, in spite of the most careful and repeated washing out of the cavity. The peculiarly absorptive property of hepatic tissue, and the low pyæmic condition of the patient, combine to make this the most fatal complication of an operation which, in itself, is by no means a serious one. With a view to lessen these dangers, and more especially the latter, I have designed an instrument to evacuate the pus antiseptically, and to maintain efficient drainage afterwards until the cavity contracts and closes. Its principal feature is that the cannula continues to act as a drainage-tube, and that by means of a shield in which it slides stiffly it can be shortened daily without removal.

The method of use is as follows:—The existence of pus

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having been demonstrated by an exploring needle, and the skin having been cleansed, the trocar and cannula, after being soaked in a 1 in 2000 solution of perchloride of mercury, are passed into the abscess; the trocar is then slowly withdrawn so as to allow a stream of pus to follow it and fill the cannula. The long indiarubber tube, which has been previously soaked and filled with the same solution, and which has both its stopcocks closed, is then screwed on to the end of the cannula while the pus is flowing. The cannula is then carefully adjusted to its proper length by means of the sliding shield, which is securely fixed to the side of the patient, a piece of gauze soaked in perchloride solution packed round the cannula, and a light dressing applied. The free end of the tube is then fixed into a receptacle containing perchloride solution and placed at a convenient height by the side of the bed. Both stopcocks are now opened and the pus drains freely into the receptacle. The solution in this ought to be changed frequently, care being taken before removing the tube from the solution to close the lower stopcock. A piece of glass is inserted in the nozzle of the tube, so that it can be seen at a glance if the pus is flowing freely or not. If it is not, suction at the end of the tube will generally overcome the resistance which its own syphon action has not sufficient power to remove. As the diameter of the tube is about a quarter of an inch this will rarely occur, and though a tube of this size will occasionally give rise to some discomfort as the bulging of the side lessens and the ribs become closer, in the great majority of cases it is tolerated without any difficulty. The flow through the tube does not, of course, go on continually, but the syphon action keeps an exhaustive pressure on the cavity, which is sufficient to keep it from being distended with pus, and has a beneficial action in promoting its granulation and contraction. As the cavity lessens in size the cannula is daily shortened in its shield without removal, and the abscess is thus kept quite aseptic until the cannula can be removed altogether. (See preceding figures.)

Messrs. Arnold and Sons, of West Smithfield, London, have taken great pains in the construction of the instrument, and have succeeded in laying before the profession an apparatus which, it is hoped, by its simplicity and effectiveness, will much decrease the difficulties and dangers of an operation for hepatic abscess.

Penang.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. MARY'S HOSPITAL.

CASES UNDER THE CARE OF DR. BRAXTON HICKS.

THE first of these cases is one in which the excessive loss of blood at the periods was due to a definite local cause, "a localised granulation growth," the origin of which was obscure. That the loss of blood which had been going on was excessive was evidenced by the anæmic condition of the woman when admitted. Without actual inspection of the interior of the uterus after dilatation of the cervix a definite diagnosis could not have been made, in the absence of any history pointing to the occurrence of an abortion; whilst the dilatation gave access to, and permitted removal of, the morbid condition on which the hæmorrhage depended.

CASE 1. *Severe uterine hæmorrhage; removal of granulation growth; cystitis; recovery.*—Mrs. ——, aged forty-six (?), was very anæmic when admitted to hospital, owing to repeated and severe uterine hæmorrhage, mostly at the monthly period. The uterus was found to be bulky, but the os not patent. The os and cervix were dilated by sponge tent, and there was found a rough, granulated surface raised about a quarter of an inch from the surface on the anterior wall, measuring about an inch and a half in diameter. This was scraped by the curette down to the natural level by Dr. M. Handfield Jones, after which perchloride of iron was applied to the surface. There was only slight hæmorrhage during the operation, and none after. Some slight tenderness was felt over the region of the uterus, but in a few days this passed off. But about this time an attack of cystitis came on, and the pain in passing urine produced paroxysms of unusually acute nervous distress, she being of a highly sensitive temperament, which defied very large doses of opiates and other anodynes. After trials of all kinds of sedatives, Dr. Hicks was anxious to have the bladder explored by the cystoscope to see if possibly any extension of disease from the uterus might have taken place, or if an abscess had broken into the bladder. This was carried out by Mr. Page, but nothing could be detected indicating disease or abscess. The peculiar condition found inside the uterus resembled much that of epithelioma, but by the time of this exploration of the bladder, the size of the uterus had become nearly normal, nor was any swelling detected between it and the bladder. With all this negative evidence, Dr. Hicks considered that probably an excoriated condition of the neck of the bladder and the urethra was the cause of the pain. He therefore applied perchloride of iron to the canal, and, after two or three minutes, washed the bladder and urethra out with plenty of water (thus removing the application). Some little distress was felt, but the severity of the pains and the nervous paroxysms were gone, and she continued quickly to improve, leaving the hospital at the end of two months. After the use of the curette there was no sign of blood from the uterus, not even the ordinary period. The granulated surface removed by the curette resembled much that in which an early ovum has been implanted; but there had been no sign of pregnancy, though that would not be proof that an early abortion had not occurred.

Dr. Braxton Hicks[1] has frequently drawn the attention of the profession to the intermittent contractions of the uterus during pregnancy, and the important aid which the observation of these contractions may give in the diagnosis of abdominal tumours, especially those accompanied with amenorrhœa. The short account of Case 2 gives confirmation to the idea that these normal intermittent contractions (coming on commonly every five to twenty minutes) become irregular in character when the patient suffers from chorea; but the contractions do not appear to be more violent.

CASE 2. *Chorea, with irregular action of the normal intermittent contraction of pregnancy.*—A young woman was admitted into the obstetric ward, supposed to be pregnant, suffering from a marked attack of chorea. It appears she had had an attack during childhood, but this had long since passed off. She had menstruated regularly till about four months before admission, and on examining the uterus Mr. A. Hanson, the obstetric officer at that time, found that organ extending nearly to the umbilicus, but soft and natural. On the next day, on examining the abdomen, a firm, hard, pyriform mass was found on the left of the umbilicus, rising rather above it. There was little to be felt of anything like the condition of the day before, but the pyriform mass was prominently to be felt beneath the parietes in the position stated. The next time she was examined, three days afterwards, this firm pyriform mass had vanished and the uterus was of normal shape, but alternating in density during the examination. A few days after this the same variation of density was found, but the form of the uterus changed, one side becoming firm and prominent, while the other was soft and smaller; then the prominent portion relaxed and the other portion became firm. She went out of the hospital, and on her return in a fortnight the uterus was found to have somewhat increased in size, but the irregular action continued, though not to the marked extent as on Dr. Braxton Hicks's first visit in March, 1889.

NORTH LONDON CONSUMPTION HOSPITAL.

A CASE OF PHTHISIS IN WHICH THE FATAL RESULT WAS DUE TO PULMONARY EMBOLISM; REMARKS.

(Under the care of Dr. EVERSHED.)

THIS case is interesting as one in which pulmonary embolism probably caused death by asphyxia. It is a question in the majority of cases of this character whether

[1] THE LANCET, vol. i., 1888, pp. 65, 113.

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the embolism has proved fatal from syncope or from asphyxia; the symptoms here were more consistent with the latter view, and the extensive disease of the left lung made it probable that for some time it had been almost useless for respiratory purposes. As is well known, a portion of thrombus detached from a vein of the lower extremities is the commonest cause of pulmonary embolism. The conditions favouring the formation of such blood clotting were present in this patient, and the remains of a clot found in the right femoral vein. For the notes of the following case we are indebted to Mr. Moriarty O'Brien, late house physician:—

M. V—— was admitted in July, 1887. She presented the usual appearance of a person suffering from phthisis in its early stages. The account she gave of her family history was very indefinite—that is to say, it was impossible to fix an hereditary taint. She said she was born in London, but had lived on the Continent for the greater part of her life, travelling about, her husband (an Italian) being a valet. Her last abode was Paris, and it was thence she came to the hospital. She had been in good health until twelve months previously to her admission. Her illness began with a slight cold, with cough, &c. The doctor whom she saw in Paris told her that she was suffering from bronchitis. She did not, however, improve under treatment, but gradually got worse, and eventually was admitted into the English hospital in Paris. During her illness she had cough all the time—often very troublesome at night. She had gradually lost flesh, suffered from increasing breathlessness, night sweats, &c. She had always been able to take her food, and never had diarrhœa. Catamenia had been regular. On admission, she was tall, well formed, and stately in her carriage. Her voice seemed natural, but there was occasional huskiness. Her complexion was dark, eyes black and brilliant, skin on exposed parts sallow and bronzed; where covered by clothing, the skin was very fair, and when grasped had a peculiar limp and wet feel. The extremities of the fingers and toes were clubbed, and the lips had a bluish appearance. She became quickly breathless when moving about or exerting herself. Pulse was moderately full, soft, and rapid. On examination of the chest it was found well formed; there was, however, distinct flattening under the clavicles, especially on the left side. There was no expansive movement, the left side seemed almost fixed on causing the patient to inspire deeply; this want of movement was also to be felt; and while the hands were on the chest an increased fremitus was found on the left side. Comparing the percussion notes, a decidedly duller sound was elicited over the left side, and a *bruit de pot fêlé* was heard in the second left interspace. On auscultating, cavernous breathing, with large bubbling râles and pectoriloquy were found over the left apex, with fine crepitations in other parts of this side; the right gave exaggerated breath sounds nearly all over. Nothing abnormal was noticed about the heart sounds. The temperature rose to 102·4° in the evening. The urine had a specific gravity of 1010; there was no albumen. A simple acid mixture was prescribed; the sweats were checked with zinc and belladonna pills, and the temperature reduced with antifebrin.

Under the above treatment, with occasional mild counter-irritation, the patient progressed satisfactorily until the seventh week. There were some slight variations in the weight, but a steady increase on the whole. During the seventh week of her stay there had been some soreness of the throat, with hoarseness and increase of the fever. The parts were seen to be congested. The use of an astringent gargle relieved this, and she recovered her previous good condition, for during the subsequent week—viz., the eighth—she gained two pounds and a half in weight. Early in the following week—the ninth—which was the last week of her stay, she complained of increased dyspnœa. This was aggravated at night. Under the influence of large warm poultices it abated somewhat. Nothing was found in the chest to account for the increased difficulty of breathing. On the following morning the dyspnœa was still marked, and she became suddenly very much worse. She was gasping for breath. No obstruction could be detected in the throat, and air seemed to enter freely. Stimulants were quickly administered, but without result. Within seven minutes from the time she was first seen she was dead.

At the necropsy, made twenty-seven hours after death, on opening the chest the right lung was found non-adherent, and, except for a few tubercles at the apex, seemed free from disease; it was paler than usual. The left lung was adherent all over; it was detached with difficulty from the side. When examined it was found solid and full of tubercles in the lower lobe and simply a multilocular cavity to represent the upper, the tubes containing purulent fluid wherever they remained. The heart was soft and flabby, and, as usual, slightly covered with a soft fat. On opening it, clots were found in all the cavities; the right side was full of a dark clot, which extended to the bifurcation of the pulmonary artery and along the right branch of that vessel, completely blocking it. On breaking through this soft clot a long, branching, and firm worm-shaped clot was found passing along the pulmonary vessel.

Remarks by Mr. O'BRIEN.—Here, then, was the cause of death. The plug existed in the only sound lung. Hence when the vessel was completely blocked death was almost instantaneous. The occurrence of death from this cause in cases of phthisis is not common, though cases have been reported. In this case I believe the clot came from the veins in the right leg, as on opening up the inferior cava some small firm masses were found, and these were also found in the femoral vein.

LINCOLN COUNTY HOSPITAL.

CASE OF EPITHELIOMA OVER UMBILICAL HERNIA; REMOVAL; RECOVERY; REMARKS.

(Under the care of Mr. CANT.)

MALIGNANT GROWTH of the umbilicus, or in its neighbourhood, is somewhat rare, but has been met with both as a primary and secondary affection. When epithelioma affects this part, it usually does so as a primary growth, spreading backwards and rendering it necessary to open the peritoneal cavity in order to thoroughly remove the disease. Thus Desprès[1] found it necessary to remove a part of the peritoneum and subjacent omentum which was invaded in the case of a patient aged sixty-five. Kupper collected eight cases of malignant growth of the umbilicus,[2] and Wulckow[3] and Nélaton[4] have drawn attention to the occasional presence of a scirrhous growth secondary to malignant disease within the abdomen. Nélaton describes this form of growth as frequently resembling that of a collar-stud, presenting expansions externally and on the peritoneal surface. In the following successful case it is probable that the disease resulted in consequence of the irritation of the truss. For the following account we are indebted to Mr. W. H. B. Brook, house surgeon.

H. B——, aged fifty-eight, a widow, was admitted on July 8th, 1889, with umbilical hernia of twenty years' standing, for which she has always worn a truss. She has never had any trouble with it until five months ago, when it became ulcerated. On admission, the patient presented a large flaccid umbilical hernia 9 in. in diameter and pendulous, the tissues over it being extremely thin except where the ulceration was. A little to the right of its centre was a foul cancerous ulcer, 5 in. × 4½ in., oval, with an unhealthy and nodular surface, with everted indurated edges and a hard base. No enlargement of the lumbar or inguinal glands could be detected. On July 17th the new growth was completely removed by a circular incision, half an inch from its margin, through the whole thickness of the hernial sac, commencing at its lower edge. In order to expose as little of the intestines as possible sutures of carbolised silk were put in as the incision was made. The omentum was firmly adherent to, and formed part of, the tumour. The adhesions were ligatured with catgut and divided, a very considerable portion of omentum being removed. The wound, dressed with carbolic gauze under the spray, healed rapidly, leaving only a lined scar, and there was not any material rise of temperature; but the skin over the hernia sloughed a little at the side in consequence of the irritation of the gauze, though this soon healed when dressed with salicylic wool. The patient was discharged on Aug. 26th, there being no return of the growth.

The above case seems interesting from the fact that so large a portion of the abdominal parietes and omentum could be removed under antiseptic precautions with so little reaction, and also the importance of stitching up the wound in such cases, as the tumour is removed, so preventing the escape and exposure of the intestines.

[1] Annals de la Soc. de Chir.
[2] Med. Record, 1876, vol. ii., p. 64. [3] Ibid.
[4] Med. Times, 1861, vol. i., p 67.

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Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Presidential Address.—Acute Lead Poisoning.

THE first ordinary meeting of this Society for the present session was held in the new rooms at No. 20, Hanover-square, the President (Sir Edward Sieveking) being in the chair.

The PRESIDENT delivered a short inaugural address, congratulating the Fellows on taking possession of the new premises. He gave some details of the early days of the Society, and traced its history from its foundation in 1805 until the present time. As evidence of the administrative ability of its founders, he instanced the fact that the code of laws they drew up for its management existed practically unaltered at the present time. The first meetings were held in Verulam-buildings, Gray's-inn, and the Society subsequently found a home in three different houses in Lincoln's-inn-fields, moving in 1834 to Berners-street; the first meeting took place there in 1835 and the last on June 11th of the present year. After having referred to the incorporation of the Society by Royal Charter, and to the institution of the Marshall Hall prize, he proceeded to allude to the scheme which had been mooted to amalgamate the various medical societies into one Academy of Medicine. Though he was unable to propose any practical way of bringing this about, yet he thought that there were many questions of a scientific character, to help in the solution of which the various societies might with advantage co-operate.

A vote of thanks was proposed by Dr. Barnes, seconded by Sir Spencer Wells, and carried *nem. con.*

A paper by Dr. THOMAS OLIVER of Newcastle was then read on the Analytical and Clinical Examination of Lead Poisoning in its Acute Manifestations. The author showed the prevalence of poisoning by lead at Newcastle-upon-Tyne, the home of the lead trade. It was more common in women than in men. Of 135 patients admitted into the Newcastle Infirmary, eight died of acute manifestations; of these, five were females. A rapidly increasing anæmia was one of the earliest symptoms, and it was followed by colic, headache, vomiting, and diplopia or defective vision. In a few days the patient might become convulsed, comatose, and die. The illness might be so rapid that no alterations of the viscera could be found after death, other than a hydræmic condition of the brain. The author discussed the cause of the anæmia in lead poisoning, of the defective vision, and of the brain symptoms, and gave the results of analysis of the urine. Though the kidneys were contracted in nearly all chronic cases, gout was practically unknown among the lead workers in Newcastle-upon-Tyne.—Dr. STEPHEN MACKENZIE thought that the experience of most London physicians would correspond with that of Dr. Oliver. At the London Hospital a large number of cases of lead poisoning were treated. Had Dr. Oliver worked out the ratio of men and women affected to the total number employed? Mr. Corner, the medical officer of health for Poplar, had read a paper at the Hunterian Society, giving a description of an attack of acute lead poisoning similar to that described by Dr. Oliver. He had found that the attacks were more frequent in the winter than in the summer, and persons recently employed were more liable. The predisposition not only affected the individual, but occurred in families. The attack in many cases resembled poisoning due to other agents—sometimes it was like alcoholic poisoning. He related the case of a man who had been only a short time employed; when brought to the hospital he was like a drunken man, giving facetious answers; he was then attacked with convulsions, and was found to have double optic neuritis, but under treatment he made a satisfactory recovery. He had seen other cases which ended fatally, the convulsions being followed by coma and death. No albuminuria was present, and at the post-mortem examination no condition was discoverable showing the cause of death, but Mr. Tidy had demonstrated lead in appreciable though small amounts in various organs of the body. As to early symptoms, he thought anæmia was one of the first, and after that vomiting. He had seen also many cases of optic neuritis in which the patients did not complain of defect of sight; other cases had neuro-retinitis. In London it was frequently seen associated with gout. He had seen an attack of acute gout develop in a patient taking lead medicinally. A question of medico-legal importance was how long the lead line lasted after discontinuance of the drug. He related a case in which a patient had been using a hair-wash and developed double optic neuritis, but there was no lead line on his gums. Dr. Gowers had never seen the line disappear in less than a year, but he himself had heard of it going in a shorter time than that.—Dr. ANGEL MONEY inquired into the association of phthisis with lead poisoning; lead seemed to increase the gravity of the prognosis. Women who worked in lead factories aborted frequently, but the products of the abortion were often the subjects of congenital syphilis. He had found that syphilis and lead poisoning together made a combination difficult to treat.—Dr. BUZZARD had had no opportunity of seeing cases of acute lead poisoning. In chronic lead poisoning one got a considerable number of symptoms referable to intracranial lesion. Had Dr. Oliver met with affection of cranial nerves in acute cases? He had known a man with wrist drop to be seized with convulsions, and these to be followed by total paralysis of one oculo-motor nerve; these nerves were usually spared in lead poisoning. He referred to two cases of paralysis of external ocular muscles, but had never heard of a case in which the whole third nerve was paralysed.—Sir JOSEPH FAYRER related a case he had seen in Calcutta, in which a persistent snuff-taker had poisoned himself by the snuff becoming impregnated with the lead in which it was packed.—Dr. FLETCHER LITTLE asked if sulphuric acid lemonade was employed in the works in the north. He had found that it had a most satisfactory effect in preventing the disease. He related an instance in which the vegetable acid contained in water collected from a peat soil acted on the lead pipes conveying it, and had produced several cases of poisoning.—Dr. BARNES remarked on the frequency of abortion happening in those who worked in lead. French observers found that those who lived at home became contaminated by their husbands and aborted. The influence was either exerted on the ovum as in syphilis, or there was direct contamination from the clothes &c. Lead showed a greater predilection for women during the period of active menstrual life.—Dr. OLIVER, in reply, said that the last two cases he observed died in the summer. He agreed that anæmia was one of the first symptoms, and that vomiting occurred earlier than colic. He had seen the blue line disappear from the gums in three or four months. He had not been able to observe any relation between lead and phthisis. A case related by a French physician, of an autopsy on a child whose mother was a worker in lead, bore out the idea that some of these cases were syphilitic, for an intercellular cirrhosis of the liver was found. He had not observed affection of the cranial nerves, though transient diplopia was seen in one case. He thought the poisoning not due directly to the lead, which was usually found in small quantities, but to some proteid material. The lead acted on the blood-making organs, the liver, spleen, and bones, and produced a toxæmia—a true blood poisoning. As to prophylaxis, the difficulty was to make the people follow the regulations laid down, for they would not take the lemonade provided, nor would they wear the respirators or suits of clothes. A free breakfast had materially diminished the cases of poisoning in some of the works. The amount of uric acid secreted was much in excess of the normal, and every now and then analysis showed that there was an explosive elimination of lead; on the days on which this occurred the uric acid fell in quantity. The age at which women were most frequently poisoned was between eighteen and twenty-three; the men, as a rule, were not affected till later.

MEDICAL SOCIETY OF LONDON.

The President's Inaugural Address.—Non-tubercular and Non-cardiac Hæmoptysis of Elderly Persons.

THE first meeting of this Society for the present session took place on Oct. 21st.

The chair was taken by the President (Dr. THEODORE WILLIAMS), who delivered a short inaugural address. He commenced by expressing a hope that the Fellows of the Society would enter on the work of the 117th session with an earnest wish to attempt, and a strong determination to

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achieve, the solution of some of those numerous problems in medicine and surgery which could assuredly be solved by requisite skill and perseverance on the part of the investigator. He next referred to the satisfactory condition of the Society both as regards membership and finances, and then proceeded to review the papers that had been read during the term of his presidency. Great progress had been made with the library, which was now in working order, and it was hoped that Fellows in the future would use it more freely. The President then alluded to the losses that had been sustained by death, paying a fitting tribute to the memory of each of the deceased Fellows. To conduct the affairs of such a Society, which holds weekly meetings, to secure papers of the high standard demanded, to regulate the supply and prevent deficiency at one period of the session and congestion at another, to enlarge and enrich the discussions by inviting those most learned and experienced to attend and to take part in them; to keep in harmonious working the body corporate, and, above all, to maintain the honour and renown of the Society—these were the aims of the President and secretaries, and in their arduous duties they trusted to receive support from the Fellows at large. He appealed to the younger Fellows especially, in whose hands was the future; they might see the day when the Society, joining with other medical societies, would form an Academy of Medicine, furnished with ample powers and supplied with funds to effectually investigate every form of disease and every means of arresting and of curing it. They might see the day when a rising democracy, whose education had been touched with the leaven of the natural sciences, had learnt to distinguish between the clamour of noisy sentimentalism and the conclusions of science, and to value at their true worth all measures which prevented and destroyed disease, and rendered more healthy and more vigorous the English race. They might see the installation of the Ministry of Health, presided over by a distinguished member of the medical profession with Cabinet rank, who, supported by a now enlightened public opinion, would propose and carry through both Houses of the Legislature measures of preventive medicine, sanctioned by all branches of the medical profession. As old men they might even hope to see the result of all this in the cessation of some forms of disease and in the diminution of others, and then in their turn give place to a race of Fellows of the Medical Society, far more vigorous in mind and body, who would meet together to discuss typhoid fever, small-pox, scarlatina, and hydrophobia with the same historical interest with which we at the present day discussed the plague, the black death, and the sweating sickness. Finally, appealing to the Fellows, Dr. Williams said: "You will do well to remember that the council and secretaries are willing and, I trust, efficient, instruments to carry out your decrees, but that the motive force of the Society must come from yourselves. The life of a society is the life of its fellows co-operating for a common purpose, and its activity or apathy depends on their individual exertions. To you belong the glorious traditions of the Medical Society of London; to you falls the heritage of Lettsom, of Fothergill, and of the immortal Jenner. Show yourselves worthy of these, and leave behind you an example which in turn may inspire future generations."

A vote of thanks having been proposed by Dr. Quain, seconded by Sir Joseph Fayrer, and carried by acclamation,

Sir ANDREW CLARK proceeded to read a paper on the Non-tubercular and Non-cardiac Hæmoptysis of Elderly Persons, which appears in full in another part of our present issue.—Dr. ANGEL MONEY asked if the cases differed in any way from those of arterial degeneration associated with absence of elastic tissue in the lungs. Were they more than cases of emphysema associated with arterial degeneration? Or were they cases of arterio-capillary sclerosis affecting the capillaries of the lung only, and not the rest of the arteries of the body? He was inclined to regard the affection as a part of the general process of arterial degeneration occurring in Bright's disease.—Dr. PERCY KIDD had seen cases of this kind occurring in association with general arterio-sclerosis, granular kidney, or gout. It followed from general physiological laws that slight rises of pressure in the systemic arteries were speedily felt in the pulmonary system. Might not this determine the early local disease in the lung?—Dr. QUAIN was very familiar with such cases, which as a rule did well by removing congestion by calomel, and by forbidding the application of ice to the chest, which latter he had never seen do anything but mischief.—Dr. GILBART SMITH was not familiar with the kind of case described. He had seen instances in which there had been multiple hæmorrhages from various organs, but he had never met with an instance of bleeding from the lungs alone.—Dr. ALLCHIN wondered why the hæmorrhage had been so satisfactorily controlled by treatment; if it were due to progressive degeneration, he thought it would certainly have recurred.—Dr. EWART was inclined to regard the affection as a functional one which occurred only with plethoric emphysema.—The PRESIDENT said that attention had been paid to the state of the blood-vessels, but not to the condition of the blood itself. Might not some of these cases be due to hæmophilia?—Sir ANDREW CLARK, in reply, said he could not regard the disease as an arterio-sclerosis, which was a continuous change throughout the bloodvessels, whereas those he had described were discontinuous; in arterio-sclerosis, again, the change was a fibroid one, whereas in his cases it was nuclear. It might be the form of arterial degeneration which accompanied emphysema, but he thought not; for emphysema was common, but hæmorrhage was rare. Nor did he think it was the change associated with Bright's disease, for no structural change could be found in the kidneys. He thought we should beware of regarding clinical medicine as altogether conterminous with pathology; we should recognise and preserve carefully "clinical individualities." If it could be proved that this hæmorrhage was of a distinct kind, then that was a clinical individuality, and would lead to a different treatment. As to why they did not recur, the patients were usually addicted to over-feeding, imperfect exercise, and there was inadequate evacuation of the excreta; when the hæmorrhage occurred, they became frightened and listened attentively to religious physiological counsel, and after this they walked in the ways of physiological righteousness and did not err in those directions again. The changes found in the blood-vessels of the lungs looked exactly like the changes found in the articulations themselves. He was doubtful (unless in extreme cases of mitral stenosis) whether mere pressure could burst the healthy pulmonary bloodvessels; vascular disintegration must be the initial change. He did not think that there was any suspicion of the hæmorrhagic diathesis. With regard to its difference from endo-arteritis, he admitted that the question was a poser; but though there might be the closest resemblance in structural characters, there might yet be the widest difference in clinical signification. Many different maladies might find common structural expressions.

OPHTHALMOLOGICAL SOCIETY.

Presidential Address.—Pathology of Trachoma.—Keratitis from Paralysis of Fifth Nerve.

THE first ordinary meeting of this Society for the present session was held on Oct. 17th, Dr. Hughlings Jackson, President, being in the chair.

Dr. JACKSON delivered a presidential address, which will be found in another part of our impression.

A vote of thanks having been unanimously accorded to Dr. Hughlings Jackson for his address,

A paper was read by Dr. BRAILEY for Dr. THOMAS REID of Glasgow on the Pathology of Trachoma and the Relation of this Condition to the other Forms of Conjunctival Inflammation. The author regarded the occurrence of groups of lymphoid cells at varying depths in the sub-epithelial layer as the essential part of trachoma. These might be ill defined (lymph heaps) or more distinctly bounded (lymph follicles), though never possessing a perfectly defined limiting capsule. Their lymphoid elements were pervaded and supported by a very delicate stroma. Generally there was some infiltration of lymphoid cells around them which might even extend from one group to the next, and so on. Their origin was not a matter of absolute certainty, but the author was inclined, with Michel, to regard them as the dilated ends of the lymphatics of the conjunctiva. These lymphoid groups led to changes in the epithelial layer, the deeper stratum of which might become vacuolated by œdema, so that the individual cells were often extended into a stellate form. Later, many of the cells might become distended and their nuclei pressed to one side, so that the characteristic appearance of goblet cells was presented. These might discharge their contents, leaving their walls standing and their nuclei

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attached to their floor, so that, after the throwing off of the condensed superficial epithelial layer, a matter of not uncommon occurrence, the remains of the goblet cells constituted a series of irregular papilliform elevations characteristic of true forms of dry catarrh. Another important change, the development of mucous follicles, might take place in connexion with the goblet cells. When the lymphoid groups, instead of being absorbed, had increased considerably in size, each one, with its covering of altered epithelium, or a small group of them, was apt to constitute a marked elevation of the conjunctiva, separated on each side from its neighbours by a deep depression. The layer of goblet cells occupying these depressions was frequently folded in so as to form a small pouch, which might be much enlarged, so as to constitute a rounded mucous follicle which communicated with a short duct with the conjunctival surface. As above described, these mucous follicles were usually developed between the lymph follicles; but occasionally one and even several small mucous follicles could be seen occupying the centre of a single lymph follicle. Though usually flask-like, they were sometimes more tubular in form, presumably before the discharge of their individual cells, and the consequent accumulation of their contents. Though the lymph heaps or follicles might disappear by absorption, presumably by escape into the lymphatics, they perhaps more often discharged themselves externally by thinning and destruction of the overlying epithelium. There was always to be noted a tendency to softening and degeneration of their central part, as indicated by less definite structure and more feeble capacity for staining. Finally they might, instead of disappearing, become invaded by bloodvessels, and gradually converted into a dense connective tissue, which, situated in the ridge-like or papilliform elevations above alluded to, formed the grey gristly granulations characteristic of the advanced stages of severe trachoma. Careful examinations for bacilli had led to negative results, though the author was disposed to regard the implication of the cornea as a secondary infective process. In follicular conjunctivitis the author found similar lymphoid groups and mucous follicles; also he had determined, by microscopical examinations, that the stage of grey gristly granulations might be reached in the later stages; consequently, he regarded the two affections as essentially one, though he recognised that the vast majority of cases of so-called follicular conjunctivitis might be distinguished clinically from trachoma in that they did not tend to the development of the grey gristly cicatricial tissue. In some advanced cases of purulent ophthalmia he had found lymph follicles, and also in some cases of apparently simple long-standing conjunctival hyperæmia. The essence of purulent and catarrhal conjunctivitis, and also of conjunctival hyperæmia, appeared to be a vascular congestion which might lead to a secondary lymphatic congestion, and the consequent formation of lymph heaps and follicles, whereas trachoma and follicular conjunctivitis were from the outset essentially affections of the lymph follicles. This would account for the occurrence of mixed forms, as in Egyptian ophthalmia, and for the occasional occurrence of one-sided trachoma as a sequence to long-standing conjunctivitis of other forms. In conclusion, the author did not connect the lymph follicles or mucous glands with any of those glandular structures which were rarely found in the normal conjunctiva.—The paper was illustrated by microscopic preparations in the forms of photographs and magic-lantern slides.

The SECRETARY read, for Mr. W. E. CANT, notes of a case of Keratitis from Paralysis of the Fifth Nerve. The patient, a lad aged sixteen, attended at the British Ophthalmic Hospital, Jerusalem, on July 17th, 1888, with complete paralysis of the left fifth nerve. The left eye showed some general injection, and the cornea was diffusely hazy. A history was obtained of an injury by a reaping hook two or three weeks previously, and a doctor who saw the lad two days after the blow had been inflicted found him in a semi-conscious state. There was a small penetrating wound of the squamous portion of the left temporal bone, about an inch above the insertion of the auricle; into this wound a probe could be passed to a depth of rather more than one inch. When seen again on July 22nd, the left cornea was quite opaque, of a milky white colour; there was much general congestion of the eye. He was admitted to the hospital. During the next three weeks the condition of the left cornea became rather worse, and marginal ulceration occurred. The paralysis of the fifth nerve remained complete. The patient then left the hospital, and was not seen again for four months. When he returned the left cornea had partially recovered, but was still generally hazy. The function of the fifth nerve, both muscular and sensory branches, had been regained, but to only a limited degree. Mr. Cant thought the case had been one of direct injury to the whole fifth nerve within the skull, between the brain and the Gasserian ganglion, or at the latter.

The following patients and card specimens were exhibited:—

Mr. LANG: (1) Congenital Coloboma of Iris, with Notch in Lens; (2) Two Cases of Congenital Coloboma of Iris and Choroid; (3) Cystic Formation in Coloboma of Iris.

Mr. QUARRY SILCOCK: (1) Exostosis of Frontal Sinus; (2) Double Proptosis (?) modified Graves's Disease; (3) Probable Sarcomatous Infiltration of Tenon's Capsule.

Dr. ABERCROMBIE and Mr. MARCUS GUNN: A Case of Exophthalmos in a Child with Audible Intracranial Bruit.

Reviews and Notices of Books.

Medical Handbook of Life Assurance. By J. E. POLLOCK, M.D., F.R.C.P., and JAMES CHISHOLM. Pp. 216. London: Cassell and Co. 1889.

THIS book possesses many claims for serious consideration. It is the combined work of a physician who represents three London offices, and of an actuary who has already attracted attention by his writings upon matters connected with the assessment of extra risks. The authors believe that the attainment of greater uniformity of action by assurance companies is much to be desired. Dr. Pollock's views may be taken to represent the practice of the three offices with which he is connected, and they have, presumably, received the approval of his colleague from the actuarial standpoint. Although, according to the title-page, the book is intended for the use of "Medical and other Officers of Companies," the preface widens the scope to include the boards; and later, one chapter at least, that on claims, appears to be addressed mainly to the general practitioner, as it indicates the necessity of care and accuracy in signing death certificates. With regard to the decisions of boards, the authors urge strongly that there should be something like an agreement as to the terms on which lives requiring an addition to the premium should be received. It is of course notorious that, in the struggle for new business, questions of expediency frequently weigh against the report of the medical examiners; but it is equally well known that sometimes an undue timidity of action leads to surprising results, individuals being promptly rejected by one office and accepted with but a moderate addition to the premium by another. Whether such differences are to be attributed to the medical examiners, to the medical advisers, the actuaries, or the board, must always remain a problem. All of these, with the exception perhaps of the first group, have "to appreciate and apply the money value of risks which vary from the healthy standard," hence it must be extremely difficult to attain uniformity of results. Apart, however, from the lack of certainty which is inevitable when proposals pass through so many hands, there can be no doubt that the opinion of the profession has scarcely yet been crystallised sufficiently upon debateable points; indeed, the question of additions to the premium seems still to be in its infancy. Upon prognosis opinions may be very dogmatic, but actuaries demand something more; they look for facts and figures, and in many instances these are still to seek. This the authors distinctly realise, and as cases must frequently arise which cannot be dealt with according to any definite rules, they have collected a hundred typical cases from the practice of certain *unnamed* offices to show how they have been dealt with, and the list has considerable value in indicating both that large extra

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premiums may be charged, and also are not unfrequently paid. Broadly, it may be stated that, according to the examples here given, the rating appears to be very much on the side of safety. It would be most interesting, however, to know at some future date the further history of these cases. As it stands at present, this abstract would seem to show that no case can be too bad for consideration, and for its assessment at some price; it may tend to make medical examiners hesitate to recommend that a proposal should be declined, but it is scarcely likely to change the practice of those familiar with the intricacies of extra rating.

The book opens with three chapters respectively devoted to an explanation of the nature of life assurance, of the duties of the chief medical adviser, and of the medical examiner, and these are followed by the more purely medical questions connected with the method of dealing with the various deviations from the healthy standard. It is here that many practitioners will find many useful hints. The authors guard themselves carefully against the risk of becoming too diffuse; bearing in mind that the book is intended as a handbook for occasional reference upon knotty points, they preserve a dignified brevity which presents answers to most questions, while it does not trouble with useless information. They assume that the medical men into whose hands the book may fall are already fully acquainted with the purely technical branch of medicine, and merely require information upon the importance to be attached to abnormal conditions of the heart, lungs, &c., from the life office point of view. Questions of age, of occupation, of obesity, and leanness, receive due attention, and in an appendix space is found for extracts from Dr. William Ogle's valuable Supplement to the Forty-fifth Annual Report of the Registrar-General of Births, Deaths, and Marriages in England. The different forms of medical examiner's report might with advantage have been omitted. The authors can scarcely suppose that the authorities at the offices are unaware of the details in which their reports differ from those employed elsewhere. On the other hand, the medical examiners are required to fill in the reports supplied to them by the office for which they are acting, and will always find these sufficiently irksome without wishing to compare them with any ideal standards.

In spite of the minor points to which exception has been taken, and of some very obvious printer's errors which will be sure to be removed in later editions, the authors are to be congratulated upon having produced a book which from its completeness, brevity, and trustworthiness is admirably adapted for general employment and frequent reference.

The Science and Practice of Midwifery. By W. S. PLAYFAIR, M.D., F.R.C.P. Seventh Edition. London: Smith, Elder, and Co.

THE fact that this work has reached a seventh edition is alone sufficient to show that it meets a want, and that it enjoys considerable popularity with the student. The present edition differs but little from its predecessor. The chief change is the introduction of the obstetric nomenclature decided on by a committee appointed at the International Medical Congress held at Washington in 1887. Several new woodcuts have been added, and greater emphasis has been placed on defective sanitation as a cause of puerperal fever. There are some points, especially in the chapters dealing with the diseases of pregnancy and the puerperal state, which require revision. The author states that spontaneous ascent of the retroverted gravid uterus is quite exceptional. This statement is too sweeping; retroversion is by no means uncommon, while permanent incarceration is comparatively rare. Again, jaundice is spoken of as the result of acute yellow atrophy. This is true of a minority only of the cases of icterus in pregnant women. Careful examination of the placenta and membranes after labour is not insisted upon, and the methods of ascertaining that portions are left behind are not described. With regard to puerperal septicæmia, we read: "The most practical division of the subject is into cases in which the septic matter originates within the patient, so that she infects herself, the disease being then *autogenetic;* and into those in which the septic matter is conveyed from without and brought into contact with absorbing surfaces in the generative tract, the disease being then *heterogenetic.*" This division is far from being universally accepted by obstetricians. The retention of portions of placenta or membranes, and severe injuries to the genital tract, are not necessarily followed by septicæmia, and the opinion is largely held that the decomposition which takes place in these tissues is the result of the introduction of something from without, and unless that something be itself septic, septicæmia does not follow. The results of the use of antiseptics in midwifery go far to uphold this view. Dr. Playfair believes that the poison of the acute zymotic diseases, and especially that of scarlet fever, can produce puerperal septicæmia. Some evidence in support of this view is given, but the whole of the evidence against it, and in favour of the view that scarlet fever "breeds true," which has been published both in this country and in Germany during the last two years, is omitted. Much stress is laid upon the part played by sewer gas in causing puerperal disease, and there can be no doubt of its efficiency in this respect. To place this matter in a proper light, however, much work has yet to be done, and it has to be done, too, under peculiar difficulties, for these cases occur in private dwellings, and it is almost impossible in such cases to eliminate other sources of infection.

OUR LIBRARY TABLE.

The Rotifera or Wheel Animalcules. By C. T. HUDSON, LL.D., assisted by P. H. GOSSE, F.R.S. Supplement and Plates xxxi.-xxxiv. Pp. 64. Longmans. 1889.—The excellent volume on the Rotifera published by the authors in 1886 had only one defect—it dealt exclusively with the British species of Rotifera, though these, as might be anticipated from their minuteness, are easily wafted from place to place, and are as a rule commonly found in other parts of the world. The valuable supplement now published, though thin and small, contains descriptions of all the known foreign species (amounting to about ninety), and upwards of sixty British species which have in the course of the last three years been discovered by Mr. Gosse, the whole making a total of 150 species. Nearly every one of these is figured in the plates which accompany the part. A large bibliography has been added, giving the names of the authors of upwards of 200 works devoted to the consideration of these tiny specks. Mr. Hudson in his preface feelingly bewails the loss of his friend and coadjutor Mr. Gosse, whose numerous and lively memoirs on natural history must be familiar to all lovers of the subject.

Cremation and Urn Burial, or the Cemeteries of the Future. By W. ROBINSON. London, Paris, New York, and Melbourne: Cassell and Co., Limited. 1889.—In this treatise the comparative merits of cremation and burial are once more discussed with considerable fulness. It is not remarkable that the author, a strong advocate of urn burial, should use every effort in order to prove his case, and that the leading argument throughout the book should consist of a catalogue of abuses prevalent under the present system of interment. The desecration and the risk implied in disturbing graves for purposes of reinterment, the grossly insanitary state of many graveyards and cemeteries from

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overcrowding, imperfect drainage, or shallow burial, and their influence as causes of offence and illness, are described at some length and illustrated by striking examples. Some of these, indeed, refer to recent occurrences, but it is worth noting that many more are taken from accounts of the heedless practice of past times, and of countries notoriously wanting in regard for hygienic rules. Probably too much is made of the well-known tendency of putrid gases and matters to percolate the liquid soil. It certainly seems to us that the objection urged against the earth-to-earth system on this ground is overstated. There is more weight in the suggestion that much of the land now used for burials might, under another system, be saved for purposes of cultivation. The latter half of the book is occupied with a history of the cremation movement in this country, and with various practical details bearing upon the subject. The work, as a whole, is at once instructive, light, and readable, and will repay careful perusal.

Medical Guide to the Mineral Waters of Royat (Auvergne). By Dr. C. A. PETIT. Pp. 101. London: Renshaw. 1890.—This work gives a fair description of Royat and its bath establishments, apparently more intended for the general than the professional reader. It has the usual failing of these guide-books—that while it enumerates a legion of diseases in which the waters are said to be beneficial, it leaves unnoticed those in which they are likely to prove useless, if not injurious. The medical summary, occupying the last three pages, does not convey much instructive information.

Lavori dei Congressi di Medicina Interna. Publicazione fatta per mandato del comitato ordinatore del Prof. Edoardo Maragliano. Antica casa editrice Dottor Francesco Vallardi, Milano.—This volume is the official report of the proceedings of the first Italian Congress of Internal Medicine, which was held in Rome in October, 1888. It gives the regulations of the Congress and the text of the various papers read at it, and some account of the discussion upon each. Some of the most important of these were mentioned at the time in the columns of THE LANCET.

New Inventions.

LEGGING FOR VARICOSE VEINS.

THIS is an appliance, patented, for the treatment of varicose veins of the leg, and consists of a plate of felt over the inner half, and of a canvas pliable part attached to it and completing the remainder of the circumference. It is secured by means of straps and buckles. The fine felt plate is moulded to the shape of the leg, and slightly stiffened over the course of the veins. Should it not fit comfortably, it is only necessary to hold the felt in front of the fire, which will soften it; after having been moulded it will retain its shape if allowed to cool. "It acts rather as a leveller than by pressure." It is calculated to wear for two years, and may be washed when necessary. This legging is likely to prove useful in the treatment of many cases of varicose veins of the leg. It is manufactured by Mr. Strudwick of Upper Marylebone-street, at the suggestion of Dr. Fisher.

PATENT BANDAGE PIN.

MR. GEORGE GOODMAN, of 82, Caroline-street, Birmingham, has forwarded us a specimen of his patent nickel-silver bandage pin. For this he claims the following advantages: That it is perfectly safe in use, having its two points thoroughly protected; that it is the only pin that can be depended upon to retain its exact position and thus preserve the exact amount of pressure desired; that it has a flat and smooth surface which cannot cause any inconvenience to the wearer or become entangled in the material; that it is practically non-corrosive even in contact with chemicals and moisture. There are two objections, however, which may prevent the extensive use of this pin; these are, the fact that the points tend to diverge or converge when being passed through soft material, and they are more expensive than the safety pins in ordinary use.

SPLINT FOR FOOT-DROP.

I HAVE devised a new Elevating Spring for Foot-drop due to paralysis of the anterior tibial muscles, whether occurring in infantile paralysis or in the paralysis of adults. It consists of a curved rod (B, C) of well-tempered steel, moulded to the posterior outline of the leg below the knee, and more convex posteriorly than indicated in the figure. The upper end (B) of the spring fits a socket in an ordinary transverse leather band (A), buckled round the calf, while the lower end (C) fits a hole in the back of the heel of the boot, where it may either be a permanent fixture or made to extend to a spring catch (D) in front of the heel. A steel plate is embedded in the sole to prevent the latter yielding to the weight of the foot. The spring should form, when not being worn, a more acute angle with the sole of the boot than is shown in the illustration, and its strength should be sufficient to keep the patient's foot at a right angle or less with the leg while walking. The following are the advantages claimed for this splint:—1. First and foremost, its simplicity and durability as compared with the constant renewing of elastic tractors and the frequent breakage of complicated steel springs for foot-drop. 2. Its sightliness; from the spring being placed behind the leg, it is scarcely noticed when worn. 3. Its comfort to the patient in being very light and in not catching the dress, as is the case with other foot-drop splints where the spring is attached to one side of the leg. 4. Lastly, and not its least advantage, is its cheapness. I have employed this instrument for the last two years with gratifying results. It is not only very efficient in children, but it enables adults affected with hemiplegia or paraplegia, who are beginning to walk again, to do so without the toes dragging the ground, and without the leg being forced to describe a semi-circumduction at the hip with each step, which is so distressing to witness. With this splint applied, the foot and leg can be carried directly forwards, to the great comfort of the patient, and with much less fatigue. I have to thank Messrs. Mayer and Meltzer, of Great Portland-street, W., for carrying out my ideas in the designing of this efficient little instrument.



BERNARD ROTH, F.R.C.S.

Queen Anne-street, Cavendish-sq., W., Sept. 27th, 1889.

PROVINCIAL SUNDAY AND SATURDAY HOSPITAL COLLECTIONS.—The recent Hospital Sunday and Saturday collections at Basingstoke, on behalf of the Cottage Hospital, Basingstoke, produced, net, £33 15*s.* 8*d.* The first Hospital Sunday collection at Yorktown, Surrey, held on the 13th inst., realised £9 18*s.* 8*d.*, which is to be divided between the Royal Berkshire Hospital, and the Herbert Convalescent Home, Eastbourne.—The Hospital Saturday collection at Newbury, on the 10th inst., amounted to £70 11*s.* 5*d.*, of which ten guineas have been sent to the Newbury Dispensary, three guineas to the Speen Convalescent Home, and £56 18*s.* 5*d.* to the Newbury District Hospital.—The Hitchin Hospital Sunday demonstration, on the 6th inst., on behalf of the Herts Convalescent Home, produced £8.—The Wisbech Hospital Sunday collection, on the 6th inst., for the North Cambs Hospital, amounted to £8 10*s.* 10*d.*

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THE LANCET.

LONDON: SATURDAY, OCTOBER 26, 1889.

ON Oct. 31st the Infectious Diseases Notification Act comes into operation. This is a matter of high interest to general practitioners in the metropolis. In other parts of England, Ireland, or Scotland the Act may or may not be adopted. But it takes effect at once, after Oct. 30th, in every London district, which is defined in the Act to mean the City of London, or the parish or district mentioned in Schedule B of the Metropolis Management Act, 1855, for which a local authority is elected. We say it is a matter affecting general practitioners. But is it quite certain that they alone are affected? Doubtless they are chiefly aimed at, and it is they who are expected to give life and effect to this important Act. But Clause 3 says that "*every medical practitioner*" attending on or called in to visit the patient shall forthwith send a certificate, with particulars of the name and patient. We apprehend that Mr. RITCHIE will not be too exacting, and that if he gets a certificate from one medical man in attendance he will not care for more, though he has actually enacted that "every practitioner attending or called in" shall certify.

We should advise every medical practitioner to procure a copy of this Act, to study it for himself, and to accept the duties of it heartily. It is of no use now to kick against the pricks; neither can we see, if the Act must be enforced, why it should not be enforced everywhere. In this locomotive age one place is at the mercy of another, and precautions and restrictions which are exacted in one place should be exacted universally. The public health is not to be secured by laws of partial application, and this is eminently an Act that, if applied at all, should be applied everywhere. The first duty of a medical practitioner which seems to arise out of the new Act is to apply to the local authority of his district for forms of certificate. On the occurrence of any case contemplated in the Act or in any future order of any local authority—for power is given to such authorities, with the sanction of the Local Government Board, to extend the definition and range of infectious diseases to be notified—the medical attendant, as soon as he has satisfied himself of its true nature, is to forward to the medical officer of health for the district a certificate stating not only the nature of the disease, but the patient's name, the situation of his house, &c.

It is interesting to mark the diseases in regard to which the Act requires notification — viz., small-pox, cholera, diphtheria, membranous croup, erysipelas, the disease known as scarlatina or scarlet fever, and the fevers known by any of the following names: typhus, typhoid or enteric, relapsing, continued, or puerperal. The most noticeable omission from this list is that of *measles*. The omission is noted by the clerk of the Metropolitan Asylums' Board, who says that his Board has on several occasions been asked to receive measles for isolation. It would certainly be a great advantage to know the first cases of a measles storm. It might not be so easy to isolate and circumscribe the first cases of measles as of scarlet fever, but the information should be forthcoming. It is of no use doing notification by halves. If it is to be done for the other diseases we have mentioned, it should be made to include measles. The disease is a serious one; it is highly infectious; it has recently assumed the proportions of a fatal epidemic; it disorders the course of education perhaps more than any other disease, and it is one that should clearly be notified. The only other disease whose presence in this list we feel disposed to notice is that of puerperal fever. What is puerperal fever? The Local Government Board should be prepared to give a definition of puerperal fever for the guidance of practitioners? Surely every puerperal patient that has a high temperature is not to be reported to the medical officer of health. Every obstetric physician will recognise that lying-in women are liable to pyrexia which implies no infection and is not of a septic character, and which it would be absurd to notify. The inclusion of puerperal fever cases adds to the difficulty of medical duty under this Act, and it will be a fine point to determine what is to be considered a case within the meaning of the Act. The point will have to be decided conscientiously for himself by every practitioner after a due consideration of all the facts and symptoms of a case.

Speaking generally, the most important suggestion that we can make to our readers as to their duties under this Act is to approach these duties without prejudice, and especially without haste. The Act requires them to certify to the medical officer of health. But they must first certify the cases to themselves. They owe much to the law, but they owe more to their patients; and when so much turns on a right diagnosis of disease, the first duty is to see that this is decided and deliberate. The duty of notification is second to the duty of diagnosis. Nothing in law or reason can excuse haste of diagnosis when it involves notification, and possibly a demand for isolation and removal. Diagnosis is very easy to those who know very little about it; but early diagnosis of the diseases in Clause 6 of this Act is by no means always easy. How insidious typhoid may be for a week or even a fortnight. In a cholera epidemic how fine the dividing line between a bad diarrhœa and the true disease. In times of sore throat it is not always possible to say when diphtheria begins and follicular tonsillitis ends. The early diagnosis of scarlet fever is a nice duty for an experienced practitioner, and even small-pox takes us occasionally by surprise. The great point for our readers is not to certify till the case is clear, and they are fully persuaded in their own minds of the accuracy of their diagnosis. As soon as they are satisfied of the nature of the case, it is their duty to notify, but not an hour before. Having certified the infectious character of a case, it will be well to consider the means of isolation possible in the dwelling of the patient, and to advise him accordingly, not forgetting that the patient is the first care of his medical attendant. We shall all do wisely to give more heed to early and accurate diagnosis; and our educational authorities will do well to hasten such improvements in medical education as will facilitate medical duty to the patient and to the State; the more so as Mr. RITCHIE has procured, at the request of the

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Medical Council and College of Physicians, legislation that makes the Hospitals of the Metropolitan Asylums' Board available for purposes of medical instruction.

THE annual commemoration at the Royal College of Physicians of the most illustrious name upon its long roll of Fellows, which took place on St. Luke's Day before a distinguished audience, was entrusted this year to a physician whose polished style (so well known by his work on "Prognosis in Consumption") gave promise that the customary tribute would be gracefully rendered. Nor could his hearers have been disappointed with Dr. POLLOCK'S efforts in this respect, for he presented them with a vivid picture of the conditions under which HARVEY laboured, and the fruits that have been reaped from his discovery of the circulation. It is a well-worn topic, and needs all the art of an orator to present it in a fresh light. For the life of HARVEY is so simple in its details, and his methods of research are so precise and guarded in their exposition, that no one can fail to honour the man who did so much, by example and precept, to open up the path of scientific inquiry. The same story has been told every year in the College for upwards of two centuries, and yet it still bears the re-telling, for the lessons it conveys are imperishable. Their main theme is that of unfolding the secrets of nature by the method laid down by BACON—a method which HARVEY was almost the first to employ,—and in so doing to break away from the traditions of the schools and to liberate free inquiry from the thraldom of superstition. In order, indeed, to realise the magnitude of HARVEY'S work we must, as Dr. POLLOCK was careful to show, understand the conditions under which the student of science laboured in his day. It was a time when the most powerful church in Christendom was already beginning to receive a check. There is no need to attack the Church of Rome on the ground of its special tenets, or its claims to infallibility; but at the same time it can never be forgotten that in its determined opposition to the promulgation of new truth it is largely responsible for the slow progress made in the observation and interpretation of natural phenomena. In spite of all its efforts, however, scientific truths came to be revealed; and it seems almost as if, in the present day, the attitude once taken by the Church towards Science was in danger of being assumed by the latter herself. "Dogmatism," said the Harveian Orator, "is the tyranny of power over mind, of system over independent judgment"; and up to HARVEY'S time "all teaching hitherto had been dogmatic." Now, however, when, thanks to HARVEY and the labours of all the scientists that have followed him, science has gained a firm footing, is there not some risk lest the dogmatism of which Dr. POLLOCK spoke should be exercised in the name of science, with almost as much injury to freedom of thought and inquiry in ultra-scientific departments as had ever been inflicted by the dogmatism of religion upon scientific truth? It is well, therefore, to be reminded, as Dr. POLLOCK did remind us, in a later passage, that the truths revealed by science are not the only truths, and that we cannot by searching find out GOD. One other declaration before leaving this subject ought in justice to be made. It is not the province of the follower of science to judge of the motives that swayed religious bodies in their too successful attempts to stifle free inquiry or to impose on men a limit to their faith. The man of science has enough to do in searching out the secrets of nature without entangling himself in the meshes of theological controversy. So far from there being antagonism between the two provinces of human thought, there should, since there is no ground common to both, be perfect liberty to the votaries of each to pursue their own road in promulgating their own special truths without reference to the other.

HARVEY'S life is an illustration of this view, for he was filled with the religious spirit, and did all his work reverently, seeing GOD in nature wherever he penetrated to new facts. As to his great discovery itself, he would cheerfully have acknowledged his indebtedness to the eminent Italian masters in anatomy, to whom, indeed, some notion of the circulation seems to have been present. In our admiration of HARVEY, we are sometimes prone to claim more for him than he would ever have claimed for himself. But, at least, he crowned the edifice; he demonstrated "by experiment" the action of the heart and the flow of the blood stream into and from its chambers, although it was reserved for MALPIGHI to demonstrate the existence of capillary circulation. Dr. POLLOCK sketched briefly the results that have flowed from HARVEY'S discovery, and the subsequent explanation of the function of respiration through that other "epoch-making" discovery of oxygen by PRIESTLEY and LAVOISIER. These facts form the basis of all modern physiology, and therefore of pathology. With this increase of knowledge, has there been a commensurate gain in happiness and health? To this Dr. POLLOCK replied by referring to the decline in mortality in this country from such diseases as phthisis and the zymotic class; but he also pointed out that the wear and tear of modern civilisation is bringing in its train evils which go far to counterbalance the good thereby attained. The oration concluded by a happy reference to the fact that the strain of all this high-pressure existence falls upon the heart, and that therefore we should apply the knowledge first given us by HARVEY to mitigate the evils thus induced. The warning is needed, and the moral is clear.

WHEN the Contagious Diseases Acts were suspended as to the compulsory examination of women in 1883, and repealed entirely somewhat later, it was resolved, in accordance with precedence, that they should also be repealed in all those colonies where they had been enforced. This has been done, with we believe one or two exceptions, and sufficient time has elapsed to enable us to compare the results of the working of the Acts with those which have followed their repeal. These latter have been so disastrous in India and in Singapore that men in high positions have felt compelled to speak plainly about it. One of these is Sir FREDERICK ROBERTS, who, quoting a statement made to him by the Surgeon-General, remarked that the number of cases of venereal disease in the army had doubled since the repeal of the Acts, and that the nature of the disease had greatly increased in virulence. It was, he observed, hopeless to expect to put down the

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evil altogether; all that could be done was to minimise its bad results, and institutes were now being established everywhere for the purpose of trying to keep the soldier out of the way of temptation by providing him with rational amusement and education. His Excellency the Viceroy observed that the Government of India was much indebted to the Commander-in-Chief for his weighty and outspoken statement. Any doubt which might have been felt as to the gravity of the case must have been dispelled by that statement. He advocated the exclusion from camps of women known to be infected, and the provision of hospitals in which they might be adequately treated. He agreed with General CHESNEY that to say that such steps ought not to be taken was tantamount to claiming for a class of diseases, which are probably attended with more disastrous consequences than any other, both in their immediate and remote effects, an immunity which is not claimed for other kinds of contagious maladies. "I do not believe," he said in conclusion, "that such an immunity will be claimed even by those who are most earnestly desirous of discouraging immorality, and I hope public opinion will support us in the reasonable steps which it will be our duty to take in order to carry out within the limits which I have indicated this most necessary measure."

In Singapore there has been even plainer speaking, its insular position making it peculiarly liable to the importation and propagation of these diseases, and Major MCCALLUM, of the Insular Municipal Commission, described the repeal of the Contagious Diseases Acts as "the most cruel and inhuman step ever taken out here." It was unanimously resolved "that a committee be appointed to collect statistics and information relative to the effects of the repeal of the Contagious Diseases Ordinance, with a view to a report being framed and forwarded to Government, by which clauses may be introduced in the Municipal Amending Ordinance under which the practice of prostitution in Singapore may be regulated." A memorial signed by all the medical practitioners among the civil population—Messrs. GALLOWAY, JANSZ, KOEHN, LEASK, and TRIPP—has been presented to the Municipal Commission. It points out the great and increasing injury to the public health that has been inflicted by the abolition of the Contagious Diseases Ordinance, and the consequent withdrawal of all checks to the spread of venereal diseases. It also deplores the virulent type of the disease, and predicts results of the most baneful description, to which it is impossible to see any limit. It applauds the proposed interference of the municipality, and indicates the special causes which make Singapore exposed to these diseases. These are: (1) The preponderance of males among the Chinese who are without domestic relations; (2) the large shipping trade touching at Singapore, including troopships and men-of-war of various nationalities; and (3) the residence of a considerable garrison. To these were added a female population disproportionately small to an unparalleled extent, and the absence of any proper supervision over or check upon the conditions that are producing this constant increase in venereal disease. This memorial, which is extremely well worded throughout, concludes by the statement that in the professional opinion of the memorialists some remedy must be found by those who are responsible for the health of the community. The memorialists also desire to put on record their united protest as professional medical men, responsible to a great extent for the health of the civil population, against the existence of a disgraceful and dangerous state of things, due in great measure to the enforced withdrawal, against the wish of the community, of a legislation that was completely justified by facts, by disease statistics, and by professional opinion and experience. The army, naval, and colonial surgeons, though debarred by their official positions from signing the memorial, expressed perfect approval of it.

THE difficulties surrounding the University of London in its attempts to draw up a scheme to meet the requirements of the Royal Commissioners, to which we adverted in a recent issue, were emphasised most strongly at two meetings held in Birmingham on the 12th inst., and in a letter from Sir J. SAWYER to the *Birmingham Daily Gazette* on the following day. At the conference of the representatives of the provincial University Colleges of England and Wales, held at Mason College, delegates from nearly all the University Colleges were present except from those affiliated to Victoria University, and this important resolution was unanimously adopted:—

"That this meeting, composed of representatives of the University Colleges at Aberystwith, Bangor, Birmingham, Cardiff, Leeds, Newcastle-on-Tyne, Nottingham, and Sheffield, protests strongly against the adoption of any scheme for remodelling the existing University of London which follows the lines of the report of the Royal Commission, on the ground that any such scheme invades the vested rights of the provincial colleges, and, by placing them at a disadvantage as compared with the metropolitan colleges, would, if carried into effect, operate seriously against their future progress and development."

A small committee was appointed to arrange for a deputation to the Lord President of the Council, should he be willing to receive it, in support of this view. The provincial colleges evidently do not intend the "indispensable" condition laid down by the Royal Commissioners for the formation of a Teaching University of London—namely, that its teaching institutions ought to be in or near London—to be acted upon by the existing university if they can prevent it. They still believe that direct association with the latter university would give metropolitan colleges "a position of preference, both in dignity and influence," and they will therefore strenuously oppose any scheme embodying this principle. It was on this rock that the first scheme of reform presented to Convocation by Lord Justice FRY'S Committee was wrecked, and it seems as if a similar fate is to be anticipated for any other proposal on similar lines. Yet if the University of London is to undertake the functions and duties of a Teaching University for London in compliance with the suggestions laid down in the Royal Commissioners' report, this limitation of direct powers to the metropolitan colleges must be unequivocally asserted in any proposed charter of reconstitution. The Commissioners say that "it is sufficient for bodies outside London to have access as heretofore to examination and degrees." A university giving powers to such institutions would not be what is wanted; it would not be a "Teaching

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University in and for London." The differences in position between the London and the provincial colleges in a reconstituted university could not be more explicitly pointed out.

The difficulty in maintaining the present standard of the medical degrees in the University of London, whilst satisfying the demands of those who ask legitimately enough for a degree as a reward for students who have honestly gone through a fair curriculum and have passed a satisfactory examination, was referred to at the meeting of the governors of Queen's College, and was regarded as insuperable. Professor TAIT, Mr. MATTHEWS, the Home Secretary (who was present as a governor of the College, but who is also a member of the Senate of the University of London), and Sir J. SAWYER, all deprecated the lowering of the quality and the value of the London degrees, and looked upon them as special distinctions. But, whilst the Professors in Arts and Science were considering a Midland University as a probable realisation of their hopes in the future, the medical authorities were urging an affiliation with a university of less "examinational stringency" than the University of London, such as the University of Durham, as a complete remedy for their present grievances. Affiliation with the University of London is a thing of the past—although Sir J. SAWYER writes as if it still existed in the case of Queen's College—and meant nothing and was valueless even when it had a nominal existence. Affiliation with the University of Durham means a substantial advantage, and in the case of a medical student the practical boon of an exemption from a year's medical attendance and study now compulsory at the Newcastle School of Medicine. If Birmingham students are to have this privilege by affiliation of Queen's College to the University of Durham, we should recommend the authorities of the London colleges and medical schools to apply for a similar privilege, if degrees cannot be obtained for their students on fair terms in the metropolis. If any non-resident students are to have the privileges offered to them which are now in the possession only of those educated at Newcastle-on-Tyne, surely London students, whose clinical opportunities are acknowledged to be unique, would have the first claim. A Teaching University in London and a Teaching University in the Midlands on the lines of the Scotch Universities would solve the difficulties in a more satisfactory manner than such remote and unreal affiliation.

Annotations.

"Ne quid nimis."

ST. LUKE'S DAY AT THE COLLEGE OF PHYSICIANS.

THE Harveian Oration, which was delivered by Dr. James E. Pollock on the 18th inst., was attended by a large number of the Fellows and Members, and some distinguished visitors, including Mr. Justice Denman, Canon Duckworth, Cardinal Manning, and Count Leyden. On the conclusion of the oration, the President, Sir Andrew Clark, Bart., presented the Baly Medal to Professor R. Heidenhain of Breslau, stating, in well-chosen terms, the grounds upon which the medal had been bestowed. The medal was, in the absence of Professor Heidenhain, received by Count Leyden, who expressed, on behalf of the recipient, his acknowledgment of the honour. In the evening about eighty Fellows assembled at the Harveian dinner, which took place in the College. The President was supported by the Archbishop of Canterbury, Mr. Ritchie, M.P., President of the Local Government Board; Mr. Justice Denman, Dr. Peel Ritchie, President of the Edinburgh College of Physicians; Mr. Makins, Master of the Society of Apothecaries; the Rev. Dr. Troutbeck; the Vice-Presidents of the College, and other officers. The President gave "the health of the Queen," and Dr. Quain that of "the Guests," which was responded to by the Archbishop of Canterbury and Mr. Ritchie. Dr. Bristowe proposed "the health of the Harveian Orator." The company afterwards adjourned to the library.

SOME RESULTS OF COMPULSORY NOTIFICATION.

DR. CAMPBELL MUNRO, in recording the death-rate of the Jarrow urban district during 1888 as 17·1 per 1000 living—this being the smallest rate since 1871, when it was 34·7 per 1000—takes occasion to refer to the operation in Jarrow of the compulsory notification of infectious diseases, and for this purpose he contrasts the periods 1871–78 and 1879–88. In the former, when no such system was in force in the borough, the mean death-rate from all causes was 25·2 per 1000; during the second period, when notification was in force, it was 20·8, representing a decrease of 17 per cent. Continuing the analysis as regards the seven principal zymotic diseases as a group, the second period is found to show a decrease of 45 per cent. when compared with the former. And, coming next to individual diseases, he explains that the local Act of 1878 required the notification of small-pox, of the various fevers, and also of cholera, no cases of which occurred during either period. As to small-pox, the rate during the earlier period was 15·31 per 1000, and 0·36 in the second, giving a decrease of 97 per cent. The mean death-rate from scarlet fever in the first period was 17·87; in the second it was 6·72, a decrease of 62 per cent. The mean death-rate for the continued fevers was 7·81 in the first period, as compared with 2·65 in the second, giving a decrease of 66 per cent. And summing up, the decrease in the fatality of the notifiable diseases shown during the second period was 99 per cent. of the total decrease in the zymotic mortality. Diphtheria and measles, which are not notifiable in Jarrow, had unfortunately exhibited an increase during the second period. We imagine that Dr. Munro would be the first to admit that the whole of the remarkable diminution in death to which he refers has not been due to the system of compulsory notification in force during the second period adverted to. Thus, whilst granting, in the case of small-pox, the extreme value of notification as a means to the early isolation of the disease, and the much greater risk to which the community would have been subjected had small-pox cases not been immediately heard of; yet it is well known that whereas this disease was generally rife in the country during the earlier of the two periods, there was no general diffusion of it during the second period; also, with regard to enteric fever, many of the important improvements effected in Jarrow during the last ten years must have materially aided in diminishing the spread of this disease. And, further, diarrhœa and whooping-cough, neither of which is notifiable, have also exhibited a decrease during the last ten years. But, apart from these and other allied considerations, Dr. Munro is obviously justified in making a substantial claim for the system he adverts to, and the descriptions he has given of the uses to which the information acquired by notification is put in his borough prove

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how largely immediate measures of prevention have in various ways been applied to the diseases under consideration. Dr. Munro, indeed, claims that the results he has shown form an enduring memorial to the foresight and public spirit of those who, when compulsory notification was but a new idea, were not afraid to adopt the system; whilst they also afford proof of the loyalty of the medical profession who, throwing aside all personal considerations, have acted throughout solely for the benefit of their fellow townspeople.

MEAN DURATION OF LIFE IN LONDON.

DR. CORFIELD, in his report on the sanitary condition of the district of St. George's, Hanover-square, during 1888, we regret to see, uses the term "mean duration of life" in an incorrect sense. He states that his district had last year "an increased mean duration of life." This statement might only signify generally that, as the death-rate was lower, a higher mean duration of life was thereby indicated. When, however, it is further and precisely stated that "the mean duration of life in Mayfair was 73·60 and in Belgravia 52·89 years," it becomes necessary to inquire what is meant by this use of the term "mean duration of life." It is not difficult to guess that mean duration of life is here used to describe the mean age of the persons dying in these registration sub-districts during last year. Mean duration of life is a term which is recognised by all mathematicians and vital statisticians to signify the mean number of years lived by a population traced by the life-table method from birth to death. There is scarcely a more fatal fallacy in the treatment of mortality statistics than that which deals with the mean age at death in a population, as if it were the true mean duration of life, and bases conclusions thereon as to the longevity and sanitary condition of the population. It ought now scarcely to be necessary to point out that the mean age at death of a population depends more upon its proportional age distribution than upon its health condition. A low mean age at death may only indicate that the mean age of the living population is low; and, on the other hand, a high mean age at death may only indicate that the mean age of the living is abnormally high. But for Dr. Corfield's fallacy, we should have deemed it unnecessary again to urge that the mean age at death is absolutely useless, nay, entirely misleading, as a comparative test of health-condition. The very fact that the birth-rate in Dr. Corfield's district in 1888 was but 18·7 per 1000 (against 30·7 in the whole of London), to which attention is called, is sufficient proof of the abnormal character of the population, and of the small proportion of children it must contain. Can Dr. Corfield, moreover, really believe that the average duration of life in Mayfair is more than twenty years in excess of that in Belgravia? Even if the figures had been called by their right name, as the mean age at death in 1888, no useful purpose could be served by putting them out, as we very much doubt if correct statistics would not show that the mean duration of life is fully as long in Belgravia as in Mayfair. Even in the comparison which is drawn between the so-called "mean duration of life" in the district in 1875 and in 1888, we are doubtful whether the conclusions as to the increased longevity in the district are sound. It is stated that the mean duration of life has increased from 46·67 in 1875 to 58·37 years in 1888. It is quite certain that neither of these figures gives any indication of the true mean duration of life in the district; and unless it had been stated how the deaths in the union workhouses were treated in the calculation for those two years, it would be impossible to judge whether the figures fairly represent even the mean age at death of the population belonging to the district in those two years. St. George's, Hanover-square, has doubtlessly, like the rest of London, been liable to a declining death-rate in recent years, but the decrease of its birth-rate has probably been far greater than in other parts of London, and hence a part of the increased mean age at death cannot be credited to improved sanitary condition. It is scarcely necessary to point out that Dr. Corfield's assertion that the "mean duration of life" in the whole of London has increased from 34·24 in 1878 to 41·77 in 1888 is also invalidated by the faultiness of his method.

THE ITALIAN PREMIER ON STATE MEDICINE.

IN his great speech at Palermo on the 14th instant Signor Crispi gave special prominence to what his administration had effected for the sanitary rehabilitation of Italy. "For four years," he said, "there had weighed on Italians the incubus of an epidemic"—cholera, to wit—"which, besides physical suffering and material loss, had induced a moral disturbance, inevitable, perhaps, in a country where hygienic education was still so primitive and so sporadic. It was a prime necessity, therefore, to proceed at once to the sanitary rehabilitation of the State, and we made provision accordingly. We addressed ourselves first to the minds of men, and we prevailed on them to look the enemy in the face as the principal means of overcoming it. With anxious and systematic care we took the sting from present evils, and then we reconstructed laws to obviate their recurrence. Sanitary provisions should impose on the freedom of the individual no restrictions but such as are required for the safeguard of the lives of others. Personal hygiene is on that account one of those salutary measures which we are entitled to exact." In cognate spirit the municipal services were unified and at the same time reformed throughout the Peninsula; while, continued Signor Crispi, "we modified the constitution of the Sanitary Councils, so as to ensure an earnest and an unremitting surveillance over the public health. We restored to its proper centre—the Home Office—the direction of the seaboard lazarettos, and, by furnishing the chief ports of the kingdom with the means of precaution and defence, we established an outpost system to make head against the importation of disease. By decree and by law of favour (*legge di favore*), we assisted the minor communes in carrying out their sanitary rehabilitation—an opportunity of which already more than three hundred have taken advantage. By a modification and extension of the Bill, enacted for the benefit of Naples, the application of which to themselves was craved by some sixty communes, by considerately evoking and approving plans of house-reconstruction (*piani regolatori*) we have brought to the great cities the blessings of effective resanitation." Nor have more strictly medical reforms been neglected. "We have reconstituted," said Signor Crispi, "the whole vaccination service; we have revised the Pharmacopœia; and on the frontier towns, as a safeguard against epizootic invasion, we have brought up the veterinary stations to military efficiency. We have wrought, in a word, the practical consummation of that sanitary code whose fundamental idea will prove not the least title to the love and veneration long earned from all Italians—whether surviving comrades, or of future generations—by that soldier of science, of fatherland, and of freedom, Agostino Bertani. Thus we may pronounce ourselves as on the true path of that sanitary redemption for which, not less than the political, Italy was yearning—a redemption of equal necessity, and certainly not less of a blessing. An Italy sound in a physical sense will yield us those vigorous arms which will fertilise her the best—those hardy constitutions which as living ramparts will prove her strongest safeguard." The "youngest of the Great Powers" is to be congratulated on the enlightened legislation set

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forth in these eloquent periods. It will henceforth be her duty to develop, as well as maintain, the sanitary reforms she has effected, and to justify in this respect the position she has earned in the European State-system.

"SOME CONDITIONS OF CHILD-LIFE IN ENGLAND."

AN able (if needless) defence of the Act for the Prevention of Cruelty to Children is contained in a paper just published by Mr. Benjamin Waugh under the above title. The catalogue of cruelties herein briefly summarised is amply sufficient to prove the necessity of such interference between guardian and child as the Act sanctions. We would willingly ignore the existence of the deliberate and pitiless tortures described in these pages did we not know that many such instances of savagery have been only too well authenticated. It is noteworthy that these excesses do not occur with especial freqency where poverty and ignorance might be supposed to have numbed the moral sense of their perpetrators. They appear to be the distinguishing mark of hard and intolerant natures in every rank of life. Anger, the desire for gain, mere brutality, even "fun," have each been assigned a share in their causation, and the process of suffering has gone on, as this paper shows, in the midst of, and untouched by, adjacent religious and other civilising influences, until the arm of the law has intervened on behalf of its helpless victims. The difficulty of obtaining evidence from the occupants of these desecrated homes has now been done away with, and merited conviction has become the more possible. Mr. Waugh is justly forcible in his condemnation of the abuse of infantile insurance, by which "the parent bets a penny a week against the insurer's thirty shillings that his child won't live." He allows too little for ignorance in his condemnation of those who mismanage (often, we admit, wilfully) the feeding of infants, but he will command universal support in his castigation of that purblind charity which grants a passing dole to any idle tramp who bids for sympathy with the misery of some wretched show child. Without prejudice to the reforming power of Christian persuasion, there is need, as he tells us, of the robust and protective righteousness expressed in the Prevention Act.

DRINK MADNESS.

IN the current issue of the *Contemporary Review* a forcible article appears from the pen of Mr. James Runciman, in which he deals with the "ethics of the drink question." Few have had greater opportunities of studying the appalling ravages which drink madness has made in our midst than Mr. Runciman, and still fewer have the power of portraying in all their loathsome hideousness the effects of this foul disease. He denounces as valueless the dry-as-dust statisticians who would by their figures prove either the enormity of the nation's backsliding in respect of drink, or with smug complacency assure us that the revenue returns prove an amelioration of our national sottishness, according as their interests are opposed or in favour of the liquor trade. He is not inclined, after the manner of the temperance rhetorician, to inveigh against the State support of the liquor traffic and hurl invective at the selfishness of distillers and brewers with their *fidus Achates*—the publican. The mild eloquence of the drawing-room zealot who has never tasted alcohol and who preaches to a select audience of total abstainers has no charms for Mr. Runciman. He bids us go forth with him into the dark places of our great city, and see in the brilliant West-end music halls and the drinking hells of Whitechapel the results of drink upon our youth. Nor does the evil begin and end in sapping the growing manhood of our cities. In the homes alike of rich and poor the women have learned the fatal habit of "nipping," and slowly but surely become confirmed dipsomaniacs. It is unhappily too true, as is pointed out in the paper before us, that the vice of drinking, glorified in verse and rendered amusing in prose by our best authors, is sure to form an unholy trinity with betting and unchastity, and as a consequence will sooner or later impair the mental and physical vigour of the individual and impress a taint of which he and his offspring must alike bear the burden. Mr. Runciman does not, however, tell us much in the way of curing the evil; he regards the adult toper as hopelessly incurable, and urges that for the treatment of the young emigration alone offers a hope of reformation. In our daily life we, whether as consultants or general practitioners, perhaps more than any other profession, are brought face to face with the drink question and how to deal with it. The medical man's *rôle* in society is daily growing in the direction of teaching his patients how to avoid disease, and so the great problem of how to grapple with and check the vice of drunkenness must come home to us for solution, and should, we think, occupy a more prominent position in our academics and our thoughts as practitioners than has heretofore been the case.

"ANGLO-AMERICAN VIENNA MEDICAL ASSOCIATION."

A MEETING of British and American physicians was held recently at Vienna to consider the question of establishing an association for the purpose of furnishing all needed information to English-speaking medical men, coming to study in Vienna. A large proportion of those now in the city were present, and it was resolved to start such an association, under the title of the "Anglo-American Vienna Medical Association." A committee of management was appointed, whose chief duty will be to supply information to newcomers on their arrival as to matriculation, medical courses, lodgings, &c., and when necessary, to call meetings of the association. The committee, on the occurrence of vacancies in their number through members leaving Vienna, will fill these up as soon as possible. The office of the Association will be at No. 12, Landesgerichts Strasse. It was agreed that membership should be open to any British or American physician or medical student on payment of an entrance fee of one gulden. The committee expect that towards the end of October the Association will be in working order. Meanwhile letters of inquiry, addressed to the president or secretary, will at once receive attention.

TUBERCULOUS MEAT AT BELFAST.

THE recent memorable inquiry at Glasgow into the necessity for enforcing the destruction of the carcases of beasts subject to tubercular disease, although this may be comparatively limited in extent, has, as we have lately mentioned, excited considerable attention in Sheffield among dealers in meat, and has also within the last two weeks come before the courts at Belfast on more than one occasion. In the first case the destruction of the carcases was ordered. In the second, heard before the magistrates in the Custody Court, on Oct. 11th, the bench refused to give an order for the destruction of the carcases, on the application of the corporation, through Mr. Spiller, who stated that although the flesh was to all appearance good, tuberculosis was found to be present in the lungs and livers of the animals. Mr. Eaton, in delivering the decision of the bench, said that he was not inclined to give such a decision as would have a ruinous effect upon the cattle trade of the country, and would touch both the farmer and the butcher. If tuberculosis were a serious disease like pleuro-pneumonia, the Government should make provision for the compensation of fleshers. This decision was, however, contravened

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in the third case, which is as follows. At the Belfast Police-court on Saturday, Oct. 19th, an application was made on behalf of the corporation, as the sanitary authority, for an order authorising the destruction of two carcases of beef which had been seized in the public slaughter-house a few days before. Great interest was taken in the case by the butchers, professional men, and by the general public. After a food inspector (who had seized the carcases) and a veterinary surgeon had given evidence, Dr. Burden, Pathologist to the Royal Hospital, proved that on examination he had found both carcases affected with tuberculosis, and that there were bacilli in the liver. Dr. Calwell and Dr. O'Neill also gave evidence that they had discovered tubercular disease in both carcases which they condemned as unfit for food. A veterinary surgeon and a butcher having been called for the defence, the magistrates consulted, and Dr. McGee, who gave their decision, said the Bench looked on this as a very serious matter. The butchers had his sympathy, as they were a respectable body of citizens, and had been brought there without any knowledge of having done injury. They had purchased the animals without the knowledge that they were diseased, and had run the risk of losing the money. However, their interest was a minor consideration to that of the public at large. The magistrates would make an order for the destruction of the carcases. We think the fact that such contrary decisions can be arrived at proves the necessity for an explicit declaration on the subject by the authorities. If it be held that the presence of limited tubercular disease signifies general blood contamination, as may be legitimately inferred from the scientific evidence adduced at Glasgow, that given by the Paris Congress, and in the Departmental Committee, then the practice of condemning the flesh of such animals as unfit for human consumption should be made obligatory, and the country be spared the continuance of a conflict of interests and of magisterial decisions.

AN ERROR IN DISPENSING.

SULPHATE OF ZINC and sulphate of magnesium resemble each other closely, as every beginner in materia medica well knows; but outside the examination room it is not often that they are mistaken. The possibility of error is so fully recognised that they are usually kept far apart and carefully labelled. It is only in student days that laborious efforts are made to distinguish them by the relative moistness, by their adherence to the sides of the bottle, and other minute differences. The taste is characteristic, but this is not generally felt to be a very desirable method of distinction. With insufficient labelling, however, and with unskilled dispensing, mistakes may occur, and such an error recently formed the subject of a serious inquiry by the Birmingham Board of Guardians. Three bedridden old women in the workhouse were one evening taken very ill with vomiting, and it transpired that they had been given some "stock mixture," which should consist of Epsom salts and peppermint. It appeared that this had been compounded, not by the dispenser, but by an old man known as "the bottle washer," who was not a paid officer but a pauper. He had confused two barrels containing respectively Epsom salts and sulphate of zinc and alum, and had made up between three and four gallons of mixture from the latter. It is said that the old women soon recovered and were "really nothing the worse for the mistake." It is very fortunate that the effects of sulphate of zinc are so readily apparent and of such little moment, but the action of the Workhouse Management Committee in suspending the dispenser who deputed the old pauper to compound the mixture is distinctly to be commended for its prudence. These are not the only two drugs which closely resemble each other, and it is quite conceivable that, under like conditions, far more serious mistakes might be made, and with drugs which might be absorbed before the detection of the error.

MEANS OF ISOLATION FOR THE SUBURBS OF LONDON.

WE are glad to find that the Metropolitan Asylums Board have taken a step in the direction of limiting the use of their hospitals to the inhabitants of the metropolis; and that they propose asking for the issue of an order of the Local Government Board to give effect to their wish in this respect. One of the grounds they name is a perfectly right one. It is that if they make arrangements with the authorities of outlying districts for the isolation of infectious diseases from such districts, they are practically aiding the authorities of these districts in making default as to the proper provision for the isolation of the inhabitants in the outskirts of London. That such default has been favoured by the action referred to is well known; a number of sanitary authorities around the metropolis having formerly made some sort of arrangement, both with the Metropolitan Asylums Board and with the London Fever Hospital, to receive their cases; and it has generally been found that the arrangements in question have been largely on paper only, and that they have resulted in the infliction of a distinct wrong on the suburban districts concerned. We believe we are correct in saying that the London Fever Hospital has for some time past refused any longer to entertain such an arrangement; and it will, in the end, be for the public good that the Metropolitan Asylums Board should limit the use of their hospitals in the way that has been provisionally decided on. There is, however, one consideration which might fairly be entertained before the final decision is arrived at. It is well known that the Asylums Board, desiring, amongst other things, to avoid large aggregations of infectious patients in populous metropolitan centres, have not hesitated to go outside the area of their jurisdiction for the erection of some of their hospitals; and it appears to us that where a hospital for Londoners has been put up in an extra-metropolitan sanitary district an arrangement, subject to reasonable restrictions, might fairly be made as to the admission into such hospital of cases from the sanitary district in which the buildings are situated. This is a principle which has, we believe, been admitted in regard to some provincial hospitals; and it is one that deserves consideration in connexion with the step that is now in prospect.

REMARKABLE SUICIDE WITH PRUSSIC ACID.

A CASE of suicide by prussic acid was investigated by Dr. Diplock at Hammersmith last week. The unfortunate woman seems to have been the mistress, or rather one of the mistresses, of Alfred Pollard, chemist, of Glenthorne-road. She came, under the influence of drink and in her nightdress, to his premises at 1 o'clock on Tuesday morning, and found a rival woman there. Whereupon a quarrel ensued. The chemist, according to his statement, seized a weak preparation of prussic acid which he kept for poisoning cats, threatening "to do for himself." He gave the bottle containing this fluid to a boy who had come with the deceased, to hold till he got a measure. Whereupon the deceased got hold of it and drank enough to kill her in forty minutes. The chemist protested that he never meant to poison himself, which is probably true enough. But his whole behaviour in this business was disgraceful. He displayed a self-possessed air and described himself as "partly a doctor" to Dr. Alderson, who was not called till the woman was quite dead. Pollard also, with surprising coolness, in the midst of a situation that would have disturbed most men, countermanded the order to the boy to fetch a

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policeman. The jury returned a verdict of "Death by misadventure," and properly censured Pollard for putting the poison within her reach, and also for not sending for medical aid after she had taken it. As Dr. Alderson said, if she lived forty minutes, and the poison was as diluted as was represented, there might have been a chance of saving her life with suitable remedies. It calls for the consideration of the Pharmaceutical Society, though we are not sure that they can inflict any adequate punishment on so unworthy an Associate.

SALARIES AND REPORTS OF MEDICAL OFFICERS OF HEALTH.

AN important circular has been issued by the Local Government Board with regard to payments to County Councils out of the Exchequer contribution account, in which attention is drawn, amongst other things, to the effect of Section 24 of the Local Government Act, 1888, on the salaries of medical officers of health who persistently delay issuing their annual reports. That section states that if the Local Government Board certify to the County Council that any medical officer of health, in respect of whose salary a payment would otherwise be due from the County Council, has failed to send in to the Board such annual report and returns as are required of him under the regulations as to his duties, no payment is to be made to the local authority in respect of his salary, but a sum equal to one-half of his salary is to be forfeited to the Crown. The issue of the circular at the present time implies that towards the end of October the time has arrived when those officers who have failed to report on a year which closed nearly ten months ago may properly be dealt with in the way described. But it is to be noticed that the forfeit affects also the sanitary authority, and that County Councils are urged, before making any payments, to inquire as to the receipt of the reports; hence it becomes a question how far medical officers of health whose reports are in arrear will have any claim on their authorities for the moiety of the salary forfeited. It is therefore of the utmost importance that all outstanding reports for 1888 should be sent in forthwith.

GOVERNMENT BY MUNICIPALITIES.

ON Tuesday last the Lord Mayor of the City of London entertained at dinner a number of the mayors and town clerks of the different municipalities and other distinguished guests, including the President of the Local Government Board, the United States Minister, and Dr. Chantemps, the President of the Municipal Council of Paris. Mr. Ritchie's speech will be read with considerable interest by all who have followed the great changes in local government brought about by him. He was able to show that the Local Government Board had aimed not at impeding but at assisting the local governing bodies in their efforts. Speaking of the advantages which had resulted from municipal government, he claimed that municipalities had reduced the death-rate by providing healthy surroundings, a good water-supply, good drainage, and good government in the centres over which they had control, but they had not done all that they might do. He discussed at length the necessity for activity on the part of sanitary authorities in maintaining houses occupied by poor persons in proper habitable condition, and pointed out that where there had been failure the administration, rather than the law, was to blame. At the same time he promised that so long as he was President of the Local Government Board every assistance which could be rendered by the central authority would be given to those upon whom devolved the duty of removing conditions which were prejudicial to the interests of the poor. No one will doubt that Mr. Ritchie intends to adhere to every word he has said, and that so far as in him lies every facility will be given for perfecting the administration which is required for the better government of towns, and especially for improving the circumstances under which poor persons now dwell. There are many engaged in working under the various Acts of Parliament dealing with this subject who see the need for amendments for the purpose of making operative the intentions of the Legislature. Mr. Ritchie's aid will be needed for bringing about the changes which are desirable, and it may be seen from his speech that any well-devised measure will have his support. So far as London is concerned, it is satisfactory to find that the Lord Mayor expressed his preference for a uniform system of government for the whole metropolis; but some doubt will be felt by many whether this could be best obtained, as he believed, by the constitution of a series of boroughs. However this may be, it is probable that the whole subject of metropolitan government will in a few years be brought under consideration, and that a further effort will be made to weld into one the great metropolis. By this time it will be possible to express judgment upon the London County Council, and upon the capacity for administration shown by this body the future of London government must largely depend.

SODA WATER ON DRAUGHT.

A CORRESPONDENT supplies us with some particulars of patents now on view in operation at the Brewers' Exhibition at the Agricultural Hall, which, besides being of great interest, seem likely eventually to be of practical utility to the profession, more especially, perhaps, to the hospitals, where economy is a matter of such importance. "Tubes," as they are now commercially called, which have been so long known to the medical profession for the storage of nitrous oxide gas, are being used for the charging of water, or any fluid such as wine, milk, &c., with carbonic acid gas brought from springs in Germany, where it is given off in a pure and unadulterated state. By simple but very efficient mechanism any filtered water can be made equal to the best waters as sold bottled. Oxygenation, aeration, the charging of waters or wines with carbonic acid gas, can all be done at home at a very small cost, one penny for the charging of the fluid equivalent to one dozen bottles. To hospitals this will be an immense saving. It is virtually soda water on draught. One large place of amusement is said to be about to adopt the process, and will be able to serve effervescing water at almost a nominal cost.

ARTIFICIAL FOOD FOR INFANTS.

DR. ESCHERICH of Munich gave a lecture in the Pædiatric Section of the sixty-second meeting of German naturalists and physicians at Heidelberg, advocating a reform in artificial feeding of infants. He bases his belief in the necessity of such a reform on the errors produced by Biedert's theory, which depends upon the difference between cow's milk and normal human milk. Biedert's view was that all the troubles and diseases occurring in artificially-fed infants were due to the indigestion of the caseine of the cow's milk, causing irritation of the mucous membrane of the bowels. He therefore considered that if the latter were diluted so as to contain 1 per cent. only of caseine, the infant could not possibly take an injurious quantity of this noxious substance. Dr. Escherich considers that this theory and the practice resulting from it have gone far to prevent due care being exercised as to much more important conditions. Such are, according to the lecturer, germs and fermentation in improperly kept cow's milk, the

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number of meals, and the quantity of food given at a time in proportion to the capacity of the infantile stomach, the total quantity of nutritious matter and its proportion in the food, and finally the injurious effect which the water which has been added to the food has on the digestion and the metamorphosis of nutritious matter. Dr. Escherich holds it above all necessary to return to physiological principles, and so to approximate artificial feeding as much as possible to the mother's milk, as regards the absence of germs and the number and quantities of meals. The lecturer then pointed out that it is easy enough by sterilisation of small quantities of milk according to Soxhlet's plan to comply at least theoretically with all these conditions, and at the same time to limit the quantity of caseine so as to fulfil Biedert's requirements. This method, which Dr. Escherich calls volumetric, as opposed to Biedert's percentage method, is best applied by Soxhlet's apparatus provided with graduated feeding bottles.

THE ISOLATION OF INFECTIOUS DISEASES IN SALFORD.

WE are glad to find that, as the result of the recent emergency which has arisen in Salford by reason of the prevalence of scarlatina and diphtheria, the long-standing difficulty as to the best method in which to provide for the future isolation requirements of the borough has been solved, the Corporation having decided, on the motion of the Mayor, to approve of the purchase of the hospital site in the Eccles New-road, which was made the subject of lengthened inquiry before Commissioners appointed by the Local Government Board, and for the purchase of which a loan was sanctioned by that Board several months ago. This will give the Corporation an area of thirteen acres in a locality which, according to the evidence brought before the Commission, is likely before long to be one where a hospital will be much needed; for not only is it expected that the Manchester Ship Canal, which runs close by, will bring a large number of working men's houses to the locality, but the canal itself will in many respects form part of that which will practically constitute a port sanitary district.

AN ELECTRIC TYPE-WRITER.

WE have been favoured with a view of an instrument invented and improved by Mr. F. Higgins, C.E., for printing news transmitted by electricity on a sheet of paper in column form, in a manner similar to that of the ordinary type-writer. The type is clear and bold, with proper spaces between the words and between the lines, and is altogether a distinct improvement upon the "tape," which the new instrument is intended to supersede in the transmission of news to newspapers, clubs, and hotels by the Exchange Telegraph Company. The chief advantage of the "Electric Type-writer," with its speed of twenty-five words a minute, over the tape, consists, from our point of view, in the increased facility it offers for easy reading.

EAR DISEASE AND NERVOUS DEPRESSION.

IN the early days of railways fashionable physicians harped loud and long on the distressing effects on the nervous system of long-continued vibration. This fertile source of nerve mischief has been lessened very much of late by vast improvements in the machinery, especially in the matter of breaks and springs. But there are still many neuroses arising from incessant and comparatively speaking violent vibration on peripheral nerves. One of these is ear disease in its common kinds. There cannot be the least doubt that Ménière's disease in not the only neurosis which results from aural mischief. To be convinced that low spirits and inertia with absolute disinclination for work are frequently largely to be attributed to auditory derangement is very necessary for successful treatment. Indeed the depression or melancholia may take the form of paroxysms as definite in their way as those of labyrinthine vertigo. Derangements of digestion, of circulation, and of excretion are powerful in helping the ear mischief to produce nervous symptoms. This is a matter deserving of great consideration in undertaking the treatment of cases whose primary and principal cause is in the organs of hearing.

COMPULSORY VACCINATION IN NEW SOUTH WALES.

THERE seems but little question that the principle of compulsory vaccination is extending, and this especially in English-speaking communities. It has been adopted with varying degrees of stringency in portions of the United States, of Australia, and also in Canada, and now we find that the Board of Health of New South Wales are pressing the Legislative Assembly to pass an Act giving effect to the same measure in that colony. The secretary urges on behalf of his board that compulsory vaccination is "the only known method of successfully avoiding the ravages of small-pox;" that the power of quarantining infected persons is insufficient to prevent the spread of the disease when imported; that such compulsion is in force in the whole of the Australasian colonies, except New South Wales; that where it has been in operation its action has been generally satisfactory in the prevention of disease and death, and that "in no instance has the Act been repealed;" and they finally express their hope that, "in view of the extreme gravity and urgency of the danger to which the colony is subjected, a Bill for the establishment of compulsory vaccination will forthwith be introduced."

THE NEW ENTRIES.

SINCE our last issue we have received the following additional returns of fresh entries for the current winter session (1889–90) at various provincial medical schools:—

	Entire Course.	Occasional.	Total.
Bristol Medical School	25	1	26
Cambridge University*	117	—	117
Liverpool, Victoria University†	43	13	56
Manchester, Owens College‡ ...	75	32	107
Sheffield School of Medicine§ ...	13	2	15
Yorkshire College	33	5	38

* The distribution of Cambridge freshmen intending to study medicine is this year more equally apportioned among the several colleges than in previous years.

† The figures last year were 51 and 9 respectively (total 60).

‡ The following is the exact position at this school:—First year's men, 75; occasional students, 32; dental students, 11; students entered for preliminary scientific course, 51; total 169.

§ The total number of students of all classes at this school is 40.

SCHOOL CLOSURE AND MEASLES AT SPALDING.

DR. MORRIS has given notice that he will move the adoption of the Act relating to the notification of infectious diseases in Spalding. A prevalence of measles has given immediate prominence to the subject; and incidentally it is stated in a report of the proceedings of the Improvement Commissioners that the medical officer of health had advised that the Board schools should be closed, but that the school authorities had not complied with his advice. Since needless delay in this matter often arises from failure to proceed in a regular way, it should be remembered that it is only on the order of the sanitary authority that the school authority is required to act; the medical officer of health's duty in the matter being solely to advise the sanitary authority to order the closure.

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CAMPHO-PHÉNIQUE.

A NEW ANTISEPTIC for use in dental surgery—campho-phénique—is, after an extended trial, warmly spoken of by Dr. Flagg of Philadelphia. It is a germicide, an efficient antiseptic, a non-irritant, a decided local anæsthetic, non-poisonous, insoluble in water or glycerine, does not stain or discolour, and is possessed of an agreeable odour, and not disagreeable taste. When required to be used in a diluted form it is mixed with cosmoline or lanoline. He says it will allay the sensitiveness of dentine, and, when mixed with arsenic as an application for destroying pulps of teeth, renders that operation more constantly painless than any other "nerve paste." Should further experience prove that it has this anæsthetic property, it will be of great value. It is also recommended as a surgical dressing for wounds, burns, sprains, intolerable itchings, &c. Campho-phénique is stated to be a definite chemical compound, having a formula $C_8H_{11}O$.

CAN A GUARDIAN OF THE POOR RECEIVE A FEE FROM THE BOARD OF GUARDIANS?

A QUESTION arising out of a fee paid to a medical man, a member of the board of guardians at Hackney, appears to have occasioned considerable feeling in that assembly of the fathers of the parish. It would seem that Mr. R. Smith, the practitioner in question, had received the usual fee for certifying to the insanity of a woman, who was consequently removed to the workhouse. Thereupon, another member of the board objected that Mr. Smith was disqualified for the exercise of his office of guardian, and the question was submitted to the Local Government Board. This authority decided in favour of Mr. Smith, but the guardian who objected refused to be bound by that decision, and intimated his intention of bringing the matter under the cognisance of the Court of Queen's Bench. Should he carry out his threat, an interesting point will arise for discussion; but we hardly think that the opinion of the Department will be over-ruled. The Poor-law Act of 1842 does no doubt provide that a person receiving any fixed salary or emolument out of the proceeds of the Poor rate shall be incapable of acting as guardian of the poor for the parish by which he is paid. But the whole clause in which this passage occurs is aimed at salaried officers engaged in the administration of the Poor-law, and that would seem to be a very strained interpretation of the word "emolument," which would make it cover the case of an occasional fee paid for an occasional service rendered. Still, the doubt exists, and the question has actually arisen. Should it be now determined by legal process, to which Mr. R. Smith is a party, he will have our sympathy, for the lot is a very hard one of the private individual who is made the subject of an experiment in the construction of an Act of Parliament. But, for all that, it will be both interesting and useful to have the question set at rest.

LONDON SANITATION.

AT the weekly meeting of the London County Council last Tuesday, Mr. John G. Rhodes moved the adoption of the report of the Main Drainage Committee, which recommended that application be made by the Council to Parliament next session for the following powers:—"(1) To provide for periodical inspection of drains under houses by vestries or district boards, and for the execution of such works by them as, upon such inspection or otherwise, may in their judgment seem necessary—a clause to be included requiring that means shall be provided for inspecting and testing house drains; (2) to prevent the construction of basements below the level of sewers, except with the consent of the Council; (3) to prevent buildings being erected in places where there are no sewers, except with the consent of the Council." After a discussion the motion was adopted, with the addition of an amendment referring back to the Main Drainage Committee for further consideration and report a recommendation made by that committee, that no notice should be taken of the alleged subletting of work by the contractor in respect of the carrying out of the contract for the construction of sewage precipitation works at the Crossness pumping station. Captain James next moved the report of the sanitary committee, to the effect that the question of public baths and laundries in all parts of London was not one of the questions that pressed most for central administration, that it might be properly deferred until such time as district councils were created, and that the consideration of the question be deferred. Mr. Phillips moved as an amendment that the Council should apply for Parliamentary powers to increase the number of public baths and laundries. After considerable discussion the amendment was negatived, and the report was adopted.

MYXŒDEMA.

DR. KOSMOVSKI recently brought before the Archangel Medical Society an interesting case of myxœdema where not only all the ordinary physical signs of this affection were present, but also mental disturbance. There was, however, no thickening or enlargement of the upper limbs, and the patellar reflex, instead of being diminished, was increased. The explanation suggested of these departures from the typical form of myxœdema was that whereas most of the cases described and brought before medical societies were of long standing and in an advanced stage, in which condition only these cases have usually stood much chance of being correctly diagnosed, this case had developed under Dr. Kosmovski's observation within the previous few months, and so the later developments had not had time to present themselves.

THE INFECTIOUS DISEASES (NOTIFICATION) ACT, 1889.

THE Cambridge Improvement Commissioners, acting as urban sanitary authority, and the Herne Bay local board have already decided to adopt the provisions of the Infectious Diseases (Notification) Act of this year. Such authorities as follow the lead thus given would do well to remember that, with the increased information they will get as to infectious diseases, it will be necessary to make proper provisions for acting on the knowledge acquired, and that adequate means of isolation and disinfection should be provided for this purpose.

SUFFOLK GENERAL HOSPITAL.

WE are pleased to find indications that the disagreement between a section of the governors of the Suffolk General Hospital and the medical staff is in a fair way to be removed. A numerously attended meeting of the governors was held on the 15th inst., the Marquis of Bristol presiding, to "receive the resignation of the medical officers," when, after a prolonged discussion, the following resolution, moved by the Rev. Harry Jones, was carried by a large majority: "That the resignation of the medical officers be not accepted, on the ground that the proceedings at the meeting on Sept. 17th, which have caused them to tender their resignation, were inconsistent with the unanimous decision of the general board on June 18th." It was also understood that another special meeting should be called to rescind the rule to which the medical officers object. There is thus fair prospect of harmony being restored to the institution. The medical officers, Dr. McNab,

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Mr. Image, and Mr. Kilner, are to be congratulated on the firmness with which they have resisted the attacks directed against them. It may also be hoped that at the next annual meeting all parties will co-operate to place the institution on the best footing for carrying out the purposes for which it is intended.

THE ROCHFORD ISOLATION HOSPITAL.

A COMMITTEE of the Southend local board have visited and reported on the premises that do duty in the neighbouring Rochford rural district as a hospital for infectious diseases, and the report is strongly condemnatory of everything attaching to the place, including its structure, furniture, and administration. In Dr. Thorne Thorne's official report of 1881 on the Use and Influence of Hospitals for Infectious Diseases, this building was spoken of in terms sufficiently disparaging to have condemned its further use; but if any change has taken place, it seems to have gone from bad to worse. It is to be hoped that some proper and decent provision will be forthwith made for the reception of the infectious sick of this district.

THE SEWERAGE OF MARGATE.

A FURTHER important step has been taken towards dealing with one portion of the scheme of sewerage on which Margate has decided, and which will, it is hoped, by June next secure for that health resort a system by which the whole of its sewage will be carried to the extremity of Foreness Point, and thence discharged into currents that will take it finally away into mid-sea. There was at first some opposition to the scheme which Mr. Baldwin Latham is carrying out, but all are now heartily co-operating with the measures in progress.

NUMBER OF DENTISTS IN GERMANY.

ACCORDING to Dr. Paul Börner's "Reichs-Medicinal Kalender für Deutschland" for the year 1888 there are 16,864 medical men and 514 dentists in practice among a population of 46,840,587 inhabitants in the German Empire, while the number of chemists' shops is 4671, and of hospitals 2737. In face of these figures, it may be truly said that the dental profession is not overcrowded in the Fatherland.

THE GENERAL MEDICAL COUNCIL.

A MEETING of the General Medical Council has been summoned for Tuesday, November 26th, at 2 P.M. The Executive Committee will hold a sitting on the preceding day at 1.30 P.M., in accordance with the standing orders, for the purpose, *inter alia*, of preparing the programme of business for the consideration of the Council.

FOREIGN UNIVERSITY INTELLIGENCE.

Algiers.—M. Planteau of Bordeaux has been appointed to the newly created chair of Pathological Anatomy. M. Treille has been appointed to another newly established professorship—viz., that of Tropical Diseases.

Bahia.—Dr. Nina Rodigues has been appointed Assistant Professor of Clinical Medicine.

Cracow.—Dr. Jos Oettinger, Professor of Historical Medicine, is about to retire. A new surgical clinic has just been opened for the reception of patients.

Genoa.—Dr. Morselle, of Turin, has been appointed Professor of Mental Pathology.

Groningen.—Dr. Koch of Amsterdam has been appointed to the chair of Surgery, in succession to Professor Korteweg.

Königsberg.—The temporary charge of the late Professor Jacobson's Ophthalmological Clinic has been given to Professor Vossius.

Liège.—Dr. Firket has been promoted to the full Professorship of Pathological Anatomy and Bacteriology.

Montpellier.—M. Granel has been appointed to the chair of Botany and Natural History, in succession to the late Professor Martins. M. Imbert has been appointed Professor of Medical Physics, in succession to the late Professor Moitessier.

Würzburg.—Dr. Reichel has qualified as *privat-docent* in Surgery.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following eminent foreign medical and scientific men are announced:—M. J. Puls, a well-known Belgian entomologist, a pharmacist by profession.—Dr. Landtsert, formerly Professor of Anatomy in the Medico-Chirurgical Academy in St. Petersburg. After retiring from the chair at the end of twenty-five years' service, he employed himself in teaching anatomy at the Academy of Arts.—Dr. Kozloff, who at one time held a professorship in the University of Kieff, where his duties were to teach Pathological Anatomy, Physiology, Anatomy, and the History of Medicine. From 1871 to 1882 he was Medical Inspector in the Medico-Chirurgical Academy in St. Petersburg. For some thirty years he was editor of the *Voyenno-Meditsinski Zhurnal* (the *Military Medical Journal*).

SMALL-POX is stated to have greatly diminished in Chili, owing to the spread of vaccination. In 1880 there were 7254 deaths from this disease; in 1883, 3188; in 1885, 3138; and in 1888 only 1477. The death-rate, however, taken on the whole, is still high, owing to the want of sanitation among the people.

AT the sitting of the Royal Commission on Vaccination on Wednesday, Dr. F. W. Barry was again (the third day) under examination, and it is probable he will be called at the next meeting.

DR. PETER HORROCKS performed Cæsarean section by Sänger's method on Monday last at Guy's Hospital. Both mother and child are progressing favourably.

A CONGRESS of Russian medical and scientific men will be held in St. Petersburg from Dec. 27th to Jan. 7th. It will be divided into eleven sections.

THE death is announced of Mr. Vincent Richards of Goalundo, so well known for his researches on snake poison.

THE first Congress of Polish surgeons has just been held at Cracow.

WASTE OF FISH AND FISH PRODUCTS.

BY J. LAWRENCE-HAMILTON, M.R.C.S.

No. V.

THE alarming, augmenting, avoidable waste of fish and of products made or derivable from fish refuse, together with the waste of immature and of unsaleable fish is a question of national importance. These combined wasteful methods, sanctioned by chronic conventional custom, are factors which tend to increase the price of fish to the consumer, and are a heavy avoidable loss to the fisher-folks of the United Kingdom. In trawling, often the net is brought up without containing a single saleable fish. Whether the unsaleable fish amounts to 50 or 500 per cent. or even more as compared with the saleable fish is a subject upon which fishermen are proverbially reticent. When they do give information on

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this point their evidence is so opposite and contradictory that the solution of this topic is not thereby advanced. However, when coasting smacks unavoidably catch nothing better than immature and other unmarketable fish, under a rational economic system, this fish should be used up for *the manufacture of waste products which in the United States of America represent upwards of 14 per cent. of the total value of their fisheries.* Excluding the waste of immature and of unmarketable fish, I estimate that upwards of £2,156,900 a year is wasted in the United Kingdom by omitting to work up the waste products of fish after the American plans.

Owing to pressure and other causes, almost all fish caught in the nets are either dying or dead before they are landed into the smacks. British fishermen frequently throw immature and unsaleable fish and fish refuse into the sea. From time immemorial the Chinese and Japanese have profitably worked up and economised the waste products of fish. The Americans boil fish to extract the oil useless for manure, whilst the bones are made into glue and other commercial products, and the remainder is used as manure. The Americans bone and skin their codfish, and pack it in tins; whilst thus making a higher-priced article, they derive extra profit by working up the skins and bones for by-products.

In the United Kingdom valuable waste products, derivable from fish refuse, are usually ignored in every household. Excellent stock or basis for soups can be made from the heads, bones, skins of fish, and of filleted fish, a familiar economy in China, where even sharks' fins often fetch about thirteen pence a pound. A bread of fish "flour" is popular in some countries. English rays are imported to France for making soup; bone earth from fish refuse for manure; albumen from fish blood. A "meat" extract is made from fish; it has no fishy flavour, and is alleged to be better and cheaper than beef extracts. This fish extract mixed up with pea-food, flavoured with herbs and salt, makes a good food-sausage. Herring meal, mixed with starchy food, affords a cheap and excellent food for cows, without giving any fishy flavour to their milk. In some foreign countries domestic animals and poultry are fattened on fish.

The heads, fins, entrails, blood, &c., yield excellent guano. From the skins and bones of fish a strong adhesive cement can be profitably manufactured. The dried skins of the shark, dog-fish, ray, &c., are useful for polishing wood and ivory, and in Egypt serve for the soles of shoes. These fish skins afford a kind of leather called shagreen. The dried skins of flat fish can be used for gloves, "leather" purses, for fining coffee, as a substitute for isinglass, and for artificial baits. The Chinese use painted and varnished fish skins as ornamental lanterns. In Japan wax is made from the skins and intestines of fish. Eel skins serve for whip thongs, and when dressed and dried make braces. In America, cusk and torsk skins have been patented for shoeleather. Siberian peasants clean, stretch, and dry the skin of the turbot for leather bags and as a substitute for glass window-panes. In some parts of Asia the tanned skin of the salmon yields a prettily marked scale-like leather, and ray skins a good imitation of morocco. Imitation porpoise leather is often made from the skins of the seal, walrus, and white whale. The American white fish yield large good upper leather. Indian-ink is obtained from the sepia fish. The roe of the mullet supplies the *botargo* of Italy, and is an ingredient in Indian curries. Besides the sturgeon, the roes of many other fish furnish caviares.

Especially about the middle of February, the decks of boats where cod-fish are killed are actually milk-white with cod-spawn, which should be used for artificially rearing cod-fish, as in Norway. Russian scientists have been specially successful in rearing fish from the roes of dead male and female fish. Mussels, one of the best baits for sea-fish, have often been destroyed to serve as a cheap manure.

RABIES. — The number of dogs in England officially reported during the week ending Oct. 12th as afflicted with rabies was eight, against a similar number in the preceding week. Of these seven were killed, and one died. The distribution was as follows: Sussex (Eastern Division), two; and Essex, Lancaster, Middlesex, Oxford, Surrey, and York (West Riding) one each. No cases were reported from London proper.

LONDON THIRTY YEARS AGO.

THE report for the year 1888, with which the Metropolitan Board of Works has wound up its career, has been made the occasion of a *résumé*, in which that now defunct institution replies to the comments and criticisms which have accompanied its demise by solemnly placing on record the services which in the course of its history it has rendered to the metropolis. Such a narrative can hardly fail to be interesting in no ordinary measure. It is, for example, strange and curious in a high degree to recall now the anarchic condition of London local government so recently as 1855, when the Metropolitan Board was constituted. In the report just issued the picture is strongly drawn. Contemporary testimony to the frightfully insanitary condition of the River Thames and of the slums is quoted from the pages of THE LANCET, and from evidence given by the late Lord Shaftesbury before a Royal Commission, which considered in 1854 the question of the housing of the poor. The description makes one wonder that such neglect of the most elementary principles of hygiene could ever have occurred in a civilised community. The problem of finding adequate room and wholesome dwelling places for the overwhelming population of the metropolis is formidable, and far enough from solution to-day. What it must have been when the river was nothing but an open sewer, and when we were forced to write, "Wheresoever we go, whatsoever we eat or drink within the circle of London, we find tainted with the Thames," it is far from easy to say or even to imagine.

The Board of Works assign the foremost place among the improvements which it has effected to the great work of sewerage and drainage which it has carried out. It is, no doubt, easy to over-estimate the merit of that work. Putting the picture of 1889 beside the picture of 1855, it is most natural that one should be led to exclaim, "What a vast change!" And vast, indeed, it is. But it does not at all follow from that that the reform is complete or the stage attained final. On the contrary, the work which the Metropolitan Board accomplished ought, in our judgment, to be regarded as a mere beginning. The costly and wasteful process of carrying the refuse of London out to sea and casting it away there is wholly unworthy of the science of the day. The historian of the Board narrates with some details the various attempts which have from time to time been made to convert the sewage of London into manure for agricultural use. It is his lot to record of every one of these attempts in succession that they have resulted in disappointment, and the conclusion if not actually drawn is sufficiently indicated that any such undertaking must of necessity be fruitless. We, however, for our part refuse to accept that inference. In spite of all past failures, arising as they have arisen again and again from unfavourable financial circumstances or other faults of management or design, the broad chemical facts remain that this troublesome waste contains highly valuable ingredients, ingredients of which the soil stands in need, and which have to be supplied from other sources at considerable expense. The problem is how to transport it from the place where it is a nuisance to another place where it is a desideratum, and we wholly decline to draw the inference that this problem is insoluble from the meagre data furnished by the unsuccessful attempts to grapple with it which have been recorded by the Metropolitan Board. It may be that considerable alterations will have to be effected in the drainage system which has been elaborated by the Board; it may be that much of the work which it has done has been done upon mistaken lines; but we confidently hope that it will eventually be found that a well-regulated town, even though swollen to the present proportions of the metropolis, can always find upon agricultural land an outlet for its refuse under an arrangement which, while easing the burden of removal, respects the economy of nature.

In perusing this report, we find ourselves more thoroughly in accord with the writer in his comments upon the work of the board in connexion with the preservation of open spaces, and the protection of infant life. Thirty years ago these were subjects which were but little understood, and even

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less appreciated. In the interval there has been a great awakening of public interest in these subjects, and a corresponding upgrowth of a sound and just sentiment. This development is faithfully reflected in the present report. It appears that during its career the Metropolitan Board had acquired control over parks, commons, and other open spaces to an aggregate extent of upwards of 2600 acres, and secured their permanent enjoyment by the public against the encroachments of private interest. In the regulation and control of institutions and persons whose business is the custody of children of tender years the record of work done is less satisfactory; but something at least has been accomplished in this direction, and will no doubt afford a starting point for further reform. Upon the whole, this report will doubtless tend to improve the position of the late Board in the eyes of the public, who will the more readily forget the misdeeds which brought about its disestablishment in consideration of the great and undeniable services which it rendered at the time when the local government of London was in the process of making.

THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

The Liberal Arts.—America, Russia, Roumania, Holland, Switzerland, Belgium.

THE time is now rapidly approaching when the great Exhibition must close its doors. For those who have watched its development, its gradual ripening, till it reached the zenith of an unparalleled success, the thought that it will all so soon be over conveys an irresistible sense of melancholy. But a short life well spent often leaves an ineffaceable trace in the world's history, and certainly many years, if not centuries, must roll by before the glories of this Universal Exhibition, held as a pacific celebration of a great historical date, is forgotten. Not only has the whole season been one of unusual material and commercial prosperity, but public health has been marvellously maintained throughout. We have had no epidemics, no exceptional sickness; and this, too, both with regard to the general public and also with respect to the large army of attendants and others who have been present and have worked at the Exhibition. I called at the offices of the British Commissioners, and was there informed that all the English officials and assistants had been remarkably free from illness during their now somewhat lengthy sojourn in Paris. Perhaps the improved methods of drainage, though only applied as yet on a very restricted scale, have contributed to this result. Certain it is that the Exhibition itself has been well drained, in spite of the excessive strain resulting from the extraordinary number of visitors. At the English Commissioners' Office there is an interesting illustration of how a good closet may be constructed in conjunction with the most defective and illogical *tinette filtre* system. It is one of Messrs. Jenning's closets with a *tinette filtre* below. This, however, does not prevent the application of a two-gallon flush. As the solids alone are retained in the *tinette*, it does not matter how much water passes through, and consequently no nuisance has arisen throughout the six months the closet has been in use, for the flush was always sufficient. As I have already explained, the new police regulations authorise the application of this system in the worst-drained parts of Paris, and therefore good results could be obtained everywhere if the population were only intelligent enough to avail itself of the new regulation. Messrs. Jenning, besides draining the offices of the British Commissioners, have a very interesting exhibit of sanitary appliances in the machine gallery. Among other things are closet pans that ensure discharge of the flush from a number of small holes at the back and bottom of the pan, as well as from the rim. This, it appears, the French, who are now making almost every form of closet known in England, cannot imitate. They are not yet perfect enough in this manufacture to make the numerous little holes in the pan. On the inner gallery, immediately above Jenning's show, will be found an old acquaintance with a new name. The Crésyl-Jeyes is a French edition of the familiar Jeyes Disinfectant, which in England has been long known and in very general use. In Germany many scientific researches have been made as to its antiseptic qualities, and there is, I was informed, quite a mountain of German literature on the subject. For the treatment of wounds it is said many German surgeons prefer the Crésyl-Jeyes to corrosive sublimate, iodoform, or carbolic acid. These exhibitors are particularly satisfied with what they term a refined preparation of chaste fluid, and which is known in commerce as the Liquor Antisepticus Jeyes.

Before concluding these notices of the Exhibition I would like to insist on the great good achieved by the Liberal Arts Gallery. This is the western wing of the main building, and here may be seen exhibits appertaining to scientific and artistic progress and study. In this wing there are many galleries, where the various nationalities have their respective sections. The English Section contains the exhibits of many publishers, and among them the large volumes of the *Chemist and Druggist* journal. There is a rich show of photographs and photographic apparatus, and notably J. F. Shew and Co.'s pocket apparatus, which has received the highest award given for this specialty. But there is nothing particularly interesting in the English Liberal Arts Section from a medical point of view. In the Spanish Section, which is our nearest neighbour, there is the cabinet of Dr. Macaya of Barcelona, who exhibits all that can serve to illustrate the prevailing method of vaccination from the calf. This is done on behalf of the Spanish Society for the Promotion of Vaccination. Here also are the exhibits of the Seville Deaf and Dumb School. From the Spanish Section the visitor reaches the French scientific educational exhibits. First among these are the collections from the Collége de France and the Ministry of Public Instruction, including all that is used to instruct students in the natural sciences. By the side of this large subject are the apparatus used in Dr. Brown-Séquard's laboratory. Dr. C. Sappey's anatomical specimens illustrating the lymphatic system in men and animals are beautifully arranged. All that appertains to chemical laboratories will be found in this gallery, as also very elaborate charts, plans, and instruments from the Central Bureau of the French Meteorological Society; these include large meteorological photographs and a daily record of weather forecasts, &c. The chemical scales of Messrs. Collet et Fils, who have obtained the gold medal, are in this section, and there is a collection of most elaborate illustrations, plans, and models of schoolrooms, school buildings &c.; here will be noted the improved French methods of warming and ventilation and the realisation of the principle of a unilateral light. All that appertains to the physical exercise and education of children is here also indicated. M. R. Guimard exhibits ingenious methods of in-door gymnastics which can be applied in any ordinary sitting-room. Weights that can be increased or diminished are raised from the ground by means of a rope that passes over a pulley affixed to a wainscoting, and great facilities are also supplied for in-door trapeze exercise. M. Ernest Lalanne exhibits a wooden horse on which anyone in his own drawing-room can learn how to ride. The horse is life-size. To the bridle and stirrups are carefully affixed weights suspended to pulleys. Other weights, from a framework above, can be made to press upon the chest, back, or thigh of the rider. In this manner are produced artificially all the forces of propulsion which render it difficult for the inexperienced rider to keep his seat. Kicking, rearing, bolting, the various hazards of a ride, can be produced in a moment and at will by this wooden horse, and this in such a manner that to acquire the same experience it would be necessary to ride twenty different living horses. M. Lalanne therefore maintains that the science of riding can be learnt much quicker and more completely on his wooden horse than on real horses. However this may be, the wooden horse certainly supplies an excellent and amusing pretext for in-door exercise.

Proceeding through the Liberal Arts Galleries, the exceptional prominence given at this Exhibition to all that relates to anthropology becomes more and more evident. The Société École et Laboratoire d'Anthropologie, which has very appropriately received the gold medal, has, among other exhibits, a small case of exceptional interest. It contains models of the brains of a number of criminals, and the actual skulls of four most notorious and recent murderers. Three out of the four skulls show a marked protuberance of the under jaw. Marchandon is the best known of these four criminals. In the centre of this wing of the Exhibition there are, on the ground floor,

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the lay figures that represent the history of Labour in prehistoric ages, while above them, in a gallery, are the more serious exhibits of Mr. Francis Galton and Dr. P. Topinard. Twice a week Dr. Topinard attends to give explanations. There are also all the instruments used for the scientific measuring and comparing of heads, &c. Specimens of criminal heads of different ethnological types abound on all sides. The public look in wonderment at all these things. The desire to learn is evident among the crowd, and it is a pity that there are not some cheap pamphlets available so that the most uninformed of the visitors might obtain some general idea of the object of these exhibits. This remark is all the more natural as the anthropological exhibits are surrounded by the classes devoted to printing and publishing, and then to photography.

On the ground floor of the Liberal Arts Gallery will be found a great variety of exhibits relating to technical education, including plumbing work. The Chambre Syndicale des Couvreurs et Plombiers shows numerous types of syphons, that indicate the progress made in sanitary science in France during the last few years. Here also are exhibits bearing on the ventilation of mines. The whole of the east side of the gallery is taken up with a most elaborate display of statistical charts, dealing with every subject—population, death-rates, marriages, stammering, colour of eyes, payment of taxes, amount of travelling accomplished, of alcohol drunk, &c. Before leaving the liberal arts a small American Section should be mentioned, where a few things of interest may be found. Among these M. C. A. Frees of New York, who has been awarded a silver medal, exhibits artificial limbs; the Pomeroy Truss Co. shows apparatus for dealing with curvature of the spine, and W. Schott's antiseptic pocket surgical case. There are, finally, some photographs, illustrating all the services of the Bellevue Hospital of New York.

Considering that the American Government officially supported the Exhibition, and granted a subvention, there might certainly have been a much better display from that country. The American Section is undoubtedly poor. The main part of the section is situated close to the Liberal Arts Gallery. There are a number of scent fountains, and it would seem as if perfumery was in very high favour in the States; but chemistry is not represented in any marked manner. There are some druggists who exhibit, notably Messrs. William R. Warner and Co., of Philadelphia and New York. Soluble coated pills is their specialty, and they show a formidable array of bottles containing every sort of combination in the form of pills. Neat little books explain all the formulæ, and are very practical in assisting the physician to find at once the drug he needs. Close by is Fairchild's pepsine in scales, which has obtained the silver medal. This New York firm asserts that its pepsine contains but a slight imperceptible trace of acid, and that it is not adulterated with added peptone, egg albumen, or milk, sugar, and starch. This preparation has consequently won a large patronage. The Cheseborough Manufacturing Company exhibit a great assortment of vaseline applied as soap, as lubricating grease, and also for a great variety of medical purposes. These preparations are all well known, their utility acknowledged, and it would have been strange indeed if in the American Section there had been no vaseline. In respect to novelties, I discovered only an ingenious apparatus very useful for preparing tinctures. It is a conical-shaped screw with large grooves, which gradually presses the substance introduced forwards; the groove becoming narrower and narrower, the liquid escapes from the open side of the screw container, and by the time the pressed substance reaches the end of its journey it is reduced to dry pulp. This aparatus is introduced by the Enterprise Manufacturing Company of Philadelphia.

The Russian Section is reached next, and though this is also a poor exhibit, there are nevertheless some points of interest. The diagrammometre, for instance, is a wonderful mechanical contrivance for statistical work and the calculation of averages. Its inventor, Victor Kozlaw, is a Russian engineer; and, to quote the words of Count Miliatine, Professor, and at one time Minister of War, the apparatus is like "a head that thinks and speaks." Unfortunately its complicated mechanism defies all description; still it can be understood that it is possible to impart by delicate machinery a record on a dial that shall correspond to the curves of a statistical chart, and that such machinery, if satisfactorily constructed, may be the means of mechanically ascertaining averages, probabilities, &c. Giving proof also of great ingenuity is the apparatus exhibited by the Russian engineer, M. Nadieine. This is a method of domestic drainage by which the solids and the liquids are separated, the latter mixed with ash or sand and converted into dry manure. Near the end of the soil-pipe there is a syphon. After the syphon, the pipe widens out in a fan-like shape, resembling a bottle funnel turned upside down. The solids, by force of gravitation, fall down the centre of this cone, while the liquids, by capillary attraction, follow the walls of the funnel or cone, and are received in a sort of gutter that goes all round it. When this receptacle is sufficiently full, it tilts up and discharges the liquids, either into a drain-pipe (by which they flow to the sewer), or into a special reservoir. This action, by a system of counter-weights, causes a drum to revolve in a case containing the dust, ash, or earth, and liberates a small supply of ash, which falls and mixes with the solids. This apparatus has been in use for nearly a year at the station of the fire brigade in the district of Petrowski, and is said to have answered its purpose well. It is undoubtedly a great improvement on the cesspool system, and may work with some effect where the volume of water used is not very considerable. In the Prussian Section there are also several exhibits of plants and herbs used in medicine. These, for the most part, come from Poland, and are in M. J. B. Segall's stall. M. Mattheisen of Moscow, among other articles used in pharmacy, shows the splendid cantharides for which Poland is celebrated; and Dr. de Korab his preparations of helenine, which he maintains is a specific antiseptic for the germ of tuberculosis. Then we have specimens of the warm clothing the Russian climate renders indispensable, notably V. T. Dichko and Sons' woollen felt boots, sealskin top boots, &c.; and Daria Lavrovna Kretow shawls and wraps of goatshair. Nor should mention of the very sensitive rotative thermometer, for which M. Leon Rabinovitch has obtained the gold medal, be omitted, nor the new kitchener, the "Destructeur Brûleur," where all the household refuse is consumed, thus obviating the dustbin nuisance.

The small state of Roumania has some exhibits bearing on medicine, notable the Roumanian medical preparations of Kónya Brothers of Jassy. Among these, however, it is easy to recognise many familiar French preparations, notably the Tamar Indien. Dr. Severan's glass operating tables are very neat and seem admirably suited for the maintenance of the utmost cleanliness. In the Portuguese Section, the Pharmacia Franco Filhos has received the gold medal for its *vinho nutritivo de carne*. Apart from this meat preparation, another Portuguese firm of chemists, Messrs. Roberto da Costa and Co. of Lisbon, have a silver medal, and display a great number of mercurial preparations. Amongst the Spanish exhibits there is an array of tonic wines, specimens of mineral waters, and a special oil for veterinary purposes, prepared by Messrs. Garcia, Marin, and Co., of Valencia.

The Dutch Section is very rich in all sorts of plants from the Dutch Indies and Java, while Van Houten's, with a model cocoa plantation, cocoa trees of natural size, and a number of æsthetic Dutch houses and cottages, where cocoa is dispensed to the million, is a remarkable exhibition. In France, where the preference is generally given to chocolate, cocoa is now becoming quite popular. In the Dutch Section the same exhibitor has a pretty little Dutch cottage, furnished almost exclusively with diplomas and prizes received all over the world. At this Exhibition he has of course no medal, being *hors concours*. Here close at hand are to be found the very interesting exhibits of cinchona bark and of all the parasites that injure the plantations of this indispensable anti-febrifuge. The Dutch are also large manufacturers of warm underclothing, and we have notably Jansen & Tilames, who exhibit "normal" hosiery, apparently similar to that recommended by Dr. Jaeger.

Of the smaller countries the two most progressive seem to be Switzerland and Belgium. The appliances shown which are obligatory in elementary schools for the teaching of physical science denote a very advanced condition of general education. As much may be said for the chemistry of the superior schools. At the same time the large amount of school furniture constructed on hygienic principles, and so as to facilitate the growth of the pupils, demonstrates that health questions are not neglected. In the Swiss Section, Dr. Laskowski's method for preserving anatomical specimens while retaining their natural suppleness is interesting. Human limbs are exhibited. The

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muscular tissues, though somewhat dried and shrunk, are thoroughly preserved and flexible. Finally, the relief plan of the Jungfrau (which has obtained the grand prize) and other plans give a graphic conception of the formation of the Swiss Alps and of the health stations situated in these mountainous regions. The pharmacy of Fréd Golliez, from Morat, exhibits articles from Switzerland, and notably a ferruginous cognac that seems very popular.

In the Belgian Section, the charts, statistics, reports, pamphlets, specimen regulations, &c., all denote a country where sanitary science has made considerable progress. There are notably the charts of the Royal Society of Public Medicine. Among the exhibits it may be noted that Dr. Simon of Brussels has obtained the gold medal for his clinical pneumo-dynamic apparatus. Professor Poupart's method of teaching the practice and theory of amputation, with the assistance of lay figures, is interesting. There are, further, a great variety of antiseptic dressings, lints, &c., shown in this section.

It will be seen, therefore, that though many nations have taken no special trouble to be adequately represented in matters relating to medicine or public health, yet, in each section, something may be found that affords interest, and which in a few cases is thoroughly typical of the country of the exhibitor.

Paris, Oct. 17th.

THE ITALIAN MEDICAL CONGRESS.

THE week just closing has been a memorable one for Italian medicine. Signor Crispi's weighty references to State hygiene, which he put in the forefront of his political programme on Monday, were next day followed up by perhaps the greatest medical congress yet convened in Italy—the "Congresso di Medicina Interna" — which held its annual meeting (the second in the series) in the grand hall of the Sapienza. More than three hundred of the profession, including clinical lecturers, consultants, and working practitioners, representing the several schools throughout the Peninsula, were present, while the general public contributed largely to the audience, which included a considerable number of medical students, for whom the railway companies had liberally modified their fares from either extremity of the kingdom to the capital. Professor Guido Baccelli presided, and was supported on the platform by Professors Murri of Bologna, Rossoni of Rome, Maragliano of Genoa, Rattone of Parma, and Cantani, De Renzi, Federici, and Senise of Naples.

The presidential address was in Baccelli's happiest vein. After the customary words of welcome, he congratulated the meeting on the advance it had made over that of 1888, both as to attendance and programme, and then indicated the progress achieved by medicine within the last hundred years. Morgagni cut the first turf, so to speak, of that mighty highway; but his work, exquisite as an artist in the study of nature, restricted itself to the causes and the localities of disease in the sphere of anatomical research. Now the investigation of the etiology of disease has overpassed the province of pathological anatomy, and to-day "in the living and from the living subject are found inexhaustible themes of study." "But," he continued, "it must be confessed that physiological and pathological chemistry have made no such progress as histology and bacteriological cultures. The discovery of micro-organisms themselves no longer suffices us. Leucomaines and ptomaines open up a field of the greatest novelty and difficulty, imposing on the student a far more absorbing task than that presented by pathogenic micro-germs." Dwelling on the distance that divides medicine from the scientific exactitude possible to chemistry and physics, he deplored the exclusive devotion of the best minds to the lessening of that distance, deflecting their energies from the true ground of their application—the clinical. In proof of this he referred to the competitions for medical chairs in the schools, in which the candidates came accredited with every sort of accessory accomplishment without the qualification which was really the central one—clinical knowledge and skill. "I said once," he continued, "and I say it again, that the clinique is the supreme laboratory of experimental human physiology, that the clinique is the school of living anatomy, and that, as handmaids of the clinique, chemistry, microscopy, mechanics, the calculus develop their resources. A true clinician ought to represent, in the knowledge of man, a synthetic force of the first order. He is like the master of an orchestra or like a commander-in-chief—he must know all, and more than all, that the units know, he must be as the multiple to the solos, as the *ensemble* to the components of the harmony. For while ignoring nothing, a clinician makes the appreciation of details subservient to that of the whole, and thus forms his habits and his mental atmosphere, and determines his swift and complex intellectual processes. It is from this that emerges what the lay mind so often admires—his *coup d'œil*, his unerring intuition. And if you ask yourselves what it is that confers such a power, you could not convey it in words. He is like a poet, like a grammarian, who has ceased to remember the rules of prosody and grammar, yet, in writing prose or verse, commits no blunder." Italian medicine, proceeding from old experience to the new analyses, checking and purifying the former by the latter, will place herself on the Via Sacra of truth. "Of this," said Baccelli, "I have the strongest conviction, because she lights her torch at the vestal flame of experimental research, because, in the words of Bacon, she adds to her intellectual resources not feathers to soar, but lead to sound and weights to balance (*non addere plumas sed plumbum et pondera*)." A fine appeal to the audience as a brotherhood in the cause of suffering humanity, and a glowing tribute to the King as an exemplar to all his subjects of philanthropic devotion, formed the peroration of Dr. Baccelli's brilliant and loudly applauded address.

Business began with the joint report of Professors Rattone and Bozzolo on Nephritis, the former discussing its pathogenesis, the latter its treatment. The opinions of previous observers on the origin of the disease were elaborately reviewed, and Professor Rattone, summing up, maintained the validity of the old classification of nephritides into acute and chronic, and showed, as the result of a long series of experiments in which he checked the findings of his precursors, that these maladies are generated by the passage through the kidneys of infective or irritant substances either formed in the system itself or entering from without in the shape of drugs or infections. Professor Bozzolo first set himself to criticise the treatment advocated chiefly in France, by which bloodletting, sometimes in small, sometimes in greater quantity, is practised in acute nephritis, the theory being that the engorgement of the kidneys augments arterial pressure and adds to the labour of the heart. He contended that an ordinary bloodletting can never affect the blood pressure in acute nephritis, while in chronic cases it impairs the reparative powers. Condemning the theory *à outrance*, he passed to other remedies, and objected strongly to diuretics as serving to feed the phlogosis of the kidneys. Warm baths and milk diet were what he mainly recommended—the former for their excitation of the skin to an increase of function, the latter (1) for its diluting the blood and diminishing the density of the urine, (2) for its acting through its contained salts as a mild diuretic, and for its favouring the expulsion of the phlogogenic agents, and (3) for its being a non-irritant food. Professor Baccelli opened the discussion of this conjoint thesis, and was followed by some ten physicians, including Professors Albertone, Maragliano, Giuffrè, and Semmola. To their criticisms (which cannot even be summarised here, but which will be given at length in the official report which the Italian Congress commendably publishes after its sittings) Professors Rattone and Bozzolo replied; and then, in the afternoon, a variety of papers were read and discussed, some of them of special interest, like that of Dr. Petteruti of Naples, in connexion with which he exhibited the "kinesoscope"—a portable instrument devised by himself to register with minute exactness the movements of the several parts of the thorax.

Next day's sitting was in some respects the most important on the programme. Professor Cantani took the chair, from which Professor Baccelli had temporarily retired, to read his elaborate and long-expected memoir on Malaria. Describing its pathogenesis as based on two principal "fulcra"—to wit, the hæmodyscrasia which is manifested in the red globules, and the neuro-paralysis which is revealed in the ganglionic section, he proceeded to show that the palustral infection is a pyrogenic (fever producing) process, but not phlogogenic (inflammation

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producing). Then he illustrated the double nature of "perniciosa," as determined by individual diathesis and by the nature of the infection; and from this he went on to describe the complications of the fever, its relapsing and its masked forms. Having concluded the nosological part of his paper, Professor Cantani proceeded to review the microscopic researches made in the Roman clinique on more than three hundred malaria patients in the successive seasons of the year, and showed that in grave cases the physician must not rely on merely negative findings in the blood; while the appearance in it of the endo-globular malaric forms demonstrates indubitably the presence of the infection. Passing to the third part of his memoir, the therapeutic, Professor Cantani, in view of the pathogenesis he had established, proposed the direct introduction of the quinine salts into the blood, injecting them, with the usual antiseptic precautions, into the veins. Nothnagel, he said, had *a priori* declared that the intravenous injection of quinine had the same therapeutic value as the hypodermic; but till the present hour Professor Cantani maintained such injections have never been practised with a curative object; only physiologists, in toxicological research, had injected acid solutions, which in animals, as in the human patient, had had highly detrimental results. The form in which he injected the drug was that of a neutral solution of chlorhydrate of quinine in distilled water, with the addition of chloride of iodine in a physiological dose. He then described the phenomena observed after the injection of at first from 0·15 to 0·30, then from 0·30 to 0·60, and finally of the full gramme. With gramme doses he had the best results; all the accessions were cut short without relapse, and this in five cases of very grave "perniciosa." In those cases which resisted repeated hypodermic injections, the intravenous injection never failed once. The elimination of the drug begins after six hours, the morphological alterations of the blood are modified in number and form, and after twenty-four hours the whole have disappeared. Finally, Professor Cantani laid down certain precepts as to the opportune hours for the administration of the quinine; and while disclaiming all intention of formulating general rules for every case of the palustral infection, he said that in all cases of true "perniciosa," when the physician can, without technical inconvenience, employ the intravenous injection, he should practise it not at the beginning of the accession, nor at its height, but at the end of it—that is, at the decline of the temperature, in which case he may be sure that no other accession will recur. This addition to our therapeutic armoury in cases of "perniciosa" has the two precious merits of economising time, and of its being certain that the remedial agent is carried with the torrent of the circulation.

Such is a brief summary of a memoir which Professor Cantani will shortly publish in its authentic form in the proceedings of the Congress. He was followed by his colleague Professor Marchiafava, who went minutely into the pathogenesis and histology of malaria. He examined at length the morphological alterations of the blood, of the red globules, and of the hæmoglobin, and combated the views of Klebs and Tommasi-Crudeli, of Laveran and Golgi, and gave an elaborate description, biologically and morphologically, of the *plasmodium malariæ* in the various forms which he, working conjointly with Professor Celli, had recognised as pertaining to the endo-globular parasite peculiar to the malarial infection. Into this demonstration, given, it must be stated, in so low a voice that he was heard with difficulty, we need not accompany Professor Marchiafava farther than to say that his matter was most interesting, and struck out suggestions which cannot fail to have practical weight in therapeutics. For instance, he made it clear that the organs attacked in malarial fever are: first the brain, then the lungs, then the spleen, then the liver, and finally the intestinal canal. He also showed that the parasitic form encountered in tertian remittents presents different characters from those in other varieties of the fever, and he finally put it beyond doubt that the malarial infection is non-contagious.

In the animated discussion that ensued the chief part was taken by Professor Senise of Naples, who, looking to the origin of the disease, said its proper name should be not "mal'aria" but "mal'aqua," and by Professor Mosso of Turin, who maintained that the blood "is a tissue of our body capable of so many modifications, none of which are properly known, that Professor Marchiafava may easily have been led into fallacy." His criticism, adverse and favourable by turns, evoked an explanatory response from Professor Marchiafava, who also took occasion to rebut the objections of Professor Maragliano. This closed the second day's sitting—the most brilliant of the Congress.

(To be concluded.)

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5709 births and 3433 deaths were registered during the week ending Oct. 19th. The annual rate of mortality in these towns, which had been 17·9, 17·6, and 17·5 per 1000 in the preceding three weeks, rose last week to 18·7. During the first three weeks of the current quarter the death-rate in these towns averaged 17·9 per 1000, and was 1·9 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 13·2 in Derby, 13·5 in Leicester, 14·5 in Nottingham, and 14·6 in Brighton. The rates in the other towns ranged upwards to 25·1 in Hull, 26·3 in Newcastle-upon-Tyne, 31·4 in Plymouth, and 34·1 in Preston. The deaths referred to the principal zymotic diseases, which had been 529, 403, and 352 in the preceding three weeks, rose again last week to 414; they included 98 from scarlet fever, 83 from diarrhœa, 64 from measles, 59 from whooping-cough, 57 from diphtheria, 53 from "fever" (principally enteric), and not one from small-pox. These zymotic diseases caused the lowest death-rates last week in Leicester and Birkenhead, and the highest rates in Preston, Sunderland, and Plymouth. The greatest mortality from scarlet fever occurred in Sheffield, Brighton, Bolton, Blackburn, and Plymouth; diarrhœa in Leeds and Preston; measles in Halifax, Preston, and Sunderland; whooping-cough in Oldham, Portsmouth, and Wolverhampton; and "fever" in Leeds, Birkenhead, Bradford, and Portsmouth. The deaths from diphtheria included 41 in London, 3 in Salford, 3 in Sheffield, and 2 in Derby. Small-pox caused no death in any of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and the London Fever Hospitals at the end of the week was 1394, against numbers increasing in the preceding sixteen weeks from 559 to 1343; 188 cases were admitted to these hospitals during the week, against 148 and 177 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had increased in the preceding four weeks from 142 to 264, further rose last week to 300, but were 50 below the corrected average. The causes of 62, or 1·8 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bradford, Portsmouth, Bolton, and in five other smaller towns; the largest proportions of uncertified deaths were registered in Huddersfield, Sheffield, and Liverpool.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18·8, 18·6, and 18·3 per 1000 in the preceding three weeks, rose to 20·5 in the week ending Oct. 19th; this rate exceeded by 1·8 the rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 14·9 and 15·3 in Paisley and Greenock to 20·5 in Aberdeen and 23·1 in Glasgow. The 524 deaths in the eight towns showed an increase of 55 upon the number in the previous week, and included 15 which were referred to diarrhœa, 11 to "fever" (typhus, enteric, or ill-defined), 11 to whooping-cough, 9 to measles, 9 to scarlet fever, 6 to diphtheria, and not one to small-pox; in all, 61 deaths resulted from these principal zymotic diseases, against 74, 69, and 64 in the preceding three weeks. These 61 deaths were equal to an annual rate of 2·4 per 1000, which exceeded by 0·1 the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of diarrhœa, which had been 16 and 19 in the preceding two weeks, declined again last week to 15, and were 12 below the number in the corresponding week of last year. The 11 deaths referred

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to "fever" showed an increase of 6 upon the number in the previous week, and included 4 in Glasgow, 2 in Aberdeen, and 2 in Greenock. The fatal cases of whooping-cough, which had been 15 and 14 in the two previous weeks, further declined last week to 11, of which 7 occurred in Glasgow, 2 in Edinburgh, and 2 in Dundee. The 9 deaths from measles slightly exceeded the number in any recent week, and included 5 in Aberdeen and 4 in Glasgow. The 9 fatal cases of scarlet fever also exceeded recent weekly numbers; 3 occurred in Perth, 2 in Glasgow, and 2 in Leith. Of the 6 deaths from diphtheria, fewer by 7 than the number in each of the two previous weeks, 4 were returned in Glasgow and 2 in Edinburgh. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 99 and 87 in the preceding two weeks, rose last week to 118, and were 3 above the number in the corresponding week of last year. The causes of 54, or more than 10 per cent., of the deaths registered in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 31·5, 26 2, and 23·2 per 1000 in the preceding three weeks, rose again to 26·5 in the week ending Oct. 19th. During the first three weeks of the current quarter the death-rate in the city averaged 25·3 per 1000, the mean rate during the same period being 16·4 in London and 17·7 in Edinburgh. The 179 deaths in Dublin showed an increase of 22 upon the number in the previous week; they included 10 which were referred to "fever," 6 to diarrhœa, 2 to measles, 1 to scarlet fever, and not one either to small-pox, diphtheria, or whooping-cough. Thus the deaths from these principal zymotic diseases, which had been 23 in each of the two previous weeks, declined last week to 19; they were equal to an annual rate of 2·8 per 1000, the rate from the same diseases being 1·8 in London and in Edinburgh. The 10 deaths referred to "fever" exceeded the number in any week since March last; while the fatal cases of diarrhœa showed a further decline from recent weekly numbers. The deaths of infants showed a further considerable decline from recent weekly numbers, while those of elderly persons showed a marked increase. Six inquest cases and 5 deaths from violence were registered; and 70, or considerably more than a third, of the deaths occurred in public institutions. The causes of 15, or more than 8 per cent., of the deaths in the city were not certified.

HEALTH OF RANGOON IN 1888.

A copy of Dr. T. F. Pedley's report on the health of the municipality of Rangoon in 1888 has reached our hands. This report throws much useful light upon the unsatisfactory health condition of this urban community, and deserves the serious consideration of the Municipal Commissioners as the sanitary authority of the city. Rangoon, at the time of the last census in 1881, had a population of 134,176 persons, of whom 91,504 were males and 42,672 females; there were therefore only 47 females to each 100 males. Dr. Pedley has apparently assumed that the population of the city has remained stationary since 1881; but, in the face of a table in his report showing an excess of more than 100,000 of immigrants over emigrants at the port of Rangoon during the five years 1884–88, it seems reasonable to think that the population of the city in 1888 was considerably larger than at the time of the last census in 1881. We hope, therefore, that Dr. Pedley's calculated death-rate for 1888 is overstated by an under-statement of the population; but, after making due allowance for this probable over-statement of the death-rate, the report contains conclusive evidence of excessive mortality. It is especially noteworthy that while the death-rate of Christians in 1888 appears to have been but 12·6 per 1000, the rate was 28·4 among Mahomedans, 30·9 among Buddhists, and 48·2 among Hindoos. With regard to the mortality from zymotic diseases, it may be pointed out that the 4574 deaths included 2097 from "fevers," 567 from "bowel complaints," 120 from cholera, and 7 from small-pox. Thus more than half the deaths from all causes were classed under these four headings. The cholera deaths exceeded the number in any recent year, and for the most part are said to have occurred in those localities "where the insanitary conditions are most favourable to its existence." The deaths from other diarrhœal diseases also showed a considerable increase. Small-pox caused in Rangoon 152 deaths in 1883 and 884 in 1884, and the comparative immunity from the disease enjoyed in 1886, 1887, and 1888 is attributed to the successful work of the Vaccination Department. The 2097 deaths from "fevers" showed a marked excess, and were 598 above the average. The greatest mortality from this cause occurred in June and July. A table of the sex and ages at death in 1888 shows the remarkably abnormal age and sex constitution of the population. Under the age of one year, when the numbers living of each sex should not widely differ, the 602 deaths included 352 of males and only 250 of females. The most striking disparity occurs, however, between the ages of twenty and sixty years, in which age-period of the 2740 deaths no fewer than 2225 were of males and only 515 of females. This disparity probably arises from the high death-rate among the coolies, principally from Madras, who are only temporarily resident in Rangoon. Dr. Pedley points out that the city of Rangoon is built upon a partially reclaimed swamp, and that without reclamation and drainage no great improvement of its present unhealthy condition can be effected, as the great majority of the people are living on a soil impregnated with foul organic matter and saturated with moisture. Rain water and fetid sludge are said to form a pool beneath the floors of thousands of otherwise fairly constructed dwellings. A new sewerage scheme is in progress, but Dr. Pedley says, "unless the reclamation of low-lying parts of the town is rigorously undertaken, the new sewerage scheme will lose half its effect." It appears to be difficult to obtain dry wholesome land for building sites, hence land utterly unfit for dwellings is rapidly being built over. These, with the difficulties arising from the large immigration of coolies, who deny themselves proper food and lodging in their effort to save money to return home, are among the causes to which Dr. Pedley attributes the insanitary condition of Rangoon, which is so strikingly reflected in its high rate of mortality. It is satisfactory to note from the local press that the unhealthy condition of the city is now attracting more public attention, and it may be hoped that Dr. Pedley's report will stimulate local public opinion in this important matter.

THE SERVICES.

HORSE AND EQUIPMENT ALLOWANCES.—In the Army Circular of Oct. 1st, a modification is promulgated of the Regulations of 1887, regarding the allowance for horse and equipment, which is applicable to surgeons serving with an army in the field. By the regulation as it stood a surgeon "while serving with an army in the field and necessarily performing mounted duty" was granted £50 to provide himself with a riding horse and horse equipment. In future he may under such circumstances either receive that allowance or be provided with a riding horse from a remount depôt, and horse equipment from public store, or a riding horse from a remount depôt and £10 to provide equipment. "The selection of the kind of issue will be at the discretion of the general officer commanding (or of the adjutant-general of the army if the officer be ordered to provide a horse before embarkation for service). The receipt of temporary duty pay will not disqualify the officer for the receipt of the allowance unless he be acting for an officer who has left his horse available for the duty."

MILITIA MEDICAL STAFF DEPARTMENT.—Surgeon-Major R. H. Rogers, the Waterford Artillery, Southern Division, Royal Artillery, retires under the provisions of paragraph 92, Militia Regulations, 1889, with permission to retain his rank, and to wear the prescribed uniform on his retirement (dated Oct. 19th, 1889).

ADMIRALTY.—The following appointments have been made:—Surgeon Hubert Holyoake to the *Anson* (dated Nov. 1st, 1889); Fleet Surgeon William B. Fletcher to the *Collingwood* (dated Nov. 7th, 1889); Staff Surgeon James W. H. Hawton to the *Victor Emanuel* and Staff Surgeon H. A. W. Richardson to the *Valorous* (both dated Oct. 19th, 1889); Surgeon William Tait to Bermuda Hospital (dated Oct. 19th, 1889); and Surgeon John Hunter to the *Excellent* (dated Nov. 7th, 1889).

VOLUNTEER CORPS.—*Artillery:* 1st London (City of London): Surgeon-Major F. G. Bennett resigns his commission (dated Oct. 19th, 1889).—*Rifle:* 5th (the Hay Tor) Volunteer Battalion, the Devonshire Regiment: Acting Surgeon C. H. Wade resigns his appointment (dated Oct. 19th,

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1889).—1st Herefordshire: William Broome Giles, Gent., to be Acting Surgeon (dated Oct. 19th, 1889).—2nd (South) Middlesex: Surgeon T. Trent to be Surgeon-Major, ranking as Major (dated Oct. 19th, 1889).—1st Volunteer Battalion, the Highland Light Infantry: Surgeon-Major, ranking as Major, T. Johnston resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated Oct. 19th, 1889).

Correspondence.

"Audi alteram partem."

THE PRESYSTOLIC MURMUR.

To the Editors of THE LANCET.

SIRS,—In your issue of Oct. 19th Dr. Dickinson has restated the grounds on which he believes that the murmur characteristic of mitral stenosis is due to regurgitation, and therefore occurs during ventricular systole; but he has not attempted to answer the main objections which have been brought against this view, and has made admissions which much weaken the strength of his position. I have so recently stated at length some of the grounds which seem to me sufficient for rejecting Dr. Dickinson's view that I will not repeat them here. I would, however, venture to suggest one or two points in which, as it appears to me, Dr. Dickinson's arguments are inconclusive, or at variance with facts well known and accepted by physiologists and those skilled in experimental research.

Dr. Dickinson states that the "knock" or snap heard at the end of the murmur of mitral stenosis is *at the end* of systole. (The italics are Dr. Dickinson's.) In his former paper[1] he says the "valve allows of regurgitation during the first part of systole, while it is able to close as the systole proceeds, so as to stop regurgitation towards the end of that movement." It is not easy to understand the various periods of the heart's cycle even if, as here stated, the snap comes *during* systole; but if it occurs at the end of systole, it becomes wholly incomprehensible.

a. In this case it would follow that any murmur subsequent to the snap must occur after the end of systole. In mitral stenosis a soft blowing murmur is often heard following the snap, which is generally admitted to be a systolic or regurgitant following a presystolic or direct murmur. But if, as Dr. Dickinson says, the snap is the *end of systole*, this soft murmur cannot be systolic, and there must be some other interpretation of it than that which is usually given. There is, however, no reason to suppose and no evidence adduced by him to show that this is other than, as generally accepted, a mitral regurgitant murmur heard after the *commencement* and not at the *end* of systole. If the first part of the murmur preceding the snap be really regurgitant, and the second soft blowing murmur which follows it be also regurgitant, then there are two murmurs generated by a flow of blood in the same direction and at the same orifice, differing entirely in character and often separated by an interval, a possibility which cannot be entertained. It is to be regretted, for the sake of clearness, that Dr. Dickinson does not quote passages in support of his statement of the views of his opponents, but only says that "those who believe in the presystolic or direct murmur believe that the blood may change its direction at a valve, stop, and go back, and the murmur not lose its continuity or change its tone." The only passage I can find in which any such statement is made is by Dr. T. C. Turner, who writes, *not* in support of the presystolic murmur, but in support of Dr. Barclay's—i.e., of Dr. Dickinson's—views; it is as follows: "If it were true that continuity of the cardiac murmur is inconsistent with a reverse of the direction of the blood stream producing it, this would be fatal to Dr. Barclay's view, which implies a reversal of the blood passing through the mitral orifice between the diastolic part and short 'presystolic' termination of the prolonged bruit, often occupying the whole interval between the second sound and first sound of the heart."[2]

b. Further, it would follow, if the snap occurs at the end of systole, that the carotid impulse which most observers admit follows the snap would not be felt until systole is completed; but experimental physiology has demonstrated that the carotid impulse occurs about one-tenth of a second after the commencement of systole, and immediately after the commencement of the expulsion of the blood from the ventricle.

c. It would also follow that although during the ventricular systole blood has been passing backwards through the mitral orifice into the pulmonary circulation, where the tension is admittedly high, it has not during the same period been forced into the systemic circulation, in which the tension is admittedly low. This is quite contrary to what occurs in ordinary cases of mitral regurgitation, in which the carotid pulse follows the first sound immediately, and is felt not *after* the murmur is over, but *during its continuance*. There is no adequate reason given why in cases where there is regurgitation through a narrowed mitral orifice the carotid pulse should be delayed until after the snap, if, as Dr. Dickinson states, the snap be the end of systole. Again, supposing it to be true that the "knock" occurs at the end of systole, the sound due to closure of the tricuspid valves should precede the "knock" by the whole length of systole, for the tricuspid valves, owing to the increased pressure in the pulmonary vessels, close sharply at the *commencement* of systole. Here also there is no evidence brought forward that such is the case; and it does not seem that any constant want of synchronism between the first sound of the right and left sides of the heart has been noted in mitral stenosis. Again, in cases where there is regurgitation through the tricuspid orifice the murmur is admitted to be systolic in rhythm. If it be so, it should, supposing Dr. Dickinson's hypothesis to be correct, occur at the same time as the presystolic murmur. This, as far as I am aware, is not supported by any recorded case. On the contrary, the tricuspid systolic murmur distinctly comes *after* the snap which terminates the presystolic murmur. And again, if the murmur which Dr. Dickinson calls diastolic is really the direct murmur, and if, as he maintains, the first sound of the heart is only valvular, the sharp closure of the tricuspid valves ought to be heard immediately following it, since he maintains that between it and the subsequent rough rumbling murmur is the commencement of systole. This is not borne out by clinical observation.

In order to account for the sharpness of the sound which ends the murmur under discussion, Dr. Dickinson, without giving any grounds for so doing, discards the explanation of the first sound of the heart which is generally accepted. He assumes that it is due only to the closure of valves, and that muscular contraction has nothing to do with it. If this be so, he should explain why it is that the sound of a hypertrophied heart, in which the cardiographic tracing shows the contraction to be long and sustained, is long and booming; and, on the contrary, why in mitral stenosis, where the sound is short and sharp, the cardiograph shows the contraction to have been more rapid and less sustained; and further, he will have to explain why, when the ventricle has a diminished volume of blood to propel, its systole, contrary to all that can be shown by the cardiograph, is prolonged by the whole length of the presystolic murmur.

Dr. Dickinson is evidently not prepared to accept the view I have lately put forward, and, as I hope, not without adequate reason, that the whole character of the presystolic murmur depends on the flow of blood under high tension through a narrowed orifice into a cavity in which the tension is abnormally low, by which means waves of large amplitude are generated and a thrill produced. He, however, not only gives no alternative, but declines to face the problem, saying, "if the thrill accords, as according to my observation it does, with the heaving of the apex, it is systolic and not made as suggested. How it is made I have not to declare. The circumstances of blood thrills may be various." I can hardly think that such an uncertain statement is calculated, as Dr. Dickinson predicts, to relegate the presystolic murmur to a place "among the errors of the past," and to the rising generation to whom he appeals it may safely be left to judge which view is the more in accordance with facts. I am, Sirs, yours faithfully,

Brook-street, Oct. 22nd, 1889. THEODORE DYKE ACLAND.

[1] THE LANCET, vol. ii., 1887. [2] Ibid., Aug. 18th, 1889, p. 317.

THE VALUE OF HYOSCINE AS A SEDATIVE.

To the Editors of THE LANCET.

SIRS,—I note with pleasure an article which appears in the issue of THE LANCET of the 12th inst., on the value of hyoscine as a sedative, and hasten to add my testimony in favour of a drug which I fear is as yet not fully appreciated.

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In 1887 and 1888, when in residence at the Leeds Infirmary, I frequently gave it under the direction of the physicians and surgeons, and its administration became quite the routine practice in almost all cases of mental derangement. I have also given it many times since. The solution generally used has been one of the hydrobromate, one grain to 200 minims, or of the hydriodide. These were found to be more convenient than the weaker solutions which were tried at first. The usual dose to begin with was $\frac{1}{150}$ of a grain, but this was generally largely increased. I have given as much as $\frac{1}{30}$. Most of the cases that I have seen have been such as occur in the ordinary run of hospital in-patients—notably, delirium tremens, acute mania following operation, and delirium caused by heart disease. In all of these its success has been most marked. The effect of the drug shows itself in from one to five minutes. The patient becomes less noisy, and his articulation indistinct, drowsiness then comes on, and, although in many cases the man seems to fight against the drug, he soon becomes quiet and lies quite still, often with his eyes partly closed. In about half the cases this state gives place to sleep. This is generally accompanied by stertorous breathing and by a peculiar twitching of all the voluntary muscles; the patient can with great difficulty be roused, and his pupils are dilated and do not react to light. Besides the cases mentioned above, I have given it to a man with intense neuralgia of the supra- and infra-orbital nerves. He was a confirmed opium taker, and morphia had little effect on him. Hyoscine frequently gained him some hours' sleep when morphia and chloral had failed. In yet another case, one of very severe chorea, it sent the patient to sleep after many drugs had been tried in vain. As regards unpleasant after effects, I may say that they are not so common as after morphia, though there is often some dryness of the throat and weariness. I have never seen any alarming symptoms caused by hyoscine, and believe that with ordinary caution it is a safe and very valuable remedy.

I remain, Sirs, faithfully yours,

A. S. BARLING,
House Surgeon, North staffordshire Infirmary,
Oct. 13th, 1889. Stoke-on-Trent.

ST. MUNGO'S COLLEGE, GLASGOW.

To the Editors of THE LANCET.

SIRS,—My attention has been drawn to a letter in THE LANCET of the 19th inst., signed by Dr. J. Wallace Anderson. Dr. Anderson, before writing to you, has neglected to ascertain his facts. His statements regarding the action of the Academic Committee and the governors of St. Mungo's College are wholly incorrect. The committee reported to a meeting of the governors held on Aug. 6th, to which all governors were summoned by circular in the usual way, and the appointments were then made. The list was not published till August 20th. But his statement is quite as accurate as many others that have been publicly made by the opponents of St. Mungo's College. Dr. Anderson could easily have obtained accurate information had he desired, for he is well acquainted both with the secretary of the College and with,

Yours respectfully,
Glasgow, Oct. 19th, 1889. W. G. BLACKIE, Principal.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Hospital for Women.

THERE has been lately an interesting case of ileo-colotomy at the Hospital for Women under the care of Mr. Burton. The patient, a single woman, was admitted into the hospital on June 6th last suffering from the passage of all her fæces through the vagina. She stated that she had been confined seven weeks before admission; the labour was difficult, necessitating the performance of craniotomy. Two days afterwards fæces began to pass per vaginam, and continued to do so, nothing passing by the rectum except on one occasion. The fistulous opening was high up in the vagina, and involved the lower posterior portion of the cervix uteri and the adjacent part of the vaginal roof. It was further ascertained that the portion of bowel implicated was not rectum but small intestine. As it was considered impossible to repair from below, and as the patient was emaciating rapidly from inanition, it was determined to attempt treatment by abdominal section; and as so much of the circumference of the bowel was lost, it was decided to perform resection of it and leave the piece attached with vagina and uterus undisturbed. As Mr. F. B. Jessett had had considerable experience in the use of Senn's bone plates, he was communicated with, and made valuable suggestions. The operation was performed on the 22nd of August. To add to the interest as well as to the difficulties of the case the patient had been taken suddenly ill with abdominal trouble three weeks before, and a hæmatocele was diagnosed. In consequence of this the intestines were matted together and adherent to adjacent parts of the uterus and the pelvic wall. The portion of intestine implicated was found to be the lower end of the ileum, about four inches from the cæcum. The intestine was first cut across about four inches above the adherent part, the ends were then invaginated, and the serous surfaces united together by continuous suture; the lower end was then dropped. A longitudinal incision was next made on the convex surface of the upper part, about two inches from the end, and one of Senn's decalcified bone plates placed in position. As there was not room to deal similarly with the short piece between the adhesion and the cæcum, it was determined to make the second opening in the colon itself, and in the same way as the one just made in the ileum. This was done, and the bone plates, one in the ileum and the other in the colon, were brought together and tightly tied with very fine silk. The abdomen was then closed in the usual way. There is little further to record. The patient was kept on starvation diet, nothing but strained beef-tea and water being allowed for four or five days. Flatus passed freely from the third day, the bowels were properly opened on the fourteenth day, and no fæcal matter came per vaginam from the time of the operation. The case shows the great ease with which intestinal resection can be performed by means of Senn's decalcified bone plates, in contrast with the tediousness and danger of the best method of suture heretofore in use. Mr. Burton will probably publish a more detailed account of the case later on. Meanwhile it may be stated that at a very recent date the patient, who is under careful medical observation, was reported to be doing extremely well.

Indecent Advertisements.

The Act which will come into force on Jan. 1st next will be of great benefit to this city and neighbourhood, which has too long been disgraced by the display on walls and hoardings of quack advertisements of a most indecent character, with an effrontery almost incredible. In spite of many prosecutions and fines the nuisance continued, and could only have been suppressed by an Act as stringent as that which has been passed, and which will shortly come into force.

The Education of the Deaf and Dumb.

At the next meeting of the Liverpool Medical Institution the attention of the members will be drawn to the recently published recommendations of the Royal Commission on the Deaf and Dumb, and the following resolution will be moved: "That in the opinion of this meeting the combined method of education is to be preferred to the pure oral system for the masses of the deaf."

Liverpool, Oct. 23rd.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Queen's College.

THE annual meeting of the governors of Queen's College was held on the 17th inst. The report showed a most satisfactory condition—namely, that the financial position was absolutely sound, that there were 225 medical students on the books (there being 76 new entries this year), and that the arrangements for teaching and working were of the most complete kind. Additional interest was given to the meeting by the presence of the Home Secretary, the Right Hon. Henry Matthews, who spoke as a governor of the College and as a graduate of the University of London. He said that he should be loth to see any changes in that university which would lower the quality of the degrees, and

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that there were certainly reasons against the multiplication of universities. These sentiments were supported by Sir James Sawyer, who presided, and were generally endorsed by the meeting.

Provincial Colleges and the London Higher Education Commission.

On the same afternoon a conference of representatives of the provincial university colleges of England and Wales was held in the Mason College, by the invitation of the Council and Academic Board, to consider the bearing upon those colleges of the recent report of the Royal Commission. A long discussion took place, and ultimately the following resolution was unanimously adopted: "That this meeting, composed of representatives of the University Colleges at Aberystwith, Bangor, Birmingham, Cardiff, Leeds, Newcastle-on-Tyne, Nottingham, and Sheffield, protests strongly against the adoption of any scheme for remodelling the existing University of London, which follows the lines of the report of the Royal Commission, on the ground that any such scheme invades the vested rights of the provincial colleges, and, by placing them at a disadvantage as compared with the metropolitan colleges, would, if carried into effect, operate seriously against their future progress and development." By another resolution a small committee was appointed "to approach the Lord President of the Council to request him to receive a deputation composed of representatives of the provincial university colleges, and to communicate his decision to the other colleges concerned; and, further, in the event of his consent being obtained, to make arrangements for the interview."

The National Temperance Congress.

The business of this Congress was inaugurated by a reception given by the mayor (Alderman Barron) on the 21st inst., the company numbering about four hundred. The proceedings were marked by much cordiality and satisfaction. The Bishop of London, as president of the Congress, delivered his inaugural address in the Town Hall to a large attendance. In a forcible and elaborate address he dwelt upon the advance made by the temperance movement, and stated that medical men had begun to restrict their recommendation of intoxicating liquors more and more year after year; the quantity that they allowed was becoming steadily less, and they have practically given up to the temperance side entirely the whole body of the young. A series of meetings throughout the district, and dealing with various aspects of the question, have been held, a temperance institute on a large scale opened, and organisations set on foot which promise to give a foundation for future working of this important aspect of social life.

The Scarlet Fever Epidemic.

The latest reports show that this epidemic has not gained in force during the last three weeks, the cases in each week being respectively 87, 85, and 85. On Saturday last the total number of cases in the hospital stood at 424. The death-rate remains very low. The deaths from the seven zymotic diseases numbered only 14 last week, as against 16 in the corresponding week of 1888.

Birmingham, Oct. 23rd.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle.

IT appears from a statement in our local papers that the Executive Council of the late Jubilee announce a surplus in hand, after all known liabilities have been satisfied, of over £4000. This is very satisfactory, but I hardly think that the proposed handing over this important sum to the College of Physical Science here will be considered altogether free from objection. The College of Physical Science is a huge building, with a debt, a complete staff of professors, and a mere handful of students. Now, if some plan could be devised by which other and as useful and important institutions in the town could participate in this surplus, it would, I am sure, give more general satisfaction. I might mention, for instance, the College of Medicine, the Royal Infirmary, the Convalescent Home, and the minor medical charities, all doing good and useful work.—I see that the friendly societies of Hebburn-on-Tyne have held a meeting, and it has been mentioned by delegates that it would be desirable to have an infirmary of their own at Hebburn, instead of contributing annually £500 to the Newcastle Royal Infirmary. It is said that there are twenty-three friendly societies and workshops, all contributing to the Newcastle Infirmary. I fear the workmen will make a mistake if they carry out this suggestion. It would be all very well to have a small local hospital for surgical cases and accidents, but what is to become of the men when work becomes slack and they cannot subscribe to their proposed hospital? There is an immense advantage—of which the working classes get the most benefit—in keeping up a large central hospital like the Newcastle Royal Infirmary, where the nursing and other arrangements are very complete.

Death of Mr. William Cockcroft, M.R.C.S., Catterick.

I regret to notice the death of Mr. William Cockcroft, of Catterick, Yorkshire, which took place on the 13th inst. Mr. Cockcroft was a highly respected practitioner in the district for nearly fifty years, where he commenced after completing his medical education in Dublin. He was a hard worker in his profession up to about two years since, when his health completely broke down and he was compelled to retire.

Proposed Lunatic Asylum for Middlesbrough.

It was stated at a late meeting of the Middlesbrough Board of Guardians that the time had arrived when a lunatic asylum should be erected in Middlesbrough; at present it appears that there are at York 180 lunatics belonging to the Middlesbrough Union, and the guardians had received an intimation from York that the authorities there could not receive any more, while they were paying close upon £4000 a year for them.

Newcastle-on-Tyne, Oct. 22nd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

EDINBURGH.

Opening of the Edinburgh University Union.

THE splendid buildings erected for the accommodation of the Edinburgh University students were finally thrown open on Saturday by the Chancellor of the University (Lord Justice General Inglis), and those interested had an opportunity of seeing what has been provided for their comfort and entertainment. So much has already been written about these buildings that it is now merely necessary to give a very brief description of the arrangements. There is a capital entrance hall, on either side of which is a writing-room and reference library, rooms which are also to be used for meetings of smaller University Societies which, according to the rules, may become affiliated with the Union. Beyond these rooms, and at a somewhat higher level, is a splendid luncheon and dining-room, in which a very considerable number of students can be served at once. From this is a stair leading to a smoking-room, in which are a couple of billiard tables. This room is well fitted up, and will certainly be a favourite resort for students in their leisure hours. On the top storey is a large hall, to be used as a general reading-room during the day and as a debating hall in the evening. At each side is a kind of strangers' gallery, and at the head of the room is a speaker's chair. This room is to be supplied with the various periodicals and journals, but it is anticipated that there will be the greatest run on general and medical literature for some time at least, as at present the medicals appear to be the most clubable men in the University. Passing from roof to basement, we come to a really good gymnasium, well fitted up with gymnastic apparatus, but sadly wanting in foils, masks, boxing-gloves, mattresses, and such-like movable "properties." Fencing is one of the best exercises that a man who is not regularly and actively engaged in physical exercise can have, and is specially well suited to meet the needs of a close student. *Verb. sap.* Here are a couple of ante-rooms, one of which is fitted with a shower-bath and with room for three or four warm baths. Outside these dressing-rooms are the lavatories, which are exceedingly well arranged. That the whole work has been done most thoroughly was the general opinion of those who took part in the opening ceremonial. The Chancellor of the Univer-

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sity—who was accompanied to the platform by the Lord Rector (the Marquis of Lothian), Principal Sir William Muir, most of the medical and some of the other professors and lecturers, and a host of legal, civic, and general dignitaries—in declaring the Union buildings open, said that the promotion and encouragement of a more social and gregarious life among the students was by no means a new or crude idea. It formed the subject of serious and earnest consultation among the friends of the Scottish Universities of a former generation, now almost entirely passed away. He himself, twenty years ago, had advanced the opinion that if the students could be associated, not only in their studies, but also in their social hours and amusements, it would contribute largely and usefully to their educating one another, and that, in place of the dull life of the solitary student, there would grow up a life more cheerful and happy—a condition of the highest importance in our educational view, because the youthful mind is naturally joyous and impulsive, and whatever tends to unnecessary depression or sombre thought must impair its elasticity. He thought that the Union had done very wisely in inviting all who had been students in the past and are now members of the General Council to join the Union. It would indeed be very hard if former students, who have borne the burden and heat of the day in promoting its formation, should be denied all connexion with the full-fledged Union. One of the most striking features in the higher education of this country, in the present age, had been recognised—the larger sympathy and closer friendship between pupil and teacher, leading to their intimate association in sports and amusements, which may be enjoyed by both in common without the slightest derogation from the true character of the relations which must exist between them in hours of instruction; and the admission of professors and others in authority to the Union was conceived in a right spirit, and would probably lead to most useful and beneficial results. Lord Lothian, speaking on behalf of the students, thanked all who had helped in any degree and in any manner to bring about such a magnificent result. So far as he had seen, the Union met the utmost needs of the University, and would afford an opportunity for that social intercourse which did so much for student life. They would best show their thanks for the Union by making it what it was meant to be—an additional source of strength to the University to which they belonged, to the alma mater and most cherishing mother, to which anyone worth his salt must have the warmest devotion. Principal Sir William Muir also spoke; and later Lord Lothian caused some amusement by saying, in connexion with the passing of the Universities Bill, that from the professoriate point of view he had ample means—and they took care that he should have ample means—of knowing their desires; but the students had not the same opportunity of bringing their views before him. He did not say that they would have caused him to alter the character of the Bill, but it would have been a great satisfaction to him to know what their views were upon the great subjects that came under discussion in that Bill. In the evening there were great rejoicings, the torch-light procession as usual playing a prominent part in the proceedings.

New Assistant Surgeon in the Royal Infirmary.

There has been no lack of good candidates for the post of assistant surgeon in the infirmary. In addition to those already mentioned, Dr. Kenneth M. Douglas and Mr. H. A. Thomson were candidates. From what is already known of the work of the five men, any one of them might have been elected, and the infirmary would have been well served. The choice of the managers has fallen upon Mr. John Shaw M'Laren, M.A., M.B., F.R.C.S. Edin., at one time well known amongst the students as one of the best demonstrators in the "rooms." Mr. M'Laren was very strongly recommended as one able to bring to bear on his work all that anatomical knowledge, sound surgical training, and teaching capacity that the traditions of the Edinburgh University have associated with its surgical teachers.

The Triple Qualification.

At the quarterly examinations held in connexion with the Royal Colleges of Physicians and Surgeons, Edinburgh, and Faculty of Physicians and Surgeons, Glasgow, there were for the first examination sixty-five candidates, of whom thirty-four, or over 52 per cent., passed; for the second examination seventy-six candidates presented themselves, of whom thirty-three, or over 43 per cent., were successful; and for the final examination there were 101 candidates, of whom forty-six passed.

University of the Edinburgh Faculty of Medicine.

At the special final examinations, held early in October, forty-four of the candidates were successful, and will proceed to the degrees of M.B. and C.M. in due course.

Edinburgh, Oct. 22nd.

GLASGOW.

Cæsarean Section.

DR. MURDOCH CAMERON, obstetric physician to the Glasgow Maternity Hospital, has added a third successful case to his list of Cæsarean sections. The patient was rachitic, about 48 in. in height, and was sent from a neighbouring town, after being two days in labour. The operation was performed on Oct. 8th. The mother and child (female) are both doing well.

Glasgow, Oct. 22nd.

ABERDEEN.

Opening of the Winter Session at Marischal College.

NOMINALLY the winter session began on Tuesday, the 15th inst., but so few students put in an appearance on the first day that the introductory lectures were not delivered till the following day. The opening of the session found the Medical School without a professor of anatomy. Information had just been received by the Principal that Professor Struthers' resignation had been accepted, but no mention was made of a successor. Dr. Struthers at once offered to carry on the work of the anatomical department until his successor was appointed. This offer was accepted by the Senatus, and Dr. Struthers met the students on Friday the 18th. The large lecture-room was crowded, and the students received and welcomed back their old teacher with tremendous cheering. He said: "A short time ago I was your professor, but now I am only your teacher temporarily." Since they last met, he said, he had had only four days' holiday, but he thought he had still vitality enough left in him to carry on the work for a fortnight or so. Most of the professors delivered more or less special introductory lectures. Professor Hamilton chose for his text "Some of the Diseases Common to Man and the Lower Animals." He referred to his Introductory Lecture last year on Pleuro-pneumonia. In it he strongly advocated the establishment of experimental stations with the view of studying the pathology and preventive treatment of the malady. His advice has been taken by the local authority of Fife, and stations have also been established in Australia. He said this was a step in the right direction. In Australia immense saving to cattle-owners has followed the introduction of inoculation. The present system of attempting to eradicate the disease by the slaughter of the whole herd where the disease appeared has not proved a success. Compulsory slaughter, he said, may stay the progress of the scourge for a time; but it is at the best an artificial and clumsy remedy. What we want to know is, Can the proceeding (inoculation) be so perfected as to be free from danger, and yet so efficacious that it will preserve animals through a certain number of years from infection? If so, then we would have some sort of solid basis to found compulsory legislation upon, such as that which now prevails against small-pox. Concluding his remarks on this subject, Professor Hamilton said: "A most interesting question arising out of the study of pleuro-pneumonia in cattle is its relationship to pleuro-pneumonia in man. The disease as it occurs in man is distinctly infectious; but whether it is alike in its causation with the infectious pleuro-pneumonia of cattle remains unsettled." The remainder of the lecture was taken up with the consideration of tuberculosis, "wooden tongue," epidemic sore-throat, &c. Professor Smith Shand first spoke of the extension of the University buildings now going on. He then referred to the resignation of Professor Struthers as "another notable event" which had taken place during the past year. He said: "Dr. Struthers has retired after a professional life devoted to scientific teaching and research. During his *régime* the advance and prosperity of the Medical School have been very marked and greatly due to his exertions and influence. An able teacher, an excellent man of business, an authority on all matters pertaining to university and medical legislation, a man possessed of great energy and

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strong traits of character, his resignation leaves a blank in the professoriate which it will be difficult to fill. Let us hope that relief from the routine of academic work and teaching will so restore his health that he may enjoy many years of learned leisure." Dr. Smith Shand then spoke of the passing of the Universities Bill, and the great changes that would probably take place in the curricula of the different faculties. He said: "Recently the medical journals have been filled with the contending views of Mr. Wheelhouse of Leeds, the present President of the British Medical Association, who takes the purely practical side of medical education, and argues in favour of apprenticeships; and of Professor Gairdner of Glasgow and of Dr. Clifford Allbutt, who are strongly in favour of scientific and university training. I myself thoroughly agree with the latter system as taught in our Scotch schools, and consider that the wider scientific training of the University, together with due attendance on dispensary and hospital practice, constitute the best means of qualifying the student for the future business of his life. A return to the apprenticeship system would, I consider, be a most retrograde step." Dr. Smith Shand said the great difficulty that had to be contended with was the overloading of the scientific portion of the curriculum to the detriment of the practical portion. The remedy for this which he most favours is to extend the curriculum so that it shall embrace five years of professional study. Professor Cash spoke of the position of his subject, "Materia Medica in Medical Education," and pointed out that the designation of the chair was misleading or insufficient, as it did not indicate that pharmacology and therapeutics—two of the most important and direct applications of science to practical medicine—were taught as well as pure materia medica. He pointed out that the scope of the subjects to be covered in the systematic lectures was very extensive, and argued that if any redistribution of subjects were made in the future a certain part of pure materia medica should be relegated to the departments of chemistry and botany, and this would leave time for the remaining portion of materia medica, as well as therapeutics and pharmacology, including toxicology (except from its medico-legal aspects), to be exhaustively dealt with by the professor of materia medica.

Health of the City.

In his report for September, Dr. Hay states that the number of deaths in the city during the month was 171, which is at the rate of 17·13 per 1000. During September twenty cases of measles were reported, as against seventy-three for August. During the epidemic of measles, which has now exhausted itself, 2000 cases were reported. The city is now threatened with an epidemic of scarlet fever. In September seven cases were reported, but the disease, owing to the carelessness of those affected, is making considerable progress. Dr. Hay has issued a special appeal to the public to exercise every precaution and carry out the printed instructions as to isolation and disinfection.

Aberdeen, Oct. 23rd.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Royal University of Dublin.

A MEETING of Convocation was to have been held on Tuesday, the 22nd inst., but as a quorum did not attend no business could be transacted. It was intended to submit the report from the annual committee to the meeting. The committee stated that a commencement had been made of the University library and museum, and they hoped that immediate steps would be taken to secure to members of the University the privilege of making use of it. The museums illustrative of physical science, biology, and pathology are not open to members of the University, and to exclude students from the advantage of access to collections containing valuable and in some places unique specimens, appears to be a policy of doubtful expediency. Under the statutes in force up to the present year, Fellowships becoming vacant by death or resignation in and after 1889 could only be filled up by competitive examination among the graduates of the University; but the committee have learned that these statutes have been altered and new ones substituted, from which the provisions for competition have disappeared. They regard it, they say, as a matter gravely affecting the well-being of the University and the interests of its graduates that the rich prizes offered for competition, under the provisions of the charter and the sanction of the royal statutes, should have been withdrawn, and that in the very year when, for the first time, they were to have been attainable. A meeting of the University for the purpose of conferring degrees will take place on Monday next, the 28th inst. It is expected that the Chancellor of the University, the Marquis of Dufferin, will preside.

College of Physicians in Ireland.

The Fellows on St. Luke's Day duly elected Dr. Atthill President, and also representative of the College on the General Medical Council for the ensuing year. At the same meeting the Fellowship was conferred upon Dr. Henry C. Tweedy. Last week Dr. Aquilla Smith was presented with his portrait by the Fellows of the College, not only as a token of esteem, but also as a recognition of his services to the College as representative of the College on the General Medical Council. It may be added that the cost of the portrait was subscribed for exclusively by the Fellows of the College, and that the artist—Mr. Catterson Smith—has produced an admirable likeness.

Royal Academy of Medicine in Ireland.

From the report for the past year of the General Council it appears that the number of Fellows is 244, or an increase of twenty-one over the previous session, and that the total amount invested on behalf of the Academy now stands at close on £600. A resolution having been adopted last year approving of the proposal that some member of the profession should be invited to address the Fellows and Members on some branch of medicine, it has been arranged that Professor Purser shall deliver a lecture during the present session, for a remuneration of twenty-five guineas. It has been suggested that the Council should sanction the formation of a committee in connexion with the anatomical section, for the purpose of extending the method of collective investigation to anatomical research in the schools of Ireland, and the Council regard the scheme as one of the modes in which the Academy may aid in the development of medical science in this country. The election of office bearers will take place on Friday next, the 25th inst., and there will be contests for seats on the Council in every section, with the exception of the medical section.

Rotundo Lying-in Hospital, Dublin.

Dr. Macan will shortly vacate the mastership of this institution, and an election for his successor will take place in a couple of weeks. There are numerous candidates for the post, the emoluments of which are about £1000 a year, and the appointment is tenable for seven years. It is generally believed that Dr. W. J. Smyly will be selected. The mastership of the Coombe Lying-in Hospital will also shortly be vacant, and it is expected that the appointment will lie between Mr. Colclough Hoey and Dr. F. Kidd, both having acted as assistant masters to the institution.

Jervis-street Hospital, Dublin.

The introductory address at the opening of the winter session will be delivered on the 1st prox. by Mr. Austin Meldon, President of the Royal College of Surgeons in Ireland. Mr. Meldon has selected for his address the subject of "Pasteur and Hydrophobia."

Galway County Infirmary.

Mr. Robinson and Dr. Browne, Local Government Board Inspectors, by warrant of the Lord Justices, held an inquiry last week in the County Court-house into the condition of the Galway County Infirmary. The following were the points upon which evidence were particularly taken:—(1) The present state of the County Galway Infirmary in relation to the funds available for its support, and the general management of the institution; (2) whether it is expedient that the said infirmary should be converted into a public hospital; (3) whether it is desirable that the county of the town of Galway should be required to contribute towards the cost of maintenance of the infirmary, and, if so, to what extent; (4) in the event of such changes being considered advisable, what alteration would thereby become necessary in regard to the constitution of the governing body of the institution; and (5) what arrangements would seem to be expedient with respect to the future admission of patients, the inspection of the institution, and

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the auditing of the accounts of the governing body thereof. The infirmary had a full staff of nurses, a surgeon, and two resident pupils. Paid patients were admitted at various rates, varying from tenpence to two shillings per day. There were sixty-one beds. Evidence was given showing the necessity of converting the institution into a public hospital, and Colonel O'Hara, one of the governors, propounded a scheme for the future working of the infirmary. He would allow the ratepayers a representative, while the election of a surgeon should be vested in the Lord-Lieutenant, and not in the governors. He would admit, largely, paying patients and all accident cases at once, though most accident cases should also be paying. Some further evidence having been tendered, the inquiry closed.

The Second Professional Examination under the Conjoint Scheme of the Colleges of Physicians and Surgeons was held last week, and I hear that out of fifty candidates only nineteen passed.

Three Dublin practitioners are at present ill from fever—viz., Messrs. Horne, Ashe, and Auchinleck. Two of the cases are typhoid and the third typhus.

An election for two members of Council of the Royal College of Surgeons took place to-day, with the result that Dr. Kidd and Mr. H. R. Swanzy were returned.

Dublin, Oct. 22nd.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Action of Iodide of Potassium on the Heart.

As whatever emanates from the pen of Professor Germain Sée is always interesting I make no apology in offering to your readers the following abstract from the very important communication he made to the Academy of Medicine on the 8th inst. on the action of iodide of potassium on the heart. He began with the remark that it is not sufficient to affirm that iodide of potassium has a tonic action on the heart, but it must be proved that it is so and how or why it is so. This the learned professor had endeavoured to resolve by experiments in the laboratory and by clinical observation. In conjunction with Dr. Lapicque (his *chef de clinique*) his researches were first directed towards the modifications of the blood pressure under the influence of the iodides of potassium and of sodium, to ascertain whether these salts produced a vaso-constriction or a vaso-dilatation, and also the conditions of the mode of their action. This was done by injecting into the saphenous vein of numerous dogs solutions of the iodide of potassium or of sodium in the proportion of one to ten parts. The dogs were feebly curarised, and a registering manometer indicated the pressure in the carotid or in the femoral artery. It is known that the salts of potash excite the heart and the vaso-constrictor nerves, and raise the blood-pressure. Nothing of the kind takes place with the salts of soda. M. Sée had first verified that the radicle potassium conferred on its iodide the properties of the salts of potash. The following were the very interesting results obtained. When iodide of potassium or iodide of sodium is injected into the blood phenomena are observed which present two distinct phases. M. Sée designates the first "the phase of the alkali," and the second "the phase of the iodine." When the iodide of potassium is employed the phase of the alkali is distinctly characterised. The heart's beat is accelerated, the pressure raised, and the tracings present great oscillations, which are slow and regular. When the iodide of sodium is employed, the phase of the alkali is indicated by a very slight elevation of the pressure, slowing of the action of the heart, with occasional intermissions. On the contrary, the phase of the iodine corresponds with the injection of either of the two salts, and it is indicated by the pressure, which descends slowly, in a continued manner, and by the action of the heart, which is accelerated. M. Sée offers in explanation of this similitude that the iodide of potassium is decomposed, that the potassium is eliminated, and that the iodine is thus found in the blood, combined with the sodium, whatever be the iodide primarily injected. However that may be, Professor Sée's experiments seem to show that the iodide of potassium first determines phenomena of excitation, with the action of the heart accelerated, an elevated pressure, a manifest vaso-constriction; then follows vaso-dilatation, with low pressure, which is also determined by the iodide of sodium. In the vaso-constriction, with elevation of pressure, and the strengthening of the heart due to the potassium, the vaso-dilatation and lowering of the pressure due to the iodine, we have, says M. Sée, the explanation of the effects of the powerful action of the iodide of potassium. The vaso-dilatation explains the hyperæmia of the bronchial mucous membrane and the hyper-secretion which results from this drug, and which is so useful to asthmatics for getting rid of viscous secretions. It explains the pulmonary hyperæmia which results from the venous stagnation in cardiac subjects. It also explains the anti-dyspnœic power of the iodide of potassium in facilitating the circulation in the medulla, and consequently restoring it to its normal functional activity. Immediately the paroxysmal or continued dyspnœa, the fits of suffocation, &c., completely disappear. The vaso-dilatation finally explains how the heart becomes freed from the obstacles which the tonicity of the arterial vessels presents to it, how the coronary circulation becomes more free, and how the heart becomes reinforced and beats with energy. On the other hand, iodide of potassium primarily strengthens the heart and the pressure. Hence M. Sée, comparing its action with that of digitalis, and studying the toxicity of the salts of potash, so exaggerated by physicians, has given it the name of "digitalic poison"—that is to say, beneficial. It results from these considerations that iodide of potassium is applicable to the greater part of the diseases of the heart and of the coronary vessels. Useful in the most diverse lesions, M. Sée would condemn it only when it determines hæmorrhages or permanent gastric iodism. It is not only useful against dyspnœa, it is still more so in many other cases, and M. Sée explains how and why it is so. Iodine reduces the fatty element in fatty degeneration of the heart. In fibro-adipose degenerations, in sclerosis, one cannot expect the reduction of the transformed tissues, but the muscular fibres which have quickened their circulation remain and are consequently improved in their function, whence the indication for iodide of potassium in all cases of degeneration. If the heart be weakened from overwork, or be in a state of asystolism, iodide of potassium renovates the weakened or distended tissues of the heart. If the left ventricle be hypertophied, the most that the drug can do is to render the cardiac circulation more active; it cannot be injurious, as it does not reduce the muscular fibre. In coronary sclerosis (angina pectoris) it is useful in dilating the coronary vessels that have remained free and healthy; but this is not an arterial medicament in the denutritive sense. In cardialgia (false angina pectoris), where the pains are so severe, where the respiration is polypnœic, it has incontestable advantages combined with antipyrin or with inhalations of the vapours of pyridine. In Basedow's disease, or where there already exists a morbid vaso-dilatation, the iodide of potassium will be useless, or even dangerous. On the contrary, it is in aneurysm of the aorta that it succeeds, although it is not by producing the coagulation of the blood, as is generally believed. But it is here, in particular, that M. Sée objects to the use of iodide of sodium, the employment of which nothing can justify.

Paris, Oct. 22nd.

Obituary.

SAMUEL OSBORNE HABERSHON, M.D. LOND., F.R.C.P.

A BRIEF NOTICE of the death of this able and eminent physician appeared in our issue of Aug. 31st, and we now append a review of his life.

Dr. Samuel Osborne Habershon, who was born at Rotherham in 1825, was a descendant of the Yorkshire branch of an old Lancashire family, whose seat, Habergham Eaves, was in the village of Habergham, or Habersham, near Burnley. The older name of Habersham is still retained by the American descendants of the same family, whose ancestors went over with Whitefield, and were among the earliest settlers in the State of Georgia, and contributed the first governor of the colony, and subsequently a post-master-general in Washington's Cabinet. Dr. Habershon was educated at Brampton, near Watt, and at Ongar, Essex. He

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came up to London in 1840, and at this early age commenced the study of medicine with the assiduity and earnestness which characterised the whole of his after career. Although present at the introductory lecture delivered by the late Dr. Addison at Guy's Hospital in 1840, he did not enter there as a student until two years later. He became, however, a pupil of the late Mr. Ebenezer Pye-Smith, of Billiter-square, City, and, meanwhile, attended lectures on botany at the London Hospital, where he gained the first prize, a silver medal, at the end of the session. His career at Guy's dates from the year 1842, and his record, both at that hospital and at the University of London, was one of continuous and brilliant distinction. Prizes in chemistry and anatomy were awarded him at Guy's in 1843 and 1845, as was also the first prize in chemistry at the matriculation examination of the University of London in 1844. In the first M.B. examination in 1846 he was first in anatomy, in materia medica, and in chemistry, obtaining three gold medals and two exhibitions. In 1848, in the second M.B. he obtained the first place in medicine with a gold medal and scholarship, and the first place in physiology with a gold medal. This uninterrupted success speedily brought him into notice at his hospital, and he was in the following year, 1849, appointed demonstrator of anatomy and tutor. In 1851 Dr. Habershon took his M.D. degree, and became lecturer at Guy's on comparative anatomy, and also gave microscopical demonstrations. These posts he continued to hold until 1853, when he was appointed demonstrator of morbid anatomy, curator of the museum, and lecturer on pathology. In 1854 he was appointed assistant physician to Guy's Hospital, and in 1856 he relinquished the posts he already held for the chair of materia medica. At the same time, in consequence of Dr. Addison's death, he took charge of certain beds in Philip ward. In 1864 he superintended the Skin Department and gave demonstrations, and in 1866 was elected full physician, becoming senior physician in 1873. In this year he exchanged the lectureship on materia medica for that on the principles and practice of medicine, which he held until the year 1877. His career at Guy's Hospital, so distinguished and honourable, was, however, destined to be cut short by circumstances altogether unforeseen. In November, 1879, it became apparent to the medical staff that the new departure in the system of nursing was seriously interfering with the welfare and treatment of their patients. A remonstrance with the governing body led to serious conflict, which was further embittered by a widespread discussion in the public press. Regardless of the opinion of their medical staff, who were qualified by their technical knowledge and daily experience in the wards to be the best judges in the matter, the governing body practically upheld the innovations. As a final result of the prolonged controversy, the resignations of the senior physician and surgeon were demanded, and although this demand was subsequently withdrawn, yet Dr. Habershon and the late Mr. Cooper Forster felt strongly that their continuance in office was not consistent with their personal views of professional dignity and honour. They consequently sent in their resignations in November, 1880, which were accepted. Thus ended for Dr. Habershon a connexion of nearly forty years with Guy's Hospital—a connexion which included the best years of an active life and much arduous and brilliant work. That his action and that of his colleague, Mr. Cooper Forster, was not without large professional support was sufficiently proved by the presentation of a substantial testimonial to each of these gentlemen on the part of old Guy's men and numerous other friends. Whilst deeply regretting the serious check thus inflicted on the progress and prosperity of a great hospital and medical school, it must be recognised that other institutions have profited by the experience, and have safeguarded themselves from a similar catastrophe by giving adequate representation to the views of the medical staff in their governing bodies. It is still further to be regretted that the suggestion made some time since, that Dr. Habershon and Mr. Cooper Forster should be placed on the consulting staff of the hospital, was not carried out—a compliment which would have been not only worthy of the recipients, but graceful on the part of the donors.

In addition to his university degree, Dr. Habershon in 1848 became qualified as Member of the Royal College of Surgeons, England, and a Licentiate of the Apothecaries' Hall. In 1851 he became Member of the Royal College of Physicians and Fellow in 1856. Subsequently he was appointed Examiner in Materia Medica at that College, and one of the Council in 1869; in 1874 and 1875, Censor; in 1876, Lumleian lecturer; in 1876 to 1877, Examiner in Medicine; 1877-8-9, member of the Council; Harveian Orator in 1883; Senior Censor in 1885; and Vice-president in 1887.

Dr. Habershon was physician to the City Dispensary in 1852, but resigned eighteen months afterwards on account of his appointment to Guy's Hospital. In 1862 he became physician to the Star Life Assurance Society, and in 1863 consulting physician to the London City Mission, both of which posts he continued to hold until his death. At the medical societies Dr. Habershon took a prominent position. He delivered the oration at the Medical Society in 1863, the Lettsomian lectures at the same Society in 1872, and was elected president in 1873. He became president of the Metropolitan Counties Branch of the British Medical Association in 1880.

During the many years of Dr. Habershon's intimate association with Guy's Hospital, in each and every capacity, whether as student, teacher, or physician, he was especially distinguished by the conscientiousness and earnestness, as well as by the ability and success, with which he fulfilled the duties that devolved upon him. One who was his colleague up to the termination of his connexion with Guy's, and who valued him as a friend during a period of nearly thirty years, and until his death, writes as follows: "I cannot express my own sorrow, nor my sense of the loss the profession and the public generally have sustained by the death of my dear friend Dr. Habershon. From intimate and long acquaintance and association with him, both as a colleague at Guy's Hospital and in private practice, I learnt to appreciate and to value his character more highly than I can say. Genuine, upright, honest, kind, and considerate, his personal qualifications endeared him to his friends and patients; while his ability, experience, and careful and thorough method of examination secured for him the confidence of his professional allies in his judgment and advice."

Dr. Habershon's position in the profession was the outcome of his own exertions and hard work. Coming up to London as he did when a mere boy, without influence or medical friends, his studious habits and power of application to work soon gained for him a thorough mastery of each branch of his profession, resulting, as we have seen, in an exceptionally distinguished career. The early years of his connexion with Guy's Hospital as a teacher were mainly spent in the anatomical school, the post-mortem room, and the museum. Such a training made use of by a man of conspicuous ability, stood him in good stead in after life. His beautiful and careful dissections, and excellent knowledge of anatomy, his many years of pathological research, formed the basis of much good and sound work. As a writer the books and numerous papers from his pen are of much value, recording as they do the result of years of careful clinical observation and experience. The Guy's Hospital Reports, from the year 1855 to 1872, contain a series of twenty-eight papers written by him. Other articles are published in the Medico-Chirurgical Society's Transactions, THE LANCET, and other medical journals. His most important contributions, however, to medical literature, and those by which his reputation was chiefly made, are: "On Diseases of the Abdomen," published first in 1857 (fourth edition, 1888—also published in America); "On Diseases of the Stomach" (third edition, 1879); "On Some Diseases of the Liver" (Lettsomian Lectures, 1872); "On the Pathology of the Pneumogastric Nerve" (Lumleian Lectures, 1876; translated into Italian, 1879); "On the Injurious Effects of Mercury in Disease."

Widely known as an authority on abdominal disease, Dr. Habershon had an extensive practice. In his methods of treatment he was gentle and opposed to strong or heroic measures, and yet in exceptional cases he was not slow to recommend them, and it is worthy of record that he was the first in England to propose the operation of gastrostomy for stricture of the œsophagus, which was performed, at his suggestion, upon a patient of his by the late Mr. Cooper Forster in 1858. The operation, of course, has since been frequently performed with success in other cases. Though by nature quiet and retiring, Dr. Habershon's influence was a strong one. In the councils of the College of Physicians his opinions were always listened to with respect, and his influence carried weight. Sir William Jenner, during whose presidency he held several of the

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highest offices, pays the following tribute to his memory: "Dr. Habershon's death is a great loss to the profession. The College of Physicians had no Fellow more sensible, more worthy, or more honourable. As a consultant his professional brethren felt they could repose full confidence in his judgment and in the uprightness of his conduct, while the public justly trusted his ability, skill, and probity."

A man of strong religious convictions, Dr. Habershon engaged in many works of philanthropic interest. As far back as the year 1849 he assisted the Darby-street Ragged School, and afterwards became its valued and devoted superintendent. Later, when he moved from the City to the West-end, he did not relax his useful efforts, and continued almost up to the time of his death in Christian work amongst the poor of his neighbourhood. Even where he was unable to give his personal services he was a generous supporter and staunch friend of many charitable institutions. But his influence for good was also prominently felt by those with whom he came in contact in the midst of his public and professional duties. The wisdom and kindliness of his advice, the force of his example, and his consistent fearless and honourable character were universally recognised. "He was always a very great favourite with the students of his hospital, and was looked up to as a careful and painstaking clinical teacher, and on going round the wards he had always a large and appreciative following. Very many of them esteemed and loved him, because they felt that he had always their best interests at heart. And when, as one of the originators of the Christian Medical Association, he invited to his house on Sunday afternoons the students of Guy's and St. Thomas's Hospitals, they were so impressed with his sincere and heartfelt words, so free from anything like cant, that they could not but feel that he was a true friend interested in their welfare for this world and the next." Such at least is the opinion of one who, as a pupil, knew him well in those days, and continued throughout his life to be a warm and sincere friend.

Dr. Habershon was never a robust man, but, with the exception of one serious illness some years ago, enjoyed good health until within eighteen months of his death. Several times during last year he suffered from severe dyspeptic attacks, but the cause of his malady was not suspected until he was prostrated in November by severe hæmatemesis. During this illness he was attended by Sir William Jenner, in conjunction with Dr. Gilbart-Smith and his son Dr. Herbert Habershon. Recovering in great measure, he resumed his work, but the death of Mrs. Habershon in April, and the mental shock consequent upon it, undermined his health and resulted in a return of his disease. Hæmorrhage from the stomach again appeared on July 9th, and he was again confined to his bed. Repeated hæmorrhages reduced his strength, and in spite of the skill and unremitting care of his medical friends and advisers, Dr. Andrew, Sir A. Garrod, Dr. Gilbart-Smith, and the nursing of his son, he died on Aug. 22nd at his residence in Brook-street of simple ulceration of the stomach. It is not a little remarkable that he should have thus succumbed to a disease upon which he was undoubtedly one of the first authorities.

Dr. Habershon leaves a son and three daughters.

DR. PHILIPPE RICORD.

ONE of the most illustrious characters of the age has just passed away in the person of Dr. Philippe Ricord, who died on the 22nd inst. after a few days' illness of pneumonia. He was born at Baltimore on Dec. 10th, 1800. At the age of twenty years Philippe Ricord arrived in Paris, was soon after admitted to the Internat, followed the lectures of Dupuytren and of Lisfranc, and obtained the Doctorate of the Faculty of Medicine in 1826. Being in poor circumstances, and, as he found it hard to live in Paris, he went to the provinces, whence, after having had a successful practice, he returned to Paris in 1888. He immediately entered the Concours for the Bureau Central of the hospitals. He was admitted first on the list, and was attached to the Pitié Hospital as surgeon, where during two years he lived with the produce of lectures for which he was paid. Three years later (in 1831) he was appointed principal medical officer of the Hôpital Midi, which is reserved for the treatment of venereal affections in the male sex. From this time a promising career was opened to him. He soon acquired a world-wide reputation on the subject of venereal diseases, and he was always considered the highest authority on that class of affections. His private consultations were very remarkable. He had several waiting-rooms in his house for the reception of the different categories of patients who called on him. He had a clever footman, who at first sight knew how to classify the clients. There were waiting-rooms reserved for ladies apart from those for gentlemen. Ricord was of a very generous turn of mind, for he not only gave his services gratuitously to those who could not afford to pay his fee, but he would help them if they were in need. He was courteous and affable, and full of wit, and had an encouraging word for each of his patients, whatever his position in life. He was a man of strong build, and, notwithstanding his advanced years, was very vigorous until quite lately, when his strong constitution began to give way, but his mental faculties were sound till near the last moments of his life. He was the Doyen of the Academy of Medicine, to which he was elected member in 1850, and of which he was once elected its President. Ricord received many honours.. In 1860 he was promoted to the dignity of Commander of the Legion of Honour, and in June, 1871, M. Thiers conferred on him the grade of Grand Officer of the Legion of Honour in recognition of his services at the Ambulances during the siege of Paris. He had received more than two hundred decorations from different foreign Governments throughout the world. It was in fulfilling his duty as a loyal citizen that he contracted the malady which proved fatal to him. On the day of the general elections, on the 6th of October, he came to Paris from Versailles, where he generally spent his summer, in order to deposit his vote in the urn, and immediately started to return to Versailles, but being late for the train he waited an hour at the station for the next train. In thus waiting at the station he took a cold and had to return to his home in Paris. He then had symptoms of pulmonary congestion, which, however, subsided; when on Thursday week last he went down to his garden, and during the night was seized with symptoms of pneumonia, which carried him off on the morning of the 22nd inst. at three o'clock. He was most assiduously attended by Drs. Potain and Bouchut and others of his medical friends and former pupils. For two or three days before his death his flagging strength was kept up by inhalations of oxygen. During the course of Monday alone the patient was made to inhale 800 litres of oxygen. Until seven o'clock in the evening he had full possession of his mental faculties, and was able now and then to speak to Dr. Potain, who was by his bedside, but from that hour he never uttered a word, and expired at three o'clock on Tuesday morning. His funeral takes place to-day (Saturday) at Père la Chaise.

1828

DR. CHARLES ROYSTON.

WE regret to have to record the death, at his residence in Bayswater, of Dr. Charles Royston, under circumstances to a peculiarly sad and painful nature. The deceased, who was about to marry again, was found dead in his bed on the morning of the 15th inst., and at the subsequent inquest the jury returned a verdict, "That the deceased died from an overdose of prussic acid self-administered while suffering from intense mental excitement and severe physical suffering." We are informed that Dr. Royston had of late been passing through a condition of mind in which excitement alternated with fits of depression, in addition to which he had, for some weeks past, although unknown to his relations, been a victim to insomnia. The post-mortem examination showed that the deceased suffered from an abscess on the gall bladder, the pain from which undoubtedly induced a condition of mind which rendered him unable to face trivial worries, which at other times he would have lightly dismissed. A solemn funeral service was held in St. Stephen's Church, Westbourne Park, and the signs of mourning were general throughout the parish, in which the deceased had been a long and respected resident.

METROPOLITAN POLICE SURGEONS' ASSOCIATION. The annual dinner of this Association will take place at the Criterion Restaurant on Thursday, Nov. 14th, at 7 o'clock.

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Medical News.

UNIVERSITY OF CAMBRIDGE.—At a congregation, held on the 17th inst., the following degrees were conferred:

Bachelors of Medicine.—Eustace John Parke Olive, St. John's; Eustace Henry Lipscomb, Gonville and Caius; Albert Charles Elsmore, Christ's; Arthur Court, Cavendish Hostel.

Bachelor of Surgery.—Edward Henry Douty, King's.

The Examiners in State Medicine have issued the following list of those examined and approved for both parts of the examination, who are entitled to a diploma certifying to their competent knowledge of what is required for the duties of a medical officer of health. All those approved are on the Medical Register of the United Kingdom:—

F. E. Adams, A. Ambrose, A. R. S. Anderson, C. J. Ayres, G. R. Beardmore, J. T. Calvert, J. W. Campbell, A. K. Chalmers, E. H. Colbeck, H. D. S. Compigné, W. Cotton, A. M. Davies, U. K. Dutt, J. H. Garrett, H. C. M. Gibson, J. Glaister, J. E. Gould, W. Gruggen, W. Jackson, J. R. Kaye, C. S. Kilner, R. Laing, J. Loane, C. R. Macdonald, W. A. Macnaughton, R. M'Niell, J. Nall, R. L. Roberts, D. Roxburgh, A. F. Street, J. Taylor, G. T. Thomas, G. M. Thompson, C. B. Voisey, G. H. Weston.

Dr. Norman Moore, of St. Catharine's College, has been appointed Assessor to the Regius Professor of Physic.

Dr. W. M. Orr, of London, was appointed an examiner in Medicine, and, in consequence of the large number of candidates for the examination in State Medicine, Dr. Carpenter, of London, and Mr. George Turner, lecturer on hygiene at Guy's Hospital, London, were appointed additional examiners.

UNIVERSITY OF GLASGOW.—The following gentlemen have passed the First Professional Examination for the degrees of M.B. and C.M:—

James Alexander Aitken, Robert Hugh Allen, Thomas Barrowman, John James Boyd, Wm. Brodie Brodie, William Mackenzie Brown, Walter Isaac Buchanan, Archibald Prentice Campbell, Jas. Carslaw, M.A., David Charters, Charles Edward Cochrane, James Cochrane, Henry Adolf Cohrs, Alex. Dalrymple Cuthbert, Henry Davies, David Alexander Dewar, Archd. Smith Dick, John Donald, Alexander Edwards, Alex. Robert Ferguson, Andrew Findlay, Alfred Forrest, John James Fraser, Wm. Fulton, Wm. Sprott, Alex. Galt, Thomas Adams Stewart Gibb, Charles L. S. Gibson, David Wyllie Girvan, Daniel M'Intyre Glen, Robert Guy, Walter Buchanan Hastings, Ernst Denny Scott Heyliger, Campbell Highet, James Hogg, John Lindsay Howie, James Jack, John Kennedy, George Lawson Kerr, Hugh Kerr, M.A., Thomas Kirkwood, M.A., Thomas Donald Laird, David Lewis, John Lindsay, William Lowe, James Marr, Robert M'Farlane Marshall, David Ramsay Miller, James Moffat, James Donald Rae Monro, John Morton, William M'Niven Muat, Alex. Christie M'Arthur, Colin Campbell M'Call, Arthur Wellesley M'Clelland, Alex. Hutchison M'Cracken, Duncan M'Donald, John M'Donald, M.A., Malcolm Macnicol, M.A., Alex. Stewart M'Pherson, Peter Carmichael M'Robert, William M'Walter, Robert E. Newton, John Paterson, M.A., John Paxton, James Pettigrew, Wm. John Richard, M.A., James Jenkins Robb, James Bryce Robertson, Leonard Alfred Rowden, Thos. Leadbetter Shields, Francis Small, George Smith, M.A., James Smyth, John Barr Stevens, Nathaniel Stevenson, M.A., Charles Stewart, William Stiell, David Robert Thomson Strong, Robert Taylor, John Hammond Teacher, M.A., David Wallace, Andrew Wauchope, Hope Wellis, Charles Wilson, Robert Wilson, Alfred Alexander Young, M.A., Jas. Murray Young, John Cameron Young, William Semple Young.

The following have passed the Second Professional Examination:—

William H. M. Alexander, William Clachan Allardice, William Anderson, Robt. Bishop, Peter Otho Watkin Browne, Adam Guthrie Burrell, David Birrell Campbell, Niel Campbell, Andrew Cluckie, Charles Edward Cochrane, Robert Cochrane, Alex. Baillie Craig, John Alexander Creighton, Hugh Colligan Donald, James Gray Duncanson, Alfred Ernest Evans, John Falconer, William B. O. Ferguson, David Frame, M.A., Thos. James Freeman, Hugh Galt, Edwin Arthur Gibson, John Green, David Harries, Wm. Sandilands Harrison, Robert Home Henderson, William Moffat Holmes, Robt. King Howat, William Jackson, Robert James, David Clark Laird, Peter Alexander Laird, David Lamb, John Wm. Logie, Robert Alex. E. Lowry, Samuel T. M'Clintock Lowry, Robert Mortimer Malcolm, John Miller, Robert Moir, Percy Hope Murray, William Murray, Robert M'Ghie, John M'Gregor, Charles Hugh M'Ilraith, M.A., Alexander L. M'Leod, M.A., Robert Wm. Nairn, James Henderson Naismith, Gilbert Park, Robert Ramsey, Archibald George Saunders, David Smith, Maurice Tancred Stack, Geo. Clark Stewart, Geo. Mervyn Sydenham, Daniel M. Taylor, M.A., William Risk Thomson, M.A., James Todd, Ebenezer Turner, Wm. Watson, Hope Wellis, John Whitehouse, William Young, John Yuill.

The following have passed the Third Professional Examination, including, in the cases marked with asterisks, the subject of Pathology:—

Peter Henderson Abercrombie, John Adam, John Wilson Adam, *Alexander Percy Agnew, *James Alexander, *Thomas Primrose Anderson, James Barr, Robert Burns, William Butler, *Matthew Cameron, James Hamilton Campbell, *John Monro Campbell, Archibald Chalmers, M.A., *Jas. Chalmers, Jas. Easton Chalmers, John Cochrane, Samuel Cockburn, James Cordiner, M.A., William Craik, William Crichton, Peter Drummond, M.A., *George Henry Edington, *David H. Fotheringham, M.A., *James Fisher Frew, Robert Girdwood, Andrew Goldie, *Charles Herbert Hall, *James Hill, Anthony Inglis, George Scott Jackson, *Gilbert Petgrave Johnson, James Kirkwood, *John Lithgow, Matthew Lochhead, *James Rowatt Logan, *George Agnew Main, William Mason, John Wilson Mathie, *Alexander Goodsir Mowat, M.A., *James Muir, *David M'Donald, *Wm. Dove Macfarlane, Duncan Otto M'Gregor, Hugh Macintyre, Neil Macintyre, *Daniel M'Kenzie, John Norman MacLeod, M.A., *James Gibson M'Naught, M.A., James Niven, William Park (Beith), *William Park (Kilmarnock), *Peter Paterson, Edward Ley Paton, M.A., *John Pollock, Brownlow Riddell, William Roberton, Alex. Marshall Roy, Charles Francis Scott, *Archibald Shaw, *William M'Gill Smith, Rodk. Tate Sutherland, Lewis Dunbar Temple, *John M'Donald Vallance, *James Sim Wallace, B.Sc., Wm. Thompson Merry Wallace, Andrew Watson, John Watt, *Alex. David Wilson, James Alex. Wilson, *Andrew Wylie, Hugh Corbett Taylor Young, John Zuill, M.A.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates, having passed the qualifying examination in Medicine, Surgery, and Midwifery, have received certificates entitling them to practise in the same, and have been admitted as Licentiates of the Society on Oct. 10th:—

Collett, Henry George Outram, King's College.

On the 16th:—

Bristow, George Hamilton, St. Thomas's Hospital.
Cornilliac, Joseph, King's College Hospital.
Dawber, John Henry (B.A. Oxon.), Middlesex Hospital.
Lory, Arthur George Bateman, London Hospital.
McInerny, John, College of Physicians and Surg., New York.
Neville, Evan James, King's College Hospital.
Pritchard, Edward Josiah, Westminster Hospital.
Wilson, Helen Mary, Royal Free Hospital.

On the 17th:—

West, William Frederick, St. Bartholomew's Hospital.

COLLEGE OF PHYSICIANS IN IRELAND.—At the October Examinations the following gentlemen obtained the Licences in Medicine and Midwifery of the College:—

Medicine.—Philip Cormack, Sydney Fielder, Frederick Wm. Smith Stone.

Midwifery.—Philip Cormack, Frederick William Smith Stone.

The undernamed was admitted a Member:—

Edward Young, F.R.C.S.I.

CONJOINT SCHEME OF THE COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND.—The following gentlemen have passed the First Professional Examination:—

E. A. Chartres, W. Coneys, J. G. Crozier, J. Flemming, J. E. Fox, R. P. Goode, J. V. Griffin, H. Hunt, R. D. Jephson, D. T. Kelly E. Kennedy, M. Kiely, E. J. King, P. J. Long, J. F. Maguire, J. P. Marnell, P. Merrin, C. E. Murphy, J. P. McCormack, H. McFadden, H. Nash, H. F. Nolan, J. C. O'Malley, M. K. Quinlan, C. M. Richards, J. Robinson, J. F. Sheppard, J. Skelly.

UNIVERSITY OF DURHAM.—At a convocation held on the 22nd inst., the degree of M.D. was conferred on Barrington Syer White.

SANITATION IN BOKHARA.—The Ameer of Bokhara has, it is stated, in consequence of his recent visit to Chardjui, ordered that the sanitation of his capital shall be scientifically inquired into and improved.

ST. LUCIA is unprovided with a lunatic asylum, the expense of providing one being an insuperable difficulty. Madmen have now to be attended at their own homes and watched by their own families.

FOOTBALL ACCIDENT.—A man named Dybull, who was goalkeeper, whilst playing at football, under Association rules, at Scarborough on Saturday, was accidentally knocked down by a player of the opposing team and had his leg broken.

INSANITARY DWELLINGS.—At an extraordinary meeting of the Islington Vestry held on the 18th inst., several houses in Nelson-place and Aston-buildings, Holloway-road, were, in accordance with the report of the medical officer of health and the Vestry's surveyor, ordered to be demolished.

COLLEGE OF PHYSICIANS IN IRELAND.—At a meeting of the Fellows, held on St. Luke's Day (18th inst.), the following office-bearers were elected for the ensuing year:—President: L. Atthill. Vice-president: George F. Duffey. Censors: G. F. Duffey, Joseph Redmond, Andrew Horne, W. Beatty. Additional Examiners: J. H. Benson (Medicine), E. Cosgrave (Medical Jurisprudence and Hygiene). Midwifery: W. J. Smyly. Examiners for License in Midwifery: Andrew Horne, W. J. Smyly. Examiners under the Conjoint Scheme.—Chemistry and Physics: Isaac Ashe, Henry Bewley. Materia Medica and Pharmacy: E. Cosgrave, F. Quinlan. Physiology: J. M.

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Purser. Medicine: G. F. Duffey, Arthur Foot, C. J. Nixon, W. Beatty. Hygiene and Forensic Medicine: John Molony, Joseph M. Redmond. Examiners for the Membership.—Clinical Medicine: George F. Duffey, J. H. Benson. Pathology: H. T. Bewley, John M. Purser. Practice of Medicine and Public Health: W. Beatty, E. McDowel Cosgrave. Examiners for Diploma in State Medicine.—Chemistry: W. G. Smith. Climatology, Meteorology, and the Geographical Distribution of Disease: J. William Moore. Vital Statistics: S. MacSwiney. Hygiene: C. Nixon. Medical Jurisprudence and Pathoiogical Anatomy in relation thereto: G. F. Duffey. Representative on the General Medical Council: L. Atthill. Treasurer: A. Smith. Registrar: John W. Moore. Elected to the Fellowship: Henry C. Tweedy.

MEXBOROUGH COTTAGE HOSPITAL.—The committee who are furthering this scheme met again on the 12th inst. The movement is rapidly approaching completion in every respect, and the old school-room is being transformed into the requirements of a hospital, under the superintendence of Mr. G. White, agent of Mr. Montagu, who has given the building and is meeting the cost of the alterations.

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.—The autumnal general meeting of the Association will be held at 11, Chandos-street, Cavendish-square, London, W., on Thursday, Nov. 7th, at 5 P.M. In addition to other business, an alteration of Rule VII. will be proposed by the Chairman of Council. On the same evening the Association will dine at the Holborn Restaurant, at 7 P.M., Dr. Fegan, President, in the chair.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.—Sir Risdon Bennett, M.D., F.R.S., will deliver an introductory address on Monday, Oct. 28th, at the Victoria-park Hospital. Clinical lectures and demonstrations will take place at weekly intervals, commencing Thursday, Nov. 7th, and ending Thursday, Dec. 12th, the lecturers being Dr. Thorowgood, Dr. Heron, Dr. Vincent Harris, and Dr. Ormerod. Full particulars can be obtained by application to Dr. H. Sainsbury, Victoria-park Hospital, E.

BRIDGWATER INFIRMARY.—The report submitted to the annual meeting of the subscribers on the 17th inst., which was adopted, was satisfactory alike in the good work done during the year as well as the financial condition of the institution. In the past year 258 in-patients and 1746 out-patients had received treatment, the largest number recorded for many years. The statement of receipts and disbursements showed a balance in hand of £161 4*s.* 6*d.*, against £45 brought over at the commencement of the year.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—The next quarterly meeting of the Medico-Psychological Association will be held at Bethlem Royal Hospital, on Wednesday, Nov. 6th, at 4 P.M. A paper will be read by Drs. Dodds, Strahan, and Greenlees, on "Assistant Medical Officers in Asylums; their Status in the Specialty." Dr. Baker will show and describe a new form of urinal and a fireguard with spring lock in use at the Retreat, York; also an inspection plate for asylum doors, and marble tiling for Turkish baths. Pathological specimens will also be exhibited.

BEQUESTS AND DONATIONS TO HOSPITALS.—By the will of the late Miss E. M. Jowitt, of Woodfield, Potternewton, the following bequests are made, free of legacy duty: To the Leeds General Infirmary, £500; Edinburgh Medical Missionary Society; £500 and the Zenana Bible and Medical Mission, £300.—Mr. Hamilton Hoare, of Fleet-street, London, has given a donation of £50 to the Royal Hospital for Diseases of the Chest, City-road; and a lady has sent a donation of 50 guineas to the same institution.—The late Mr. Stafford Henry Northcote, of 120, Belgrave-road, Pimlico, has bequeathed £100 to the Royal Free Hospital, Gray's-inn-road, London.—Miss E. Ansted, late of Brooklands, Landford, Wilts, has left by her will £100 each to the Salisbury Infirmary and the British Home for Incurables, Clapham-rise, and £20 to the City of London Lying-in Hospital.—Mrs. Blomfield Moore has given £500 as a thankoffering to the Samaritan Free Hospital for Women and Children, London.—The late Misses Eliza and Jessie Lochore of Minerva Lodge, Lenzie, have bequeathed, free of legacy duty, £300 each to the Glasgow Royal Infirmary and the Glasgow Western Infirmary; £200 to the Glasgow Royal Sick Children's Hospital; £100 each to the Eastpark Cottage Homes and the Lenzie Convalescent Home; £50 each to the Glasgow Eye Infirmary and the Glasgow Medical Mission.—An anonymous donation of £50 has been received by the Governors of the Devonshire Hospital at Buxton.—The Secretary of the Cardiff Infirmary has received £5 from the Cardiff United Bicycle Club.

PROPOSED NEW HOSPITAL AT STAFFORD.—An influential meeting has been held at the Guildhall, Stafford, under the presidency of the Earl of Harrowby, for the purpose of deciding upon the advisability of erecting a new hospital in place of the present one, which has been in existence for 120 years. A committee of investigation had recommended that a new building should be provided on a new site, whereby it was estimated that a considerable saving would be effected. It was believed that for a sum of £10,000 a model hospital could be built, providing accommodation for eighty persons. It was recommended that the sum of £5000 be raised by public subscription, the remaining £5000 being realised for the old building. A motion that the work for the erection of a new hospital be proceeded with was then carried, and a committee was appointed to that end.

UNIVERSITY COLLEGE, DUNDEE.—At the annual meeting of the governors of this College, the report of the Council, which was adopted, stated that £9000 had been promised for the endowment and equipment of a chair of Physiology, and that, although a further sum of £6000 was required to properly endow the chair, yet, looking to the importance of the medical school being equipped as speedily as possible, the Council had resolved to proceed with the appointment of a professor. The financial statement showed that the debt of the College had been increased from £5000 to £6500, and the Council appealed for donations to wipe off the balance outstanding against the College. The Rev. Colin Campbell said it was gratifying to find that while the number of students was increasing, the students were taking a continuous course. He thought sufficient reasons could be advanced to warrant them proceeding to teach the subject of physiology even with a partial endowment. Unless some provisions were made for the teaching of physiology at present, not only would the anatomy students be left in a state of suspended animation, but the Council would labour under the disadvantage of their students departing to Edinburgh, where they could complete the education they desired.

BERLIN VITAL STATISTICS.—In the week from Sept. 15th to Sept. 21st, 862 children were born alive in Berlin, 109 of whom were illegitimate; 31 were born dead, including 3 illegitimate. The number of deaths was 501. Six died of scarlet fever, 1 of enteric, 30 of diphtheria, 1 of quinsy, 7 of whooping-cough, 3 of puerperal fever, 5 of typhus, 1 of syphilis, 12 of old age, 12 of cerebral apoplexy, 23 of inflammation of the lungs, 82 of consumption, 29 of diarrhœa, 24 of cholera nostras, 12 of intestinal catarrh, and 1 of delirium tremens. The number of violent deaths was 19, 1 by burning or scalding, 3 by drowning, 4 by hanging, 1 by suffocation, 2 by running over, 4 by falls or blows, and 4 by shots. Eleven of these deaths were suicides. Of the deceased 174 were under one year, 58 from one to five years, 26 from five to fifteen, 11 from fifteen to twenty, 28 from twenty to thirty, 39 from thirty to forty, 97 from forty to sixty, 60 from sixty to eighty, and 8 over eighty; 137 died in hospitals, including 14 who had come from other places to be treated here. The death-rate for the said week was 17·4 per 1000 of the total population of 1,500,103. The death-rate in the same week in Aix-la-Chapelle was 27·8 per 1000; in Altona, 16·3; in Breslau, 27·4; in Chemnitz, 23·6; in Dantzic, 20·9; in Dresden, 18·3; in Düsseldorf, 18·9; in Elberfeld, 16·2; in Frankfort-on-the-Main, 20·2; in Hamburg and suburbs, 20·3; in Hanover, 21·2; in Cologne, 20·3; in Königsberg, 26·2; in Krefeld, 12·7; in Leipsic, 19·3; in Magdeburg, 16·3; in Munich, 28·3; in Nürnberg, 24; in Stettin, 25·7; in Strasburg, 22·6; and in Stuttgart, 17. The death-rate in London in the same week was 15·2; in Paris, 21·5; in Liverpool, 18·9; in Dublin, 28·5; and in Amsterdam, 16·5.

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METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on October 22nd, 1889.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever	Other diseases.	Total.	
Eastern Hospital	225	56	..	55	..	336	442
North-Western Hospital	210	18	..	7	..	235	415
Western ,,	156	13	..	5	..	174	262
South-Western ,,	60	..	..	..	1	61	402
South-Eastern ,,	288	16	1	27	2	334	462
Northern ,,	432	..	..	..	..	432	480
Totals	1371	103	1	94	3	1572	2463

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

CADDY, ARNOLD, L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Leeds General Infirmary.

DANIEL, W. P., L.S.A., has been appointed Assistant House Surgeon to the Female Lock Hospital and Asylum, Harrow-road, W., vice H. J. L. Bullen, resigned.

DAVIES, D. S., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer, Bristol Port.

ESLER, R., M.D., M.Ch., L.M., Q.U.I., has been appointed Divisional Surgeon to the Metropolitan Police P Division, vice P. G. Philps, M.R.C.S., resigned.

EWENS, G. FRANCIS W., M.D., has been appointed Honorary Physician to the St. Pancras and Great Northern Dispensary, Highgate.

FLEMING, R. M., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of the Holbrook District, Samford Union.

HEAVEN, J. C., L.R.C.P. Lond., M.R.C.S., has been reappointed Assistant Medical Officer, Bristol Port.

MEIGHAN, T. S., M.D., M.B., C.M. Glas., has been appointed Professor of Ophthalmic Surgery, Anderson's College Medical School, Glasgow.

MILLER, J. T. ROGER, L.S.A. Lond., has been appointed District Medical Officer and Public Vaccinator for the Leavening District of the Malton Union, vice Wm. Deeley, M.D., L.K.Q.C.P.I., resigned.

MOORE, A. J., M.R.C.S., L.S.A., has been reappointed Medical Officer of the Parish of St. Lawrence, Reading Union.

OGLE, C. J., M.R.C.S., L.S.A., Anæsthetist to the Gordon Hospital for Fistula, &c., has been appointed Surgeon, vice the late Mr. Benton.

ORD, WM. THEOPHILUS, M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer and Public Vaccinator to the Halesowen District of the Stourbridge Union, vice T. McLauchlan, M.B. Edin., resigned.

PARSONS, F. J. C., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer for the Port Sanitary Authority, Bridgwater.

POLLOCK, R., M.B., C.M., F.F.P.S. Glas., has been appointed Medical Officer of the Burgh of Pollokshields, Glasgow.

SNADDEN, JAMES, M.B., C.M. Edin., has been reappointed Medical Officer No. 4 District, Wortley Union.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

CENTRAL LONDON SICK ASYLUM DISTRICT, Cleveland-street Asylum, Cleveland-street, W.—Assistant Medical Officer and Dispenser. Salary £100 per annum, with board and residence.

CHARING-CROSS HOSPITAL, London.—Surgical Registrar, for one year, at a salary of £40, but the holder is eligible for re-election.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. Also Resident Medical Officer. Salary £100 per annum, with board &c.

COUNTY BOROUGH OF HUDDERSFIELD.—Medical Officer of Health for the Borough and Urban Sanitary District of Huddersfield. Salary £400 per annum, with actual disbursements in addition.

GLOUCESTER FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Locum Tenens, out-door.

GORDON HOSPITAL FOR FISTULA &C., 278, Vauxhall-bridge-road, S.W.—Assistant Surgeon.

LEICESTER INFIRMARY AND FEVER HOUSE.—Assistant House Surgeon. Salary £80 per annum, with board, apartments, and washing.

LIVERPOOL DISPENSARY, 34, Moorfields, Liverpool.—Two Assistant Surgeons. Salary £80 per annum each, together with apartments, board, and attendance.

LIVERPOOL ROYAL INFIRMARY.—Honorary Surgeon.

MIDDLESEX HOSPITAL, W.—Second Chloroformist to the Hospital.

NORTH RIDING INFIRMARY, Middlesborough-on-Tees.—House Surgeon.

NORTH-WEST LONDON HOSPITAL, Kentish-town-road.—Junior Resident Medical Officer for six months.

PARISH OF EDAY, Orkney, to Inspector of Poor.—Resident Medical Officer. Salary £70 a year and practice.

PARISH OF THE UNITED PARISHES OF WHITTLESEY.—District Medical Officer and Public Vaccinator. The Medical District comprises the northern portion of the parish; the Vaccination District comprises the outlying portion of the parish. The salary as District Medical Officer will be £70 per annum, with the usual extra medical fees for midwifery and surgical cases. The fees for vaccination and revaccination will respectively be 3*s.* and 2*s.* per case.

PARKER DIXON, Esq., Solicitor, 13, Gray's-inn-square, London.—Assistant Medical Officer, in a large Metropolitan Lunatic Asylum. Salary to begin at £100 a year, with board, lodging, washing, &c.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, London, E.C.—Clinical and Junior Assistants. The former for one year, but the officer is re-eligible, and the Junior Assistants for six months, also re-eligible.

SALISBURY INFIRMARY.—A Dispenser. Salary £105 per annum; out of doors.

SALOP INFIRMARY, Shrewsbury.—House Surgeon. Salary £100 per annum, with board and residence.

SOUTH-WESTERN FEVER HOSPITAL, Landor-road, Stockwell, S.W.—Two Clinical Assistants. The remuneration is limited to residence and rations.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's-road, Chelsea, S.W. Ophthalmic Surgeon.

WEST BROMWICH DISTRICT HOSPITAL.—House Surgeon. Salary £80 per annum, with board, residence, and washing. Also Assistant to the House Surgeon. No salary, but board, residence, and washing.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—House Surgeon. Salary £100 a year, with board, lodging, and washing.

Births, Marriages, and Deaths.

BIRTHS.

ALEXANDER.—On Oct. 21st, at the London County Asylum, Hanwell, W., the wife of Dr. Robert Reid Alexander, of a daughter.

COLLIER.—On Oct. 12th, at High-street, Oxford, the wife of W. Collier, M.D., of a son.

DONKIN.—On Oct. 21st, at South-hill-park, Hampstead, the wife of Charles Donkin, L.R.C.P. Edin., of a daughter.

FRANCIS.—On Sept. 3rd, at Sooke, near Victoria, Vancouver Island, the wife of Harry A. Francis, L.R.C.P., M.R.C.S., of a daughter.

HUNT.—On Oct. 20th, at Crouched Friars, Colchester, the wife of Edgar A. Hunt, surgeon, of a son, prematurely, stillborn.

KIDD.—On Oct. 18th, at Brook-street, Grosvenor-square, the wife of Percy Kidd, M.D., F.R.C.P., of a son.

MAC COMBIE.—On Oct. 19th, at the Hospital, Hatfield-street, New-cross, the wife of Dr. John Mac Combie, of a daughter.

PERN.—On Oct. 16th, at Botley, Hants, the wife of Alfred Pern, F.R.C.S., of a son.

WARREN.—On Oct. 19th, at New Brompton, Kent, the wife of E. C. Warren, surgeon, of a daughter.

MARRIAGES.

CAVENAGH—WHITEHEAD.—On Oct. 9th, at Haslingden, John Paul Cavenagh, of Hull, L.K.Q.C.P.I., L.R.C.S.I., to Annabella, second daughter of Thomas Hoyle Whitehead, Esq., J.P., Holly Mount, Rawtenstall, Lancashire.

COLLINS—POTTS.—On Oct. 16th, at the Parish Church, Broseley, George Duppa Collins, M.R.C.S., L.S.A., to Selina, youngest daughter of the late George Potts, Esq., solicitor, Broseley.

HAYES—BARRY.—On Oct. 16th, at Ballyadam, Patrick Aloysius Hayes, Surgeon-Major Medical Staff, to Edith, second daughter of the late Wm. H. Barry, Esq., J.P., Ballyadam, Carrigtohill.

MARSHALL—DONALD.—On Sept. 25th, at St. Mary's, Bathwick, Bath, by the Rev. Colmer Godwin, curate of Christ Church, Torquay, Arthur Lumsden Marshall, M.A., M.B. Cantab., fourth son of Major-General W. B. Marshall, late Royal (Bengal) Artillery, to Margaret Minnie Helen, youngest daughter of the late John Donald, Deputy Inspector-General of Military Hospitals, and late of the 24th Regiment.

ROBERTSON—COPELAND.—On Oct. 22nd, at the Parish Church of Rainton, by the Venerable Archdeacon of Durham, assisted by the Rev. Hugh McNeil Minton-Lenhouse, M.A., Rector of Tillingstone Lovell, brother-in-law of the bride, Cecil Robertson, M.B., C.M., Smeeston, Somerset, son of W. P. Robertson, Esq., of Aberdeen, to Mabel Beatrice, third daughter of the Rev. G. Dale Copeland, B.D., Rector of Rainton.

DEATHS.

DAVIDSON.—On Oct. 17th, at Culross Park, Culross, Perthshire, Robert Halkerston Davidson, M.D., late Deputy Inspector-General of Hospitals of Her Majesty's Indian Army, Bombay.

GROSVENOR.—On Oct. 7th, at Ladbroke-grove, Notting-hill, George Fox Grosvenor, M.D., eldest son of the late William Grosvenor, Esq., aged 61.

JOHNSTONE—On Oct. 19th, at his residence, High View, Ramsgate, Henry James W. Johnstone, F.R.C.S. and J.P., eldest son of the late James Johnstone, M.D., Physician to King William the Fourth.

LAWTON.—On Oct. 19th, at 136, York-road, Lambeth, Richard Lawton, aged 87.

LEON.—On Oct. 19th, at Redcliffe-gardens, S.W., Hananel de Leon, M.D., formerly of Kingston, Jamaica, aged 92.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, October 24th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Oct. 18	29·69	S.E.	48	47	74	57	46	..	Foggy
,, 19	29·10	N.E.	51	50	59	54	47	·06	Overcast
,, 20	29·22	S.W.	50	50	63	55	49	·66	Raining
,, 21	29·32	S.E.	49	48	55	52	47	·18	Foggy
,, 22	29·37	S.E.	50	49	60	54	47	·34	Overcast
,, 23	29·62	E.	49	48	59	53	47	·02	Overcast
,, 24	30·01	N.	48	47	57	50	47	·06	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

A NEW TITLE FOR THE NEW ORDER OF APOTHECARIES.

WE have received several communications on this subject, the new apothecaries evidently desiring strongly a title expressive of their larger qualifications. Mr. A. R. Willson, of the Radcliffe Infirmary, Oxford, argues that as the new qualification is called a "Diploma in Medicine, Surgery, and Midwifery," and certifies competency to practise in all these branches, the holder is not sufficiently described by the title L.S.A. He argues from the above facts that their legal title is Dipl. in Med., Chir., & Obstet., L.S.A., and this is the description he advises every new licentiate to adopt. Mr. R. R. Sleman, of 7, St. Benet's-place, E.C., forwards us a form of petition to the General Medical Council to give the new licentiates "such title or titles as will convey to everyone the increased scientific status which such further study must necessarily confer." We should advise the new licentiates to take counsel with themselves and with the authorities of the Society before petitioning the Medical Council. The Medical Council has no power, we apprehend, to confer new titles. It is for the Society or its members to procure an alteration of the law that will allow the Council to register new licentiates under a juster title. The Council might be asked again to favour such a reasonable amendment of the law; but the simpler the language in which such a request is couched the better.

Mr. James Wigg.—1. The membership of the Royal College of Surgeons, England, did not confer a qualification in medicine before the Conjoint Scheme.—2. The licence of the College of Physicians, London, did confer a qualification in surgery before the Conjoint Scheme.

E. F. F.—1. The appointments are in the hands of the chairman of the Prisons Department, Sir Edmund Du Cane.—2. The Crown Agents for the Colonies, Downing-street, S.W.

Jeyes' Sanitary Compounds Co.—The matter shall receive attention.

TOUTING AMONGST FAITH-HEALERS.

To the Editors of THE LANCET.

SIRS,—The following exact copy of a letter recently addressed to a lady patient of mine may amuse and interest your readers. I may add that it is in an illiterate hand, as the mixture of French and English and the absence of punctuation will show.

I am, Sirs, yours faithfully,

Middle-lane, Hornsey, N., Oct. 23rd, 1889. A. GOLDNEY CHITTY.

"Near at Hand, 23 Sept., 1889.

"MA CHERE MADAME,—If you have not full confidence in your present medico and feel disposed to try the efficacy of prayer send for

"Yours obediently

"MARTIN MICHEL."

QUACKERY IN BRAZIL.

A BRAZILIAN medical journal complains bitterly of the sometimes vexatious restrictions with which the law surrounds the legitimate practitioner, while, on the other hand, the quack goes quite free. Every medical man, on coming to settle in a district, has to present his diplomas to the authorities for inspection, and also to pay fees for a licence to practise; the quack, of course, does nothing of the kind. Again, if a medical man sees an infectious case in the ordinary course of his duty, he is obliged by law to incur some expense and inconvenience for the protection of the public. The quack, on the other hand, if he sees an infectious case, an illegal act in itself, is not in the least troubled by sanitary regulations—indeed, he may sign death certificates and perform many other acts which for him are distinctly illegal without any of the authorities taking the smallest notice.

Anilins.—Lunge's "Coal-tar and Ammonia," 1887, gives a good account of the preparation of crude products from coal-tar. As to such complex compounds as antipyrine, no popular description is possible. Attfield's Chemistry, 13th edition, 1889, describes briefly the most important.

X. Y. Z. might put the questions to his medical adviser.

THE NEW ENTRIES.

To the Editors of THE LANCET.

SIRS,—We shall doubtless before long have the official returns of new entries at the medical schools. Should the numbers show a gain it will be an occasion for congratulation amongst professors and all interested in the numerical prosperity of their schools. A different feeling, however, will be awakened in the breasts of the rank and file of the profession should the returns show an increase upon last year's, for they have everything to lose and nothing to gain by a growth in numbers on the register, sharpening, as it inevitably will, the present almost intolerable keenness of competition.

On the general question of overcrowding in the profession THE LANCET has more than once spoken fearlessly and forcibly, but I am desirous of calling attention to one cause of the evil in question which has not, I think, been hitherto touched upon. I allude to the touting for students by the medical schools through the advertisement columns of the general press. Surely the facilities for advertising are ample enough in the medical journals to aid those who have already made up their minds to enter the profession in selecting the school best suited to them.

If there is any doubt in the minds of our hospital authorities as to the existence of overcrowding in the profession, or of the deplorable results arising therefrom, let them walk through our suburban as well as our thickly populated, more central neighbourhoods, and witness the profusion of so-called dispensaries, with shop fronts emblazoned with gold letters on "a sea" of chocolate, setting forth the wonderful skill of the proprietor and the cheapness of his wares. If this sight does not raise a blush for "the cloth," it is quite certain our fathers would have felt ashamed had such a spectacle greeted their eyes.

I am, Sirs, your obedient servant,

Oct. 16th, 1889. C. W. C.

ALBUMINURIA.

To the Editors of THE LANCET.

SIRS,—The circumstance of Dr. Saundby quoting from a different lecture of Dr. Graves from the one referred to by me renders his remarks on my note of the 8th inst. comparatively irrelevant. For the rest, if ever there was a man less likely to be hampered by the trammels of doctrine—the pitfall of medical men—Dr. Graves was that man. His illustrious pupil, Stokes, said of him: "He was a true physician"—not too common a commodity now-a-days. He revolutionised the practice of medicine in the treatment of fever. He *fed it*, relegating the Sangrado treatment which had hitherto obtained to well-merited oblivion, thus forming the germ, as I think, of conservative medicine. His views on capillary circulation, on the doctrines of inflammation (confirmed by microscopical investigations), on circulation of blood within the cranium (confirmed by Dr. Burrowes' experiments), on the pathology of paralysis (so remarkably in accord with the cerebro-spinal theory), on the pathology of tubercle, on the nature of the acid in the human stomach, &c. &c., make up a roll of medical achievements destined to fill a bright page of medical history, and equalling, I humbly apprehend, anything that has been done by "Kidney Bright."—Yours faithfully,

Oct. 21st, 1889. A PUPIL OF THE LATE DR. GRAVES.

CIRCUMCISION.

To the Editors of THE LANCET.

SIRS,—In Dr. Smith's "Concise Dictionary of the Bible," under the heading "Circumcision," is the following passage:—"The process of restoring a circumcised person to his natural condition by a surgical operation was sometimes undergone. Some of the Jews in the time of Antiochus Epiphanes, wishing to assimilate themselves to the heathen around them, built a gymnasium at Jerusalem, and that they might not be known to be Jews when they appeared naked in the games made themselves uncircumcised (1 Macc., 1, 15)." Will any one of your readers kindly inform me what this surgical operation was?

I am, Sirs, yours truly,

Huntingdon, Oct. 22nd, 1889. LANCELOT NEWTON.

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THE CLIMATOLOGICAL AND HYDROLOGICAL CONGRESS IN PARIS.

WE are informed that our correspondent was in error in implying that the United States was not officially represented at the Congress, Dr. A. Lawrence Rotch having, it appears, been delegated by the U.S. Commissioner-General at the Exposition for that purpose.

Dr. R. Rentoul (Liverpool).—Our space will not permit of the insertion this week of our correspondent's letter, which, however, will appear in our next.

GEYSER BATHS.

To the Editors of THE LANCET.

SIRS,—As the publicity now given to the dangers of these baths is due entirely to the evidence which I gave at the inquest on Reginald Chapple, I beg you will allow me to add a few words in further explanation.

The statement made by the coroner, Mr. Wyatt, was that, though this "accident" had occurred, there was a kind of "geyser" which did not require a funnel, and which was perfectly safe to use. I then opposed that opinion on the ground that in a bath-room of small cubic space, like the one in question, no apparatus of such a kind could be safe, owing to the rapid consumption of the oxygen of the apartment, and I do not care what kind of burner it may be provided with, whether Bunsen's or otherwise. I would also venture respectfully to differ from the writer of the annotation in your last issue, in which he says of the funnel (which should in all cases be provided): "The latter should not be carried out of doors, as the wind may blow back the fumes into the bath-room, but should be conveyed into an adjoining corridor or large room." This advice is surely inconsiderate, as in any case it must fill the house with noxious fumes, even when the draught is sufficient to clear the bath-room; and I can readily imagine a house of such a construction that even leaving the bath-room door open whilst the geyser is in action might have a similar result. Would it not be in every way better to recommend clearing the atmosphere of the bath-room from the possible regurgitation of fumes by opening both door and window for half a minute after the geyser burners are extinguished? In the meantime the funnel may be relied on to create its own draught at all times when the gas is fully turned on.

As deaths from the deoxygenation of the air of small rooms are at least twice as numerous in England as those from hydrophobia, I trust you may be able to find room for this warning.

I am, Sirs, your obedient servant,

Upper Norwood, S.E., Oct. 9th, 1889. EDWARD HAUGHTON, M.D.

"TELEGRAM—IMMEDIATE—NO CHARGE FOR DELIVERY."

To the Editors of THE LANCET.

SIRS,—Everybody's name and address in the "Medical Directory" should be followed by his telegraphic address, thus: (T. A. Liston, Surgeon, Ainsdale); or (T. A. Abernethy, Physician, Elter Water.) Such telegraphic address need not be a registered telegraphic address (for which the Post-office requires a guinea a year), but simply an abbreviated address which each man knows by experience is sufficient to ensure the prompt and correct delivery of his telegrams. When we telegraph to our London friends we spend nearly sixpence in name and address before we come to the words of the communication. All *un*registered telegraphic addresses in London, Dublin, &c., should conclude with the name of the *delivering office*, as the Post-office calls it, and this can be ascertained by inquiry at the nearest post-office to your residence. The editors of the Medical Directory must have information supplied before Nov. 1st, or it will be too late for the Directory for 1890. I am, Sirs, yours truly,

October, 1889. CRAVEN, Surgeon, Kendal.

COMBINARE.

IN our notice last week of the material under this name (which, by the way, was wrongly spelled "combinaire") we inadvertently omitted the address, No. 12, Gray's-inn-road, after the name of the inventor, Mr. Stoward.

DENTITION IN UTERO.

To the Editors of THE LANCET.

SIRS,—As a sequel to the letter of Mr. James Henry Clark, in your issue of Oct. 12th, I beg to say that I was called in to-day to remove two lower incisors from the mouth of an infant aged twenty-two days. They were there at birth, and had become so prominent and loose that the mother was anxious to have them removed. I enclose them with this letter, and may add that it is by no means the first case in my experience. I am, Sirs, yours truly,

Biggleswade, Oct. 14th, 1889. J. B. EMMERSON.

Mr. R. C. Nicholls.—We would refer our correspondent to an article in THE LANCET of Sept. 14th, p. 540. For the other side of this question see our issue of last week, p. 809.

"TREPHINING THE SACRO-ILIAC JOINT IN SACRO-ILIAC DISEASE."

To the Editors of THE LANCET.

SIRS,—In the report of the above case in your last issue, p. 787, are two errors. May I ask you to kindly correct the same, as materially affecting the diagnosis and treatment of the case? The patient could not sit on the *right* tuber ischii, not "left." For "two-inch limb" read two-inch *limit*. I am, Sirs, yours faithfully,

New Cavendish-street, W., Oct. 23rd, 1889. MAYO COLLIER.

ADVANCE IN MICROSCOPIC BACTERIOLOGY.

BY means of an improved microscope made by Seibert of Wetzlar the internal structure of the anthrax bacillus can be made out. This consists of a series of pearl-like corpuscles, which can be plainly seen to undergo division. The magnifying power of the microscope is said to be 2250 diameters.

Mr. W. J. Fraser.—The person extolled in the paragraph of the *London Weekly Telegraph* sent us is not in the Medical Register.

H. E.—Tribune Médicale of Oct. 3rd.

THE EXAMINATION IN SURGERY AT THE ROYAL COLLEGE OF SURGEONS AND THE EXAMINATION HALL.

To the Editors of THE LANCET.

SIRS,—If the Court of Examiners of the above institutions could arrange to take the *viva voce* part of their examination on the same day as the written (Friday), or even on Saturday, the next day, instead of having to wait till Monday and Tuesday respectively of the following week, it would be a great saving of expense and inconvenience to provincial students, who could take their departure immediately on the conclusion of the examination, the same or next day, instead of waiting about the town for nearly a week with no chance of enjoyment, and with no definite result, except that of emptying their pockets and evaporating their greater or less stock of assurance; for who can possess a serene and contented mind under the prospect of facing such an uncertain ordeal as an examination in medical knowledge amounts to, where the gravity and anxiety of the situation are enhanced by its being successfully or otherwise the means of deciding the result of four, six, or even eight years of toil and labour?

I have the honour to remain, Sirs, your most obedient servant,

October, 1889. A CANDIDATE.

PRACTICE IN BUENOS AYRES.

To the Editors of THE LANCET.

SIRS,—Can any of your readers kindly inform me how I should set to work in order to obtain a practice in Buenos Ayres or the immediate vicinity of the town? Any information as to opening, &c., will greatly oblige, Yours faithfully,

Oct. 21st, 1889. L.R.C.P. & S.

THE LATE ALBERT SMITH'S WORKS.

To the Editors of THE LANCET.

SIRS,—Can any of the readers of your valuable journal inform me if it is possible to get a copy of one of Albert Smith's old works—"The London Medical Student"?—I am, Sirs, yours faithfully,

ALFRED CORRIE,

Hull, Oct. 21st, 1889. Staff Surgeon, H.M.S. *Rupert*.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Mayo Collier, London; Mr. Christopher Heath, London; Dr. Bate; Mr. T. Bird; Dr. Horrocks, London; Mr. A. G. Chitty, Hornsey; Dr. Auld, Glasgow; Mr. L. Newton, Huntingdon; Mr. Sweeten; Dr. Hopkirk, London; Mr. A. E. Nevins, London; Dr. Norbury, Plymouth; Dr. J. Young, Stewarton; Mr. A. MacDougall, Richmond; Mr. C. J. Marsh; Dr. T. K. Clarke, Huddersfield; Dr. McKeown, Belfast; Mr. H. H. Taylor, London; Dr. Edmunds, London; Mr. Sunter; Dr. Collier, Oxford; Mr. Greenleaves; Mr. Fraser; Dr. F. H. Alderson, Hammersmith; Mr. Edge, Manchester; Dr. Wallace, Colchester; Dr. Lees, London; Dr. Skerritt, Bristol; Dr. Shuttleworth, Lancaster; Mr. A. Corrie, Hull; Mr. J. E. Blomfield, Sevenoaks; Dr. Stephenson, Hanwell; Dr. H. P. Hawkins, London; Dr. Ormsby, Dublin; Mr. Thorpe, Walthamstow; Dr. Maguire, London; Mr. M. Palmer; Mr. J. E. Thompson, Vienna; Mr. R. Harrison, London; Mr. Friend; Mr. J. P. Bush, Clifton; Mr. Christy, London; Messrs. Willows, Francis, and Butler, London; Dr. Montague, Nottingham; Messrs. Kingsford and Co., London; Dr. Walker, Redcar; Mr. Blake, Dublin; Mr. Musgrave Craven, Kendal; Mr. Yearsley, London; Mr. Sleman; Dr. Fancourt Barnes, London; Dr. O'Neill, Belfast; Dr. R. Main; Messrs. Barker and Sons, London; Mr. Williams, Kingsbridge; Messrs. Essinger and Co., London; Rev. J. Ellis, Bournemouth; Messrs. Clark, Son, and Platt, London; Mr. Lamond, Glasgow; Dr. Charteris, Glasgow; Miss Morrice, Worcester; Mr. Appleton, London; Mr. Sandell, West Kensington; Dr. McLauchlan, Worcestershire; Messrs. Entwistle and Kenyon, Accrington; Messrs. Stern, London; Messrs. McKesson and Robbins, New York; Mr. Brunner, Clapton; Messrs. Geo. Back and Co., London; Mr. Griffin, Bognor; Mr. West, Derby; Messrs. Rankin and Sons, Glasgow; Mr. Bancroft, Amesbury; Mr. W. H. Brown, Bow; Mr. Orr, Huddersfield; Messrs. Spon, London; Dr. Lindley, Stanberry, Ma.; Mr. Smith, Sheffield; Mr. Smitton, Edinburgh; Messrs. Lee and Nightingale, Liverpool; Mr. Williams, Notts; Messrs. Bell and Bradfute, Edinburgh; Mr. Woodbridge, Brentford; Messrs. Newbery and Sons, London; Mr. Woodhead, Huddersfield; Messrs. Burt and Co., London; Mr. Lark, St. Leonards-on-Sea; Mr. Hopkins, King's Lynn; M. Ramlot, Bruxelles; Mr. Buckle, Salop; Messrs. Wilcox and Co., London; Mr. Jubb, Huddersfield; Messrs. Carswell and Co., Piccadilly; Mr. Brown, Westgate-on-Sea; Messrs. Harrison and

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Brass, Elgin; Mr. Roberts, London; Mr. Gooday; Mr. Digan, Great Grimsby; Mr. Harris, Torquay; Mr. Ryan, London; Mr. Pode, Ivy Bridge; Mr. Walker, Middlesbro'; Mr. T. Cooke; Messrs. Baelz and Co., London; Mr. Hornibrook, Bloomsbury; Messrs. Cassell and Co., London; Mr. Hastings, Sidmouth; Mr. John; Mr. Leech, Great Yarmouth; Dr. Steele, Florence; Mr. Johnstone; Mr. Laban, West Bromwich; Mr. Thomas, Swansea; Dr. Forsyth, Edinburgh; Mr. Haviland, Douglas; A. B., London; Dr. Charpentier, Uxbridge; C. W. C.; Toronto; A. R. W.; L.R.C.P.; X. Y. Z.; Secreeary, Jessop Hospital, Sheffield; L.R.C.P. & S.; Medicus, London; Household Monthly, Boston, U.S.; M.D., L.R.C.S.E., Liverpool; North Riding Infirmary; Xenophon, London; Thetis, Stamford; Secretary, Eye Infirmary, Newcastle-on-Tyne; Surgeon, London; Sanitary Science, London; A Candidate; Beta, London; Z. R. Z.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. London, Wilts; Mr. Hindle, Loughboro'; Mr. Forbes, Jarrow; Messrs. Reed and Cook, Bridgwater; Mr. Tully, Hastings; Mr. Thompson, Great Ousebarn; Dr. Harrison, Norfolk; Mr. Ungent; Messrs. Blondeau et Cie., London; Mr. Ross, Liverpool; Dr. Adams; Dr. Beale, Upton Manor; Mr. Penland, Woolwich; Dr. Adamson; Mr. Nicholls, Bury St. Edmunds; Mr. Macdonald, Wigan; Dr. Crothers; Messrs. Pain and Baker, London; Mr. Harries, Llanelly; Messrs. Macmillan and Co., London; Mr. Branthwaite, Twickenham; Mr. Carter, Putney Hill; Mr. Wilkinson, Dudley; Mr. Smart, Cambridge; Mr. Williams, Aberystwith; Dr. Richardson, London; Mr. Coombs, Bridgwater; Mr. Reid, Canterbury; Dr. Davies, Wrexham; Mr. Martin, Cornwall; Mr. Betts, Chester; Mr. Woolley, Hove; Mr. Tyte, Minchinhampton; Mr. Kempton, Marylebone; M. Lorette, Paris; Mr. T. A. White, Territet Vaud; Mr. Lewis, Birmingham; Dr. Muirhead, Edinburgh; Mr. Barlow, Birmingham; Mr. Jeremy, Dublin; Mr. Bayley, Hastings; Dr. Joyce, Ireland; Mr. Masters, Sussex; Dr. Emmerson, Biggleswade; Mr. Oldham, Liverpool; Mr. Brittain, Ventnor, Isle of Wight; Dr. Jessett, London; Miss Hunt; Messrs. Weatherall and Co., London; Mr. Peed, Whittlesey; Mrs. Theobald, Leicester; Mr. Jackson, Sheffield; Mr. Gibbons, Liverpool; Mr. Macdonnell, Ayrshire; Dr. Gibson, Norwich; Mr. Elliott, Carlisle; Dr. Doyle, Sleigh; Mr. Pilkington, Chesterfield; Dr. Skrimshire, Monmouth; Rev. Ellis, Boscombe; Dr. Alexander, Hanwell; Mr. Johnson, East Ham; Mr. Coote, Ipswich; Mr. Warren, Kent; Mr. Thorne, Market Drayton; Dr. Harding, Whittlesey; Dr. Hine; Mr. Thomas, Tunbridge Wells; Mr. Williams, Pontypridd; Dr. Murrell, London; Mr. Gray, Bristol; Mr. Fidler, Totnes; Mr. Johnson, Basingstoke; Major Pead, Dulwich; Mr. Harrison, Norfolk; Miss Meason, Hants; Miss West, Manchester; Mr. Cusack, Edinburgh; Mr. Heywood, Manchester; Dr. Cavenagh, Hull; Mrs. Mullard, Reading; Alpha, Durham; Sigma; M.D., London; L. M. H., Llanelly; M.D., Kettering; Secretary, City of London Hospital for Diseases of the Chest; Secretary, Bristol Eye Hospital; P., London; Alpha, London; Secretary, Royal Victoria Hospital, Bournemouth; Caleb, London; H., Sheffield; Bradford Infirmary; Medicus, Honiton; Assistant, Manchester; Royal Albert Hospital, Devonport; Vacancy, Birmingham; Secretary, Farringdon General Dispensary; Beta, Brighton; Medicus, Bournemouth; The Hermitage, Yorks; Medicus, Cheshire; G., Yorks; Secretary, County Asylum, Shrewsbury; Humerus, London; E. S., London; Experientia, London; Veritas, London; Delta, Southport; C. B., West Devon; M.D., London; J. P., London; M., London; M.D., L.R.C.S.E., London.

Manchester Examiner, Surrey Advertiser, Indian Daily News (Calcutta), Birmingham Daily Gazette, Hertfordshire Mercury, Kensington and Hammersmith Reporter, Weekly Free Press and Aberdeen Herald, Lancaster Guardian, Mining Journal, Malton Gazette, Evening News (Portsmouth), Reading Mercury, North-Eastern Daily Gazette (Middlesborough), Jackson's Oxford Journal, Evening Citizen (Glasgow), Open Court, &c., have been received.

Medical Diary for the ensuing Week.

Monday, October 28.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK, E.—4.30 P.M. Introductory Address by Sir Risdon Bennett, M.D., F.R.S.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Ord: Some interesting points in connexion with Glycosuria.—Mr. Maxmaduke Shield: Cerebral Abscess due to Ear Disease, evacuated by the Trephine.

Tuesday, October 29.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

Wednesday, October 30.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, October 31.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, November 1.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON MEDICO-CHIRURGICAL SOCIETY (Board-room, West London Hospital).—8 P.M. Pathological Specimens:—Mr. R. F. Benham: An Umbilical Cord Knotted Ante Partum.—Mr. Keetley: Specimen showing Three Incomplete (Richter's) Strangulated Hernia in the same subject (a man aged seventy-six).—Mr. R. Lake: A Hypertrophied Tonsil. Cases:—Dr. Abraham: An unusual case of Psoriasis.—Mr. Keetley: A Girl aged fifteen with a Congenital Lateral Curvature of the Spine and a Double or Bifid Row of Spinous Processes in the Mid-dorsal Region. Microscopical Specimens:—A series illustrative of Phthisical Conditions of the Lungs, lent by Mr. Arthur Townsend of Birmingham.—Dr. Abraham: Sections of Psoriasis. Papers:—Dr. Thudichum: A New Mode of Operating on Nasopharyngeal Tumours (so-called relapsing).—Dr. Reginald Dudfield: The Sanitary Acts of last Session, especially the Infectious Diseases (Notification) Act, 1889.

Saturday, November 2.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

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Agent for the Advertisement Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

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ABSTRACT OF

An Address

ON

SCHOOL HYGIENE,

AND ON

MEDICAL GUIDANCE IN THE SELECTION OF SCHOOLS FOR CERTAIN CHILDREN.

Delivered at the Sanitary Institute of Great Britain on July 16th, 1889,

BY CLEMENT DUKES, M.D.LOND., &C.,
PHYSICIAN TO RUGBY SCHOOL AND SENIOR PHYSICIAN TO RUGBY HOSPITAL.

IN his opening remarks the lecturer explained that to attain the end they had in view—the production of a capable and vigorous race—the conditions must be gathered from the nature of the case and from experience. The gardener would tell them that no plant would be healthy and reach its normal development which had been checked in growth. "Keep it growing" was his constant lesson; then, and only then, would it fulfil its destiny in nature. Yet this was precisely the course which they were constantly neglecting in dealing with the human plant, which was sometimes placed under favourable circumstances, but at other times, and more frequently, under conditions the most adverse. For convenience, and to avoid repetition, he would only refer to the education of boys, but he wished it to be understood throughout that every suggestion was equally applicable to girls, who were so grossly neglected in the matter of education, and especially in the appliances which were necessary for physical education. In order that the highest physical growth might be attained during school life, it was necessary that the constitution of every child should receive a careful estimate of its capacity previous to the commencement of that period of life—a period of the first importance, embracing the years of most active growth, from eight to nineteen years of age. In speaking of the choice of a school for a child, his remarks obviously only applied to parents who were in a position to exercise a choice. To advise the poor to select an appropriate school would be as wise as to recommend the choice of a particular brand of champagne. Hitherto the medical profession had had little or no voice in the selection of an appropriate school for the individual child, and parents had usually sent their children to this or that school, on the ground that they themselves had been educated there, or because a friend had a boy or girl at the same school; so that the payment of the school cheque, promptly or otherwise, had been alone accepted as the criterion of their duties to their children in the matter of education. Without desiring to interfere with this arrangement when the children were the healthy children of a healthy stock, he did protest with all the force of which he was capable in the case of: (1) Children who were delicate or sickly; (2) children who had had an ailment which would recur under unfavourable circumstances; and (3) children who were healthy at the present time, but who were the offspring of parents who, as they advanced in years, developed ailments or diseases which had an hereditary tendency, and which medical men knew were apt to be transmitted sooner or later to the children, though medical men at the same time also knew that the possibly latent disease might be eradicated, or mitigated, were the child surrounded by favourable conditions during the period of school life. Not to heed such tendencies to disease, now that medical science was sufficiently advanced to lend an effective helping hand, was a parental neglect which might hamper the child through life and occasion untold misery, not only to the boy himself, but also to his future wife and children, by entailing his premature death, or often even worse, that moroseness of character which ill-health so frequently engendered. The lecturer then proceeded to give the two following cases as illustrative of his remarks:—

"1. Some time since I attended a little boy who was exceedingly ill with a chest illness. The course pursued by the illness caused me considerable anxiety, until I ascertained that he was born in India, and had had an illness from malaria during his residence there. I at once saw that his present illness was masked by this prior malaria fever, and on the administration of quinine and arsenic he speedily recovered. I heard recently that he was being educated to compete for a scholarship at a school situated close to the bed of a river, whose meadows at certain times of the year are frequently under water. I represented to the guardian of the boy that such a situation was most undesirable. My protest was heeded, and I have little doubt that, if the child be educated in the place where I advised, his ague will gradually, and I hope completely, wear itself out during his growing years, and that he will attain a healthy manhood. Had his parent persisted in sending him where he had proposed, the intermittent fever would have found a fitting soil for its continual recurrence, and would have clung to him throughout his life, or produced internal disease, such as spleen, with all its miseries and inconveniences. A clever boy would thus have been handicapped through life simply from ignorance of the importance of the subject. 2. A few weeks ago a friend of mine, an oculist, asked my opinion about a patient, a pale-faced, precocious, strumous boy, who was an only child, overgrown, listless, and stooping. He was suffering at the time from recurring attacks of iritis, depending upon synechiæ, the sequelæ of a former attack of rheumatic iritis, and had been living for many years near a brackish swamp. My opinion was sought because the parents had placed the boy at the most unsuitable school for such a constitution that could have been selected—a school unsuitable for any but the soundest and most robust. I advised that if the parents persisted in returning such a type of boy to that school, and he were mentally, morally, and physically ruined, the blame would rest upon the parents alone. For, as he could not thrive under such circumstances, sustained application to work would be impossible, and he would become a 'loafer,' with all its attendant evils. The sequel shows that the process I predicted was already taking place. I inquired of my friend, for the purpose of quoting this case to-day, what was the result of our advice, and he writes a characteristic reply: 'You might as well try to walk arm-in-arm with a grasshopper as to try to persuade that unfortunate boy's clerical father that there is any better school on earth for his son than the school at which he himself was a boy.' The result we expected came sharper than even I anticipated. 'He returned to school, and within a few weeks ran away from the school and came to London with another boy.' Now, had this boy been sent to a school where he would have improved in health and become vigorous, he would have worked well and played well, and would have become a credit to himself and his parents. I insist that this boy demands pity, the parents deserve blame; whereas the parents would seek your sympathy in their heartrending trouble, especially as he was an only child."

The lecturer next proceeded to refer to—1. Adolescents who had not suffered from any previous illness, but who had never thriven, and who were subject to continual *delicacy*, *anæmia*, and frequently repeated *catarrh*. 2. Adolescents who suffered from deficient or deteriorated health, arising from previous illness occurring during childhood. This class would include those who had suffered severely from a "*fever*," such as typhoid fever and scarlet fever; a long illness from an *inflammatory disease*, as pleurisy and joint disease; and *rickets*. Parents might say that their child was in its usual health, and had not ailed since the illness. But it was manifest to others that the child was pale and thin, not thriving, and had made no way since the illness in question. 3. Diseases which had already occurred during childhood and were liable to recur during adolescence. Under this heading he would class such diseases as *malaria*, *rheumatism*, asthma, neuralgia, albuminuria, and diarrhœa. 4. Hereditary disease in the parent which is liable to manifest itself in the offspring during childhood or to develop after childhood. Amongst these he would enumerate *gout*, *Bright's disease*, *nervous diseases*, and *tubercular disease*. The lecturer insisted that much could be done for those children by placing them in a healthy situation where they

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might pass their school life. With care and judgment in the selection not only of a well-placed but a well-built school, properly ventilated throughout, with large sunny rooms by day and large open dormitories by night, so that they could not breathe pre-breathed air, these children would respond to the influence of a healthy situation during school life beyond all expectations, and would outgrow the delicacy of their youth.

On the subject of Asthma, the lecturer said:—

"In the case of *asthma*—a frequent ailment during adolescence—I can, I regret to say, offer very little advice as to choice of situation, since the disease is one which exhibits the most curious and remarkable vagaries. Some children are quite free from attacks at the seaside; others in a town; others in the country, either in low-lying districts or on high levels; some where there are pine trees; others where the air is keen and dry; while others again can only breathe easily where the air is warm, moist, and relaxing. In one of the worst cases I ever had under my care, where every remedy had failed to give relief in the place where he was being educated, I inquired in despair whether there was any place on earth where he could breathe comfortably. The boy smiled, and replied that he could breathe with perfect ease on the Underground Railway in London, and that when he was at home he sometimes took a return ticket from one end of the line to the other, solely for the purpose of enjoying the pleasure of breathing with comfort. But in a worse case than this I summoned the father, for I feared a fatal termination, from a very long distance. On his arrival I asked if he knew any place where his son could draw his breath with ease; and he said, 'Yes, at home.' But inasmuch as he lived a forty-eight hours' journey away, and that across the sea, the difficulty to be faced was that of transporting the boy alive. However, I urged the trial, as I feared death from exhaustion if he remained. While we were discussing the question deep snow was on the ground, but a thaw came at the time of starting, and when the travellers, with all the appurtenances for his terrible attacks, arrived in London a dense fog prevailed, which at once mitigated the severity of the attacks, and the boy went comfortably to bed, was able to lie down, which he had not been able to do for several weeks, and slept most of the night, instead of sleeping only in momentary snatches as heretofore, and eventually he reached home safely. Whatever might be the course advised for those who were the victims of this unfortunate illness, it could only be tentative. Again, children having an hereditary tendency to tubercular disease should pass their earliest school years at the seaside, and their public school life at a spot where the conditions were suitably adapted to their physical state; where their vigour would be such that tubercular bacilli would find no fit soil in their organism in which to develop. There were many schools admirably located for the education of such a type of constitution. But that horrible legend, 'Because I was at school there, and my father before me, and we have all been educated there for generations,' has such fatal hold upon parents that some specific thought for the child never for a moment emerged from this ancestral lunacy. One cannot but admire the feeling of pride, constancy, and gratitude which made a parent adhere to the school of his fathers; but, on the other hand, human welfare might thereby be sacrificed to a mere tradition."

The lecturer pointed out the importance of class-rooms in schools being systematically ventilated and equably warmed by hot-water pipes rather than by fires; and, with regard to dormitories, he insisted that in bedrooms, where about nine consecutive hours were passed, each boy should have allotted to him at least 800 cubic feet of space and seventy-two square feet of floor space, with plenty of floor space between the side of each bed.

In conclusion, the lecturer said:—"I will epitomise the gist of this address in a few words. I have striven to point out that there are certain types of children, hitherto rarely considered, to their great detriment, who require special care during their school years to enable them to contend against adverse circumstances and to reach a healthy manhood. The kind of care required varies considerably in individual cases; but in the main it may be asserted that it is fatal to the attainment of a vigorous manhood if such children grow up in a cold, damp atmosphere; on a wet soil or subsoil; in small, dark class-rooms; and in the confined atmosphere of a cubicle. In place of these conditions, their constitutions imperatively demand that they should spend these years of development in a dry atmosphere, and in a locality sufficiently elevated to be free from the effects of a damp soil and subsoil. They also require that the aspect of all their rooms should be sunny; that the class-rooms should be large, light, and above ground; and the dormitories large and open, and unoccupied by day. Under these simple, but essential, conditions, delicate children will enjoy the best chance—which is obviously their due—of developing in health and vigour, and becoming not merely hardy in themselves, but the transmitters also of a constantly improving race. To help adult age and old age out of their illnesses and diseases is a noble work; but to prevent disease arising in the young, and thus enable them to grow up in health and vigour, is the noblest work of all."

ON THE TREATMENT OF PNEUMONIA BY THE ICE-BAG.[1]

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FOUR YEARS ago I published in the *British Medical Journal* (July 11th, 1885) an account of "Two Cases of Broncho-pneumonia Treated with Bleeding and Ice." I was much impressed with the good results that in each of these cases followed, and appeared to be due to, the persistent application of an ice-bag to the chest wall over the inflamed lung. Since that time I have taken such opportunities as have occurred to me of testing the use of the ice-bag in cases of pneumonia, and my impression of its value and of its great superiority to poultices and other warm applications has been so greatly strengthened, that two years ago I mentioned the matter to some of my friends who have large opportunities of clinical observation in hospitals and elsewhere, and asked them to give the ice-bag a fair trial. Several physicians have been good enough to comply with my request. If their opinion of this method of treatment prove to be as favourable as my own, practitioners of medicine generally may be encouraged to employ it, and by a sort of informal collective investigation it will then stand or fall. It can only be by the careful observation of a large number of individual cases that a satisfactory demonstration of its value can be obtained; for pneumonia is pre-eminently a disease in which it is easy to arrive at false conclusions with regard to the effect of treatment. The remarkable "crisis" which usually marks the close of a pneumonia is a trap for the unwary therapeutist, and any remedy the employment of which has preceded this striking event is only too likely to be credited with having produced it. And the fact that the crisis may occur at any period of the disease, from the third day to the tenth, makes it specially difficult to be sure that an apparent cutting short of the pyrexial process may not be simply the natural course of its development. To this deceptiveness of clinical experience is no doubt largely due the remarkable variation in medical opinion about the proper treatment of pneumonia. And the difficulty of correct inference is greatly increased by the fact that a condition so alarming in its appearance when at its height nevertheless usually recovers completely when the patients are children or young adults, except under special circumstances. Too often has the natural course of the disease appeared to give proof of the efficacy of some particular line of treatment, and venesection, leeches, tartar emetic, aconite, veratrine, digitalis, quinine, and alcohol have each in turn had their enthusiastic advocates. In advocating the employment of the ice-bag in pneumonia I am desirous of bearing these fallacies in mind.

The use of cold applications to the chest in pneumonia was advocated twenty years ago by Niemeyer. He used, however, not the ice-bag, but cold compresses, which are certainly far inferior to the ice-bag, through their tendency to become warm, and the necessity they entail of frequent disturbance of the patient. Niemeyer says: "I have made extensive employment of cold in the treatment of pneumonia, and, relying upon a large number of very favourable results, can

[1] A paper read before the Harveian Society, Oct. 17th, 1889.

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recommend this procedure. In all cases I cover the chest of the patient, and the affected side in particular, with cloths which have been dipped in cold water and well wrung out. The compresses must be repeated every five minutes. Unpleasant as this procedure is in almost all cases, yet even after a few hours the patients assure me that they feel a material relief. The pain, the dyspnœa, and often the frequency of the pulse, are reduced. Sometimes the temperature goes down an entire degree. My patients often retain this surprising condition of improvement throughout the entire duration of the attack, so that their outward symptoms would hardly lead one to imagine the grave internal disorder. The relatives of the patient, too, who do not fail to perceive the improvement, now readily assist in the treatment to which at first they were opposed. In a few cases, and only in a few, the use of cold affords no relief, and the troublesome manipulation for its application increases the distress of the sufferers so much that they refuse to keep it up. In such cases I have not insisted upon the further application of cold. In the hospital at Prague every pneumonia is treated with cold compresses, and, according to the statements of Smoler, it is exceptional for a patient not to feel material relief from this treatment. As, however, I have never succeeded in cutting short a pneumonia by means of cold applications, I should only ascribe a palliative influence to their use, had not the duration of the disease in many instances been decidedly shortened and the convalescence hastened by means of their energetic and methodical employment. In fact, in but few cases have we seen the disease delay its departure until the seventh day. Many have improved on the fifth, and a very large number as early as the third day; nay, I have repeatedly found it impossible to keep patients with recent pneumonia in hospital for a longer period than a week." This quotation from Niemeyer (vol. i., p. 185) bears striking testimony to the benefits obtained from the use of cold compresses frequently renewed, while acknowledging the drawbacks inseparable from their use.

My observation of the effects of the ice-bag has satisfied me that we may by it obtain still more striking benefit without these drawbacks. The ice-bag retains its cold until all the ice in it is melted; hence it produces a much more powerful local impression, and a fall of temperature considerably larger than the "entire degree" of which Niemeyer speaks, while the much less frequent disturbance of the patient and the freedom from wetting of the surface remove entirely the objections to which he refers. I have found that the presence of the ice-bag is usually pleasant to the patient, and I have never met with any decided objection to its use, even in children. Only occasionally where delirium has been present has the ice-bag been thrown off.

I will now briefly relate my experience of this method of treatment, and will classify the cases according to the apparent effect.

A. CASES IN WHICH IMMEDIATE AND FINAL ARREST OF THE PYREXIAL PROCESS FOLLOWED THE APPLICATION OF THE ICE-BAG.

Case 1.—William W——, aged twenty-five, was admitted into St. Mary's Hospital on the evening of Nov. 15th, 1887, with a temperature of 104°, which fell next morning to normal, but had again risen when I saw him in the afternoon to 104·8°. There was limited pleuro-pneumonia at the right base, skin burning, herpes round the mouth. Pulse 120; respiration 36. This was apparently the fifth day of the disease, he having shivered on Nov. 12th, and again on the 13th. The affected side was tightly strapped, and an ice-bag applied over the strapping. The temperature fell immediately, and next morning was normal, when the ice-bag was removed; the pulse was 90, and respiration 24. After this the temperature was subnormal. Clearly the crisis had occurred, and whether or not the ice-bag had hastened it must be a matter of opinion. Possibly it may have been simply a coincidence.

Case 2.—John P——, aged twenty-six, admitted on June 18th, 1887, with a temperature of 104°, and a limited area of dulness at the left posterior base, pulse 120, respiration 24, on the fifth day of his illness, shivering having occurred on June 14th. The temperature continued about 104°, until I saw him on the seventh day, when an ice-bag was applied over the inflamed lung. During the following night the temperature fell until it reached 99°, when the ice-bag was removed. A rise of one degree followed, but next morning (ninth day) the temperature was normal, and so continued. Here, again, the apparent result from the ice-bag may have been a mere coincidence.

Case 3.—Maurice W——, aged sixteen, seen at Uppingham school, with Mr. T. Bell, in February, 1886, on the fourth day of his illness. The temperature was 104°, and there was moderate consolidation at the right base, with viscid, rusty sputum. No ice was obtainable, but snow was lying on the ground. Sponge-bags filled with snow were placed over the inflamed lung. The temperature fell at once (fifth day), and did not again rise. Once more we must remark that the apparent effect may possibly have been nothing more than a coincidence. This, however, was certainly not so in Case 4, the subject of which was my own youngest child, aged three years. He had suffered from catarrh for two or three days, when he rapidly became acutely ill; the temperature ran up to 104°, the breathing was very rapid, and his lips began to look a little dusky. Just the faintest impairment of resonance was to be detected at the base of one lung. He passed a most restless night, and in the morning was no better. Some ice was sent for, and an ice-bag applied to the suspected area. Within twenty minutes of its application a distinct change for the better was observed. The breathing became much quieter. The temperature fell at once. In a few hours he was quite out of danger, and in a day or two was quite well. I am convinced that an attack of broncho-pneumonic was cut short.

Case 5.—In December, 1886, I was asked by a friend, a well-known physician, to see his little boy, aged four years. After a week's catarrh, the boy's temperature had suddenly risen to 104·5°; pulse 140; respiration 50, occasionally interrupted by a short cough. The cheeks were a little dusky. I found a shade of loss of resonance at the left base below the angle of the scapula. At this spot, and also at the corresponding spot on the other side of the chest, inspiration was a little harsh, and attended by a little râle, and expiration was too plain. It was clear that broncho-pneumonia was just commencing. An ice-bag was applied to the back of the chest, and immediate recovery followed, the improvement being remarkably rapid. In this case, as in that of my own child, I have no doubt that the pneumonic process was strangled at its birth.

B. CASES IN WHICH IMMEDIATE ARREST OF THE PYREXIAL PROCESS FOLLOWED THE APPLICATION OF THE ICE-BAG, AND A RELAPSE FOLLOWED ITS REMOVAL.

Case 6.—Jenny McN——, a girl of about four years old, in the Highgate convalescent branch of the Children's Hospital, was found one day to have a temperature of 104°. I saw her next day, and found that there were dulness and bronchial breathing over part of the lower lobe of the right lung, with a hot burning skin and temperature still 104°. An ice-bag was at once applied over the affected lung, and within a few hours the temperature fell to 98°. The ice was then removed. The temperature immediately rose again, but did not pass 101°. It continued at this lower level for about thirty-six hours, and then suddenly fell to 96·5° and remained subnormal. The day after this fall examination showed that both dulness and bronchial breathing had completely vanished. In this case the immediate fall of six degrees which followed the application of the ice was clearly not the crisis, for on removal of the ice pyrexia recurred (though to a much less extent) and continued for thirty-six hours before the final drop.

Case 7. Caroline S——, aged thirty-eight, was admitted into St. Mary's Hospital on Jan 7th, 1889, and I saw her next day, the fourth of her illness, a rigor having occurred during the evening of Jan. 4th. The temperature was 103°, pulse 128, respiration 44. Dulness and tubular breathing were present over the left axillary base. She was slightly jaundiced. An ice-bag was applied at 3 P.M. At midnight the temperature had fallen to 99·6°, and the bag was removed. Immediately the temperature again rose, at 10 A.M. of the next (the fifth) day it stood at 101·5°, and at 6 P.M. at 104°, actually a degree higher than before the application of the ice. It then began to descend in a leisurely fashion, reaching 100·5° by the evening of the sixth day, 99·2° on the seventh evening, 99° on the eighth, and 98·4° on the ninth. Thus there was no marked crisis at all, and the recurrence of the pyrexia after the removal of the ice clearly proved that the process was not yet over, and that the sudden drop of 3·5° in nine hours which accompanied the use of the ice was certainly due to it.

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C. CASES IN WHICH IMMEDIATE ARREST OF THE PYREXIA FOLLOWED THE USE OF THE ICE-BAG, A RELAPSE FOLLOWED ITS REMOVAL, AND A SECOND FALL OCCURRED WHEN THE ICE WAS REAPPLIED.

Case 8.—Thomas C——, aged nine, was admitted into St. Mary's Hospital on July 14th, 1887, with pleuro-pneumonia of the left base. He had been caught in the rain on July 9th, felt ill on the 10th, but went to school on the 11th and 12th; pain in his side commenced on the 13th. On admission his temperature was 103°, pulse 128, respiration 48. An ice-bag was immediately applied, and the temperature fell moderately quickly, reaching 99·4° thirty-six hours later, when the ice was removed. At once an upward movement of temperature began, and in eight hours it had risen to 104°. Again the ice was applied, and again the temperature descended, but more rapidly than before, reaching 98·4° in sixteen hours more, after which it did not again rise above 100°. This terminal crisis occurred on the fifth day, reckoning from the initial pain. The more gradual fall of 3·5° which followed the first application of the ice was clearly due to it, as was shown by the relapse which followed its removal.

Case 9.—Henry B——, aged twenty-six, was admitted into St. Mary's Hospital on June 24th, 1887, on the second day of a pneumonia of the left base, several rigors having occurred on the morning of the previous day. I saw him on the third day; his temperature was then 103°, pulse 116, respiration 32; physical signs limited, but characteristic. An ice-bag was applied, and the temperature fell promptly to 97·6° on the morning of the fourth day. The ice was removed, and the temperature rose at once; when it reached 100° the ice-bag was replaced. The rise, however, continued as far as 102°, from which it fell again to normal on the fifth day. Here the beneficial action of the ice seems to be manifest, firstly, in the rapid fall of temperature on the third day; and, secondly, in the fact that the subsequent rise did not attain a higher level than 102°.

Case 10.—Mary T——, an infant aged six months and a half, seen in consultation with Dr. Langston of Westminster. This is one of the two cases published four years ago. It proved a complicated one, through the occurrence of otitis and commencing meningitis, which was on two occasions relieved by puncture of the tympanic membranes performed by Mr. Field. In the early part of her illness she nearly succumbed to broncho-pneumonia. Leeches gave immediate relief to her cyanotic condition, but the temperature still stood at 105°, and the physical signs of consolidation over the root of the right lung were marked. After an ice-bag was applied the temperature fell in twenty-four hours to 101·4°. The bag was then removed, and the temperature rose to 103°, but fell again till it reached 100·4°. A sudden rise to 105·6° followed, and was accounted for by the discovery of a fresh patch of dulness over the root of the other (the left) lung. The ice-bag was applied to this new focus of inflammation, and at once a very rapid fall of temperature followed. In nine hours after the application of the ice it had fallen no less than 7°—from 105·6° to 98·8°,—though the ice was removed when it had fallen to 102°, and I noted that the new dull area was distinctly smaller than it had been in the morning. Three days later there was another rise to 106°, again accounted for by the discovery of a small fresh area of dulness behind the edge of the left scapula, the two areas already mentioned as previously consolidated being now both completely resonant. Again ice was applied to the new site of inflammation, and again there was a rapid fall to 102·4°, when the ice was removed. A transitory rise to 104° followed, and then a quick descent to 99°. The lung trouble was now practically at an end, but the temperature rose again owing to the otitis &c., which now began to manifest itself. In the long run the child recovered perfectly. A complete account of the case was published in the *Practitioner* for Aug., 1886.

D. CASES IN WHICH RAPID FALL OF TEMPERATURE FOLLOWED THE APPLICATION OF ICE, BUT RELAPSES (APPARENTLY DUE TO IMPLICATION OF FRESH PORTIONS OF LUNG) OCCURRED WHILE THE ICE WAS BEING CONTINUOUSLY APPLIED.

Case 11.—Emily B——, aged fifteen, was admitted into St. Mary's Hospital on Jan. 24th, 1885, with severe broncho-pneumonia. This is the other case published in the *British Medical Journal*. She had been ill ten days before admission, and was found to have general bronchitis, with dulness over the whole front of the left lung, with a temperature of 104·2°. Poultices were applied to the chest. Next day she was worse, the temperature had risen to 105°, the physical signs were more marked, the pulse was 136, the respiration 44, and there was very considerable lividity of the lips and cheeks. Venesection to ten ounces was performed, and gave great immediate relief. The temperature fell one degree, but rose again as much in the evening, and next day was higher than ever, reaching 105·6°, the pulse then being 144, and the respiration 48. An ice-bag was now applied over the left front. Immediately the temperature fell precipitately, and next morning it was only 98°. In the afternoon, however, it rose again to 105·8°. On examination I found that the resonance over the left front, where the ice-bag had been applied, was remarkably improved, but fresh pneumonic crepitation and bronchial breathing had appeared in the axillary region. The ice-bag was shifted to this new focus, and again the temperature fell precipitately to 98°. It rose once more to 103°, and fell again to 98°. On the fourth day after the use of the ice was commenced there was a final rise to 104·2°, which proved to be due to implication of the apex of the opposite lung, there being now impaired resonance and harsh inspiration below the right clavicle. A second ice-bag was applied to this spot, and, to my surprise, twenty-four hours later I found the right apex perfectly normal. The temperature had fallen to 96·7°, and after this convalescence was uninterrupted. In this case the beneficial influence of the ice was quite indubitable, and the contrast shown by the temperature chart before and after its employment is most remarkable. The severity of the case was sufficiently demonstrated by the cyanosis, which necessitated recourse to venesection.

Case 12.—John S——, aged thirteen, was admitted into St. Mary's Hospital on Aug. 10th, 1888, on the fourth day of a pneumonia of the left base. His temperature was 105·8°. The house physician gave him five grains of quinine, and next morning his temperature was only 100·6°, but before 2 P.M. it rose again to 104·2°, when an ice-bag was applied over the inflamed lung. The rise continued until 6 P.M., when 105·4° was reached, but a rapid fall followed, and at 10 A.M. of the next (the sixth) day the temperature was only 100·2°. In spite, however, of the continued application of the ice, there was a rise in the afternoon to 103°, but this proved very temporary, and next morning (the seventh) 99° was again reached, and the ice-bag was removed. After this convalescence followed.

E. CASES IN WHICH NO IMMEDIATE ARREST OF THE PNEUMONIA FOLLOWED THE APPLICATION OF ICE, BUT OBVIOUS RELIEF TO SYMPTOMS RESULTED.

Case 13.—Minnie C——, aged twenty, admitted into St. Mary's Hospital on April 10th, 1888, on the seventh day of a pneumonia of the right base. Her temperature was 104·4°, and an ice-bag was at once applied. There was a fall of three degrees in the next few hours, but next morning the temperature was again 104°, in spite of the continued application of the ice, and it remained between 103° and 104° for three days. On the tenth day there came a sudden fall to 98°, and the ice was removed. On the eleventh day, however, it rose again to 102°, and the same happened on the twelfth day. Examination showed that the cause of this was the appearance of a small area of fresh inflammation at the base of the opposite lung. A second ice-bag was placed over this spot, and after this the temperature did not exceed 101°, and in three days more she was quite convalescent, the physical signs having disappeared. Here the ice-bag did not shorten the duration of the disease (unless, indeed, it may be credited with arresting an incipient attack on the previously healthy side), and it produced only temporary reduction of temperature, but the patient expressed herself as considerably relieved by it.

Case 14.—John L——, aged twenty-five, admitted into St. Mary's Hospital on July 9th, 1889, on the fourth day of a pneumonia affecting the apex of the right lung. I saw him on the fifth day and found his temperature 103·6°, pulse 120, and respiration 48, with viscid rusty sputum. He had been delirious during the night, and was still semi-maniacal and very surly, resisting examination, talking wildly, and accusing us of attempting to poison him. The physical signs of pneumonia at the right apex were distinct. An ice-bag was applied at 2 P.M., and in spite of his curious mental condition he did not object to it. A fall of temperature of two degrees and a half followed on the

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morning of the sixth day; but in a few hours 103·6° was again reached. It was noted, however, that his mental state was markedly improved. On the seventh day the temperature was still 103°, but the delirium had vanished, and the physical signs at the right apex were less distinct. On the eight day still further improvement was manifest, and the temperature stood at 102° in the morning and fell rapidly to 99° in the evening, when the ice was removed. After this the temperature was subnormal, and the patient convalescent. In this case improvement in the physical signs distinctly preceded the crisis.

Case 15.—Mary A——, aged twenty, admitted into St. Mary's Hospital on May 11th, 1889, on the fourth day of a pneumonia commencing at the right apex. She had a most unfavourable family history. She stated that her father suffered from asthma, that her mother had died of "galloping consumption," that she had lost ten brothers and sisters, and that of the three who survived two suffered from consumption. She had herself spat blood at times during the last two years. She also had suffered from "fits" for four years, and the onset of her pneumonia was marked by a fit instead of a rigor. I saw her first on the fifth day of her illness, and found evidence of pneumonia at the right apex, with temperature 104°, pulse 128, and respiration 48. An ice-bag was applied over the affected apex at noon. At 6 o'clock the next morning the temperature had fallen four degrees, but in the course of the day it rose again to 102°. The pulse remained at 130, but the number of respirations had risen from 48 to 74, and some cyanosis had appeared. The upper part of the right lung both in front and behind was now dull, as far down as the angle of the scapula. On May 14th, the seventh day of her illness, the temperature was still only 102·5°, though the pulse was nearly 130, and the number of respirations had risen to 100. The right lung seemed now to be involved in its entire extent. Both cheeks were markedly cyanosed, and the sputum, which was scanty, very viscid, and a little aerated, was of exceedingly dark colour, almost black, the "prune-juice" expectoration of admittedly evil omen. A much larger ice-bag was now obtained, capable of surrounding the whole right chest, and this was applied at 5 P.M. Four ounces of brandy daily were ordered for her, and an ether and ammonia mixture every four hours. On the next day, the eighth, the temperature ranged about a degree lower (101·5°), the pulse remaining at 120, and the respiration still from 88 to 100. But it was observed that the sputum was distinctly less dark, and at the same time less viscid and more abundant. On the ninth day the temperature, pulse, and respiration remained about the same, but an extraordinary improvement had occurred in the physical signs. There was now very fair resonance over both back and front of the right lung down to the angle of the scapula, with large moist râles in front, and smaller râles with more natural breathing behind. Below the angle of the scapula there was dulness, with fine moist râles, both inspiratory and expiratory. There was still further improvement in the appearance of the sputum. On the tenth morning I found that though the temperature had been even a little higher (103°) and was still 101°, and the pulse and respiration were respectively 120 and 86, the improvement in the physical signs was still more marked. My note was: "Very fair resonance behind, even to the base; some impairment in the axillary region from the posterior to the anterior axillary line. Over the front, resonance good as far as the nipple. Over the whole lung bubbling sounds can be heard, moderately loud, and of double rhythm. Cheeks bright-coloured." Between 6 o'clock and 10 that evening the temperature suddenly fell from 101° to 97°; the crisis had arrived, and the ice-belt was removed. After this convalescence was complete. It must be allowed, I think, that in this case the ice was of the greatest service. It is hardly too much to say that it saved the patient's life. The condition on the seventh day, when the large ice-belt was applied, was most alarming. The entire right lung was consolidated, and the dyspnœa, the cyanosis, and the "prune-juice" expectoration indicated the gravity of the prognosis. Seventeen hours after its application a distinct improvement was observed in the sputum and in the hue of the cheeks. Next day a very extensive change for the better had occurred in the physical signs, and this improvement advanced rapidly. It had attained a most remarkable degree before the crisis occurred. It is surely uncommon in pneumonia for manifest improvement in physical signs to commence thirty-six hours before the crisis, and in this case it seemed certainly due to the local influence of the ice. The comparatively low range of the temperature throughout (after the ice was applied) should also be noticed.

Case 16.—Harry D——, seven years old, an inmate of the Highgate Branch of the Children's Hospital, with a retracted right chest due to former empyema, the right lung being entirely collapsed (as was found on post-mortem examination some months later), was taken ill on June 22nd, 1887. I saw him next day, and found his temperature 104°, pulse 160, respiration 56. Feeling sure, though I could not prove, that pneumonia of the left, the only working, lung was commencing, I had an ice-bag at once applied over it. The temperature fell four degrees before the next morning, but gradually rose again, not attaining the same height, however, for forty-eight hours. On the third day of his illness I detected a small area of dulness over the root of the left lung, and at this spot bronchial breathing. He complained of pain at the epigastrium, and I noticed that his lips and cheeks were already livid. This was not surprising, for his other lung was useless. The prognosis was evidently most grave, and might even have been looked upon as hopeless. Next day, the fourth, the dulness was more extensive, being now four fingers' breadth in diameter, and albuminuria was present, but the complexion was not more blue than yesterday, and the boy seemed a little stronger. The icebag had been persistently applied. Pulse 160, respiration 60. On the fifth day the dulness was decidedly less, measuring now only two fingers' breadth, and the temperature was lower, ranging at about 102°; pulse 152, respiration 58. Epigastric pain continued. The sixth day resembled the fifth. On the seventh day the temperature fell to normal, and the ice-bag was removed. Pleuritic friction could now be heard over the dull area and below it. The pleurisy kept his temperature a little raised for a few days, but it gradually subsided without effusion of fluid, and the boy returned to his condition before the pneumonia. By-and-by he was able to go home, but three months later he came back to Great Ormond-street, and died there from cardiac failure. Post-mortem examination showed that the right lung was completely collapsed, the right side of the heart greatly dilated, and the tricuspid valve incompetent, the left auricle and ventricle and mitral valve being normal. The left lung was very voluminous; it was healthy except for some very old cretaceous and calcified tubercle at its apex; there were comparatively recent pleuritic adhesions over the left lower lobe. In this case it is hardly possible to doubt that the icebag saved the boy's life, in a condition otherwise hopeless.

F. Cases in which no very Obvious Benefit resulted from the Use of the Ice-bag.

Case 17.—James R——, aged five, was admitted into St. Mary's Hospital on July 8th, 1887, on the third day of his illness. Next day his temperature was 104°, pulse 150, respiration 50. No signs of pneumonia, however, could be discovered until the sixth day, when the upper lobe of his right lung became consolidated. An ice-bag was applied and kept on until the crisis, which occurred on the eighth day. It was not clear that in this case any distinct benefit followed from its use.

Case 18.—Edward S——, aged about forty, was admitted into St. Mary's Hospital on June 28th, 1887, on the second day of his illness. He was found to have a limited pleuro-pneumonia at the right base, and also an area of dry pleurisy at his left base. It was noticed that the heart's action was very feeble. Temperature 104°, pulse 120, respiration 32. An ice-bag was applied to the right base, but at the same time whisky was ordered, and its amount was increased from four ounces on the third day to six ounces on the fourth day and to nine ounces on the fifth. It was difficult to say whether the ice-bag did good, though the range of temperature was a little reduced, but it certainly did no harm, in spite of the great cardiac weakness and the consequent necessity for free stimulation. On the evening of the fifth day came the crisis; the ice-bag was discontinued and the whisky was gradually reduced. Satisfactory convalescence followed.

The above is a complete list of the cases treated by the ice-bag, of which I have notes, though in two or three other cases seen in consultation I have recommended its use, and improvement has followed and apparently been caused by it. Reviewing the eighteen cases narrated, I

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may point out, in the first place, that none of them died. Many of the cases, indeed, were comparatively slight, and most of them occurred in children or young adults, in whom the prognosis of lobar pneumonia is usually good, however alarming the symptoms may appear to be. At least two, however (Cases 15 and 16, both of lobar pneumonia), would, I think, have certainly died but for the ice-bag, and two more (Cases 10 and 11, both of broncho-pneumonia) would almost certainly have done so.

In the great majority of cases remarkable improvement followed the application of the ice. The reduction of temperature which usually occurred at once was often very striking. Instead of the "entire degree" spoken of by Niemeyer as resulting from the use of cold compresses, it frequently amounted to three or four degrees, sometimes even more; on one occasion even to seven degrees. If a subsequent rise occurred it was usually to a decidedly lower level when the ice had been permanently applied, and though when the ice had been removed the subsequent rise often passed the original height, it was again rapidly reduced by a second application. These results were especially observed in children, perhaps partly because their temperature is more easily affected than is that of adults, and partly because the icebag covered a larger proportion of their smaller chest wall. But the improvement was not confined to a mere reduction of temperature. In many cases I noticed a striking arrest in the development of the physical signs, and also of the general symptoms of the disease; and it is particularly to be observed that in some instances this improvement began an entire day or more before the crisis, and was far advanced when that event occurred. This was very remarkable in each of the two gravest cases (Cases 15 and 16). Occasionally, in slight cases, the application of the ice was followed by immediate complete abolition of the disease; but this is obviously open to the fallacy that the crisis may have already arrived, and I therefore lay no stress on this. But, in the two cases of broncho-pneumonia seen in young children in their very earliest stage, it certainly seemed that the disease was promptly cut short. I have never seen any harm follow from the employment of the ice-bag in pneumonia. In one case, indeed, the notes of which have been unfortunately lost—that of a boy of seven years old, with a pneumonia of the right apex, accompanied by a pericardial rub,—so rapid a reduction of temperature followed the use of the ice that the child shivered and was cold, and the house physician felt it necessary to stimulate him. But when I saw him the next morning he was very lively. In a case of pyrexia, however, recently under my care, in which the diagnosis was doubtful until a typhoid rash appeared, and in which an ice-bag was applied to the left lung on the hypothesis that the cause might be a latent pneumonia (the patient being a boy of about six), distinct collapse was produced by the cold applications. The temperature fell to below normal, the boy complained of cold, became bluish, and shivered. The symptoms were easily removed by warmth and brandy. Similar effects may no doubt be produced in pneumonia by the incautious use of ice. They are the more likely to happen the younger the patient, and they are probably more easily produced in cases of broncho-pneumonia, especially in feeble and rickety children, than in cases of true lobar pneumonia. That they need not necessarily occur, however, is manifest from Case 10, which was one of broncho-pneumonia in an infant of only six months and a half. Their occurrence may, I think, almost always be prevented by a sufficiently careful observation of the temperature. I usually direct, at all events in the case of young children, that the temperature shall be taken every hour, and the ice-bag removed when the thermometer indicates 100°, and replaced if a rise to 102° follows. In some cases it is wise to apply warmth to the feet or even to the abdomen at the same time that the ice-bag is applied over the inflamed lung, and the internal administration of brandy may then also be of service. With these precautions it is often possible to use the ice-bag even in debilitated patients without harm. It will be well, however, to draw attention to another point. Dr. Lauder Brunton has suggested to me that the occurrence of collapse may sometimes be due to the direct action of the cold upon the heart, and I have seen him perform an experiment on the excised heart of the frog which illustrates this. A frog is pithed, and the heart rapidly cut out and isolated. It continues to beat regularly. If now it be chilled by the application of ice, the pulsation diminishes until it entirely stops. If the ice be removed and gentle warmth substituted, the pulsations recommence and soon regain their former rate and vigour. This alternation can be repeated two or three times. The experiment clearly shows the depressing influence of cold on the action of the heart, and it is no doubt wise to bear this in mind, and see to it that the ice-bag is not placed over the præcordial region. But I do not advocate the employment of this treatment in pneumonia in very feeble children, in the aged, or in adynamic conditions generally.

My conclusion is, that there is reason to believe that the ice-bag applied over a pneumonic lung has a directly curative influence, that it does not simply reduce the general temperature, but that it distinctly tends to repress the inflammatory process in the lung, with more or less success according to the severity of the case, and the height which the inflammation has already reached. This is true, whatever theory of the causation of the disease be adopted. Coccus or no coccus, the ice-bag benefits an ordinary pneumonia. Whether its action is beneficial in the epidemic and "pythogenic" forms of the malady I cannot say, having no experience of these. I will only add, as confirmatory evidence, that some months ago my colleague, Dr. Angel Money, published a note in one of the medical journals recommending the use of the ice-bag in the pneumonia of children, and that in THE LANCET of Aug. 10th of this year there is a statement that Dr. Fieandt, a Finnish medical man, "has treated no less than 106 cases of pneumonia with ice, and with the best results. Though ten of the cases were of double pneumonia, only three out of the whole number succumbed, notwithstanding that the epidemic was by no means a slight one." Thus the mortality was only 3 per cent. With this may be contrasted some figures given in the same journal on July 27th of this year, in which it is stated that "in the 1000 cases of acute lobar pneumonia treated at the Massachusetts General Hospital from 1822 to the present time, there was a mortality of 25 per cent.;" and the authors add that "treatment has not influenced the mortality rate nor the duration of the disease or of its convalescence." If this rate of mortality had prevailed among my eighteen cases I should have lost four of them, and four is precisely the number which, as I have already shown, were almost certainly saved by the ice-bag.

ABDOMINAL SECTION FOR INTESTINAL OBSTRUCTION FOLLOWING OVARIOTOMY.

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THE risks and complications of ovariotomy are so well known and have been so ably and fully set forth that there remains but little to be added. There is, however, one complication which has been so little noted, and of which such very few instances have been published, that it seems pardonable to put on record the full details of the following case.

Miss X——, single, aged forty-three, came under the care of my friend Dr. John Anderson in the latter part of the year 1888. At that time she was suffering from the presence of an abdominal tumour, of which the following history was given. The growth had been noticed for the first time some two years previously. It had slowly increased in size since, but had not caused marked pain, nor had it interfered very seriously with general health. Menstruation had occurred monthly, lasted on each occasion about four or five days, was not accompanied by much pain, and, though becoming rather less free, was still fair in amount. Several surgeons had been consulted as to the nature of the tumour, but, as no vaginal examination had been allowed, their opportunity for an accurate diagnosis was necessarily curtailed. Some of these gentlemen had suggested the possibility of the growth being cancerous, and one had thought that the tumour was probably a fibromyoma of the uterus, and did not call for operation. The family history of the patient presented two points of in-

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terest—(1) her mother was still living and suffered from the presence of a large abdominal tumour, concerning the nature of which Miss X—— could give no reliable information; (2) pulmonary phthisis had declared itself in a marked form in several near relatives. The patient herself was a lady possessed of high intellectual gifts, cultivated and refined, but whose physique was by no means proportioned to her quick, nervous energy; eye and cheek alike suggested that pulmonary phthisis would find in her a favourable victim. Beyond the occurrence of several bronchial attacks, one of which had necessitated a residence in the south of France, there was no past history of any disease. After making an examination of the tumour by the abdomen, Dr. Anderson came to the conclusion that the growth was very possibly a solid tumour of the ovary, and suggested that an obstetric physician should see the patient in consultation with him. For some time this was declined by the friends, but in the end of January, 1889, permission was granted, and on February 2nd Dr. Anderson met me in consultation. The following was the condition at this time: The whole lower abdomen was occupied by a solid tumour, which, resting apparently on the brim of the true pelvis, extended upwards to a distance of two inches and a half or more above the level of the umbilicus. The mass, which was slightly larger than the uterus at the seventh month, was apparently throughout of a stony hardness, its surface was regular, it could be pushed somewhat from side to side, and the abdominal wall moved over it in respiration. The flanks seemed to be occupied by a limited quantity of ascitic fluid, and a sharp and sudden pressure on either flank sent a thin wave of fluid across the growth.

Vaginal examination under the influence of chloroform showed that the uterus was small, acutely retroflexed, low in the pelvis, and quite separate from the abdominal tumour. On pressing upwards firmly, the lower extremity of the latter could be felt resting on the brim of the true pelvis. A diagnosis of solid ovarian tumour, probably of a malignant type, and accompanied by ascitic effusion, was given, and early operation recommended. Careful examination had already shown that the heart, lungs, and other large organs were healthy. The urine was tested and found to be normal. The tumour had grown considerably during the last few months, pain had increased, and flesh and strength were both being lost. Menstruation was still regular, but scanty, of poor colour, and somewhat painful.

The operation was performed, on February 16th, 1889, at 3 P.M., Mr. Braine giving ether and Dr. John Anderson assisting me. On opening the peritoneum, about two pints of dark-coloured ascitic fluid escaped. Some old parietal adhesions existed, but they were easily separated. The tumour was entirely solid excepting at its left upper angle, where a small cyst extended upwards towards the spleen. Owing to the firmness of the mass it was impossible to lessen its bulk materially, and the abdominal incision had to be extended upwards for three inches above the umbilicus. As soon as the tumour had been drawn out of the abdomen the upper part of the wound was sewn up to prevent escape of the intestines, and then, the pedicle having been compressed by two large forceps, the growth was cut away. The pedicle, which was short, thick, and three inches and a half wide, was formed entirely by the right broad ligament. The tumour was a fibro-sarcoma of the right ovary, and had the right Fallopian tube passing round in front of its pedicle. Having transfixed and tied the latter, it was dropped into the pelvis, the cleansing and irrigation of the peritoneal cavity effected, and the abdominal wound closed by ten sutures. The operation, which lasted one hour and twenty-four minutes, was followed by great shock, but from this the patient rallied very satisfactorily.

As regards the abdomen, nothing could have progressed more satisfactorily. There was no sign of any peritonitis. The bowels were well relieved by enema on the sixth day, and when the stitches were removed on the eighth day, the wound had completely healed by the first intention. During this first week, however, complications in connexion with the lungs commenced. On the very morning of the operation Miss X—— remarked that she felt one of her heavy chest colds coming on, and complained to a friend how unfortunate it was, inasmuch as she had been free for a long time from such attacks. Of this, however, nothing was said to Dr. Anderson or myself. On the evening of the third day the temperature rose to 101° F., and the pulse to 120. A short irritable cough commenced, and breathing became hurried and oppressed. Examination of the chest showed that broncho-pneumonia had established itself in the anterior and upper part of the right lung. Two days later the corresponding part of the opposite lung was attacked similarly, then about three days after this extension the left back was found dull in its lower half, and well-marked pneumonia of the lower half of the left lung was found to be present. During the whole of this time the temperature kept up between 100° and 101°, but the abdominal condition was normal and the bowels were open daily.

On March 4th, 1889, the patient was seen by Dr. Anderson, and the following report given:—Miss X—— is progressing very favourably; pulse about 90, soft, weak, regular; temperature has come down to normal; bowels open twice yesterday after a dose of the liquid extract of cascara. There is no complaint of pain, and the nights are good. Examination of the chest shows the presence of high-pitched breathing in both fronts, but the moist sounds have disappeared. The right back is clear, but the lower half of the left back is still somewhat dull; moist râles are heard over the dull area, but there is no tubular breathing. Cough is becoming less troublesome, and there is a fair amount of muco-purulent expectoration.—5th: My colleague received a letter this morning from the nurse, saying that sickness had occurred at 10 P.M. on the previous night, and had returned several times since; the morning temperature had fallen to 96·2°; the bowels had been open slightly. In the afternoon Dr. Anderson saw the patient, found no reason to attach much importance to the vomiting, and regarded the gastric disturbance as connected with the defervescence of the pneumonia.—6th: The bowels acted naturally and copiously this morning. Vomiting has recurred three or four times since yesterday afternoon.—7th: The past night has been very restless; vomiting has taken place at intervals, and on the last three or four occasions has been distinctly "stercoraceous." The bowels have not acted since yesterday morning; the pulse is 128, small, regular, weak. Temperature normal. The abdomen is slightly tumid, but otherwise seems perfectly normal. All food by the mouth was at once stopped; nutrient enemata were ordered to be given every four hours; ice to be sucked in small quantities occasionally. A sedative solution of five minims of opium and one drachm of water was given every four hours, by the mouth. At 9 30 P.M. things were in much the same condition; no vomiting had occurred since 2 30 P.M., but there had been slight retchings with eructations, which smelt fæcal, and nothing had passed by the bowel. Tongue moist and clean.—8th: At 11 A.M. it was reported that there had been no more stercoraceous vomiting, but some retchings and fæcal-smelling eructations. Temperature normal; pulse 108, weak. Urine, fair amount and normal. Tongue moist, but coated. Abdomen somewhat fuller, but soft, moving well with respiration, not tender at any point, resonant everywhere. General condition not so good; weakness increasing. It was decided, as no stercoraceous vomiting had taken place for some considerable time, to test whether the integrity of the intestinal passage had been restored by giving teaspoonful doses of peptonised milk and raw beef juice alternately every half hour. At 6 P.M. Dr. Anderson paid a second visit, and found that the stercoraceous vomiting had returned severely at 5.30 P.M. At a consultation later in the day it was decided that probably some portion of the small intestine had become constricted by a band of lymph, which was gradually contracting and compressing a portion of the gut, and that abdominal section should be again performed next morning.—9th: Present condition—Patient much emaciated; she has lost much flesh and strength during the past week. The eyes are sunken, and large dark rings surround them. There has been no action of the bowels since Wednesday. Tongue moist, but coated. The abdomen is distinctly tympanitic, resonant everywhere, soft and supple, not tender, and moves fairly with respiration. At 11.30 A.M. the patient was etherised by Mr. Braine, and, assisted by Dr. Anderson, I again opened the abdomen along the line of original incision, from the umbilicus to within an inch and a half from the upper border of the symphysis pubis. After opening the peritoneal cavity, a careful investigation revealed the fact that a knuckle of small intestine had become firmly fixed by adhesive peritonitis to the wall of the cavity just above the position of the cæcum. So broad and so firm was the union that it was necessary to dissect off the parietal peritoneum and set the gut free with the adherent portion of the latter attached to it. As far as could be judged, the knuckle of intestine

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involved corresponded to the upper portion of the ileum; many coils of small intestine below the seat of obstruction were found lying collapsed and empty, but before the operation was concluded these had become distended again. Before closing the wound careful search was made for any further adhesions, with the result that two coils of small intestine were found lying close to the promontory of the sacrum, connected by soft fibrous bands of recent formation; these latter were tied and separated, and then the peritoneal cavity having been freely washed out with douches of boiled water at 100° F., the wound in the abdominal wall was closed by twelve silk sutures. The operation lasted an hour and a half, and at its close the patient was much exhausted; but after being in bed about half an hour and having two ounces of brandy by enema a good reaction was secured. Soon after returning to bed about a pint and a half of yellow feculent fluid was vomited; but at 5 P.M. there had been no more sickness, a good rally had taken place, the pulse was 120 and much improved in force and volume, and the patient's countenance had lost its death-like appearance. At 6 P.M. a slight attack of stercoraceous vomiting occurred, and at midnight a little sour-smelling fluid (not feculent) was brought up; but after this time, though there was a little retching, no more vomiting took place. The usual dietary after abdominal section was observed; the patient rapidly improved, flatus was passed by the rectum about six hours after the operation, and on the fourth day the bowels acted freely and copiously without any recourse to aperients. A week later the stitches were removed, and though the wound gaped a little superficially, all the deep parts were firmly and strongly united.

A month later the condition of the abdomen was perfect, the patient had gained flesh, and, with the exception of some slight mischief remaining in the left lung after the pneumonia, the recovery was in every respect perfect.

Remarks.—In the light afforded by the second operation there is little difficulty in reading the course of events and explaining the formation of intestinal obstruction in the foregoing case. During the extraction of the large solid ovarian tumour from the abdominal cavity several old peritonitic adhesions passing from the wall of the abdominal cavity to the tumour were separated. On the right side, at the spot where the coil of small intestine was found glued to the parietal peritoneum, the latter had been rendered raw and bare by the tearing away of an adhesion with a broad base during the process of extraction of the growth. At the time of operation some extra care had to be given to this spot to stop bleeding and to trim up the torn surface of the peritoneum. Doubtless during the process of repair the knuckle of small intestine became fixed to this spot by adhesive peritonitis, then, as the days of convalescence went on, the gut was gradually constricted and narrowed by the contracting lymph, till at length the kinking and paralysis of peristaltic function led to complete obstruction. The difficulty experienced at the second operation in detaching the adherent intestine from the abdominal parietes was a proof that the adhesion had been steadily consolidating since the first operation, and very suggestive in itself of great interference with the function of that part of the bowel. The collapsed condition of the intestine below the seat of adhesion, and the way in which the gut became distended again after the adherent portion had been set free, left no doubt as to the site and completeness of the obstruction. The possible causes of intestinal obstruction after ovariotomy are manifestly numerous: fixation by adhesive inflammation to the pedicle, to the abdominal wound, to the site of separated adhesions, twisting of intestine by manipulation during the operation, inclusion of a loop of intestine in the pedicle ligature, slipping of a coil of the gut into surgical traps such as are formed when the pedicle is treated by the extra-peritoneal method, or when the stump of the broad ligament is stitched to the back of the abdominal wound, will readily suggest themselves. It is not, however, so much with the causation of the obstruction as with the possibility of making an early and accurate diagnosis that the surgeon has to do. Where the site of the accident may be, and by what means the block has been formed, can seldom if ever be decided with useful accuracy until the abdomen is reopened. Hirsch,[1] in his article on "Intestinal Obstruction following Ovariotomy," points out that the diagnosis has to be made under two different conditions: in one class of cases the obstruction is formed at the time of operation, as when a loop of intestine is included by the surgeon in his pedicle ligature; in the other class the obstruction forms slowly, as in the case now under consideration, and the patient has practically recovered from the ovariotomy before any signs of obstruction manifest themselves. In the second group the diagnosis is generally easy, and the decision of reopening the abdomen can be arrived at while the condition of the patient holds out a fair prospect of a successful issue; but in the first group the symptoms of intestinal obstruction are so intermingled with those of traumatic or septic peritonitis that an absolute diagnosis is exceedingly difficult, and the patient is generally so far gone before the surgeon considers himself justified in reopening the abdomen that all hope of relief by laparotomy has to be abandoned. Hirsch in his paper gives fourteen cases of intestinal obstruction following ovariotomy, and in only one (Case 8) was a secondary laparotomy done. This case was similar to that of Miss X——, in that signs of obstruction did not appear till late in the convalescence, and in that operation on the twenty-first day was followed by a successful result. With the increasing and more perfect knowledge of abdominal surgery, and with accumulating records of successful results, it is highly improbable that cases of the kind just quoted, in which obstruction has occurred late and signs of the accident are clear, will be allowed to die without an attempt being made to relieve them by surgical interference; but in those cases (which unfortunately form the majority) where symptoms of intestinal obstruction appear early and are complicated or masked by the presence of general peritonitis, either traumatic or septic, the surgeon will always be placed in a position of cruel uncertainty. Some may say that the abdomen should be opened in any case, as it enables us to search for and relieve an obstruction, should such exist; and, on the other hand, should septic peritonitis be present, it gives the opportunity for washing out the peritoneal cavity and inserting a drainage-tube. As regards this latter point, however, Mr. Alban Doran[2] remarks: "Judging from what I have seen, septicæmia, when it has once set in, is very unamenable to any active kind of treatment." My own experience is entirely at one with this statement; and while our surgical instinct renders us unwilling to leave a patient with actual mechanical obstruction unrelieved by operative interference, our past experience makes us yet more hesitating in using the knife in cases where further surgical proceedings may only hasten the end. In the group we have just been considering each case must be more or less a law unto itself; and in deciding the question of a secondary operation, the surgeon will be guided more by his surgical instinct, by the study of small details, and by his past experience, than by the formulation of any general rules.

The patient is now (October 28th, 1889) in admirable health, and is actively engaged in her ordinary literary pursuits.

[1] Archiv für Gynäkologie, Band xxxii.

[2] Gynæcological Operations, p. 260.

A CONTRIBUTION TO THE

STUDY OF CHRONIC VALVULAR DISEASE OF THE HEART,

BEING

AN ANALYSIS OF ONE HUNDRED AND FIFTY CONSECUTIVE CASES SEEN AT THE GLASGOW ROYAL INFIRMARY DISPENSARY, WITH A SPECIAL LIST OF CASES BEARING ON THE INFLUENCE OF PREGNANCY IN CHRONIC VALVULAR LESIONS.

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(Concluded from p. 848.)

THE influence of pregnancy upon the prognosis in heart disease is a subject of very considerable interest, and one in which it is of importance to have definite grounds on which to form an opinion. I have recorded the cases of twenty-six women suffering from valvular disease, who had borne children, and a brief summary of these follows.

CASE 1.—Mrs. R——, aged thirty-eight. In 1869, four weeks after her first confinement, was treated in the

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Glasgow Royal Infirmary for dropsy. During her residence the first hæmoptysis occurred; cardiac disease was detected at that time. During her second pregnancy she again had hæmoptysis, but not since that time. Three subsequent confinements were without trouble. The sixth was followed by dropsy; the seventh normal. The eighth pregnancy was complicated with dyspnœa and œdema of the lungs, and convalescence from confinement slow. She is again three months pregnant, and suffering slightly from dyspnœa. This woman has been under observation for four years, and presents the murmur of mitral stenosis in its most typical form. Last month, for the first time, the cardiac dulness was noted to be enlarged to both sides, and over the right ventricle a brief ventricular systolic murmur was heard. During these twenty years she has never for any considerable time been unable to perform her household duties—those of a labourer's wife. Whenever she feels the breathlessness increasing to such an extent as to threaten to interfere with her work—i.e., during pregnancies, she comes to the dispensary and improves at once on iron and digitalis. She never had rheumatism, rheumatic or severe growing pains.

CASE 2.—Mrs. M——, aged twenty-seven, came complaining of abdominal symptoms. Pelvi-peritonitis after parturition; very weak, and badly cared for. Accidental discovery of murmur of mitral stenosis. No spontaneous complaint of cardiac symptoms, but admitted having dyspnœa during last pregnancy; no cardiac symptoms under observation. No history of rheumatism. When last seen was apparently quite well.

CASE 3.—Mrs. M——, aged thirty-nine. Complaint: pains in head and back, and menorrhagia. Well-marked auriculo-systolic murmur. Subacute rheumatism after childbirth seventeen years previously, and less severe pains since. Has had several children since, and rheumatic pains are most marked after confinements. Has never had cough or spit, but has occasionally had dyspnœa on exertion, and palpitation when excited.

CASE 4.—Mrs. C——, aged forty-two. Complaint: shortness of breath, cough, and weakness. Well-marked auriculo-systolic murmur. No history of rheumatism, but "inflammation of lungs" six years ago, and frequent attacks of bronchitis and shortness of breath since then, with hæmoptysis three years ago. Five children, the youngest two years old. No history of special troubles during pregnancies.

CASE 5.—Mrs. H——, aged forty. Complaint: weakness and "choking." Had acute rheumatic fever seventeen years ago, eight months after first confinement. No recurrence of rheumatic pains. During seven subsequent pregnancies has had dyspnœa and cough; severe hæmoptysis during second and eighth, and occasionally at other times. Had not noticed dyspnœa and cough until within past few years, except during pregnancies. No œdema of the feet. Always recovered rapidly from confinements, but during last pregnancy (five years ago) was confined to bed almost all the time. Auriculo-systolic murmur at the apex. When seen she was decidedly ill.

CASE 6.—Mrs. H——, aged thirty-eight. Complaint: cough and hæmoptysis. Was well, save for slight cough, till two years and a half ago, when, during pregnancy, cough became worse and hæmoptysis occurred; no œdema. Recovered some time after confinement, but hæmoptysis has recurred. Is not pregnant. Auriculo-systolic murmur at apex. Rheumatic pains in childhood, but never so severe as to confine her to bed.

CASE 7.—Mrs. W——, aged twenty-eight. Complaint: dyspnœa, cough, hæmoptysis, and pain in left side. Typical murmur of mitral stenosis. Six attacks of rheumatic fever, the first eleven years, the last five months ago. Had palpitation since first attack; hæmoptysis only within past six months. Was married ten years ago, and is now pregnant with her seventh child. Was always well during her pregnancies, except during the last, when she had a discharge of blood for two months before the birth of a stillborn child at full time.

CASE 8.—Mrs. R——, aged fifty-two, Complaint: debility, diffuse pains, and heart disease. Has suffered from cough, slight spit (rarely bloody), dyspnœa, œdema, &c., at various times during many years past, and thinks that some of these first occurred shortly after a severe attack of rheumatic fever thirty-three years ago, when she was told that her heart was affected. Has had rheumatic pains since, but never severe. Had one child, without troubles during pregnancy or afterwards. When last seen seemed quite well. Well-marked mitral stenosis.

CASE 9.—Mrs. H——, aged twenty-seven. Debility, cough, and pain over heart and down the left arm, aggravated on coughing. Four years and a half ago, after an indefinite period during which she had been aware of pain in the left arm and of palpitation on exertion, she was suddenly, when at hard work, seized with hæmoptysis, not very copious. Since then precordial pain and troublesome cough, with frequent blood stains in spit. For two years has been scarcely able to do her household work. Had had two children prior to attack of hæmoptysis, without trouble during pregnancy or afterwards. Has since had three children, at full time, and has had hæmoptysis during each pregnancy. During last pregnancy had general anasarca, which persisted for a month after delivery, since which she has not regained her former health. Pure mitral stenosis discovered on examination. No history of rheumatic or growing pains.

CASE 10.—Mrs. McK——, aged thirty-two. Complaint: "lungs gone." Œdema at bases of lungs; dyspnœa, slight cough and spit; has often spit blood, first about eight years ago during pregnancy. Rheumatic fever seventeen years ago; no symptoms till eight years ago. Loud auriculo-systolic murmur, and perhaps also a brief ventriculo-systolic murmur at apex.

CASE 11.—Mrs. F——, aged forty. Repeatedly under observation for two years, and when last seen very ill with dyspnœa, cough, and general cardiac distress; well-marked double mitral murmur; never acute rheumatism, but severe growing pains. Dates cardiac condition to a period two days after seventh confinement nine years ago, when a fright induced severe dyspnœa, hæmoptysis, &c. Has had repeated similar attacks, and has never been quite well. Four children since; never very ill during gestation, no difficulty at confinement, but convalescence always tedious. Six months after last confinement had temporary right hemiplegia and aphasia.

CASE 12.—A. F——, aged thirty-two. Cough and hæmoptysis; mitral stenosis and regurgitation. Rheumatic fever at age of thirteen, and again eight months ago a slight attack; hæmoptysis nine months ago. One child six years and a half ago; very ill during pregnancy and long afterwards.

CASE 13.—Mrs. J——, aged thirty. Complaint: shiverings and hæmaturia of two days' duration. Double mitral murmur. Rheumatic fever at thirteen and fifteen years of age, and heart was under suspicion then. In eighth month of fourth pregnancy; three previous pregnancies normal. Never had dyspnœa till present pregnancy, but has had palpitation since marriage nine years ago. Slight hæmoptysis six weeks ago, and severe hæmoptysis a month after being first seen.

CASE 14.—Mrs. R——, aged twenty-nine. Left hemiplegia of four years' duration, but now only slightly marked, preceded by right hemicrania. No history of rheumatic fever, but has had "rheumatic pains." Has had palpitation. Three children before the seizure, one stillborn, one premature, and a third that died at four months of "nævus." One miscarriage since. Mitral regurgitant murmur and doubtful murmur of mitral stenosis. (History regarded as possibly syphilitic.)

CASE 15.—Mrs. B——, aged fifty. Complaint: dyspnœa, cough, sleeplessness, and pain in left side. Had cough and shortness of breath since she was a girl, especially in winter, but never confined to bed with these till ten or twelve years ago. Never had rheumatic fever, but slight rheumatic pains not infrequently. Six children, all born at full time and nursed by herself. During pregnancies great œdema of legs for last three months. A year ago hæmoptysis for first time, and frequently since. Marked auriculo-systolic murmur, and probably also ventriculo-systolic, at apex; very cyanotic and fingers clubbed.

CASE 16.—Mrs. M——, aged fifty-five. Complaint: general anasarca of several years' duration, with cough and dyspnœa, the cough dating thirty years back. Rheumatic fever twenty-one years ago, but never since. Aware that her heart is affected, but cannot give date of origin. Had two children since rheumatic attack, and suffered more with them than with previous eight. Marked mitral regurgitration. Very weak and livid.

CASE 17.—Mrs. McG——, aged twenty-six. Complaint: general anasarca of a week's duration, but with history of two previous attacks—the first three years and the second

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eighteen months ago,—attributed to drinking, which she has indulged in to great excess for three years, so that each "spree" now ends in delirium tremens. Mitral and tricuspid regurgitant murmurs. Was married very young, and had her first child before she was fifteen, a second eighteen months later, and a third in other two years; all three living and healthy. About a year later had a miscarriage at the fourth month, and in rapid succession two others about the same period, and about three years ago a still-born child at eight months; has never been pregnant since. Always had hæmoptysis during gestation, but never œdema. Since she was fourteen has always had a cough, specially severe in winter; also great shortness of breath and palpitation since her third pregnancy. No history of rheumatic or other pains. Never had sore-throat or rash.

CASE 18. — Mrs. S——, aged forty-nine. Complaint: dropsy of limbs and body of a year's duration, with shortness of breath, palpitation, and debility. Mitral regurgitation. Severe rheumatic fever twenty-one years ago; no recurrence. Had several children before that, and five since. While pregnant with the latter seems to have suffered more from œdema of legs than on former occasions, but had no other trouble. Two years ago had severe hæmoptysis. While under observation had severe attack of melæna.

CASE 19.—Mrs. C——, aged sixty-two. Came complaining "of her heart"—palpitation, dyspnœa, cough, expectoration, and œdema of the legs. Tumultuous action of the heart, with hypertrophy of the left ventricle; mitral and tricuspid regurgitant murmurs, and a suspicion of an auriculo-systolic mitral murmur; great accentuation of the pulmonic second sound. Duration unknown; never had rheumatism or rheumatic pains. Had five children, and no trouble with any of them. [Very doubtful if cardiac disease was present during childbearing.]

CASE 20.—Mrs. McG——, aged thirty-five. Complaint: "dropsy"—œdema of limbs and ascites, with breathlessness, cough, and great lividity, dating from three months before the birth of her seventh child, three months ago. Four years ago, during her fifth gestation, had a similar attack with occasional hæmoptysis, and the sixth pregnancy was associated with similar, but less marked, symptoms. The last three pregnancies ended at the seventh month, as did also the first; but second, third, and fourth reached the full time. The first four pregnancies were not associated with dropsy or other troubles. Hypertrophy of left ventricle, with marked ventriculo-systolic murmur at the apex and a doubtful trace of auriculo-systolic; marked accentuation of pulmonic second sound. No history of acute rheumatism, but during second pregnancy had severe pains in legs and feet, confining her to bed for weeks, and has since been more breathless and more troubled with cough than formerly.

CASE 21.—Mrs. McJ——, aged thirty-eight. Complains "of her heart," precordial pain, dyspnœa, lividity, &c. Seven years ago had rheumatic fever, and has had slight attacks since. No cardiac symptoms till three years and a half ago, when, a week after the birth of her ninth child, she was suddenly seized with shortness of breath and hæmoptysis, ever since which she has had dyspnœa and palpitation. Has had ten children, the seventh eight months prior to the rheumatic attack, the eighth about two years later, the ninth as above, and the tenth about two years ago. She did not suffer more during the later than during the earlier pregnancies, and never unduly. Hypertrophy mainly of left ventricle; great irregularity of cardiac action; brief mitral ventriculo-systolic murmur, and probably also an auriculo-systolic; pulmonic second sound not much accentuated.

CASE 22.—Mrs. M——, aged twenty-two. Debility, cough with sputum streaked with blood, dyspnœa, and œdema of feet at times. One child, lately weaned. Aortic regurgitant murmur. Doubtful history of rheumatism.

CASE 23.—Mrs. G——, aged fifty-three. Cough, shortness of breath on exertion, and palpitation, said to be of only a fortnight's duration. At apex auriculo-systolic and ventriculo-systolic murmurs; at base double aortic murmur. Had rheumatic fever fifteen years ago, when carrying her sixth child, after the birth of which she had "inflammation of the side" with hæmoptysis. No recurrence of rheumatism or hæmoptysis. Has had a seventh child since, without any trouble. Left arm and hand much atrophied since twenty-eight years ago; onset with pain and "dumbness" in thumb; no injury.

CASE 24.—Mrs. M——, aged fifty, complains of painful cramps in both legs and in left arm, of which she has had several attacks during the past fortnight, each lasting for a couple of hours or thereabout. Has had a cough during the past six months, with whitish sputum tinged with blood during the past six weeks, due, she believes, to epistaxis. Considered herself healthy till five years ago, when she got a fright and thereafter suffered from giddiness. Has never had marked dyspnœa, never had acute rheumatism, but suffered from rheumatic pains some three years ago. Marked double aortic murmur. Was married at fourteen and had twelve children.

CASE 25. — Mrs. G——, aged forty-eight. Complaint: palpitation, cough, and pain and swelling in the epigastrium. Double mitral murmur and double aortic murmur. Rheumatic fever ten years ago, and three recurrences. Since first attack shortness of breath, worse during the past two years. Since first rheumatic seizure has had two children, and was weak while carrying them, but had no special troubles.

CASE 26.—Mrs. N——, aged thirty-six. Complaint: precordial pain, headache, giddiness, palpitation, dyspnœa, and occasional hæmoptysis. Rheumatic fever twenty-six and twenty years ago, both bad attacks; occasional pains since. Nine years ago, three months after her first pregnancy, she fell from a height and was severely hurt; thereafter giddiness and dyspnœa. Two pregnancies since then, the last three years and a half ago, and had swelling of legs with both, but no hæmoptysis, which began only three years ago. Marked cardiac impulse with enlargement of dulness, but with slight thrill at apex. When first seen murmurs diagnosed as of mitral obstruction and regurgitation with probably aortic stenosis also, and exceptionally accentuated pulmonic second sound. When next seen, accentuation of second sound quite absent, and murmurs then unequivocally of aortic obstruction and regurgitation without suspicion of mitral lesion.

In only one or two of these cases does there seem to be any doubt that the cardiac lesion had preceded the birth of some of the children. Now, of these cases 9 were suffering from pure mitral stenosis, 8 from combined mitral stenosis and regurgitation, and 2 from pure mitral regurgitation; a total of 19 with pure mitral disease. Of the others, 2 had mitral and tricuspid lesion, 2 mitral and aortic, and 3 pure aortic disease. The great preponderance of cases of mitral lesion, and especially of mitral stenosis, is here very striking, and the histories of repeated pregnancies without much general disturbance, as seen, for instance, in a most marked form in Case 1, lead to the inference that the prognosis, even when pregnancy occurs, must in cases of that kind be regarded with considerable hopefulness. This view is entirely at variance with that expressed by the late Dr. Angus Macdonald in his book on "Heart Disease during Pregnancy," in which he gave it as his opinion that mitral stenosis was the most serious cardiac complication of pregnancy. It is, however, entirely in accordance with the general view of this lesion expressed above, and with the general tenor of Dr. Gairdner's teaching.

In regard to the general prognosis of cardiac valvular lesions, then, while admitting the gravity of all such affections, I would, from the experience I have had at the dispensary, incline to take a more favourable view than is often done. Even with regard to aortic incompetency, I am more hopeful than I once was, when I consider the condition of comparative health which many of the cases presented, their considerable duration, and the conditions under which the patients' lives were spent. For it must be remembered that almost all of these cases occurred among the very poor, whose circumstances were in all respects unfavourable from a prognostic point of view, and the great majority of whom, even when under observation, had to work hard for their living. In the more favoured classes of society, therefore, the prognosis ought to be all the better.

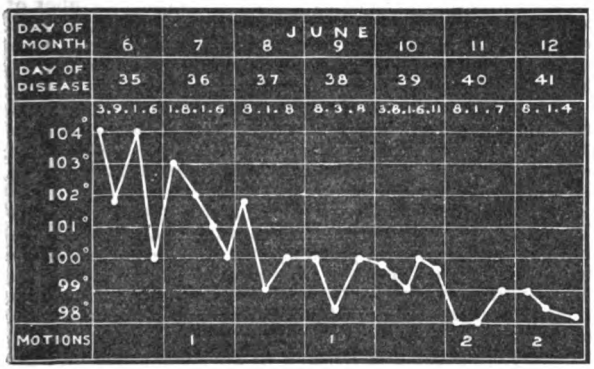
Treatment.—On this I have little to say, for the dispensary is not a suitable field for testing remedies, those who continue under observation not being able to carry out the general regimen ordered, and not being sufficiently under our control for the results of treatment to be carefully noted, while the more severe cases are always sent into hospital. In general terms, I may say that I have used both digitalis and strophanthus, especially in mitral disease, and such remedies as the iodide of potassium and nitro-glycerine in suitable aortic cases, with benefit. I need scarcely add that I have never regarded the mere discovery of a murmur as an indication for treatment.

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TYPHOID FEVER; PERFORATION; RECOVERY.

BY GEO. A. BRANSON, M.R.C.S. &c.

A. B——, a professional nurse, aged twenty-six years, who was engaged from Melbourne to take care of a little typhoid patient early in April, complained to me on my evening visit (May 5th) that she herself had been "awfully bilious for the last two days." On examination I found she had a temperature of 104°, pulse 110, skin dry, and furred tongue. I told her that she probably had contracted typhoid, and that she must at once go to bed, and stay there. I ordered her hyd. subchlor. (gr. viii.) and pulv. jalap co. (gr. xii.), and sent for a woman to nurse her. (See Chart.) The chart shows, in a most interesting manner, the course her attack ran. The high rise of temperature on the seventh evening of the disease was due to excitement about the arrival of her great friend and fellow nurse from England, Miss Crabtree, whom I had telegraphed for to come up from Melbourne to nurse her. The only medicine I gave her, besides the powder above mentioned, were four minims of the tinctura veratri viridis every two hours until her pulse was below 100, until the tenth day of illness, when, her motions becoming very fetid, she took two grains of naphthaline night and morning for three days, with good result. She ran through an ordinary attack of typhoid upon strict milk diet until the twentieth day, when I was foolish enough to give way to her entreaties, and to permit her to



sit up in bed and to take a cup of chicken broth. For this nature severely rebuked us; her temperature that night went up to 101·4°, and the following night to 103·4°, and her pulse grew rapid again. She then developed phlebitis of the left femoral vein, with great pain, swelling, and stiffness in the thigh and leg; the pain and swelling subsided considerably in three days, but on the evening of the twenty-fifth day her temperature again ran up; pulse 115, weak, and easily compressible. Her tongue became very foul, so I put her on tincture of nux vomica and dilute nitro-hydrochloric acid, of each ten minims, to be taken three times a day, and half-ounce doses of brandy every three hours.

On the evening of the twenty-sixth day her temperature ran up to 103·6°, and, although she was freely sponged with cold water, at 8 A.M. the following morning it was 103·8°. Fifteen grains of antipyrin brought the temperature down a little, but depressed her considerably. On the twenty-eighth day she appeared to be better in every way; but as she was constipated I gave her an enema of ten ounces of hot water, and she responded with six semi-solid light typhoid-coloured stools; her temperature and pulse both ran up again at night, and the following morning her temperature was 104° and her pulse 130. No pain anywhere; she was quite sensible and cheerful, and took the brandy and milk well. The following morning, thirtieth day, she complained of feeling sick after the milk, so I ordered her whey instead; she passed two motions during the morning and one in the evening—small ones with nothing abnormal; but her pulse was very threatening, 140 per minute, and weak, so I put her upon carbonate of ammonia, tincture of digitalis, and sulphate of ether. The following morning, thirty-first day, she again complained of feeling very sick, with considerable pain in the right cæcal region; tongue heavily furred, but not dry; respiration short and hurried, pulse 130, temperature 103°. I ordered hot fomentations to the abdomen, and at midday went back to see her, and found the pain in the abdomen almost gone, the skin covered with cold clammy sweat, pulse imperceptible at either wrist, temperature 104°, abdomen commencing to swell, violently sick and retching; hiccough also present. Heart beating 145 per minute. As the patient had not a single relative in Australia, I told her friend the nurse I was of opinion that perforation of the bowel had taken place, and that the patient might last six hours. Fortunately they were living close to my house, and I could see the patient frequently. At 5 P.M. her temperature was 105°, abdomen much more distended, breathing very shallow and rapid; kept poppy fomentations and a binder on abdomen; pulse imperceptible, patient quite sensible, felt cold, and kept vomiting terribly. No ice could be obtained in the district. Ordered her enemas of brandy and beef-juice every three hours. At 10 P.M. her temperature was down to 100·2°; still pulseless at wrists; heart beat 130. Skin cold and clammy; retching continued, but retained enemas well. Breathing very spasmodic, entirely thoracic. She said her throat was suffocating her. I gave the nurse a bottle of chlorodyne, and directed her to give the patient twelve to fifteen minims very frequently, if restless, either by mouth or rectum; abdomen greatly distended. At 1 A.M. on the thirty-second day her temperature had fallen to 98°. Abdomen intensely distended, pulse imperceptible; still cold sweat and retching. Ordered hot-water bottles to be put round her, to push the chlorodyne and brandy, and gave her eight grains of carbonate of ammonia, which she quickly ejected. I gave her a hypodermic syringeful of rectified ether, and directed the nurse to give her a syringeful of brandy and ether alternately every half hour; absolutely nothing by the mouth. My prognosis was that she would be dead before daylight; but, on returning at eight next morning, I found that my patient had slept three hours and a half, and although her temperature had been subnormal all night, she was no worse than she was seven hours previously. To continue with the brandy enemas and brandy-and-ether hypodermic and chlorodyne. At 1 P.M. her temperature was up to 99°, but she was weaker, and took less notice of my visit than formerly; from 5 P.M. until midnight she was sinking fast, delirious, pulseless, cold sweat, and intense abdominal distension; could not count her heart beats; still retching violently. On visiting her at eight o'clock next morning (thirty-third day of disease) I found she had slept for a few hours, and had lost the delirium and cold sweat; temperature 102·6°; still retching; pulse at wrist 130; abdomen same as yesterday. Ordered the nurse to continue the brandy enemas, to apply mustard to the stomach, push chlorodyne and ether, and to give half a drachm of oil of turpentine every three hours. Her temperature at 5 P.M. was 104·4°, but her pulse was stronger, and she was not so sick as she had been; no pain whatever. At 1 A.M. the following morning her temperature was 104·8°, but at 11 P.M. it was 102·5°, and she was decidedly better; less sickness, pulse stronger, abdomen still intensely distended. The following day her temperature varied from 104° in the morning to 100° at night, and she was improving splendidly; tongue foul, but no sickness or retching; no pain; less distension; took and retained a little brandy-and-milk by the mouth. To keep on taking chlorodyne, and to take eight grains of bicarbonate of soda and half a drachm of spirit of ether every three hours.—Thirty-sixth day: Slept well last night; tongue cleaning up; abdomen going down; pulse 110, and much stronger; no sickness, so gave her some raw beef-juice and brandy, and, as she had not passed any motion for more than five days, I ordered her a small enema, which pained her considerably, but acted once very efficiently. From this time onwards she improved very rapidly. Her next motion, on the thirty-eighth day, contained a number of small sloughs, and was remarkably offensive. Abdomen getting quite retracted. On the fortieth day she passed a slough fully six inches long by half an inch in diameter; very foul odour. She then made an uninterrupted recovery, and could walk about before returning to Melbourne on June 28th.

I must apologise for these somewhat rough notes. They were hurriedly made in a busy time of a large Bush practice, and with no intention of publication; but there are many points which appear to be of great interest. Was

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the relapse on the twentieth day due to my allowing her to sit up and to have chicken broth? I fear so; and yet this rise of temperature might be due to the phlebitis of the left femoral vein; for although the temperature went up to 101·4° that night, and the following evening to 103·4°, yet the next three nights it was not high. There can be little doubt that actual perforation of the gut took place, followed by peritonitis with efficient adhesions. Bristowe, writing of perforation, says: "Death almost invariably follows this lesion, and generally occurs within a couple of days, sometimes in the course of a few hours." I had one other case of perforation this year which proved fatal sixty-eight hours afterwards. I attribute the patient's recovery to the splendid nursing she received, to her own great pluck, to peritonitis, to keeping the bowels quiet with opium, and to the hypodermic injections. Although the actual perforation may have been small, yet the amount of tissue destroyed was immense. Naphthaline answered well as an internal deodorant and disinfectant; I have also used for this purpose iodoform dissolved in sulphate of ether, then mix with vegetable charcoal, evaporate the ether, and mix with glycerine.

Tungamah.

LEPROSY IN KASHMIR: ITS DISTRIBUTION AND ETIOLOGY.

BY ERNEST F. NEVE, M.D., F.R.C.S. ED.,
SURGEON TO THE MISSION HOSPITAL.

FOR my purpose the country of Kashmir may be subdivided into:—1. The valley proper—a tract about fifty miles by thirty, comparatively level, bisected by the river, containing several large sheets of water—one, the Woolar, being the largest freshwater lake in India. In the centre of the valley is the city of Srinagar. 2. The tributary valleys, averaging thirty to forty miles in length, comparatively narrow, leading down by steep gradients from the great watersheds. 3. At the heads and sides of these valleys, and also at an elevation all round the main valley, are the uplands and mountain pastures. The population, which is less than half a million, may be grouped as A, urban; B, agricultural; C, fishing; D, herdsmen. In Division 1 of the valley we have Groups A, B, and C. In Division 2 Groups B and D. As we penetrate into the mountains the latter group ever increases.

Now, let us glance briefly at two points—viz., the diet and the distribution of leprosy. Speaking generally, the diet of Groups A and B is rice, a great assortment of vegetables and fruit, meat, milk, and a certain amount of fish. The diet of Group C would be somewhat the same, but includes a very large amount of fish, especially in the case of the boating population around the Woolar lake, to whom fish is a staple article of diet, both fresh and dried. There is a small dried fish industry, and fish thus prepared is sent up to the city. The diet of Group D is largely composed of milk and milk products. To a less extent the herdsmen eat the other articles above mentioned; but from fish they are cut off, from their position, being usually far removed from the lake and river, while the snow streams do not contain fish. Lepers are rather numerous in Kashmir. During the past year we have seen eighty-six as out-patients. Of these, at different times, forty-four have been admitted as in-patients into a special ward. Notes have been taken of many of these cases, but chiefly with regard to their condition and treatment. I have drawn up a table of lepers seen, with the exception of five, within a fortnight. An analysis of this will illustrate some points in distribution and etiology.

The prevailing type is mixed tubercular and anæsthetic leprosy. The number of cases twenty-two; the majority males. Of these eleven were from Division 2 of the valley, six from Division 3, two from Divisions 2 to 3, one from Division 1, while two were unknown. With regard to population groups, one was from Group A, twelve from Group B, none from Group C, three from Groups B, D, four from Group D, while two were unknown. Nine gave a history of other lepers existing in the district or village from which they came; seven denied the presence of other lepers there; six were uncertain whether there were or not. Fifteen stated that absolutely none of their relatives had the disease; one said his mother was affected; in the case of another, one sister only was leprous; a third stated that only his mother and one sister were diseased; in the case of a fourth, only an uncle was affected; another patient gave a history of his grandfather being a leper, but his father not; and, finally, one had a brother a leper. In the case of one, the condition of the relatives was unknown. Interrogated as to fish diet,[1] nine had eaten fish frequently, two occasionally, one perhaps in infancy, five never. With regard to the remaining five I have no record.

Now this analysis suggests several interesting considerations:—

(*a*) A preponderance in males. We do not see many female lepers. According to our books, the percentage of this sex does not exceed 16.

(*b*) We note that Division 2 of the valley contributes rather more largely than the others. This is partly due to its proportionately large population; then in the winter the people from Division 3 come down into the neighbourhood of Division 2; yet I am inclined to think that if the table had embraced a larger number of cases that Division 3 would be found to contribute the largest number of lepers—viz., from amongst the herdsmen of the country.

(*c*) The question of the existence or not of other lepers in their district is one on which the testimony of patients is not worth much, as signs in others are often slight and intentionally concealed.

(*d*) With regard to relatives their testimony is more valuable, because living in the same house they have opportunities of judging. The result of the inquiry is interesting as affecting the question of heredity and contagion. It is a striking fact that in so many instances no other member of the family was affected, as is also the way in which individuals are selected by the disease, and occasionally a generation is skipped. Certainly we should not get such a clean bill of health in the case of the tubercular diathesis. I have examined the near relatives myself in several cases, and satisfied myself as to their freedom. It is the same with regard to their offspring. One patient informs me that his wife, son, and two daughters have all been constantly living with him till recently, yet all are healthy.

(*e*) In any country where fish is abundant, of course it forms an article of diet. If the questions had been about milk, or rice or mutton, probably every member would have answered in the affirmative. It is a very significant fact that not a single member of Group C, the fishing population, is to be found on my list. Indeed I do not remember ever having seen a leprous boatman.

Contagion.—There is nothing in Kashmir which can be said really to favour the idea of contagion. The histories of the above patients are rather against it. Still, one is confronted by the question, If leprosy is neither hereditary nor contagious, why does it not die out? I feel that the grouping of the lepers is important. When travelling in the different parts of the valley, if in a given district one leper is found, others will not be far distant. This tends to indicate certain endemic propensities. Again, the fact of heredity being apparently not a very strong factor in reproducing the disease tends to make communicability more probable.

If leprosy is contagious, it is so either by (1) aerial transmission, (2) inoculation, or (3) diet. The first appears opposed to all one's experience. The second, as far as Kashmir is concerned, has never been proved, although the leprous bacillum has been found present in the discharges. If contagion occurs, it must take place only under favourable circumstances. Surgeons who do the operation of nerve-stretching on lepers do not escape an occasional prick of the fingers. But so far the inoculation experiment has, I am happy to say, failed. Intermediate transmission by flies from wound to wound, or even by mosquitoes, does not seem impossible. Vaccination is not sufficiently practised to be, if done carelessly, a possible source of contagion. Thirdly, diet, including water. Recent researches with regard to milk and tuberculosis direct by analogy one's attention to diet. We must eliminate actual inoculation, due not to diet but to contaminated eating vessels. Diet, I take it, may be at fault, either as a predisposing cause or as containing actual virus. As a predisposing cause, food insufficient or poor in quality and wanting in variety would be apt, speaking generally, to predispose. With regard to actual virus in

[1] See Hutchinson: THE LANCET, vol. i., 1879, p. 230; Brit. Med. Jour., vol. i., 1889, p. 1449.

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the diet, this might be present as (1) the specific organism of leprosy arising *de novo* in certain diet substances; or (2) another bacillum might, under suitable conditions, become changed in its nature and tendencies, and become leprous; neither of these views seems probable, or indeed in accordance with bacteriological laws; (3) from actual contamination, as by a leper washing in a tank, and the water of that being drunk or mixed with food, as, for instance, in the adulteration of milk; or again (4) it is possible that under certain conditions the bacillum might propagate itself if once planted in a suitable medium, as, for instance, milk, milk cheese, or dried meat, so that these, when ingested, might reproduce the disease in those who are predisposed.

(To be concluded.)

PERCHLORIDE OF MERCURY IN DYSENTERY.

BY K. P. CHOWDHOVRY,
ASSISTANT SURGEON, MEDICAL OFFICER IN CHARGE OF THE BURDWAN CHARITABLE HOSPITAL.

DYSENTERY is a disease which prevails most extensively in various malarious tracts in India. It has been the scourge of the Indian army, and is the principal cause of death among the famine-stricken, ill-fed, and improperly clothed poorer classes of the people of this country. It occurs in the most virulent form among the poor pilgrims who travel by the Grand Trunk Road from the North-western Provinces to the Temple of Juggernaut in Orissa. When it occurs among the Europeans it is very generally found to be obstinate. On account of this they are often required to undertake long journeys to distant and salubrious climates to recover their health. It is therefore of the utmost importance to find out any medicine which could be useful in so dreadful a disease. The discovery of ipecacuanha certainly produced a new era in the treatment of dysentery. A very large number of cases that used to die yearly in the Indian army from acute and chronic dysentery began to be saved by the introduction of this remedy. Large doses of ipecacuanha became for a time the only treatment of dysentery in both the acute and chronic stages. The high authority of Dr. Maclean sanctioned this as the only rational treatment, and for a time the profession held up this as the most suitable means of controlling the dreadful ravages of the terrible disease. The practice, however, in the civil hospitals and among the people generally began after some time to change. The ipecacuanha treatment was found unbearable in many cases, and the constant sensation of nausea which worried the patients undergoing such treatment interfered very greatly with their taking nourishment. Smaller doses of ipecacuanha are more easily retained, and on the whole they produce less inconvenience to the patients. I have found smaller doses (3 gr. to 5 gr.) in combination with soda and acacia very useful in acute cases of dysentery. But in the treatment of the chronic varieties every remedy seemed to be equally useless. Thousands of cases of this fell disease have been treated in the Burdwan Charitable Hospital within the last five or six years, and to my knowledge a very large number of them died, notwithstanding every kind of recognised treatment. Thinking that ipecacuanha owes its efficacy to the power it possesses of stimulating the liver and producing an abundant secretion of bile, I resolved upon perchloride of mercury as a mineral which would serve the same purpose, without the nauseating effects of the former. Having lately read of the wonderful efficacy of perchloride of mercury in Hill diarrhœa, I felt inclined to try the effects of the same drug on dysentery. My expectations were fully realised, and I found that under this treatment some of the most hopeless cases of the chronic type were cured within a comparatively shorter time than what could have been expected under any other method of treatment. I have treated many cases in this way, and I may say with almost uniform success. To avoid being wearisome, I shall content myself with a short account of only three cases.

CASE 1.—Makhan Lall Roy, aged thirty-two, a Hindu male, and a cook by profession, was admitted into the Burdwan Charitable Hospital on March 25th, 1889. He had been suffering from dysentery for the last three months. He used to pass mucus and blood in his stools, and he was troubled much with griping and straining. Five minims of the liquor hydrargyri perchloridi in two drachms of water were prescribed, to be taken every four hours. On the 28th there was very little blood and no mucus in his stools. On the 29th he was quite well and left the hospital. This was a case of marvellous recovery.

CASE 2.—Runnoo Ogha, aged thirty-eight, Hindu male, a priest by profession, was admitted into the Burdwan Charitable Hospital on April 26th, 1889. He had been on his pilgrimage to Juggernaut and was returning home. He had been suffering from dysentery for the last seven or eight days. He used to pass about twenty stools a day, with an abundance of blood and mucus. He complained much of griping and straining at stool. I prescribed five minims of the liquor hydrargyri perchloridi in two drachms of water every four hours. The colour of the stools was changed in two or three days; they became greenish, and there was no more blood in them. The stools gradually became yellowish and much thicker in consistence, and ultimately natural. The man was cured and discharged from hospital on May 12th, 1889.

CASE 3.—Zulsa, aged forty-five, a Hindu, was admitted into the Burdwan Charitable Hospital on June 26th, 1889. She had been suffering from dysentery for nearly a whole month. She used to pass blood and mucus in her stools. I prescribed five minims of the liquor hydrargyri perchloridi in an ounce of water, to be taken every four hours. She rapidly recovered under this treatment, so that on July 1st, the sixth day after her admission, she was quite well, and was therefore discharged from hospital.

Burdwan.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

TREATMENT OF WHOOPING-COUGH BY EUCALYPTUS SPRAY.

BY WM. W. HARDWICKE, M.D., M.R.C.P., &C.,
MEDICAL OFFICER, HARWICH BOROUGH AND PORT.

DURING an epidemic of whooping-cough which occurred last year in this district, I was induced by the continual failure of the various popular remedies, such as alum, belladonna, atropine, &c., to effect cures, to try the effect of the oil of eucalyptus. The extraordinary power of infection which is characteristic of this disease—due no doubt to the ease and rapidity with which the infected particles are thrown off in the act of coughing, and are carried to the air passages of others more or less susceptible—suggests to us that the true remedy for this disease is one of an antiseptic nature. This fact has been recognised for some length of time, and carbolic acid has been used for the purpose in various forms, with more or less success. But it must be acknowledged that not only is carbolic acid an imperfect antiseptic, for Ringer tells us that "no satisfactory proofs exist of its capability to destroy the contagious elements of disease," but it is a dangerous drug even in a diluted form to be left about amongst children and nurses. Its offensive smell to the majority of people, and its unpleasant associations, render its use for any length of time undesirable. Eucalyptus oil is, on the other hand, a powerful antiseptic, being more than three times as strong as carbolic acid in preventing the development of bacteria, has not the caustic properties of the latter, and does not produce that irritation which the latter does, even when diluted, on the lips or mucous membrane. In combination with terebene the oil forms a mixture having a pleasant aromatic odour, somewhat similar to sandal wood, exercising a sedative influence on the lining membrane of the air passages, and possessing, besides antiseptic properties, the power of destroying the virus of the sputum, which is not only found clinging to the thickened and congested mucous membrane of the epiglottis, larynx, and bronchi, but is with every fit of coughing ejected by the mouth, with the possibility of infecting others. This sputum being crowded with bacteria

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and micrococci, it is upon the destruction of these with their extraordinary power of development and multiplication that our success depends. For this purpose I use the following mixture as a spray: Oil of eucalyptus, two drachms; terebene, two drachms; rectified spirit of wine, one ounce and a half. When used, the spray machine is held at a short distance from the mouth, which is opened to receive the spray. I generally order it to be used half an hour before each meal and at bedtime, thus ensuring a constantly ozonised breathing atmosphere. Internally I give terebene in drop doses to a child of from one to three years of age in combination with two grains of carbonate of magnesia and ten minims of compound tincture of camphor to one or two teaspoonfuls of water, repeated every three hours. The two former constituents to be triturated together, the magnesia being used simply as a carriage for the terebene, which is not miscible with water. The paregoric allays the irritability of the cough until the disease succumbs to the specific treatment. The machine I usually recommend for spraying is an ordinary odorator. A cheap form is one represented in Fig. 183, Sec. VI., in Maw's Catalogue, and can be used either with or without bellows. In every case where the above treatment has been properly carried out I have effected cures in about a fortnight. About a week after the characteristic "hoop" has become developed the paroxysms gradually become reduced in frequency and violence, until they cease to be noticed at all.

Dovercourt.

DISLOCATION ON TO THE DORSUM ILII IN A CHILD SIX YEARS OLD.

By C. LYNE DIXSON, M.B., M.R.C.S.

IN reading the case recorded in THE LANCET of Oct. 12th of dislocation on to the dorsum ilii in a child seven years old, which occurred at the Taunton and Somerset Hospital, under the care of Mr. Farrant, I was reminded of a similar case which came under my notice two years ago.

Riding one evening through a village on the North Tyne, I was suddenly called into a cottage to see a little girl, six years old, who had fallen out of the back of a cart, with her leg bent under her as she fell—at least, so the story was told. On examination, I found a distinct dislocation of the head of the right femur on to the dorsum ilii. She seemed in great pain and distress, and would not let me handle the limb at all. As in the case recorded, the thigh was semiflexed, adducted, and rotated inwards, the great toe resting on the dorsum of the left foot. As the pain seemed excessive and the child was very nervous and frightened, I returned for some chloroform; then, by the light of a candle and with the aid of the mother, I placed the child on the floor on her back, with only a pillow under her head. Having administered the anæsthetic, I removed my left boot, and placing my foot on the right ilium, I made extension of the right leg by pulling the limb at right angles to the body. Immediately the bone returned to its place with an audible click. An outside splint and a fortnight in bed, and the child was sufficiently well to get about; at the end of a month she was as well as ever.

I have recorded this interesting and rare case owing to its very close resemblance to the one I have already referred to, the only difference being that the patient was of the other sex and a year younger, and the right limb, instead of the left, was the one affected. The treatment I adopted was not the same, but the result was equally good.

Llantwit Major, S. Wales.

EXPERIMENTS ON THE ACTION OF SYZYGIUM JAMBOLANUM IN ARTIFICIAL DIABETES.

By DR. C. GRAESER.

I HAVE recently had the opportunity, through the kindness of Professor Binz, of making, in the Pharmacological Institute at Bonn, some experiments with extracts of the fruit of syzygium jambolanum upon dogs rendered diabetic by phloridzin. The plant is a tree of the group Eugenioideæ, subfamily Myrteæ, indigenous in tropical America, the West and East Indies, where its acid fruit is eaten. When at Java I learnt that the plant is called "djamelang" by the natives, who use the fruit and bast for diarrhœa and diabetes. Since its introduction into Europe as jambul it has also been here employed in diabetes.[1] In order to test its action more carefully, and to see whether and to what extent it may influence artificial diabetes, or what toxic effects it may possess, I made some dogs diabetic by phloridzin, following the instructions of von Mehrung.[2] By administering from 2·5 to 4·8 grm. of phloridzin daily to young dogs (weighing 2700 to 4800 grm.) in the proportion of 1 grm. per kilo of body-weight, there ensues an excretion of sugar lasting for twenty-four to thirty-six hours, and amounting to from 5·89 to 12·45 grms. At first I gave the phloridzin in one dose, later in gramme doses every two or three hours, without any notable difference in the amount of sugar excreted. In three experiments some diarrhœa was set up. In each case, whenever either before, with, or after the phloridzin, the animal was given extract of syzygium jambolanum, the sugar excretion invariably fell, in some cases to about nine-tenths of the amount excreted under phloridzin alone, in all it was diminished to at least one-half. At the same time the period of excretion was curtailed. Thus whilst with phloridzin alone the amount of sugar was from 5·89 to 12·45 grm., the amount (with the same dose of phloridzin) under treatment by jambul was maximum 2 906, minimum 1·5 grm. With a drug of which the action begins and ceases within a limited time, its antidote must also act in a definite time and in corresponding quantity, to be determined by experiment. So that if such a diminution in the excretion of sugar takes place as related in these experiments—viz., nine-tenths—by the use of jambul, its more accurate employment might perhaps completely check this excretion. The conditions in diabetes mellitus are far better suited to test this, besides showing the agreement between phloridzin diabetes and the natural disease. This research is of special value as showing that the syzygium jambolanum may be used in diabetes mellitus in the human subject much more freely and in larger doses than hitherto, for in no direction were any effects observed which would contraindicate its use. There was no sign of any toxic action even in the dog which had a daily dose of jambul extract. In one experiment there occurred some diarrhœa, but this happened in later experiments with phloridzin alone, and was probably attributable to the latter. In all the experiments extracts of the syzygium jambul were used which had been prepared by R. H. Davies, F.I.C., of the Society of Apothecaries, London, from fruits I had brought over with me. The extracts were partly made from the whole fruit, partly from the rind or kernel, and concentrated so that 100 grm. of fruit were represented by 16⅔ grm. of the kernel and 11⅔ grm. of the rind extract. The dose was 6 to 18 grm. daily. It is still uncertain whether the active principle is in the rind or the kernel—probably in both, but more in the former.

The results of three sets of observations may be thus summarised:—

	Grms.	Grms.	Grms.
Sugar excreted with phloridzin ..	12·5	10·0	10·5
Sugar excreted with phloridzin and jambul	2·1	1·0	1·5
Percentage reduction in sugar ..	80·8	84·0	85·7

Bonn.

POISONING BY PHOSPHORUS.

By SAMUEL GROSE, M.D. ST. AND., F.R.C.S. ENG.

A GIRL, aged three years and a half, ate some phosphorus paste. There was slight sickness at first, little or no pain, no fever, and yet constant thirst; apathy, gradually deepening into convulsions and coma; jaundice with white stools; dribbling of coffee-grounds-like fluid from the mouth; and death on the fifth day.

After death the liver was found much enlarged and in a state of acute fatty degeneration. Heart and kidneys felt greasy on section. On the third and fourth day, the urine gave no deposit on boiling or on addition of nitric acid, but it reduced the copper in Fehling's solution. May the presence of sugar in urine help to distinguish between those poisoned by phosphorus and sufferers from acute yellow hepatic degeneration, the symptoms in both being very similar?

[1] See Bernhard Schuchardt, Centralbl. für Klin. Med., 1889, No. 23.
[2] Verhandl. der Kongr. für Innere Med., Wiesbaden, 1886

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The disease in question is misnamed "acute atrophy of liver"; here the liver was immensely enlarged. The little patient died when it was hypertrophied; had she lived longer it might have atrophied. Phosphorus is classed amongst the irritant poisons. In this case it gave rise to little vomiting, less pain, and no inflammation of throat, stomach, or intestinal canal. The action was more that of a blood poison, as if

"....The life of all his blood
Is touched corruptibly."

Melksham, Wilts.

ANTIPYRIN: RESULTS FOLLOWING ITS ADMINISTRATION.

By W. WATKINS, L.R.C.P., M.R.C.S., &c.

As Dr. Adolphus J. Richardson has drawn attention to some of the (apparent) bad effects of antipyrin in THE LANCET of the 19th ult., the following case may be of interest.

Miss W. G——, aged thirty-seven, during a slight attack of gastro-intestinal catarrh with jaundice, complained of a severe nervous sick-headache in the course of the illness. I prescribed ten grains of antipyrin, which entirely removed the ache, but within half an hour the upper lip had greatly swollen, and continued to do so for another quarter of an hour, by which time it was at least double its normal size. The swelling disappeared almost as rapidly as it came, and in three hours from the time of taking the drug the lip was its natural size. There was no other apparent cause operating.

Bournemouth.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

FOUR CASES OF STONE IN THE BLADDER IN MALE CHILDREN; REMARKS.

(Under the care of Mr. BILTON POLLARD.)

THESE cases are examples of successful operation for the removal of stone from the bladder by means of operative procedures, which are now frequently employed in the case of young children. We have published cases in the "Mirror"[1] during the last two or three years illustrating the facility with which lithotrity can be performed at a very early age, and it is generally accepted that either of the methods illustrated by Mr. Pollard's cases may with advantage be substituted for the rapid and frequently brilliant operation of lateral lithotomy. Surgeon-Major Keegan published in the *Indian Medical Gazette* of last year a series of 114 lithotrities performed by himself and others in young boys, some of them operations for large stones. The mortality was only 4 per cent. Surgeon-Major Freyer,[2] amongst his list of 100 cases recently published, gives sixteen successful operations by lithotrity in male children. We have so recently drawn attention to the operation of supra-pubic lithotomy, that we refer our readers to our remarks already published.[3] For the notes of these cases we are indebted to the house-surgeons, Messrs. de Chazal and Brock.

CASE 1. *Lithotrity; cured.*—L. F. W——, a boy aged three years, was admitted on Dec. 19th, 1888. He had had symptoms of stone in the bladder for seven weeks. Five weeks ago he was circumcised at another hospital. On admission micturition was frequent and painful; the urine was strongly alkaline and deposited muco-pus and triple phosphates. A stone was detected by the sound, and by rectal examination it appeared to be about the size of a small almond. On the twelfth day after admission the boy was anæsthetised with chloroform, and the stone crushed with a No. 8 lithotrite and the fragments washed away through a No. 8 evacuator. The dried fragments, which were composed chiefly of phosphates, weighed only ten grains. The temperature remained normal after the operation. The child was discharged four days later. He was relieved of his symptoms, but there was still a little pus in his urine. He was readmitted ten days later because his urine was again alkaline and still deposited pus and phosphates. No fragments of stone could be detected. The bladder was washed out with boracic lotion, and the child was kept in bed. On the ninth day after readmission the urine was clear and acid. He was allowed to get up on the twentieth day, and was discharged cured on the twenty-eighth day.

CASE 2. *Lithotrity; cured.*—S. S——, a boy aged two years and five months, was admitted on Feb. 1st, 1889. He had always had difficulty in passing his urine, and on this account he had been circumcised five months ago. Four months ago he passed some blood with his urine, and latterly he has complained of pain after micturition, and has pulled and scratched his penis a good deal. On admission he cried after passing urine, and frequently wetted the bed. A small stone was detected by combined rectal and supra-pubic examination. The urine was alkaline and contained a little pus and triple phosphates. The child had some bronchitis, so the operation was deferred until the fifteenth day after admission. He was put under the influence of chloroform, and four ounces of boracic lotion were injected into the bladder. The stone was crushed with a No. 5 lithotrite, and the fragments washed away through a No. 6 evacuating catheter. Difficulty was experienced in removing all the fragments, and as the child's pulse began to fail some of them were left in the bladder. The child passed his urine twelve times during the night. Micturition was painful. Some small fragments of stone were found in the urine. On the day after the operation the temperature reached 100° F., but by the fourth day it was normal. The urine contained a little mucus, but was otherwise normal. The child was discharged cured on the fifth day after the operation. The stone was phosphatic, and the dried fragments weighed thirty grains.

CASE 3. *Supra-pubic lithotomy; bladder sutured; primary union; death from malignant scarlet fever.*—W. S——, a boy aged seven years, was admitted on Dec. 15th, 1888. Symptoms of stone in the bladder had been present for three years. Circumcision had been performed a year ago at a country hospital. On admission, alkaline muco-purulent urine constantly dribbled from the urethra, and the boy suffered from continuous pain. A large stone was felt with the sound and by rectal examination. The bladder was washed out daily with boracic lotion, and on the fifth day after admission the urine was neutral and contained a slight deposit of muco-pus. On the seventh day supra-pubic lithotomy was performed. The bladder was distended with an ounce and a half of boracic lotion; no more could be introduced into the viscus. The rectal bag was used. The incision into the bladder was an inch and a quarter in length. The stone was tightly held by the small bladder, and some difficulty was experienced in extracting it. The stone, after drying, weighed 562 gr. The bladder was repeatedly flushed out with boracic acid lotion. The wound was sutured with ten fine silk stitches, which were inserted according to Lembert's plan. The efficiency of the sutures was tested by distending the bladder with boracic lotion. The lotion flowed back by the side of the catheter, but none escaped from the wound in the bladder. The wound was washed out with 1 in 20 solution of carbolic acid. The recti muscles were sutured with silk at the upper part of the wound. The skin was sutured, except at the lower part of the wound, where a tube was inserted between the recti muscles. The wound was dressed with boracic acid powder and sal alembroth gauze and wool. No catheter was left in the bladder or passed subsequently. The boy voided his urine naturally. No urine escaped from the wound. The boy was completely relieved from pain. The drainage-tube was removed on the fourth day after the operation, and on the eighth day the wound appeared to be soundly healed. Until the ninth day after the operation the temperature ranged between

[1] THE LANCET, vol. i. 1888, pp. 1192-1193. Ibid., vol. i. 1889, p. 1134. [2] Prov. Med. Journal, Dec., 1888.
[3] THE LANCET, vol. i. 1887, p. 1185. Ibid., vol. i. 1888, p. 1280. Ibid., vol. ii. p. 1174. Ibid., vol. ii. 1886, p. 783.

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98° and 98·8°, except on the first, third, and fourth days, when 99° was registered; on the eighth day the highest temperature was 98·6°; on the ninth day it suddenly rose to 102°. The boy had also a sore-throat and a typical scarlet fever rash. He was sent to the Homerton Fever Hospital, where he died two days later in a typhoid condition, and with a temperature of 103·4°. There was nothing further to note with regard to the bladder or the operation wound.

CASE 4. *Supra-pubic lithotomy; bladder sutured; leakage of urine on three occasions; rapid healing and cure.*—A. L——, a boy aged five years, was admitted on Sept. 18th, 1889. About three or four months ago the child began to suffer from painful micturition, which was often involuntary and accompanied by prolapse of the rectum. Blood had never been noticed in his urine. On admission the urine was acid and deposited a little pus. By rectal examination a hard mass, which appeared to be as large as an unpeeled walnut, was felt in front of the rectum just within the anus. On the third day after admission the boy was placed under the influence of chloroform, and the stone, both by sounding and by rectal examination, was felt to be fixed at the neck of the bladder. A catheter could not be passed beyond the stone, and so it was impossible to distend the bladder, but the latter contained a few ounces of urine. Supra-pubic cystotomy was performed. The rectal bag was not used. The incision in the skin was an inch and a half long and that in the bladder about an inch and a quarter. The stone was found to be dumb-bell shaped, one end being impacted in the prostatic portion of the urethra and the other projecting into the bladder. By pressing on the stone from the rectum whilst the neck of the bladder was pushed off it by the finger in the bladder the stone was disengaged and then readily extracted with forceps. The bladder was washed out with boracic acid lotion and the wound in it closed by eight ordinary interrupted sutures, which were passed through the muscular coat only. The efficiency of the sutures was tested by injecting the bladder with boracic acid lotion. Some of the fluid returned along the side of the catheter, but none escaped from the wound in the bladder. The superficial wound was mopped over with 1 in 500 solution of perchloride of mercury. The skin was brought together with silk sutures except at the lower part of the wound, where a drainage-tube was inserted. A dressing of boracic acid powder and sal alembroth gauze and wool was applied. The dried stone weighed 215 grains. Six hours after the operation, as the boy had not voided any urine, an indiarubber catheter was passed and an ounce and a half of urine drawn off. Owing to a misunderstanding the catheter was not passed during the following twelve hours, and during this time the bladder became so distended that one of the sutures gave way, and urine escaped freely into the dressing. The lower part of the skin wound was opened up, and a wet boracic lint dressing applied. The catheter was now passed every four hours. On the fifth and tenth days after the operation a little urine escaped from the wound. On the fourteenth a catgut suture which had been used for stitching the bladder was found loose in the wound. Two ounces of urine were passed naturally on the fourteenth day after the operation. On the twenty-first day the wound had granulated up to the surface and had almost healed. The boy was now allowed to pass his urine voluntarily, which he did readily and without pain. He was discharged on the twenty-fifth day after the operation.

Remarks by Mr. BILTON POLLARD.—In the two cases treated by lithotrity the calculi were small. That this was the case was easily ascertained by the combined rectal and supra-pubic examination of the bladder. The urethra of a child aged two years and five months readily admitted a No. 5 lithotrite and a No. 6 evacuating catheter, whilst that of a child aged three years as readily admitted instruments three sizes larger. The stone in the first of the two cases treated by supra-pubic lithotomy was a large one (562 grains), and as the bladder contracted so closely on to the stone, there was some difficulty in extracting it. The bladder, the recti muscles, and the skin were sutured, and the boy was allowed to pass his urine by his own efforts. The case, so far as the operation was concerned, was altogether successful. The bladder and the superficial wound healed quickly, without any leakage of urine. In the last case the stone was dumb-bell shaped. One end was impacted in the prostatic portion of the urethra, and the other projected into the bladder. The stone was disengaged from the urethra, and extracted through the supra-pubic opening. The bladder was sutured with carbolised catgut, and the skin wound was closed except at the lower end, where a small tube was inserted. As the boy had not voided urine for five hours after the operation a catheter was passed. He was then, owing to a misunderstanding, allowed to go for twelve hours without emptying his bladder. During this time one of the sutures in the bladder gave way, and a free escape of urine from the wound took place. The catheter was passed regularly afterwards, and though some leakage from the bladder occurred twice more, the wound healed rapidly without a bad symptom. Recovery was certainly hastened by suturing the wound in the bladder.

LEEDS GENERAL INFIRMARY.

A CASE OF RETROFLEXION OF THE UTERUS; HYSTEROPEXIA; REMARKS.

(Under the care of Mr. W. H. BROWN, Assistant Surgeon.)

THE treatment of obstinate retroflexion or of prolapse of the uterus is now no longer confined to the introduction of pessaries, plastic operations on the vagina or perineum, or to any of these in combination with local depletive measures where the uterus is of abnormal size. In cases of retroflexion Alexander's operation of shortening the round ligaments is one which, when the uterus has not been fixed by adhesions, has proved successful in many hands; if, however, the adhesions can be broken down by external manipulation of the uterus by the method of Schultze[1] or Ter-Grigoriantz,[2] it may then be employed with success. In the following case the fundus of the uterus was firmly fixed in its abnormal position, and the only way of effectually dealing with the adhesions was after abdominal section. When these have been separated the uterus may be fixed to the anterior abdominal wall by means of sutures passed in various ways. Kelly[3] passes a single silkworm gut suture through or around the round ligaments at their junction with the uterus on either side, and through the peritoneal coat of the bladder at the point on which the uterus naturally rests, and then ties them. When there have been adhesions he passes two or three sutures of silkworm gut or silver wire through each round ligament near its uterine end, and deeply into the abdominal wall just above the symphysis pubis on either side of the incision, and at a distance from it about equal to half the breadth of the uterus; when all are placed in position they are tied. Leopold[4] passes two sutures on each side through the edges of the abdominal incision and lightly through the uterus, one near the attachment of the round ligament, the other in front of the entrance of the Fallopian tube; the sutures are removed on the tenth day. He also freshens the opposed surfaces by scraping them lightly. Wylie[5] makes a fold with a loose ligature on each tube, and freshens the opposed surfaces by scraping them. Sänger[6] stitches the round ligaments at their uterine insertion to the anterior abdominal wall; he does not believe in the operation performed by Alexander. When a condition of retroflexion or prolapse is conjoined with disease of the appendages, a good result has followed the stitching of the stump or stumps to the abdominal wall external to the median incision, and of this modification we have published a very successful case by Dr. John Phillips.[7] Caneva[8] of Milan proposed to secure adhesion of the uterus to the anterior abdominal wall by holding the uterus in position by means of an intra-uterine sound. We need not refer to other methods, such as the vaginal suture of Schücking.[9] Terrier[10] performed an operation similar to that which we record, but for prolapse, and united the peritoneal covering of the uterus to the parietal peritoneum by four points of silk suture. Mundé and Wells give an excellent summary of the more recent treatment in flexions of the uterus.[11] For the notes of the following case we are indebted to Mr. Mitchell, house surgeon.

E. L——, aged forty-two, was sent to Mr. Brown by Dr. Henry White of Bradford, who had had her under his

[1] Zeitschrift für Geburtschülfe und Gyn., 1888.
[2] Gynäkalogisches Centralblatt.
[3] American Journal of the Medical Sciences.
[4] Central. für Gyn., March, 1888.
[5] Pittsburgh Med. Rev., July, 1888. [6] Central. für Gyn., Jan., 1888.
[7] THE LANCET, vol. ii. 1888, p. 761. [8] Ibid., vol. i. 1883, p. 23.
[9] Central. für Gyn., March, 1888. [10] THE LANCET, vol. i. 1889, p. 33.
[11] Sajous, Annual of the Universal Med. Sciences, vol. ii., E.

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observation for some time. There was a history of ten years' pelvic suffering. For the last two years she had been practically bedridden. There had been occasional menorrhagia, and this, together with constant pain, had produced a marked diminution in the patient's strength. She had worn many forms of uterine support, both intra-vaginal and intra-uterine, but each and all of these had been the cause of an increase of her suffering, and had in consequence to be removed within a day or two of their introduction.

Upon examination per vaginam marked retroflexion of the uterus was found, the fundus presenting at the vulva. Any attempt at reposition caused agonising pain. A sound could not be introduced. Bimanually Mr. Brown thought he detected a solid tumour occupying the hypogastrium, but was uncertain, as the rigidity of the muscles prevented anything like a thorough examination. The woman was in great misery, and willingly consented to submit to abdominal exploration; accordingly she was placed under ether, and Mr. Brown opened the abdomen in the middle line, adopting the usual precautions.

On introducing his fingers into the abdominal cavity the operator found that what had appeared to be a growth in the hypogastrium had been due to muscular tension. He further found the uterus in the position before described, and held down by very firm adhesions. These adhesions were broken down and the now movable uterus brought out of the pelvis. Both ovaries were natural. On the posterior surface of the uterus was a small fibroid tumour. A catheter was now passed into the bladder, and that viscus stretched by the instrument so that it was possible to ascertain approximately its upward limit. The fundus of the uterus could be brought easily in contact with the abdominal wall above this point. Mr. Brown now transfixed the uterus with a curved needle armed with silk, taking a good hold of its tissue, and bringing the ends of the suture through the muscular wall of the abdomen, tying and cutting off the ends short. The abdominal wound was closed in the ordinary way.

The after history of the case was uneventful, and the patient left the hospital five weeks after operation. She could then move about easily, and her pain had entirely disappeared. There was no complaint by her on her departure. An examination per vaginam made the day before she left showed the uterus to be slightly anteflexed, and much in the same position as that of a multipara.

Remarks by Mr. BROWN.—So far as I can gather, the procedure which I have above described has not often been resorted to in the treatment of obstinate retroflexion of uterus. Kœberlé, I believe, was the first to introduce a method very similar. In the face of the facts I have recorded it would seem to me that this operation, modified in detail to suit individual cases, might well be added to the list of remedies to be employed in dealing with intractable flexions of the uterus.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Cholecystotomy.

THE first ordinary meeting of this Society for the present session was held at 20, Hanover-square, on Oct. 25th, Mr. Christopher Heath, President, being in the chair.

The PRESIDENT, on taking the chair, addressed a few words of congratulation to the members on their assembling for the first time in their new home. He desired particularly to offer his thanks to the President of the Medical Society, who had kindly offered the Clinical Society temporary accommodation in case of need. He called attention to the feature introduced into the new volume of the Transactions; an appendix containing the after-history of many of the cases related in the earlier numbers; a great many most interesting facts had thus been brought to light, and the appendix formed a valuable addition to the volumes of Transactions.

Mr. MAYO ROBSON of Leeds then read a paper on fourteen cases of Cholecystotomy which he had performed; eleven being for gall-stones, one for empyema of the gall-bladder, and two for distended gall-bladder; due in the one case to cancer of the head of the pancreas; in the other to cancer of the bile-duct. All the patients operated on for gall-stones had recovered. Of the other cases, the patient suffering from empyema of the gall-bladder was operated on when apparently dying from acute peritonitis, but after the operation she made a good recovery except for a biliary fistula which was afterwards closed by cholecystenterostomy. The case of cancer of the pancreas had succumbed on the eight day to a constant oozing of blood from the interior of the gall-bladder, and from the suture punctures. It commenced on the day following the operation, and was apparently due to the altered condition of the blood, brought on by persistent jaundice of several months' duration. In the case of cancer of the bile duct, although there was intense jaundice, there was no subsequent bleeding, or other complication; this might possibly be due to the arrest of hæmorrhage at the time of operation by ligatures instead of by forcipressure. Of the cases operated on for gall-stones, six patients had sought advice in consequence of the presence of a tumour combined with the usual symptoms; in these cases, Mr. Robson pointed out that the operation was usually much simpler than in the other group, where no tumour could be felt, although in one, where an apparently solid tumour was exposed which was due to the matting of the viscera surrounding the gall-bladder, so that the mass appeared at first to be a malignant growth, it was found impossible to shut off the general peritoneal cavity by suturing the parietal peritoneum to the gall-bladder, as it was practically destroyed by suppuration; and drainage with sponge packing had to be resorted to, to prevent general peritoneal infection. Dr. Churton had pointed out to Mr. Robson that he had previously seen in the post-mortem room a similar condition of affairs, where suppuration of the gall-bladder had led to the formation of a tumour resembling a malignant growth, but where an exploring needle pushed through the overlapping edge of the liver had revealed the presence of pus. Of the cases, five in number, operated on, on the strength of symptoms alone, Mr. Robson remarked that he believed many such cases of frequently recurring biliary colic would in future be saved the intense suffering and the many dangers of their disease by timely operation. He pointed out that these operations were not always easy, as the gall-bladder was frequently very small, and could with difficulty be brought to the surface; in fact, in his fourteenth case the gall-bladder was shrunken to the size of the last joint of the thumb, and was lying very deeply under cover of the liver, so that when he had incised it and removed several gall-stones from the duct, the lower part of the opening could not be made to reach the parietal peritoneum, and a piece of omentum was brought up and sutured on the one hand to the gall-bladder, and on the other to the parietal peritoneum, thus shutting out the general peritoneal cavity. Mr. Robson thought that omentum grafting first proposed by Dr. Sena for enterorrhaphy, but he thought not hitherto performed to surmount a difficulty of the kind above related, would in future often be found very useful in abdominal surgery, and perhaps especially in such cases as he had mentioned. With regard to the danger of biliary fistula, Mr. Lawson Tait had remarked that "biliary fistula after cholecystotomy could only be permanent when the operation happened to be performed at a time when a gall-stone was impacted in the common duct;" the author of the paper said that he believed this to be true generally, as proved by Mr. Lawson Tait's cases, but in the only case of biliary fistula which had followed the operation in his own hands, the cause was other than gall-stones, as when he had performed the operation for the closure of the fistula, he had very carefully examined the whole length of the common duct, without finding an obstructing calculus. In conclusion, he remarked that he believed that with due care cholecystotomy, in the absence of malignant disease, was a procedure attended with comparatively little danger, and that the great relief which the operation conferred amply compensated for the attendant risks.

Dr. CHURTON said he had attended many of the earlier operations which had been related. He had noticed in the post-mortem room that the small gall-bladders could be most easily reached through the liver. Some of the calculi found were soft and easily broken, while others were as hard as quartz. The thickening sometimes found from surrounding inflammation looked remarkably like cancer. He was under the impression that the cancer of the gall-

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bladder found in the ninth case related had been caused by the irritation of an impacted calculus which had afterwards become dislodged. The tables showed that a more than usual number of women were affected.

Dr. ANGEL MONEY related the case of a tailor, aged twenty-five, who came under his care with jaundice and a large tumour in the neighbourhood of the gall-bladder, which gave distinct grating on examination. It was operated on by Mr. Bilton Pollard, who first aspirated and then removed from the bladder a large number of stones; a biliary fistula remained.

Surgeon-Major BARKER recommended the administration of large doses of chloroform by mouth, which frequently produced excellent effects on gall-stones.

Mr. K. THORNTON said that the question of diagnosis was sometimes a difficult one. In a large majority of distended gall-bladders the diagnosis was simple, but if the swelling were very large, the diagnosis from tumour of the kidney had to be made. Cases with adhesions round the gall-bladder and suppuration were very difficult to make out; it was hard to decide whether they were malignant or simply inflammatory. The cure was very rapid in those cases with thick adhesions. In none of the cases in which he had operated had fistula resulted, nor had he met with a malignant case. With regard to the operation, if the gall-bladder were distended it was simple enough, but if the stone were impacted in the common duct he knew of no more difficult one in surgery. He had suggested breaking up the stone by needling and leaving it to pass down the duct, and some he had treated so had done remarkably well. In one case he slit the duct open, broke the stone up with his fingers, and then sewed up the opening. The enormous quantity of bile-stained mucus that poured away from these cases for some days after the operation was remarkable. He did not agree with Dr. Churton that those cases with a great quantity of mucus usually contained only a single stone, for in one case from which he removed 413 stones there was an enormous quantity of mucus. Again, in another case, where there was a large single stone, there was no suppuration and a very little fluid. The American treatment by oil had been much vaunted, but the bodies passed after taking this medicament were not gall-stones at all, but simply collections of oil and fæces. He had never attempted to open the gall-bladder into the bowel, and characterised such a proceeding as monstrous. Cases of cholecystectomy did wonderfully well, and did not seem to suffer at all from the loss of a gall-bladder.

Mr. CHARTERS SYMONDS thought there was a class of case in which no other treatment but cholecystenterostomy was available. He related a case which had been under Dr. Goodhart's care, in which the gall-bladder was distended with clear fluid. He opened it, but could get nothing into the common duct. The bile passed through the fistula in very great quantity; he therefore undertook a second operation, and joined the gall-bladder to the intestine. The latter kinked and sloughed, and the man died. At the autopsy there was found stenosis of the common duct at its duodenal orifice. He regretted he had not done the second operation before the gall-bladder had contracted down.

Mr. A. E. BARKER related a case in which a gall-stone was suspected to be impacted in the common duct; he therefore explored, and found a healthy gall-bladder, but no stone. There was a little hardness about the head of the pancreas and an adhesion between the transverse colon and the edge of the liver. He closed the wound, and the patient recovered, being much benefited by the operation. Other surgeons had had similar experiences.

Mr. BLACK detailed a case of jaundice which was suspected to be due to gallstone, but which turned out to be lead poisoning.

Mr. ROBSON, in reply, thought that in Mr. Barker's case relief might have resulted from breaking down the adhesions. He knew of two negative explorations which occurred in the practice of his colleagues, and both of which resulted in cure. A German surgeon had recorded a case of ruptured gall-bladder in which ten pints of bile had drained into the peritoneum without producing an untoward result, but still he thought it safer to close the opening into the peritoneum. He had had but one case of fistula, and in that less than two ounces of clear inodorous mucus were secreted in the twenty-four hours, and this possessed antiseptic qualities and gave rise to but little inconvenience. Cholecystectomy, though often a difficult operation, like adherent pyosalpinx, seemed by statistics to be quite as safe as cholecystotomy.

MEDICAL SOCIETY OF LONDON.

Glycosuria.

AN ordinary meeting of this Society was held on Oct. 28th, Dr. Theodore Williams, President, in the chair.

Dr. ORD read a paper on Some Points of Interest in regard to the Presence of Sugar in the Urine. He had published some time ago, in the St. Thomas's Hospital Reports, some notes on glycosuria in people past middle life, and he now added a few statements and remarks by way of supplement and illustration. The conditions which determined the presence of sugar in the urine in pathological quantity were :—1. Excessive afflux of arterial blood to the liver, and probably to other glycogenic organs. 2. Defective assimilation of glucose. 3. Defective formation of glycogen. 4. Instability of glycogen—i.e., the formation of glycogen which was too ready to change. 5. Excessive ingestion of glucose or glucose-yielding substances. Under the first head might be gathered several kinds of cause—e.g., (*a*) vaso-motor paralysis determined by disease, or injury of the medullary centre, or of the nerves connecting the centre with the arteries of the liver: (*b*) dilatation of the hepatic artery, not determined by disease of nerve centre or centres, but by irritation of the liver, or determined by reflex action at the instigation of other organs, such as the stomach or by general disorder of the circulation; functional, as a result of nerve strain or excitement, functional and probably also dyscratic as in gout; (*c*) possibly also compensatory arterial hyperæmia, balancing obstruction of the arterial circulation in other parts and systems of the body. Dr. Lauder Brunton, in his "Handbook for the Physiological Laboratory," gave an admirable summary of the various ways in which nerve sections and nerve irritations might produce glycosuria, and he stated that it was of great importance to note that section of the sympathetic cord or splanchnic nerves did not produce diabetes, although the vaso-motor nerves of the liver were thus divided, his explanation of this being that as the vaso-motor nerves of the intestines were divided at the same time, so much blood went to the intestinal vessels that the circulation in the liver was not increased. If this explanation were admitted, it seemed reasonable to argue that an undue contraction of arteries in other parts of the body than the liver might determine an excessive blood-pressure in the arteries of that organ, and so set up glycosuria, the liver itself not being necessarily at fault. His notes afforded several instances showing the influence of heredity in bringing about glycosuria, but it was of course evident that the existence of this affection in minor degrees had been often overlooked in the past, and that a better estimation of the transmission of the tendency would in the future be more possible under the steady maintenance of careful examination of the urine. As to the way in which the transmission was ordered, in one case it seemed to go with the gouty diathesis from the father's side; in others it was observed who were the subjects of nervous instability; in others, again, these conditions were absent, and tissue imperfections had to be invoked, the occurrence of glycosuria in very stout people being a noteworthy fact. He was inclined to regard both the accumulation of fat and the occurrence of glycosuria as marks of imperfect forms of nutrition. In many cases, in conjunction with obesity, the influence of persistent alcoholic excitement of the liver could not be overlooked, the irritation producing a reflex active hyperæmia and consequently glycosuria. For those victims of alcoholism who presented glycosuria, and who were emaciated, a different explanation must be sought. A considerable proportion of these cases had valvular disease of the heart, and irregularities of arterial tension might here have to be considered. It was not unfrequent to find people suffering with symptoms of contracting granular kidney to be also affected with glycosuria. Whether it was here due to a general defect of assimilative or constructive process or related with a very definite arterial tension was not easily to be decided. Again, he had observed the occurrence of glycosuria in two cases of Raynaud's disease, and in a third with disease of kidneys, sloughing ulcers, and syphilis. From cases he had since seen he concluded that glycosuria was often present in tertiary syphilis, and under conditions not involving irritation of the medulla. In these cases signs of hepatic disorder were always present, and he thought that hepatic irritation was mainly chargeable with the production of the glycosuria. But he dared not speak with

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any tone of decision on this point, when he remembered the possibility that faulty tissue-building at large might have to be considered. Muscular and other tissues, as well as the liver, were the seats of formation of glycogen, and it appeared to him quite possible that a disturbance of nutrition in muscles, in spinal cord, and in liver might exist independently in each and give rise to glycosuria; while, on the other hand, a deep dystrophy might affect all at once. Several cases of angina pectoris in association with glycosuria had come under his knowledge, and he related one at length in which this conjunction existed. He thought it must be admitted that angina was no more an essential disease than glycosuria, and he recognised in it varieties of form and causation which ran in curiously parallel lines with those of glycosuria. Everyone recognised the typical form of angina wherein degeneration of the heart muscle played one part and arterial stress another; and everyone would also further admit that disorder of innervation played an important part in disturbing the balance between the heart and the arteries. Glycosuria also might be a mark of disordered innervation, but in a preponderance of cases presenting glycosuria together with symptoms of angina the evidence of primary neurotic disturbance had not been strong. The subject of the occurrence of sugar in the urine of women in whom lactation had been suppressed was then discussed. The chemical reactions obtained in several cases appeared to correspond exactly with those which would be yielded by glucose, but their rapid evanescence had so far stood in the way of the obtaining any sufficient quantity of urine to afford opportunity of a complete investigation. The indication was apparently that the stoppage of the secretion of milk had determined a backward flow into the vessels of lactose in a quantity so large as to be represented by the appearance of a considerable quantity of glucose in the urine. M. Germain Sée had shown that, while milk taken in large doses produced diuresis and a very marked glycosuria, large doses of lactose caused a remarkable polyuria, but no glycosuria; why this should be was not clear. Not many years ago, when albumen was found in a patient's urine, he was supposed to have Bright's disease; and so now, it was very often the practice to speak of the existence of a small quantity of sugar in the urine as justifying the use of the term diabetes. He thought that those who had studied the question most thoroughly would agree that this was a most unwise use of the term; unwise as bearing alike upon prognosis and treatment. If his views of the analysis of the causes of glycosuria were at all to be admitted, it followed that the treatment of a glycosuria which was subordinate must be involved in the treatment of the major part of the case. What he had put forward was rather analytical and suggestive than final or didactic, and he submitted for criticism, and proposed for investigation, certain associations of glycosuria which had presented themselves to him, and to which he had devoted a good deal of thought.

Dr. PAVY had found glycosuria frequently associated with obesity and with spareness, but he could not conclude that there was any absolute connexion between them; in stout people, however, the disease seemed to be more amenable to management. He recognised a connexion between glycosuria and enlargement of the liver; in many of the latter the disease was not of the ordinary form, for they possessed a certain amount of power to assimilate carbo-hydrates. A contracted granular kidney seemed to exert a restraining influence over the diabetic condition, and in cases where chronic interstitial nephritis developed in the course of a case of diabetes the same restrictions of diet were not necessary in order to keep the sugar under. He had observed that glycosuria was often accompanied by peripheral neuritis, especially after middle life; and in the gangrene of the toes, often associated with diabetic cases, there was an amount of pain out of proportion to the gangrenous condition; and, if glycosuria were really connected with nerve disease, it was not strange to find angina pectoris or exophthalmic goitre associated with it. He agreed with Dr. Ord that it was unwise to confine our attention too exclusively to the liver. It was merely a matter of limitation of the assimilative capacity, for even in healthy people that capacity was not unlimited. In some diseases of the liver very little of the secreting structure was left, and yet these patients did not get diabetes, and that was one reason why a broader view should be taken as to the causation of this affection.

Dr. RALFE also thought we should look beyond malassimilation by the liver. There were two great groups of cases presenting sugar in the urine: (1) Acute cases coming on with a threatening aspect, in which there was a great drainage of water and sugar from the system and early and rapid emaciation; (2) a class of cases coming on more insidiously, associated with gout, syphilis, heredity, or kidney mischief. It was of much slower duration, the patient was often stout, and the disease drifted on for years and years, and then was not, perhaps, of itself fatal. Dr. Purdy had shown him some tracings taken from cases of diabetes; there was marked tension of the vessels like that seen in renal disease, but there was no albumen and no casts, nor was there reason to suspect gout. A Carlsbad physician had asserted that in all cases of diabetes the left ventricle of the heart was hypertrophied, and the vessel walls were thickened; the arterial tension later gave way to degeneration. It had been pointed out that in cases where suppression of lactation had occurred crystals of lactose were found in the urine; it did not become converted into glucose.

Dr. SAVAGE spoke as to the relations of diabetes with insanity. They were both directly hereditary, and it was common in insane people to get a history of diabetes in the parents; it was nevertheless uncommon to meet with sugar in the actively insane; those cases in which he had found sugar were puerperal. In many patients insanity had been observed to alternate with glycosuria; when they recovered from an attack of insanity the sugar had reappeared in the urine.

Dr. S. WEST said that Dr. Pavy had used increased arterial tension to explain the favourable course diabetes ran when granular kidney developed, but in exophthalmic goitre the tension was far from increased. He asked if diabetes could be produced by errors of diet. He quoted the case of a girl who, as assistant in a grocer's shop, ate a very large quantity of sugar, and died of acute diabetes.

Dr. PAVY disclaimed any intention of asserting that increased arterial tension caused diabetes; he thought rather it was due to a vaso-motor paralysis, a dilatation of vessels.

Sir WILLIAM ROBERTS remarked on the extraordinary way diabetes complicated all sorts of morbid conditions. He thought that Dr. Pavy had touched nearer to the solution of the problem of diabetes than any physiologist now living. It was a disease most puzzling to study, and it had almost as many paradoxes as gout itself.

Dr. MITCHELL BRUCE referred to two classes of cases which had glycosuria in combination with gangrene: (1) stout middle-aged people whose toes became gangrenous, and on whom opium exerted a remarkable influence; and (2) patients with typical Raynaud's disease. He had seen a patient suffering from the latter affection in whom the disease was arrested by morphine, and he wondered whether in the liver in diabetes there might not be a condition of peripheral neuritis, for it certainly was not necessary that the disease of the nervous system should be central.

Dr. MAGUIRE said that though gout might be the connecting link between some cases of granular kidney and glycosuria, yet there was a connexion between diabetes and a certain degree of granular kidney in which no gouty element was present. When albuminuria occurred in diabetes it indicated a hardening of the kidney, and did not suggest a bad prognosis; on the contrary, it was extremely likely that the condition of the diabetic patient would improve. The kidney in these cases was not a typically contracted organ; it was dark red, the capsule was slightly adherent, the surface faintly granular, and the whole organ tougher.

Dr. WILLIAMS asked what proportion of cases showed the presence of carbuncle, and also in what number of cases phthisis was observed.

Dr. ORD, in reply, said he had not met at all frequently with either carbuncle or phthisis in glycosuria, but they were common in true diabetes. As to the connexion with obesity, he had seen a good many cases in which glycosuria and obesity existed alone, but in thin patients there was always some other causative condition present. In one of his cases the patient had marked signs of granular kidney with hard arteries and plenty of casts; the sugar was very small in quantity, and could not have produced the disease of the kidney. He did not know whether diabetes could be produced by errors of diet.

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HARVEIAN SOCIETY.

Treatment of Pneumonia by the Ice-bag.

AT the meeting on Oct. 17th, Thomas Buzzard, M.D., F.R.C.P., President, in the chair, Dr. LEES read a paper on the Treatment of Pneumonia by the Ice-bag, which will be found elsewhere in our columns. The following discussion ensued :—

Dr. GOODHART had for eighteen months used no other application than the ice-bag in cases of acute pneumonia, and he gave an account of eighteen cases thus treated. A good result was obtained in eight cases, the temperature falling promptly, the pulse becoming decreased in frequency, and convalescence being rapidly established. In seven cases it was doubtful if the treatment had had any effect whatever; while in three cases symptoms of collapse were produced of a very temporary nature, for it subsided as soon as the ice-bags were removed. It was difficult to eliminate the question of the natural crisis of a pneumonia having coincided merely with the application of the ice, but it was also possible to underrate the value of any treatment because of the presence of pleurisy, which interfered with the beneficial results of the remedy. Dr. Goodhart, however, concluded that there was no danger in applying this treatment, such collapse as might occur being easily detected, and remedied by brandy and warmth to the feet, and by avoiding its use in patients under two years of age. He himself did not think that collapse was increased by the application of cold over the cardiac region. Moreover, he believed that warm applications were greatly overdone, and the ice treatment was a useful alternative.

Dr. STURGES had had but little experience of this mode of treatment. Nevertheless his conclusions were rather those of Dr. Goodhart than of Dr. Lees. All the cases Dr. Lees had described were of young persons, and the mortality in these was very small. In children especially it was difficult to decide between croupous and broncho pneumonia. Broncho pneumonia was dangerous, but croupous pneumonia in children was very rarely fatal. Three cases described by Dr. Lees were of broncho-pneumonia, and in these ice and bleeding had been very efficient in relieving the patient. These were the most important cases described, and Dr. Sturges thought the treatment most likely to be of use in broncho-pneumonia. In a case of lobar pneumonia in the Westminster Hospital under Dr. Donkin, the temperature rose to over 106°, and there was great prostration. The ice-pack was applied, and a recovery ensued. Dr. Sturges expressed the view that lobar pneumonia by its nature was such that it was impossible to say that any remedies were successful in curing the disease. The late Dr. Hughes Bennett had reported over a hundred cases of pneumonia, some in elderly people, with a mortality of only 5 per cent. Pneumonia and typhus in regard to the influence of remedies were much alike. The temperature, delirium, and headache were much relieved by drugs, and the patients made comfortable. In this way ice was certainly of use, as Dr. Sturges had himself observed; but he doubted if the evidence was yet sufficient for us to say that we arrested pneumonia. He doubted also if it was as a rule a great good to shorten the pneumonia. In the pneumonia of drunkards, however, the inflammation was very destructive; but this was a very different disease, and it was especially doubtful here if ice would be of any use. Dr. Coupland also had tried the ice in a few cases in young people; he was satisfied with the treatment on the whole, and had had no ill results. He also doubted if the treatment had shortened the cases, but it had certainly relieved the symptoms.

Dr. ANGEL MONEY made a sharp distinction between two forms of pneumonia. He would not, for instance, use the ice-bag in what he called epileptic pneumonia, styled by the French "herpetic pneumonia." Here the onset was so sudden, the course so definite, and the sudden termination so certain, that the disease resembled an epileptic fit. In other cases, however, the ice-bag was of great value, though he did not say it curtailed pneumonia. It relieved the patient, and it was safe in application.

Dr. SYDNEY PHILLIPS had used the ice-bag himself, and seen it used much by Dr. Wilson Fox. The temperature was undoubtedly lowered by the ice, but it might for this purpose be applied to any part of the body. An objection to the ice-bag was that on its removal the temperature again rose, and sometimes to a higher degree than before. This was the case with all antipyretics, and it was doubtful whether it was desirable to attempt a lowering of temperature by such means, unless it had attained a very high degree. The ice-bag scarcely shortened the disease.

Dr. TIRARD had tried the ice-bag treatment in the Evelina Hospital. Of six cases thus treated, three showed benefit to have been derived; in the other three alarming collapse resulted. In six other cases not treated by ice, and also without poultices, the course of the cases was always good. By the ice-bag comfort was increased, but the disease was not shortened.

Dr. LEES, in reply, said that he did not desire to overpraise the ice-bag. It was certainly difficult to arrive at the true conclusion as to a particular remedy. He thought it very desirable to cut short the disease, if possible. Lobar pneumonia in young children nearly always got well, but some cases did not get well, and the two cases of undoubted lobar pneumonia which he had mentioned were especially dangerous, and, he believed, would not have recovered if left to themselves. He hoped that, now it had been shown that no danger resulted from adopting this treatment, other observers would be induced to give it a trial and record their experience.

MIDLAND MEDICAL SOCIETY.

MR. ROSS JORDAN IN THE CHAIR.

WEDNESDAY, OCT. 16TH.

Muscular Atrophy in Locomotor Ataxia.—Dr. SUCKLING showed a man aged twenty-nine, suffering from locomotor ataxia with well-marked muscular atrophy, the case corresponding in all respects with those recently published by M. J. Déjerine in the *Revue de Médecine* for this year. The man, a stenographer, had lived in America for four years, and had suffered from ague. His present illness began in December, 1887, when he was seized with incessant vomiting. He used to suffer regularly every month from attacks of severe pain at the stomach, with incessant vomiting. These attacks lasted three or four days, and obliged him to go to bed. For a year they occurred every month and then became more frequent. The attacks occur now every few days and constitute his greatest trouble. In June, 1888, he noticed his hands were numb, the numbness beginning between the index and middle fingers of the right hand, and since then his hands and feet, forearms, and legs have wasted. He has twice lost the use of the left arm, the loss of power lasting several days and gradually disappearing. He has also had double vision and ptosis at times. His hair is grey, and he is emaciated and feeble. The Romberg symptom is present, but there is not much ataxia; the knee-jerk is lost on both sides, the other reflexes are normal. The pupils do not respond to light, but do to accommodation. He suffers from shooting pains in the legs and arms, and occasionally round the body. He has quite lost sexual power, and his bladder is weak. His hands are clawed and much wasted; the muscles of the feet are also much atrophied and the feet are clawed. No fibrillary contractions have been observed. He has had recently an attack of weakness of the left upper extremity, the grasp being very weak, and the wrist dropped. The fingers of both hands are numb, as is also the ulnar side of the left forearm. Sensation is markedly impaired in the little and ring fingers of both hands and along the inner side of each forearm, and also on the left side of the trunk from the second to the sixth intercostal spaces—all forms of sensation are impaired. The man has never had syphilis, has been steady, and there is no hereditary history. The reaction of degeneration is not present, but the reactions are short and sudden in the muscles of the left forearm. M. J. Déjerine has shown that the muscular atrophy in tabetics is due to peripheral neuritis, and Dr. Suckling considered that this case supported his views from a clinical aspect. Suspension was tried in this case, but could not be borne. Quinine was useless; morphia was the only drug that gave relief.

Hereditary Chorea (Huntington's Disease).—Dr. SUCKLING showed a man, aged thirty-nine, a machinist, suffering from this complaint. He had suffered from jerky movements of the hands and feet for three or four years. He states that he is always "on the jerk," and often stumbles. He is constantly "snuffing" from spasms of the diaphragm. The knee-jerk was normal; and there were no signs of disease beyond the move-

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ments. He had had rheumatism slightly in one shoulder, but the heart was unaffected. He stated that the disease was in his family, and that his mother died at the age of fifty-six, after suffering for sixteen years from the complaint. She became quite helpless and unable to feed herself some years before she died from bronchitis. The patient's sister (aged thirty-eight) is also affected. She has suffered from the disease for five years, and cannot be trusted to wash dishes &c., as she always drops them. The patient's youngest daughter (aged twelve) is also affected with the disease. Dr. Suckling pointed out the distinctive features of hereditary from ordinary chorea. Hereditary chorea affects adults chiefly; it may come on in middle life, it is directly hereditary, not indirectly so, as in ordinary chorea. It cannot skip a generation; if a member of an affected family escapes, then the inheritance in his or her case ceases. At first the movements can be controlled by the will; but, as the disease progresses, become quite involuntary until the patient is unable to walk, becomes bedridden and demented. Ordinary chorea gets well. Hereditary chorea may remit or exacerbate, but never gets well. It probably is due to congenital faulty development of the nervous system, and in this respect is analogous to Friedreich's ataxia.

Amputation of Leg.—Mr. JORDAN LLOYD showed a leg that he had recently amputated for chronic ulceration. There was very great hypertrophy of the skin and subcutaneous tissues, together with some thickening of the bone.

Mr. MARSH read a paper on the Treatment of Malignant Disease of the Rectum, and showed a patient from whom he had excised the rectum, after having done a preliminary colotomy.

The following gentlemen have been elected office-bearers for the ensuing year.—President: Mr. Lawson Tait. Ex-President: Mr. Hugh Ker. Members of Council: Drs. Holmes Joy, A. Underhill, Simon, and Messrs. Bennett May, Jordan Lloyd, Messiter, Chavasse, Barling, Priestley Smith, A. Clay, Eales, and W. Thomas. Treasurer: Mr. Garner. Secretaries: Dr. Suckling and Mr. Haslam.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY

THE opening meeting of this Society was held on Wednesday, October 16th, Mr. Joseph White, President, in the chair, when the inaugural address on the "Prophylaxis of Uric-acid Gravel" was delivered by Sir WILLIAM ROBERTS.

The lecturer detailed various experiments carried out by himself, with the object of discovering the conditions most favourable to the formation of uric-acid gravel, and showed that the most important factors were acidity of the urine, sparse urinary pigmentation, and to some extent diminution in quantity. He believed that the excessive formation of uric acid was of less importance than was usually considered. The treatment should be directed to correcting the above conditions. Large doses of bicarbonate of potash, the bicarbonate of soda, or the carbonate of lithia should be given. A "mid-sleep" dose was insisted on, as of much value. With regard to the dietetic treatment, he pointed out the common occurrence of stone in India, and amongst the children of the poor, in both of which cases cereal diet was largely consumed. Food of this nature should be sparingly taken by people having a tendency to the formation of gravel.

A vote of thanks to Sir William Roberts was proposed by Dr. Tate, seconded by Dr. Curgenven, and carried unanimously.

TESTIMONIAL TO MR. SIDNEY PLOWMAN, F.R.C.S. An event of much interest took place at St. Thomas's Hospital on Saturday, the 26th ult., when Mr. Sidney Plowman, who is leaving the hospital, having accepted the appointment of Professor of Pharmacology &c. to the University of Melbourne, was presented with the new edition of the "Encyclopædia Britannica" in an open case. Dr. Bristowe, who made the presentation on behalf of the subscribers, referred in most complimentary terms to the high position which Mr. Plowman had made for himself both as a lecturer and teacher in the medical school, and whilst congratulating Mr. Plowman on his appointment, regretted the loss which his departure would be to both hospital and friends.

Reviews and Notices of Books.

Gynæcological Electro-therapeutics. By HORATIO R. BIGELOW, M.D. London: H. K. Lewis. 1889.

THIS volume begins with an introduction by Dr. Apostoli, giving a cursory review of various kinds of electricity and their application to various diseases. The book deals with electrical laws, various kinds of electricity, batteries, tumours of the uterus and their treatment, diseases of the ovaries and tubes and peri-uterine inflammation, metritis and endo-metritis, disorders of menstruation, displacements of the uterus, and additional cases, with discussion.

The methods of electricity are fully explained, with many illustrations, but at the present date it is not too much to expect some proof of the effects of electricity on living tissues. While discussions on this question seem to occupy much time in societies, facts are conspicuous by their absence. Before statements as to the effects of electricity on the uterus, fibroids &c., can be properly discussed, we ought to be able to read some accounts of actual experiments on fibroid and other tumours on the external and accessible regions of the body. That so much clinical statement should at this time exist side by side with so little scientific research seems to us to be a reproach to all who claim to erect electro-therapeutics into a great curative system. As regards clinical results, opinions and experiences vary widely, as will be seen even in the appendix to this work. According to these various views, electricity is a panacea, untrustworthy, or useless.

Among the supporters of the treatment in London are mentioned Drs. Steavenson and Duncan. The apposition of these names would seem to imply that Dr. Matthews Duncan (obstetric physician to St. Bartholomew's Hospital, of which Dr. Steavenson is electrician) was the person referred to. We cannot find that Dr. Matthews Duncan has anywhere expressed his approval, although most of Dr. Steavenson's cases came out of his department. Indeed, he did not speak in the discussion on electrolysis at the Obstetrical Society (Obst. Trans. for 1888). In the twenty-fourth volume of the St. Bartholomew's Hospital Reports, 1888, pp. 89–130, will be found a paper by Dr. Steavenson on thirty cases of uterine fibroids treated by electricity. His results are thus summed up, p. 129:—

"In eight cases the result may be described as very good, the patients having greatly improved and the tumours diminished in size. Fifteen others may be said to have improved, the symptoms being relieved; in one of these cases the tumour was larger at the end of a year, but the distressing and exhausting symptom of loss of blood, for which treatment was primarily sought, was relieved and has not recurred. Two cases of the fifteen were improved at the time they left the hospital, but we have not since heard of them. In one case the tumour was extruded from the os and removed by the écraseur; in one case the occurrence of pneumonia cut short the treatment; in four others no improvement took place; two improved while under treatment, but relapsed; one case ended fatally by ulceration into a large vessel.....The results of the cases reported are not as brilliant as could be wished, and the treatment is not altogether free from danger, as shown by the fatal case; but, compared with other methods, it is probably the best short of actual removal by operation. *Whether the advantage, which is small, is worth the extra trouble and time involved it is difficult to say;* this point can possibly only be decided by reference to the circumstances connected with each case. It would seem that Dr. Apostoli has not found it so uniformly successful as at first he believed, for he has recently advocated the treatment of uterine fibroids by the interrupted current."

When a man possessed of the technical knowledge of electricity of Dr. Steavenson has appropriate cases selected for him by a man of the calibre of Dr. Matthews Duncan, and tells us that he is doubtful whether the game is worth

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the candle, we really think that the most serious indictment yet produced has been brought forward against the treatment.

Finally, we refer our readers, especially electricians, to the summing up of the President of the Obstetrical Society (Dr. John Williams) on the occasion of the debate on electrolysis.[1] There will be found an analysis of the principal utterances of Dr. Apostoli and his followers. He refers to the fact that in 1881 Dr. Apostoli advised treating the uterus during the lying-in period by faradisation with a view to prevent subinvolution, metritis, and other evils. This proposal he left to the judgment of each Fellow of the Society. He points out, as we have been obliged to do, that the literature consists of descriptions of instruments and of sweeping assertions. The work of Dr. Carlet (Dr. Apostoli's pupil) contains the following statement: "It is certain that, in practice, small, interstitial fibroid tumours, which require for their diagnosis great skill in digital examination and in the use of the sound, are often regarded as chronic metritis, *engorgement of the ileum, ulceration of the neck*, anteversion, anteflexion, and especially retroflexion and retroversion." It will be observed, therefore, that, in the case of Dr. Apostoli's series, we have not the guarantee of experience in diagnosis presented by that of Dr. Steavenson, which had mostly passed through the hands of Dr. Matthews Duncan. Hence, perhaps, the difference. Dr. Williams analyses Dr. Apostoli's cases in Dr. Carlet's book, and shows that the accuracy of diagnosis is very debateable, and the results do not compare favourably with those of the older methods. We are sorry that Dr. Bigelow makes no allusion in his book to either of these important publications.

A Handbook of Surgical Pathology, for the use of Students in the Museum of St. Bartholomew's Hospital. Second Edition. By W. J. WALSHAM, M.B., F.R.C.S., assisted by D'ARCY POWER, M.A., M.B., F.R.C.S. London: Baillière, Tindall, and Cox. 1890.

WE congratulate Mr. Walsham upon the appearance of a second edition of this work, it being eleven years since the production of the first, which has long been out of print. Since that time a renumbering of the whole of the specimens in the museum has of itself, even if no other reason existed, rendered necessary a revision of the work. In general plan and arrangement this handbook follows closely the original lines, it being really an amplification of the catalogue of St. Bartholomew's Museum. Two new points have been introduced: descriptions of many pathological conditions have been given which do not find illustration in the museum; this is a wise innovation, for it not only makes the volume more useful as a text-book to the St. Bartholomew's student, but it renders it more valuable to the general reader who has no opportunity of access to the specimens described. Another feature is the copious reference to the casts, drawings, and photographs, in which the museum is fortunately rich, and which are too often neglected by the student if his attention be not specially directed to them. Mr. Walsham has been fortunate in securing the collaboration of Mr. D'Arcy Power, the late curator, whose especial knowledge of the recent additions to the museum must have been invaluable in completing the revision of the work. The opening remarks with which the various sections commence have been extended and in many instances rewritten, and the whole have been brought well up to date. They still remain for the most part brief, simple, and clear; and, as for instance in the descriptions of tubercular disease of bones and joints, serve as embodiments of the most modern pathological teaching. We can confidently recommend the volume, which is handsomely got-up, not only to the students for whom it was originally intended, but also to the general surgical reader.

[1] Obst. Trans., vol. xxx. for 1888, pp. 285-8.

OUR LIBRARY TABLE.

Clinical Lectures on Diseases of the Nervous System. By Prof. J. M. CHARCOT. Vol. III. Translated by THOMAS SAVILL, M.D. Lond. London: The New Sydenham Society. 1889.—The subjects dealt with in this third volume of Professor Charcot's lectures, which the New Sydenham Society has produced, concern mainly functional affections of the nervous system. Hysteria, in various phases of its remarkable developments, and particularly the rarer forms of hysteria in the male, is, indeed, the main topic, to which many lectures are devoted. Needless to say the same vivid word-pictures and clear exposition so characteristic of all Professor Charcot's teachings find ample scope in dealing with such subjects. There are also in this volume lectures on Muscular Atrophy, Word-blindness, Tremors, and Choreiform Movements, the whole making a most interesting and attractive series, and fully maintaining the reputation of their author. As we have had occasion to notice these lectures in their original form, it is unnecessary to do more now than commend them to our readers, who will find in Dr. Savill's translation a faithful reproduction of Professor Charcot's text, and who cannot fail to be instructed by their perusal.

Die Geschichte der Tuberkulose. Von Dr. AUGUST PREDOHL. Hamburg und Leipzig: Leopold Voss. 1888.—There is no more fascinating subject in the history of medicine than the record of the gradual development of truer conceptions of the nature of tubercular disease. We see in it the evolution of all pathological doctrines, from that of gross morbid anatomy, when "tubercle" was used in its strict sense to denote every nodule or projection within an organ (e.g., cirrhosis of liver), to a special neoplasm, produced by a specific excitant and undergoing definite changes. Slowly, and often with the necessity of retracing their steps to previously attained points, have observers reached their present conceptions of the disease. Dr. Predohl deserves the thanks of all interested in pathological science for having collated almost every opinion on the subject, from the days of Morton to those of Koch; and for having presented the views of the large army of observers in a coherent and singularly lucid manner. His book should prove of service not only to the student of the history of medicine, but to the working pathologist, who will find in its pages many facts with which he would do well to familiarise himself. The subject is dealt with in three sections—viz.: (1) The Period before Villemin; (2) The Period of Experimental Research commencing with Villemin; (3) Tuberculosis, a parasitic infective disease.

Observations on some Rare Diseases of the Skin. By J. F. PAYNE, M.D. London: Smith, Elder, and Co.—Dr. Payne's *brochure* of fifty pages is a reprint, with some additions and the original illustrations, of rare cases, chiefly from the Pathological Transactions. They are: 1. Granuloma Fungoides. 2. Erythrasma. 3. A Nodose Condition of the Hair. 4. Pruritus Hyemalis. The first is the one of most importance, and the author gives a good *résumé* of our knowledge, to which he has himself contributed, of this formidable and interesting disease; but it seems a pity to try to replace Alibert's original name of "mycosis fungoïde" by a new name of German origin, which does not express any real addition to our knowledge of the pathology of the disease. Dermatologists will be glad to possess this record of interesting cases without having to hunt them up in the Pathological Transactions.

The Journal of Anatomy and Physiology.—Edited by Professors HUMPHRY, TURNER, and M'KENDRICK. Vol. xxiv. Part I. October, 1889. Williams and Norgate.—The contents of this part are:—1. The Proamnion and Amnion in the Chick, by Dr. Shore and J. W. Pickering, of St. Bartholomew's Hospital. 2. Variation in the Nerve Supply of the first Lumbrical Muscle in the Hand, by J. T. Wilson.

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In two instances the muscle was supplied by the median and by the ulnar. 3. Function of the Prostate Gland in Man and Animals, by Joseph Griffiths. 4. The Vertebral Column of a young Gorilla, by Johnson Symington. 5. Innervation of the Axillary Muscles in Man, by J. T. Wilson. 6. Significance of Third Trochanter and other Bony Prominences in Man, by Thomas Dwight. 7. Vascular Anomalies observed in Session 1888-89, by Francis Shepherd. 8. The Flexors of the Digits of the Hand, by Bertram Windle. 9. The Organs of Taste in Belideus Ariel, by Fred. Tuckerman. 10. Contributions to Osteology of Arctic and Subarctic Water-birds, by R. W. Schufeldt. 11. Proportion of Bone and Cartilage in Lumbar Segment of Vertebral Column in Man and Apes, by Professor Cunningham. 12. By the same author, the occasional Eighth True Rib, and its relation to Right-handedness. 13. The Organs of Taste in Man, by F. Tuckerman. 14. Abnormal Vascular Supply to Liver, by Humphry Rolleston. 15. Proceedings of the Anatomical Society of Great Britain.

Fièvre des Foins, Pathogénie et Traitement. Par le Dr. MARCEL NATIER. Paris: O. Doin. 1889.—This *brochure* aims at being a review of the main theories of the origin of that troublesome affection hay-fever, which, the author remarks, appears to be far more common in America and England than elsewhere, and of the treatment based on these views. It may suffice to say that, after discussing the theory of the agency of pollen, originated by Elliotson and so ably supported by Blackley, the "arthritic" theory propounded by Guéneau de Mussy, and the "microbic" theory suggested by Helmholtz, he himself declares that the "nasal" theory originated by Daly, the serious acceptance of which dates only from 1884, when Hack published his work, best accords with the phenomena of the disease. This view accounts for the periodical recurrence with the summer season, in a special vaso-motor neurosis, whereby the erectile tissue of the nose is liable to excessive hyperæmia on comparatively slight causes of mechanical or chemical irritation. The "pollen theory" is quite hypothetical, but it is obviously possible to ally it to the special susceptibility of which the author speaks, which may be the root of the evil, and which apparently may lead to its radical cure by galvanic cauterisation of the nasal membrane.

The Quarterly Journal of Microscopical Science. No. cxviii., July, 1889. Edited by Professors RAY LANKESTER, KLEIN, and ADAM SEDGWICK.—This part contains the following Memoirs:—1. A Comparative Study of Striated Muscle, by Wm. A. Haswell, Sydney. 2. Contributions to Animal Chromatology, by C. A. MacMunn. 3. On Some Points in the Anatomy of Polyxenus Lagurus, by F. G. Heathcote. 4. A Remarkable Crustacean Parasite and its bearing on the Phylogeny of the Entomostraca, by Herbert Fowler. 5. Notes on the Anatomy of Scorpions, by Muliyil Narayanan. 6. The Anatomy of Phoronis Australis, by William B. Benham. 7. Karyokinesis and its Relation to the Process of Fertilisation, by W. Waldeyer. Eleven plates illustrate the memoirs.

The American Journal of the Medical Sciences. Published monthly. Edited by T. MINIS HAYS, A.M., M.D. Philadelphia: Lea Brothers & Co. August, 1889.—The excellence of this well-known journal has in no way suffered from its more frequent publication, and the number before us fully maintains its high reputation. Dr. Gairdner of Glasgow is the sole British contributor, with an article on a case of Anomalous Cardiac Murmur concurring with Fatal Cerebral Disease.

Zeitschrift für Biologie. Band xxvi., Hefte 2 und 3. Williams and Norgate. 1889.—This number contains the following articles:—1. On the Influence of Distension of the Peritoneal Cavity with Fluid on the Circulation and Respiration, by Dr. G. Heinricius of Helsingfors. 2. On the Causes of the First Inspiration, by Dr. G. Heinricius. 3. On the Importance of the Pulmonary Vagi in the New-born Child, by Dr. G. Heinricius. 4. On Secondary Muscular Excitation, by W. Kühne. 5. On the Nutritive Value of Beans in the Intestinal Canal of Man, by Dr. Wilhelm Pravsnitz. 6. On the Reduction of Hæmoglobin in the Heart, by Sophie Handler. 7. The Importance of the Mesocephalon for Respiration.

Analytical Records.

LIQ. EUONYMIN ET PEPSIN CO. (OPPENHEIMER'S).

(OPPENHEIMER BROS. AND CO., SUN-STREET, FINSBURY-SQUARE, LONDON.)

A DARK-BROWN, clear fluid, acid to test paper and bitter in taste. Analysis gave distinct proof of the presence of euonymin, and the activity of the pepsin was ascertained by its effect on white of egg. The preparation is evidently to be well trusted as a hepatic stimulant.

EUONYMIN COCOA, SPECIALLY PREPARED FOR DYSPEPTICS.

(OPPENHEIMER BROS. AND CO., SUN-STREET, FINSBURY-SQUARE.)

This, like the last, is a good preparation. The cocoa is of superior quality, and the euonymin, although perceptible, does not interfere materially with the cocoa flavour. Many persons who cannot digest cocoa will find this beneficial.

CREAM OF MALT WITH TEREBENE.

(OPPENHEIMER BROS. AND CO.)

Terebene is easily found in this compound, which, indeed, smells and tastes strongly of it. The malt extract used in the manufacture is excellent, for it converts starch very readily.

BEEF OATMEAL.

(H. AND T. KIRBY AND CO., LIMITED, NEWMAN-STREET, OXFORD-STREET.)

This beef oatmeal is prepared by Mr. Kirby's patent process for the manufacture of "Nutrimentin," by which fresh meat is condensed and preserved in an uncooked condition. To the eye and under the microscope this preparation appears like ordinary oatmeal, but the smell and flavour show the presence of some strong beef extract. When prepared with hot water as directed a most nutritious and palatable food is obtained. We think that beef oatmeal will be both useful and popular.

GERM BREAD AND BISCUITS.

(WATT AND SONS CLEDHOV-TERRACE, SOUTH KENSINGTON.)

Germ flour is said to consist of wheat germ specially treated and mixed with a certain proportion of fine roller-milled flour. It is well known that the germ is a peculiarly nutritious portion of the grain, and its successful use in bread and biscuit making is therefore satisfactory. The bread and biscuits submitted to us were excellent in appearance and flavour, and a microscopic examination showed freedom from irritating bran and from foreign admixture. This new food-preparation deserves commendation.

THE DENTAL ASSOCIATION.—The Midland Counties Branch of the British Dental Association held a meeting at Halifax last week, there being a good attendance. The proceedings were of an interesting nature, papers being read on Unregistered Practitioners and on Pulpless Teeth, whilst an apparatus was exhibited for the administration of nitrous oxide and oxygen for dental operations, some of the gentlemen in the room being experimented upon. A naso-pharyngeal apparatus for administering chloroform was also shown and its working explained, as was also an oxy-hydrogen apparatus for working by night or in dark weather.

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THE LANCET.

LONDON: SATURDAY, NOVEMBER 2, 1889.

THE first report of the Royal Commission on Vaccination, just issued, commences with a statement of the order in which the evidence on the several subjects will be received. These subjects are as follows:—1. The historical and statistical case in favour of vaccination. 2. The arrangements made for vaccination under the existing law, and the mode in which the law is administered. 3. The case against vaccination, and especially against its continuing to be made compulsory. 4. The reply to these objections. 5. Any substitutes that can be suggested in place of vaccination for the purpose of preventing the spread of small-pox. 6. Any improvements that can be suggested in the present law or its administration for the purpose of removing objections to vaccination or making it more effective.

The volume now before us deals solely with the first-named subject, and hence it necessarily takes up one side of the question only. So far, four witnesses only have been heard, and it is evident from some of the questions put to them, and their replies, that they are not the only ones who will tender evidence under the first heading. It may therefore be assumed that a lengthened inquiry is in prospect, and that for this reason it has been thought desirable to issue the report in separate portions at different intervals, a plan which will at least have the advantage of enabling all who are interested in the subject to read the whole body of the evidence at their leisure.

Sir JOHN SIMON was appropriately called as the first witness, and his evidence was mainly historical in its character. Thus, he gave some history of vaccination from the days when it was first discovered by JENNER, but the greater part of his evidence was taken up in maintaining the principles laid down in his celebrated paper on the History and Practice of Vaccination, which he submitted to the General Board of Health in 1857, and which was at that time laid before Parliament. That paper has long been out of print, but as it is now embodied in the Appendix to this first report, it will once again be available for general use and reference. But whilst generally maintaining the attitude which he took in 1857, Sir JOHN SIMON wished it to be clearly understood that a further thirty years' experience of a subject which is hardly a century old had led him to modify his views on some points of detail; and in this connexion he especially instanced the duration of vaccination as a preventive of small-pox. JENNER vaccinated a large number of adults, and they appeared to have acquired a life-long protection; but as vaccination is more and more performed during the early years of life, so means have been afforded for ascertaining that the duration of the protection is limited; and whilst Sir JOHN SIMON still maintains that, in nearly all instances, the protection given by vaccination is never altogether effaced, yet he finds that the repetition of the operation is needed at an earlier date—namely, at about ten or twelve years of age—than he formerly thought necessary, if protection in the face of an epidemic is to be maintained. His cross-examination hardly dealt with the main features of his evidence. Some of it related to lay questions on obscure points of physiology, which even he did not feel able to answer straight off; other questions put to him had to do with the origin of vaccine lymph, and it was elicited from him that, as far as his knowledge went, he believed JENNER was right when he gave the name "variola vaccinæ" to the disease, and that it was really small-pox grafted on the cow. Some further questions were put to him, apparently to show that since "fever" and small-pox had, at least in London, diminished somewhat simultaneously, therefore the decrease in both diseases had been due to one and the same cause; but, even apart from the fact that some of the statistics in question as to "fever" were so far useless as to include such a disease as plague, the witness strongly maintained, as the result of his experience, that there was not the least reason for believing that there was any such connexion as had been suggested between the two diseases. And, lastly, being pressed by Mr. PICTON as to whether nurses in prevaccination days contracted small-pox to the same extent as those in attendance on that disease, and who have not been recently vaccinated, are now alleged to do, Sir JOHN SIMON reminded his questioner of the fact that in the earlier period referred to a very large proportion of adults had, before they became nurses, already suffered from small-pox, and therefore stood on the same footing as small-pox patients who elect to remain as small-pox nurses in hospitals in the present day; adding, "Let your unvaccinated, if they would like to make the experiment for the public service, try how *they* would fare if they exposed themselves to the same test."

Dr. WILLIAM OGLE, of the General Register Office, was the next witness, and he naturally dealt with the subject essentially from a statistical point of view. Taking the forty-six years since the registration of causes of death was established, and dividing it into two equal periods each of twenty-three years, he pointed out that whereas in the first period the small-pox death-rate was only twice under 100 per 1,000,000, it was so twelve times in the second period; and whereas in the first period the rate was only on five occasions under 150, it was so nineteen times in the second period. He then referred to the division which the Registrar-General made in one of his annual reports, showing that from 1838 to 1853, when vaccination was purely optional, the small-pox death-rate was 408 per 1,000,000; that from 1854 to 1871, when it was nominally compulsory, but when it was not obligatory to appoint officers to enforce compliance with the law, the rate fell to 223 per 1,000,000; and that from 1872 to 1887, a period in which the Vaccination Acts have been more efficiently enforced by properly appointed officers, the rate had fallen to 114 per 1,000,000, the decline in the whole period being about 72 per cent. A good deal of cross-examination was directed to the question why the third period was not made to commence with the year 1867, when the principal Vaccination Act was passed; and whilst Dr. OGLE admitted that the rates would naturally vary according as the heavy small-pox mortality of 1871 was placed in one or the other group, he yet maintained

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that whilst the Act of 1867 was largely a complete Act on paper, he had decided, as the result of great pains taken to ascertain where the division of the periods ought properly to be made, that since before the vaccination officers were appointed under the Act of 1871 there was no such efficient carrying out of the Acts as ensued after these officers were appointed, he had rightly made his third period to commence at 1872. But at a later stage of his examination he varied the arrangement of the periods so as to change the position of 1871 with its epidemic, the result being that for 1838–39, when vaccination was not only voluntary but not even gratuitous, the small-pox death-rate was 827 per 1,000,000; that in 1840–53, when vaccination, though still voluntary, was made gratuitous, the rate fell to 336; that in 1854–67, when vaccination was nominally obligatory but not generally enforced, the rate fell further to 188; and that from 1868 onwards, including a long period in which officers have been appointed to enforce the Acts, the rate has still further fallen to 155.

The question of the age-incidence of small-pox mortality was next entered into at length, and it was explained that whereas small-pox has enormously diminished under five years of age, during 1847–1887, the period controlled by the vaccination laws, namely, from 1617 to 114 per 1,000,000, the diminution at from five to ten years has been less marked—namely, from 337 to 120 per 1,000,000; that from ten to fifteen years has been still less marked—namely, from 94 to 69 per 1,000,000; and that at higher ages a small but somewhat steady increase in the mortality has taken place. This Dr. OGLE attributed to the fact that whereas formerly many persons in adult life were protected against small-pox by an attack in infancy of that disease, they now only possessed the more waning protection of an infantile vaccination, "consequently the death-rates are increased during the more advanced ages because protection by vaccination has taken the place of protection by small-pox." As to this, Dr. OGLE was a good deal questioned with a view of ascertaining whether in any other disease, whilst there had been an enormous diminution in mortality at all ages, anything corresponding to small-pox which indicated a possible gradual extinction under five years of age with an increase at later years of life could be found. Dr. OGLE knew of no disease apart from small-pox which had behaved thus; and he could only interpret its special behaviour at different ages to the great protection of a recent vaccination and to its subsequent waning influence. As to "typhus," which in some way resembled small-pox as regards its diffusion, he explained that the seeming analogy was altogether misleading, since "typhus" in children formerly meant almost anything except real typhus, and that its omission from the death registers as a cause of infant death was essentially a matter of improved diagnosis and nomenclature. This led up to the question of the influence of sanitation as a preventive of small-pox, and Dr. OGLE expressed the conviction that, unless vaccination be included in the term, sanitation could not be regarded as having, to any material extent, diminished small-pox mortality. As bearing on this point, he regarded measles, scarlet fever, diphtheria, and whooping-cough, as fit to be compared with small-pox, and he showed that whereas the percentage of the deaths from small-pox under one year which had occurred in the last nine months of the year (i.e., after a vaccination at three months) had fallen from 63 to 50, as vaccination had been more and more enforced, the rate which corresponded with that 50 per cent. was, for measles 97 per cent., for scarlet fever 95 per cent., for diphtheria 89 per cent., and for whooping-cough 82 per cent.; and he urged that "the last nine months of the first year of life are for some reason or other protected against small-pox to a greater extent than they are protected against measles, scarlet fever, diphtheria, or whooping-cough"; vaccination, as applied to small-pox, alone explaining the difference. Some very useful and instructive tables relating to the matters dealt with in his evidence are contained in the Appendix to Dr. OGLE'S statement.

The remainder of the report we shall deal with in another article.

THE Archbishop of Canterbury has done well to devote his chief attention in his recent series of charges to the consideration of the Church's duty in respect of the two great national sins, intemperance and impurity. We have seen with satisfaction that the Nonconformist branches of the Church have been doing the same. The Church never appears to greater advantage than when helping men and women in the struggle with besetting sins; although sometimes it spends itself in petty questions which men feel to have no relation to their present life or any other. It is amazing how much swing such sins have in a Christian country, and even in its most religious parts. Nobody will doubt the religiousness of Scotland. No country has made greater sacrifices for her religion; no Church has had greater ministers than the Church of Scotland has had in such men as CHALMERS, MACLEOD, CAIRNS; but the reign of whisky is still unbroken, as it is in the equally religious country of Ireland. The Archbishop says that the evil of impurity is too strong for science, and quotes the grave and almost despairing words of the President of the British Medical Association as to the plague spot that "saps the health of millions." These evils are so dominant as to make both divines and men of science humble. Neither those who are supposed to be the ministers of the soul nor those whose special care is the body can afford to reproach each other. We, as medical men, certainly have tremendous responsibilities in regard to the prevalence of both sins. We see every day the consequences of them; often we are consulted about them by those who are in a state to receive not only medical but moral and friendly advice, and woe betide the physician or the surgeon who fails in his duty at such supreme moments of opportunity. The medical man who minifies vice in a patient, or who seems to sanction it, prostitutes his office and misleads his patient. He is like a pilot who takes his hapless ship into a tempestuous sea when he might have chosen still waters. We have lately quoted the opinions of Sir JAMES PAGET and Dr. GOWERS as to the safety of chastity and the physician's duty in regard to all breaches of it, actual or proposed. Their deliverances are practically unchallenged. If there are other and opposing voices in the profession they are ashamed to speak out. From the mere physical standpoint unchastity is fatal. We speak of its tendency, not of individual cases. If anyone doubts this let him read the account given in our

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Paris correspondent's letters of the inheritance of syphilis, in THE LANCET of July 20th and Aug. 3rd and 17th. The authority is no less a one than Professor FOURNIER, who has not drifted into the fashion of speaking lightly of syphilis and its consequences as if it were a declining evil. It is to him "a veritable social calamity," "a factor in depopulation," "it has an enormous mortality following in its train," "it is a disease which affects the whole being, which by the general reaction it exercises on the organism, is capable of exciting, side by side with the symptoms or manifestations proper, others of another order, no longer syphilitic in the ordinary sense, although indirectly derived from syphilis, and which he proposes to term *parasyphilitic*." These are the words not of an English physician, who may be supposed to have puritanical prejudices, but of a French syphilographer who looks on social questions and on this great social plague with an experience probably not exceeded. Evidently in his case familiarity has bred no contempt of a disease which every man who abandons the lines of morality should be prepared to accept for himself and for his posterity. Neither must it be supposed that coarse or subtle physical disease is the only evil and retribution of unchastity. It is a misdirection altogether. It is giving up the mastery and regulation of the system, on which not health alone, but conduct and character, all depend. Admitted that the passion in question is an imperious one, it is still meant to be subordinate to reason, circumstance, and religion. We are not beasts, but social and rational beings. The sexual passion in man cannot be wantonly exercised without disturbing his whole nature and subordinating that which should be uppermost. There is much the same difference between the capricious, sensual, impulsive use of this function and its regulated recognition in marriage as there is between St. Vitus's dance and regular muscular exercise, and the medical man who advises or connives at the former must have an uneasy sense of responsibility if his patient becomes irregular in other respects. But we must insist that if any such medical men exist, they do not represent either the science or the ethics of medicine.

The vice of intemperance was discussed with great care by the Archbishop. He spoke with much caution on legislative enactments for its abatement. One of the best things the Archbishop said was that to make a political contest out of such a question would be bad both for politics and morals. It is one of the evils of our present constitutional system that such an urgent question cannot be discussed apart from political grounds and tactics. He quoted the saying of the Lord Chief Justice, that scarcely a crime came before him which was not directly or indirectly caused by strong drink. The Primate saw nothing inconsistent with this in admitting that the criminal had rarely had a good start; he inherits too often a vicious constitution, and is born into a criminal atmosphere. Apart from the intemperance that leads to crime, there is the great mass of intemperance that leads to poverty, and a less degree still that yet leads to various forms of ill-health. The responsibility of the medical profession is perhaps greater here than in the case of the first vice we have noticed. Undoubtedly some medical men too lightly prescribe alcoholic stimulants for their patients. And it is equally certain that the prescription is used as an excuse for taking the stimulants long after the necessity for them has passed away, and when all other parts of the physician's prescription have ceased to be remembered or regarded. Further, it is only fair to medical men to say that the most distinguished members of the profession have given a new meaning to intemperance, and have shown that quantities which a few years ago were considered moderate are fruitful sources of ailment and even of disease, and that the leaders of the profession at least are conspicuous for their moderation. Still, we cannot fail to see that by our prescriptions and by our example we may mightily help or hinder improvement in the national habits in this respect. We are probably the most gouty nation under the sun, and for nineteen centuries at least we have been drinking freely. It is time to reconsider our habits. A little more sobriety will certainly not be inconsistent with our national virtues, and it will immensely reduce poverty, misery, and disease. The clergy are siding most creditably with the promoters of temperance. So should medical men, not intemperately, but by caution in prescription, the condemnation of all casual drinking without food, and by the utmost care in personal habits.

WHENEVER any radical change of treatment of any common disease is recommended, it has to encounter numerous objections, not only before it is generally adopted, but even before it is fairly tested. A new treatment always runs the risk of being lightly turned aside; perhaps, in some cases, from the distrust aroused by the energy with which it is advocated. Accounts of new medicinal remedies in particular are ordinarily received with great reserve. The chemical composition and the physiological action are closely interrogated before statements of clinical results are allowed to pass as scientific facts. The sources of fallacy are so numerous that scepticism ordinarily greets the brilliant statements which are so customary when the virtues of a new remedy are detailed. No disease, perhaps, has given rise to more conflicting statements than pneumonia, and in no disease is it more important to guard carefully against erroneous deductions from favourable issues. Already numerous drugs have been given the credit of hastening the crisis or of cutting short the disease, and subsequent experience has shown that they do not merit the marvellous properties assigned to them. With regard to outward applications, however, there has been less difference of opinion, and although from time to time there have been indications of a wavering faith, there can be no doubt that in the profession and among the general public it has tolerably uniformly been held that as pneumonia is very commonly the result of a chill, so it is to be treated with poultices and hot fomentations as a matter of routine. In spite of the prevalence of this idea, it would be extremely difficult to find any sound basis for it. Most practitioners probably would defend the practice by referring to the relief given by hot applications, and would point, perhaps, to the fact that patients are rendered more comfortable, that the breathing is easier, and that perhaps a sound sleep may ensue. Some might go so far as to say that after the sleep the temperature fell and convalescence commenced, but in the majority of instances this would be arguing from *post hoc* to *propter hoc*.

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In these days it is not seriously held that the application of poultices or hot fomentations can directly control the pathological changes which are the essence of pneumonia, still less is it believed that they have any power of curtailing the fever. They relieve pain and they satisfy the natural anxiety to do something in conditions of great apparent distress and danger, and for these reasons, perhaps, they have hitherto held their ground so securely, that in general practice it might be considered unwise to attempt to treat pneumonia without them. The disease is serious, it may prove fatal, and the general practitioner not unnaturally shrinks from unprofessional criticism of his treatment. We have mentioned above that this routine has not been allowed to pass unchallenged. Indications have not been wanting to show a growing tendency towards the treatment of pneumonia by cold applications, and at the last meeting of the Harveian Society an array of evidence was adduced in its favour. In another column a full account of the proceedings will be found, from which it will be seen that the subject of the treatment of pneumonia by the ice-bag was introduced by Dr. LEES, who, while strongly advocating this system of treatment, spoke with considerable caution of his results and their interpretation. From careful consideration of eighteen cases which had come under his observation, he concludes that in the treatment of pneumonia the ice-bag has a distinctly curative influence, which is not limited to a mere reduction of temperature, but extends to a repression of the inflammatory process in the lung. The cases he narrates are very instructive and suggestive, and from them it will be noted that although attention seems to have been very largely directed to pyrexia as a measure of the progress of the treatment, yet the physical signs were also carefully observed, and in the majority of cases underwent marked improvement. In other words, Dr. LEES does not recommend the employment of the ice-bag merely for the control of high temperatures; he believes that the benefits are not confined to this, and indeed he would appear to regard a fall of temperature merely as a side indication of a general amelioration. This hopeful opinion was scarcely endorsed by other observers, although there was unanimity of belief in the absence of risk when the cases were carefully watched, and any tendency to collapse controlled by brandy and warm applications. Further than this, it appears to have been the experience of all who spoke that the immediate result of the treatment was to give very marked relief from pain, to lower the temperature, reduce the pulse and the frequency of breathing, and to promote sleep. The tendency to drowsiness was mentioned in several of the cases narrated. When we look for ill results in the accounts given, they are not very apparent, or very serious. In no single instance was any extension of the inflammatory process attributed to the use of the ice-bag, and this is certainly a strong argument in its favour. On the other hand, the rapid fall of temperature seems in some few cases to have been followed by failure of the pulse, blueness, and coldness, and although these undesirable symptoms were readily controlled, and gave rise to no permanent anxiety, this warning is worth bearing in mind, more particularly perhaps in private practice, unless intelligent and skilled assistants are constantly watching the progress of the case.

Reviewing the whole discussion, it seems to be desirable that this method of treatment of pneumonia should be more generally studied, for it appears probable that in selected cases it may in time wholly replace the former routine of poultices. It has been found that fever and pain are both controlled by the ice-bag, while pain only is relieved by the poultice. It has also been found very generally that the sense of *bien-être* of the patient is improved, and that there is a relative freedom from risk if employed with due precautions. Whether subsequent study will tend to strengthen the position claimed for this treatment by Dr. LEES is another matter, upon which it might be rash to hazard a conjecture at present. Meanwhile, the fact remains that several careful observers, in their hospital work and occasionally in private practice, have tentatively been using a method which gives great relief, and is attended by no serious risks. The treatment will be sure to encounter opposition, the public having been so long accustomed to the employment of the poultice, so that the ice-bag may seem a sudden and violent measure in an unexpected direction. The conviction that the illness arises from a chill will also tend to render this treatment an apparent anomaly. Still, as a rule, most people bow before experience, and the safety we have above indicated should strengthen the hands of those in the profession who are not too much bound down by routine to welcome a new therapeutic measure.

THE prominence which was given, in the House of Commons, towards the end of last session, and by THE LANCET Special Sanitary Commission on the subject, to the destitute condition of the chain-makers in and about Cradley makes a report which Dr. GRESSWELL has recently prepared for the Local Government Board on the sanitary state of Cradley, and on enteric fever there, of especial interest. The place lies in the Stourbridge rural sanitary district, and it is at the onset described as one of those localities in the coal and iron districts of Worcestershire and Staffordshire which have long been known "for grave sanitary shortcomings and for prevalence of filth diseases." The inhabitants of Cradley numbered 5284 at the Census of 1881, and, in addition to those who are engaged in mining, both females as well as males are occupied in chain-making in small forge shops near to the cottages. Referring to drainage, we read of socketed pipes which are uncemented at the joints, of mere sewage tracks cut out by sewage on the surface, of sickening stenches from in-door drain-traps, and of pollution of the river by means of the highway drains, which were never intended to receive sewage. Where there are no drain channels, holes or cesspools, and even disused wells, are turned into receptacles for liquid filth. The large, open, deep, and dilapidated midden privy is general, and we read of this peculiarly offensive form of filth depository, together with privy vaults, piggeries, and swamps of liquid refuse, fouling the air breathed and soaking into wells, one of which had in its vicinity "open middens, piggeries, drains, sewage swamps, dumb-wells, and the like." Fortunately some extension of the water service belonging to the South Staffordshire Waterworks Company is in progress. But in addition to the use of rain-water, a hundred or more dwellings were, up to December of last year, supplied with water from the town well. As to this well, there was a

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remarkable incidence of enteric fever on those who resorted to it, and in December, 1888, Dr. SWETE announced that it was largely polluted with organic matter. It was then closed, but it deserves notice that this very water-supply was emphatically pointed out to the sanitary authority by Dr. BALLARD in 1873 as a source of grave danger; that in 1877 and 1878 it was held by Dr. THOMPSON, the then medical officer of health, and by other medical practitioners, to have been the cause of an epidemic of enteric fever; that in 1880 Dr. PARSONS, visiting the district for the Local Government Board, spoke in no hesitating terms as to the danger attaching to its use; that the Vicar from his pulpit had declared that those who used it "were drinking dead men's bones"; and that, notwithstanding all this, it remained in use until, out of thirty-seven households invaded with enteric fever up to the end of 1888, thirty-three may be regarded as having got their infection from this water. But the general circumstances of the district were, apart from the original source of the fever, just such as to cause its diffusion. Water-supplies, says Dr. GRESSWELL, were in common use, although subject to risk of specific pollution; children were at play in the sewage gutters and about the heaps of filth on premises; and "poultry, at one moment investigating the filth out of doors, were at another mingling with the family in the cottage."

One piece of work appears to be done under some system, although not with the efficiency needed; we refer to the scavenging. But even as to this the Local Government Board were compelled in 1886 to issue a compulsory order requiring it to be performed under the provisions of Section 42 of the Public Health Act. Altogether, the story of this district and of its fever-diffusing circumstances is one of the sorriest we have for a long time come across. The medical men practising in the neighbourhood say that enteric fever is rarely absent; and between December, 1887, and June, 1889, 52 dwellings in Cradley proper were invaded; 113 out of a total of their 316 inmates, or 35·7 per cent., being attacked; and 16 of the latter, or 14·1 per cent., dying. There may be great difficulties in dealing at once with all the conditions inimical to health in this district, but it is impossible to accept any valid excuse for the long-standing neglect which this report has brought to light; and it is to be hoped that the inhabitants will, in view of their latest experience of fever in their midst, do their utmost to secure the election of a body of men on the rural sanitary board who will really carry out some of the urgent sanitary work which is so imperatively called for.

DR. F. W. BARRY'S examination (the fourth day) by the Royal Commission on Vaccination was concluded on Saturday last. He was, however, recalled on Wednesday, and gave further evidence. Staff Surgeon Theodore J. Preston, of the Medical Department of the Admiralty, was afterwards examined as to the success of vaccination in the Navy.

MR. E. WAYMOUTH REID, B.A., M.B. Cantab., M.R.C.S., Assistant Lecturer in Physiology, St. Mary's Hospital, London, has been appointed Professor of Physiology in the University College, Dundee.

Annotations.

"Ne quid nimis."

THE ROYAL COLLEGE OF SURGEONS.

THE report from the Council, comprising a record of their transactions during the Collegiate year, from July, 1888, to July, 1889, to be presented to the Fellows and Members of the College at the meeting to be held on Thursday next, Nov. 7th, at 3 P.M., has now been issued. Our readers will recollect that Mr. Jonathan Hutchinson has succeeded Mr. Savory as President, and he will preside at the meeting on the 7th, when the report is presented. Much of importance has passed at the College since the Fellows and Members met last year and asked for further consideration for the recommendations which they made as to an increased share in the management of the College, and renewed consideration of their claims with regard to the regulation of expenditure, right of meeting, and other matters. The resolutions passed at that meeting were not carried into effect by the Council, and a supplementary charter has been obtained with new bye-laws; and it was acting under these bye-laws that the election of members of the Council was carried out in July, proxy voting being permitted for the first time. Full information of the manner in which this was carried out is given in the report. We need not now enter into detail with regard to the expenditure of the Council, some of which, notably the amount spent in rebuilding the conservator's house, formed subject for comment at the annual meeting last year; but attention may be drawn to the report of the committee on the extension of the Examination Hall buildings, and the expense incurred in a dispute about "ancient lights," which led to an alteration of the original plans and a payment by the two Colleges of over £730. The rejections at the second examination induced the Council to pass a resolution to the effect "that the candidate be required to present himself for examination in anatomy and physiology together, until he has reached the required standard to pass in one or the other of those subjects; but no candidate will be allowed to pass in one of the subjects without obtaining at the same time at least half the number of marks required to pass in the other subjects." It was not considered advisable to make the performance of operations on the dead subject compulsory in the final examination for the Membership. A revised schedule of drugs (which we have already published in full) for the examination in Materia Medica and Pharmacy was agreed to, and at the same meeting of the Council it was agreed to give the title of Diplomate in Public Health to the possessor of the diploma of the Colleges. The Council did not think it advisable to hand over its penal powers to the General Medical Council; it did not consider any extension of the powers of the General Medical Council necessary, neither did it consider it expedient to obtain power to temporarily remove a Fellow or Member, such being already provided for in the bye-laws; it proposed, however, to increase the powers already possessed, and to make the definition of misconduct extend to "cases of infamous conduct in any professional aspect." Two members of the College have been removed from the Register under Clause 2, Section 16, of the bye-laws. Mr. Sibley reported the completion of the conference on the medical scales in use on passenger ships, and Mr. Macnamara was appointed to represent the College on Lord Camperdown's committee of inquiry into the pay, status, and conditions of service of the medical officers of the Army and Navy. There is one important subject on which we do not propose to offer any comments, as it has been brought under the

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consideration of the Court of Chancery, and that is the question as to the right of Fellows and Members to meet on the premises of the College, and whether this can be done without the consent of the Council; it will be recollected that this question was raised by the attempt to hold a meeting in the College on Feb. 28th of the present year.

THE OXFORD CITY CORONER AND THE RADCLIFFE INFIRMARY.

AT the Radcliffe Infirmary, on Oct. 19th, an inquest was held touching the death of a domestic servant named Hannah Mary Honour, aged eighteen years. From the evidence, it appears that previously to her fatal illness she was not known to have suffered from any serious indisposition. Two days prior to being admitted to the Infirmary she complained of headache and sickness. The symptoms developed until her condition caused alarm, and a local practitioner was called in. This gentleman, recognising the gravity of the case, which he diagnosed as one of brain disease, very properly advised her immediate removal to the Infirmary. On admission to that institution, Dr. Rice, the resident physician, made such examination as enabled him to come to the conclusion that the patient was suffering from blockage of some of the cerebral arteries; indeed, some of the symptoms were indicative of a coarse one-sided lesion of the brain. In addition to Dr. Rice, the house surgeon saw the patient, and concurred in his opinion. Dr. Rice obtained permission from the parents of the deceased to make a necropsy. The post-mortem signs corroborated his diagnosis, and he gave a certificate of the cause of death. Mr. Hussey, the city coroner, decided to hold an inquest, and during the investigation animadverted strongly (1) upon the fact that the patient was not seen by one of the honorary medical staff; (2) that a post-mortem examination had been made without his knowledge and permission; and (3) that he had not been informed by the governing authorities of the infirmary that the deceased had died under such circumstances as to necessitate a public inquiry. We have many times had occasion to advocate the holding of inquests in all cases where the cause of death was doubtful, and shall continue to do so; but in this case, if we are correctly advised, we cannot see that it was either necessary or expedient for an inquest to be held, and consequently, in our opinion, neither the medical officers nor the governing body of the institution were under any obligation to lay any information before the coroner. The case was diagnosed during life as one of natural disease of a determinate character. The post-mortem examination verified the conclusion arrived at by observation of the symptoms. Acting upon our information, we unhesitatingly endorse the action of the Infirmary governing authorities and that of its medical officers.

THE ITALIAN MEDICAL CONGRESS.

FOLLOWING up an excellent initiative, the promoters of this annual assembly of the physicians of Italy have decided on three subjects for special discussion at next year's Congress. These are (1) the Ætiogenesis and Treatment of the Various Forms of Pleurisy; (2) Hæmodyscrasia in all its Varieties; and (3) Multiple Polyneuritis. As on the recent occasion, each of these subjects will be committed to two physicians, one of whom will make a special study of it on its pathological side, and the other on its clinical or therapeutic side; they will embody their conclusions in a joint report which they will read before the Congress; and, having thus started the general discussion, they will both reply on the whole case. This announcement of the main features of its programme a year in advance has, among other advantages, that of enabling members of the Congress to come prepared for intelligent appreciation and discussion of the specified subjects—to the great economy of time by the minimising of discursive or irrelevant matter. Another commendable arrangement, on the part of the promoters of the Congress, is the issuing from day to day of an official report of the proceedings—a report framed from shorthand notes, and revised by the authors of the memoirs and their critics. It was found that the lay press were apt to be either too curt or too diffuse in its summaries of the sittings — curt where the author or his critic was not a *persona grata* to it, and diffuse where it had reasons, often unprofessional, for showing partiality. The official report, which will now be handed after each sitting to the lay journals, will obviate this abuse. Yet another arrangement, on which the promoters have had just cause for congratulation—the facilities they have obtained from Government for enabling the medical students from every Italian seat of learning to be present at the Congress. The numerous contingent of young and eagerly attentive listeners contributed from Turin and Palmero, from Padua and Naples, was a pleasing trait of the last meeting at Rome, and seemed to react beneficially on the interlocutors themselves, in recalling them from the transcendental and the "*à prioristic*" to the inductive and the practical in their expositions. It is, indeed, the avowed object of the Congress for "Medicina interna"—or "innerf Medizin," as its Teutonic prototype calls it—to form a distinctively "Italian school," in the sense in which there is a British, a German, a Russian, and a French school; and it seeks to hasten this result by familiarising the student-mind, at as early a stage as is practicable, with the value placed on original research and independent opinion in medicine. The aim is an honourable as well as arduous one, and deserves the countenance and sympathy of all who are impressed with what Italy was in the past, and with what she may again become in the future.

TYPHUS IN IRELAND.

THE Registrar-General's recently issued Annual Report for Ireland shows that the death-rate from typhus in that country, although it continues to decline, still shows a remarkable excess compared with that which prevails in other parts of the United Kingdom. It appears that, during last year, 362 fatal cases of typhus were registered in Ireland, against 405 in 1887. The deaths from this disease were more than twice as numerous as they were in England and Wales during the last two years; and if due allowance be made for the difference in population, the mortality from typhus appears to have been during the two years under notice more than ten times as great in Ireland as in England and Wales, notwithstanding the far more dense aggregation of the urban population in England. With regard to the mortality from typhus in Ireland in recent years it may be pointed out that in 1881 the death-rate was 167 per million (against 21 in England), but has since pretty steadily declined year by year, the rate in 1888 being reported as 76 per million. While typhus mortality in Ireland has thus steadily declined, being in 1888 considerably less than half what it was in 1881, the death-rate from enteric or typhoid has remained almost constant. The death-rate from enteric fever in England has steadily declined in recent years, but it still exceeds the rate that prevails in Ireland. With reference to the distribution of fatal typhus in Ireland, it appears that of the 362 deaths referred thereto in 1888, 143 occurred in Munster, 83 in Leinster, 70 in Ulster, and 66 in Connaught; the proportion per million of the population being 107 in Munster, 80 in Connaught, 65 in Leinster, and 40 in Ulster. Thus it would appear that in Ireland the mortality from typhus is almost in inverse ratio to the

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density of population. Of the 143 fatal cases of typhus registered in Munster in 1888, the following counties showed the greatest numbers—Cork, 63; Waterford, 28; Limerick, 18; and Kerry, 18. This continued prevalence of typhus among the population of Munster, most of which is essentially rural in character, affords a most unsatisfactory commentary upon its sanitary condition.

THE SANITARY REGULATION OF HOUSES.

THE London County Council decided last week to make application to Parliament for powers to be vested in vestries and district boards in the metropolis, to enable them to undertake the periodical examination of drains beneath houses, and for the execution of such works by them as upon such inspection or otherwise may in their judgment seem necessary. We have received from Mr. Mark Judge a long letter, protesting against this resolution, and urging that the local sanitary authorities are unfit to be entrusted with these powers. He expresses the opinion that their own procedure should be limited to registering the certificates of other persons than their own officers, and that these officers should not themselves undertake the work which is proposed. On this point we are completely at issue with Mr. Judge. The surveyors of vestries and district boards may not all be experts in this particular branch of house construction, but London householders would be much safer in their hands than in those of the numerous so-called sanitary engineers who would be suddenly called into existence if there were a general demand for the reconstruction of all house drains whenever these may be faulty. We presume that some agreement would be come to as to the conditions with which every house would have to comply, and the regulations as to house-drains which it is expected the London County Council will make will afford a convenient basis. We do not believe for one moment that it will be possible to insist upon the drains of every house in London being raised in respect of wholesomeness to the position of drains of houses built often after the making of bye-laws as to house drainage. The change and improvement must necessarily be gradual, but the vestries and district boards may be expected to do something towards attaining this end, and still greater expectations may be had of the district councils which will be called into existence when these bodies are constituted. For our own part we would far rather trust to officers appointed by these authorities than to irresponsible persons of whose knowledge and efficiency there would be absolutely no guarantee.

CREMATION IN SOUTH GERMANY.

THIS substitute for the traditional mode of interment is gaining ground in Germany, and now the Communal Council of Munich are considering whether the time is not ripe for its recognition in practice. Eleven years ago the board of health of that city commissioned Dr. von Kerschensteiner to report on cremation, and the conclusions to which he came were the following: In general cremation is not only to be permitted but even to be recommended, especially after great battles; in certain cases (subject to official authorisation) of epidemic disease, for the prevention of the transport of corpses, and in the case of soil conditions contra-indicating the inhumation of the dead. Munich, indeed, from the standpoint of public health is, Dr. von Kerschensteiner holds, under no special need of introducing cremation, but, at the same time, there is no ground for not permitting it, after official cognisance of the circumstances attending each individual case of death, and under certain determinate precautions. Of these latter, the first, according to Dr. von Kerschensteiner, must require the handing in, on the part of the responsible practitioner, of a complete medical history of the case—this report to be revised by the public medical officer in charge of the police regulation of dead bodies, and thereafter to be deposited with the judicial authorities. The second precaution must be the undertaking of a complete *sectio cadaveris* by a well-instructed pathological anatomist officially appointed for the task (the "Städtische Prosector"), and the deposition of his post-mortem report with the judicial authorities. Thirdly, there must be continuous numeration of the incinerated residue of each corpse, the checking such residue by a mark, and the deposition of this with its corresponding number for judicial purposes. These precautions and conditions are stringent, and the Communal Council of Munich contemplates no more than the optional sanction of cremation. Experience alone can determine their efficiency, whether they may not in some aspects be relaxed, or whether they may not be made yet more stringent. By that experience, say German sanitarians, the State will be guided in converting optional into compulsory vaccination.

FEVER AND WELL-CLEANSING AT SILEBY.

THE Barrow Board of Guardians, in their capacity of rural sanitary authority, have had under consideration a prevalence of enteric fever at Sileby. The case is evidently one of many showing how often grossly defective sanitary conditions are allowed to remain until after the occurrence of infectious disease, which it is a principal object of sanitary government to prevent. In the outbreak under consideration foul water, dirty yards, and a defective drain passing under cottages have all been detected now that fever has prevailed, and a number of measures are being taken to secure the abatement of the conditions referred to. The story is a very commonplace one, and we note it not because it presents any peculiarities, but because of one measure of prevention, so called, that is stated to be in contemplation. We learn that when the well for the domestic supply of the affected cottages has been found contaminated, orders have been given by the owner to have it "thoroughly cleansed." A more meaningless piece of work can hardly be conceived. There is another well close by which a committee report as "very bad," and it is suggested that possibly its contents find their way into the well used for domestic purposes by the cottages. And the remedy in contemplation is to clean the inside of a well which receives its polluting matter from outside—namely, from the soil and the ground water around it. Surely the time has come for erasing the cleansing of wells under such circumstances from the vocabulary of "sanitary" work.

A DISPUTED HOSPITAL LEGACY.

MR. JUSTICE MATHEW has been called upon to decide a somewhat nice question as to the proper construction to be put upon certain words contained in a will. The testator had left one-tenth part of his residuary estate to "the Eye and Ear Infirmary situate in Liverpool," but the question was which of the two, the Liverpool Eye and Ear Infirmary or the St. Paul's Eye and Ear Hospital, was the one meant. The former is a combination of two institutions founded nearly half a century ago; the latter is of more recent creation, being established in St. Paul's-square, Liverpool, within the last twenty years. The judge of the Westminster County Court decided in favour of the older institution, which at first sight would appear to resemble in its title the institution named in the will. But this decision was appealed against, and in the Queen's Bench on the 25th ult., Baron Huddleston and Mr. Justice Mathew held that there was ambiguity in the

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bequest, and that the county court judge should have admitted evidence to show what it was the testator meant. It was also arranged that Mr. Justice Mathew should look at the statements in certain affidavits, and say which institution he thought was entitled to the bequest. He gave his decision on the 25th ult. in favour of the St. Paul's Hospital. The testator had concerned himself about its management; he knew the medical officer, and he had repeatedly subscribed to it. Mr. Justice Mathew thought, therefore, that the St. Paul's Hospital was abundantly identified as the institution which was to be benefited by the bequest. The decision of the county court judge was accordingly reversed.

PROPOSED ABOLITION OF ONE OF THE BRUSSELS HOSPITALS.

A MOVEMENT is on foot to abolish one of the two great Brussels hospitals—viz., the Hôpital Saint-Jean,—and so to throw the whole burden of providing for the sick poor on the Hôpital Saint-Pierre. The object is of course to save expense, it being alleged that since the establishment of suburban hospitals the expenses have been the same as they were before for these two great hospitals, though there has not been the same number of patients, many having been drawn off by the newer and smaller institutions. According to the published figures, which, however, are said not to be quite accurate, the Saint-Pierre contains 681 beds and the Saint-Jean 644, making altogether a total of 1325, in which are included twenty-seven beds for paying patients. The population which this has to serve is 182,000. The proposal to abolish the Saint-Jean is severely criticised in *La Clinique*. The writer calculates that if all the special departments of the Saint-Jean are to be transferred to the Saint-Pierre, there will only remain 190 beds left for the general medical and surgical cases—a number obviously far too low, as on one day last year the number of medical and surgical cases actually in the two hospitals was 593, so that under similar circumstances the hospital accommodation of the future would be 403 beds short. The only way of obviating this would be to enlarge the Saint-Pierre to such an extent that the new building would be equivalent to a new hospital of considerable size. Another objection to the proposed plan is that in case of an epidemic it would be impossible to transfer all the ordinary cases to one of the hospitals and make use of the other as a means of isolation. Even from the university point of view it is a good thing to have two institutions, as their courses and clinics are presided over by different teachers, between whom there must necessarily be a certain amount of honourable rivalry which is for the advantage of the students and for that of science generally.

EXTRA-GENITAL SYPHILIS IN MOSCOW.

PROFESSOR POSPELOFF of Moscow has recently published in pamphlet form an account of the extra-genital syphilis which he has met with amongst the working-class population in Moscow. He has seen a great many more of these cases amongst women than amongst men, the actual figures being fifty-two male and 146 female cases, notwithstanding the fact that there are many more male than female patients in the hospital with which he is connected. The greater prevalence of this class of affection amongst women than amongst men is accounted for by the domesticated habits of the women, and more particularly by their receiving the infection during suckling. The most common seat of these non-venereal sores is the mouth. This kind of infection is mainly due to the dirty habits of the people, who habitually eat together out of the same vessel, and even with the same wooden spoon, which, if any of the persons using it are syphilitic, soon becomes a fruitful source of infection. Again, it is found that in small factories and sewing shops the workwomen very frequently suffer from extra-genital syphilis, showing that cleanliness and sanitary supervision are very defective. Prof. Pospêloff has collected a large number of references to the works of other authors in English, French, German, and Russian, which will be found in the appendix to the paper.

THE VICTORIA CROSS.

WE are glad to be able to congratulate the Army Medical Staff upon another of its members having gained the coveted distinction of the Victoria Cross, and to felicitate the recipient, Surgeon Ferdinand Simeon Le Quesne, upon whom, according to the *London Gazette*, "the Queen has been graciously pleased to signify her intention to confer the decoration of the Victoria Cross for conspicuous bravery and devotion to duty displayed during the attack on the village of Tartan, Upper Burma, by a column of the Chin Field Force, on May 4th, 1889, in having remained for the space of about ten minutes in a very exposed position (within five yards of the loop-holed stockade from which the enemy were firing) dressing, with perfect coolness and self-possession, the wounds from which Second Lieutenant Michel, Norfolk Regiment, shortly afterwards died. Surgeon Le Quesne was himself severely wounded later on, whilst attending to the wounds of another officer." Ferdinand Simeon Le Quesne, who will be only twenty-five years of age in December next, entered the medical department of King's College in October, 1881, and, having filled the usual clinical appointments, qualified as L.S.A. in 1885, M.R.C.S. Eng. and L.R.C.P. Lond. in January, 1886. He at once successfully competed for admission into the Army Medical Service, and after the usual curriculum at Netley, obtained his commission in July, 1886.

THE NOTIFICATION ACT AND LOCAL AUTHORITIES.

THE smoothness with which this important Act will work will greatly depend on the pains taken by the local authority, and especially by the medical officers of health, to facilitate the duty of notification by the medical practitioner in attendance. We have received copies of four enclosures sent to each practitioner in the Chelsea district by Dr. Edward Seaton, medical officer of health. First, a book of certification forms, very neatly arranged with a counterfoil to each page for recording particulars of each case notified; secondly, a map of the district; thirdly, an outline of the Notification Act; fourthly, a handbill relating thereto. Dr. Seaton further very kindly expresses his willingness to supply any further information that may be desired. We cordially commend such courteous action on the part of Dr. Seaton to the imitation of other medical officers of health. The duties imposed by the Act to busy practitioners will be irksome, but this irksomeness may be much reduced by such measures as have been taken so promptly in Chelsea.

THE GUINEA-WORM IN EUROPE.

THE Guinea-worm, or filaria medinensis, is not usually seen in northern Europe, but of course European travellers or natives of some Asiatic or African countries may bring it. A Brussels practitioner, Dr. Robinet, has recently had two patients suffering from this parasite amongst the members of a troupe of negroes from Accra, on the Guinea coast, who have been performing in Brussels this year. In both cases the worm was in the leg, and was removed in due time, after the cautious opening of the pustule which it produced, by the process of winding it very gently round a match.

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DEFECTIVE PRACTICAL TEACHING IN GERMANY.

A DISCUSSION has been raised of late concerning the want of practical medical knowledge on the part of German medical students, and a paper bearing on this question appeared in the *Aerztl. Central Anzeiger* of Sept. 30th last. The author avers that the Germans are far behind their neighbours in the practical instruction given in the medical schools. This defect he traces partly to the individual peculiarities of the nation, and yet more to the history of medicine within the last thirty or forty years in Germany. As long as medicine was an abstract science the methods of instruction differed little essentially from those required for other learned professions. But natural science now began to claim attention from the votaries of medicine; the dissecting room, the laboratories, and hospitals became the foci of interest; philosophical reasoning and speculation were abandoned for practical observation and experiment, and in Germany the two things did not advance *pari passu*. It followed, therefore, that a completely different mode of instruction was necessary. Formerly physiological, pathological, and pharmaceutical institutes did not exist, but in the present day there is no medical school in Germany without them. It is clear that the doctors of the future must not only be grounded in the principles and science of medicine, but they must have a practical knowledge of it. The instruction given in German schools is deficient in this latter element. Modern medicine is primarily a technical art. Diagnosis requires a multitude of technical manipulations which cannot be learned by mere book knowledge or by a process of reasoning. Three forms of instruction are necessary for the acquirement of this dexterity—first, the preparatory theoretical studies combined with corresponding lectures; secondly, demonstrative instruction, such as is demanded for clinics; and thirdly, practical experience under a fully qualified teacher. This last form of instruction is defective in Germany; many of the students who leave the medical school have never had a leech or a cupping glass in their hands. The medical profession stands alone in its requirements. Members of other professions can always have recourse to books in cases of necessity; but the medical man needs something more than book knowledge, and if he has not attained manual dexterity before his entrance on his profession, he feels very much at a loss. The author of the paper referred to proposes that the professors should devote a little less time to consultations, so that it would be possible for them to train the students in eight or nine sessions to act as junior medical officers in the hospitals. He also recommends at least one year's further study at a university, in order that the student may apply himself to hygiene, mental disease, medical jurisprudence, and the history of medicine.

INVOLUNTARY AUTO-INOCULATION OF GLANDERS.

A PAINFUL CASE was reported by the Vienna correspondent of the *Daily News* on the 28th ult., of the death of a young physician, Dr. Hoffmann, from glanders, under the following circumstances. In August a man suffering from glanders was admitted into the General Hospital, and Dr. Rowalski studied the case bacteriologically, isolating the bacillus, cultures of which he gave to Dr. Hoffmann, who was sceptical as to the transmission of the disease by inoculation of the cultures. The latter's experiments made with the cultures, however, convinced him of their continued virulence. In the beginning of October he took cold, and had severe pain in the side, for which he had recourse to morphia injection, using the same syringe he had employed in his experiments. The syringe had been heated to redness, and was thought to have been thus thoroughly disinfected; but that it must have retained some of the virus in an active state seemed to be proved by the melancholy sequel of the unfortunate physician becoming infected with glanders, from which he died. The account forwarded to the *Daily News* is circumstantial, although somewhat sensational. Assuming the facts to be as related, the moral of the case is obvious, showing the disastrous consequence of a thoughtless use of the same instrument as that employed for experimental inoculations and hypodermic medication. It demonstrates also the virulence of the glanders poison, and suggests the difficulties that may beset experimenters in ridding their instruments of all traces of the virus with which they deal.

LENIENCY OF THE BELGIAN MATRICULATION

FOR some time past an agitation has been taking place in Belgian medical circles, with the object of getting the portals of the profession narrowed, as the amount of overcrowding is felt as seriously in Belgium as it is here. It is considered by many of those who have expressed themselves on the subject that not only should the professional examinations be increased in severity, but that the matriculation or entrance examinations in the medical faculties of the four universities should also be rendered more stringent. Some legislation in this direction has been expected for several years past, the consequence of which is that there has been rather a rush of students eager to matriculate before the new regulations are made, so that they may get the benefit of the old—i.e., the present—lenient system. As an illustration of this leniency, it was stated recently at the meeting of the Medical Federation that at one of the *athénées*, or classical public schools, fifteen of the boys who failed to pass the examination necessary for promotion from the *quatrième* (which is about equivalent to an English third form) to the *troisième* (equivalent to the fourth form) had matriculated at the university.

THE PUBLIC HEALTH DURING THE PAST SUMMER.

THE Registrar-General has just issued his quarterly return dealing with the vital statistics of the third or summer quarter of this year. The annual death-rate in England and Wales during the three months ending with September last was equal to 16·7 per 1000 of the estimated population. Although 1·7 above the unprecedentedly low rate in the corresponding quarter of 1888, this rate was 0·8 below the average rate in the third or summer quarters of the ten years 1879–88. The death-rate in the summer quarter of the year is mainly governed by the mortality from infantile diarrhœa, which is essentially an urban disease. We find, consequently, that in the aggregate of the urban population of the whole country the death-rate was 17·8, whereas in the remaining and chiefly rural population it did not exceed 14·7. In equal numbers living, therefore, the deaths among the urban population last quarter were 121, to 100 in the rural population. The excess of urban mortality was, however, below the average for the season. In the twenty-eight great towns, with an estimated population not far short of 10,000,000, the death-rate was 18·6. In London the rate did not exceed 16·5, while the mean rate in the twenty-seven provincial towns was 20·4. The rates in these provincial towns ranged from 14·2 and 14·4 in Derby and Brighton, to 26·6 in Plymouth, 27·6 in Newcastle-upon-Tyne, and 33·0 in Preston. In fifty other town districts, with an aggregate population of nearly 3,000,000, the mean rate was 17·9, and only slightly above the general urban rate. Speaking generally, the mortality

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from the principal zymotic diseases was below the average. This was markedly the case with small-pox (which caused but two deaths in the whole of England and Wales during the quarter), scarlet fever, and fever; the death-rate from diarrhœa was also slightly below the average. The mortality from diphtheria and measles showed an excess, while the rate from whooping-cough corresponded with the average. The death-rate from diarrhœa (1·67 per 1000) was nearly double that which prevailed in the exceptionally cold and wet summer of 1888, although slightly below the mean rate in the corresponding periods of the ten years 1879–88. The diarrhœa rate was but 1·16 in England and Wales, exclusive of the seventy-eight largest town districts, while it was 2·46 in the twenty-eight great towns. In these twenty-eight great towns the diarrhœa rate last quarter ranged from 0·49 and 1·00 in Halifax and Huddersfield, to 4·63 in Sunderland, 4·94 in Leicester, and 7·36 in Preston. This startling contrast is as completely without satisfactory explanation as it was ten or fifteen years ago, when infantile diarrhœa mortality first began to attract serious attention. The Registrar-General's health bulletin for the past summer is, on the whole, satisfactory, and it is especially encouraging to find that the mean English death-rate for the first nine months of this year is slightly lower than the rate in the corresponding period of 1888, which was far below the rate recorded in any previous year of which satisfactory records exist.

THE SPREAD OF SCARLET FEVER.

A PARAGRAPH in a daily paper last week gives an account of an inquest held in Mile-end, which illustrates very forcibly the manner in which scarlet fever spreads. A child died of scarlet fever in St. Ann's-road. No medical man was called in. Another child in the same family suffered from the same disease, as well as three other children in another family resident in the same house. In the next house another child also was attacked with scarlet fever. The grandmother of the dead child made matchboxes, and the mother of the three sick children was a tailoress, and each carried on her work in the rooms where the children were. The preceding Tuesday a child in a house in Canal-road died of scarlatina, and the mother, a cigar maker, had been engaged in her occupation during the child's illness, while another child was attending the school at the time. All this is the record of one district, and if the facts were known, we do not doubt that similar illustrations might be found in other parts of the metropolis. We may hope that the new Act, which came into force on Oct. 31st, will do something towards limiting the risk of injury from such occurrences, but it is obvious that the education of the poor is an essential element in any measures that may be taken for improvement in this direction. The story told in "Alton Locke" is not exceptional at the present time.

HAIRDRESSING AND CONTAGION.

WHETHER it be founded on fact or not, an accusation brought by certain members of the medical faculty in Paris against the guild of hairdressers conveys a caution which ought not to be undervalued. The ease with which ringworm and other contagious disorders may be communicated by means of soap, razors, and other kindred appliances, is generally understood. That such contagion has not uncommonly been conveyed in this way is also indisputable. It does not follow, of course, that the operators belonging to the Parisian corporation have been special offenders in this respect, and we do not doubt that in France, as in England, the precautions observed by most respectable hairdressers are sufficient for the protection of the public. Still, the fact that there exists a form of disease truly described as regards its mode of transference by the name of "barber's itch" proves that due care and cleanliness are sometimes wanting. Yet the accidents occasioned by such neglect are easily preventable. An excellent rule with some barbers is to attend any contagious cases at their own homes, a distinct set of instruments being used for these visits. This implies of necessity some acquaintance with the characters of parasitic disease. The substitution for soap of saponaceous cream, a separate portion of which can be applied in different cases, affords another safeguard. After all, however, it must be remembered, even in the cheap shop with overflowing custom, that the fundamental guarantee of safety consists in cleansing each instrument used after each time of use. Whatever the verdict of public opinion on the practice of the coiffeurs in Paris, there cannot be two opinions as to the essential value of the precautions indicated by our professional brethren in that city.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

WE are informed that the subjoined resolutions will be proposed on behalf of the Association at the meeting of Fellows and Members on Nov. 7th, 1889:—1. That this meeting of Fellows and Members of the Royal College of Surgeons of England having considered the report of the Council, dated Oct. 17th, 1889, is of opinion that immediate steps should be taken to forward the introduction early in the next Parliamentary session of a Bill to amend the constitution of the College, so as to secure to the Members a just representation in and upon the governing body of the College; and that a committee be hereby appointed to co-operate with the central committee of the Members' Association in taking the necessary steps to give effect to this resolution. 2. That the following gentlemen [to be named] be appointed members of the committee, with power to add to their number.

REGINA v. MOON.

AT the Central Criminal Court on the 30th ult., after three days' trial, Dr. Moon, a medical practitioner of Greenwich, who was indicted for having caused the death of a woman named Tebbutt by procuring abortion, was acquitted by the jury of all the charges preferred against him. Mr. Justice Fitzjames Stephen, who tried the case, concurred in the verdict. Counsel for the defence did not call any witnesses, Mr. Lockwood, Q.C., stating that he was quite satisfied to accept the medical evidence supplied by the prosecution. The learned judge, in his summing up, endorsed this step, and said the medical witnesses for the prosecution had given their evidence with great fairness. We shall discuss the case at length in our next issue.

EXPERIMENTAL ARTICULAR TUBERCULOSIS.

DR. PAVLOVSKI, in a paper recently published in the *Vrach*, gives an account of some researches he had made in Professor Pasteur's laboratory on the development and spread of articular tuberculosis, his special object being to find out whether the tubercle bacilli develop in the white corpuscles or in the connective tissue or in both. In order to carry out his research he prepared cultures of tubercle bacilli in peptone glycerine and injected the virus into the knee-joints of guinea-pigs, these joints being examined after the lapse of from half a day to eight weeks. After twelve hours the bacilli could be detected both in the connective-tissue corpuscles and in the white blood corpuscles. It was found that the white corpuscles play an important *rôle* in the production of tubercle, undergoing a series of progressive changes until they assume an epithelioidal character, experi-

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mental tubercle consisting of epithelioidal cells due both to white blood corpuscles and to connective-tissue corpuscles. Dr. Pavlovski was also able to demonstrate the propagation of the bacilli along the course of the lymphatics, the nearer glands becoming first infected and subsequently those at a greater distance.

ANOTHER BOGUS DIPLOMA MILL IN THE UNITED STATES.

THE *Chicago Times* reports that a great sensation has been produced in Portsmouth, New Hampshire, by the discovery of another actively maintained bogus College of Medicine, similar in management to and larger in extent than the one fully exposed a few years ago. It is stated that any person having the necessary money could have a diploma in medicine and surgery from various institutions named which exist only on paper. The discovery of the fraud has been made by Dr. D. S. Adams, Chairman of the State Board of Censors. The whole subject is now under investigation by the authorities of the State. It is of great moment for the United States that all such cases should be thoroughly exposed, and that Congress itself should take some steps to maintain the standard of medical education and to punish fraudulent dealers in degrees and diplomas. We shall be glad to ascertain the result of the investigation.

PYOSALPINX AND LAPAROTOMY.

IN some clinical remarks recently published by Dr. Richelot in *La Semaine Médicale* (and commented on by M. Verchère in *La France Médicale*, No. 124), the indications and contraindications for laparotomy in pyosalpingitis are pointed out. These, he says, largely depend on the duration of the disease. A simple acute or subacute salpingitis may get well spontaneously or by simple means; whilst it is as much an abuse to remove an ovary simply because it is inflamed as it would be to castrate for orchitis. In his cases an interval of two years from the onset of symptoms is, *cetœris paribus*, allowed to elapse before removing organs which by that time would have become useless. Severity and constancy of pain, especially in labouring women, would perhaps justify interference. Of course, wherever the presence of pus can be found, surgical interference is called for, to obviate pelvic peritonitis and worse evils. The advice of some surgeons to wait for the spontaneous opening of the abscess is deprecated, and so is the proposition (in imitation of the usual course followed by nature in spontaneous cures) to operate through the vagina rather than directly through the peritoneum.

TRISMUS FOLLOWING VACCINATION.

IT is reported that at Bromley recently an infant who had been vaccinated in September, at the same time and with the same lymph as six other children, had died of trismus, which had supervened upon inflammation of the arm. With the scanty details at present forthcoming it is impossible to pronounce upon the case as to the possible connexion between the vaccination and the trismus, an association which has, we believe, never been hitherto recorded. In such a case the need of a post-mortem examination is obvious, in order to exclude meningitis, which might have produced the symptoms in question.

THE MUZZLING ORDER.

AT the usual weekly meeting of the London County Council on Tuesday last, the Parks and Open Spaces Committee reported that they had received a letter calling attention to the number of unmuzzled dogs which were at large on Hampstead Heath and Parliament Hill, and suggesting that the keepers in the service of the Council should be instructed to enforce the muzzling order with respect to dogs in those two places. A recommendation of the Committee was adopted that the writer of the letter be informed that it was the duty of the Metropolitan Police to see that no unmuzzled dogs were at large on Hampstead Heath, that being a "public place" under the Act of 1871; whilst as regarded Parliament Hill, the Council had not yet obtained possession of the land.

THE CHAIR OF ANATOMY AT ABERDEEN.

THE Queen has been pleased, on the recommendation of the Secretary for Scotland, to appoint Mr. Robert W. Reid, M.D., C.M., F.R.C.S., to be Professor of Anatomy in the University of Aberdeen, in the room of Professor Struthers, resigned.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—The charge of the physical department of the Physiological Institute, of which Professor du Bois Reymond is director, has been entrusted to Professor Arthur König.

Caen.—Dr. Barette has been appointed to the chair of Clinical Surgery.

Copenhagen.—The number of students commencing their studies is forty-four.

Grenoble.—Dr. Gallois has been appointed to the chair of Midwifery and Gynæcology.

Warsaw.—Dr. Laptschinski has been promoted to be ordinary Professor of Pathology and Therapeutics.

DEATHS OF FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. Georg Hofmann von Wellenhof, assistant to the professor of hygiene in Vienna, from glanders. Dr. Lafitte, formerly physician in the French lunatic asylum service.

DR. W. S. CHURCH, Christ Church, has been appointed to represent the University of Oxford on the General Medical Council, in the room of Dr. King Chambers, deceased.

THE Harveian Lectures, on the "Surgery of the Kidney," will be delivered by Mr. Knowsley Thornton, F.R.C.S.Eng., on Nov. 21st and 28th and Dec. 5th.

AT the next meeting of the Medical Society, on Nov. 4th, Sir Joseph Lister will give an address on a New Antiseptic Dressing.

Pharmacology and Therapeutics.

CODEIA IN GYNÆCOLOGICAL PRACTICE.

DR. FREUND of Strasburg, who was induced by the favourable opinion of Professor Schröder on the suitability of codeia for the treatment of pain in diseases of the female genital organs to give it a trial, has published the results of his experience in the *Therapeutische Monatsheft*. He remarks that Dr. Lauder Brunton's testimony to the value of codeia in pain affecting the lower portion of the abdomen must be accepted in gynæcological practice with considerable limitations. He found that pain originating in the uterus, and depending upon either acute or chronic affections of that organ or upon dysmenorrhœa, was only affected in a very transitory way by codeia, and never to nearly the same extent as by opium or morphia. Extensive effusions, too, into the pelvic peritoneum or into the cellular

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tissue were but little improved by codeia, and the same might be said of diseases of the tubes. On the other hand, however, he found that it exerted a true, unmistakable and immediate effect upon pains of all sorts having their origin in the ovaries, whether there was displacement, prolapse, ovaritis, peri-ovaritis, or the so-called "ovarian neuralgia." In all these cases codeia, even in small doses, appeared capable of exercising a marked control over the pain, and in many cases of arresting it altogether. Of course suitable local and dietetic treatment was applied simultaneously. As to the doses given, the usual plan was to order a pill containing half a grain of codeia made up with gentian and liquorice, to be taken three times a day. Occasionally larger doses had to be given. In no case, however, was any unpleasant effect observed, and there were no signs of any cumulative action, some of the patients taking these pills for a month.

RESORCIN IN WHOOPING-COUGH.

Dr. Justus Andeer, who had previously written in recommendation of the employment of resorcin in whooping-cough, has recently published some fresh cases illustrating, as he believes, the advantages of this method of treatment. One of the patients was his own child, a little girl of seven years of age, who during an epidemic of measles and whooping-cough was attacked by the catarrhal form of the latter affection and suffered severely for a week, notwithstanding a change of climate. He then prescribed an ounce of a 2 per cent. solution of resorcin four times a day, part of which solution the child was to gargle, and part of which she was to take. This very soon began to show signs of affecting the course of the disease, for on the second day the fits of coughing very perceptibly diminished, and in eight or ten days the child was quite free from cough. Five other children, who had been unsuccessfully treated for some time, immediately began to improve under the resorcin treatment. In the case of a baby of six months old a sweetened solution of the strength of ½ per cent. was given by means of a feeding-bottle and answered admirably.

PEREIRIN AND QUININE IN MALARIAL FEVER.

Dr. Tibiriçá, physician to the Hospital Santa Veridiana in S. Paulo, Brazil, publishes in the *Revista Medica de S. Paulo* a paper on the "Advantages of employing Pereirin as an Adjuvant and as a partial Substitute for Quinine in Malarial Fevers." In cases where the heart is affected large doses of quinine are dangerous, and the combination of digitalis with quinine has, in Dr. Tibiriçá's hands, proved very unsatisfactory. Pereirin, however, according to his experience, appears to augment the proper action of quinine without exerting any serious depressing effect on the heart. Instead, therefore, of prescribing quinine alone in 15 gr. doses, he orders 7½ gr. of quinine combined with an equal quantity of pereirin, a combination which appears to exert the same effect over the malarial fever as 15 gr. of quinine, but to be much less depressing to the heart.

OXIDE OF ZINC IN THE SUMMER DIARRHŒA OF CHILDREN.

Dr. Koblasenko, writing in a Russian medical journal, states that he has found great advantage from the use of zinc oxide in the summer diarrhœa of children. In the locality where he is in practice there was recently a very virulent epidemic. The mortality amongst young childreu treated by ordinary methods was as high as 50 per cent., whilst that amongst those treated by means of zinc oxide was only 8 per cent. He gave the zinc in a mixture with ether and tincture of rhatany.

IRISH FISHERIES NEGLECTED.

BY J. LAWRENCE-HAMILTON, M.R.C.S.

No. VI.

THE neglect of Parliament to cultivate and develop the great natural fishing resources of Ireland is not only an unjustifiable, ignorant, wealth-wasting blunder, but is also a financial and political error demanding practical legislative interference. The United States Government devotes upwards of £70,000 a year to the improvement and increase of the fishing industries of America. The apathy and indifference of Parliament in matters concerning a healthy, abundant, cheap fish supply, and the interests of the fishermen of the United Kingdom, tend to make fish bad and extravagantly dear. It omits to have ready in case of foreign war and invasion the services of fishermen as a trained, disciplined reserve to our navy. The French still continue bounties to their fishermen to keep up the supply of seamen for the French navy.

Ireland has a sea-coast of 2337 miles, and inland waters covering 574,887 acres, which supply chiefly a few salmon and eels. Nevertheless Ireland, for home consumption, actually largely *imports cured* fish. Where Irish railways exist, their stations are generally distant from the harbours; the result is, much fish is spoiled, and the cost of distribution of that which is saved is much enhanced. Besides refrigerator stores on shore, Ireland requires dry-air refrigerator steamers for its export fish trade, and refrigerator barges and insulated covered barges for its inland navigable waters.

Sole-breeding in Irish inland waters.—The inland fisheries of Ireland, at a trifling primary outlay, should be made sources of national wealth and industry. Many of the Irish inland waters would answer admirably for breeding the sole, the female fish often supplying from 100,000 to 200,000 eggs at a time. The sole is justly considered the most digestible and palatable fish, and its flavour seems always acceptable. Unlike salmon, mackerel, whiting, eel, trout, cod, and other fish, including the herring, the palate even of the fastidious invalid does not get tired of the sole, which has also the merit of being cooked quickly and easily. I believe that, unless the sole is extensively artificially cultivated, within a comparatively short period it will become, as a food fish, extinct. For reasons hitherto undiscovered, its already limited geographical area of natural production is gradually decreasing. In the battle of life and struggle for existence the sole will slowly but surely die out unless largely reared and farmed by man. Sea-fish can thrive and breed in fresh water by gradual acclimatisation, if by degrees the proportions of saline matter be reduced to those of fresh water. Artificially cultivated in Irish inland fresh waters, soles, bled prior to the clotting of their blood, gutted, well washed in fresh flowing water, and then immediately hard frozen in dry cold air, could be profitably exported in colossal quantities to England, Europe, America, and elsewhere. The fashion of selecting the extra high-priced small or "club" sole, because just sufficient for one person's meal, is a mistake. Such small soles are not so palatable as larger, thicker, heavier, cheaper soles. The number of eggs derivable from a one-pound sole is much more than double that to be obtained from a half-pound sole. Probably the sturgeon would thrive in inland Irish waters. The American shad and alewife, both large herrings, which leave the sea to spawn in fresh water, should be experimentally introduced into Ireland.

Fish farming in Irish peat waters. — The pike, perch, bleak, tench, and bastard carp thrive marvellously well in number and size in peat waters. This is a further source of wealth, industry, and food for Ireland, whose almost universal peat moss litter makes an excellent packing material for dry-air frozen fish. In the agricultural model peat farms of Northern Germany, instead of straw, peat moss litter is used with financial advantage, profit, and economy. Experience shows that it agrees better than straw with horses and cattle, whose manure it absorbs without giving off any unpleasant smell of the stable.

Historical injustice to the Irish fisheries.—To prevent the Irish competing injuriously with the English fisheries, Parliament under Cromwell sent many Irish fishermen to Connaught, on the west coast of Ireland, or the coast farthest from England, and even expatriated other Irish fishermen to the West Indian Islands. No Irish were then allowed to leave their own harbours to fish, whilst the English were engaged fishing in Irish seas and waters.

Conclusion.—The development of the coast and inland fisheries of Ireland should be considered by Parliament as a national, economic, and industrial question outside the range and scope of all party feeling and sentiment.

RABIES.—The number of dogs in England officially reported during the week ending Oct. 19th as affected with rabies was five, against eight in the previous week. Of these four were killed, and one died. The distribution was as follows: London, two; Middlesex, two; and York (West Riding), one.

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THE PARIS UNIVERSAL EXHIBITION OF 1889.

WE are now about to conclude the campaign we have undertaken in favour of the Paris Universal Exhibition. From the very first we felt that, in spite of the unfavourable view taken in some quarters, this exhibition would be one of the grandest manifestations in favour of peace and progress the world has ever seen.

Unfortunately, or perhaps we should say fortunately, the task was of so gigantic a nature that it could only in part be accomplished. We feel keenly that there have been many omissions, yet, considering the limits of time and space, it was scarcely practical to do more. Altogether we have published nearly a hundred columns sent by our special correspondent at the Paris Exhibition. Much as this may seem, it is but little when compared with the immensity of the Exhibition, and the variety and importance of the interests there represented. But when to the Exhibition we add the sixty-nine official international congresses, of which twenty-seven were of direct interest to the medical profession or the sanitary reformer, and the number of other congresses, which were often equally interesting though not officially patronised, it will be seen that the task of giving some account of the centennial celebrations assumed gigantic proportions. Early in April, more than a month before the Exhibition was open, our commissioner was on the spot, examining the works, and obtaining from the administration and the leading exhibitors some account of what was to be presented. Thus we were able to publish descriptions of some of the more important features of the Exhibition before its doors were opened to the public. This we did with all the more pleasure as it is always in the earlier efforts that assistance is most useful. The Exhibition, it was at once evident, would show what immense progress had been accomplished in France with respect to the practical question of domestic drainage. The exhibits of the town of Paris render these results manifest, and we gave at length, accompanied by illustrations, an account of the new police regulations, by which houses in Paris can now be drained according to the most recent and approved sanitary methods. Though these new laws have as yet only been applied in a very small number of houses, our correspondent was able in a most effective manner to refute the sinister rumours set afloat as to the unhealthy condition of Paris. To assertions made under the impulse of personal vexation he opposed the official statistics so carefully and scientifically collected by Dr. Bertillon, and demonstrated that not only was Paris free from a scarlet fever epidemic, but that the great capital enjoyed during the Exhibition better health than it had done previously.

Concerning the Exhibition itself, we pointed out what sanitary difficulties had to be overcome; that the accommodation would have been ample but for the fact that no one could possibly have foreseen the immense success likely to ensue. Thus it happened that at times the crowds altogether exceeded in number whatever provision had or could have been made for them. Nevertheless, the English drainage applied at the Exhibition has withstood this great strain with wonderful efficiency, and no serious nuisance has arisen. With regard to the building itself, taken in conjunction with the most attractive of features, the Eiffel Tower, we naturally pointed out the bearing on public health that this revolution in building represented. As iron and porcelain take the place of stone and wood, new sanitary problems arise. Iron and enamelled hardware are not absorbent, as wood, brick, and stone; but iron more readily conducts heat and cold, glazed porcelain is less porous, and new difficulties in the matter of warming and ventilating arise. The vexed problem relating to the porosity of walls calls, therefore, more urgently than ever for a satisfactory solution.

Apart from these general questions, the individual exhibits, especially those of the English section, received some notice at our hands, and we also sought to mention French and foreign objects that might interest the profession. If these criticisms were not more lengthy and exhaustive, this is due to the fact that our representative's attention was diverted by the numerous congresses to which we have already alluded. These great gatherings, where sometimes upwards of seven hundred delegates, representing more than thirty nationalities, met together and discussed for a full week the gravest problems of the day, gave promise of so much good work that we were anxious to lend them the fullest support and to be adequately represented. In this, we are assured, we have been eminently successful. Our representative attended nine international congresses, and his very lengthy descriptions of the more important among these have brought us many cordial acknowledgments from the organisers of the congresses. More than this, Mr. Adolphe Smith, who, as an orator, speaks equally well in French as in English, was on many occasions selected, not merely as the spokesman of the English delegates, but of a great number of other nationalities; and in their name as in our name was able to proclaim, in eloquent terms, that the researches of science tended to unite the peoples of the world. He urged many practical suggestions relating to public health, and proposed and carried important resolutions. But throughout he strove to show that in England there were ardent sympathisers with the humanitarian and civilising work which has been done at these congresses and at this great Exhibition. If, by the speeches of our representative, if, by the publicity given to the proceedings in THE LANCET, we have helped to cement the bonds of international friendship, to dissipate national prejudices, and to shed the light of science still farther and farther into the darkness of ignorance, it will not be in vain that we shall have participated in the Universal Exhibition of 1889.

In view of the large number of visitors of different nationalities who attended the Exhibition and the various congresses in connexion with it, we append a translation in French of the above article.

L'EXPOSITION UNIVERSELLE DE PARIS DE 1889.

NOUS devons conclure la campagne que nous avons entreprise en faveur de l'Exposition Universelle de Paris. Du premier abord, nous avions senti, malgré l'opinion défavorable qui prévalait dans certains cercles, que cette Exposition serait une des plus grandes manifestations que le monde ait jamais vues, en faveur de la paix et du progrès.

Malheureusement, ou peut-être devons-nous le dire fort heureusement, la tâche était si grande qu'une partie seulement de la besogne pouvait être accomplie. Nous sentons vivement qu'il y a eu de notre part plusieurs et de graves omissions; mais si l'on considère les limites du temps et de l'espace à notre disposition ce n'était guère pratique de chercher à faire plus. Nous avons publié presque cent colonnes de correspondance qui nous ont été adressées par le correspondant spécial que nous avons envoyé à l'Exposition de Paris. Cela paraît assez con-

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sidérable, mais c'est très peu en comparaison de l'importance des intérêts représentés. En outre, si à l'Exposition nous ajoutons les soixante-neuf congrès internationaux officiels, dont vingt-sept intéressent soit la profession médicale ou les hygiénistes, et un nombre d'autres congrès qui souvent étaient également intéressants quoiqu'ils ne fussent pas officiellement honorés par le gouvernement, on verra que la tâche imposée, celle de donner une description des célébrations centenaires, a pris des proportions gigantesques.

De bonne heure, en avril et plus d'un mois avant l'ouverture de l'Exposition, notre correspondant et rédacteur spécial était sur le chantier, examinant les travaux et obtenant de l'administration et de quelques-uns des principaux exposants des renseignements sur ce que l'on allait faire. Ainsi nous avons réussi à publier des descriptions des objets et des choses caractéristiques et importantes de l'Exposition, avant que les portes ne fussent ouvertes au public. Nous avons fait cela avec d'autant plus de plaisir que c'est toujours le premier pas qui coûte et que le concours donné dans les débuts est le plus utile. L'Exposition, on pouvait le constater dès le premier jour, devait démontrer l'immense progrès accompli en France à propos de la question toute pratique du drainage domestique. Les objets exposés par la ville de Paris rendaient ces résultats manifestes, et nous avons donné avec des détails et des gravures à l'appui, une description des nouveaux procédés adoptés par la Préfecture de Police, d'après lesquels il est maintenant possible de drainer les maisons de Paris selon les méthodes les plus modernes et les plus approuvées de l'hygiène. Quoique ces nouveaux arrêtés n'aient été, jusqu'à ce jour, appliqués qu'à un très petit nombre de maisons, notre correspondant a pu néanmoins, et cela d'une manière très effective, refuter les rumeurs sinistres que l'on avait propagées au sujet de la condition insalubre de Paris. Aux assertions irréfléchies faites sous l'impulsion d'une vexation, il opposa les statistiques officielles groupées avec tant de soins et de science par M. le Dr. Bertillon et il démontra que non-seulement il n'y avait pas d'epidémie de scarlatine à Paris, mais que la grande ville jouissait pendant l'Exposition d'un état de santé meilleur que durant les mois correspondants des années précédentes.

Quant à l'Exposition elle-même, nous avons décrit les difficultés sanitaires qu'il fallait surmonter; et avons dit que les services sanitaires (cabinets, &c.) auraient suffi, si l'immensité du succès n'avait pas dépassé tout ce que l'on pouvait prévoir. Ainsi il s'est trouvé parfois que la foule a atteint des proportions comme nombre bien au-delà de ce que l'on pouvait imaginer et pour lequel il est possible de fournir les services nécessaires. Néanmoins, le *drainage* anglais appliqué à l'Exposition a résisté à cette épouvantable épreuve avec une facilité réellement surprenante et aucun désagrément sérieux ne s'est produit. Pour ce qui concerne la construction elle-même, y compris son monument le plus remarquable, la tour Eiffel, nous avons tout naturellement démontré l'influence sur la santé publique que cette révolution dans l'art de la construction doit produire. Puisque la porcelaine et le fer prennent la place de la pierre et du bois, de nouveaux problèmes d'hygiène se présentent. Le fer et les poteries émaillés ne sont pas aussi absorbants que le bois, la brique et la pierre. Mais le fer conduit plus rapidement la chaleur et le froid. La porcelaine émaillée est moins poreuse; ceci suscite de nouvelles difficultés à propos du chauffage et de la ventilation. Il est donc encore plus urgent que jamais de trouver une solution satisfaisante du problème de la porosité des murs.

Ces questions générales à part les expositions individuelles, spécialement celle de la section anglaise ont reçu quelques notices dans nos colonnes et nous avons aussi cherché à signaler les objets français et étrangers qui pouvaient intéresser notre profession. Si ces critiques ne furent pas plus longues et plus approfondies, cela provient du fait que les nombreux congrès dont nous venons de parler ont absorbé une grande partie du temps de notre correspondant.

Ces grandes conférences où, quelques fois, il y avait plus de sept cents délégués représentant environ trente nationalités, se réunissaient pour toute une semaine et l'on y discutait les plus graves problèmes du jour. Cela promettait de si bons résultats que nous fûmes désireux de concourir à l'œuvre et d'y être bien représentés. En ceci, on nous l'assure, nous avons amplement réussi. Notre correspondant prit part à neuf de ces congrès internationaux et les longs comptes-rendus qu'il nous a envoyés nous ont valu les sincères remerciements des organisateurs de ces congrès. Mieux que cela, M. Adolphe Smith, qui comme orateur parle le français avec la même facilité que l'anglais, a été choisi plusieurs fois comme le porte-voix, non-seulement des délégués anglais, mais de ceux d'un grand nombre d'autres nationalités. Pour eux comme pour nous, il a proclamé en termes éloquents que les recherches de la science devaient unir les peuples. Il fit plusieurs propositions pratiques ayant rapport à la santé publique, proposa et fit adopter des vœux importants. Mais, en toutes ces circonstances, il chercha à demontrer qu'en Angleterre il existait des sympathies ardentes envers l'œuvre humanitaire et civilisatrice accomplie à ces congrès et à cette grande l'Exposition. Si, par les discours de notre représentant, si, par la publicité donnée à tous ces efforts dans THE LANCET, nous avons aidé à cimenter les liens de l'amitié internationale, à dissiper les préjugés nationaux, et à propager les lumières de la science parmi les ténèbres de l'ignorance, nous n'aurons pas participé en vain à l'Exposition Universelle de 1889.

THE BREWERS' EXHIBITION.

THERE can be little doubt of the growing value of trades-exhibitions. They not only mark the progress which has been made, but indicate also further possible improvement; and by those not familiar with the technicalities of a trade which is being exhibited useful information may generally be gained. At the Brewers' Exhibition, held at the Agricultural Hall last week, besides the usual plant, machinery, appliances, &c., incidental to the preparation of beer, wines, and spirits, much was shown illustrating the enormous advances that have been made of late years in that rapidly increasing industry—mineral water manufacture. Then there were also the hundred and one minor, accessories of both industries, such as improved corks, stoppers, bottles, syphons, barrels, beer-raising apparatus, syrups, essences, chemicals, filters, &c., as well as many articles having a more remote bearing.

One of the most important and interesting exhibits, and one we think likely to influence the future of the trade, was the patented carbonating apparatus of Messrs. Farrow and Jackson. The process must be regarded as a distinct novelty, inasmuch as the inventors use natural carbonic acid gas, which is obtained from the mineral springs near the extinct Eifel volcano, close by the Rhine. The apparatus was noticed in our last issue, but a few additional remarks by way of description may not be out of place. The gas is pumped into wrought iron "tubes," about four feet high and six inches in diameter, at a pressure which does not exceed 1170lb. to the square inch, and at a temperature of 86° F., which allows a wide margin for climatic changes. The "tubes" are first officially tested to 3750lb., and of course the gas contained in them is in the liquid state. This gas may be delivered into a convenient reservoir at any reduced pressure by means of regulating valves. For ordinary aerated water making it is only necessary to connect the "tube" with a copper cylinder, lined inside with block tin, and about three-quarters part full of water. The cylinder placed on a rocking stand is rocked backwards and forwards for a minute or so, the water thus becoming thoroughly impregnated with the gas. The cylinder is then connected with a "counter-fountain," and the contents can be drawn off as desired, any flavouring essence or syrup that may be required being put into the glass or bottle. The whole apparatus will easily go under an ordinary counter. There was also shown a smaller apparatus, by which the ordinary "gasogene" may be charged in the same way. The inventors have also applied this method to the raising of beer. Thus, by allowing the pressure of gas to be exerted upon beer in a cask, the liquor is readily forced up to a tap on the counter. In this manner, not only are the inconveniences attending the beer-engine done away with, but the beer cannot become stale and flat. Objection, however, may be raised by some to the possible opposite extreme—excess of gas. Amongst other novel exhibits may be mentioned a new vent-peg by Kiln. The peg is hollow, and a stout rubber tube connects it with the tap. If there is sufficient pressure in the barrel of course the beer easily flows and the tap need only be turned a quarter

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round. But when vent is required the tap is turned half way, which, by an ingenious contrivance, admits as much air as is just necessary to allow the liquor to run out, and by turning off the tap the vent is effectually shut off again. This ensures beer in good condition, even, it is stated, when the barrel is nearly empty.

Messrs. J. Lumley and Co. exhibit some very fine quality corks as well as syphons for aerated water, the fittings of which are made of pure tin, an important point because of the well-known action of carbonic acid upon many common and injurious metals. Many improvements in screw stoppers are also shown. Whittingham and Ramsey exhibit a stopper, having a lock stud made of pure lignum vitæ, which, when placed beneath the flange in the bottle neck, by a half turn makes the bottle air-tight. Then there is Shepherd's patent screw valve. The thread is on the outside of the bottle, so that the rubber presses against the top of the bottle, diminishing the possibility of exposure of the liquid to any substance but glass. The Telescope Tap Company exhibit their ingenious barrel tap. Crawford and Co. show a carbon enamel as an effectual means for cleansing musty casks, &c. A very neat and simple bottle wrapper is shown by J. Deaton, quick packing and non-liability of the contents to fracture are claimed for it. The well-known firm of Stevenson and Howell exhibit their soluble essences of ginger, lemon, &c., as do also Duckworth and Co., manufacturing chemists, of Manchester. Amongst the filters exhibited for which special claims are made may be mentioned Maignen's Filtre Rapide and the Hamburg Rapid Filter of Jensen and Co., Hamburg. Metallic capsules, manufactured by the London Metallic Capsule Company, form quite a pretty exhibit. Non-intoxicant ales, chief of which is one called "Anti-Burton," a fermented drink containing less than ½ per cent. proof spirit, are exhibited by Cox and Co. And, lastly, there are the drinks, neither of which is the result of brewing or artificial aeration—viz., "Distil Coffee Extract," prepared by Beare, Gosnall, and Fry, Bouillon Fleet, Bovril, and the Beef Bouillon of Brand of Mayfair.

CALENDAR OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

FROM the Calendar of this institution, which has just been published by the Council, it appears there are 1138 Fellows of the College (of whom 737 obtained the Fellowship by examination, 11 were elected as Members of twenty years' standing, and 2 are *ad eundem* Fellows), 17,170 Members, 866 Licentiates in Midwifery, and 676 Licentiates in Dental Surgery. The holders of the Diploma in Public Health (granted in conjunction with the Royal College of Physicians) number 29. During the past collegiate year 679 candidates presented themselves in Elementary Anatomy and Physiology, 478 of whom passed in both subjects, 79 in Elementary Anatomy, and 56 in Elementary Physiology, 66 candidates were referred in both subjects; 56 candidates presented themselves in Elementary Anatomy, 43 of whom passed; 98 candidates presented themselves in Elementary Physiology, of whom 73 passed. The examiners are appointed in conjunction with the Royal College of Physicians. The fees received from candidates for this examination amounted to £3937 10*s*, the examiners receiving in fees £559 5*s*. Of 879 candidates who presented themselves in Chemistry, 552 passed and 327 were referred. Of 804 candidates who presented themselves in Materia Medica, 493 passed and 301 failed. The examiners in Chemistry and Materia Medica are elected by the Royal College of Physicians.

The examiners in Anatomy and Physiology for the Second Examination are appointed in conjunction with the Royal College of Physicians; they have conducted the Primary Examination under the Old Regulations, as well as the Second Examination of the Examining Board. Nine hundred and seventy-three candidates presented themselves for examination in Anatomy; 582 passed and 391 were referred; and 1069 candidates presented themselves in Physiology, of whom 579 passed and 490 were referred. The fees received for these examinations from candidates amounted to £5014 16*s*., the examiners receiving in fees £1972 5*s*.

The Board of Examiners in Anatomy and Physiology for the diploma of Fellow, elected by the Council from the Fellows of the College, held during the past year two examinations, and 179 candidates presented themselves, of whom 73 passed and 106 were rejected. The fees received amounted to £1176, and the fees to the Board to £805 10*s*.

The Court of Examiners, elected by the Council from the Fellows of the College, conduct the Third or Final Examination in "Surgery" of the Examining Board, as well as the Pass or Final Examination under the Old Regulations and the Pass or Final Examination for the Fellowship. During the year the Court has held two examinations for the Fellowship, and four for the Membership; at the former there were 83 candidates, 48 of whom passed and 35 were referred. For the Membership 864 presented themselves, of whom 476 passed and 388 were referred. The fees paid by candidates amounted to £10,133 18*s*., and the fees paid to the Court of Examiners and the Examiners in Midwifery amounted to £5513 17*s*. The Examiners in Medicine under the Scheme for an Examining Board in England are elected by the Royal College of Physicians; of 466 candidates who presented themselves for this examination during the year, 334 passed and 132 were referred. The Examiners in Midwifery under the Scheme are elected in conjunction with the Royal College of Physicians, and have examined 541 candidates, of whom 365 passed and 176 were referred.

The Board of Examiners in Dental Surgery has held two meetings for the examination of 48 candidates, 31 of whom received the diploma. The fees paid by them amounted to £325 10*s*., the Board receiving £151 4*s*.

With regard to the finances of the College, it appears that the income from all sources amounted to £121,337 14*s*. 5*d*., derived principally from sale of stock—viz., £87,462 1*s*. 3*d*.—the next largest receipt being, as already shown, from fees paid by candidates for the diplomas of the College—viz., £20,587 14*s*.; rents from chambers adjoining the College, £1360 15*s*.; investments, £5696 13*s*. 9*d*.; trust funds, £273 7*s*. 7*d*.; incidental receipts, public health examination, hire of rooms, fees from Council, &c., £558 6*s*. 11*d*.; fees retained for candidates, £933 5*s*.

The expenditure for the year amounted to £121,166 13*s*. 6*d*., leaving a balance at the bankers' of £171 0*s*. 11*d*., the largest item being £83,892 1*s*. 6*d*., for purchase of stock, the next largest amount being for fees paid to examiners—viz., £8902 1*s*.; extension of College premises, £6861 15*s*. 4*d*.; Savoy estate (half outlay), extension of Examination Hall, £4200; salaries, wages, and pensions for officers and servants in the three departments, museum, library, and office, amount to £5219 3*s*. 6*d*.; fees to Council, £302 8*s*.; rates, taxes, and insurance absorb the sum of £1126 10*s*. 6*d*.; extraordinary expenditure—i.e., Hunterian Festival, conversazione, furniture, &c.—£1326 0*s*. 8*d*.; fees returned to candidates, £1051 5*s*.; half general working expenses of Examination Hall, £4260 11*s*. 7*d*. Under miscellaneous items, alterations and repairs, fuel, light, trust funds, lectures, &c., about £4000 appears to have been expended.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5801 births and 3204 deaths were registered during the week ending Oct. 26th. The annual rate of mortality in these towns, which had been 17·5 and 18·7 per 1000 in the preceding two weeks, declined again last week to 17·5. During the first four weeks of the current quarter the death-rate in these towns averaged 17·3 per 1000, and was 2·3 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 9·7 in Birkenhead, 10·5 in Norwich, 11·7 in Derby, and 11·8 in Portsmouth. The rates in the other towns ranged upwards to 24·0 in Manchester, 27·6 in Newcastle-upon-Tyne, 28·0 in Plymouth, and 29·0 in Preston. The deaths referred to the principal zymotic diseases, which had been 352 and 414 in the preceding two weeks, declined again last week to 356; they included 83 from scarlet fever, 60 from diarrhœa, 58 from "fever" (principally enteric), 54 from whooping-cough, 53 from diphtheria, 48 from measles, and not one from small-pox. These zymotic diseases caused the lowest death-rates in Leicester and Wolverhampton, and the highest rates in Sunderland, Preston, and

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Plymouth. The greatest mortality from scarlet fever occurred in Liverpool and Plymouth; from diarrhœa in Norwich and Preston; from whooping-cough in Preston; from measles in Preston, Newcastle-upon-Tyne, and Sunderland; and from "fever" in Nottingham and Halifax. The deaths from diphtheria included 37 in London, 3 in Salford, and 2 in Cardiff. Small-pox caused no death in any of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and the London Fever Hospitals at the end of the week was 1450, against numbers increasing in the preceding seventeen weeks from 559 to 1394; 182 cases were admitted to these hospitals during the week, against 177 and 188 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had increased in the preceding five weeks from 142 to 300, declined again last week to 281, and were 125 below the corrected average. The causes of 75, or 2·3 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Hull, Nottingham, Portsmouth, and in four other smaller towns; the largest proportions of uncertified deaths were registered in Halifax, Leicester, Blackburn, and Bolton.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18·3 and 20·5 per 1000 in the preceding two weeks, declined again to 19·3 in the week ending Oct. 26th; this rate exceeded by 1·8 the rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 14·1 and 15·4 in Paisley and Edinburgh to 22·2 in Perth and 23·2 in Glasgow. The 494 deaths in the eight towns showed a decline of 30 from the number in the previous week, and included 13 which were referred to diphtheria, 12 to diarrhœa, 10 to whooping-cough, 9 to measles, 6 to "fever" (typhus, enteric, or ill-defined), 6 to scarlet fever, and not one to small-pox; in all, 56 deaths resulted from these principal zymotic diseases, against numbers declining in the four previous weeks from 74 to 61. These 56 deaths were equal to an annual rate of 2·2 per 1000, which exceeded by 0·3 the mean rate last week from the same diseases in the twenty-eight English towns. The deaths referred to diphtheria, which had been 13 and 6 in the previous two weeks, rose again last week to 13, of which 6 occurred in Glasgow, 3 in Edinburgh, and 2 in Leith. The 12 deaths attributed to diarrhœa showed a further decline from recent weekly numbers, and included 5 in Glasgow, 3 in Dundee, and 2 in Greenock. The 10 fatal cases of whooping-cough were also fewer than in any recent week; 5 were returned in Edinburgh and 4 in Glasgow. The deaths from measles, which had been 7 and 9 in the previous two weeks, were again 9 last week, and included 3 in Aberdeen, 3 in Leith, and 2 in Edinburgh. The 6 deaths referred to "fever," of which 4 occurred in Glasgow and 2 in Aberdeen, showed a decline of 5 from the number in the previous week. Two of the 6 deaths from scarlet fever were returned in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 87 and 118 in the preceding two weeks, further rose last week to 122, and were 1 above the number in the corresponding week of last year. The causes of 67, or nearly 14 per cent., of the deaths registered in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 23·2 and 26·5 per 1000 in the preceding two weeks, declined to 21·0 in the week ending Oct. 26th. During the first four weeks of the current quarter the death-rate in the city averaged 24·2 per 1000, the mean rate during the same period being 16·3 in London and 17·1 in Edinburgh. The 142 deaths in Dublin showed a decline of 37 from the number in the previous week; they included 9 which were referred to diarrhœa, 6 to "fever," 1 to measles, 1 to diphtheria, 1 to whooping-cough, and not one either to small-pox, or scarlet fever. Thus the deaths from these principal zymotic diseases, which had been 23 and 19 in the two previous weeks, further declined last week to 18; they were equal to an annual rate of 2·7 per 1000, the rate from the same diseases being 1·7 in London and 2·3 in Edinburgh. The 9 deaths attributed to diarrhœa exceeded the number in the previous week by 3; while the deaths referred to "fever," which had been 7 and 10 in the preceding two weeks declined again last week to 6. The deaths of infants showed an increase of 6 upon the number in the previous week, while those of elderly persons showed a decline of 17. Five inquest cases and 4 deaths from violence were registered; and 41, or considerably more than a quarter, of the deaths occurred in public institutions. The causes of 16, or more than 11 per cent., of the deaths in the city were not certified.

Correspondence.

"Audi alteram partem."

ON THE APPLICATION OF ICE TO THE CHEST IN HÆMOPTYSIS.

To the Editors of THE LANCET.

SIRS,—In the discussion which followed the reading of Sir Andrew Clark's paper on the "Hæmoptysis of Elderly Persons" before the Medical Society, Dr. Quain strongly condemned the practice of applying ice to the chest wall, saying that it did no good, but rather harm, by inducing bronchitis. This statement, coming from so high an authority, seems to me worthy of consideration. As a rule, when called to a case of blood spitting we find ice in bags or bladders lying upon the patient's chest. The practice is a routine one, and appears to commend itself to both the profession and the public. For my own part, I look with increasing distrust on the *prolonged* application of ice as a means of arresting pulmonary hæmorrhage. Many years ago I was with a gentleman who had recurring hæmoptysis very severely, and down his back was hanging a bag full of ice. After some time for observation, I remarked to his wife that I believed the ice-bag was doing no good, but possibly harm, and I removed it. After its removal we got on better, the bleeding ceased, and the man is alive and well now. It appears to me that the *sudden shock* of the ice at first contracts the vessels and may do good, but its continuous application does not maintain this contraction, but is very likely to cause congestion and bronchitis. The late Dr. Gooch, in his works on Midwifery, relates how he was called to a lady nearly dead from hæmorrhage, and whose abdomen was covered over with ice. He says: "I swept all the ice away, and from a height I poured a douche of cold water suddenly on the abdomen, with the effect of immediately arresting the bleeding." Again, as was suggested by the President of the Medical Society, if I caught his words correctly, ice over the heart may slow that organ, and so help to arrest a flow of blood. Dr. Walshe[1] says he has seen the *cautious* application of ice to the spine and over the heart repeatedly almost instantaneously arrest the flow of blood. My own practice has been to try the sudden application of ice, but, as a matter of experience, I have learned to distrust the prolonged and continuous contact of ice with the chest or back as a means of stopping a blood spitting. Dr. Lauder Brunton[2] has found that when ice is applied to the abdomen of an animal the mucous membrane of the trachea and larynx becomes in half a minute deadly pale from contraction of the vessels. Though the ice is allowed to remain on the abdomen, the tracheal mucous membrane quickly changes colour, and to the paleness succeeds, first, slight redness, then deep congestion, and in ten minutes lividity. These observations appear to me to show how prolonged application of ice may, as Dr. Quain said, prove a powerful inducer of bronchitis.

I am, Sirs, yours obediently,

JOHN C. THOROWGOOD, M.D., F.R.C.P.,
Physician to the City of London Hospital
Welbeck-street, W., Oct., 1889. for Diseases of the Chest.

To the Editors of THE LANCET.

SIRS,—I have read with much interest the able and suggestive remarks on arthritic hæmoptysis by Sir Andrew Clark, Bart., which appeared in your last number. With your permission I should like to mention a case of pul-

[1] Diseases of the Lungs, p. 408.
[2] Page 252 of his Pharmacology and Therapeutics.

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monary hæmorrhage which has come under my observation, and which seems to be confirmatory of the views put forth by this distinguished physician. Several years ago I was summoned to attend a gentleman, about eighty years old, who, after having had a sail in an open boat during an easterly wind, was suddenly seized with copious hæmoptysis, associated with bronchitic symptoms. There was no evidence of cardiac disease, of thoracic aneurysm, or of tuberculosis. As the breathing was considerably embarrassed saline aperients with diaphoretics were prescribed. At my next visit the following day I was agreeably surprised to find the hæmorrhage had entirely ceased, but that an acute attack of gout had supervened in the right foot. Under the usual alkaline treatment the podagra speedily disappeared, the recovery being complete. Does not this case supply the *experimentum crucis* necessary to establish the correctness of Sir Andrew Clark's view? Was it not clearly one of gouty hæmoptysis due to thrombosis of the terminal blood-vessels of the lung? Your insertion of these few lines will oblige your obedient servant,

Weymouth, Oct. 28th, 1889. JOHN MOORHEAD, M.D.

ST. MUNGO'S COLLEGE, GLASGOW.

To the Editors of THE LANCET.

SIRS,—Principal Blackie says that I am wrong in my facts, which I could easily have ascertained from the secretary of the College or himself, with both of whom I am well acquainted. It is not quite so easy to get at the facts as Dr. Blackie avers. In this matter he knows well enough that I would not trouble him for private information; and on applying two days ago to the secretary (with whom, by the way, I have no acquaintance at all) for information in verification of the Principal's letter, I was put off, as I fully expected, with the usual official formula about consulting the governors. Were I inclined to be critical, I might point out that Dr. Blackie's statement that the Committee reported to the governors does not traverse mine that the latter did not ratify; but I let that pass. Other questions hang round this alleged ratification. Was it legally valid? One of the governors present at the meeting informs me that, to the best of his recollection, there were only four present, including himself. This would involve legal invalidity. But, assuming that this gentleman's memory is at fault, as it probably is, and that the appointments are legally valid, what were the moral weight and significance of this ratification of the meeting of August 6th? Will the Principal inform me that the circular calling the meeting contained any intimation that the board would be asked that day to exercise the most important of its functions and elect the entire staff? That there would be a clear departure from the clause in the memorandum of association regarding the absorption of the Royal Infirmary Medical School? That new chairs unknown in that school were to be founded and filled? That the "Academic Committee" had so far departed from the usages—I might say the decencies—of reporting committees as to nominate one of their own number to fill one of the new chairs? I venture to say, Sirs, if a hint of these things had come to the ears of the governors, instead of this mere handful of members, barely, if indeed actually, forming a legal quorum, and not amounting to one-fifth of the entire body of governors, there would have been a very different meeting. There would have been a meeting whose decisions would have carried moral weight, and whose method of appointments could not have been impugned by virtually the entire voice of the medical profession of Glasgow as these have been, even by several of those gentlemen who have received them.

I am, Sirs, yours faithfully,

Glasgow, Oct. 29th, 1889. J. WALLACE ANDERSON.

THE PRACTICAL ELEMENT IN MEDICAL EDUCATION.

To the Editors of THE LANCET.

SIRS,—I did not immediately reply to Dr. Gairdner's letter in THE LANCET of Oct. 19th, as up to that time Dr. Clifford Allbutt had remained silent, and I am anxious not to waste the valuable space you so generously place at my disposal. Now that I have both letters before me, I need only ask for very few lines, and these, I feel sure, you will give me. Dr. Gairdner's answer is, as I fully expected it would be, a simple plea for thoroughness in clinical work. After careful consideration of the position he takes up, I am satisfied that he and I do not, in reality, differ in principle. He pleads for one thing, and one thing only—viz., *thoroughness* in all the work the student does. *And so do I.* But Dr. Gairdner appears to me to forget, or to ignore, the necessity for this very principle so far *as preparation for student life* is concerned. And, as Dr. Clifford Allbutt admits that he had not really read my address, and was speaking on only vague recollection of what he believed my opinions to be, I can well afford to rest content with his explanation. Of one thing I was quite certain—that he would not wilfully misrepresent me; and though I may regret that, speaking on so important an occasion as the opening of St. George's School, he should have spoken under mistaken impressions, I am quite content to accept his explanation. Our friendship is too old and too sincere to admit of any other course. At the same time, speaking, as I did in my address, not only as a member of the General Medical Council, but of its Educational Committee, he might have felt sure that I should have weighed seriously every word I wrote. He too appeals for thoroughness of work, and so does everyone else who has taken part in the discussion so far; but I maintain that I make the same appeal much more thoroughly than does either Dr. Gairdner or Dr. Clifford Allbutt, for I seek first to build upon a good foundation, well and solidly laid, and to raise upon that an enduring superstructure. To obtain this I cannot believe that it can be safe or scientific first to build your house, however substantially, and then to seek to put in your foundations afterwards. I have also carefully and thoughtfully read each of the other letters that have appeared in your columns upon the subject, and I am grateful to those who have written them. Some seem to me to hit the right nail on the head, but others are already beginning to wander from the point in question. Therefore, with a view to keep the discussion on strictly correct lines, I venture to restate the items of the programme I propound: (1) A sound preliminary education carefully and satisfactorily tested before registration; (2) a short preparatory pupilage of *one*, or, under very favourable circumstances, of even *two* years, with either a certificated practitioner or at a public institution; (3) a curriculum of four years, devoted to scientific and clinical study, to be spent at a medical school and hospital, or, when possible, at a university. I am, Sirs, yours truly,

Leeds, Oct. 28th, 1889. C. G. WHEELHOUSE.

HOSPITAL OUT-PATIENT REFORM AND A PUBLIC MEDICAL SERVICE.

To the Editors of THE LANCET.

SIRS,—Medical practitioners should feel greatly obliged to you for your practical editorial remarks in your issue of Oct. 19th. The points at issue are by no means difficult of solution. The two chief matters to note are these: First, that a genuine reform of the out-patient departments of hospitals and of dispensaries must of sheer necessity take place; and, second, that some scheme must be worked by which the wage-earning classes may be able to provide themselves with efficient medical, surgical, obstetric, and dental treatment, and medicines. We are all agreed on these two items. Next I propose that a wage-earner making up to 20*s.* a week, or a wage-earner and family making up to 25*s.*, should be eligible persons for free medical relief, and should have a right, if they so wish, to demand it, just as they have a right to plead destitution to the Poor-law, and so compel them to gain relief. I think no one can say this limit is too low. Next I propose that a Public Medical Service should be formed, and that wage-earners making up to £2 5*s.* per week should be eligible. Those making above that should be able to provide for themselves. The patients of the Public Medical Service could provide for themselves either by making small *immediate* payments, or by insuring under the provident dispensary plan. May I point out that my scheme *does* provide for the visiting of patients at their homes. As to making separate charges for medicines, I fear we must do so. There is no earthly good in our trying to ruin the chemists; we would only make them our bitterest enemies. Besides, I feel certain that the prescribing can be done as cheaply at the chemist's as by a service which will have to pay for drugs, bottles, &c., and the salary of a dispenser. However, these are matters of detail. But do not let us draw up any scheme which will make us prescribe large quantities of coloured water and

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cease from using genuine drugs. If the doctors of a Public Medical Service wish to charge one fee and then to make some arrangement with local chemists to dispense each prescription at, say, 4*d.* each, they can do so; but then the fee would require to be raised. It has been suggested to me by a chemist that he should provide the medicines at the Public Medical Service and send his assistant to dispense two hours each day, and charge a certain sum to the doctor. Such a plan would be a good one, but then it would exclude all the other neighbouring chemists.

As to your remarks about doctors holding hospital appointments, I can only say I fear they will not give much help. It has been said to me that there are not fifty medical practitioners in England whose mouths could not be closed by the mere promise of a hospital appointment. It is a money-making thing to be on a hospital staff. If only we doctors could find out that in the long run honesty is, even as a policy, the best, surely we would cease being so dishonest. I do not take the high level of preaching honesty as a virtue, but only, so low down, as a mere matter of policy. Our predecessors at the College of Physicians, London, drew up, and carried out, this bye-law: "No Fellow or Member of the College shall officiously, *or under colour of a benevolent purpose*, offer medical aid to or prescribe for any patient whom he knows to be under the care of another legally qualified practitioner." Might we not, as honest and honourable men, both in hospital practice and in private life, try to carry out this good old rule? Bickering, backbiting, and other forms of "professional meanness" would thus be reduced to a minimum. In the meantime, let us try to improve our position, and cease to train up about half of the community to depend on the charity of others.

I am, Sirs, yours faithfully,

Liverpool, Oct., 1889. ROBERT REID RENTOUL, M.D.

*** We have thought it advisable to omit a sentence or two from the above letter—an omission, however, which does not at all affect the coherency of the argument intended to be advanced.—ED. L.

THE PRESYSTOLIC MURMUR.

To the Editors of THE LANCET.

SIRS,—I have read with much interest Dr. Howship Dickinson's lecture on the "So-called Presystolic Murmur." Dr. Dickinson appeals to the rising generation to throw over the orthodox presystolic theory. He will, I venture to think, not do so in vain. I for one, a young member of the profession, have never been able, with the most careful and patient study of cases of mitral disease, to detect a presystolic murmur—i.e., a murmur distinct from, and prior in point of time to, the first cardiac sound. If the so-called presystolic murmur is an obstructive murmur, then in a case of double mitral disease one ought to hear three murmurs: (1) presystolic; (2) systolic; (3) diastolic. I have never heard more than two, systolic and diastolic. Dr. John Harley used to teach that there is no such thing as a presystolic murmur—in other words, that a presystolic is a systolic as regards time, and is regurgitant; and I have never been able to disagree with him yet. I have little doubt but that his teaching on the subject is the same to-day as a few years ago, for, to use Dr. Dickinson's words, "old views, like old tissues, get indurated."

I am, Sirs, yours faithfully,

Nottingham, Oct. 26th, 1889. A. J. HELM MONTAGUE, M.D.

HYOSCINE AS A SEDATIVE.

To the Editors of THE LANCET.

SIRS,—Believing that negative results, especially in the case of a comparatively new drug, are as worthy of publication as positive results, I venture to give my experience of hyoscine as a hypnotic and sedative, and to say at once that that experience has been entirely unfavourable. In February, 1888, having read in THE LANCET (Feb. 4th, 1888) the very favourable results obtained by Dr. Thompson, I immediately obtained some of the hydro-bromate of hyoscine from the source there mentioned, and with considerable hope made use of it. Among several other cases I remember distinctly two cases in which I gave the drug. The first was a case of melancholia in a man rather above middle age, with great restlessness and sleeplessness at night. The hyoscine had not the slightest effect in quieting this patient, but rather the reverse, as after it he expressed himself as absolutely afraid to have a second dose, lest, as he said, it should quite drive him out of his mind. The second case was one of paralysis agitans, accompanied by great sleeplessness at night. In this case, too, the hyoscine entirely failed; whereas afterwards the tincture of hyoscyamus, as recommended by Charcot, had a most marked effect in producing sleep for a time. Subsequently I used the hyoscine as a general hypnotic in the wards for some time, but found it so uncertain that although I still have a little of the drug in hand, I have never since prescribed it.

I am, Sirs, yours faithfully,

Southport Infirmary, Oct. 29th, 1889. JOHN J. WEAVER.

"MEAN DURATION OF LIFE."

To the Editors of THE LANCET.

SIRS,—In your annotation last Saturday, under the heading of "Mean Duration of Life in London," you made some remarks on my last annual report for the parish of St. George, Hanover-square, in which you say that I use the term "mean duration of life" in an incorrect sense. After some preliminary observations, the writer of the article says: "It is not difficult to guess that mean duration of life is here used to describe the mean age of the persons dying in these registration sub-districts during last year." I need only say that the *guess* is a bad one, as I meant what I said—"mean duration of life," and not "mean age at death." "Dr. Corfield's fallacy" exists only in the brain of the writer of the article.

I remain, Sirs, yours faithfully,

Savile-row, W., Oct. 29th, 1889. W. H. CORFIELD.

*** Dr. Corfield here states that the term "mean duration of life" used by him does not signify "mean age at death," and leaves it to be inferred that he used the term in its correct signification, implying that he has calculated life tables for Belgravia and Mayfair sub-districts, not only for 1888, but also for 1875, to say nothing of similar London life tables for 1878 and 1888. With regard to the results obtained by Dr. Corfield's method, whatever it may be, we would like to remind him that the "mean duration of life" shown by life tables based upon selected healthy districts, and upon upper class, clergy, and peerage experience, only ranges between forty-nine and fifty-three years. It follows, therefore, that Dr. Corfield's "mean duration" of 73·6 years for the mixed population of Mayfair is phenomenal, to say the least of it, and its excess of 11·3 years upon the "mean duration" of Belgravia is entirely incomprehensible.—ED. L.

THE "EARLY DIASTOLIC MURMUR."

To the Editors of THE LANCET.

SIRS,—May I be allowed to correct a statement made on p. 844 of THE LANCET of Oct. 26th, with reference to the interpretation which I am alleged to have given of the so-called "early diastolic murmur" of mitral stenosis? The murmur which I have interpreted as a murmur of pulmonary regurgitation—"the murmur of high pressure in the pulmonary artery"—I have been careful to distinguish from the early diastolic mitral murmur, the existence of which I fully recognise. The two murmurs may exist together in the same case, but are easily distinguished, as they differ in quality and localisation.

I am, Sirs, your obedient servant,

Manchester, Oct. 30th, 1889. GRAHAM STEELL.

THE NOTIFICATION OF INFECTIOUS DISEASES ACT.

To the Editors of THE LANCET.

SIRS,—Now that notification of infectious disease is about to become general, why should a strong effort not be made to include venereal diseases in the list? This disease, in its protean forms, claims more victims every year, and is more disastrous and far-reaching in its dire effects, than all the other notifiable diseases put together. The public would soon realise their danger, and take the necessary steps to stamp it out.—I am, Sirs, yours faithfully,

West Hartlepool, Oct. 26th, 1889. S. GOURLEY.

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MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Out-patients at the Infirmary.

IN common with other parts of the country attention has been directed here to the increase in the numbers of patients applying for medical treatment in the out-patient department of the infirmary, and a special committee was appointed to consider the whole question of administration in that department. At the monthly meeting of the board held on Monday this committee reported that the increase was by no means so large as was supposed. It had been suggested that a small charge should be made for medicines supplied, and that some restrictions should be placed upon patients coming from adjacent towns; but in the end the committee recommended that no change was at present necessary in the out-patient department beyond some increased vigilance being exercised in the quantity of medicine supplied, which appears to have been hitherto on a lavish scale.

The Infirmary and its Fever Hospital.

A fortnight ago a special meeting of the Infirmary Board was held, to consider an important question in connexion with the Fever Hospital. A communication had been received from the Salford Corporation asking if arrangements could not be made for the reception and treatment of all fever patients from Salford at the Monsall Hospital, and thus save the Salford Corporation from the necessity of building a new hospital to replace the one in Cross-lane, which is at present overcrowded, and must shortly come down to make way for railway requirements. It was pointed out that large sums of money (some £30,000 or more) had been left in trust to the infirmary for the special purposes of providing fever wards for Manchester and the district, and Salford claims to have some right to a part of this provision. The Fever Hospital Committee were divided on the question of the desirability of complying with Salford's request, and left the matter for the Board, which is the supreme governing body of the institution, to decide. After a long discussion it was resolved by seven votes to five to decline to receive the patients from Salford. Judging, however, from the tone of the discussion at the meeting, and from what is generally said upon the subject, the time is not far distant when the infirmary will take steps to relieve itself entirely of the responsibility of maintaining a large hospital for infectious disease, and hand it over to those whose duty it is to provide isolation for infectious cases and to deal with outbreaks of epidemic disease—i.e., the Health Committee of the Corporation. Looking at the question from a purely financial point of view, it is surprising that the corporation has been content to go on so long paying enormous sums of money annually, out of which the infirmary makes considerable profit. Taking the past three years only, the fever hospital accounts show an excess of income over ordinary expenditure of nearly £14,000. In the meantime Salford is at its wit's end to provide accommodation for the large number of cases of scarlet fever and diphtheria at present occurring in the borough, and has at last decided to delay no longer in taking steps to provide itself with a hospital of its own, with ample accommodation for all possible requirements, small-pox excepted, which disease is still to be treated at the Infirmary Fever Hospital.

The Southern Hospital.

At the annual meeting of this charity a record of increased work and increased expenditure was the chief feature. The maternity department has much developed during the last few years. In the twelve months covered by the report, 782 midwifery cases had been attended at the patients' own homes and 86 had been received into the wards of the hospital. The weak feature of the report was the falling off in the annual subscriptions, and, although happily during the year the institution had had a considerable increase in donations, this source of income is always fluctuating and a precarious one to depend upon for maintenance.

Owens College.

The number of entries in the medical department bids fair to maintain, if not to exceed, that of the last few years. At the time of writing 105 entries have been made, of which 75 are first year's men, and 32 are partial entries. There are also more than 50 entries in the preliminary scientific course. The Combe Lectures by Professor Sterling, of which two have at present been delivered, are being well attended; the first dealt in a general manner with all the sense organs, the second with the special sense of vision. The lectures are made attractive with a series of interesting experiments and exhibits. The annual dinner of the associates of the College takes place to-morrow week.

Sir H. Roscoe and Rabies.

One of our local members of Parliament and late professor in the college, Sir Henry Roscoe, is giving considerable satisfaction to many of his constituents by his advocacy of the Pasteurian treatment in dealing with rabies. Recently he delivered a lecture on the subject at Birmingham, and last week he was again to the fore at a meeting held in St. James's Hall, London, to promote measures for the extinction of hydrophobia in this country.

October 29th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Death of Mr. Mordey Douglas, M.R.C.S., of Sunderland.

I REGRET to notice the death in Sunderland, at the residence of Mr. Samuel Story, M.P., on Sunday last, of Mr. Mordey Douglas, a well-known practitioner of that town. Mr. Douglas had been in delicate health for several years, and for some time he was compelled by his weak chest to spend his winters in the Canary Islands, where he had established at Las Palmas an institution for invalids. As well as being an active public man, Mr. Douglas was an energetic practitioner. He was one of the originators of the Children's Hospital in Sunderland, and for some time was medical officer of health for the Port and Borough of Sunderland, taking a very prominent part, until he resigned these offices, in all matters relating to sanitation. He was a bold and good operator, and about seventeen years ago extirpated the whole tongue by the galvanic écraseur. I remember seeing the case at the Northumberland and Durham Medical Society, and it was considered by those present to be a most complete and satisfactory operation. This was at a time when operations on the tongue were not so fully undertaken as now. Mr. Douglas, who was only forty-eight years of age, has left a widow, two daughters, and a son at Las Palmas to mourn their loss. As well as being attended by his friends in Sunderland, he was also seen in his last illness by Dr. Drummond of Newcastle. It may be mentioned that Mr. Douglas was a nephew of the celebrated Dr. Mordey, J.P. and Mayor of Sunderland, whose services in connexion with the first outbreak of cholera in this country at Sunderland brought him the offer of knighthood from William IV., together with the appointment of Surgeon Extraordinary to his Majesty, both of which honours he, however, declined.

Sunderland and North Durham Eye Infirmary.

The committee in their report state that the infirmary has now been in existence for fifty-three years, and is treating 1000 new cases yearly. Its accommodation for in-door patients is, however, very limited and inadequate, and they are about to consider the building of a new wing, costing with site £5000, and appeal for help, which should be forthcoming in a large and prosperous town like Sunderland.

Ambulance Work in the North.

At a public meeting held last week in connexion with the Bedlington colliery ambulance and science classes, at which Sir Matthew White Ridley spoke and Lady Ridley presented prizes, it was mentioned that of the 1600 or 1700 men employed at this large mine, about one in every four had received ambulance instruction. As to the ladies' classes, Surgeon-Major Hutton reported: "He had seen many classes of ladies in all positions in life, and he thought few of them had been better up than the ladies' class at the Bedlington colliery."

Bradford Water-supply.

It is stated in the local papers that the Bradford Corporation have set on foot a scheme of a most elaborate character, by which it is hoped to obtain a better water-supply than at present exists. The scheme propagated by the Bradford

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Town Council, and for the carrying out of which a Bill has been framed to come before the proper authorities, proposes to replenish the reservoirs connected with the town of Bradford by the water from the Nidd above Pateley Bridge. The Knaresborough folk, who gain their water-supply from the Nidd, which flows past that town, are naturally up in arms against any such scheme as that propounded by the Bradford people, and as both York and Knaresborough have in Bradford a common foe as far as this scheme of water-supply is concerned, a conference of the two former towns has taken place, and conditions have been suggested by which a modification of the Bradford scheme may be rendered harmless to the users of the Nidd water in the lower Yorkshire towns and districts.

Newcastle-on-Tyne, Oct. 29th.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

The Royal Medical Society.

ON Friday last, Professor Sir Douglas Maclagan gave the opening address of the 153rd session of the Royal Medical Society. Dr. H. H. Littlejohn occupied the chair. The address was characteristic of the speaker. It gave evidence that his views had advanced with advancing medical science, but that he still held to what was good in the practice of his earlier years. Taking as his subject venesection, Sir Douglas maintained that the disuse of the lancet was due to the advance which had been made in medical science during recent years. There might have been some change in the type of disease, though he was scarcely prepared to state that this had been proved, but he thought that we must acknowledge some change in the type of our patients. We were all living and working at a higher pressure than formerly, and he thought that in consequence of this the manifestation of the diseases that attacked us were somewhat different from those of fifty years ago, so that the change of type was not so much in the disease as in the patient. With all this, let them remember that their forefathers had the authority of centuries to shake off, and that, though they did use the lancet rather needlessly, they should not be blamed indiscriminately. Let the practitioners of the present day recognise in all humility the advantages which they enjoyed through the progress of medical science. He summed up by stating that they had to mark: (1) the wonderful change which had taken place in therapeutics as illustrated by the disuse of blood-letting, chiefly within his own professional lifetime; (2) that they believed that, as regards this therapeutical method, they had wiser and better views than the best practitioners of the former age had; and (3) that this improvement in practice was due to the superior wisdom or skill of this age. Not the least interesting part of the address was that in which was described an interview that he and Dr. Allen Thomson had with, among others, Goethe, at Weimar, about eight months before the death of the great poet and man of science, who was at that time eighty-two years of age, but still loved to have intercourse with younger men. He took an interest in all their studies and in the reports that they brought of Scotch science and English literature, and thus left upon them an impression which could never be obliterated. They would pardon him, said Sir Douglas, for enlarging upon this because he was sure that not in Edinburgh or in all broad Scotland, probably not in Britain, were there ten men who had seen and conversed with Goethe. If the diaries which the speaker advised young men to keep are to be records of such interesting matter as that called up on Friday, it is to be hoped that all who can follow the advice will do so. The address was an enjoyable one from beginning to end, and will take high rank even amongst the inaugural addresses of the Royal Medical Society.

Edinburgh University General Council.

The statutory half-yearly meeting of the General Council of the University of Edinburgh was held on Friday last in the Examination Hall; Principal Sir William Muir was in the chair. The report of the business committee on the Universities Act was read, and in the course of observations on it Mr. Taylor Innes laid stress on the fact that extra-muralism and affiliation in connexion with the medical school would come up for the consideration of the Commission in a very serious way. It was a matter of great importance that the Edinburgh Extra-mural Medical School should bring forward its claims for regulating its position in the University in some such way as the St. Mungo's College had done in Glasgow. He thought it would be unfortunate if such new and untried proposals as were coming from that city should engross attention without at the same time full care being bestowed on the existing and successful system with which they were familiar, and which they had had so long to consider. In connexion with Dr. Hadden's motion at the last meeting, that the managers of the Edinburgh Royal Infirmary should be requested to alter their rule as to the qualifications of their physicians, so as to put the M.D. of Edinburgh University on the same footing as the Fellowship of the Royal College of Physicians, a letter dated April 29th last was read from the treasurer of the Royal Infirmary. "I submitted extract from the minutes of the General Council of the University, of date 16th inst., to the Managers of the Royal Infirmary at their meeting to-day, and was directed to inform you that the subject of the qualification of their physicians was carefully considered by them in November last, and that they now adhere to the decision then come to." This leaves the matter in *statu quo ante*, and only Fellows of the Colleges of Physicians and Surgeons of Edinburgh can hold the offices of physician and surgeon in the Royal Infirmary. Dr. Alexander James brought forward a motion, in which, he said, there was nothing new or revolutionary, though it will probably be difficult to convince those in authority on this matter. He moved, "That it be represented to the University Court that, in order to secure the advantages of publicity, any member of the general council of a Scottish university shall have the right to be present at any of the oral professional examinations in the University of Edinburgh, in the faculties in which they are held." He hoped no one would suppose that they were actuated by the idea that there was anything unsatisfactory. The contrary was the case, but statements went before the public by which they were apt to be misled, and he could conceive of no better way of enlightening the public than that which he proposed. It is not very long since Dr. James was successful in getting a similar motion approved of in connexion with the examinations in the colleges. In that instance the results have been eminently satisfactory.

The Volunteer Medical Staff Corps.

What is said to be the first of a series of lectures on subjects of interest to this corps was given in the large theatre of the Royal Infirmary on Friday afternoon. Admittance was not confined to members of the corps; all students were invited to attend, and those who accepted the invitation were rewarded with a capital lecture on "Army Surgeons in the Field," by Surgeon-Major Blair-Brown. He pointed out that in the Army Medical Service the staff was terribly small in numbers, especially now that there was an increased necessity for the medical corps in the field, on account of the difference in the nature of the wounds at the present day from those of the "round ball" and "smooth bore" days. He showed how in consequence of the closeness of the field hospital to the fighting line the medical staff had really very responsible and dangerous duties to perform, instancing their position in the centre of, and then at the corner of, the square formation, which had been adopted in some of the battles with our more uncivilised foes. They had to be prepared for all kinds of emergencies of the battle field, and an important step had been taken in training the soldiers how to stop hæmorrhage with their elastic braces. He then contrasted even our admittedly imperfect, because too scanty, medical corps of to-day with that of the Crimea, where the band was supposed to undertake the duties of the medical staff corps, and they knew as much about the matter as did the old women who sent them out. Professor Annandale, who occupied the chair, after thanking Surgeon-Major Blair-Brown, remarked he himself was an officer of the Edinburgh Medical Staff Corps, but he had not yet had sufficient courage to put on the uniform.

Edinburgh Lying-in Institution.

The work done by this institution has materially increased last year, as 165 cases have during that time been assisted. In some cases the assistance has been sorely needed. In the report issued, it is claimed that the

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doctors, nurses, and lady visitors have all done their work well and have earned the gratitude of those whom they have helped. The majority of the cases assisted were those of wives of working men out of employment, or laid aside by illness or death. This is work quite outside the ordinary Maternity Hospital work, and is thoroughly deserving of liberal support.

Edinburgh, Oct. 29th.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Royal College of Surgeons in Ireland.

AT a special meeting of the President, Vice-President, and Council, held last week, the following professors were elected:—Surgery: A. H. Corley and William Stoker, Anatomy: F. Alcock Nixon. Midwifery: Samuel Mason. Medical Jurisprudence: H. Auchinleck. Medicine: John William Moore: Chemistry: Edwin Lapper. Materia Medica: G. F. Duffey. Zoology and Botany: E. McDowel Cosgrave. Pharmacy: G. F. Duffey. Ophthalmology: Charles E. Fitzgerald. There were contests in the chairs of Midwifery and Pharmacy; the other candidates were unopposed. On Nov. 7th an election for three professors will take place, one each in Anatomy, Physiology, and Pathology. Mr. Heuston will be appointed to the first, Mr. Scott to the second, while for the Professorship of Pathology the election, it is thought, will be between Dr. McKee, curator of the Museum of the College, and Dr. Myles. Mr. Heuston has resigned his seat on the Council, and for the vacancy Messrs. A. H. Corley and J. Bellew Kelly will compete, the election taking place on Nov. 5th.

Royal University of Ireland.

The annual ceremony of conferring degrees at this University was held last Monday, at the University buildings, presided over by the Marquis of Dufferin, Chancellor. In the course of an interesting address, he stated that in 1882 the entire number of candidates who entered for examination was 1898, while last year it was 3130, showing in the short space of six years an increase of 1232, or close on 64 per cent. He pointed out that their medical degree held a specially high place; the examination was admittedly a severe one, and they felt confident that each person to whom their degree was granted might be safely entrusted with the important duties and responsibilities inherent in the profession to which he had been admitted. He was happy to think that from very early days he had been in favour of the practice of medicine being open to women; and his Indian experiences had greatly deepened the strength of his convictions. In their Eastern Empire there are millions of women, from princesses and delicate and high-born ladies in the zenana to the wives even of the lower classes, who would rather die in the midst of their agony than allow a man to see their face, or in any way to treat them; and as for centuries they had been the victims of the most indescribable ignorance and abominable practices; they could therefore understand what a scope, both for professional success and for benevolent exertion, was open to women in that part of the world. In conclusion, he desired to state that in grateful recognition of this connexion with the Royal University of Ireland, he proposed to place at the disposal of the Senate an annual prize in the shape of a gold medal, to be competed for under such conditions as the authorities of the University might determine. Of the four studentships awarded this year, of the value each of £300, one in Biological Science was awarded to Denis J. Coffey, M.B.

Health of Dublin during September Quarter.

The deaths registered during the quarter amounted to 2107, equal to 23·9 per 1000, of which 359 were due to zymotic diseases, being an increase of 157 over the number for the previous three months, but 43 under the average number for the corresponding quarter of the past ten years. More than half the total mortality from zymotic affections was due to diarrhœa and dysentery. No death from small-pox has been registered in the district since March 3rd, 1888. A case was admitted to hospital in August last, but the patient has since been discharged. This is the only small-pox case in hospital since July, 1888.

Dublin, Oct. 29th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The French Surgical Congress.

IN continuing my *précis* of the most interesting of the many papers read at this Congress, I think that some account of that read by Dr. Demosthenes of Bucharest on the Surgical Treatment of Peritonitis and the discussion to which it gave rise claim space worthily in your columns, and may be read with profit. Dr. Demosthenes confined himself more particularly to the consideration of tubercular peritonitis, and remarked that the identity, anatomically speaking, of the pulmonary and abdominal serous membranes, and the pathological analogy subsisting between pleuritis and peritonitis, pointed to a similar, essentially surgical, treatment. Surgical intervention was indicated so soon as the presence of pus was ascertained, and it behoved us not to retard this intervention until the purulent collection was apparent from external examination, but to proceed to establish its existence by exploratory punctures immediately this existence was suspected. The destruction of peritoneal adhesions by traction or otherwise was not advisable, owing to danger of intestinal rupture; but should such an accident occur during the operation, and the perforation be not easily discovered, it was better to leave it to heal spontaneously, which it would do if the accummulation or stagnation of fæcal matter were prevented by strict antiseptics.—M. Demons of Bordeaux said that before discussing the surgical treatment of peritonitis it was necessary to be agreed as to the nature and gravity of the inflammation which one had to treat; and before appreciating results to well establish the proper moment for surgical intervention. The custom was to admit cases of peritonitis to purely medical wards; but peritonitis was a surgical affection about which there hung a tradition not to transfer it to surgical hands until it had undergone a course of expectant treatment on the medical side, which was at once long and prejudicial. He, the speaker, attributed the fewness of cases of peritonitis he had to treat largely to this cause. His first case was in 1885, and was one of the purulent kind following rupture of a suppurating ovarian cyst. He performed laparotomy, removed the cyst, and washed the peritoneal cavity clear of the exudation which it contained. Recovery was rapid and perfect. Should, then, laparotomy be generally recommended in cases of purulent peritonitis? The answer to this question was one full of moment. If, on the one hand, the operation was, as some advised, to be limited to making a small abdominal opening by which pus might drain away, and through which a cannula could be passed and the cavity washed out, the proceeding was simple and within reach of every practitioner. If, on the other hand, the operation should involve the making of an extensive abdominal incision and the laying bare and dressing of intestinal coils, the undertaking was much more arduous. As to the tubercular variety, there could be no doubt that laparotomy was the one thing indicated. The first time the speaker performed this operation in a case of tubercular peritonitis was one in which he had really diagnosed an ovarian cyst. Seeing his error, he quickly closed the abdominal cavity, but not before he had put, almost by hazard, some iodoform inside. To his surprise the result was excellent. He concluded by repeating he would advise laparotomy in tubercular cases, but that it was not necessary to remove the granulations which might be found invading the serous membrane.—M. Bouilly of Paris next read the notes of twelve cases of acute non-tubercular peritonitis on which he had operated with six successes. One was a traumatic case resulting from a kick from a horse. The operation was performed twelve hours after the accident, and revealed a gangrenous loup of intestine, which was resected. The cavity was then washed out and the operation, which was thus completed, resulted in the recovery of the patient. Of the remaining eleven four were cases of peritonitis resulting from the extension of lesions of the genital region. Of these three were saved by laparotomy, combined with antiseptic washing of the peritoneal cavity. Another was the desperate case of a poor woman who was admitted to the Paris Maternity with a ruptured uterus, which was found to extend to the bladder, and in which laparotomy was followed within two hours by death. The other six were cases of puerperal peritonitis,

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of which two survived operation. Considering that in these twelve cases, with six successes, the conditions were discouraging and the symptoms extreme, M. Bouilly submitted his results were not unfavourable. In reply to M. Demons, he added that, inasmuch as in acute purulent peritonitis the object was to give prompt issue to pus, as in any other abscess, he was unable to see the advisability of a large incision, which complicated matters with no obvious advantages. He himself limited his incision to five or six centimetres, or from two inches to two inches and a half in length. This was long enough to admit his finger and a cannula, and by this means he directed his injection, composed of water, boiled, or rendered aseptic by the addition of a small quantity of bichloride of mercury.—M. Labbé of Paris had operated four times in cases of chronic or subacute peritonitis, with two successes. In three cases out of the four he avowed that the operation was the result of an error in diagnosis. On two occasions it turned out to be a case of tubercular peritonitis, but with signs so limited and defined that M. Labbé believed he was dealing with an ovarian cyst. Having made his incision he went no further and the patients recovered, which recovery struck him as it had M. Demons.—M. Campenon of Paris had operated once without success in a case of general peritonitis resulting from a perityphlitis. At the necropsy he was able to see that if he had well washed the whole of the peritoneal cavity, a vast abscess which he then found under the agglutinated intestinal coils between the rectum and bladder, and which was evidently the cause of death, would not have been overlooked.—M. Denucé of Bordeaux also reported a successful laparotomy in a case of purulent peritonitis following abortion, and MM. Brun and Rontier of Paris concluded the debate, which, in a word, resolves itself into unqualified advocacy of operative intervention in this disease, by recounting further cases of successful procedure.—A communication by M. Reclus of Paris, on the Production of Local Anæsthesia by Means of Cocaine, was listened to with considerable interest. He said he regretted to find that the use of cocaine for this purpose was not so general as it certainly deserved to be. It was reproached with being inefficient, and even dangerous. Now, he had made over 700 injections of cocaine, and he protested that these reproaches were not justified. It should be understood, however, that for the injections to bring about the desired effect they should be not merely subcutaneous but completely interstitial. Practised in this way, anæsthesia is always obtained, and is by no means, as has been stated, insufficient in tissues that are inflamed. As to duration of effect, he would put it at from three-quarters to one hour. In ano-rectal operations the use of this drug was most successful. Bone alone seems the only tissue not amenable to its influence. Speaking of the dangers, he declared that in his 700 injections he observed none, and that with ordinary care he believed none would be encountered. In the whole of the literature on the subject he could find a record of four deaths only which were laid to its account, and here considerable doses were given. But below seventy-five centigrammes he believed we were quite safe. There were doubtless certain symptoms, such as pallor of the face, loquacity, with a tendency to syncope, &c.; but with an ordinary dose of twenty centigrammes accidents were extremely rare. Generally, a dose of from ten to twelve centigrammes would be found sufficient, and, in a word, cocaine thus handled was, in the opinion of M. Reclus, an excellent and safe agent. In a subsequent communication I hope to give the substance of the debate on the treatment of Aneurysms of the Limbs.

The Hospitals of France.

At the moment when the question of hospital administration is engaging so much attention on your side of the Channel a few particulars culled from the report issued by the Bureau of General Statistics concerning the French hospitals may be of interest. From this it appears that the total number of hospitals of all kinds in France is 1658, these being subdivided into 404 hospitals proper, 806 hospital infirmaries, and 451 infirmaries. It results from these numbers that there is in France one hospital or infirmary for every 23,000 inhabitants. The number of patients treated in these establishments averages 400,000 per annum, giving a proportion of twelve persons treated for every 10,000 of the inhabitants. But while in the provinces this proportion is only 9, it rises in the Department of the Seine, or in other words Paris, to something above 40. Taking, then, an equal number of inhabitants, it is found that there are four times more persons treated in hospitals in Paris than in the country districts. The report embraces a period of fifteen years—viz., from 1871 to 1885,—and during this period the number of cases was in round numbers 360,000, that of deaths 40,000, which gives an average from year to year of nine cures for every single death. Two of these years were, however, exceptionally severe—viz., 1871, owing to the German invasion and the Commune; and 1884, by reason of the cholera epidemic. As to the income of these establishments in general, it goes on increasing. In 1833 it was over 51,000,000 fr., while in 1885, with nearly the same number of institutions, it had increased to 123,500,000 fr. The Paris hospitals are, however, in a less satisfactory financial state relatively to the provincial hospitals, but nowhere can the glaring deficits of the London hospitals be equalled. While, as I have said, the total income for 1885 for all the hospitals of France was over 123,500,000 fr., the total outlay was not quite 109,000,000 fr., thus leaving, as will be readily seen, a very comfortable margin. The average number of days spent by a patient in hospital is thirty for Paris and thirty-five for the provinces. The average cost per day in Parisian hospitals is 2 fr. 97 c., and in those of the provinces 1 fr. 77 c., giving a general average for all the hospitals and infirmaries of France of 2 fr. 4 c., or about 1*s.* 8½*d.* per day. It is to be noted further that in this country hospital abuse is not allowed to run rampant, for of the total revenue already quoted over 20,000,000 fr. are derived from the patients' own contributions. The contribution is levied as follows:—Whenever a person is admitted to a hospital full particulars as to his civil status are recorded; then due inquiries are made, and he is expected and required to pay according to his means and the accommodation he is provided with. Flagrant abuse of the charity is thus effectually prevented. On the other hand, there is no country in the world where charity goes farther to aid the really necessitous and deserving in the hour of trial. I ought perhaps to add that all the hospitals of France, with the exception of a few private ones, are under the administration of the Governmental department known as the Assistance Publique, which finds, to some extent, its parallel in your Local Government Board.

Paris, Oct. 29th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Meeting of the German Anatomical Society.

THE proceedings of the third assembly of the German Anatomical Society began on the 10th inst., about 100 persons being present, and were introduced by a lecture delivered by Professor Wilhelm His of Leipsic, who is president this year. He proposed an alteration of the present custom of showing anatomical preparations to fellow anatomists at congresses. At present, he said, a hundred preparations and more are exhibited at a congress in a short space of time one after the other. No investigator could examine such a number with the necessary attention and leisure. A committee should be formed to select the more important preparations for exhibition. A second committee should be elected to act as final arbiter between investigators in scientific disputes. A historical instance of such a procedure was the dispute about a nerve-formation between Schlemm and Arnold, in which Johannes Müller was arbiter. The lecturer further proposed that every custodian of an anatomical collection should throw it open to his fellow anatomists, say for a month during the university vacation, and be ready with his assistants to give them the necessary information about the preparations. He further proposed the establishment of an institution for anatomical science on the model of the Zoological Station in Naples. His final proposal was that the Anatomical Society should make the reform of anatomical nomenclature one of its foremost tasks. A committee should be appointed for preliminary deliberations to that end, but the final work should be entrusted to a salaried investigator well versed in the history of anatomy. The last man who attempted to systematise the nomenclature of anatomy was Jacob Henle, who went on the principle of naming every anatomical structure exclusively according to its special

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function. The lecturer opposed this principle. He wished to see the historical personal names, such as Meckel's ganglion, and Poupart's ligament, preserved, because, for one thing, they excited the curiosity of students of medicine as to the history of their science. He also opposed the universal Germanisation of anatomical terminology, as proposed by Marcus Herz and more recently by Dressler, because, for one reason, such a transformation would render mutual understanding between German and foreign anatomists still more difficult than it is. In the afternoon the members of the society visited the splendid new museum for natural science, which is not yet open to the public. Then they went to the zoological museum, which occupies the main part of this palace of science. The bi-partition of the museum is quite a new idea, one part being intended for the general public, the other for scientific investigators alone. The cabinets containing the zoological preparations are arranged in the so-called fish-bone form. The equipment of the museum excited general admiration.

The International Medical Congress of 1890.

The Budget of the German Imperial Home Office allots 80,000 marks as a contribution to the expenses of the tenth International Medical Congress which is to meet here next year, and assigns the following reasons: "The considerable expenses which these congresses entail are, as is proved by experience, only partly covered by the contributions of the members, so that, on former occasions, especially at the last congresses in Copenhagen and Washington, considerable subsidies were granted by the respective governments from public funds for the defrayal of the expenses. It will not be possible for the empire to lag behind other states in this respect."

An Interesting Operation.

A unique medical phenomenon, a native wing-membrane, which Professor Julius Wolff of Berlin has observed in a girl of nine, is being much discussed here at present. Between the thigh and the lower part of the child's left leg extends a peculiar formation, such as is found only between the upper and fore arms of the wings of birds, and which Professor Wolff therefore calls "wing-membrane." Three of the fingers of the child's right hand are webbed together, and her right leg terminates in a club-foot of the most pronounced character. The "wing-membrane," which is eighteen centimetres long and two centimetres thick, and covered all over by normal skin, is a smooth continuation of the soft parts, and the knee-joint could never be stretched, but only bent to a right angle, so that the girl could only move about on her knees. Professor Wolff resolved to make it possible for her to walk erect by removing the club-foot and cutting the wing-membrane through. The first of these two operations succeeded easily, with the help of water-glass bandages; but the second proved very difficult, and had not the desired effect. A year elapsed before the wound was healed and the possibility of stretching the knee-joint completely attained. The little girl is now able to walk erect without stick or crutch, and to go to school. Her gait is, of course, awkward, for the left leg is about twelve centimetres shorter than the right one. Professor Wolff's success is regarded as a decided triumph of surgical skill.

The New German Pharmacopœia.

After sitting for eleven days, the German Imperial Pharmacopœia Commission ended its deliberations on the 19th instant. Thanks to the careful preparations of the committee, it was found possible to settle all disputed points quickly. The rapid dispatch of business was due not a little to the circumstance that all divergent opinions were always referred in the first place back to the committee, which was thus enabled to come to an agreement beforehand, and to appear before the Commission with a firmly-formed opinion. Of the numerous new medicines which have come into use during the last few years only those were accepted the efficacy of which is universally recognised. All remedies for which a sure determination of identity is still wanting, or which are no longer generally in use, were omitted. The new edition of the legal Pharmacopœia will now be definitively prepared, and it is hoped that it will come into force next year. The Commission expressed the opinion that a German edition is desirable, and that the foreign expressions should be replaced as far as possible by German ones. Of course the scientific Latin designations which serve as headings are retained.

Berlin, Oct. 29th.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

Health of British Troops.

THE garrison in Cairo remains as it was, and includes two infantry battalions and details of every branch of the army, making a total of about 2000. Of this strength, 186 are to-day in hospital, and this includes the enormous number of fifty-one cases of enteric fever, two of them being officers. This high sick-rate is chiefly derived from the young soldiers of the Royal Irish Rifles, who, during July and August, were on duty up the Nile at Assouan and as far as Korosko, in consequence of the Dervish advance and their rout by the Egyptians at Toski. This regiment suffered much more from subsequent enteric fever, dysentery, and diarrhœa than the King's Own Scottish Borderers, who have now a sick rate of only 5 per cent. This is apparently due to the Rifles having suffered greater exposure and fatigue, for they were a longer time up the river and advanced farther southwards. Moreover, as it was important to move up British troops rapidly, and there was an insufficient number of steamers on the spot, *dahabiyehs* had to be employed, and when the wind failed tacking was necessarily resorted to. The 20th Hussars, who pushed as far as Toski, had as a penalty a sick-rate afterwards of 15 per cent. The sanitary arrangements were carried out as perfectly as was possible; when in camp the men lived in huts, and were supplied with earth-closets and filtered water, but on the river it was found impossible to filter all the drinking water. It must be remembered that the Nile during the summer months is thick with suspended salts and earth, and that thirst and work necessitate almost perpetual drinking. A boat was told off to take water from the centre of the stream, and native filters were kept constantly in use. The experience was similar to other campaigns in Egypt, for the sick-rate was not abnormally high until after the stress was all over and the men were back again in Cairo. But it is satisfactory to know that the percentage of sick is now slowly diminishing. Nobody knows better than the Soudanese that it is difficult for us to send English troops up the river during the hottest months, hence they so time their advance. We must obviously make use of our combined Egyptian and English garrison at the frontier, and the result will be the same. Egyptians can safely drink unclean water and breathe foul air, while the young Englishman, in spite of filtering and other precautions, falls a victim to the intestinal diseases against which he has not been "vaccinated" in early life. Possibly it might be better to regard the English soldier during a campaign in the hottest months merely as a fighting machine, and to employ native labour for all sorts of fatigue duty.

The School of Medicine

The official journal of the Egyptian Government of Oct. 16th proclaims that Dr. Hassan Pasha Mahmoud was on Oct. 10th appointed director of the Government Medical School, at a salary of £750 a year. Hassan Pasha is a nephew by marriage of Riaz Pasha, the Prime Minister, and is son-in-law to one of the under-secretaries of State. In order to make room for him, the director, who under English advice has of late years greatly improved the school, has been shelved, and the vice-director, one of the very few scientific Egyptians, and lately very highly commended for his natural history work by Professor Virchow, has been deprived of his appointment, though not of his professorship. The late director has introduced practical anatomy; has persuaded the Government to build dissecting rooms, museums, and laboratories; has permitted the students to work for their last year in the hospital wards; and has done many other things which have contributed to the marked improvement there is in the medical school. The appointment of Hassan Pasha is the most unpopular among both natives and Europeans which could possibly have been made.

Cairo, Oct. 21st.

SEWERAGE WORKS, HUDDERSFIELD.—On the 24th ult., Mr. W. H. Jessop, chairman of the Sanitary Committee of the Corporation of Huddersfield, performed the ceremony of cutting the first sod of the new sewerage works at Deighton, the estimated cost of which is £40,000.

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THE ITALIAN MEDICAL CONGRESS.

(*Concluded from page 873.*)

THE afternoon sitting of the 16th was signalised by a brisk discussion evoked by a paper of Professor Petrone of Catania on "Two Cases of Hepatic Cirrhosis cured with Milk Diet, Diuretics, and Cathartics, and Hot and Moist Cataplasms applied to the Abdomen." Dr. Petrone maintained the possibility of curing similar cases even in the state of hepatic atrophy, but not when degeneration of the parenchymatous elements of the viscus had been established. Prof. Cardarelli held another opinion, as wholly pessimistic as Petrone's was optimistic. Out of 100 patients suffering from hepatic cirrhosis he had not succeeded in curing one, and suggested that in Petrone's cases an error of diagnosis had been committed. Professor De Renzi's experience rather favoured Dr. Petrone's than Professor Cardarelli's, and Professor Semmola then intervened with a criticism of Cardarelli's view as "*a prioristic*," and defended Petrone's position from his own clinical practice, reinforced by that of other clinicians, Italian and foreign. The battle now became general. Professors Senise and Ria never knew any case, diagnosed as one of hepatic cirrhosis, to have been cured; while Professor Queirolo contended that, at times, by the development of a collateral circle, there may be a suspension of the pathological process, a suspension which may be repeated at intervals of varying duration. Professor Maragliano insisted, as a factor in the case, on the functional activity of the heart which sometimes succeeded in cutting off from the circulatory system the liver with the vena porta. When the heart no longer gives compensation, then ascites and other derangements set in. Professor Semmola returned to his position, and rebutted Professor Queirolo's argument that there are intermittent hepatic cirrhoses. He further maintained the curability of the malady in its hyperplastic or hypertrophic stage, and cited instances in point. Replying on the whole case, Dr. Petrone complained that want of time had prevented him from adducing all the facts and illustrations he had accumulated. He concluded by joining with Professor Semmola in a recommendation that the Congress should appoint a committee to make a special study of the question and report on it at next year's meeting.

When the Congress resumed its sittings (17th) the report of Professors Murri and Cantani on "Gout" proved as fruitful of discussion as that on malaria. Professor Murri took in hand the pathogenesis of the disease, and examined at great length and with much severity the theories of Wierordt, Ebstein, Gerhardt, and Pfeiffer. He criticised the view that uric acid in the blood attacks some tissues and induces necrosis of them, and that on these necrosed tissues tophi are formed. This theory, he said, is opposed by another, which makes the necrosis of the tissues depend on various causes, on their greater vulnerability for example. But to speak of vulnerability and not give a reason for it or tell in what it consists is, he said, to say nothing. Why are tophi formed by preference on the idle hands of ladies and not on their tortured and boot-constricted feet? Why on the ears rather than on the nose? He confronted gout with leukæmia and other diseases in which uric acid prevails in the urine, but in which there is no access of gout. What pathological condition is pre-existent to gout? According to Wierordt, nephritic symptoms do not exist in the gouty. Then why is uric acid secreted in the urine of the gouty in greater quantity before the fit and in less quantity during the fit? Analysis finds in the gouty more uric acid in the blood and less in the urine. Nor does the diminished alkalinity of blood explain the whole of the morbid process. Uric acid, he maintained, is produced by imperfect oxidation of the albuminates, as urea represents their complete oxidation. Concluding that the presence of uric acid in the blood of the gouty is due to impaired power of oxidising the tissues, he expressed the hope that further research would continue to be made on a more elaborate scale than heretofore with a view to solve this most arduous problem. Then followed Professor Cantani on the treatment. He, too, instituted a "march past" of previous, especially German, clinicians on the subject, and dwelt at much length on Pfeiffer's acid treatment, which he condemned. Considering heredity and an excess of albuminates in the daily food as principal factors in the gouty diathesis, he laid down rules for an azotised regimen, while allowing vegetables and fruit in small quantity; and, further, prescribed gymnastics, systematic movement, salicylate of soda, alkalies, and alkaline beverages. The discussion that ensued lasted all through the forenoon sitting and the greater part of the afternoon, and was perhaps the most interesting, as it was certainly the most animated of the series. It ranged over many of the derivative affections of the gouty, and evinced the attention given by Italian pathologists and therapeutists to the cardiac and neurasthenic sequelæ of chronic gout. Professors Alivia, Rummo, Petrone, Sonzino, Franco, and Olivieri were the chief interlocutors, and they were followed by Professors Murri and Cantani in defence of the positions maintained in their report. The latter pointed out that in Italy there are many alkaline springs known to but a few and quite untried. He further expressed the hope that these would be adequately studied and made universally available. "We have," he said, "waters superior to those of Vichy and Karlsbad, but almost unknown or fallen into discredit through having been improperly worked by private and non-professional speculators."

Papers of minor interest, though none of them without value for the practitioner, occupied the remainder of the sitting and part of that of next day (18th); after which the Congress was dissolved in a few congratulatory and encouraging sentences by its president, Dr. Baccelli. Alluding to the preponderance of the results of German science and practice in the subject matter of their discussions, he said: "Learned Germany will have in us a faithful ally not only for the peace of Europe but for scientific progress. We Italian physicians, ready for every sacrifice called for by the unity, the freedom, the greatness of our country, express the hope that, rather than with the laurels of battle, Italy will wreathe her forehead with the gentle and beneficent laurels of peace."

CORRIGENDUM.—On page 873, first column, lines 6, 14, 21, 39, and 53, for "Cantani" read "Baccelli." At line 7 from the foot of page 872, second column, there should have been no comma after "retired."

THE ROYAL COLLEGE OF PHYSICIANS.

AT the ordinary quarterly meeting of the comitia of the Royal College of Physicians held on Thursday, Oct. 31st, the President nominated Dr. Richard Quain and Dr. Samuel Wilks as Vice-Presidents for the ensuing year. He then announced that Sir Henry Pitman had resigned his appointment upon the Committee of Management, and in graceful terms moved an expression of the grateful thanks of the College to Sir Henry Pitman for his valuable services during many years. It was also agreed that the College should present a robe to him as Emeritus Registrar. The following gentlemen were then admitted Members of the College:—G. A. Carpenter, M.B. Lond.; J. Davison, M.D. Queen's Univ.; E. B. Forman, M.D. Lond.; E. Goodall, M.D. Lond.; E. H. Greves, M.D. Edin.; A. A. Jamison, M.D. Glasg.; A. P. Luff, M.B. Lond.; W. Newman, M.D. Lond.; E. C. Perry, M.D. Camb.

Among the communications addressed to the College, one of the most important was a letter from the Foreign Office, notifying further restrictions on the practice of medicine by Englishmen in France, it having been agreed that English doctors will be allowed in exceptional cases only to present themselves for examination in order to acquire the right to practise in France.

An announcement was made of the award of the Murchison Scholarship to Arthur John Whiting, M.B., C.M. Several other official announcements were received.

After some little discussion a resignation of membership of Patrick Fraser, M.D. (Member, 1839), was formally accepted.

The Treasurer presented his audited accounts for the year ending Sept. 29th last, showing that the income of the College had amounted to upwards of £20,915, and its expenditure to £18,773, leaving a balance at the bankers' of over £2142.

The quarterly report of the Finance Committee was then presented, and some discussion ensued upon a recommenda-

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tion to increase the stipend of the Treasurer. Upon the motion of Sir Henry Pitman, seconded by Dr. Norman Moore, it was agreed to increase this to three hundred guineas a year.

Dr. Allchin's motion, which referred to a new bye-law of the College, was, after a few words, postponed to the next meeting, to obtain the opinion of counsel.

Several other important matters were also deferred owing to the lateness of the hour, and the meeting ultimately adjourned to Thursday, Nov. 7th.

THE SERVICES.

ARMY MEDICAL STAFF.—Brigade Surgeon Wm. Tanner, from half pay, is granted retired pay (dated Oct. 30th, 1889).

ARMY MEDICAL RESERVE OF OFFICERS.—Acting Surgeon Arthur Corrie Keep, M.D., 2nd Volunteer Battalion, the Worcestershire Regiment, to be Surgeon, ranking as Captain (dated Oct. 26th, 1889).

VOLUNTEER CORPS.—*Rifle:* 1st Volunteer Battalion, the Royal Warwickshire Regiment: Arthur Thos. Holdsworth, M.D., to be Acting Surgeon (dated Oct. 26th, 1889).

Obituary.

DR. ADOLF WISLICENUS.

"THE Romance of Medicine" might well claim as one of its heroes this octogenarian practitioner who died at St. Louis, U.S., at the close of last month. Dr. Adolf Wislicenus was born in 1810 at Dornfeld, in Thuringia, and at the usual age left the gymnasium for the university, to qualify for the medical career. He studied at Göttingen, at Jena, and at Würzburg, until, shortly before graduation, he became compromised in the famous "Frankfurter Attentat" and had to flee the country.

In the spring of 1833 a conspiracy had been formed in Frankfurt-on-the-Main to avenge itself on the Federal Diet, which by its severely restrictive press laws had roused the citizens, particularly the younger portion, including many students in the several faculties, to something little short of madness. In this conspiracy Adolf Wislicenus, with Matthiä and others of the medical *Burschenschaft*, took a leading part—the design being to blow up the Diet. On April 3rd, 1833, the attempt was made. The guardhouse was carried by storm, and the conspirators were within an ace of effecting their purpose when the military appeared in the nick of time, arrested nine of the youths, and put the others to flight. Among those who, after hairbreadth escapes, eluded the emissaries of the law was young Wislicenus, who found his way to Switzerland, where at the University of Zurich he resumed the broken thread of professional study. He graduated with distinction, and in 1835 proceeded to the United States. Ultimately settling in practice at St. Louis, he rapidly formed an extensive *clientèle*, of which his compatriots were the nucleus, and realised a handsome income, which enabled him to give time to pure science and also to travel in and beyond the States. He made memorable visits to Mexico and the Rocky Mountains, and published most interesting records of his observations and experiences. By all classes he was looked upon as an enthusiastic and large-minded reformer, an honest and benevolent survivor of the "Vor Achtundvierziger" men—as the precursors of the revolution of 1848 are familiarly called, and steps, we understand, are being taken by the German colony, not in St. Louis only, to perpetuate by some suitable memorial his name and his life-record.

DONCASTER INFIRMARY AND DISPENSARY.—The annual general meeting of the governors and subscribers of this institution was held on Oct. 28th, the Mayor presiding. The report stated that the subscriptions amounted to £20 less than last year. The total income had been £1850, and the expenditure £1450. The report was adopted, and votes of thanks were passed to the medical staff and other friends and helpers.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen, having conformed to the bye-laws and regulations and passed the required examinations, were, at a meeting of the College on Oct. 31st, admitted Licentiates:—

*Barker, J. Collier, St. Bart.'s.
Barker, J. Hamer, Manchester.
Bates, Stephen H., Univ. Coll.
Bentham, A. O., Manchester.
Bergin, George F., Bristol.
Bevan, T. Webb, St. Bart.'s.
Beyts, William George, Guy's.
Birkenhead, H., Manchester.
Boase, William G., St. Bart.'s.
Borrett, George Goss, London.
Cameron, Ewan G., Middlesex.
Carrell, G. N. Piccaver, Guy's.
Cato, A. McLean, Westminster.
Cayley, Cyril Henry, Middlesex.
Cheetham, S. W., Liverpool.
Cleveland, R. A., Univ. Coll.
Collett, H. G. O., King's College.
Collins, A. B., St. Bart.'s.
Conway, B. W., Manchester.
Cooke, J. A., Manchester.
Cuthbert, H. Pierce, London.
Dane, Robert, Middlesex.
Dewhurst, J. H., Camb. and St. Thomas's.
Dickson, T. H., Camb. and St. Thomas's.
Dowse, H. E., Westminster.
Duigan, William, London.
Edmonds, G., St. Bart.'s.
Edwards, J. H., St. Bart.'s.
Elam, George, Middlesex.
Elliot, R. H., St. Bart.'s.
Enraght, W., St. Bart.'s.
Evans, T. H. Fencott, St. Bart.'s.
Foley, C. N., St. Thomas's.
George, A. W., Edin. and St. Thomas's.
Gibbs, S. F., St. Bart.'s.
Giffard, G. G., St. Bart.'s.
Glinn, George F., St. Mary's.
*Godding, James, London.
*Griffin, John H., St. Bart.'s.
Heath, A. J., Univ. Coll.
Hickley, A. M., St. Mary's.
Higginson, J. W., Univ. Coll.
*Hooton, W. A., Manchester.
*Hughes, A. E. P., St. Thomas's.
Hugo, E. V., St. Bart.'s.
Jamieson, S., Edinburgh.
Kelbe, W. E., Guy's.
Khan, Masha Allah, London.
Kitchin, H. B., Univ. Coll.
Knox, Jas. K., Camb. and St. Mary's.
Lewers, Alexander, St. Mary's.
Lewis, L., Westminster.
Ley, G., Univ. Coll.
Lightbody, J. H., Liverpool and St. Bartholomew's.
*Livsey, W. E., Liverpool.
Major, A. C., London.
Manning, H. P. O., Guy's.
*Mansbridge, J., Charing-cross.
Martin, A. E., London.
Meyers, D. C., Toronto.
Milner, A. S., Charing-cross.
Morris, G., St. Bartholomew's.
Naylor, J., St. Bartholomew's.
Neill, B., St. Bartholomew's.
Norburn, A. E., Guy's.
Norton, E. E., Middlesex.
O'Leary, A. P. E., Bristol.
Olive, E. J. P., St. Bartholomew's.
*Ormerod, H. L., Bristol.
Osborne, O., London.
*Paget, P., Guy's.
Paul, M. E., London.
Pires, G., Bombay and Univ. Col.
Pollock, C. S., St. George's.
Powers, C. H., St. Mary's.
*Pratt, E. F., Birmingham and Newcastle-on-Tyne.
*Purnell, P., Guy's.
*Rayne, W. T., Westminster.
Rees, J. M., St. Bartholomew's.
Rendel, A. B., St. Bart.'s.
*Rowlands, H. P., Guy's.
*Rubinstein, D., Leipzig.
Rudyard, H. A., Univ. Coll.
Saunders, F. W., Cambridge and St. Bartholomew's.
*Scott, G. H., Leeds.
Shepherd, H. B., St. Thomas's.
Simmons, F. H., St. Bart's.
Simpson, G. W., Westminster.
*Smith, H. W., Birmingham.
Snape, E. A., Charing-cross.
Speechly, H. M., London.
Stabb, A. F., St. Thomas's.
Standage, R. F., St. Bartholo's.
Stokes, W. G. G., Camb. and St. Thomas's.
*Sullivan, E. Henry Charles, St. Thomas's.
Taylor, E. E., Edinburgh.
*Tindall, F. D. P., Guy's.
*Toller, S. G., St. Thomas's.
Tuppen, H. S., St. Thomas's.
*Verano, L. L., St. Bartholo's.
Walters, A. P., Univ. College.
Warde, W. B., St. Bartholo's.
Watkins, H. E., Manchester.
Wightman, H. T., Sheffield.
Williams, E. McK., Univ. Coll.
*Williams, E. G. H., Charing-cross.
Woodall, R. W., London.

* Candidates who have not presented themselves under the regulations of the Examining Board.

ROYAL UNIVERSITY OF IRELAND.—On the 28th ult. the following degrees were conferred by the Marquis of Dufferin, Chancellor of the University:—

Doctor in Medicine.—Richard Rolt Davidson, Chas. Donovan, Joseph Everard Dunlop, John M. Hall, James Hamilton, Henry Harley, William O'Donnell, William Latimer Storey.

Bachelor in Medicine.—John William Wolfe (with first class honours), Isaac Banks, James Byrne Coleman, Joseph Eldon, James Matthew Fagan, Thomas McDermott, Francis McKee, James Adrain, Joseph Patrick Clarke, William Ekin, Alexander Erskine, James Fulton, Hugh Todd Gill, William James Gregory, William Healy, Paul Patrick Jennings, Joseph John Loftus, Arthur Saul McComiskey, Horace Townsend Merrick, Alex. Thomson Morrison, Robt. Jackson Munn, Matthew Joseph O'Regan, Henry Kennedy Smyth, Joseph Smyth, James Taylor, Samuel Henry Withers.

Master in Surgery.—James Byrne Coleman.

Master in Obstetrics.—Patrick F. Graham, Hugh McMillan, George Matthew Thompson.

Bachelor of Surgery.—James Adrain, Isaac Banks, Joseph P. Clarke, James B. Coleman, Richd. Rolt Davidson, Charles Donovan, Joseph Everard Dunlop, William Ekin, Joseph Eldon, Alexander Erskine, James M. Fagan, James Fulton, Hugh Todd Gill, William James Gregory, John Moore Hall, James Hamilton, Henry Harley, Wm. Healy, Paul Jennings, Joseph J. Loftus, Arthur W. McComiskey, Thomas McDermott, Francis McKee, Horace Townsend Merrick, Alex. Morrison, Robert Jackson Munn, Wm. O'Donnell, Matthew Joseph O'Regan, Henry Kennedy Smyth, Joseph Smyth, William Latimer Storey, James Taylor, Samuel Henry Withers, John Wm. Wolfe.

Bachelor of Obstetrics.—James Adrain, Martin Atock, Isaac Banks, James Carroll, Joseph P. Clarke, James B. Coleman, Richard R. Davidson, Charles Donovan, Joseph Everard Dunlop, Wm. Ekin, Joseph Eldon, Alex. Erskine, James Fagan, James Fulton, Hugh

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Todd Gill, Wm. James Gregory, John Moore Hall, James Hamilton, Henry Harley, William B. Hayes, William Healy, Paul Jennings, Joseph Loftus, Arthur McComiskey, Thomas McDermott, James Macdonald, Francis McKee, Edward Magennis, Horace Merrick, Alex. Thomson Morrison, Robt. J. Munn, Wm. O'Donnell, Matthew O'Regan, William Richardson, Henry Kennedy Smyth, Joseph Smyth, Wm. Latimer Storey, Jas. Taylor, Samuel Henry Withers, John William Wolfe.

Diploma in Sanitary Science.—John Gillespie Deacon, Robert Lynn Heard.

DONATIONS. — Mr. C. Kennedy, J.P., has given £250 and Dr. McSwiney £25 to Jervis-street Hospital, Dublin.

THE ROYAL MEDICAL BENEVOLENT COLLEGE has received £100 under the will of the late Baroness Clementina von Roemer.

MEDICAL MAYOR.—Mr. John Sherburn, M.R.C.S., on the invitation of the Hull Town Council, has consented to hold the Mayoralty for another year.

PUBLIC BATHS, GUILDFORD.—The Mayor and Corporation of Guildford formally opened these public baths, on the 25th ult., which have been erected at an outlay of £2800.

LUTON.—On Tuesday, Mr. Cyril Flower, M.P., opened a new Children's Sick and Convalescent Home at Luton, which has been established by a gentleman who desires to remain unknown.

CAVENDISH COLLEGE, CAMBRIDGE.—The opening of the new College Hall will take place on Saturday, Nov. 16th, at two o'clock. There will be a luncheon, at which the Marquis of Hartington will be present.

SCARLET FEVER IN BIRMINGHAM. — On the 30th ult. there were 440 patients in the hospital. The wards are not quite full, which is in some measure satisfactory to know.

HOSPITAL SUNDAY IN BIRMINGHAM.—Last Sunday was sadly interfered with by the continued wet and cold. The amount up to date is £4269 9*s.* 5*d.*, and it is proposed to supplement this by additional collections next Sunday.

OPEN SPACES.—Mr. Alderman Ward, Mayor of Leeds, formally opened on the 26th ult. a new recreation ground for the use of the inhabitants of Rodley. The present area of the site is nine acres, and the purchase money amounted to a little over £1400.

THE SOUTHERN (AMERICA) SURGICAL AND GYNÆCOLOGICAL ASSOCIATION.—The session of this Association will be held in Nashville, Tennessee, on Nov. 12th, 13th, and 14th, 1889, under the presidency of Dr. Hunter McGuire, of Richmond, Virginia. Members of the medical profession are cordially invited to attend. The secretary is Mr. W. E. B. Davis, M.D., Birmingham, Alabama.

THE CITY SCHOOL OF CHEMISTRY AND PHARMACY.—The winter session at the above school was opened at the commencement of this week. In all former years the school opened simultaneously with the metropolitan hospital schools, but this year an unavoidable delay occurred owing to the illness of the principal, Mr. Maurice Williams, who has now sufficiently recovered to resume his customary duties.

PARIS EXHIBITION PRIZES.—The well-known firm of M. G. Masson, medical and scientific publishers, has been awarded a "grand prix" at the Paris Exhibition in Class 8 (organisation, method, and material of higher education), and also in Class 9 (the press and library). In Class 14 (medicine and surgery) of the Exhibition "grands prix" have been awarded to Baretta, Mariand, Claude Martin, Raoul Mathieu, and Tramand, all of France. Fourteen gold medals and twenty-six silver medals were also awarded in this class.

NOTTINGHAM GENERAL HOSPITAL.—The 107th anniversary meeting of this institution was held on the 24th ult., at the county hall, the Duke of Newcastle, the president, occupying the chair. The report, which was adopted, showed that during the past half year the work of the hospital in all its departments had been efficient and satisfactory. The total number of patients under treatment was 788, against 783 in the corresponding months of last year. The financial condition of the hospital continued a source of anxiety to the Board. The appropriation, as income, of legacies which should have been capitalised has been an unavoidable alternative.

SUNDERLAND AND NORTH DURHAM EYE INFIRMARY.—The report just issued states that this infirmary has now been in existence for fifty-three years, and treats yearly 1000 new patients, receiving as many in-patients as the inadequate accommodation will allow—viz., five. The committee consider that, with what they have in hand, an additional £4000 would enable them to erect a suitable and adequate eye infirmary free of debt, and they accordingly appeal for assistance to that end.

LITERARY INTELLIGENCE.—The approaching publication of a work on the "Bibliography of Venereal Diseases," from the earliest writings on syphilis at the close of the fifteenth century to the present day, is announced by Hanstein, Bonn (London: Dulau and Co.). The work, which is compiled by Dr. G. K. Prosch, will consist of three volumes, and will contain analytical summaries of the vast field of literature now covered by this subject. The first volume is announced as being ready, and the others will appear in 1890.

DR. CHAUTEMPS. — Last Tuesday morning Dr. Chautemps, President of the Municipal Council of Paris, who is now on a visit to London, went over the French Hospital near Leicester-square, and under the guidance of Dr. Vintras, the head physician, examined the plans of the new building approaching completion in Shaftesbury-avenue, and which will be inaugurated next spring. Dr. Chautemps expressed gratification at what he had seen, and in the name of the Municipal Council of Paris made a donation of £40 each to the French Hospital and to the French Benevolent Society.

TAUNTON AND SOMERSET HOSPITAL. — At the annual meeting held in connexion with this institution last week, the report, which was adopted, stated *inter alia* that a long-felt want had been supplied by the provision of a casualty ward near the principal entrance. Important improvements had been made in the sanitary arrangements. The committee pleaded earnestly for liberal donations wherewith to rebuild the cottages which are now in a most dilapidated state, as well as to effect other important additions and improvements which were strongly urged by the medical staff.

VOLUNTEER MEDICAL STAFF CORPS: 1ST (LONDON) DIVISION.—The annual competition for the Challenge Shield took place on Saturday, Oct. 26th, at Westminster Hall. Three companies competed—viz.: No. 1, Surgeon V. Matthews; No. 4, Surgeon-Major J. A. Watson; No. 5, Surgeon J. E. Squire, M.D. Surgeon J. Falvey, M.S., Assistant Instructor to the Medical Staff Depôt, Aldershot, kindly acted as judge. The companies were put through various movements in bearer, company, and stretcher drill, and examined in bandaging and first aid to the injured. After a spirited competition the Shield was awarded to No. 1 Company, the contest, however, having been very close. Surgeon Falvey having addressed the officers and men of the corps, and complimented them on their work, Surgeon-Major Platt, V.M.S.C., in the absence of Surgeon-Commandant Norton, thanked Surgeon Falvey in the name of the corps for his kind services, bringing a most interesting afternoon's work to an end. The men of the winning company are recruited from the medical schools of King's College, University College, Charing-cross, Middlesex, and St. George's Hospitals.

SUCCESSFUL CLAIM AGAINST A SPANISH LIFE ASSURANCE COMPANY.—Spanish Life Assurance Companies are not, as it would seem, content with getting the medical attendant of one of their clients to fill up a paper of questions and to forward it to the office by post, as is usually the case in this country. They are apt to require the attendance of the doctor at the office, and to put him through a long string of oral questions in addition to making him fill up an elaborate form; and to crown all this, they never think of paying him a fee. They will, however, probably have to change their practice. A medical man, one of whose patients died recently while assured in a certain society, said to be one of the most wealthy of Spanish life assurance companies, having received a request to attend at the office of the said company, and, being detained a considerable time, astonished the manager shortly afterwards by sending in a bill for 125 fr. This the manager declined to pay, as he declared no medical man had ever before even asked for any remuneration. The doctor took the matter into court, with the result that the company was ordered to pay the amount charged, with the expenses of the action.

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CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK.—On Monday, the 28th ult., an address was delivered at the above hospital by Sir J. Risdon Bennett, M.D., F.R.S., as an introduction to the course of clinical lectures and demonstrations which have lately been established by the staff with the object of utilising the large resources of clinical material which the practice of the hospital affords. The address (which we hope in a future number to print in abstract) was listened to with much interest by a crowded audience composed largely of former and present pupils and resident officers of the hospital, and the proceedings were fittingly concluded by a cordial vote of thanks to Sir Risdon Bennett, proposed by Dr. Thorowgood and seconded by Mr. Julian Hill, one of the lay committee, who made graceful allusion in so doing to the cordial relations which had invariably subsisted between the committee and the medical staff.

ROYAL ACADEMY OF MEDICINE IN IRELAND.—The following is the list of office-bearers for the ensuing year:—President: Samuel Gordon. Medical Section—President: L. Atthill. Council: J. H. Benson, E. McD. Cosgrave, A. Foot, A. Hayes, J. W. Moore, John Malony, S. M. MacSwiney, Conolly Norman, Joseph M. Redmond; A. N. Montgomery, Secretary. Surgical Section—President: Austin Meldon. Council: J. R. Barton, A. H. Corley, H. G. Croly, Kendal Franks, Edward Hamilton, P. J. Hayes, E. Stamer O'Grady, Sir Wm. Stokes, R. L. Swan; W. T. Stoker, Secretary. Section of Obstetrics—President: S. R. Mason. Council: J. J. Cranny, R. H. Fleming, F. W. Kidd, J. L. Lane, A. V. Macan, J. M. Madden, R. D. Purefoy, A. J. Smith, W. J. Smyly; A. J. Horne, Secretary. Section of Pathology — President: Edward H. Bennett. Council: A. W. W. Baker, C. B. Ball, W. Beatty, A. H. Benson, H. Bewley, J. Magee Finny, J. Purser, J. Scott, W. G. Smith; J. S. Story, Secretary. Section of Anatomy and Physiology—President: J. M. Purser. Council; John Barton, A. Birmingham, H. J. Brooks, D. J. Cunningham, F. J. Heuston; Humphrey Broomfield, Secretary. Section of State Medicine — President: A. Foot. Council: Sir C. Cameron, E. McD. Cosgrave, T. W. Grimshaw, S. McSwiney, J. W. Moore, J. M. Redmond.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BAYS, JAMES, M.B. Lond., M.R.C.S., L.S.A., has been appointed House Physician to the Hospital for Sick Children, Great Ormond-street, Bloomsbury, vice C. Batchelor, resigned.

CHAMBERS, JAS., M.D., M.Ch., R.U.Irel., has been appointed Assistant Medical Supeintendent to the Royal Asylum, Montrose.

CHEESEWRIGHT, J. F., M.R.C.S. Eng., L.R.C.P. Edin., has been appointed Medical Officer of Rawmarsh Union, vice Smith, resigned.

DIXON, H. W., M.D. Dur., has been appointed Assistant Medical Officer to the Gateshead Dispensary, vice R. Hardie, M.B., resigned.

ELAM, MR. GEORGE, has been appointed Casualty House Surgeon to the Middlesex Hospital.

FARQUHARSON, WM. F., M.B., C.M. Edin., has been appointed Junior Assistant Medical Officer to the Counties Asylum, Garlands, Carlisle, vice D. M. M. Ross.

GRIFFITH, P. G., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of the Pelhams District, Bishop's Stortford Union.

HART, D. B., M.D., F.R.C.P. Edin., has been appointed Physician to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

HOOPER, M., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of the Codnor Park District, Nottingham Union.

KEILLER, A., M.D., F.R.C.P., L.R.C.S. Edin., has been appointed Consulting Physician to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

LANG, G. H., M.R.C.S., has been appointed Assistant Medical Officer to the St. Pancras Infirmary.

MACKAY, J. D., M.B., C.M. Edin., has been reappointed Medical Officer to the Lunesdale Rural Sanitary District.

MCLEAN, W. W. L., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer and Public Vaccinator to the Stickney District of the Spilsby Union; Medical Officer to the Coltman Lodge of Odd Fellows, and Keal Cotes Lodge A. O. Foresters, vice J. A. MacLaren, M.B., C.M., resigned.

MOORE, JOHN IRWIN, L.R.C.S. Irel., &c., has been appointed Visiting Surgeon to Springsure Hospital, and Government Medical Officer for Springsure District, Queensland, Australia.

NASH, W. GIFFORD, L.R.C.P. Lond., M.R.C.S., has been appointed Senior House Surgeon to the South Devon and East Cornwall Hospital, Plymouth.

NORTON, EVERITT E., M.R.C.S., L.S.A., has been appointed House Physician to the Middlesex Hospital.

PORTER, W. E., M.B., C.M. Edin., M.R.C.S., has been appointed Medical Officer to the Royal Masonic Institution for Boys, Woodgreen, N.

ROSS, D. M., M.B. C.M. Edin., has been appointed Assistant Medical Superintendent to the Counties Asylum, Garlands, Carlisle, vice J. Chambers, M.D.

STILL, G. C., M.B., C.M. Aberd., has been appointed Medical Officer of Shepshed, vice Wood, resigned.

TODD, J., M.R.C.S., L.S.A., has been reappointed Medical Officer of the Second District of the Lunesdale Union.

TUNNICLIFFE, F. W., M.B. Lond., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Paddington-green Children's Hospital, vice A. E. Hensley, M.R.C.S., L.S.A., resigned.

WHITTERTON, J., L.R.C.P. Edin., M.R.C.S. Eng., has been reappointed District Medical Officer to the North Bierley Union.

WYLLIE, WM., M.D., M.R.C.M. Glas., has been reappointed Medical Officer to the Third District of the Lunesdale Union.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

CENTRAL LONDON SICK ASYLUM DISTRICT, Cleveland-street Asylum, Cleveland-street, W.—Assistant Medical Officer and Dispenser. Salary £100 per annum, with board and residence.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. Also Resident Medical Officer. Salary £100 per annum, with board &c.

COUNTY BOROUGH OF HUDDERSFIELD.—Medical Officer of Health for the Borough and Urban Sanitary District of Huddersfield. Salary £400 per annum, with actual disbursements in addition.

GATESHEAD DISPENSARY.—Assistant Surgeon. Salary £120 a year, increasing by annual instalments of £10 until £150 is reached, without board or lodging.

LEICESTER INFIRMARY AND FEVER HOUSE.—Assistant House Surgeon. Salary £80 per annum, with board, apartments, and washing.

LIVERPOOL ROYAL INFIRMARY.—Honorary Surgeon.

LONDON LOCK HOSPITAL AND ASYLUM.—Surgeon to the Out-patients.

LONDON HOSPITAL, Whitechapel-road, E. — Surgical Registrarship. Salary £100 a year.

MANCHESTER ROYAL INFIRMARY.—Assistant Medical Officer, non-resident, for one year. Salary £80 per annum.

NATIONAL DENTAL HOSPITAL, 149, Great Portland-street, W.—Anæsthetist. Also Assistant Dental Surgeon.

NORTH DEVON INFIRMARY, Barnstaple.—House Surgeon. Board and lodging in the house, washing, firing, lights, and attendance. Salary £100 a year, with certain conditions.

NORTH-WEST LONDON HOSPITAL, Kentish-town-road.—Junior Resident Medical Officer for six months.

PARISH OF EDAY, Orkney, to Inspector of Poor.—Resident Medical Officer. Salary £70 a year and practice.

PERTH DISTRICT ASYLUM.—Assistant Medical Officer. Salary £100 per annum, with board and lodging.

SALISBURY INFIRMARY.—A Dispenser. Salary £105 per annum; out of doors.

ST. SAVIOUR'S UNION, Surrey (John st. West, Brackfriars-road, S.E.).—Public Vaccinator for the third Vaccination District of the Union. Remuneration at the rate of 1*s.* 6*d.* for each successful case of primary vaccination, and 1*s.* for each case of successful revaccination.

Births, Marriages, and Deaths.

BIRTHS.

DAVIES.—On Oct. 24th, at Westgate-terrace, the wife of A. O. Davies, M.R.C.S., of Overton, of a daughter, stillborn.

GREENWOOD.—On Oct. 23rd, at Risely, Bush-hill-park, Enfield, the wife of George Greenwood, M.R.C.S., L.R.C.P.Lond., of a son.

MASON.—On Oct. 23rd, at Rosemont, Maidenhead, the wife of David James Mason, M.D. Edin., of a son.

WELSH.—On Oct. 23rd, at Biggleswade, Beda, the wife of Dr. R. C. Welsh, of a son.

MARRIAGES.

CRAN—SMITH.—On Oct. 24th, at St. Paul's Episcopal Church, Aberdeen, by the Rev. G. W. Rowntree, George Cran, M.D., M.C., Banchory, fifth son of the late Alexander Cran, M.R.C.S.E., Tarland, to Annie Emslie, daughter of Alex. Emslie Smith, Esq., advocate, Aberdeen.

DEMETRIADI—PARKE.—On Oct. 23rd, at the parish church, Tideswell, Derbyshire, by the Rev. Canon Andrew, rector, assisted by the Rev. G. A. Dawson, curate of Tideswell, Louis Demetriadi, F.R.C.S. Edin., Huddersfield, to Alice, third daughter of John Latimer Parke, surgeon, Foxlowe House, Tideswell.

GOODSALL—CROFTS.—On Oct. 26th, at All Saints' Church, Mountfield, David Henry Goodsall, F.R.C.S., of 17, Devonshire-place, W., to Mary Dowell, eldest daughter of the Rev. J. Macbride Crofts, vicar of Mountfield, Sussex.

HEWAN—COX.—On Oct. 7th, at St. Paul's Cathedral, Calcutta, by the Rev. W. A. G. Luckman, John Hewan, L.R.C.P., M.R.C.S. E., eldest son of the late Archibald Hewan, M.D., of Chester-square, London, to Ethel Jane, youngest daughter of the late William Henry Cox, of Derby.

MARLOW—MILLS.—On Sept. 24th, at Worcester, Massachusetts, U.S.A., by the Right Rev. F. D. Huntington, Bishop of Central New York, assisted by the Rev. L. C. Stewardson, Frank William Marlow, M.D., M.R.C.S., &c., of Syracuse, N.Y., U.S.A., to Laura Bissett, daughter of F. J. Mills, Esq., of San Francisco, California.

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MOIR—ALLAWAY.—On Oct. 24th, at All Saints, Cheltenham, Surgeon John Drew Moir, Army Medical Staff, youngest son of the late Rev. Charles Moir, M.A., of Chatham, to Constance, only daughter of the late W. A. H. Allaway, Esq., of Craig-y-Nos Castle, Brecknockshire.

WAWN—CHALLIS.—On Oct. 23rd, at St. John Baptist Church, Stone, Edward Russell Wawn, M.R.C.S. Eng., of Bramley, Yorkshire, son of the late Rev. Edward Bickersteth Wawn, of Cheltenham, to Agatha Lucy, third daughter of the Rev. J. L. Challis, M.A., vicar of Stone, Rural Dean, and granddaughter of the late Rev. James Challis, M.A., F.R.S., Plumian Professor of Astronomy, Cambridge.

WEIR—PLATT.—On Oct. 24th, at Kurrachee, Surgeon Richard Rose Weir, M.D., Indian Medical Service, to Clara, youngest daughter of Henry Platt, Ampthill, Beds.

DEATHS.

APPLEYARD.—On Aug. 7th, at Longford, Tasmania, James Appleyard, M.R.C.S.E., L.S.A., aged 51.

DALE.—On Oct. 29th, at Chalcot-gardens, Belsize-park, N.W., Henry Ridley Dale, Jun., M.D., M.R.C.S., &c., late of Sunderland, aged 33.

HUTCHINSON.—On Oct. 22nd, at Newington, near Sittingbourne, Kent, Thomas Steers Hutchinson, M.R.C.S., L.R.C.P.

JOHNSON.—On Oct. 5th, at his residence, Montserrat, West Indies, the Honourable Burdett Johnson, M.R.C.S.E., L.S.A. Lond., J.P.; for over twenty years Member of the Executive and Legislative Councils of the Island of Montserrat, and Senior Medical Officer, aged 54. Beloved and respected by all who knew him.

JONES.—On Oct. 27th, at Surbiton, William Price Jones, M.D., aged 60.

LEIGH.—On Oct. 24th, at his residence, Oak Cottage, Hammersmith High-road, Percival Leigh, Esq., M.R.C.S., aged 75.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

ALLMAN & SON, 67, New Oxford-street, London.

Manual of Personal and Domestic Hygiene. By A. T. Schofield, M.D. pp. 163.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.

A Text-book of the Practice of Equine Medicine. By W. Robertson, F.R.C.V.S.; revised by J. Penberthy, F.R.C.V.S. Second Edition. 1890. pp. 774.

Handbook of Surgical Pathology, for the use of Students in the Museum of St. Bartholomew's Hospital. Second Edition. By W. J. Walsham, M.B., F.R.C.S., assisted by D'Arcy Power, M.A., M.B. Oxon., F.R.C.S.Eng. 1890. pp. 634.

BELL & BRADFUTE, Bank-street, Edinburgh.

Through the Ivory Gate: Studies in Psychology and History. By William W. Ireland, M.D. Edin. 1889. pp. 311.

BLACK, ADAM & CHARLES, Edinburgh.

The Collected Writings of Thomas De Quincey. New and enlarged Edition. By D. Masson. Vol. I.: Autobiography from 1785 to 1803. 1889. pp. 416.

BLAKISTON, SON, & CO., Walnut-street, Philadelphia.

Lectures on Obstetric Nursing. By Theophilus Parvin, M.D. 1889. pp. 104.

CHURCHILL, J. & A., New Burlington-street, London, W.

Handbook of Hospital Practice and Physical Diagnosis. By C. J. Nixon, M.D. 1889. pp. 344.

Suggestions to Mothers on the Management of their Children. By a Mother. Revised throughout by a Physician. Second Edition. 1889. pp. 690.

The Electric Illumination of the Bladder and Urethra as a means of Diagnosis of Obscure Vesico-urethral Diseases. By E. Hurry Fenwick, F.R.C.S. With 54 Illustrations. Second Edition. 1889. pp. 271.

The Past and Present Provision for the Insane Poor in Yorkshire, with Suggestions for the Future Provision for this Class. By D. Hack Tuke, M.D., F.R.C.P. 1889. pp. 55.

GINN & CO., Ludgate-hill, London, and Boston, U.S.A.

An Introduction to Chemical Science. By R. P. Williams, A.M. Edited and revised by B. P. Lascelles, M.A., F.C.S. 1889. pp. 223. Price 3s. 6d.

GOVERNMENT PRINTING OFFICE, Washington.

Index-Catalogue of the Library of the Surgeon-General's Office, United States Army; Authors and Subjects. Vol. X. O—Pfutsch. 1889. pp. 1059.

GRIFFIN, CHARLES, & COMPANY, Exeter-street, Strand, London.

A Contribution to the Surgery of the Spinal Cord. By W. Thorburn, B.S., B.Sc., M.D. With Diagrams, Illustrations, and Tables. 1889. pp. 230.

LEWIS, H. K., Gower-street, London, W.C.

Hunterian Lectures on the Morbid Anatomy, Pathology, and Treatment of Hernia. By C. B. Lockwood, F.R.C.S. Thirty-six Illustrations. 1889. pp. 168.

LONGMANS, GREEN, & CO., Paternoster-row, London.

Transactions of the Clinical Society of London. Vol. XXII. With Supplementary Reports on Cases in Vols. I.-XXI. 1889. pp. 432.

MACLEHOSE & SONS, Glasgow.

Account of the Life and Works of Maister Peter Lowe, the Founder of the Faculty of Physicians and Surgeons of Glasgow. By Jas. Finlayson, M.D. 1889. pp. 84.

NEW SYDENHAM SOCIETY, London.

Lectures on General Pathology. A Handbook for Practitioners and Students. By J. Cohnheim. Translated from the Second German Edition by A. B. McKee, M.B. Dub. Section II.: The Pathology of Nutrition. 1889. pp. 821.

OLIVER & BOYD, Edinburgh.

The Transactions of the Edinburgh Obstetrical Society. Vol. XIV. Session 1888-89. pp. 152.

The Transactions of the Medico-Chirurgical Society of Edinburgh. Vol. VIII. New Series. Session 1888-89. pp. 234.

SMITH & CO., Calcutta.

Snakes: Snake-bites, and their Treatment. By a Hindu. 1889. pp. 62.

SPON, E. & F. N., 125, Strand, London.

A Pocket-book for Pharmacists, Medical Practitioners, Students, &c. (British, Colonial, and American). By Thomas Bayley. 1889. pp. 528.

VOGEL, F. C. W., Leipzig.

Lehrbuch der Physiologischen und Pathologischen Chemie. Von Prof. G. Bunge. Zweite vermehrte und verbesserte Auflage. 1889. pp. 404.

YOUNG J. PENTLAND, Edinburgh.

The Essentials of Medical Anatomy. By H. R. Kenwood, M.B., C.M. 1889. pp. 62.

The Treatment of Pleurisy and Empyema. By Byrom Bramwell, M.D., F.R.C.P. Edin. Four Illustrations. 1889. pp. 82.

Handbook of Obstetric Nursing. By F. W. N. Haultain, M.D., F.R.C.P. Edin., and J. H. Ferguson, M.B., F.R.C.P. Edin. With coloured Plate and 29 Wood Engravings. 1889. pp. 216.

Coloured Analytical Tables; a Class-book for Students in Hospitals, Colleges, and Schools, by H. Wilson Hake, Ph.D., F.I.C., F.C.S. (G. Philip & Son, London, 1889).—Ground Water and Shallow Wells, in relation to Public Health; by W. B. Featherstone, M.R.C.S. (Charles Stocker, Birmingham, 1889), price 1s.—Funchal auf Madeira und Sein Clima (mit sieben Tabellen und vier graphischen Darstellungen): Inaugural Dissertation der medicinischen Facultät der Kaiser-Wilhelms-Universität, Strassburg, zur Erlangung der Doctorwürde; vorgelegt von Ferdinand Christmann (G. Mallinckrodt, H. Hille, Zabern i. E., 1889).—Revue Trimestrielle de Thérapeutique Appliquée; la Médication Phosphatée Physiologique; par L. Jolly, Pharmacien de Première Classe (64, Faubourg Poissonnière, Paris, 1889).—Hunterian Lectures on Intracranial Inflammations starting in the Temporal Bone, their Complications and Treatment; by A. E. J. Barker, F.R.C.S. (Illustrated Medical News Company, London, 1889).—Throat and Nose Affections in Children, in relation to certain derangements of Sleep, Temper, Spirits, Energy, and to Intellectual Power and other Brain Functions; by Scanes Spicer, M.D. Lond. (John Bale and Sons, London, 1889).—El Arsénico como Profiláctico del Tifo; por el Doctor Samuel Morales Pereira (Imprenta del Gobierno, en el Ex-Arzobispado, México, 1889).—Tabes Dorsalis; von Geh. Med.-Rath. Prof. Dr. Leyden (Urban & Schwarzenberg, Wien und Leipzig, 1889).—The Ship's Surgeon of To-day; by Chas. H. Leet, F.R.C.S. (116, Derby-road, Bootle, Liverpool, 1889), price 6d.—Victoria Cross, 1854-1889, and how Won; by T. E. Toomey (A. Boot & Son, London, 1889), price 5s.—Portfolio of Concentrated Liquors; Fletcher, Fletcher, and Stevenson, manufacturing chemists, Holloway, N., price 1s. post free.—La Uretrotomia Interna en la Isla de Cuba es tan inocente, como la Dilatacion Progresiva; por el Dr. Ignacio G. Plasencia (Imprenta "La Antilla," de Cacho-Negrete, Habana, 1888).—The Proposal: a Dialogue; by Zula Maud Woodhull, London, 1889).—Notice sur les Eaux Thermales de Bagnols-les-Bains (Lozère): et sur leur Usage dans le Traitement des Maladies du Cœur; par le Docteur M. Bourrillon; avec Plan et Carte, prix un franc (Jacques Lechevalier, Paris, 1889).—On a Pure Fermentation of Mannite and Glycerin; by Percy F. Frankland, Ph.D., B.Sc., and Joseph J. Fox (from the Proceedings of the Royal Society, Vol. XLVI.).—Annual Return of the Sanitary Work of the Burgh Engineer's Department, Edinburgh, including Inspections of Houses, Sanitary Appliances, Drainage, &c., 1888-1889 (H. & J. Pillans and Wilson, Thistle-street, Edinburgh).—Moravian Missions: Work among Lepers in South Africa and Jerusalem; by Rev. J. La Trobe, Bishop of the Moravian Church.—Die Chemisch-Mikroskopische Untersuchung des Harns auf seine wichtigsten Krankhaften-veränderungen; zum Gebrauche für practische Aerzte und Militär-lazarethe; zusammengestellt von Dr. O. Puhlmann; vierte Auflage neubearbeitet; von Dr. J. Borntraeger (August Hirschwald, Berlin, 1890).—Die Albuminurie in Physiologischer und Klinischer Beziehung und ihre Behandlung; von Professor Dr. H. Senator; zweite gänzlich umgearbeitete Auflage (August Hirschwald, Berlin, 1890).—The General Theory of Cancer-formation; by H. Snow, M.D. (J. & A. Churchill, London, 1889), price 1s.—The Immediate and General Treatment of Accidents and Injuries; by Sir William Moore, K.C.I.E., Q.H.P. (Churchill & Co., London, 1889).—How to avoid a Cold; by One who Does (Griffith, Farran, Okeden, and Walsh, London and Sydney), price 3d.—Massage in der Frauenheilkunde; von Dr. L. Prochownick (Leopold Voss, Hamburg and Leipzig, 1890).—English Idyls, by P. H. Emerson (Sampson Low, Marston, Searle, and Rivington, London, 1889).—The Newspaper Reader's Index of Reference (H. Axon, Old Hall-street, Bolton, Lancashire, 1889).—Magazines for November: Leisure Hour, Wit and Wisdom, Good Words, Sunday at Home, Scribner's, Boy's Own Paper, Sunday Magazine (Isbister), Blackwood's Edinburgh Magazine, Gardener's Magazine.

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Medical Diary for the ensuing Week.

Monday, November 4.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.
ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Dr. Felix Semon: Some Points in the Etiology, Diagnosis, and Treatment of Empyema of the Antrum.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Sir Joseph Lister: A New Antiseptic Dressing.

Tuesday, November 5.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. F. J. Smith: Hypertrophic Cirrhosis in a Child.—Mr. D'Arcy Power: An unusual case of Cirrhosis of the Liver.—Dr. Samuel West: Addison's Disease in a Diabetic.—Mr. Barwell: A singular Cyst of unknown nature removed from the Groin of a Woman.—Dr. Norman Moore: Cases of Congenital Heart Disease.—Dr. F. W. Mott: Pernicious Anæmia.—Mr. Stephen Paget: Occipital Meningocele, with Cleft Palate and Talipes Calcaneus.

Wednesday, November 6.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.
OBSTETRICAL SOCIETY OF LONDON (the Society's Library, 54, Berners-street, W.).—8 P.M. Specimens will be shown. Dr. Cullingworth: Case of Vesico-utero-vaginal Fistula.—Dr. Rasch: Case of large Chylous Cyst of the Mesentery.—Dr. Lewers: Case of Lupus of the Vulva.—Dr. Braxton Hicks: Case of Inversion of the Uterus.

Thursday, November 7.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK, E.—4.30 P.M. Dr. Thorowgood: On Basic Disease of the Lung.
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Dr. J. Cagney: The Administration of Drugs by the aid of Electricity.—Mr. A. P. Luff: The Anti-fermentative Treatment of Infantile Diarrhœa.—Mr. J. T. Clarke: A Specimen of Abnormality of the Spinal Cord associated with Club-foot.

Friday, November 8.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON (at 20, Hanover-square).—Living Specimens at 8 P.M.:—Mr. Macnamara: (1) Excision of Head and Neck of the Humerus for Myeloid Sarcoma, no recurrence of the disease; (2) Removal of Testicle for rapidly-growing Round-celled Sarcoma, patient free from disease after two years.—Dr. Handford: Unilateral Myositis and Neuritis in a Man aged forty-eight.—Dr. Abercrombie: Myxœdema in a young subject.—Mr. G. H. Makins: (1) Rheumatoid Arthritis in a Child; (2) Hip-joint Disease, Anterior Incision. Papers at 9 P.M.:—Mr. W. Rivington: Case of Potts' Fracture with Fracture and Displacement of Astragalus, followed by symptoms of Tetanus, which subsided after removal of the displaced fragment.—Mr. W. G. Spencer: Case of Dislocation Backwards at the Elbow of both Bones of the Forearm, irreducible from the Lower End of the Humerus, being held like a Button by a Rent in the Anterior Ligament.—Mr. E. A. Barton: Case of Paroxysmal Hæmoglobinuria.

Saturday, November 9.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, October 31st, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Oct. 25	30·21	N.	44	42	75	53	41	..	Cloudy
,, 26	30·17	N.E.	48	45	71	54	42	..	Overcast
,, 27	29·72	S.E.	46	46	..	55	44	·28	Raining
,, 28	29·78	E.	50	49	61	54	45	·18	Foggy
,, 29	29·93	E.	49	49	61	56	48	·02	Foggy
,, 30	29·95	S.E.	49	48	88	58	48	·02	Bright
,, 31	29·97	S.W.	45	44	82	54	44	·16	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

SALARIES AND REPORTS OF MEDICAL OFFICERS OF HEALTH.

To the Editors of THE LANCET.

SIRS,—In your paragraph in last week's issue of THE LANCET on the above subject, you seem to infer that medical officers of health are only required to send their annual report to the Local Government Board, whereas the Act of 1888 distinctly states (Section 19) that a similar report must be sent to the clerk to the County Council.

I am, Sirs, your obedient servant,
J. HENRY ASHWORTH,
Med. Officer of Health, Halstead Rural Sanitary Dist.

Halstead, Essex, Oct. 29th, 1889.

*** Our annotation of last week dealt only with the point raised in Section 24 of the Local Government Act, 1888—namely, that half of the salaries of such officers of health as had not yet sent in to the Local Government Board "such report and returns" as are required of them for the past year was now liable to be forfeited. It is not until the beginning of next year that the requirement as to sending a copy of the annual report to the County Council, under Section 19, comes into operation.—ED. L.

Mr. A. Greenleaves.—There is no practical difference in the nutritive value of meat which has been frozen in the fresh state and that which is sent to market in the ordinary way. The only loss that meat sustains by being frozen is said to be that the flavour is slightly impaired.

Mr. Henry C. Wilkie.—Cobbold, Leuckart, Kuchenmeister, Davaine.

EXAMINERS IN VACCINATION FOR WALES.

To the Editors of THE LANCET.

SIRS,—Having been away from my native country for many years, and not having availed myself of the opportunities offered during my studentship for acquiring the necessary licence in vaccination, I find that I must cross the Channel (this being the nearest point) before I can meet with a person authorised to grant this formal document. Why Wales has not been honoured with such a representative I do not know. It certainly cannot be on the ground of incompetency. If examiners were appointed nearer home it would be a convenience, as well as a saving of expense, to those candidates who have, like myself, neglected a past opportunity. Great centres like Cardiff or Swansea ought to possess the necessary attractions.

I am, Sirs, your obedient servant,
JOHN HARRIS JONES.

Swansea, Oct. 26th, 1889.

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RESPONSIBILITY UNDER THE NOTIFICATION ACT.

To the Editors of THE LANCET.

SIRS,—May I ask, in reference to the notification of disease, how it would happen (1) if a medical man did not recognise the nature of the disease, which it is often difficult to do; and (2) if he gave notification of a disease which did not turn out to be infectious? In the latter case might he be liable to prosecution by the patient or his relatives for damages, or is the responsibility to rest on the medical officer of health?

I am, Sirs, yours truly,

Oct. 26th, 1889. A. H. NEWTH, M.D.

* The questions put by our correspondent are important. 1. Undoubtedly the responsibility of certification rests with the person who certifies. There is nothing in the Act to require him to certify till he shall have "become aware that the patient is suffering from an infectious disease." In difficult or dubious cases he must give the patient the benefit of the doubt; but he must be careful that the dubiousness is in the case and not in his own mind and knowledge. A medical man would not be punished, we apprehend, for an honest reasonable doubt in a difficult case.—2. If he makes a mistake and "notifies" a disease which turns out to be non-infectious he must bear the burden of it. There is nothing in the Act to throw the onus of diagnosis on the medical officer of health, though no officer of health would, we think, refuse his assistance in a serious difficulty. We repeat in doubtful cases the patient must have the benefit of the doubt. The Act will bring delicate and difficult duties, and will give an occasional illustration of the fallibility even of medical men. But honest and fair mistakes will not be severely judged by reasonable patients or judges.—ED. L.

G. J. M. wishes for information as to where a boy aged eleven years, middle class, requiring care and supervision, can be placed (institution or otherwise). He is not deaf, but dumb, and inclined to be unruly, but up to the present has been managed at home by an ordinary nurse girl, with a little sister. It is doubtful if he can be taught anything.

D.—Most offices would accept such a life, probably at little, if any, advance on the ordinary rates.

Mr. A. W. Macdougall.—The discussion of the subject is closed.

PRACTICE AT THE CAPE.

To the Editors of THE LANCET.

SIRS,—In answer to the query as to the prospect of practice at the Cape, will you allow me to say that a smart man can always get on out there? We have not many London M.D.'s; these gentlemen generally procure extensive practices. What are wanted there are really smart men. We have many ordinary practitioners, and even these seem to succeed. I doubt whether a man with ordinary qualifications could do worse than go to Africa. The field for work is extensive, and where one practitioner will fail another may prosper. Of course, care must be taken to avoid certain overcrowded localities, as the following extract out of the latest Cape papers will show:—"There are fifty-six medical men practising—or trying to do so—in Johannesburg." This rush of medical men is, of course, on account of the gold discovery; but by a little reasoning one is soon convinced that they must have had a practice somewhere in the colony, and that the said practice is now vacant, and open to any smart, energetic man. Again, I must say we want the best qualifications. As to the climate, nothing can be better; it will at times be found hot, but one soon becomes used to that. I would not advise the abandonment of a fair London practice.

I am, Sirs, yours truly,

London, Oct. 23rd, 1889. NITCH SMITH, M.S. (of Africa).

THE LATE ALBERT SMITH'S WORKS.

To the Editors of THE LANCET.

SIRS,—In answer to Mr. Alfred Corrie, I beg to state that "The Medical Student," by the late Albert Smith, was published at a shilling by Messrs. Routledge, Warne, and Routledge, to which firm your correspondent had better address himself. The cardboard cover of the book bears the *fac-simile* of a capped phial, with the labelled direction, "Half to be taken immediately, and the other half in an hour if the depression is not removed." I may say that it is my intention to introduce a few extracts from this hilarious volume into my forthcoming paper on "Mirth and Medicine; or, the Philosophy and Physiology of Fun and Physic."

I am, Sirs, yours truly,

Leeds, Oct. 29th, 1889. CLARENCE FOSTER.

To the Editors of THE LANCET.

SIRS,—Staff-Surgeon Corrie will, I think, obtain a copy of "The London Medical Student" by either advertising in the "Secondhand Books" columns of the *Publishers' Circular* (Sampson Low, Limited), or addressing a post-card to each of the various dealers whose names are given in the list. I saw the book myself only a short time ago, whilst "hunting" for others on a "stall," but I cannot recollect where. It is strange that a new edition of this highly successful, clever, and amusing work has not been issued by some enterprising publisher or other.

I am, Sirs, obediently yours,

Bloomsbury-place, W.C., Oct. 26th, 1889. CHARLES F. RIDEAL.

THE INTERMARRYING OF CONVICTS.

IN Italy, where all "questions" relating to the detention, employment, and disposal of an abnormally numerous convict population may truly be described as "burning," our annotation, which appeared on Aug. 10th, on the above topic has attracted considerable notice. Our attention has just been directed to a recent number of the *Opinione*, the organ of the Italian Right which perpetuates the liberal traditions of Cavour, and which translates the annotation *in extenso*, and introduces it with the following observations:—"Readers of the *Opinione* are probably aware how the French Republic has constituted itself the apostle of marriages between felons, and it may not be without interest to them to know the comments made on this wild legislative measure by the most authoritative of the English medical journals, which also ranks among the most celebrated of the two hemispheres—THE LANCET. It is superfluous to state that everyone even moderately schooled in medicine, or in any degree acquainted with the laws of atavism, which mould in their evolution with equal potentiality the cellule and the moral life, must, whatever his theory of those laws, acquiesce unreservedly in the pointed remarks of the most accredited British journal" (*l' accreditatissimo giornale Britannico*). Then follows a summary of the official *apologia* of the French Government in its new legislative departure, and the translation of the reply which "il celebre periodico medico inglese" makes to it. To the *Opinione's* article are appended the initials of a distinguished Venetian consultant, who effectively reinforces the doctrine of which Dr. Lombroso in Italy (like Sir James Coxe and Dr. Bruce Thomson before him) is now the most vigorous vindicator, as to the best mode of diminishing crime.

Veritas.—The passage complained of in the obituary notice of Dr. Habershon, published by us last week, was not intended to present a partisan view of the merits of the dispute at Guy's Hospital, but simply to record the circumstances which led to the resignation by Dr. Habershon of the physicianship of that institution.

Mr. Montagu Palmer.—The "bother" complained of is great, but we should not advise making it a subject of newspaper complaint. The remedy would be worse than the disease.

Dr. Geo. B. Beale.—THE LANCET, Sept. 14th, 1889.

THE EXAMINATION FOR THE MEMBERSHIP OF THE ROYAL COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—Kindly permit me to make some remarks on behalf of intending candidates for the M.R.C.S.

I was a candidate at the recent examination for the M.R.C.S., but I was referred for six months. Why? At both tables I was questioned on Pott's disease in connexion with the section on pathological anatomy. The examiners appeared satisfied with my answering on the nature of the disease and on the mode of formation of a psoas abscess. But when I was asked the treatment of a psoas abscess, the candidate disagreed with the examiner, unfortunately, on this point. I have altogether spent about six years in the surgical wards under the most celebrated surgeons of the day, and I have consulted most handbooks, and compared my teaching carefully with these handbooks. I had no hesitation whatever in saying that I would open a psoas abscess; the patient would be quickly relieved, and if Listerism were carefully carried out no evil result would supervene. But "No," said the examiner "leave it; the liquid will become absorbed, and only a slight hard swelling remain." I was thunderstruck, and could not further proceed with my examination. I was questioned on the direction of Colles' fracture in connexion with the clinical part of my examination. The examiner disagreed with me when I said it was usually transverse; but, strange enough, at my pathological examination I thought I had better hush my conscience on being asked the direction of this fracture, supposing that English people always had their bones broken obliquely, and thus I answered, whereupon the examiner handed me a specimen, which, of course, was transverse.

If I did not suppose that I am trespassing too far, I could cite some more examples like those I have quoted. I think a candidate should get full credit for his answer, provided that answer comes from good authority, even though it be not consistent with the views or whims of the examiner. At all events, it would be to the advantage of candidates if the examiners for the M.R.C.S. could agree among themselves; for then the candidates would have more faith in them, and would consider them greater authorities than were their teachers.

I am, Sirs, yours truly,

Oct. 28th, 1889. PSOAS.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.

To the Editors of THE LANCET.

SIRS,—I note that in your annotation, "Remarkable Suicide with Prussic Acid," you speak of Mr. Pollard as an Associate of this Society. This is incorrect, as he is not connected with the Society.

I am Sirs, yours truly,

Oct. 29th, 1889. RICHARD BREMRIDGE, Registrar.

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TELEGRAPHIC ADDRESSES IN THE MEDICAL DIRECTORY.

To the Editors of THE LANCET.

SIRS,—Your correspondent in last week's issue had no authority for the assumption that unregistered telegraphic addresses would be inserted in the Medical Directory. Only registered addresses are inserted, and we require the certificate of registration to be forwarded, with stamped directed envelope for its return.

We are, Sirs, yours faithfully,

The Medical Directory Office, 11, Burlington-street, W., Oct. 29th, 1889. THE EDITORS.

CIRCUMCISION.

To the Editors of THE LANCET.

SIRS,—Your correspondent, Mr. Lancelot Newton, will find a description of the operations for restoring the prepuce in Celsus, book vii., cap. xxv. The second one was that used for the purpose referred to.

I am, Sirs, yours obediently,

Wimpole-street, W., Oct. 30th, 1889. WALTER G. SPENCER.

ERRATUM.—By a typographical error in the notice last week of Dr. Ricord he is represented as having returned to Paris from the provinces in 1888; it should have been *1828*.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Risdon Bennett, London; Dr. Corfield, London; Dr. Beevor; Dr. Graham Steell, Manchester; Mr. W. G. Spencer, London; Messrs. Cassell and Co., London; Mr. C. Foster; Rev. E. Lacon, Stockbridge; Dr. Lloyd Tuckey, London; Dr. McMordie, Belfast; Dr. E. S. Reynolds, Manchester; Mr. Weaver, Southport; Mr. Morgan, Kinnerley; Dr. J. W. Matthews, Johannesburg; Dr. T. Oliver, Newcastle-on-Tyne; Dr. C. Leater, London; Mr. Norton, London; Mr. Ladell, London; Mr. C. E. Stretton, Leicester; Mr. Linde, Manchester; Mr. Blackwell, London; Mr. Myers, Nottingham; Dr. Thorowgood, London; Messrs. Heard and Son, Truro; Mr. C. T. Archer, Geneva; Dr. Newth, Hayward's Heath; Capt. Hincks, London; Mr. Watkins, Boscombe; Mr. Roger Williams, London; Mr. W. F. Haslam, Birmingham; Dr. Wallace Anderson, Glasgow; Dr. W. A. Aikin, London; Dr. Gourley, West Hartlepool; Dr. D. Mowat, London; Messrs. Hearon, Squire, and Francis, London; Dr. Walter, Manchester; Mr. Sell; Mr. Roland Smith, London; Dr. Drummond, Newcastle-on-Tyne; Dr. Clifford Beale, London; Mr. F. Boycott, Manchester; Mr. J. H. Jones, Swansea; Mr. Rideal, London; Mr. J. Poland, London; Dr. E. Seaton, London; Mr. W. H. Pearce, London; Mr. Gibson; Dr. G. Herschell, London; Dr. Alderson; Mr. V. Matthews, London; Mr. Relton, Rugby; Mr. J. W. Taylor, London; Mr. Wheelhouse, Leeds; Mr. K. Thornton, London; Mr. J. B. Lamb, London; Mr. Edwardes-Ker, Woodbridge; Prof. P. Frankland, London; Dr. Gwynne, Sheffield; Dr. J. K. Spender, Bath; Dr. Moorhead, Weymouth; Mr. S. Snell, Sheffield; Mr. Axon; Mr. Davies, Newport, Mon.; Messrs. Clarke and Co., London; Mr. Birchall, Liverpool; Messrs. Macfarlane and Co., London; Dr. Kinsey-Morgan, Bournemouth; Messrs. Burgoyne and Co., London; Mr. Heywood, Manchester; Messrs. Richards and Co., London; Mr. Woodhead, Huddersfield; Messrs. Maclachlan and Co., Edinburgh; Dr. Bailey, Oban; Mrs. Groom; Mr. Coulson, South Shields; Mr. Soper, Dartmouth; Mr. Stone; Messrs. Gibbons and Co., Leicester; Mr. Fulker, Boscombe; Messrs. Grace; Mr. Hawkins, London; Mr. Dixon, Gateshead; Mr. Jones, Lisbon; Mr. Russell, Liverpool; Mr. Reece, Swansea; Mr. Phipps, Sheffield; Mrs. Cable, Brixton; Mr. Crow, Canterbury; Mr. Huey, Castlederg; Mr. Wood, Gloucester; Messrs. Churchill, London; Messrs. Kegan Paul and Co., London; Mr. Collins, Norfolk; Mr. Pink; Messrs. Robertson and Scott, Edinburgh; Mr. Lawrence, Barnstaple; Messrs. Hopkinson and Co., Notts.; Dr. Murrell, London; Mr. Fisher; Messrs. Street and Co., London; Mr. Rosenkranz, Dresden; Messrs. Macmillan and Co., London; Mr. Gibson, Norfolk; Mr. Little; Messrs. Potter and Co., London; Mr. Brown, Salford; Mr. Saunder; Messrs. Oliver and Boyd, Edinburgh; Dr. T. Williams, London; Messrs. Christy and Co., London; Dr. Martin, Stockport; Mr. Canfield; Messrs. Blondeau et Cie., Kentish-town; Mr. Wilkie, Wolverhampton; Mr. W. A. Ellis, London; Dr. Baily, Hanwell; Mr. Poniso, Bordeaux; J. C. H., Leeds; M.D.; Stoker; Sir Psoas; Veritas; Justitia; Euonymised Cocoa Co., Birmingham; Medicus, Sheffield; M.D., Maida-vale; Dahl's Agency, London; Delta, London; M., London; Alpha, London; Lady Superintendent, School of Massage, &c.

LETTERS, *each with enclosure*, are also acknowledged from—Sir Henry Thompson, London; Mr. Reid, Canterbury; Messrs. Richards and Co., London; Mr. Tyte, Minchinhampton; Messrs. Wilkinson and Co., Newcastle-on-Tyne; Mr. Culleton, London; Mr. Marlow, New York; Messrs. Jeyes, London; Mr. Butcher, London; Mr. Raverty, Bootle; Mr. Sergeant, London; Mr. Linnell, Towcester; Dr. Carey, Guernsey; Mr. Davenport, London; Mr. Hart, Wansford; Rev. A. Tooth, Croydon; Mr. Campbell, Perth; Mr. McDougall, Durham; Mr. Griffin, Bognor; Mr. Montmonery, Ely; Mr. Williams, South Devon; Mr. Moon, Middlesbro'; Mr. Harries, Llanelly; Mr. Van Praagh, London; Dr. Skinner, Somerset; Mr. Cuthbertson, Rhondda Valley; Mr. Tully, Hastings; Mr. Forbes, Halifax; Messrs. Kilner Bros., King's-cross; Dr. Sinclair, Sanguhar; Messrs. Wright and Co., Bristol; Mr. Mortlock, Penrith; Mr. Rose, Nairn; Mr. Ungem, Cookstown; Mr. Davidson, Atherstone; Mr. Richmond, Holywell; Mr. Moorhead, Dublin; Mr. Bailey, Hastings; Mr. Considine, Ireland; Mr. Pittway, Pershore; Mr. Thomas, Swansea; Mr. Faulkner, London; Dr. Dixey, Ipswich; Dr. Davies, London; Mr. Smith, Dundee; Mr. Arbenz, Birmingham; Mr. Grant, Dundee; Mr. Stenhouse, Glasgow; Mr. Moore, Springsure, Queensland; Mr. Puckle, Bishop's Castle; Mr. Robson, Shields; Dr. Liveing, London; Messrs. Black and Co., London; Mr. Watts, Christchurch; Messrs. Johnston, Edinburgh; Mr. Wadlow, Manchester; Miss Meason, Hants; Mr. Fisher Unwin, London; Mr. Rochfort, Parsonstown; Mr. Nicholson, South Kensington; Mr. Popham, Dulwich; Dr. Freres; Messrs. Growse and Honeywill, Ipswich; Mr. Fletcher, Northwich; Messrs. Davies and Co., Bridgend; Mr. Wheeler, Manchester; Dr. Woodman, Great Yarmouth; Mr. Foley, Somerset; Mr. Darke, London; Messrs. Keith and Co., Edinburgh; Mr. Saunders, Pimlico; Mr. Thorne, Market Drayton; Mr. Forrest; Mr. Lumb, Cleethorpes; Messrs. Benson and Co., London; Mr. Home, Dewsbury; Mr. Potts, London; Dr. Cran, Aberdeen; Mr. Scarlett, Highbury; Mr. Bryan, Nottingham; W. S.; A. B. C., London; Aloin, London; F. H. J., London; Secretary, Royal Infirmary, Manchester; Alpha, London; Ley, London; Nurse Gertrude, London; Sursum, London; Secretary, Norfolk and Norwich Hospital; Cyclops, London; G., Yorks; L. M., S. M., London; The Hermitage, Crakehall; G. B., London; R., London; P. S., Liverpool; Gig, London; Medicus, Accrington; Juvenal, London; M.B., Hereford; Nucleus, London; Alpha, Wellingbro'; S., London; W., Croydon; Omicron, London; Medicus, London; Medicus, Devon; Noswil, London; Tenax, London; Verax, London; Secretary, College of Preceptors, Bloomsbury; M.R.C.S., York; Yorks, London; Cash Practice, London; M., Hammersmith; Kappa, London; A. B., Great Portland-street; B., London; H., London; Delta, London; Medicus, Kingsland; Gamma, London; Surgeon, London.

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An Address
ON
A NEW ANTISEPTIC DRESSING.

Delivered before the Medical Society of London, Nov. 4th, 1889,

BY SIR JOSEPH LISTER, BART., F.R.S.,
PROFESSOR OF CLINICAL SURGERY IN KING'S COLLEGE.

MR. PRESIDENT AND GENTLEMEN,—When I last had the honour, five years ago, of addressing this Society at the request of its President, I brought before you an attempt I had made to utilise the powerful antiseptic properties of corrosive sublimate without the great disadvantages attendant upon its highly irritating qualities. I had ascertained that when corrosive sublimate precipitates albumen the precipitate is not, as had been generally supposed, an albuminate of mercury—that is to say, a combination of albumen as an acid with mercury as a base; in other words, that the albumen does not displace the chloride from its combination, but that the bichloride of mercury retains its properties intact, the albumen being loosely associated with it, in a species of solid solution, if I may so speak.

Further, I had found that this precipitate, even after drying, is capable of being dissolved in the serum of the blood, and that the solution in blood serum is powerfully antiseptic while not irritating. I proposed and brought before you a new dressing in the shape of what was termed the sero-sublimate gauze, charged with a solution of corrosive sublimate in the serum of the blood. This gauze gave very satisfactory results, both in my own hands and in those of surgeons in places so far distant as Poland and Spain. Nevertheless, it was not all that could be desired by any means; it was somewhat harsh mechanically; it was not very absorbent (a serious defect), and one of the materials of which it was made (the serum of horse's blood) was not always easily obtainable. I was, therefore, well disposed to look for something superior.

A few weeks after that communication was made to the Society, a firm of manufacturing chemists, Messrs. Gibbs, Cuxson, and Co., wrote to me saying that they had found that if chloride of ammonium or sal ammoniac in quantity equal to one-fifth part of the weight of the bichloride of mercury was added to the mixture of bichloride of mercury and blood serum, the result was a much more fluid preparation than I had obtained. If I used a preparation of one part of bichloride of mercury to 100 of blood serum, I got a thick liquid somewhat difficult to diffuse in gauze. They therefore suggested that by adding sal ammoniac in that proportion I should get a much more workable arrangement. On consulting chemical works I found that one-fifth of sal ammoniac was exactly sufficient to produce with bichloride of mercury the salt long known to chemists as sal alembroth, a double salt of bichloride of mercury and chloride of ammonium. I naturally wished to ascertain whether this addition of sal ammoniac would impair or even destroy the antiseptic properties of the bichloride of mercury. I therefore made experiments on the point, and I found that the sal ammoniac associated in the form of a double salt with the bichloride of mercury did not by any means impair its antiseptic properties; on the contrary, it improved them, so far at least as concerned that which we have to deal with as surgeons, an albuminous fluid like the serum of the blood. Sal alembroth and bichloride of mercury proved to be exactly equivalent weight for weight as antiseptics in such a fluid. Each had to be used in normal serum of specific gravity of about 1025 in the proportion of about $\frac{1}{1000}$ in order to prevent altogether the development of micro-organisms. Those who are acquainted with Koch's researches will consider this a very high proportion. Koch has shown that in a solution destitute of albumen $\frac{1}{100000}$th part of bichloride of mercury is sufficient to prevent the development of organisms; but when we have albumen present in the solution the case becomes altogether altered. Albumen interferes with the antiseptic action of corrosive sublimate, and thus in serum of the blood of specific gravity 1025 we require, as I have already said, as large a proportion as about $\frac{1}{1000}$ instead of $\frac{1}{100000}$.

When the albumen is small in amount, less corrosive sublimate proves efficient. Thus, in a case of spermatocele, where the specific gravity of the fluid was exceedingly low—only 1007—I found that $\frac{1}{10000}$, just intermediate between the proportions required for blood serum and water, was efficacious. On the other hand, when blood-corpuscles are mixed with the serum in the same amount as in the circulating blood, making the albuminoid substances much more abundant than in serum, we require proportionately more of the corrosive sublimate; at least 1 to 500 is required for the purpose of preventing development. This is a most important consideration after an operation. In the first twenty-four hours the discharge contains a large amount of blood-corpuscles as well as the serum; whilst, at the same time, it is the most copious—more copious than it will be in any subsequent day, provided all goes well aseptically. It is, therefore, an exceedingly serious consideration that in the first twenty-four hours we have a discharge which in both these respects tests our antiseptic more severely than it will ever be tested again, both from its abundance and from its quality. Still, the sal alembroth, whether used with blood serum or with a normal mixture of serum and corpuscles such as that obtained by whipping the blood of the ox so as to get rid of the fibrin, proved equivalent antiseptically to bichloride of mercury.

I may perhaps say in a few words how the experiments were conducted. For the purpose of ascertaining whether a given antiseptic can or cannot prevent development of organisms, a very simple mode of experimentation suffices. What we have to do is to ascertain whether it is *inhibitory*, not whether it is *germicidal*. The only special apparatus required for such experiments is a warm chamber which can be kept pretty constantly about the temperature of the human blood. Beyond this a few stoppered bottles, with well-fitting stoppers—perhaps half-ounce stoppered bottles—are really all that is required. Into a series of such bottles serum of the blood, to the amount, say, of 150 grains, containing solutions of the antiseptic of different strengths, is introduced. These are all inoculated by means of a small syringe pipette with the same quantity, say, $\frac{1}{10}$th of a minim, of some potently septic liquid, such as blood serum in a state of advancing putrefaction. The bottles are placed in the incubator, and then, if development takes place, that is evidence that in the bottle in which it occurs such proportion of the antiseptic as that bottle contains is inadequate; if no development occurs, we have proof of antiseptic efficacy. The transparency of the serum permits a recognition of the development of the organisms, which invariably causes opacity. If we have no change in this respect, if the serum maintains its transparency, at the same time keeping its odour unimpaired, and, further, if microscopic examination of any little sediment there may be shows that it contains no organisms, we have clear evidence that the antiseptic in the proportion concerned has proved efficacious.

Now if the sal alembroth was equivalent to the bichloride of mercury, weight for weight, that shows that the sal alembroth was really more efficacious as regards the quantity of bichloride of mercury it contained. The bichloride of mercury having the sal alembroth added to it, and also water in the double salt that is formed, is increased in atomic weight very considerably; and therefore if an equal weight of alembroth is equivalent in antiseptic action to bichloride of mercury, that shows that the bichloride of mercury is made more efficacious in the blood serum by the addition of the chloride of ammonium. The chloride of ammonium in combination protects the bichloride of mercury, so to speak, to a certain extent, from the interfering influence of the albumen.

At the same time, the sal alembroth proved much less irritating than bichloride of mercury. Experimenting on my own skin, I ascertained that it has certainly not half the irritating property of corrosive sublimate. The chloride of ammonium attached to the bichloride of mercury, while it protects the bichloride in some degree from the influence of albumen interfering with its antiseptic operation, prevents it also from acting so powerfully on the human skin. And thus the union of sal ammoniac with corrosive sublimate had the double advantage of rendering it both more efficacious antiseptically and much less irritating.

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Hence I was at first much pleased with sal alembroth. But it soon appeared that there were certain disadvantages attending it. These depend very much upon its excessive solubility. It is essential for a satisfactory antiseptic dressing that the antiseptic should not be readily washed out of it by the discharge. Sal alembroth is so exceedingly soluble that it is washed out with the greatest ease; thus we were always, even if we used large masses of sal-alembroth gauze, in fear that when the discharge was copious the antiseptic would disappear, say, within the first twenty-four hours, and then the septic mischief would have an opportunity to enter. There was another disadvantage from this great solubility. When the discharge entered a mass of the sal-alembroth dressing it dissolved out the alembroth from it, passed into another part of the dressing, and there took up another portion of the sal alembroth, and so went on from part to part of the dressing, until if the discharge was copious and the dressing large, as it must be when the discharge is copious, before the discharge got to the edge of such a dressing it became so concentrated a solution of the sal alembroth as to be highly irritating. We have seen, for instance, after the removal of the mamma, when the first dressing was changed on the following day, that there has been over the scapula and the neighbourhood a huge blister. No doubt that was only a temporary inconvenience. We never had the discharge again so great as in the first twenty-four hours, but still it was a great inconvenience.

Such being the disadvantages of sal-alembroth dressing, I was disposed to seek for something better. I may say that I myself have never published anything in favour of sal-alembroth dressings; I have never been satisfied with them. It has leaked out that I have used them, and they have come into extensive employment, but never with my published sanction.

In the course of the following year I made various experiments in the hope of rendering sal alembroth more useful in different ways, with which I need not trouble you, but without much success. In February, 1886, my attention was drawn by Mr. Martindale, of New Cavendish-street, to cyanide of mercury as possibly a valuable antiseptic, and, if so, having this advantage, that it did not coagulate albumen. I therefore proceeded to make experiments with cyanide of mercury, and I found, indeed, that in inhibitory power it was remarkably efficacious. I have said that with blood serum sal alembroth or bichloride of mercury is required in about $\frac{1}{10000}$th part. I found that the cyanide of mercury kept blood serum with only $\frac{1}{10000}$th part perfectly free from organic development, in spite of inoculation with potent septic fluid, for a month, when the experiment ended. I may remark that we have in the cyanide of mercury a striking instance of the discordance that there may be between inhibitory power and germicidal power in an antiseptic. In inhibitory power the cyanide of mercury is, as we have seen, exceedingly high; but in germicidal power it turns out to be very low. Mr. Cheyne has made experiments for me, which have shown that even $\frac{1}{1000}$th part in water is incapable of destroying the germs of bacteria. Still, the inhibitory property of cyanide of mercury was a most important point if in other respects the salt were not disadvantageous; but, unfortunately, it proved to be so highly irritating that the greater irritating property of the cyanide of mercury more than counterbalanced its superior inhibitory power. It naturally occurred to me that the cyanide of mercury might perhaps combine with some other cyanide and form a double salt, having advantages corresponding with those presented by sal alembroth as compared with bichloride of mercury. I tried the soluble double cyanide of mercury and potassium, but found it quite too irritating. I here again consulted Mr. Martindale, and he mentioned to me that in "Watts's Dictionary of Chemistry" it is stated that a double cyanide of mercury and zinc of very slight solubility may be formed by mixing together a solution of the double cyanide of mercury and potassium with a soluble salt of zinc, the zinc taking the place of potassium. I therefore obtained some of this material, and proceeded to make experiments on it. I found, in the first place, that it was quite insoluble in water. This seemed at first extremely unpromising. It was soluble in about 150 parts of glycerine, but insoluble in water. I found, however, that it was soluble in about 3000 parts of blood serum, and therefore it was possible that it might work antiseptically. I made experiments to ascertain whether such was the case or not, and I found that this zinco-cyanide of mercury, as we may call it, had really most important antiseptic properties; that in the proportion of $\frac{1}{10000}$th part it kept blood serum perfectly free from the development of organisms for eighteen days, in spite of potent septic inoculation.

I then tried experiments with serum and blood-corpuscles as presented in the whipped blood of the ox. On instituting comparative experiments between sal alembroth, cyanide of mercury, and this double cyanide, I found that with the alembroth all proportions lower than $\frac{1}{100}$th putrefied within twenty-four hours after septic inoculation, while with the cyanide of mercury $\frac{1}{800}$th part sufficed to preserve the serum and corpuscles from putrefaction. At the same time, with the double cyanide I was much surprised and much pleased to find that $\frac{1}{1600}$th, half as little again, was sufficient to keep the mixture of serum and corpuscles permanently free from putrefaction. It may be said that the absence of putrefactive odour is but a rude test. There may be organisms developed without any putrefactive odour being present; that is perfectly true. At the same time, if in a given experiment we find that with one agent putrefaction occurs within twenty-four hours with $\frac{1}{100}$th part, while with another salt there is no putrefactive odour after the lapse of weeks with $\frac{1}{1600}$th part, we have pretty conclusive evidence that, so far as the mixture of corpuscles and serum is concerned, you have a more efficacious antiseptic in the latter. I therefore proceeded to prepare dressings of this new substance, diffusing it—for it is an exceedingly fine powder—in water with a little glycerine added to fix it, to prevent it from dusting out. If you simply diffuse it in water, and pass gauze through it, with nothing more than the water, the result is that you have gauze which, with the slightest touch, gives out the double cyanide in a cloud of dust, which produces not only inefficacy of your dressing by loss of the proper proportion of the substance, but becomes in the highest degree irritating to the nostrils of those who are near. A little glycerine, however, prevented the double cyanide from thus dusting out. I proceeded to try it in practice. I confess I did not dare to use it—considering its very slight solubility in serum—unmixed, and I associated with it some of the very soluble cyanide of mercury; and with this cyanide gauze we tried various experiments in the way of dressing, and got some admirable results. But then, on the other hand, there were disappointments. We found, for one thing, now and then very troublesome pustules as the result of a peculiar kind of irritation. Another disadvantage was that occasionally we got suppurations, coming on at a late period in the case, such as we had never been accustomed to with our carbolic dressings. A case might go on perfectly well for, say, ten days, and then suppuration might occur about a stitch track and spread perhaps further; and sometimes the healing of cases was greatly protracted by this late suppuration. In consequence of these two circumstances I gave up the use for the time being of this material.

I then directed my attention to biniodide of mercury, which has been highly spoken of for its antiseptic powers, and which has the advantage over alembroth of being comparatively little soluble either in water or in serum. I found that the iodide of mercury gauze answered our purpose very well so far as its antiseptic properties were concerned, but that it had the great disadvantage of producing irritation, which it was extremely difficult to control. In order to control it, we interposed between the iodide of mercury gauze and the skin unprepared gauze, except in so far as it was steeped in a weak solution of bichloride of mercury (1 to 4000). But we found that different skins differed greatly in liability to this irritation. The iodide of mercury, which is so very slightly soluble, as you know, in water, is much more soluble in serum, and the solution in blood serum becomes irritating. In consequence of this, we had the same disadvantages from irritation as we had with the alembroth; and although, as in the case of the alembroth, this was only a transient inconvenience, I became dissatisfied with the iodide of mercury gauze. There was, however, one point of considerable interest, both theoretically and (as it turned out afterwards) practically, which we found in this investigation with the iodide of mercury. If we simply charged with iodide of mercury, say, from a solution in spirit of wine, and then applied the gauze so prepared, we found that the particles of iodide of mercury tended to gravitate down towards the skin, and there produce the most fearful irritation. It was absolutely necessary that

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it should be fixed. I tried various means, and among the rest a solution of starch, and then there came out this remarkable fact, that if a solution of starch is used with one of the ingredients employed for forming the biniodide of mercury by mixing a solution of iodide of potassium with solution of bichloride of mercury — if you dissolve the iodide of potassium in a weak solution of starch—the iodide of mercury thus formed in the nascent state associates itself with the starch particles in the most intimate manner, and the starch becomes entirely precipitated along with the iodide of mercury. If you take a drop of the red fluid formed by mixing these two solutions, and place it on a piece of calico, the watery material is absorbed by the calico and passes into the surrounding parts without colouring them, while the red spot with its insoluble iodide remains. If now you take a little iodine water, and apply it to the part of the calico moistened by the fluid that has exuded, you find that the iodine water produces no blue colour of iodide of starch, showing that there is no starch in the fluid that thus oozes out and leaves the iodide of mercury behind; whereas, if you take a solution of starch and apply it as such to a piece of fabric, as far as the fabric becomes moistened so far do you get a blue colour with the iodine. Here we have, as it seems to me, a somewhat analogous case to the so-called albuminate of mercury. We have the starch particles associated with the particles of iodide of mercury; the starch remains as such, the iodide of mercury remains as such, still they are attached to each other. And so the result was that when such a red solution produced by these two liquids was used for charging a gauze, the iodide of mercury was stuck to the gauze by means of the starch, and we had a most satisfactory arrangement in that respect. The iodide of mercury could not be washed out by water, nor did it in the least dust out. The value of this observation with reference to our present subject will appear shortly.

Being dissatisfied with the iodide of mercury, I turned my attention again to the double cyanide of mercury and zinc. Looking back to my notes, I found such evidence of its superior antiseptic properties that I felt that we had deserted this material too readily. In the interval we had had other experience of importance with the alembroth gauze. Occasional late suppurations had at first occurred under its use, just as was the case with the double cyanide gauze. These, however, had ceased to trouble us after my attention had been directed to the expediency of always using mercurial dressings in a moist condition. If they are used dry, the mercurial salt having no volatility, and having no power, therefore, of destroying any micro-organism in contact with it, whether derived from the manufactory or elsewhere, there could be no security that the dressing when applied was free from living organisms. This important object could, however, be infallibly attained if the dressing were used moist with an efficient germicidal solution. I put this idea into practice, and during the two years that have since elapsed we have never on any single occasion had to complain of these late suppurations. Might not the same immunity attend our cyanide gauze if we adopted with it the same expedient?

The other objection to this double cyanide gauze had been the irritation which it occasioned. Might not this have been due to the simple cyanide, which, as I have said, I used along with the double cyanide? The simple cyanide is highly irritating, and, just as with the sal alembroth, being freely soluble, it can be taken up by successive portions of discharge, and, when the discharge is free, may come to be in so strong a solution as to irritate. On the other hand, experiments on my own person had shown that the powder of the double cyanide might be kept applied to the skin for an indefinite time, whether moistened with water or with blood, without occasioning any irritation whatever. If this was really the explanation, and if, as our experiments seemed to indicate, the double cyanide could be trusted of itself, we might easily get rid of all irritation by using a double cyanide dressing moistened with a weak solution of bichloride, say, 1 to 4000, which, while it is securely germicidal, can never irritate. But here arose a new difficulty. I have told you that when we tried this double cyanide in a gauze at first, in order to prevent the dusting out, with its great inconveniences, we used glycerine; but if we were to moisten the gauze with 1 to 4000 solution of corrosive sublimate, we should run great risk of washing out the glycerine, and then the double cyanide would be free to dust out on drying. And, besides that, it must be admitted that the glycerine arrangement was not a good one, independently of that consideration, inasmuch as when the discharges flowed into the gauze they would wash away the glycerine, and then the double cyanide might be washed out also, and so fail in one of the most important requisites of an efficient antiseptic dressing—the storage of the antiseptic in the dressing in spite of the discharge. How was this difficulty to be overcome?

Now came to our aid our experience with the iodide of mercury and the starch. Might it be that the particles of the double cyanide would attract starch as those of the iodide had done? It did not seem very likely, seeing that cyanogen is not known to have the special affinity for starch that iodine has. Still, I thought I would try the experiment. I prepared the double cyanide by mixing a solution of the double cyanide of mercury and potassium with a solution of sulphate of zinc. I tried this with one of the ingredients dissolved in a starchy solution, and, to my great satisfaction, I found that the precipitated double cyanide left a supernatant liquor almost absolutely free from starch, and that the particles which thus fell, the double cyanide with the starch associated, fixed themselves to a gauze in such a way that it did not in the least dust when dry. Not only so, but immediately after being charged with the precipitate diffused in water it might be washed in the wet state without the double cyanide being washed out of it, so closely did the starchy particles stick the double cyanide to the fabric. It is of great importance that in some way or other the double cyanide should be washed, because at the same time that an insoluble double cyanide is formed there are produced other double cyanides which are soluble, and which are in the highest degree irritating; they must be washed out.

Well, I thought I had thus attained my object, and that by mixing starch with one of the two solutions necessary for forming this double cyanide and allowing the precipitate to deposit itself, then pouring in more water, and, after precipitation, decanting and repeating the process another time, so as to get rid of all the irritating soluble salts, and then diffusing the precipitate through a gauze, I should have all that I desired. But when I tried to get this done by a manufacturer I found that I got blundering after blundering in such a way as to make the thing practically hopeless. There was nothing for it but in some way or other to get the double cyanide from the chemist as a definite article, and then in some way devise a means of fixing that powder of the double cyanide to the fabric. I therefore naturally tried whether a solution of starch would answer this purpose, whether the starchy particles would associate themselves with the double cyanide particles, not only in the nascent state, which we had before tried, but also when the already formed double cyanide was mixed with the starchy solution. I found that it did so; that when a starchy solution was stirred up with the double cyanide in the proportion of one part of starch to two of cyanide, the starch was almost all precipitated, and the precipitate so formed adhered to the gauze in the most satisfactory manner.

But, though its adhesion was satisfactory enough, it turned out that the precipitate thus formed aggregated into a tenacious mass, which could not be diffused uniformly through the gauze, and here I was again at fault. This difficulty was overcome by first charging the gauze with the double cyanide powder diffused in water, and then transferring it to a starchy bath. This at once fixed the cyanide in the gauze; and, whereas, before it was placed in the starchy bath, the slightest squeeze made a milky fluid exude, no sooner had it been well penetrated by the starchy liquid than you might squeeze it as you pleased, and nothing came out but a clear fluid. I was much pleased with this, and it is in this way that I have prepared the gauze that I have used for the last twelve months, both in the hospital and in private practice. Still, this method had its disadvantages. When the gauze had been passed through the fluid in which the double cyanide had been diffused without any starch, it required very tender handling. If you gave it a squeeze, out came a quantity of double cyanide; and it was plain that, although one might do it oneself satisfactorily, if we trusted to the manufacturers there would be an utter uncertainty as to what quantity of material might ultimately remain in the gauze.

Only lately has this difficulty been surmounted. It occurred to me that perhaps if the starch were first blended with

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the double cyanide and then dried and reduced to powder, if water were afterwards added to this dried dissolved starch associated with the cyanide, there might not be the same tendency to lumpiness and difficulty of diffusion. I found that the process did not answer quite as I hoped in the first instance, in this respect; that the dried starch and double cyanide were extremely difficult to scrape off from any plate on which they were put to dry, and also very difficult to pound up and to diffuse for charging the gauze. But I got rid of these inconveniences by means of sulphate of potash, used for the same reason as in the preparation of Dover's powder—viz. that it is an inert substance, but with sharp, gritty particles. Mixing a pretty strong solution of starch with the double cyanide powder, and adding to this a quantity of pounded sulphate of potash, the result is that you get a material which, after drying, is easily scraped off by the manufacturer, and easily reduced by him to an impalpable powder, which is then readily diffused in water, and makes a perfectly uniform gauze; being mixed in large quantity with water in order to charge the gauze, the sulphate of potash is practically got rid of, and if any of it remains it does no harm, because it is inert. Thus we have the means of easily charging fabrics with this double cyanide.

I have spoken of diffusing this preparation in water, but in reality we employ for this purpose the 1 to 4000 solution of bichloride of mercury, which fortunately does not in any way interfere with the process. I may remark that the double cyanide, like the simple cyanide of mercury, though very efficient as an inhibitor, cannot be trusted as a germicide. There are different ways in which absorbent gauze such as this may be charged. One is to pass it folded in about sixteen layers through a trough, such as the one before me, which I have myself used, having a bar near the bottom to ensure the gauze being kept well under the liquid. It is then, as soon as you please, squeezed to press out superfluous liquid, and then, if wanted for immediate use, a simple way is to place the masses of gauze—say, six-yard pieces—in a folded sheet, turn the folded sheet over them, and roll it up. The folded sheet then absorbs the still redundant liquid, and you have moist gauze ready for use in five minutes. For the use of the ordinary surgeon it will probably be best to have the gauze dried, on the understanding that it is again moistened with 1 to 4000 sublimate solution before being used. Here is a sample of the gauze in the dry state, which, you see, does not give off dust even when freely handled.

Other articles may be charged as well as gauze with this substance. The double cyanide being perfectly unirritating in its own substance, there is no objection to having an excess of it. If you take, therefore, some of the preparation and stir it up with 1 to 4000 sublimate lotion, so as to produce an opaque liquid, and put linen rags into it, and then place them in a folded towel to take out the excess of liquid, you have your dressing ready prepared then and there. It can thus be very easily worked on an emergency.

We have seen that the double cyanide requires about 3000 parts of blood serum to dissolve it. If, therefore, it is present in a gauze in the proportion of about 3 per cent., you will easily understand that blood serum may soak through such a gauze time after time without washing the ingredient all out; so that it is a material which is admirably stored up in the dressing. That is one of its three great advantages, the others being that, while trustworthy as an antiseptic, it is completely unirritating. In actual practice the few layers placed next to the wound are washed in a solution of carbolic acid 1 to 20; this washes out the corrosive sublimate, which, though present in small amount, might irritate the wound to some extent. The carbolic acid soon flies off, and there is left in the application next the wound merely the unirritating double cyanide, and under this we find that not only do wounds, the edges of which are brought accurately together, unite beautifully by first intention, but even granulating sores heal by the gradual process of cicatrisation from the edges—heal by scabbing in a way that we have never seen so satisfactory under any other dressing.

Having satisfied myself that this was really a useful material, I proceeded to request a manufacturing chemist to provide it for me on a large scale. Messrs. Morson and Son, of Southampton-row, kindly undertook to do this, and I have to thank them for the great pains they have taken in carrying out experiments on this subject at my suggestion. Their manager, Mr. Taubman, soon informed me that in his opinion there was exceedingly little mercury in this so-called double cyanide of mercury and zinc. Very little mercury could be got from it on testing in comparison with what would be obtained if it were a true double salt. He asked if I was sure that the cyanide of zinc was not, after all, the thing that was efficacious? Was the idea of the double cyanide altogether a delusion? I need not say how much pleased I should have been if such had been the case—if we could have had the cyanide of zinc without any poisonous mercury in it as an antiseptic. The cyanide of zinc was a perfectly definite compound, there could be no mistake about it. I proceeded to make experiments, and I found, indeed, that cyanide of zinc had antiseptic properties. I made, for instance, experiments of this kind: I took a piece of glass tube like that which I hold in my hand, and packed it in two inches of its length with a piece of gauze charged with cyanide of zinc only, and then, holding it vertically, poured serum of horse's blood into it till the gauze was fully moistened; and then poured more in, till a quantity dropped out from the lower end equal to that which had produced saturation, the upper part of the gauze being thus thoroughly washed with the serum.

I then inoculated the top of the gauze with a potent septic drop. I had another such tube packed with gauze that had no cyanide of zinc in it, and I inoculated that in the same way after pouring serum upon it. I then put each into a well-fitting stoppered bottle, so as to prevent any evaporation, and placed them in the incubator. At the end of four days I opened the two bottles. That which contained the gauze without the cyanide of zinc stank, and, on taking portions of the gauze from either one end or the other, squeezing them and examining under the microscope the fluid that escaped, there were seen teeming multitudes of bacteria of various sorts. The bottle with the cyanide of zinc gauze, on the other hand, had a pure odour of hydrocyanic acid, which this gauze always has when moist. I then examined drops squeezed from both ends, and I found no bacteria in the clear serum that was pressed out, not only from the lower end, but even from the upper end, in the immediate vicinity of the inoculating drop, and where the gauze had been drenched repeatedly with the serum.

Now that, so far, is a result that no other antiseptic had ever given me. Take iodide of mercury, for example. Comparatively insoluble as it is, if you pour blood serum upon it in such profusion you wash the iodide of mercury out, and if you inoculate septically the part so washed you induce bacteric development. The test applied was, of course, an extremely severe one. In actual surgical practice the discharge which pours into the dressing is pure to begin with, supposing the wound to be aseptic at the outset. The septic agency only acts from without where the dressing has not been washed by the discharge, and in a far milder form than here, where a potent septic drop was used. Thus we had clear evidence that the cyanide of zinc really is an antiseptic. On the other hand, it turned out to be not so powerful antiseptically as our double cyanide so-called. In order to compare the two salts I made another experiment similar to that last described. I packed three pieces of glass tube with gauze in two inches of their length, one of the gauzes being charged with cyanide of zinc, and another with the so-called double cyanide (neither of these gauzes having been treated with solution of bichloride of mercury), while the third gauze was unprepared. Serum of horse's blood was poured into the upper end of each vertically-held tube till it thoroughly soaked the mass of gauze, after which each gauze was inoculated septically at the centre of its upper end. The tubes were then placed vertically in stoppered bottles in the incubator. It happened that in the septic liquid used for the inoculation that I used there was, among other organisms, a species of streptococcus which had a remarkable power of producing an acid fermentation in blood serum. After four days I proceeded to examined the contents of the three tubes. In the unprepared gauze there was utter putrefaction. In the gauze prepared with cyanide of zinc only, no putrefaction had taken place, but acid fermentation had occurred: both at the upper and lower end of the gauze litmus paper was reddened on application to the serum. In the putrid gauze turmeric paper was most intensely reddened, much more so than by normal blood serum, an alkaline fermentation having occurred there. On the other hand, with the gauze that contained the double cyanide, with mercury as well as zinc, both at the upper and lower end the turmeric paper was reddened exactly as it was by

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the normal blood serum. This state of things continued the next day; but on the following day, six days after the commencement of the experiment, I found that at the upper end, in the vicinity of the inoculated spot, this double cyanide gauze purpled litmus, while at the lower end it still reddened turmeric. At the end of seven days the same condition persisted. After eight days, however, both the upper and lower end of the gauze purpled litmus. This peculiar septic organism, with the power of producing acid fermentation in serum, had gradually worked its way, in spite even of the cyanide of zinc and mercury; but the cyanide of zinc and mercury, you observe, had been much more efficacious than the cyanide of zinc alone. The cyanide of zinc had prevented the development of organisms that produced putrefaction, and only permitted the development of the coccus that produced acid fermentation. Cyanide of zinc and mercury had for several days prevented all development. This was proof, therefore, that the mercurial element in our compound was valuable, and that we could not dispense with it.

It may be thought an unsatisfactory thing that there should have been any organism able to work its way thus through a gauze charged with our antiseptic. But I may remark, in the first place, that, as above stated, we tested the material exceedingly severely; in the second place, that it was a long while before the organism penetrated the gauze even for a short distance; and, in the third place, that penetration of micro-organisms through such a dressing into wounds does not seem to occur in practice, seeing that in the year during which I have used this antiseptic in my surgical work at King's College Hospital we have had no single instance in which we have had any reason to suspect septic change in the deeper parts of our dressing; we have had no instance in which deep-seated suppuration has occurred in an operation wound made through unbroken integument. If we have had any pus at all in such cases, it has been from the surfaces exposed between stitches or at situations where drainage-tubes have been inserted, where what I have termed antiseptic suppuration has occasionally shown itself, and even this in very slight degree. Such being the case, I feel not only permitted, but bound to bring this material under the notice of my professional brethren.

As to the composition of this so-called double salt, it is for the present uncertain. This much is already established: that the cyanide of mercury is in very much smaller proportion to the cyanide of zinc than "Watts's Dictionary" would lead us to expect from a true double salt. But what the precise composition of the salt is we do not yet know. I am having it investigated by the Pharmaceutical Society, who have kindly undertaken the work.

There is another use for this material besides the charging of dressings. The powder moistened with a weak solution of corrosive sublimate may be rubbed into hairy parts, when it will convert the hairs into an antiseptic dressing. Not long ago a medical friend of mine brought his wife to me with no less than seven sebaceous cysts in the scalp, requesting me to remove them. Having washed the hair with 1 to 20 carbolic acid solution, I simply passed a comb over each tumour in the line where I was about to transfix without shaving at all; and, after taking out the cysts, rubbed in some of the moistened powder into the hair in the vicinity. I then applied a dressing of cyanide gauze, and I was glad to learn that all the seven wounds had healed without disturbance.

We have now in the hospital a case of psoas abscess, shown to be of spinal origin, not only by the history of the case and the symptoms, but by the discharge of a portion of bone with the pus. That case is pursuing a course which, allow me to say, psoas abscesses will pursue in the great majority of cases, if the surgeon uses a trustworthy antiseptic, and takes the same pains with dressing to the last as at the outset; that is, he will find his trouble rewarded by the complete cure of these formerly incurable cases. I say this because I grieve to think that psoas and lumbar abscesses still seem to be regarded as hopeless affairs by many surgeons. In this man's case the temperature has never been affected in the least; he has put on flesh rapidly; the discharge, after the purulent and curdy matter that existed originally in the abscess was got rid of, has been of a serous character, and is in small and diminishing quantity. But the opening made for the discharge is in the vicinity of the pubes, and the pubic hairs used, under such circumstances, to be a constant source of anxiety to us unless frequently shaved away. Here we rub in at each dressing a little of the moistened cyanide, and convert the hairs into an antiseptic application.

I will not at present enter into the details of the preparation of this material; these will be supplied in a note on a future occasion.[1]

The sketch which I have given you of this investigation, though it has, I fear, wearied you, conveys but a small idea of the toil it has involved. There are those who still believe that the use of antiseptic substances in surgical practice is always useless, if not injurious. The germ theory of septic diseases is indeed now happily established incontrovertibly. All now admit that septic mischief in our wounds depends upon the development of micro-organisms in them derived from without. But the gentlemen to whom I refer are, more or less logically, disposed to trust everything to the antiseptic powers of the human tissues.

I believe I happened to be the first to direct attention to the antiseptic agency of living structures, and there is, perhaps, no one who attaches greater importance to it than I do. Without it, surgery in former days would have been absolutely impossible. Still, I know too well from experience that it cannot always be trusted, and that the use of antiseptic adjutants is in the highest degree important; and I have the satisfaction of knowing that there is among you a constantly increasing number who, when they have operated on an unbroken skin, with a fair field around for the application of their dressings, if they see septic inflammation occurring in the wound with its attendant dangers, know that it is their fault or the fault of the antiseptic appliances at their disposal. To those among you who are impressed with this conviction I offer the dressing which I have described as the most satisfactory that I have hitherto met with; and I venture to hope that you will regard it as a not unwelcome addition to your resources.

OSTEO-ARTHRITIS AS AN IMMEDIATE SEQUEL OF RHEUMATIC PYREXIA.[2]

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PHYSICIAN TO THE ROYAL MINERAL WATER HOSPITAL, BATH.

CLINICAL observation has established a pathological connexion of great practical interest. It has been long known that chronic rheumatism and gout may prepare the way for osteo-arthritis by lowering the textural force of the joint structures, and thus leading to morbid change of a degenerative kind. In people of the so-called tubercular diathesis, or who have near kinsfolk distinctly "consumptive," repeated rheumatic attacks may beget a condition commonly called *rheumatoidal;* and this, again, may gradually pass into the more complete and incurable state which enjoys the official title of Osteo-arthritis.

This clinical doctrine being fully recognised, the precise point of this paper may be formulated as follows:—A man or woman in early middle life has two or three attacks of acute rheumatism close together, affecting (perhaps) knees, elbows, or wrists; he is more or less in bed for several months; the pyrexia is rarely higher than subacute; and there are periods of quiescence during which he not only feels comparatively well, but really *acts* well in the sense of "muddling about," somewhat crippled it may be, but with a convalescent energy deserving praise. Nevertheless, the patient does not wholly emerge from a quasi-rheumatic condition. And it is of such sufferers that we constantly ask ourselves, especially in our Mineral Water Hospital, *is this case going off rheumatoidally?* is he marching in the direction of osteo-arthritis? An exceedingly practical question. Two groups of clinical phenomena appear to coalesce; the latter looks a mere postscript of the former, continuous in time and quality; in reality it is so different that the treatment calculated to moderate the one may only increase the other. The pyrexia is gone, but the pulse remains quick, or even quicker; the true rheumatic sweating has passed away, but a new type of sweating begins; and we are conscious of a fresh series of clinical phenomena, some of which are a mere continuation of the old (such as pain and enfeeblement of joints), and

[1] This note will appear in our next issue.

[2] Read before the Bath and Bristol Branch of the British Medical Association, on Thursday, Oct. 31st, 1889.

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others are the commencement of an entirely different order of symptoms.

Now our plea at the outset of this discussion is, that what has been described as acute rheumatoid arthritis has no clinical existence. The state of things so denominated is merely a *rheumatic prodroma of rheumatoid arthritis*, preparing the way and leading on to it in subjects predisposed. There is no such predisposition in the vast majority of cases; rheumatic pyrexia comes and goes, leaving perhaps some trace of medical damage, which is usually quite remediable.[3] But, after coming and going two or three times, the true rheumatism may become something else, not merely something chronic in the room of something acute, but a slow grade of an essentially different arthritic trouble, the steps of sequence to it being caught only by a practised eye. So far as joints are concerned, the transition is probably not marked at all; what was swollen and painful remains swollen and painful; the objective lesson is not easy to read. But we pick up the threads of diagnosis by studying the concurrent facts. The pyrexia is slight, and obeys other laws; pigmentary stains and spots appear, and the neural signs of pain and muscular atrophy possess new significance. The weakness and incapability of movement increase quickly. In doubtful cases the dynamometer should be always used; little impression is made upon it by the palsy-stricken muscles of the hands. But it must be confessed that, through inattention or lack of insight, the clinical condition of the patient may undergo an entire change, without a single note being made of it by anyone.

The therapeutic issue of these considerations is of the highest moment. When the true rheumatic storm has subsided, it is not only injudicious but very hurtful to go on prescribing salicin and the salicylate salts, and potash or soda in any guise. The iodides are equally useless, and perhaps equally injurious. Salicin is bound up with rheumatism by the closest ties; it is one of the magnificent advances of recent years; and so it follows that any arthritic affection which looks like rheumatism suggests a salicin treatment. Or if a distinct gout has preceded the osteo-arthritis, the chance is that colchicum and alkalies are continued. The case is now called "suppressed gout," or "latent gout," or any other dark veil of words which are algebraic signs of what we do not understand. The physician who is blind to what is going on before him had far better leave his patient alone. I cannot speak too strongly of the mischief done by this wrong system of medicine. The drugs thus wrongly given are not "phantom" drugs, idle for good or harm, but agents of positive evil. They lower the nerve tone and impoverish the blood quality; and, worst of all, they occupy that precious time during which the ingravescent osteo-arthritis should be fought with its proper weapons. When the mistake is found out, the sad legend "too late" has to be written. The unhappy patient is a life-long mourner of an irrevocable fate; and the doctor who errs from want of experience has leisure to think over an imperfect diagnosis.

To grasp the point of time when one pathological current stops and another begins is to hold the key of the position. We push aside the so-called specific remedies; we tranquillise the nervous and vaso-motor systems by quinine, belladonna, and strychnine; as soon as possible cod-liver oil and arsenic are brought to bear, to be followed at no long interval by a stable preparation of iron. There must be corresponding changes in the diet, which ought to be rich in nitrogenous and fatty material. And if we have been so unwise as to order alcohol under the poisonous garb of brandy or whisky, we shall now recommend a moderate amount of generous wine—at least four ounces daily of dry old port or of matured burgundy.

And now comes the hygienic and therapeutic touch of the Bath thermal Waters. Let them be used with every care. I am obliged to admit that hydro-therapeutics and shampooing are sometimes overdone. The delicate atrophied creatures who submit to these processes require to have them performed in the gentle manner of reclining baths, quiet douches, and domestic *massage*. Most good is to be expected from our thermal Waters when there is an antecedent history of rheumatism or of gout. In other cases, when osteo-arthritis is distinctly a sign of local or general deterioration, internal medicinal treatment is of at least equal value. One more caution. So-called counter-irritation (with iodine, for example) should never be done *immediately over* an affected joint. Such a process is essentially unscientific, for it creates an artificial excitement and hyperæmia in the very structures which we should try to keep in a quiescent mood.

The accumulation of clinical material at our thermal Spa affords a splendid school of study in osteo-arthritis. The subject is complex, with many bye-paths reaching among the thickets of physiological pathology. A complete scheme of the neurology of osteo-arthritis has yet to be unfolded. The arthritic disease, paradoxical as it sounds, may not be the central lesion at all; it may be only one member of a group of lesions, and not the most important. The writings of Sir Dyce Duckworth and Dr. Ord have contributed much to the solution of our difficulties; and rays of light are coming from many other quarters.

Bath.

[3] The term chronic rheumatic arthritis should be strictly confined to the arthritic lesions produced by true rheumatism; the confusion of our terminology has caused confusion of ideas.

ELEVEN CASES OF INTUBATION IN YOUNG CHILDREN.

By W. H. C. STAVELEY,

HOUSE SURGEON TO THE VICTORIA HOSPITAL FOR CHILDREN, CHELSEA; LATE HOUSE SURGEON TO ST. THOMAS'S HOSPITAL.

IN publishing the following small number of cases, I do not wish to claim that the results are more satisfactory than those of tracheotomy, but having had the opportunity of watching the cases constantly, my object is to bring into prominence the more important events which occurred during the treatment of cases of laryngeal obstruction by intubation. O'Dwyer's instruments were used in all, the size of the tube selected being in accordance with his scale. It will be seen that tracheotomy was resorted to in those cases in which it seemed that an open wound would give better hopes of relief.

CASE 1.—Frances H——, aged thirteen months, was admitted to hospital on Dec. 12th, 1888. Previous history: Patient, who was not completely weaned, was seized with cough on the day previously to admission, and had an attack of dyspnœa during the evening. An emetic was given with partial relief. When admitted at midday her condition was that of a feeble, rickety child, with stridulous breathing, retraction of chest wall, and cyanosis; membrane on both tonsils. Intubation was immediately performed, with complete relief of dyspnœa and retraction. At 4 P.M. the tube was coughed out; she breathed well for one hour, then dyspnœa returned, and at 6 P.M. the tube was replaced with complete relief. Temperature 104·4°.—13th: At 5 A.M. much coughing and slight dyspnœa. The tube was removed, cleaned, and replaced. Breathing was then rapid but easy. Crepitations heard at right base. Temperature 105·4°. Taking food well.—14th: No return of dyspnœa, but sank and died at 2 A.M.—*Necropsy:* Patches of membrane were found the whole length of the respiratory tract. Pneumonia and consolidation of lower lobes of both lungs.—*Remarks:* A feeble child with urgent dyspnœa; the symptoms referable to laryngeal diphtheria completely relieved by intubation.

CASE 2.—Lilian B——, aged four months, was admitted to hospital on Jan. 8th. Previous history: Had been suffering from bronchitis for a month. Croupy cough began on the morning of the day of admission. Much dyspnœa, stridulous cough, and recession of the ribs when admitted. No membrane seen on fauces. Coarse râles heard over both lungs. Temperature 100°.—Jan. 9th: Dyspnœa diminished, but increased during afternoon, with extreme recession of the chest wall. The ordinary emetics failed to induce vomiting, so an O'Dwyer's tube was inserted, but without relieving the symptoms, and was removed after a brief period. Temperature 100°.—11th: Temperature rose to 105°, and the patient died at 6 P.M.—*Necropsy:* Intense congestion of the larynx and treachea, and numerous patches of membrane. Both lungs solid, with acute pneumonia.—*Remarks:* In this case the probabilities of the dyspnœa being due to the condition of the lungs was fully recognised. Intubation was performed more as a means of diagnosis than with any real hope of relieving the symptoms.

CASE 3.—Maud S——, aged two years and two months, was admitted to hospital on Jan. 13th. Previous history: Sick on Jan. 11th, dyspnœa began on the 12th. On admission,

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at 4 P.M., the patient was suffering from extreme dyspnœa and recession. The fauces were coated with membrane. Temperature 101°. Intubation was performed immediately, with complete relief. She took food freely. At 10 P.M. the tube was coughed out; but she breathed well until 2.30 A.M. on the 14th, when dyspnœa returned, with frequent cough and much mucus. Intubation was again practised, but with very partial relief, so tracheotomy was performed, with marked improvement resulting. Fine crepitations heard in lungs. Temperature 103°.—15th: No return of recession, but she sank and died at 2 A.M.—*Necropsy:* A continuous lining of membrane throughout larynx, trachea, and small bronchi. Lungs collapsed, slight pneumonia. Bronchial glands large and caseous.—*Remarks:* In this case, as in Cases 4 and 8, owing to the presence of much mucus, an O'Dwyer's tube failed to relieve the dyspnœa, so tracheotomy was resorted to, the larger lumen of the tube affording a freer vent.

CASE 4.—Ernest W——, aged sixteen months. Previous history: The patient had been in this hospital since September, 1888, with repeated attacks of broncho-pneumonia.—Jan. 22nd: During early morning the voice was hoarse, and in the afternoon marked stridulous breathing and recession with extreme dyspnœa occurred. No membrane seen on fauces; no enlargement of glands. At 4.30 P.M. an O'Dwyer's tube was inserted, followed by violent coughing and increased recession. The tube was removed, and for a brief period the breathing was easy, but the cough frequent and much mucus. At 5 P.M. the dyspnœa again became urgent, and tracheotomy was performed, small pieces of membrane being removed with a feather. The tracheotomy gave immediate relief, and the patient progressed favourably until the 24th, when he seemed to lose strength, and died on the 25th.—*Necropsy:* No membrane on fauces, but below the level of the vocal cords a continuous lining of tough membrane. Lungs studded with tubercular deposits; bronchial tubes dilated to the size of a goosequill.

CASE 5.—Ellen B——, aged eighteen months, was admitted to hospital on Feb. 13th, 1889. Previous history: Patient had recently recovered from scarlet fever. She seemed feverish, and croupy cough began on the evening prior to admission. When admitted, at 9.30 P.M., there were urgent dyspnœa, cyanosis, and marked retraction. Temperature 101°. Intubation was at once performed, with immediate and complete relief. She took food well during the night, but gradually became weaker, and died at 10 A.M. on the 14th.—*Necropsy:* Extensive deposit of membrane and double early pneumonia.—*Remarks:* The same remarks apply here as in Case 1. No return of dyspnœa, and death occurred from asthenia.

CASE 6.—David H——, aged three years and four months, was admitted to hospital on April 6th, 1889. Previous history: "Feverish attack" on April 1st. Shortness of breath on the 3rd. Had a "choking fit and became livid" on the 6th. When admitted, at 10 P.M., he was suffering from cyanosis, marked dyspnœa and retraction, and crowing inspiration. Intubation was performed immediately, with marked relief. Fell asleep soon afterwards. Temperature 100 8°.—April 7th: Slept quietly all night. Fit of coughing at 9 40 A.M. and the tube was thrown out. Continued to breathe quite easily for two hours, when the dyspnœa returned, and the tube was replaced. In introducing the tube, a cylindrical cast of the trachea was found in the throat and removed. Temperature 101°.—8th: Tube removed at 10 A.M.; the cough continued croupy for some days, but intubation was not again required.—May 2nd: Discharged well.—*Remarks:* Intubation was performed twice. The tube was *in situ* thirty-four hours altogether, with an interval of two hours' relief after having been coughed out.

CASE 7.—Grace T——, aged four years and six months, was admitted to hospital on April 12th. Previous history: Had suffered from enlarged tonsils since previous summer; sore-throat one week. Had breathed badly for twenty-four hours. When admitted, at 11.15 A.M., the child was fat, with blue lips, crowing inspiration, and retraction of ribs. Fauces and pharynx were covered with membrane. After intubation the child coughed for a few minutes, then complete relief followed. Temperature 99°. At 10.20 P.M. there was frequent coughing, with much mucus. The tube was removed. Some membrane and much mucus were coughed up. The dyspnœa returned, and the tube was replaced after one hour.—13th: Passed a good night. Took food freely. Temperature 103°.—14th: Breathing quite easy; tube removed, but after one hour dyspnœa returned, and the tube was replaced.—16th: Tube coughed up during the evening, and dyspnœa returned very rapidly; after fifteen minutes tube replaced.—19th: An attempt was made to get her to do without the tube, but it had to be reinserted half an hour afterwards.—21st: Tube taken out, and was not again required.—May 3rd: Discharged well.—*Remarks:* Intubation was performed five times. The tube was coughed out once, and removed three times (once for the purpose of cleaning), before it was no longer required. The tube was worn nine days altogether.

(To be concluded.)

ON THE

SYMPTOM OF PAIN IN SLOW INTRA-PERICARDIAL HÆMORRHAGE.

BY W. J. NAISMITH, M.D. EDIN., F.R.C.S.E (EXAM.),
MEDICO-LEGAL EXAMINER IN CROWN CASES FOR SOUTH AYRSHIRE, SURGEON TO THE AYR COUNTY HOSPITAL.

II.

IN a previous number of THE LANCET—in that, namely, of July 11th, 1885—I had occasion to direct attention to certain cases of slow intra-pericardial hæmorrhage, in which severe abdominal pain appeared, *inter alia*, to be the most salient and distressing symptom. Three instances were there adduced, occurring in the course of medico-legal practice, which had been caused respectively, (1) by rupture of an aortic aneurysm; (2) by rupture of the right auricle; and (3) by a stab of the left ventricle; a brief description of each case, with the detailed result of its post-mortem verification, being duly appended. It is to be noted that while, on the one hand, no attempt was made to ignore or minimise the just signification of certain other of the more usual and recognised symptoms of this mishap, so on the other hand the suggestion was carefully avoided that intense abdominal pain in these cases was to be regarded as at all an invariable or even common accompaniment. And this with good reason, or we should have heard more about it. Indeed, in the very last case of which I have cognisance, ably reported in a contemporary by Mr. Samuel Clarke Noble of Kendal, the patient, who lived five days and a half with a ruptured left ventricle, "only complained of pain at the præcordia," and had, therefore, deductively, no abdominal pain at all. My sole endeavour was to set forth that it was at least an occasional feature of this form of thoracic hæmorrhage, occurring with such concentrated intensity as to mask the real issue, and, in short, prove diagnostically misleading; "that," I quote the passage, "there may also occur in a certain proportion of cases of slow intra-pericardial hæmorrhage this symptom of abdominal pain, so marked as to lead either to a diagnosis of peritoneal or enteric (inflammatory) mischief, or to the refusal of a death certificate" (on suspicion of poison). Now I have another case (the fourth), attended by Dr. Lawrie of Ayr, and reported with his approval, which further illustrates this proposition. I had no knowledge whatever of its history or details till, after death, it became the subject of medico-legal investigation on the part of the Crown.

At 6.30 A.M. of May 7th, 1888, Mrs. F. B——, a field worker, about forty-eight years of age, walked a distance of three miles and a half to her work in the fields. The police information states that for some years she had had occasional attacks of pain in the chest and breathlessness, but in the intervals was apparently well and fit for her usual employment. At 8 A.M.—that is, an hour and a half after leaving home—she became suddenly very ill, vomiting repeatedly, and complaining of much pain in her "belly." She was taken home in a cart, but medical aid was not obtained till next day. Dr. Lawrie, who then saw her, depones: "I saw deceased at 10.30 A.M., and found her in bed complaining of very severe pain in the epigastric region, but not in the heart. She told me she had been taken ill in the fields the morning before, and had suffered the same pain as she had now; that she had vomited before being brought home, and had done so considerably since (no vomited matters had

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been preserved); and that she had suffered this epigastric pain all night long, indeed since ever she took ill. She was in so much agony as to be unable to explain anything. I thought her suffering from inflammation of the stomach or peritoneum, and said so, ordering stimulants, as there was great debility, and poultices to the abdomen. There was nothing noticeable in the character of the breathing. I had barely left the house, not having gone far, when I was recalled, and was only in time to see deceased expire, after an illness, I understand, of about twenty-six hours. It subsequently occurred to me that the death might have been due to irritant poisoning, though, from the absence of marks on the mouth, not by the more usual corrosives. I understood the vomit had all gone on the floor." In short, a certificate of death from natural causes being, in the circumstances, properly refused, I was instructed by order of the Procurator Fiscal, to make, in conjunction with the medical attendant, whose precognition I have just quoted, a post-mortem examination.

The following are detached excerpts from the report, selected solely in respect of their relevancy, and irrespective of their order of sequence in the body of that document.

"The body, which was that of a female about fifty years of age, was well nourished, bordering on obesity. ..... There were no marks of vomiting or staining of the lips, tongue, or hands. ..... The stomach and gullet, which were ligatured and removed for separate examination along with the upper portions of the small intestine, were all empty, healthy, and normal, exhibiting no erosion or inflammatory action on their lining surfaces. Some adhering mucus in the stomach had the usual acid, but no other distinctive, odour.... The other abdominal organs and the peritoneum were healthy and normal. ..... On opening the chest the pericardial sac was observed to be livid and tensely distended with large clots and dark fluid blood, which entirely surrounded and compressed the heart. This effusion was discovered to have found exit through a minute opening in an aneurysm of the size of a bantam's egg, involving the base or commencement of the aorta, that portion of it—namely, which is situate within the pericardial precinct. The aneurysm occupied the front and left lateral portion of the vessel, but may be considered to be of the spurious, diffuse, or consecutive type; for by a process of ulcerative thinning an opening of the size of a threepenny-piece communicated with a sacculated condition of the corresponding portion of the pericardium itself. The outer or cardiac wall of the tumour, therefore, consisted of the pericardium only; and it was found that, on its anterior aspect, a minute opening not larger than a single grain of rape seed, was the point where the hæmorrhage had gained access to the pericardial cavity. The aorta exhibited the usual appearances of atheromatous disease. ..... The heart was of normal size, but pale, soft, and friable; its right and left cavities almost empty and partially contracted, its valves fairly competent; pericardial serosity, of course, ungaugeable. ..... Opinion: From the foregoing examination of the body of the said F. B., we are of opinion that death was caused by the rupture of an aortic aneurysm; and, from the small size of the rupture, that death did not occur suddenly, but after the lapse of some hours."

This is the case, and it only remains to add that for its elucidation it is a fortunate circumstance that a post-mortem was ordered. It certainly would not have been but for the suggestion of poison which I have recorded. My Scottish *confrères* will bear me witness when I affirm that in this country the medico-legal post-mortem examination has, from a scientific or pathological point of view, ceased, within the last few years only, to exist; and that in respect of its criminal relation it is, in effect, no longer investigatory and detective in its function, but has degenerated to a merely confirmatory procedure. That is to say, that the fact of a death being sudden and unaccountable is now no longer held, as formerly, to demand or justify a post-mortem examination; that as the authorities are not concerned to know the exact scientific cause of death, the mere looking at the outside of the body, and thereafter granting a certificate of "death from natural causes," is all that the nearest medical practitioner is expected to do when directed to proceed to examination, and he is, without the smallest experience, quite as competent as the most highly trained medical jurist for the task; so, indeed, is the nearest village constable. It is, in point of fact, now laid down—which of course disposes of the discretionary power which procurators fiscal are assumed by their instructions to possess—that no post-mortem examination shall be ordered in a given case, unless some "circumstance of suspicion" appears in the police report. On the criminal aspect of this subject I may have something to say on another occasion, and have only referred to it here in order to accentuate the value of medico-legal investigation on pathological grounds.

Ayr, N.B.

ON THE

EFFECT UPON THE HUMAN BODY OF A DIET CONSISTING ENTIRELY OF LEAN MEAT AND WATER.

BY GEORGE HERSCHELL, M.D. LOND.

CAN life and health be sustained indefinitely upon a diet of lean meat and water without any farinaceous food at all? Physiologists tell us that it cannot; experience seems to negative their assertion. It is highly desirable that this question should be cleared up and finally set at rest, both from a practical and from a purely scientific point of view. A diet of lean meat is now being advocated for several purposes in practical medicine, and it is of the highest importance that we should know for certain for what period it can be carried on without injury to the patient. In this country it is being used chiefly for the reduction of obesity, but in New York Dr. Salisbury and several other physicians are making an extensive use of a diet consisting entirely of lean meat and water, not only for that purpose, but also in the treatment of dyspepsia, phthisis, ectasia of the stomach, and in the absorption of new growths. In the latter case Dr. Salisbury claims that by increasing the metabolism of the body recently formed tumours can be absorbed. In order to procure these results, he and his followers continue the use of a diet consisting entirely of lean meat and water for a period of at least several months, and, they state, not only with perfect impunity, but with absolute benefit to the general health of the patient.

Let us now turn to Landois and Stirling, which we may accept as one of the most recent of the standard text-books on physiology, and see what they say upon the subject. On page 482: "To obtain the 448 grms. of carbohydrates necessary to support him, a man must eat 2261 grms. of beef." Again, on page 485: "A man is not able to maintain his metabolism in equilibrium on a purely flesh diet; if he were compelled to live on such a diet, he would succumb. ..... If a man is to obtain 280 grms. C. from a flesh diet, he must consume, digest, and assimilate more than two kilos in twenty-four hours. *But our digestive organs are unequal to this task for any length of time.*" The reason why I am bringing this subject before the notice of the profession is that there are now being exhibited at the Westminster Aquarium a family of savages who have lived all their lives on nothing except lean meat, fish, and water, without succumbing, as we are told they ought to have done. Those interested in the physiology of diet have now an opportunity which they have never had before in this country of investigating a purely carnivorous man.

They are a family of cannibals from Terra del Fuego, belong to the tribe of Onas, and consist of five adults and two children. The adult male is thirty years of age, of normal weight and development, takes little or no exercise, and eats every twenty-four hours 5½ lb. of lean cold boiled horseflesh, 2 lb. of raw fish, and one or two eggs, and drinks about four pints of water at the most, probably rather less. As near as can be ascertained, he passes about the normal quantity of urine in the twenty-four hours, and a sample passed about three hours after his last meal at night yielded the following results on examination. Sp. gr. 1020; faintly acid, no albumen, no sugar, an excess of phosphates, but urea fifteen grains to the ounce, and uric acid one-sixth of a grain per ounce only!

A careful study of the case presents to us the following facts for our consideration. 1. It is generally admitted that the inhabitants of cold climates must eat more fat and farinaceous food than those of warmer parts. Now in the island where these people come from there is nearly always snow on the ground, and notwithstanding that they reject

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fat from their diet, and take no starchy food at all. 2. It is generally believed that the only conditions under which a diet of meat can be indulged in with impunity is when it is accompanied with a large amount of exercise, and the ingestion of a considerable quantity of water. Now these people do not drink anything like an excess of water, and they take hardly any exercise at all. They spend most of their time in sleep. It would be an interesting point to determine whether their drowsiness might not possibly be due to auto-intoxication from leucomaines developed during digestion. 3. This case entirely disposes of the allegations of those philosophic traditionalists who affirm that excess of meat in the food produces uric acid and gout. Amongst these meat-eaters gout is unknown. Dr. Mortimer Granville, almost alone, I believe, of modern physicians, has always maintained that excess of meat does not do so. I find in his recent work[1] the following: "It is on these hypotheses mainly that the prevailing method of treating gout by limitation of flesh food is founded (i.e., that urea and uric acid as they appear in human urine are to be regarded as serial or progressive products of the dissimilation of the nitrogenous elements of the food). It is inexplicable to me that this policy should find favour with physicians who base their treatment of disease on physiological principles, seeing that there are good reasons for believing that much more depends on the changes that take place in the elements of the food after digestion than upon their form when consumed." 4. Finally, I would suggest that the consideration of this remarkable tribe of people inevitably forces us to one of two conclusions—either that the generally received opinions on the subject of diet as contained in works on physiology are unreliable and should be revised; or that it is possible so to alter the metabolic mechanism of the body by hereditary influence as to enable the individual to exist in defiance of all the ordinary physiological laws of nature.

West-street, Finsbury-circus, E.C.

[1] Gout in its Clinical Aspects, p. 10.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

ON A CASE OF HÆMOPHILIA.

By JAMES YOUNG, M.B., C.M.

THE following case of hæmophilia may not be uninteresting, as illustrating in a striking degree a few of the more generally recognised facts in the causation of this remarkable diathesis.

Some time ago a child (male) was brought to me suffering from hæmorrhage from the gum, which, the mother informed me, had continued for three days. The child was well nourished, and, being only some thirteen months old, was consequently in the period of primary dentition. As far as the mother of the child knew, he had received no injury, but the blood issued from a minute point just above two recently cut upper incisor teeth. All over the child's body were marks of various sizes produced by contusions which had been followed by large extravasations of blood, and it was stated that the merest pinch caused an ecchymosis which lasted for several days. The usual means for arresting the bleeding were adopted, and after some difficulty this was effected. The point, however, which is most interesting in connexion with this case is the family history. The child's mother belonged to a family of "bleeders," but neither she nor her mother had at any time suffered in that way. One brother, however, died at the age of six from hæmorrhage caused by one of his fingers having been caught in a door. The injury was in itself slight, but the hæmorrhage, as stated, proved fatal. Another brother at the age of seventeen, after the extraction of a tooth, suffered from continual bleeding for several days. Although this did not immediately cause death, yet, as a result of the exhaustion produced by the hæmorrhage, he was unable to cope with an attack of acute enteritis from which he suffered soon after, and which ended fatally. Two brothers also of the grandmother of the child died from bleeding, which resulted from similar trivial causes. One died at the age of twenty-four from extraction of a tooth, the bleeding in this case lasting for a week; while the other, when sixteen months old, fell and cut the tip of his tongue between his teeth, thereby producing hæmorrhage, which also lasted for a week, at the end of which time he too died. In the former case it may be mentioned that the regular medical attendant knowing the family failing, wisely refused to extract the tooth, which, however, was done by a dentist to whom the patient was unknown. In all these cases, I have been informed, the merest scratch of a pin would cause bleeding which lasted for days, and the slightest bruises produced most extensive ecchymoses. It is to be noted also that the persons affected were all of the male sex, and that while the mother in both cases was the medium through which the diathesis was propagated, yet in neither instance did she herself suffer.

Stewarton, N.B.

CASE OF STRANGULATED INGUINAL AND FEMORAL HERNIA ON THE SAME SIDE.

By GUY TYRRELL, M.R.C.S., L.R.C.P. LOND.

THE following case presents features which I think are sufficiently unusual to be worth recording.

T. T——, aged sixty-four, labourer, in August, 1888, had consulted me suffering from a strangulated inguinal hernia, which had made its appearance the day before, and which with a good deal of difficulty I reduced by taxis. Since that time he has worn an inguinal truss. On Sept. 12th, 1889, after working in a hop field, he suffered great pain in the abdomen, and in the evening noticed a swelling below his truss. He had constant attacks of sickness during the night, the pain still being very severe. In the morning he came to see me, still wearing his truss. At first I supposed that the old rupture must have slipped down under his truss, which was a new one, but on making an examination I discovered a femoral hernia about the size of a walnut protruding below the truss. The inguinal ring could be felt free and unoccupied. After making an ineffectual attempt to reduce it by taxis, I sent him into the Malvern Rural Hospital. After his arrival there the symptoms subsided to a great extent, there had been no return of the sickness, and the pain had almost disappeared. After holding a consultation with Drs. Dawson and Holbeche, and making another effort to reduce by taxis, I decided to operate at once without waiting for further or more urgent symptoms. The operation was performed under the influence of chloroform. On opening the sac a little blood-stained serum escaped, and the intestine was seen to be considerably congested; the stricture was very tight, but after incision allowed the intestine to be returned. A catgut drain was inserted, and the wound closed with three silk sutures. The symptoms subsided immediately after the operation, but there was no action of the bowels till the third day, when an enema was given. The wound healed by first intention, and the sutures were removed on the fourth day, the catgut drain having been removed the morning after the operation. The patient was discharged after having had a special truss made to cover both the inguinal and femoral rings.

The remarkable features of this case are, firstly, the occurrence of an inguinal and femoral hernia on the same side, both being strangulated; and, secondly, the subsidence of the acute symptoms in spite of a very tight strangulation, showing that symptoms cannot be depended upon as a guide to operation, and emphasising the rule that, other means having failed, the sooner the operation is performed the better.

Claremont, Great Malvern.

A CASE OF POISONING BY STRYCHNIA.

By C. M. FEGEN, M.R.C.S., L.R.C.P., &c.

THE following case is of some interest in its medico-legal aspect, as it raises the question as to whether an egg is "meat." The Act of Parliament says: "No poisoned flesh or meat" may be laid. Certainly it is not flesh, but is it meat? The facts of the case are as follows.

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Early (3.30 A.M.) on the morning of April 26th the deceased, with three companions, went out pheasant-egg stealing. At 4.15 A.M., when in a plantation, they picked up two hen's eggs which had been poisoned and put down to kill vermin. These were thrown away, as the deceased noticed that the one he picked up (or had given him) had a hole in the side, whereupon the other was thrown away also. Sixty yards farther on he found another hen's egg, which he sucked. Four or five minutes afterwards he began to complain of a feeling of nausea (?), and this was almost immediately followed by cramp in the legs, which rapidly ascended to the thighs; while rubbing the latter he suddenly fell shrieking to the ground. His shrieks and spasms continued, and from his cries he evidently felt himself to be dying. He kept calling for water, and could not bear to be touched, and in this state he continued until one of his companions came into Brandon, and, having procured a hand-cart, returned for him. At 6 A.M. I saw him outside his house on the cart. He died seemingly from exhaustion, while being lifted into his house. I was told he had had a fit, that was all. His face was livid, lips blue and shrivelled, pupils dilated, muscles of the whole body quite relaxed.

Ten hours after death I made a post-mortem examination. Rigor mortis was very pronounced, and on section the abdominal and pectoral muscles seemed to be in a state of extreme tension. There was no priapism. The blood throughout the whole body was extremely fluid and of a very dark colour. The heart, which was slightly fatty, was pale in colour and flaccid, the right side being full of fluid blood; the left side empty; no clot whatever in heart. The lungs were slightly congested. The liver showed signs of drink. The kidneys and spleen were healthy. The stomach (which appeared empty) and intestines I handed to the police. On opening the brain I found the meninges gorged with dark fluid blood and the brain and upper part of spinal cord, with its meninges, presented signs of great congestion. On the stomach being analysed one-third of a grain of strychnia was discovered—also traces in the intestines. On one of the other eggs being analysed, it was found to contain from two to three grains of strychnia. The jury returned a verdict of "Death by misadventure."

The following is a summary of points of interest in this case. The poison was taken on an empty stomach, and the symptoms commenced about five minutes afterwards. Cramp commenced in the feet and legs, ascending to the body. The poison taken was from two to three grains presumably, the quantity found being about one-third of a grain. The duration of life after the first onset of symptoms was one hour and a half. There was no spasm at the time of death, but very marked rigor mortis afterwards. The blood was dark and fluid. The brain and meninges and spinal cord were greatly congested.

Brandon.

DISLOCATION OF THE RIGHT HIP IN A BOY AGED SEVEN YEARS AND A HALF.

By T. KENNEDY DOUGLAS, M.B., C.M.

THE two very interesting cases of this accident in children, described in your issues of Oct. 12th and Nov. 2nd, induce me to record a third that occurred in my practice here this summer.

On June 11th last, James D——, aged seven years and a half, carrying a younger brother "shoulder-high," was pushed by a companion while trotting along the road. He lost his balance and fell, his right leg doubling up under him. He found his leg useless, and had to be carried home on a shutter. On my arrival shortly after, I found the right leg presenting the usual signs of dislocation of the hip-joint—great swelling in the gluteal region, rotation of the limb inwards, the right knee looking, as it were, at its fellow, and the sole of the right foot rotated over the dorsum of the left. The boy was dreadfully afraid of being touched. Under chloroform, with his father steadying the crests of the ilia, I grasped the ankle and thigh, bending the knee and raising the limb towards the abdomen, and rotated it inwards towards the middle line and over the other limb, and as I began the movement of extension the head of the femur rolled home with an audible rumble. The reduction was so rapid that I was struck with the ease and simplicity of the method of manipulation. I bandaged the little fellow's knees together for a couple of weeks, and in a short time he was up and running about as nimble as ever.

No mention is made in the report of the Taunton Hospital case whether an anæsthetic was used. I notice both writers report that the reduction was accompanied with "an audible click." In my case "click" would be too sharp to describe the sound, and hence I described it as a "rumble." I remarked to the father at the time that the bone going in was like the rumble of distant thunder.

Scone, N.B.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. MARY'S HOSPITAL.

A FATAL CASE OF HYDROPHOBIA.

(Under the care of Mr. EDMUND OWEN.)

WE bring forward this week another fatal case of hydrophobia, chiefly with the object of impressing the necessity of recourse to the Pasteurian method of treatment in the case of bites from rabid animals. When writing previously on this subject[1] we drew attention to the facts before the profession. "In those where the presence of rabies in the animal was proved by the experimental test, it appears that out of 1077 persons treated by inoculation there has been a mortality of only 1·39 per cent. Still more striking as a test of the value of the treatment is the result of inoculations in cases of the severest type—viz., those bitten on the head and face,—where a mortality rate of from 60 to 80 per cent. has been lowered to one of 3·89. Further reductions are also to be made, and with justice, by the elimination of cases where too long a delay occurred between the infliction of the bite and the inoculation." Dr. Arnaud Ruffer[2] entered into the question, and gave full information on the subject of Pasteur's method of treatment. We may mention one statement of facts which he brought forward. In the year 1887, 350 people were bitten in Paris by rabid animals; of these, 306 were inoculated by Pasteur, and the mortality was only 0·97 per cent.; 44 trusted to luck, and of these 15·9 per cent. died. Evidence from other parts of the world is also strongly in favour of this treatment. For the notes of this case we are indebted to Mr. A. S. Hanson, the house surgeon.

W. R——, aged forty-seven, a gardener, was admitted at 11 A.M. on July 21st, 1889. He gave the following history. He was bitten on May 24th by a dog, which, as was proved afterwards, died from rabies; notwithstanding which the dog was allowed to bite a child between R——'s injury and the death of the animal. The wound was cauterised and soon healed. A fortnight previously to his admission the man complained of pain at the seat of injury extending up to the axilla. He became restless and depressed in spirits; he lost his appetite and complained of headaches, and was under the constant apprehension of being seized with hydrophobia. This fear was increased by the remarks of "friends" who told him he would surely go mad. Notwithstanding this, he showed no throat symptoms till Sunday, July 21st, the date of admission. The only sign of the disease was difficulty in swallowing, but it was thought that this might not improbably be due to the nervous excitement into which he had been worked by injudicious friends and by the perusal of anti-vivisection literature which had been thrust upon him. He was a well-nourished, powerfully built, sunburnt man of medium height. He had a well-healed linear cicatrix running transversely across the back of the left wrist at the level of the base of the metacarpal bones, and also a small cicatrix over the inner border of the palm. The hand was

[1] THE LANCET, vol. ii., p. 22.
[2] Proceedings of the Brit. Med. Assoc., Leeds, August, 1889.

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slightly swollen and œdematous, with pain extending from the fingers to the axilla. There was some anæsthesia over the region of the branches of the radial nerve supplying the back of the hand. There was tremor of the hands; he was in an extremely nervous and excitable state, starting when touched. There was no history of alcoholic excess for the last fortnight, although he had been in the habit of drinking somewhat freely. Each time that he attempted to swallow, a spasm of the muscles of the pharynx and larynx set in. He was put to bed and ordered to be fed every four hours with a peptonised suppository, alternating with nutrient enemata of half an ounce of brandy, a new-laid egg, and extract of beef to two ounces. During the night he slept moderately well, and swallowed with effort a pint of milk; but when the nurse made his bed in the morning she noticed that laryngeal spasm occurred on the slightest motion of the bedclothes. During the day of the 22nd he seemed moderately well till 5 P.M., when he suddenly became excited and delirious, saying he would go home at once as attempts were being made to poison him with whisky. At 7.30 P.M. on the 22nd he was still very excited; he sat up in bed and grasped his throat, threw his head back, glared wildly, and threw himself on to the floor. He made a peculiar noise, between a cry and cough, the result of laryngeal spasm; he beat his chest violently and attempted to spit. There was no trismus. This attack passed off in about five minutes, and he was got back to bed and held there. Half a grain of acetate of morphia was given hypodermically and he quieted down, but did not sleep. A man was told off to guard him. At 9 P.M. he was wildly delirious, plucking at the bedclothes, suffering from both laryngeal and pharyngeal spasm, with unsuccessful attempts to expectorate a viscid saliva. The noise of pouring water from cup to cup produced a violent spasm. One grain of acetate of morphia was injected hypodermically, but although this quieted him his pupils still remained widely dilated and he did not sleep.

July 23rd.—At 4 A.M. he again became delirious, making violent attempts to expectorate. He became so violent that he nearly overpowered his male attendant. 7.15 A.M.: Delirium still continued, and he had to be strapped down in bed. One-hundredth of a grain of hyoscine was given hypodermically. During the morning he continued his violent and unsuccessful attempts to expectorate; he was sick three times, the vomit being of a dark, greenish-brown colour. At noon he suddenly became collapsed, and the delirium ceased; the respiration was stertorous, and the pupils were widely dilated. The pulse grew faint and intermittent, and the man was slightly cyanosed. At 12.50 the breathing became more shallow; twitching occurred at the corners of the mouth and alæ nasi. There was gasping for breath, the lips became blue, the tongue was swollen and protruded, and insensibility was followed by death in less than half an hour.

Necropsy, twenty-four hours after death.—The external appearances showed nothing except marked hypostasis and a healthy scar on the hand. The vessels of the brain were atheromatous, and the veins turgid. The pia mater was milky and opaque, and the veins of the pons extremely turgid. The ventricles contained an excess of blood-stained serum. The spinal cord was normal, excepting for marked turgidity of veins. The lungs revealed old spots of subpleural hæmorrhages; they were somewhat œdematous and congested. The heart weighed 14½ oz.; the valves were normal; both auricles contained fluid blood with post-mortem clots. The kidneys were smooth-surfaced. There were some small cysts. On section the distinction between cortical and pyramidal substances was well-nigh lost.

ANCOATS HOSPITAL, MANCHESTER.

EXTREME FLAT FOOT; OPERATION; RECOVERY; REMARKS.

(Under the care of Mr. A. W. HARE.)

ALMOST every surgeon of experience has met with cases of flat-foot in which it is not possible to improve the condition of the foot permanently or relieve the pain by anything short of operative measures. Yet until the introduction of the operation which goes by the name of Ogston (that of its inventor) the operative treatment was limited to the division of the peronei tendons and the application of apparatus, and afforded very little satisfaction either to surgeon or patient, especially where bony deformity was already present. We have now, however, several methods of treatment recommended for advanced deformity: 1. Ogston's[1] in which the astragalo-scaphoid joint is pegged after chiselling off the cartilaginous surfaces and restoring them to position. 2. The method which is described by Mr. Hare, the bringing together of the bone surfaces after special adaptation. 3. The removal of the scaphoid bone as carried out by Mr. Davy[2] who records cases of its successful performance. This does not restore the symmetry of the part, though it enables the patient to get about well and without pain. Mr. Golding Bird[3] has also recorded cases; in two he excised the scaphoid, and in two others also removed the head of the astragalus, in one of these he sawed subcutaneously across the tarsus and thus restored the arch. 4. Astragaloid osteotomy, performed by Professor Stokes,[4] who removed a wedge-shaped piece of bone from the enlarged head and neck of the astragalus. 5. Excision of the astragalus; this operation was performed by Weinlechner[5] of Vienna. "The foot had good shape and the patient was able to walk without pain." Billroth has also performed this operation. We have known the ankle-joint excised for severe flat-foot in one instance, but the operation is not satisfactory from any point of view. The account of the following case is from notes by Mr. W. F. Boycott, house surgeon.

T. G——, aged eighteen, recommended for treatment by Dr. Carne Ross of Manchester, was admitted into hospital on July 3rd, 1889, suffering from exaggerated flat-foot on the right side. Both feet presented also the condition of "stiff toe" (of adolescents) in a typical form. He complained of great pain in the dorsum of the right foot, and at the first metatarso-phalangeal joint in both feet. The pain, which was acute while standing, was much relieved by lying down. The history of the attack extended over a period of ten months before admission, and commenced two months after his entering upon the duties of a grocer's assistant, by which he was occupied from 7.30 A.M. till 11 P.M., and sometimes even later, with only half an hour's interval for dinner. During these hours he was standing continuously behind the counter. He kept up these hours for five months, and then worked an hour a day less for two months, when he was obliged to give up his situation. He now remained at home resting for three weeks, and then commenced work again in another situation with shorter hours; but again he was obliged to give up his work after a fortnight's trial. He always found the pain considerably relieved in the morning after rest in bed. Previously to this attack the patient had enjoyed good health; there was no pain in either foot, and he was of active habits. The patient was for about a month treated as an out-patient at the Manchester Royal Infirmary, where Barwell's "artificial muscle" was applied as a support to the foot. However, the condition became more aggravated, and on admission the patient was quite unable to walk. No other treatment had been tried.

State on admission.—The arch of the right foot entirely collapsed; the whole foot elongated on its inner border;

FIG. 1.



LEFT. RIGHT.

the os calcis slightly tilted up posteriorly, producing the canoe-like appearance of advanced flat-foot. The tracing of the foot-print, recorded on admission, was also typical of the condition. The rigid state of the great toes with elevation of the second toes explained the absence of any imprint of the latter in the tracing. (See Fig. 1.) The sole of the

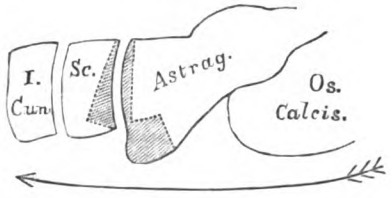
[1] Proceedings of Med. Soc., vol. vii.; THE LANCET, vol. i., 1884, p. 152.
[2] THE LANCET, vol. i., 1889. [3] Ibid., p. 677.
[4] Ibid., vol. i., 1885, p. 789. [5] Annual Univ. Med. Soc., vol. iii., p. 39.

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boot was pliable, giving no support to the arch of the foot, and, like the foot itself, the boot was canoe-shaped, the instep being pressed down and touching the ground along its inner border. The anterior part of the foot appeared bent outwards owing to the prominence of the astragalus at the inner edge of the sole. On palpation the tubercle of the scaphoid seemed less noticeable than usual, for the prominent head of the astragalus was just behind it, forming a marked projection on the inner border and sole of the foot. There was no pain on pressure over the prominence of the head of the astragalus; but there was marked tenderness over the dorsum of the scaphoid and cuboid, aggravated by movement at Chopart's joint. The first metatarso-phalangeal joint was swollen and tender, the pain increased by attempts at upward movement, the joint being immovable in that direction.

Operation.—The case appearing a suitable one for radical treatment, the patient was anæsthetised on July 4th, and

FIG. 2.



Dotted lines = lines of section. Shaded parts = parts removed. Arrow = line of flattened arch.

Mr. Hare performed the following operation. Under the spray, with full antiseptic precautions, an incision was made on the inner border of the foot, two inches in length, parallel to and immediately below the tendon of the tibialis posticus, passing directly down to the bone. This incision exposed the inner aspect of the scaphoid anteriorly and the cartilage-covered head of the astragalus lying below and behind it. It was discovered at this stage that the anterior part of the astragalus was altered in shape and elongated, so that it could not be pushed upwards into its normal relationship to the scaphoid. The periosteum and overlying ligaments and soft tissues were reflected upwards and downwards, and the two bones freely exposed. The anterior and lower part of the displaced astragalus and the posterior part of the scaphoid were removed slice by slice with Macewen's chisel in the zigzag manner shown in the accompanying sketch. (Fig. 2.) When a sufficiency had been removed from each bone, it was found possible, by pressing

FIG. 3.



Dotted line = line of junction of astragalus and scaphoid. Arrow = line of restored arch of foot.

the astragalus upwards and the scaphoid downwards with considerable force, to cause the two cut surfaces of bone to dovetail with one another, as shown in Fig. 3, and it was at once seen that the arch of the foot was restored. The bones were held firmly in their new relationship to one another, while the periosteum of the one was sewn tightly to that of the other by stout catgut, to assist in retaining the new position. A small drainage-tube was inserted and the external wound sutured with horsehair, and dressed with protective, carbolic gauze, and salicylic wool. There was considerable venous and capillary oozing following the operation. There was much pain locally during the night, and the patient was sleepless. This was relieved by half a grain of morphia administered subcutaneously.

July 5th.—Patient has had a comfortable night and slept fairly well. At 4.15 P.M., all bleeding having ceased, Dupuytren's splint was applied, after the drainage-tube and old dressing had been replaced by protective, carbolic gauze, and Gamgee tissue. The splint retained the newly formed arch *in situ*, and corrected the eversion of the anterior part of the foot. The temperature in the evening went up to 101° F., and the patient complained of pain, both symptoms being probably caused by tightness of the bandage, which was slackened.

6th.—Has had a good night.

7th.—Foot feels stiff and painful, but the temperature has come down nearly to normal. Has slept well. Leg swung in a Salter's cradle and laid on a pillow, alternately. On the tenth day healing of the superficial wound was complete, and the splint was replaced by a plaster-of-Paris case. This was reapplied on the twenty-seventh day, and kept on till the sixth week, when an ordinary roller bandage replaced it. It was now found that the parts were firmly consolidated, there being no movement at Chopart's joint. The patient was now allowed to get up each day and walk a little.

FIG. 4.



There was no pain, but considerable limping at first, the ankle-joint being stiff from want of use. A tracing of the foot-print now showed that the arch was fully restored (Fig. 4), and the foot as a whole had lost its "splay" appearance, the os calcis coming well down to the ground. The stiff toes still troubled the patient and were tender on movement, but the introduction of a piece of sheet iron into the sole of the boot, making it rigid from toe to heel, completely relieved the discomfort. On leaving the hospital on Aug. 26th the patient could walk easily and without pain; he was able to return to his usual employment, and has continued to improve since.

Remarks by Mr. HARE.—The operation performed in this case is a modification of that introduced by Professor Ogston eleven years ago, in which he pegged the astragalo-scaphoid joint with carefully purified ivory pegs. The records of his uniform success in these cases, as illustrated by him in his remarks at last year's meeting of the British Medical Association, encouraged me to adopt his method where palliative means had proved unsuccessful, and where the patient's unfortunate condition called for radical interference. It appeared to me that the method of cutting the bony surfaces zigzag, so easily performed in cancellous bony tissue, provided at least as firm a basis for osseous union as the introduction of an ivory support; while it simplified and shortened the duration of the operation. Although Professor Ogston presented last year a roll of forty-seven cases, this operation does not seem to have attracted the general attention that it certainly deserves in the treatment of those severe forms of pes planus where palliative treatment is of little or no use. Judged by its results in his own hands and in those of some surgeons who have followed him, the operation should be one of the best established of the procedures for the reduction of deformities. A feature of considerable interest in the case above recorded is the presence of hallux rigidus as a complication. I am inclined to believe that it was this concomitant condition that rendered palliative treatment of no avail in the earlier stage of this case, and it is not improbable that this frequent associate of flat-foot may account for the great trouble so often experienced in the treatment of even slight cases of the latter condition. For the "stiff toe" itself, if one does not proceed to excise the deformed joint, a procedure from which many patients would shrink, there is no doubt that the application of a rigid sole, as practised by Professor Chiene, offers the most satisfactory method of relieving the patient and rendering him fit for the ordinary avocations of life.

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Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Hypertrophic Cirrhosis.—Addison's Disease, with Diabetes.—Cyst of Groin.—Congenital Cardiac Disease.—Occipital Meningocele, with Cleft Palate and Talipes.

THE first ordinary meeting of this Society for the winter session was held at 20, Hanover-square, on Nov. 5th. The President, Dr. W. H. Dickinson, on taking the chair, referred to the change of location since the last meeting. He stated that in their new home the accommodation at the disposal of the Society would be greatly increased, as, in addition to the room for meetings, a large room for the exhibition of microscopical specimens would also be provided. He then exhibited the fortieth volume of the Society's Transactions, which will shortly be distributed to the members.

Dr. FRED. J. SMITH read the notes of a case of Hypertrophic Cirrhosis of the Liver in a little girl aged four years and a half. There was no hereditary taint of any form. The child suffered from icterus neonatorum at birth, but this cleared up entirely in a few weeks. Some symptoms of rickets appeared at the end of the first year. At the age of three years and a half she had bronchitis and jaundice without ascites, but both conditions cleared up under treatment, though the liver was felt to be and remained enlarged. When four years old a second attack of bronchitis and jaundice appeared, from which the child never rallied, diarrhœa supervening and leading to exhaustion, which ended six months later in coma and death. A limited necropsy was all that could be obtained. The liver was found enlarged, nodular and slightly tough, and the spleen was about twice its normal size. Under the microscope the liver showed an enormous development of new connective tissue both between and penetrating the lobules. Dr. Smith remarked that he did not propose to discuss the disease in question, but thought it of sufficient rarity to warrant a full report.—Dr. DICKINSON inquired into the condition of the heart, and asked if alcohol had been administered to the child.—Dr. WILKS asked why the case was called one of hypertrophic cirrhosis. Did it differ from cases of ordinary atrophic cirrhosis, two-thirds of which were usually larger than normal? The term hypertrophic was certainly a misleading one.—Dr. WEST had seen one similar case in a child; he meant a case in which the connective tissue formation penetrated the lobules as well as surrounding them. He referred to the case of a child four years of age who was suffering from an acute illness. It was not jaundiced, but the liver rapidly got smaller. To the naked eye at the necropsy the organ looked like an instance of acute yellow atrophy, but under the microscope each lobule was seen to be penetrated by a small-celled connective tissue growth. No history of poisoning could be obtained, and the child died in seven or eight days.—Dr. F. J. SMITH, in reply, said he was unable to examine the heart at the necropsy, and he did not think that gin had been administered to the child more than once. He had regarded the affection as true hypertrophic cirrhosis described by French writers. He thought the proliferation of the bile ducts was apparent rather than real, and was due to the atrophy and disappearance of the liver cells.

Mr. D'ARCY POWER then related an unusual case of Cirrhosis of the Liver occurring in a private person who had been a total abstainer for a very long time. The liver was shrunken and weighed twenty-nine ounces, the surface was "hobnailed;" on section it creaked under the knife, and was very pale. The gall-bladder was contracted, and was bound down to the liver substance by dense adhesions. It contained one large stone and several smaller ones. Microscopically, the liver was infiltrated by a very vascular small-celled growth, which in many places had destroyed the lobules by a simple process of pressure, since the connective tissue was entirely interlobular. The liver cells were normal, and had not undergone any fatty change such as was common in cases of ordinary cirrhosis, nor did there appear to be any abnormal quantity of pigment. The liver occurred in the person of a clergyman aged sixty-three, for many years the vicar of a country parish, who for a period of thirty-seven years had been without the shadow of a doubt a total abstainer from alcoholic drink. Before he became a teetotaller he had always been temperate, and all suspicion of syphilis could be entirely excluded. He had, however, a family history of gout. His medical attendant had known him for nine years, during the last five of which he suffered from attacks of hepatic colic, lasting for periods of a week or ten days at a time. During these attacks he became jaundiced and passed gall-stones. In the autumn of 1883 and in the early part of 1884 these attacks occurred once a month for a period of eight months. In the summer of 1884 the colic subsided, but the patient experienced symptoms of angina pectoris. After the first onset of anginous symptoms the hepatic colic never reappeared. The patient was doing duty away from home when ascites first set in, and he died six weeks after the fulness of the stomach had been observed. At the necropsy the heart as well as the liver was examined. The large arteries were found to be hard and atheromatous, this condition being very marked in the coronary vessels, which contained a quantity of mortar-like material. The mitral valves were atheromatous at the edges of the cusps, but the aortic valves were hardly affected. During life no murmur was heard. The kidneys were not examined. The patient had never been a great spice or curry eater, but he was extremely fond of sugar, preserved fruits, jam, and pastry. He thought that the chronic irritation caused by the successive formation of gall-stones would be sufficient to account for the development of fibrous tissue in the liver. The condition of the liver in this case most nearly resembled that which Ziegler described as the result of biliary hepatitis, though it differed from his cases in having so small an amount of pigmentation.—Dr. NORMAN MOORE said that cirrhosis due to biliary obstruction was not uncommon, but after death a cause for it was generally found. The family history of gout had no bearing on the subject, for people with cirrhosis rarely had gout, and *vice versâ*.

Dr. WEST related a case of Diabetes Mellitus associated with Addison's Disease. The patient, a man aged forty-nine, had been suffering from diabetes for six months, and he had lost 4 st. in weight. The urine contained 2·5 per cent. of sugar, and had a specific gravity of 1034, with a trace of albumen. There was slight dulness at the bases of both lungs. The liver was large, and painful on palpation. The skin was of a greyish cyanotic hue. After admission the patient complained of scalding pain on micturition, with dysuria due to cystitis, and this caused a slight rise in temperature. The patient was dieted, and placed on a twelfth of a grain of pilocarpin night and morning, with an occasional dose of opium, which produced improvement in the diabetic condition. After a month's observation, an attack of subacute rheumatism developed, the temperature rose to 105°F., and the patient died, vomiting being a troublesome symptom. The supra-renal capsules were found at the necropsy to be imbedded in dense fibrous tissue by which they were bound to the kidney on each side and to the other parts in the neighbourhood. On microscopical examination, they showed no trace whatever of supra-renal structure; nothing but connective tissue, richly supplied with bloodvessels, remained. He regarded the association of diabetes with Addison's disease as nothing more than an accidental coincidence.

Dr. WEST also showed a second case of a Supra-renal Capsule, with a large central cavity resembling a cyst, probably due to post-mortem decomposition, taken from the body of a Spanish woman who died of phthisis. The viscera presented no abnormal external appearances, and the hollows in the arteries of the supra-renal body contained no fluid. On microscopical examination the cortical portion of the capsule was found to present quite normal appearances. It was interesting to observe that the skin of the woman was pigmented to an unusual degree.—Dr. WILKS said it was remarkable to find Addison's disease associated with diabetes or any other affection except tubercle. He inquired into the condition of the pancreas. It was common enough to find a hollow condition of the supra-renal capsule, and he regarded it as a post-mortem appearance. Dr HALE WHITE had a case of Addison's disease associated with exophthalmic goitre, and later another similar instance occurred in Cambridge. Diabetes was also associated with exophthalmic goitre, and he had shown sections of the splanchnic nerve affected with neuritis from a case of diabetes. Might not the liver branches of the splanchnic in Dr. West's

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case be affected with neuritis?—Dr. DICKINSON regarded the connexion between the diabetes and the Addison's disease as probably quite accidental.—Dr. WEST, in reply, said there was no naked-eye change in the pancreas. The cases occurring in connexion with exophthalmic goitre were probably of the nature of temporary glycosuria.

Mr. BARWELL gave details of a case of Cyst of the Groin of doubtful nature. Six years ago the patient, a woman, ran quickly, and in the evening felt pain of a bearing-down character on the right side of the lower part of the abdomen, and on going to bed observed a small lump there. She complained that the tumour gave her considerable pain, not at the spot, but down the inner aspect of the thigh and up to the spine of the ileum. A little below the external femoral ring a globular or slightly ovoid tumour the size of a Tangerine orange was found; it was tense, obscurely fluctuating, without impulse on coughing, and not altered by pressure or recumbency, perfectly dull on percussion, but she said she sometimes felt gurgling in it (the patient was very neurotic). On dividing the outer layer of the superficial fascia the anterior part of the tumour was laid bare, though some of the second layer adhered to the deeper portion, yet not so intimately but that he could dissect it away without opening the cyst, which was then found to have a pedicle passing deeply, probably through one of the openings in the cribriform fascia. After ascertaining that the cyst and pedicle contained only fluid, he tied the latter deeply, divided it, and removed the tumour. It was of the size above specified, with a very thin wall, roseate when *in situ* to transmitted, pearl-grey to reflected, light. The fluid contents amounted to fourteen drachms; they were of a well-marked orange colour, and on cooling congealed to a soft jelly; they consisted largely of albumen, and contained a goodly number of normal epithelial cells. The patient did perfectly well. The interest of the case depended on the situation and nature of the cyst—whether, namely, it was an old deserted hernial sac or a cyst of new formation. In favour of the former view might be cited its history, its possession of a lobular pedicle, and the sort of fluid it contained. But then it appeared impossible to account for its very superficial position almost immediately beneath the skin. Hernia did not cause absorption, but, on the contrary, thickening of its coverings. The case appeared to him of interest, since in a long operative experience he had met with nothing exactly similar.—Mr. SHATTOCK thought the cyst might have originated in a lymphatic gland, the pedicle being a large lymph vessel leading to the upper part of the thigh.

The specimen was referred to the Morbid Growths Committee.

Dr. NORMAN MOORE showed two specimens of Heart Disease. The first occurred in a girl, aged eight, who was a patient in St. Bartholomew's Hospital, and died of abscess in the posterior half of the left lenticular nucleus, with basal meningitis. The upper part of the septum ventriculorum was absent. The pulmonary artery was very small, and opened from the right ventricle somewhat nearer the middle line than natural. Its origin was surrounded by a thickened base, and no valves were visible, unless this base was formed by thickened and adherent valves. The arch of the aorta was dilated, and so was the right auricle. The ductus arteriosus was closed, but a deep pit marked its insertion into the aorta. The left common carotid and innominate were nearer to one another than was commonly the case. The patient had been bluish and short of breath from birth; her fingers were clubbed; a loud systolic murmur was audible over the whole cardiac area, and also at the angle of the left scapula, loudest at the second left intercostal space near the sternum. The cerebral abscess was probably due to embolus from a firm ante-mortem clot contained in the right auricle, and coming very near the orifice of the aorta. The second case was a heart showing chronic fibroid degeneration of the wall of the left ventricle without valvular disease. The whole of the lower half of the left ventricle was much thinner, and in one part hardly any muscular tissue remained. The heart bulged out at this point, so that a species of aneurysm was present, which contained ante-mortem clot. The coronary arteries were highly degenerate, and one was blocked by a firmly adherent thrombus. The patient was a woman, aged fifty-eight years, who died in one of Dr. Gee's wards in St. Bartholomew's Hospital with general dropsy. This condition was sometimes due to syphilis, but in this case there were no signs of gummata in the cardiac wall or in any of the viscera. There were numerous old hæmorrhagic infarctions in the kidneys. Chronic endocarditis of this form was very rare; and during the past ten years only two similar cases had occurred in the post-mortem room at St. Bartholomew's Hospital. — Dr. DICKINSON had seen cases like the second one which were due to syphilis.—Dr. WEST said that many syphilitic cases were on record. He had seen in one case a band of fibrous tissue in the left ventricle nearly three inches wide; it quite replaced the muscular tissue in this position. — Dr. S. MACKENZIE referred to a patient who was admitted to the London Hospital with early syphilis, there being a rash present, and also the remains of a hard chancre. Symmetrical ulcers were present on the tonsils. Death occurred suddenly, and at the necropsy gummata were found in the testicle and in the heart.—Dr. MOORE, in reply, said there was no clear history of syphilis in the woman's case. She had been married, but said she had never been pregnant. Her uterus and ovaries were very small, and appeared to have been arrested in development. No trace of gummata was found.

Mr. PAGET showed a specimen of Occipital Meningocele, with cleft palate and talipes calcaneus, from an illegitimate seven-months' infant, who died a few weeks after birth. Post-mortem: The contraction of the feet was nearly gone. The meningocele opened by a narrow track into the left lateral ventricle, and was lined with a fine layer of brain tissue, not visible to the naked eye, but clearly seen under the microscope. The basal ganglia and the rest of the brain, were natural.—Dr. DICKINSON asked what was the relation of the cyst to the grey matter of the brain.—Mr. PAGET, in reply, said that the cyst led directly into the lateral ventricle; it appeared, in fact, to be an extension of the lateral ventricle backwards.

HUNTERIAN SOCIETY.

President's Address.—Forced Feeding.

THE first meeting of this Society for the winter session took place on Oct. 9th, Mr. R. Clement Lucas, B.S., F.R.C.S., President, in the chair. The PRESIDENT delivered a short address, of which the following is an abstract:—

Gentlemen,—As we are meeting together for the first time since the recess, I desire to offer a hearty welcome to the Fellows, and I trust that the present session will, in every respect, prove as successful as the last. It will be remembered that last year we were in doubt whether this ancient society would not be left for a time homeless, and now, by a curious revolution of events, we are at the present moment almost the only society in a position to hold meetings, four of the principal societies in the metropolis being now in abeyance owing to the buildings of the Royal Medico-Chirurgical Society not having been completed. This is a strong argument in favour of decentralisation, and it shows how defective was the policy which led to the concentration of societies, not only in one district, but even in one building. When the disposal of our library was a question of difficulty, the arrangement which at first seemed to meet with the greatest favour was the one that we should associate it with the library of the British Medical Association just being formed in the Strand. I opposed the scheme at the time with all the energy in my power, because I saw that to remove the only medical library from the City would be little short of a calamity to those resident in the central and eastern districts. I look forward during the present session to the possibility of gaining the assistance of the City companies in making our library more complete, and in rendering our position in the City more permanent and secure. Although the general meetings of this Society terminated in April, its Fellows should be made aware that their Council continued to hold weekly meetings at my house, and to transact a great deal of business during the summer recess. Since we last met in this room I regret to have to record that two of our most distinguished Fellows have passed away, and I personally feel this parting the more, since they were both colleagues at my own hospital. Dr. Owen Rees died full of years and of honour. He was for fifty years a member of this Society, having joined so far back as 1839, and he delivered the Hunterian Oration before the Society in 1854. In this oration there is a striking passage in which

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he alludes to science as "a path to be followed with the humility of the child, the resolution of the man, and the calm dignity of the philosopher, whose tutored mind, while it admits that everything is possible, still requires satisfactory evidence in order to believe in anything." Dr. Leonard Wooldridge only joined our Society in 1888, and this year was suddenly taken from us. His life is one which shows how brilliant a reputation may be made in a narrow space of time. His student career was one continuous run of scholarships and prizes, and before this was completed he was already a voluminous contributor to physiological science. Few have done so much original work in so short a time (for Wooldridge died at the age of thirty-two), and I am pleased to repeat in this Society the remark of Sir James Paget, that "his work is quite Hunterian."

Dr. TURNER read notes of the Cases of Two Children treated successfully by "Forced Feeding," including in that term all measures adopted to procure the ingestion of a sufficient amount of food in the presence of indifference or repugnance, and in opposition to resistance, on the part of the patients. Case 1 was that of a child, aged eleven, admitted into the London Hospital with symptoms supposed to be due to meningitis, which had appeared suddenly four weeks before, and were attributed to overwork and worry at school. She was extremely emaciated and lay in a torpid state, taking no notice of anything, and passing her urine and fæces into her bed. The limbs were drawn up and rigid, and the head was strongly retracted. She resisted when the limbs were moved, but lay motionless when undisturbed. She moaned continually, but never spoke. There were no retinal changes, strabismus, or other local paralysis. The abdominal and thoracic organs appeared normal. There was moderate pyrexia, which passed off about six weeks after her admission, without any improvement in the symptoms. She took very little food, and was fed by enemata, and subsequently by the nasal tube. There was no improvement in her condition, however, until the stomach pump was used for administering food. At the same time rubbing of the limbs with cod-liver oil was ordered. From this time the improvement was continuous, though slow at first. The tube was passed from July 4th to Aug. 19th, the child becoming bright and cheerful, and recovering some power in the wasted limbs. In September she gained 7½ lb. in weight, and was able to walk alone. In the middle of October she was sent to a convalescent home, and afterwards attended as an out-patient until fully restored to health. Although in this case the symptoms at first suggested meningitis, Dr. Turner believed it to have been essentially one of nervous exhaustion—a condition of functional failure independent of structural lesion or associated with structural changes of slight degree, remediable on restoration of an efficient state of nutrition in the cerebral centres. The pyrexia he attributed to latent local pneumonia or suppuration from lodgment of food in one or more bronchioles. Case 2 was that of a girl aged eight who was admitted into the North-Eastern Hospital for Children, in much the same condition as the first, with the addition of characteristic symptoms of multiple peripheral neuritis. The symptoms had appeared after an attack of typhoid fever. The child was extremely emaciated, weighing only 2 st. 5¼ lb. She was apathetic, passing evacuations into the bed, but saying "yes" or "no" when spoken to. The limbs were rigidly contracted, and the reflexes were not producible. There was a bedsore over the sacrum. She was put upon a regulated and full diet, with massage to the limbs, according to the scheme laid down in Dr. Goodhart's manual for cases of chorea; and her progress was most satisfactory until she unfortunately caught diphtheria. From this also she made a good recovery after tracheotomy, and was discharged three months after her admission, having gained nearly a stone in weight, and having to a great extent recovered the use of her limbs. The rapid recovery of the cerebral functions under efficient feeding, and the progressive improvement of the other symptoms, indicate that in this case, as in the other, the gravity of the patient's condition, with a fatal issue apparently impending, was immediately dependent upon a condition of nervous exhaustion with chronic starvation, due to failure of all desire for food, to be met by measures directed to compensate for the functional failure by enforcing, by physical force or moral suasion, a regulated and increasingly abundant diet, aided by massage, or other means of stimulating the nutritive function and promoting absorption and assimilation. Comparing these cases with cases of anorexia hysterica, treated on the Weir-Mitchell method, and with cases of chorea treated on the same principle, the author said that he thought his cases were especially worth consideration as illustrations of the applicability of the same line of treatment to cases of different and varying clinical aspect, with nervous symptoms suggestive of, and in part due to, nervous lesions, but in which the gravity of the patient's condition is dependent upon chronic starvation due to a functional failure of the cerebral functions, to be met, as in typically neurotic patients, by forced feeding.

The President, Dr. F. J. Smith, Mr. Stevens, Dr. Davies, and Mr. Bidwell took part in the discussion which followed.

Reviews and Notices of Books.

A Text-book of Physiology. By M. FOSTER, M.A., M.D., F.R.S., Professor of Physiology in the University of Cambridge. Part II.: Comprising the Tissues of Chemical Action, with their respective Mechanisms; Nutrition. With Illustrations, pp. 846. London: Macmillan and Co. 1889.

A Text-book of Physiology. By JOHN GRAY MCKENDRICK, M.D., F.R.S., Professor of the Institutes of Medicine in the University of Glasgow. Including Histology, by Philip Stöhr, M.D., Professor of Anatomy in the University of Zurich. In two volumes. Vol. II.: Special Physiology. Pp. 803. Glasgow: James Maclehose and Sons. 1889.

THESE two important works on physiology, representing the present state of that science as taught and understood by two masters, one at Cambridge the other at Glasgow, may conveniently be considered together. Though both fall very far short of giving a complete account of physiology—such, for example, as is contained in the "Handwörterbuch der Physiologie" of Hermann—yet they give all, and perhaps more than all, that it is necessary for the student of medicine to know. Any man may consider that he has laid the foundation of a thoroughly sound professional education, and has fairly equipped himself for the clinical study of disease, who has thoroughly digested the contents of either of these volumes, and who in addition possesses a competent knowledge of anatomy. It is difficult to criticise text-books, since the facts which one accomplished teacher knows and thinks important are likely to be known and so regarded by another, and it is rather in the mode that the facts are marshaled and the language in which they are presented to the student, that the superiority of one treatise over another rests. For example, the structure of the kidneys, the composition of the urine, the circumstances modifying the quantity of urea, of water, and of salts eliminated are well known and afford but little ground for difference of opinion; any differences that exist in sections devoted to this subject in treatises by various authors must depend on the manner in which the story is told and upon the introduction or omission of particular facts. If we examine Dr. McKendrick's work on this point we find much to praise, something to criticise. The account of the structure of the kidney, and the woodcuts which illustrate it (by the pencil of Dr. Stöhr), are excellent, though we were rather surprised at finding Fig. 220 credited to Dr. Stöhr, for it may be found in every text-book, and, indeed, in the "Cyclopædia of Anatomy" published about the year 1850 (vol. iv., p. 244). The characters of the urine, the mode of determining the degree of its acidity, its composition with the apparatus required, and the description of its constituents are all carefully and accurately given. A doubt may, however, arise whether, in a good school, this would not be taught in the laboratory, and whether many of the chemical details given are not too minute, and so break up the text in a way that practically prevents the student from reading it with profit.

What student would ever read, or if he read would

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remember, that two of the non-nitrogenous constituents of the urine were acidsth at are thus described: "Brenzcatechin-sulphuric acid ($C_6H_4(HO)_2OSO_2$) has been found in a child's urine, and in the urine of the horse. The surface layers of the urine containing it become very dark in decomposing. It reduces cupric oxide. The ingestion of pyrogallic acid, salicin, or hydrochinon increases the amount. Traces of paroxyphenylacetic acid ($C_6H_4OHCH_2COOH$) have been found in human urine." These are facts that one might expect to meet with in a twelve-volume "Handwörterbuch der Physiologischen Chemie," or which might be an excerpt from the note-book of an unfortunate lecturer who has to give a hundred lectures on the Institutes of Medicine, but which, even if learnt, are utterly useless to the student, whilst they occupy valuable space in the book. We approve rather of Professor Foster's easy way of disposing of all such chemical details in the simple statement: "Besides urea and uric acid, the urine contains small but variable quantities of more or less nearly allied bodies, such as kreatinin, xanthin, hypoxanthin, and guanin;" and who gives only half a dozen formulæ in the whole section which relate directly to the composition and decomposition of urea and uric acid. This plan presupposes that some laboratory work has been done by the student, but at the same time enables the writer to deal with his subject in a more satisfactory because more continuous manner.

Both volumes commence with a chapter on Digestion, but this is treated differently by the two authors. Professor McKendrick takes the subject in what appears to us to be a natural order, beginning with the nature and purposes of nutritive food and the laws of dietetics; hunger; thirst; starvation; modified diets; the general structure of glands, with the processes in the mouth, deglutition, structure of the stomach and intestines, gastric digestion, the liver and its secretion, the pancreas and its secretion, the intestinal juice, and the changes of the food in the large intestine. Professor Foster, after a very short chapter devoted to Food Stuffs, discusses the subject in the following order: Saliva, gastric juice, structure of stomach, structure of salivary glands, the pancreas, the œsophagus, the act of secretion of saliva and gastric juice, and the nervous mechanisms which regulate it, the changes in a gland constituting the act of secretion, the bile, pancreatic juice and succus entericus; the secretion of pancreatic juice and of bile, the structure of the intestines, the muscular mechanism of digestion, and, lastly, the changes which the food undergoes in the alimentary canal. There is a little want of order and completeness in this. Why should the account of the structure of the stomach precede that of the salivary glands? Why should the account of saliva precede that of the structure of the salivary glands whilst the account of the structure of the pancreas precedes that of the pancreatic juice? The saliva and salivary glands, again, are considered under three separate headings: First, there is an account of the characters and properties of saliva; then, after an interval, the structure of the glands is given; and then, after another interval, the act of secretion of saliva and the nervous mechanisms which regulate it. Surely, the most convenient, intelligible, and connected mode of dealing with the saliva would have been to give the structure of the gland, then the properties of the saliva, and, finally, the nervous mechanism which leads to its secretion. Professor Foster omits all mention of the teeth and tongue, but apart from this the subject of digestion is considered at much greater length by Professor Foster than by Professor McKendrick, which is perhaps due to the fact that many researches on the organs of digestion have been conducted by Langley and others at Cambridge under the guidance or at the suggestion of Professor Foster. If we take the account of the pancreatic juice in the two authors we shall find that Professor McKendrick gives in a very orderly manner a short account of the pancreas and its ducts, with woodcuts showing the position and relation of the gland to the intestines and the characters of the glandules. The mode of forming a pancreatic fistula recommended by Claude Bernard is given, which is followed by sections describing the physical, chemical, and physiological characters of the pancreatic juice, with references to the juice of the dog, cow, and pig. The variations during digestion are given, and the account closes with a section devoted to the action of pancreatic juice on the elements of food and chyme. Professor Foster gives no account of the structure of the gland, but describes pancreatic cells in an earlier part of the work, next briefly alludes to the mode of forming a pancreatic fistula, then considers its action on food stuffs with much detail, and, after a digression on the succus entericus and upon gall-stones, returns to it to describe the mode in which it is discharged, and gives a diagram showing graphically the quantity secreted hour by hour after a meal. Considerable alterations have been made in this section in the present edition, so that it may almost be said to have been rewritten. Professor Foster has no hesitation in teaching that the acidity of the gastric juice is normally due to hydrochloric acid, and that lactic, butyric, and other acids are secondary products. The account of the digestion of the proteids is excellently given. In regard to the fats, whilst admitting that we are ignorant of the mode in which fats enter into the substance of the intestinal cells, he considers the evidence that the particles pass between the cells and not into them is distinctly erroneous.

It is exceedingly satisfactory to find there are two such excellent works at the disposal of the student, and it is invidious to attempt in any way to depreciate one at the expense of the other. It seems to us that whilst Professor McKendrick writes like one thoroughly familiar with his subject, he is anxious to blend anatomy and histology with physiology, and to state his facts distinctly but briefly. Professor Foster stands upon a rather higher level, reasons on the facts he gives, turns them about, looks at them from different sides, and endeavours to draw general conclusions. Both authors write very clearly, with the clearness that comes from perfect familiarity with their work; but the one writes for the student, whilst the other writes rather for the professor. He who runs can read Dr. McKendrick's, but Dr. Foster's book is of the kind that requires a quiet evening, and good digestion, or, if we may venture to say so, rumination. The time at the disposal of the student which he can devote to the acquirement of a knowledge of physiology is unfortunately limited; but even as it is, we should recommend every candidate for examination to read through Professor McKendrick's treatise first and Professor Foster's afterwards. From the first he will learn to follow and understand the methods and processes of physiology. From the second he will learn how to reason upon them, and obtain an exact and comprehensive view of physiology as it is at present comprehended by its best teachers. The two works are complementary to each other, and they may advantageously compare with any of the foreign treatises on the same subject, Landois and Gruenhagen being the only ones that can compete with them in excellence.

BRITISH MEDICAL TEMPERANCE ASSOCIATION.—The Council of this Association have just enrolled eight medical abstainers as members and three students as associates. Prizes of ten and five guineas are to be competed for by third-year medical students in January next by a written examination on Alcohol.

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THE LANCET.

LONDON: SATURDAY, NOVEMBER 9, 1889.

THE Committee of Management of the Royal Colleges of Physicians and Surgeons of England have recommended an extension of the period of professional study to five years for candidates for qualification by the Conjoint Examining Board in England, and their recommendation has been accepted by the Council of the Royal College of Surgeons; whilst the Fellows of the Royal College of Physicians have referred the matter to the Council for further consideration. We are much surprised that so little attention has been given to the important bearings of this new departure. Five years is not any too long for a period of professional study, provided it be well spent and a proper curriculum be laid down for the guidance of parents, students, and teachers, for our "art is long," and the time required for gaining a knowledge of its principles and practice cannot be measured by periods of study of four or even five years. Every diligent practitioner is constantly adding to his skill in the prevention, treatment, and cure of disease. The longest-lived physician and surgeon should be and is still a student, and is adding to his professional knowledge by his daily experience. But the imperative requirement of a five years' curriculum for a student, instead of the four years' course now insisted on, is quite apart from this aspect of the subject. In the first place, if the demand of the leaders of the profession be decisive for a prolongation of the student's studies, it should be adopted simultaneously by every qualifying Board on the recommendation of the General Medical Council, and not be put in partial operation for students who desire these English qualifications. If adopted by the Conjoint Board for England, students in London and the provinces, who desire merely a qualification for practice, will either take the licence of the Apothecaries' Company or will qualify at other Conjoint Boards. In addition to those who distinguish themselves by obtaining the higher qualifications, a double grade of general practitioner with ordinary qualifications to practise would thus be founded on a longer or shorter curriculum. This would be open to grave objection. But the crucial questions for the English colleges are, not as to where students are taught and get their licences to practise, but whether this extension is necessary and justifiable, whether it is not prematurely put forward on a misconceived judgment as to the necessities of the case, and whether other reforms by them are not more imperatively demanded. In the first place, is everything done to secure that the aspirant to the profession shall have obtained a proper preliminary training before entering on his technical studies? It is notorious that many of the examinations which secure an admission to the register of medical students are of an absurdly low standard, and that some of them can be passed piecemeal. The Colleges of Physicians and Surgeons in England have given up all supervision of these entrance examinations to their diplomas, and would do well to begin their reforms at this end. Well-educated students can learn more of medical science and art in four years than badly educated ones in five, six, seven, or even more years; so that it is much more important to secure a proper education in general knowledge at the commence- of the medical student's curriculum than to insist on a more or less prohibitive period for his technical study before allowing him to offer himself at the final examination for the qualification which is only intended to attest, and should only attest, that he is a fit and proper person to be allowed to enter upon practice. From the report of the Statistical Committee of the General Medical Council in 1885 we learn that, although about one-third of the registered students in Great Britain do not obtain qualifications in thirteen years (probably this residuum does not obtain them at all), more than half of those who become registered medical practitioners pass within four years from their date of registration, and the date of registration is frequently—indeed, in perhaps a majority of instances—some time antecedent to their entrance at a medical school or college, when the curriculum of study laid down by the medical authorities really commences. In England more than one-third of the number registered in the decennium 1871–80 only took four years to obtain the necessary diplomas. The proposal, therefore, would have acted unjustly on nearly 40 per cent. of those who have been licensed by the English authorities to practise between 1871 and 1880, and we question if there are any recent facts before the Committee of Management or the English Corporations which would greatly affect these statistics. In the next place, may not some of the blame as to the large number of rejections be due to the examining authorities themselves? We need not here discuss the opinions of the teachers or students, for we have the published reports of the inspectors of the General Medical Council on the examinations. In many respects, the examinations of the Conjoint Board in England (as in Scotland or Ireland) have been declared unsatisfactory. The time-limit which often works unfairly and to the candidate's prejudice, and the restricted and often unusual character of the cases employed for tests of general proficiency, have been commented on so publicly, that a reform in these respects would have been a judicious one, and should have taken precedence of any attempt to extend the present curriculum. Again, should a five years' course of study be necessary, would it not be advisable for the Committee of Management to state in what respects such an alteration would be beneficial? Is the extra year to be a preparatory one before entering a medical school, as is suggested by many who are interested in the education of the medical practitioner? Is his period of study in anatomy and physiology to be prolonged? Or is he to be compelled to spend three years in attendance on hospital practice after he has passed in the more strictly scientific subjects? If the latter—and this, we assume, would be the decision of the Committee and the authorities of the Colleges—be determined on, is the student merely to spend an additional year as it is now spent, or is he to be compelled to study small-pox, infectious fevers, children's diseases, insanity, &c., in addition to the present routine? and fresh arrangements would have to be made by the Colleges for the

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due prosecution of his studies in these subjects? Under what authority beyond that of his ordinary medical school is he to be placed during this extra year? These are very important questions for consideration, and we are glad to see that, by the reference of the matter to the Council of the Royal College of Physicians, further opportunity will be given for taking a much wider view of the whole question than is presented in a mere paragraph of a report, in which no reasons for such a change are adduced.

ON the conclusion of Dr. OGLE'S evidence, to which we directed attention in our last issue, Dr. THORNE THORNE, assistant medical officer to the Local Government Board, was called as the next witness, his evidence and examination extending over three sittings of the Commission. Dr. THORNE took up the history of vaccination as a preventive of small-pox from the date of the sittings of the Vaccination Committee of 1871, up to which date it had been dealt with by Sir JOHN SIMON, and he showed at some length the grounds on which our present system of vaccination had been based. Dealing first with the experience derived from the epidemic of 1870–73, he showed, from the late Dr. SEATON'S investigations of various European States, that during that epidemic a direct relation had existed between the greater and less stringency of the vaccination laws and the greater and less share of small-pox mortality under five years of age; and he also put in a table in which Mr. MARSON'S sets of statistics as to the value of vaccination, as judged of by the number of cicatrices, were summarised. These cases include 10,661 observations of small-pox patients, and they are divided into classes according as some superadded disease may or may not have caused death; but they all go to show that, apart from the ages of the patients and the quality of the cicatrices, death from small-pox steadily diminished as the number of cicatrices increased from one to four. Apart from any corrections for superadded diseases, the unvaccinated died at the rate of 36·4 per cent.; those having four cicatrices, at the rate of 1·5.

The next point was to show, for divisions of England and Wales, that, whilst there had in the two decennia ending 1870, and with increase of vaccination, been a diminution—at times an enormous one—in the amount of small-pox mortality under five years of age, there had later on been indications of some increase at ages over five, and that this increase had tended to become more marked as time advanced. This point had already been indicated by Dr. OGLE, and it went to show, as Dr. BUCHANAN has pointed out, that the almost complete and lifelong resistance to small-pox given by that disease when a vast proportion of the infantile population were attacked by it "has been exchanged by a larger number of people for the resistance furnished by the average English vaccination"; in short, that the protection now afforded—namely, that of vaccination—has a greater tendency, when contrasted with a prior attack of small-pox, to wear out as time elapses. This experience is a comparatively recent one, and it has only been acquired as primary vaccination has more and more become an affair of infancy, rather than of adult life, as in JENNER'S days.

Mr. MARSON'S statistics, which did not deal with the important question of age as regards protection against small-pox, were next supplemented by some instructive tables prepared on material compiled by Dr. GAYTON, and which show how fatality from small-pox depends upon number of vaccination scars, quality of scars, and age of patient attacked. Thus, taking 10,403 cases of small-pox, the fatality per cent. of attack was *nil* under five years of age amongst those having good vaccination; whereas it was 56·5 per cent. amongst the unvaccinated, and 39·8 per cent. amongst the nominally vaccinated. But as age advances—that is, as distance from the date of vaccination increases—the rate of mortality slowly increases until, at over forty years of age, it reaches 12·5 per cent. Much the same result was shown by reference to statistics compiled by a committee appointed by the Epidemiological Society and from other data.

Lord HERSCHELL having asked the witness how far diminution in small-pox mortality might be due to improved sanitation, this question was answered at great length by the citing of case after case of groups of persons living under the same sanitary circumstances as to locality, water-supply, drainage, and sewerage, having the same food, often the same clothing, being drawn from the same social class, and being alike in every respect but one—namely, one set was recently vaccinated, the other was not. Small-pox passed over the vaccinated without harming any, whilst it told with fatal effect on the other class. It was, however, admitted that certain sanitary circumstances, and especially overcrowding an area and within houses, by which facility for contracting infection would be increased, had doubtless some influence on small-pox, and for this reason it was compared with measles, whooping-cough, and scarlet fever, diseases which tend to be spread under like circumstances. The comparison made related to those under five years of age, and it was shown by means of a diagram appended to the report that whereas with improving vaccination the share of small-pox borne by children has during four periods included in 1840–87 gone down step by step from 64 per cent. to 24 per cent. of the total small-pox deaths, the corresponding rate of death from the other three diseases had during the whole of this period of improved sanitation either remained absolutely stationary, or had in some of the later divisions of the period actually undergone some slight increase. This led to a renewal of the cross-examination as to whether the diminution in small-pox death could not be properly compared with that of the continued fevers. As to this, it was pointed out that before Sir WILLIAM JENNER'S day the term "fever" in mortality returns was perfectly meaningless; that since a division of this term had been made the enteric fever deaths had certainly diminished, as the proper remedy—namely, improved water and sewerage—had been provided, but that this disease and the other continued fevers bore no comparison with small-pox, since the latter disease was being practically expunged from infantile death returns, whilst it was actually increasing in later years. This could not be due to sanitary control, for adult life was as much benefited by it as infantile; but it could easily be accounted for by the original protection at infancy of vaccination and its waning influence at later years. And as to deaths from "typhus," formerly so common in infants owing to faulty nomenclature, Dr. THORNE stated,

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as the result of his own experience in the London Fever Hospital, that there was nothing by which it could be compared with small-pox mortality, since he never knew a child under five years of age die of that fever. He also indicated a number of sources of fallacy as to the use of "fever" statistics, notably one which was due to a sudden transference in 1881 of deaths at ages under five years of infantile remittent fever from enteric fever in the zymotic group to remittent fever in the malarial group. By this means a sudden drop of the share which infants bore of the enteric fever mortality took place from 14·3 to 9·7 per cent.

Some of the cross-examination to which Dr. THORNE was subjected, especially by Mr. PICTON, M.P., was very diffuse, dealing as it did with a number of obscure pathological questions as to the influence of zymotic contagia on the blood apart from other tissues, and even on the different forms of blood-cells, as to which it was admitted that but little or nothing was known. On one important point Mr. PICTON was very definite. He declared that as the growth in the number of official vaccinations has increased, so has the number of deaths from small-pox increased, and he said he made "no concealment of it." There is, however, nothing to conceal, provided Mr. PICTON will put his facts in their proper order, and say that as small-pox in a town increases, so people in increasing numbers rush to the vaccination stations, and hence the number of official vaccinations necessarily goes up. This obvious interpretation seems to have been overlooked.

The next witness was Dr. RAUCH, secretary and executive officer of the Illinois State Board of Health, and, apparently owing to the fact that his stay in England was limited, his examination was not confined to the first subject as to which the Commission are at present taking evidence. His story was extremely interesting as dismissing the notion that in the United States, where there is no general Act as to vaccination such as we have, people are at liberty to do as they like in the matter. In the army Dr. RAUCH'S orders as regards the vaccination of men in regiments under his supervision were carried into effect on a mere rumour that small-pox existed in some neighbouring brigades. Again, during the Chicago fire, when 4000 people were housed in a barrack, the importation of one case of small-pox led to an order that every person should be vaccinated, and all obeyed except "an Englishman," who threatened anyone who should vaccinate his children. Nevertheless they were subjected to the operation, and it may be recorded that, a few weeks afterwards, the man, finding his children were saved from small-pox, made an apology for his behaviour. Indirect pressure is also used in a way we are unaccustomed to. The people were homeless and needed to be provided with rations, and a certificate of vaccination was made a condition of receiving food—an arrangement under which some 120,000 were vaccinated or revaccinated. So also, in November, 1881, small-pox was on the increase, and an order was issued for the vaccination of all pupils admitted to public schools in each of the 12,000 school districts of the State, and in the end 650,000 children were vaccinated in the public and parochial schools. Vaccination is permissive, but school attendance is compulsory, and all attending school are compelled to be vaccinated. And if small-pox is found in a house the building is "quarantined, placarded up, and everybody vaccinated and revaccinated." Here, in the case of others than school children, the compulsion is indirect. Those submitting to vaccination are allowed out of their houses, and have certain privileges; those refusing are compelled to remain indoors under a police requirement. Much the same style of compulsion applies to persons entering the State of Illinois, the unvaccinated being subjected to the operation either before starting from their journey from the port, or in the railway cars during transit. If they refuse—and a case of three Englishmen was cited as to this—they are not allowed to enter the State. In the end, they preferred Illinois and vaccination to being sent back to the place whence they came. Apart, therefore, from compulsion as to school children, the compulsion as to vaccination in Illinois is actually on a very wide scale, and it mainly comes into operation at times when small-pox is imminent or actually prevalent. But this is not always so in the United States. Thus, according to Dr. RAUCH, there is a definite compulsory vaccination law in Massachusetts.

Two important pieces of evidence were elicited from Dr. RAUCH. One was that, though he had personally vaccinated, and had under immediate supervision, about 250,000 people, he had never seen a case of syphilis as the result of vaccination. He admitted that he recollected that a statement had been made by Dr. JOSEPH JONES as to 227 cases of "ulceration resembling the Hunterian chancre" in the 44th Georgia regiment; but he certainly never knew anything of the sort in the practice as carried out in the Federal army. And, as to other untoward events, he had met with nothing more serious than ulcers in any cases he had vaccinated, and this although, as regards half the population who were voluntarily vaccinated, the operation would be performed as early as within twelve months of birth. Dr. RAUCH'S evidence has great value, but we much doubt whether, in this country, there will be any desire to accede to an alteration of the vaccination law which would assimilate our system to that of a permissive nature, supplemented by indirect compulsion such as is adopted with success in the State of Illinois.

We have thus given a summary of the evidence so far brought under the notice of the Commission. It must, however, be regarded as constituting merely an outline; and all who are interested in the subject, whether from a medical or administrative point of view, should read each portion of the evidence as it is periodically issued. Together with the appendices, the report will evidently embody all available information on the subject.

WE insert to-day another letter from Dr. RENTOUL. His letters to ourselves and his various communications to our contemporaries show him to be deeply in earnest in studying the present system, or rather want of system, on which the wage-earning classes are attended, and in devising remedies for what are undoubtedly great evils both to the people themselves and to the medical profession. His letter to-day describes the enormous scale on which free medical relief is based, and the forces by which it is sustained. We are not concerned to defend the absolute accuracy of his calculation that one in three of our population is actually provided

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with free medical relief. He disputes, what we have often maintained, that the enormous totals of out-patient and dispensary practice involve large errors, especially in counting many times over the same patient, who goes, perhaps with a phthisis, or a gout, or a winter bronchitis—that does not always confine itself to winter—or a menorrhagia, from one hospital to another, or one dispensary to another, after having had several letters for the same institution, each letter counting in the grand total as a new patient. Very likely some hundreds of thousands may have to be subtracted from the total of wage-earners receiving hospital and dispensary relief either gratuitously or for a mere pittance that is almost more demoralising than no charge at all. But after making all deductions of this sort, the total is a figure which is appalling, and only becomes more appalling when it is analysed, and when the individual cases of abuse are traced. The first thing to be done by reformers is to bring this fact home to the public. By all means let all deductions be made. But let us have some approach to accuracy. Dr. RENTOUL praises the system by which hospital abuse is detected and exposed at Manchester. Here, therefore, we might expect some approach to agreement as to facts. But even in regard to the Manchester case we have the most diverse statements. Sir ANDREW CLARK, in his admirable defence of hospitals at the Mansion House in May, said—quoting from our own columns—that after all the elaborate efforts to find out and expose abuses at the Manchester hospitals, the only result was to show that there was not more than 8 per cent. of such cases of abuse. But Dr. RENTOUL calculates that the abuse rate of hospitals is 50 per cent. Now this is a difference that throws discredit on the whole argument. Suppose a Royal Commission were granted by the Government—and it is actually under consideration,—the production of such discrepant statements would at the outset produce a damaging effect. This is a question that should be referred to accountants and experts. We agree with Dr. RENTOUL that the abuse is very great, and ought to be diminished. And we feel sure that hospitals are suffering damage in public estimation by inviting and encouraging all comers, by pushing the out-patient department and by the necessity of sometimes, owing to want of accommodation, having to send urgent and pitiful cases away that need admission as in-patients. The abuse is not to be estimated statistically only or chiefly, but by a thorough knowledge and investigation of individual cases. But for public purposes we need data more accurate and precise than have yet been produced. In his demand for the co-operation of the medical charities Dr. RENTOUL is most reasonable. Still he is not altogether original, for the Metropolitan Provident Dispensaries Association have made a similar demand, and with, so far, little success. It is amazing to see how little notice the hospitals take of the complaint that they are demoralising the poor, and encouraging a casual, thriftless style of medical attendance, which must be infinitely inferior in its benefit to the wage-earning classes to that of a friendly private practitioner who would come to know their families and their homes. This is the form of medica attendance which we rely upon to benefit the wage-earning classes, to instruct them in lessons of personal and domestic hygiene, and to visit them when necessary in their homes. Dr. RENTOUL writes as if the medical staffs were chiefly to blame for the deaf ear that the medical charities turn to all appeals to reform their out-patient department. It is not they, however, with whom the ultimate responsibility rests, but the administrative bodies of the hospitals; and the strongest argument for a Royal Commission is to be found in the fact that no other representations to hospital authorities have produced any material impression, or led to any sensible curtailment of the out-patient department.

The other parts of Dr. RENTOUL'S scheme and views are more open to discussion than his contention that the competition of hospitals and dispensaries is hindering the growth of providence in the working and wage-earning classes. They consist mainly of a proposal for the creation of what he calls a "Public Medical Service" for the benefit of wage-earners making under 45*s.* a week from all sources. We gathered from Dr. RENTOUL'S early communications to ourselves that he made no provision for home treatment of the classes which he wishes to cater for, and to withdraw from the absorbing vortex of the out-patient room. We thought, and still think, this a fatal defect, though we gladly accept his later statement that his scheme *does* provide for the visiting of patients at their own homes. The scheme consists essentially in forming branches in different districts in a town. These have to be served by branch staffs, which, we presume, are to include all willing practitioners who do not keep open dispensaries or unqualified assistants, and who accept the somewhat elaborate tariff which Dr. RENTOUL has sent us, and which includes everything, from Cæsarean section (£2 10*s.*) to the extraction of a tooth (1*s.*). We gather that Dr. RENTOUL'S scheme grows as he thinks upon it. He contemplates immediate payments, but he has latterly developed a provident scheme which differs from the ordinary provident dispensary schemes in the higher payments by patients, and the fees for extra services according to the tariff. It even contemplates outside assistance from charitable or honorary members. He makes a special point of having medicines dispensed by chemists, who are to be paid according to rates on the tariff. He errs, we think, in over-elaborating his tariff, in cutting off the man earning 45*s.* a week from all claim to hospital assistance. He would be more likely to conciliate such a workman by giving him to understand that in extreme cases connexion with a public medical service would not disentitle him to the use of the hospital—rather that his usual providence in medical matters would secure prompt consideration of his case in any emergency on the part of hospitals. Is he not too sweeping also in saying that all people with 25*s.* a week, and under, are entitled to absolutely free medical attendance? Finally, we fail to see how such a Public Medical Service is to be enforced, and how medical men are likely to be persuaded to join a scheme which involves in every district joint liability for rent and other expenses of a separate establishment, while still having their own professional residences to keep up. What we want first is to compel hospitals to refuse medical and surgical advice to persons capable of

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paying for it. If this can be secured, medical men should not hamper themselves with costly and complicated organisations. Dr. RENTOUL has given a great deal of attention to a very difficult subject, but we are not yet persuaded that his schemes and tariffs are practicable.

IN our last number we briefly referred to the issue of the recent trial at the Central Criminal Court. We now purpose to give more in detail the facts of the case and comment upon their forensic application. From the evidence it appeared that the deceased woman, who was the mother of two children, had expressed a wish to be relieved of her pregnancy. Her husband deposed that he endeavoured to dissuade her from a course which he deemed both wrong and dangerous. Somewhere in June last she visited Dr. MOON at his surgery, and shortly afterwards repaired to the country for a month's holiday. On July 9th she again went to Dr. MOON'S house, and the fact was not disputed that on that occasion accused passed a sound into the uterus, and introduced a sponge or laminated tent into the cervix, and that he adjusted a plug of cotton wool impregnated with laudanum. At the coroner's inquest, held by Mr. E. A. CARTTAR, Dr. MOON made a communication, and supplemented this by others before the inquiry closed. He related (1) that the woman called on him in June, complaining of frequent and serious uterine hæmorrhage; (2) that he deferred an examination, on the grounds that she was then not quite free from an attack of metrorrhagia; (3) that on July 9th he sought for the evidence of a tumour by digital examination, and finding none he passed the uterine sound, and using this as a guide fixed a tent for the purpose of dilating the cervix, with a view to subsequent more complete exploration; (4) that on withdrawing the sound, and seeing it free from blood, he for the first time formed an opinion that the patient was pregnant, and expressed himself to that effect, whereupon he received the reply, "I know I am"; (5) that he placed the plug of wool charged with laudanum against the os uteri to diminish the effects of any irritation that might have been caused by the instrumentation. Counsel for the prosecution contended that the whole procedure was conducted by the accused with the intention of procuring abortion; and that, if he had acted inadvertently, he was guilty of culpable and criminal negligence in allowing the woman to go home with a tent in the cervix. The latter allegation was met by the reply that Dr. MOON, on finding the true condition of affairs, wished to remove the tent, but that deceased declined to allow him. The prosecution also alleged that, knowing the peril the woman was in, he ought to have taken steps to minimise the danger by his subsequent action. Here we may remark that the husband of deceased swore that as the miscarriage did not "come off" at the expected time, he went to Dr. MOON and acquainted him with the fact. He also swore that a day or two later he paid another visit to Dr. MOON, and reported that the "child" had come away, but the afterbirth had not; and that he was told "only a little more action was required,' and to obtain this his wife was to take some castor oil. On the ninth day subsequently to the instrumentation the woman became worse, and Mr. TOWNSEND, a local practitioner, was called in. Her case was now hopeless, and she sank from acute peritonitis, which was verified by a post-mortem examination made at the instance of the coroner. After the death of the woman, her husband alleged that he went to Dr. MOON and said that Dr. TOWNSEND declined to give a certificate of death, and asked what he should do, and received a reply that he should not mention the fact that he (Dr. MOON) had had anything to do with the case, inasmuch as if it was known "it would mean transportation for both of us." Before leaving this part of the inquiry, we may mention that Mr. Justice STEPHEN, in his charge to the jury, said that he always held that too much stress should not be laid upon reports of conversations, since after a considerable interval facts were often forgotten, and a wrong construction might be placed on what was reported. On this point, when referring to the alleged remark by Dr. MOON about "transportation," the learned judge said that this might have been made by a perfectly innocent person in the course of a conversation upon such a matter and at such a time. Adverting to the charge made by the prosecution that Dr. MOON, in his statement before the coroner, did not in the first instance mention the tent and plug, but only the sound—and that in fact he only gave a complete and full explanation as step by step the evidence strengthened against him,—the counsel for the defence very properly contended that at the inquest Dr. MOON had no legal assistance, and was further placed at a manifest disadvantage in not being summoned as a witness when, if he had been aided by questions, the whole statement might have been elicited at once. The Judge, whilst admitting that the coroner had conducted his inquiry in a proper manner, endorsed the argument of Dr. MOON'S counsel.

Although a strong contingent of leading metropolitan obstetricians was in court, presumably ready to give evidence in favour of the accused, no witnesses were called for the defence. Mr. LOCKWOOD, premising his remarks with the observation that he was prepared to accept the testimony of the medical witnesses for the prosecution, which had been given with great fairness, a number of witnesses—including Dr. BRAXTON HICKS—as to Dr. MOON'S character and reputation were called at the close of counsel's addresses. Mr. Justice STEPHEN, having quoted the saying that "evidence of good character could not alter facts," very forcibly remarked in his charge that, although that was so, it should lead the jury to consider most carefully the interpretation to be placed upon those facts.

As we reported in our last issue, a verdict of acquittal on all the charges preferred was returned. We congratulate Dr. MOON upon the result after so full and complete an investigation. It must have been a source of great satisfaction to him to hear from the Judge that he entirely agreed with the verdict of the jury.

There are one or two lessons to be learned from the above case. In the first place, we have another instance of the advisability of not examining a woman in the absence of a third person; for, apart from the fact that charges may be made which from the very nature of the circumstances must be difficult to refute, it is well known that it is too common for women, with shameless effrontery, to request medical men to procure abortion upon them; whilst at

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other times—as in the present case—they will conceal the knowledge of their pregnant condition in order to obtain an instrumental examination in the hope that such procedure may accomplish what they desire. Mr. MATTHEWS, the prosecuting counsel in the above trial, remarked: "Mrs. TEBBUTT, after the sound had been passed, admitted with brutal frankness that she was pregnant."

For the benefit and protection of the profession in general, we feel bound to say that we think Dr. MOON would have exercised greater discretion if, after finding that he had been led by "deceit" into making a dangerous—and, as the event proved, a fatal—examination, he had disclosed the facts to someone in authority or position.

A LETTER from Dr. EDRIDGE-GREEN on the detection of colour-blindness which recently appeared in these columns appears to have attracted the attention of the Associated Society of Locomotive Engine-drivers and Firemen, and the subject was discussed in an address delivered by Mr. CLEMENT E. STRETTON on the 28th ult. Both Dr. EDRIDGE-GREEN and Mr. CLEMENT STRETTON agree in considering that the possession of a correct sense of colour is of very great importance in railway officials; yet that there are decided imperfections in the tests used by the different railway companies. Mr. STRETTON, indeed, remarks that, owing to the absence of a uniform standard test, a man may be removed from his position under one company for some defect or supposed defect which another company would regard as of no importance. He considers that the tests in most general use, and known as the dots and wool tests, are unfortunately theoretical and not practical; and he proceeds to say it is supposed that to clearly see and count the dots at a distance of fifteen feet with each eye separately is equal to a soldier being able to see a target six feet square at 1000 yards. Not being a rifleman, he could not express any opinion on the test from a soldier's point of view, but as a railway test he stated most distinctly that it was "useless and absurd." We are disposed to join issue with Mr. STRETTON on this point. We think it is highly important that an engine-driver should be able to see a target six feet square, or an object of equal size,—say the front of an approaching engine—at 1000 yards. At that distance, with a train running at ordinary express speed, he would only have about fifteen seconds to shut off steam and put on the brakes were he to meet a train coming in the opposite direction at the same speed, and not much more than half a minute if the object were stationary. And whilst we, of course, admit the occurrence of cases to which he alludes of men who can count the dots at fifteen feet who cannot see a signal at 800 yards, we are somewhat sceptical in regard to those who fail at fifteen feet but can see a railway signal at a distance of a mile. Such cases must be very rare. With regard to HOLMGREN'S wool test the case is different; and we agree with Dr. EDRIDGE-GREEN and Mr. STRETTON that as a test for the colour vision of railway officials it is open to objections. It has to be proved, as Dr. EDRIDGE-GREEN stated, that a man who puts a confusion colour with a green wool cannot distinguish between a red and a green light; and there is reason in Mr. STRETTON'S contention, that instead of the wool test it would be far more practical to take a man upon the railway and try him with actual signals both by day and night, when it rains and when it is fine, and require him to see every signal perfectly, from the starting signal a few feet off to the most distant signal which it is necessary for him to see. With this Dr. EDRIDGE-GREEN fully agrees. He would, he says, put the person to be tested in as nearly as possible the same conditions as he would be likely to occupy when following his employment. The only practical difficulty that occurs to us as likely to interfere with Mr. STRETTON'S plan of testing is the time that might be required to complete the examination. We cannot command the weather, and many weeks might be spent in waiting for a spell of dry and bright or of rainy and dull weather. The difficulty might be overcome in the manner suggested and employed by Dr. EDRIDGE-GREEN—namely, of using special kinds of neutral glass of different degrees of thickness, together with the coloured glasses, since such neutral glasses obstruct the light in the same way that the atmosphere or fog does, and therefore puts the examinee under similar circumstances to those in which he would be likely to be placed. Both Dr. EDRIDGE-GREEN and Mr. STRETTON are agreed finally that the testing should be conducted by one who is specially trained in colour-blindness. Since colour testing requires training and skill, Dr. EDRIDGE-GREEN recommends that a committee should be appointed to report on the subject, and to examine and appoint properly trained examiners; whilst the Society of Locomotive Engine-drivers has decided, in every case where a member is discharged or reduced on account of the dots and wool tests, to have such member carefully examined by an expert; and if the latter report that the member's eyesight is not defective, the attention of the directors of the railway company should be called to the case, and a request made that the man be put through a practical test with signals in the presence of the company's surgeon and an expert surgeon, to be named and employed by the Association,—a proceeding, we venture to think, exceedingly practical and fair.

Annotations.

"Ne quid nimis."

"THE GAPS IN MEDICAL EDUCATION."

DR. GLOVER has published as a short pamphlet the speech which he made at the May meeting of the General Medical Council on the shortcomings of the various examining bodies, as disclosed by the reports of the inspectors. The examples given by the Inspector of Medicine, Dr. Finlay, as showing a grave deficiency in the knowledge of how to prescribe and use common drugs, are certainly most striking; but perhaps the constant and daily use of stock medicines and of ready-made pills with a definite and unalterable formula may partly account for this. Prescribing and dispensing have altered greatly in the past few years, mainly in the direction of time-saving appliances and of drugs made up according to constant formulæ. Yet therapeusis as an art is generally somewhat neglected in the schools, and insufficiently tested at examinations. Dr. Glover's criticism on the selection of cases at our medical examinations is only too well founded, and the faults of commission in examining the candidates on scarcely anything but chronic incurable hospital cases, and of omission by never practically testing them on infectious diseases, in-

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fantile diseases, and some kinds of *ordinary* cases even, such as pleurisy, rheumatic fever, acute gout, acute dyspepsia, insanity, puerperal cases, &c., are certainly very grave, and would to a large extent be remedied if the authorities could only be induced to see how incomplete and unfair to the student and to the public such examinations are. We shall look forward with some curiosity for the summary of reports of the inspectors, and the remarks of the bodies inspected, which the Examination Committee is preparing for the members of the General Medical Council at their coming meeting, especially as this committee is to add any comments and resolutions which may seem fitting and desirable. Whatever opinion may be held as to the practicability of Dr. Glover's suggestions, no one will withhold from him the credit he certainly deserves for directing the attention of the General Medical Council and the profession to this very important subject.

CAMBRIDGE UNIVERSITY AND THE GENERAL MEDICAL COUNCIL.

WE hear with regret that Prof. Humphry's term of office has expired, and that he does not seek re-election. Professor Humphry has been the representative of the University of Cambridge in the Council since 1869. He has not only well discharged his duty to his own University, but he has been conspicuously useful and painstaking in every part of the Council's work. For many years he has been a member of the Executive Committee. On the Financial Committee also he has taken an active part, always with an inclination to proper economy. There are few members whose counsel will be more missed either in questions of administration or in the great matters of medical education. There has been a very sharp contest in the University over the election of a successor to Prof. Humphry. The election rests with the Senate. Two gentlemen were nominated—viz., Dr. Latham (the Downing Professor of Medicine), and Dr. Donald Macalister. The latter candidate was supported by Sir George Paget, Prof. Humphry, Dr. Hill (Master of Downing), Drs. Michael Foster, Liveing, Roy, and Gaskell. Dr. Latham was supported by most of the Masters of Colleges and by many London physicians, Sir Henry Pitman, Drs. Hare, Martin, Reginald Thompson, Edward Liveing, Ralfe, Lees, Ewart, Habershon, Messrs. Page, Critchett, and others. The election took place on Thursday, between 2.30 and 3.30 P.M., and resulted in the choice of Dr. Donald Macalister, who received 194 votes, against 140 recorded for Dr. Latham.

TUBERCULOSIS IN MEAT.

THE importance of meat tuberculosis is attracting the attention of sanitary authorities, and is no doubt a very serious problem for butchers and graziers. The decision in the Glasgow case, which is now celebrated, and the recent actions at Sheffield, prove that, so far as the health of her Majesty's subjects is concerned, there is a strong opinion of the infectivity of meat from an animal which has suffered from tuberculosis. Last week the sanitary inspector of Wigan seized part of a carcase of a cow which was dressed for food, and took Mr. Barnish, medical officer of health, to see it. He examined the meat, and from the appearance of the texture could not say that it was unfit for the food of man; but seeing the lungs, pleura, and intestines, in which tubercles were present, he had the meat taken before a magistrate and condemned. The butcher was summoned before the magistrates (Mr. Roocroft and Mr. Pendlebury), who, after hearing the evidence of Mr. Barnish and his inspectors, fined the man 20*s.* and costs. At the same time, they considered that the defendant was not aware that the meat was unfit for food. The proceedings were taken under the 116th Section of the Public Health Act, and for the defence Mr. Macloghlin was called and two butchers, all of whom considered the meat fit for consumption. This is the first case of the kind in Wigan, and to the butchers of the town is one of serious importance, because undoubtedly a large number of beasts, especially those stall fed, are subject to tubercles, and hitherto it has been considered, if the meat was unaffected—i.e., no general tuberculosis—it could be sold for food without any danger to man. Mr. Barnish, in his evidence, alluded to the prevalence of tuberculosis in the town, and thought that consumption of this class of food was a cause of it, whereas Mr. Macloghlin thought the reverse, and the following extract of a letter from a very eminent professor of pathology of the University College, Liverpool, was read: "It has not yet been proved that the flesh of tuberculous animals is tuberculous of necessity. There is no legal decision on the subject in England so far as I know." Now this subject is of so much importance that it should be settled positively whether or not the flesh of an animal which has only tubercle in the lungs and no general infection or glandular infection should be destroyed or not. It is too important a subject to depend on scientific opinions only. In the Glasgow case, for example, men of equal scientific attainments and experience gave entirely opposite opinions, so that a poor butcher or grazier might have a cow or the meat of an animal passed by the meat inspector of Birmingham or Leeds, whilst if he had the same beast dressed in Glasgow or Edinburgh it would be seized and destroyed. No doubt the subject is one of vital importance to her Majesty's subjects from a health point of view, but even from an economic point it is of very great moment.

THE DANGERS OF ELECTRIC LIGHTING.

THE serious and even appalling risks to life and limb involved in an ill-designed and badly executed system of electric lighting are constantly receiving illustration from the unfortunate experience of some locality favoured with the possession of the new illuminant. It is often a feature of the reports which arrive from America and elsewhere that they are obviously and even grotesquely exaggerated and incorrect. But there cannot be a doubt that a broken-down wire along which a current of perhaps 1000 or 2000 volts is flowing presents a most formidable source of danger. The very circumstantial story which came only a day or two since from New York, of the result to an unfortunate horse and its driver of meeting with such a fallen wire upon the roadway, strikingly illustrates this point. It is certain that such an obstacle might easily spread death around it in the way described if approached without due and even elaborate precautions. There is, therefore, abundant ground for the alarm which is not unnaturally felt by the public generally as to what may be the possible consequences of threading electric lighting mains through our streets and in and out of our houses in the manner to which the enterprise of the electric lighting companies has recently given rise. Nor will this alarm be at all lessened by the fact that, according to what appear to be trustworthy statistics compiled in New York, not fewer than eighty-seven persons have been killed in that city since the beginning of the present year. These unfavourable considerations should, however, be taken into account with others, which deprive them almost, if not wholly, of their point. The perils of electric wires arise from well-known causes, and are capable of being provided against by comparatively simple expedients. The efficient insulation of the conducting wire is from some points of view a matter of considerable difficulty; but no difficulty—nothing but labour—is involved in the expedient of placing it out of reach. This is a con-

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dition which the Board of Trade has relentlessly imposed upon the high-pressure systems in the recently granted provisional orders; and, assuming that it is effectively carried out, we see no reason whatever to apprehend any danger to life from the works which are now going forward in our midst. It would no doubt be a very serious matter if the current at dangerously high tension, were actually brought into houses and exposed to the accidents which accompany domestic use. But that is not the case in any single instance. The companies which use high tension currents for the purpose of distribution reduce these currents to perfectly innocuous voltage (50 or 100 volts) for consumption, and although it might not be wholly agreeable to a sensitive subject to receive a current of even this pressure, there is no reason whatever to suppose that any quantity of such electricity passed through the human body would have a decidedly injurious effect. We await, then, the experience of London in the matter of the electric light with perfect equanimity, being sanguine that the very carefully devised protective measures which the Legislature has approved and enjoined upon the companies will prove sufficient for their purpose.

HYPOCHONDRIASIS.

PROFESSOR MENDEL, in a lecture before the Association of Physicians at Berlin, defines hypochondria as a functional disease of the brain, the essential symptoms of which are fear and anxiety about the patient's own state of health. The disease appears, according to Professor Mendel, in three different forms. The simplest of these forms, for which the lecturer proposes the name of nosophobia, is when the patient considers himself seriously ill or near death. The second form shows not only the same fear and anxiety, but also various organic hallucinations. The internal organs have probably, like the extremities, a centre in the cortex, and any irritation of this centre will usually produce a special class of sensations, which in this case become hallucinations. The third form shows, in addition to all the foregoing symptoms, hallucinations of the higher senses. Patients believe their hearing and sight are getting worse. They also sometimes hear voices, as it were within the head. The affection is, according to the course it takes, divided into acute, subacute, and chronic or constitutional hypochondria. Contrary to the general belief, it is very frequent amongst females of every age. Nosophobia is certainly much more frequent in man, probably because women act as nurses, and consequently have no fear of infection. The second form is very frequent amongst women, and is generally connected with the sexual organs. These patients generally come under the care of the neurologist only after having become much worse through unsuccessful gynæcological treatment. The so-called cerebral form is most frequent. Patients say that their head feels as if it were in a vice, or that it is soft, empty, or too light, and that the spinal column cannot support it. They are consequently in fear of apoplexy or insanity. The third form appears chiefly amongst women. Patients fancy themselves altered; when standing before a looking-glass they believe their faces to be wrinkled &c. They fear that their means will become insufficient to live upon, that they will lose their place, and they suffer from claustrophobia. Hypochondriacs are characteristically egotistic. This symptom is more prominent in women than in men. One woman kept her bed for twenty-five years without any disease, and committed suicide in bed. Generally, however, suicide is rarer in hypochondriacal women than in men. Sleep is generally good. Paræsthesia and hyperæsthesia are frequent, as are also cold feet, while the head is warm. Professor Mendel has frequently discovered a spot on the head of such patients which felt hotter to the hand than the rest of the head. In complications of hypochondriasis with other affections (hypochondria cum materiâ), Dr. Mendel teaches that the latter are the cause of the neurosis. Especially important is the complication with hysteria, which is generally the primary affection.

THE RECENT GREEK CENSUS.

THE *Official Gazette*, published in Athens on the 16th ult., contained a preliminary statement of the population of the kingdom of Greece enumerated at the recent census in February last. It appears that the population amounted to 2,187,208 persons, showing an increase of 218,925; or rather more than 11 per cent. upon the number enumerated at the previous census in 1879. The increase of the population of England and Wales between the censuses in 1871 and 1881 did not much exceed 14 per cent.; so the recorded increase during the past ten years in Greece may be accepted as evidence of prosperity and progress, as well as of a satisfactory excess of births over deaths. The largest proportional increase of population was shown in Attica and Beotia, Aetolia and Acarnania, Achaia, and Elide, and Triccala. On the other hand, an actual decline of population occurred in Arcadia, Cyclades, Cephalonia, and Zante. In one respect the Greek population stands out in strong contrast to that of almost every other European country, inasmuch as the number of males exceeds that of females. At the recent Greek census the proportion of males was 107·6 to 100 of females. It is well known that the females considerably exceed the males in almost every other European country. At the last English census in 1881 the sex proportion was 105·5 females to 100 males. This excess of males in the Greek population is not susceptible of satisfactory explanation without more complete vital statistics than are issued by this country. There is little reason to doubt that males are more numerous than females at birth, and the proportion of emigrants and of colonists who leave the shores of Greece is probably comparatively small, which tends to prevent the excess of females thus caused in most other European countries. It would, however, be very interesting to know whether the excess of males in Greece is in any degree due to exceptional sex-mortality. Excess of mortality among males, compared with that of females, is almost invariable. If the mortality of females in Greece exceeds or is equal to that of males, such an unusual fact would help to explain the excess of males in the population.

SAVING LIFE AT SEA.

MR. F. W. BREWSTER, M.A., has published in pamphlet form a short explanatory commentary upon the Merchant Shipping Act of 1888. The subject is by no means a new one to the writer, and it is not without reason that he takes credit for having indicated long since the general lines which the Legislature has at length followed in dealing with this important subject. In some particulars, indeed, he finds room for criticism, and on these occasions he does not shrink from the forcible expression of an adverse opinion. There can, however, be no doubt that the enforcement of the new rules will have a most salutary effect in improving the security of seagoing ships, and even, we understand, of river boats also. It is, indeed, strange that such measures as have at length been adopted should not have been perceived long since to be of the greatest importance for the safety of passengers and crew, and made obligatory upon shipowners years ago. But even if late, the innovation is a useful one; and although it would perhaps be premature to assume at the present time that regulations which will not come into operation until

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April of next year will be found in practice perfectly satisfactory, there can, we think, be no undue boldness in expressing satisfaction at the good beginning which has been made. Experience may eventually suggest a great many modifications in the scheme which has now been adopted, but these we may be sure will be matters of detail. The main principles that every ship must carry sufficient life-saving apparatus for the rescue of every person on board, and that all necessary precautions must be taken for securing the efficiency of the apparatus provided for this purpose, have now been asserted once for all. We do not doubt that the effort of volunteers like Mr. Brewster will still be of inestimable value in helping to perfect the details of the scheme in which these leading principles are to be embodied; but for the present we may be content to congratulate them and the public at large upon the very considerable measure of success which has already crowned their painstaking efforts in the past to secure adequate recognition for the principle that a traveller's life at sea is as precious as on land.

THE EFFECT OF DISTENSION OF THE ABDOMEN ON CIRCULATION AND RESPIRATION.

THE effects of pregnancy, ovarian dropsy, ascites, and other diseases leading to great distension of the abdomen, in impeding respiration and disturbing the action of the heart, though there is little unanimity or precision in the opinions that are entertained respecting them, are generally admitted. Such affections are, indeed, of a chronic nature; the abdominal walls have time to yield, and the organs both in the abdomen and in the chest are enabled to accommodate themselves to the altered conditions; but we are not aware that any experiments have been undertaken to determine the effects of sudden distension of the abdomen in animals until the appearance of a paper by Dr. G. Heinricius of Helsingfors, in a recently published number of the *Zeitschrift für Biologie*. It is generally believed that in pregnancy there is marked increase in the tension of the systemic vessels, and that as a consequence the heart undergoes hypertrophy; but although such statements are to be found in almost every gynæcological text-book, the evidence on which they rest is extremely slender. In order to determine whether any obstruction to the circulation which may exist in the uterine vessels in pregnancy would raise the general blood pressure, Dr. Heinricius first performed the very simple experiment of tying the aorta just above its division into the iliacs, and found that in four rabbits no change took place in the arterial tension of the carotids. Hence no effect was to be expected from ligature of the uterine arteries, nor from any such obstruction as might proceed from their distribution in the pregnant uterus and in the placenta. He next proceeded to ascertain by experiment the effects of distension of the abdominal cavity in the rabbit and cat. He employed a double cannula, which was introduced through or at the side of the linea alba by a small puncture in narcotised animals; one arm of the cannula was connected with a vessel containing normal saline solution at the temperature of the blood, and the other with a manometer. Arrangements were further made to record graphically the respiration and the blood pressure in the carotid. The respiratory and blood pressure curves were taken after each 50 or 100 cubic centimetres of the solution had been injected into the abdomen from the vessel, and the phenomena which were presented proved to be remarkably uniform. In all the experiments, which numbered fifteen, it was found that the abdominal cavity could be filled with a large quantity of fluid, so that the parietes were quite tight, without either pulse or respiration being materially disturbed. It was only after very great distension had been produced that the respirations became more frequent and deeper, the expiratory effort being particularly well marked. This dyspnœa was apparently attributable to the diaphragm being pressed upwards and the capacity of the thorax correspondingly diminished, so that mechanical obstruction to respiration was occasioned. The effect of this was that the accessory respiratory muscles were brought more into play, and the breathing became more and more thoracic in character. But these efforts soon became insufficient to compensate for the defective action of the diaphragm. The respiratory centre became excited, but was soon paralysed by the venous blood. The respirations underwent a change: they became first shallow and slow, then deeper, dyspnœa finally occurred, and the animal died. If we turn now to the effects of the distension on the circulation, we find that when the distension became considerable the pulse at first increased in frequency, then became fuller, afterwards less frequent, and before the death of the animal usually suddenly smaller. The arterial blood pressure first began to rise when the frequency of the pulse had considerably diminished, and then gradually fell as the pulse became smaller. Dr. Heinricius gives in the article we have alluded to numerous tracings which collectively show that the abdomen may undergo great distension without abrogation of the more important vital functions. The abdominal cavity of a rabbit can support in this way the introduction of 500 cubic centimetres of fluid without difficulty, and nearly a litre and a half of fluid can be further injected before dangerous symptoms supervene, clearly showing how extraordinarily yielding the abdominal parietes are, and affording a proof that it is not necessary to appeal to the slowness with which they are distended in pregnancy and in cases of abdominal tumour to explain the slight interference with the main functions of life that occurs in those conditions.

STARVING SCHOOL CHILDREN.

THE recommendations of the Committee of the London School Board on the subject of providing food for starving school children, to which we drew attention a few weeks since, have called forth a very speedy and hopeful response, for on Saturday last an influential meeting was held at the Board's offices to inaugurate an association designed to take up the work which the report approved, and to carry it out upon the lines which the sub-committee indicated. As to the importance of the philanthropic work thus put in hand we have already expressed our opinion, and have only now to add an expression of the satisfaction with which we see its execution confided to so strong a committee as was nominated at last Saturday's meeting. The work which confronts that committee is vast and pressing, but happily the means by which it is to be accomplished have been clearly pointed out; and although there are agencies already in operation which deal in a fragmentary and imperfect way with the existing distress, there seems no reason to apprehend that any difficulty will be experienced in bringing these subsisting organisations within the scheme now happily launched under the auspices of the School Board. It may, therefore, be hoped that the work which has been put in hand with such excellent prospects of success will proceed without interruption, and that the urgent needs of starving school children will be adequately met by the charitable efforts of the well disposed. If this should prove to be the case, the result will be incomparably more satisfactory than it could possibly be if brought about by official means, for in works of charity there can be no question of the superiority, both in sentiment and in operation, of a voluntary organisation to a Government department.

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UNHEALTHY BOARD SCHOOLS.

SINCE public attention has been directed to the subject of household sanitation, there have been so many exposures of incompetence or carelessness on the part of many who are occupied in this work that it need surprise no one to hear once more of absurd and serious errors. According to evidence tendered by the Works Committee of the London School Board, the drainage in several of the metropolitan schools is in a most unsatisfactory condition. Faulty plans combined with deficient supervision, and mismanagement in execution, have resulted in "scamped and imperfect work," costly in its doing and undoing, and injurious to health. The sum of £200 will probably be required to put in good order the drainage system of one school; £150 and £250 are the estimated expenses of readjustment in the case of others. These disbursements are now presumably inevitable. However annoying from the economist's point of view, they will not have been altogether wasted if they represent the price of a warning which will guide the Board officials in time to come. This unearthing of buried abuses has, indeed, a hopeful and educative side. It does not, perhaps, teach us much that is new respecting defects of sanitation themselves, but it can hardly fail to convince the most earnest believer in School Board management that nothing in school construction is more vitally necessary than skilled and active oversight at every stage of the work, and that such care has often in the past been conspicuously wanting.

EMPYEMA OF THE ANTRUM.

AT the last meeting of the Odontological Society Dr. Felix Semon read a paper on "Some Points in the Etiology, Diagnosis, and Treatment of Empyema of the Antrum." In the great majority of cases the antrum is affected secondarily, the pathological process starting either from the nose or from the teeth, but in some few cases it is quite possible that it has originated in the antrum itself. Any inflammatory process affecting either the mucous membrane of the bones of the nose, or the periosteum of the teeth or alveoli may set up purulent inflammation of the antrum. Authorities differ with regard to the relative frequency of these two main causes, but Dr. Semon thinks that clinical observation shows that an overwhelming majority of cases of antral empyema have their origin in affections of the alveoli of the teeth. Bayer of Brussels draws especial attention to the frequency of the combination of nasal polypi with purulent catarrh of the antrum, and as exceptional causes may be quoted its occurrence after section of the infra-orbital nerve by Malgaigne's method and from the stump of a tooth being forced into the antrum during an attempt to extract it. The diagnosis of empyema of the antrum may be divided into (1) cases in which there is no discharge into the nasal cavity, and (2) cases where from some cause the opening is not patent. In the great majority of cases in which the nasal opening is not obstructed the disease is characterised by a unilateral periodical discharge from one nostril, the periodicity corresponding to the different positions of the patient's head. From the anatomical position of the ostium maxillare the pus can only find exit when the antrum is nearly full or in certain postures, as when recumbent, especially when lying on the sound side, or leaning forwards, as in writing. Frontal headache, depression of spirits, and general derangement of health are frequent accompaniments. With a good light and a nasal speculum the pus may be seen issuing from the ostium maxillare, the superior meatus being healthy. If this is not clear, the nose should be carefully cleansed and the patient directed to lie down for a few seconds on his abdomen on a sofa, with the head low and inclined to the sound side, when upon resuming the horizontal position, if there is pus in the antrum, a greater or less quantity of discharge will be seen in the middle meatus. Where there is obstruction of the ostium maxillare there will be, in extreme cases, distension of the inner wall of the cavity, and in almost all cases violent neuralgic pains in the face and teeth of the affected side, and often swelling of the soft parts of the cheek, sometimes of an erysipelatous character. In forming a diagnosis it must not be forgotten that disease of the frontal or ethmoidal cells may coexist. Should an exploratory opening be necessary to clear up the diagnosis, it may be made through the nose, the socket of a tooth, or the alveolus, either of the two latter being preferred by Dr. Semon. Heryng maintains that in obscure cases electric trans-illumination is of great value. The patient is placed in a perfectly dark room and an electric lamp of not less than five volts passed into the mouth, when the maxilla will appear red and translucent on the sound side, but dark on the affected one. With regard to treatment, which is essentially free drainage, Dr. Semon decidedly prefers an opening through the mouth to one through the nose, as it is the most dependent part and most easily accessible to the patient for syringing; but in obstinate cases he advocates a counter-opening in the nose, and, that failing to effect a cure, a large opening through the canine fossa and stuffing the antrum with iodoform gauze.

SIR JAMES WHITEHEAD, BART.

WE congratulate the retiring Lord Mayor most heartily on the honour of a baronetcy which has been accorded to him by Her Majesty. Sir James Whitehead has thrown into the work of his office a wonderful amount of energy and interest. It becomes us specially to recognise his efforts to increase the support accorded to our great medical charities through the medium of the two great funds, the Hospital Sunday Fund and the Hospital Saturday Fund. He has the satisfaction of knowing that the former fund exceeds its record by over £1100 in the year of his mayoralty, and that he has done more than any of his predecessors to raise among working men a desire to make a systematic contribution to the hospitals and dispensaries more proportionate to the benefits they derive from them. One of the very last acts of his office was to preside at a meeting in the East-end for the promotion of provident dispensaries in London. We earnestly hope that Sir James Whitehead will continue his interest in medical charities, with the twofold determination to increase in them all that is truly charitable and properly pitiful, and to eliminate from them all that is injurious to the poor and demoralising to the industrial classes.

NOMENCLATURE.

THE recent advances of chemistry receive due recognition from pharmacists and therapeutists; but, while new chemical products are eagerly welcomed, some difficulty is frequently experienced in following their changing terminology. In the last edition of the British Pharmacopœia an effort was made to keep pace with chemical science, and many familiar terms appeared in new spelling, which, it is to be feared, formed an element of discomfort to many who had long been accustomed to a terminology which, if incorrect, had almost been sanctioned by general usage. In *Merck's Index* for 1889 a very useful plan has been adopted, the various "odd names," or obsolete names, are indexed, with a cross-reference to the proper chemical name, so that it is easy to find the chemical composition of many substances of which the "odd names" have come into general use, from their brevity or from some other reason. More than this,

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however, can be conveniently realised from this useful little book, since in short space an explanation is given of the general rules guiding chemical nomenclature and orthography. Principles are given for determining the presence or absence of a final *e*, as in "strychnine," "strophanthin," "carbinol," "aldehyd." These may seem minor matters, but, to the initiated, such small differences count for a great deal, since in most instances they furnish a clue to the chemical position. Exceptions must of necessity exist, where terms have passed into popular use so thoroughly that any attempt to change them might be considered pedantic, but in scientific papers it is certainly desirable that these exceptions should be of rare occurrence. It would probably be impossible to effect a change from "glycerine" to "glycerin," which is the form in current usage in foreign treatises; it is still more hopeless to sigh for chemical conformity and its conversion to "glycerol." On the other hand, it is still possible to struggle for "sulphonal," in preference to "sulfonal," which appears in so many French papers and occasionally in English transcripts.

EPIDEMIC OF ENTERIC FEVER AT ST. HELENS.

THE borough of St. Helens has been visited by a very severe epidemic of enteric fever, the cases increasing in number from two in the month of May to no less than 126 in September; and the severity of the incidence of the disease in certain parts of the borough may be judged of by the fact that out of a total of fifty deaths which have occurred as yet no less than thirty-seven took place in the Eccleston and the Windle wards. Mr. R. McNicoll, in reporting on the outbreak, exonerates milk as a cause of the prevalence, in so far as its diffusion, if not its origin, is concerned, and the town water does not seem to admit of suspicion. But the conditions of sewerage, and to some extent those of excrement disposal, are precisely such as to favour a wide diffusion of the poison of enteric fever when once introduced; and both Mr. McNicoll, as local medical officer of health, and inspectors from the Medical Department of the Local Government Board have—at least since 1882—urged that these matters should be dealt with. Whatever has been done in this respect, the want of a main sewer has been allowed to stand over; and to the conditions resulting from this default Mr. McNicoll ascribes the epidemic. It has now been determined to deal with the matter, and it is to be hoped that, in view of the severe experience through which St. Helens is passing, final measures will also be adopted to secure permanent abatement of all forms of closets causing danger to health. During October the epidemic showed signs of abatement, but the autumn months are not the most favourable for eradicating the enteric fever poison when once widely diffused.

PNEUMOTHORAX DURING ASTHMA.

AT the meeting of the Medical Society of the Paris Hospitals on Oct. 25th, M. Troisier related the case of a woman aged twenty-seven, who since the age of nineteen had been subject to attacks of spasmodic asthma. In June, 1887, she was admitted under his care suffering from a violent attack. Two other attacks followed, and on July 1st the signs of pneumothorax on the left side were observed, it having arisen gradually and without dyspnœa. About two litres and a half of air were evacuated by Potani's aspirator, and on the following day the remainder of the effused air was reabsorbed. Since then the patient had had several asthmatic paroxysms, and showed slight emphysema. M. Rendu mentioned a case of pneumothorax during whooping-cough, and he and others spoke of the relief obtained by puncture of the chest in such cases.

PROPOSED TESTIMONIAL TO PROFESSOR STRUTHERS.

AT a preliminary meeting of former pupils of Professor John Struthers, held on the 26th ult. at 16, Cavendish-square, and presided over by Sir Andrew Clark, Bart., as an old friend of Professor Struthers, it was resolved to initiate a movement for presenting Professor Struthers with a testimonial. A large number of his pupils have already taken up the idea enthusiastically, including Sir W. Guyer Hunter, M.P., Dr. R. Farquharson, M.P., Professors W. S. Playfair of London, Rutherford of Edinburgh, Sinclair of Manchester, Reid of Aberdeen, Wardrop Griffith of Leeds, Drs. Mitchell Bruce, Goodhart, Walsham, Stephen Mackenzie, Clement Godson, John MacCombie, Albert Westland, R. W. Burnet, Seymour Taylor, Leith Napier, and other medical men, both in London and the provinces. Sir Andrew Clark was appointed chairman of the London Committee, and Dr. James Anderson secretary and treasurer. The precise form of the testimonial was left at present undecided, but it is anticipated that it will take the form of his portrait to be presented to himself, and a scholarship bearing his name to be founded at the University of Aberdeen. It was proposed that not only Professor Struthers' former pupils at the Universities of Edinburgh and Aberdeen, but also any of his personal friends who wish, may join in the movement, and we are asked to state that subscriptions may be notified to Dr. James Anderson, 84, Wimpole-street, London, W.

COMPENSATION THE COMPLEMENT OF NOTIFICATION.

THE *North British Daily Mail* comments on the recent inquests in East London on children dead from scarlet fever, in which the parents, respectively a tailoress and a cigar-maker, carried on their business and went to their work during the illness of the children. Our contemporary says it is not enough to censure the parents in such a case, and argues with much force that where the law requires persons to abandon their work for the sake of the public safety, the public should pay them compensation. We entirely agree with our contemporary. Notification and, *where necessary*, compensation must go together. This is the fine point to determine. It is obvious that some case of necessity and poverty must be made out. A person infected is rightly bound not to expose himself at the risk of others. Clearly, this is a case for legal interference. The onus of proving need for compensation should rest with the parents; but it is a very light burden in such cases as those under discussion. We apprehend that in most towns where the isolation principle is enforced compensation is awarded in the majority of cases of the kind. It is so in Leicester.

COOLIES AND SANITATION.

IN the matter of sanitation the lower-class native of India, notwithstanding some wholesome caste regulations, is well nigh as backward as it is possible for man to be. Purity of air and of water-supply, personal cleanliness and sewage removal, are to him of little moment. It is true that his own carelessness in this particular has had much to do with the causation of pestilences which periodically ravage his country; but of this he knows nothing. He lives as his fathers lived, and is content. But such placid negligence will not satisfy the majority of his more enlightened neighbours, and we need not therefore be surprised if occasionally complaints on the part of the latter should show their disapproval of his unwholesome laxity. Such a difference of opinion has lately found expression in

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the Rangoon press. The coolie quarter in that city, which is in a characteristically filthy condition, has already been the starting-point of several outbreaks of disease. Singularly enough it is this district of all others which enjoys a peculiar immunity from disturbance by the sanitary authorities, as it is beyond the area (about half of the whole town) controlled by the municipal conservancy board. A further extension has been suggested and is evidently required, but the necessary expense interposes a difficulty. The ratepayers of other districts naturally object to be taxed for the cleansing of the coolie quarter, while the latter pay no more than a nominal duty into the civic exchequer. Entering Burmah exceedingly poor, they escape the dues which are paid by the poorest natives. They live very cheaply, save a little, and in due time return to India. Under the circumstances, a light tax on behalf of needful sanitary measures does not seem at all unreasonable, and, in consideration of their numbers (25,000),—would hardly be felt by individuals. We may therefore hope that the local authorities will be able to see their way to the abatement of nuisances which must, until they are removed, constitute a standing menace to the health and lives of the whole population.

IODOFORM GAUZE IN POST-PARTUM HÆMORRHAGE.

DR. O. PIERING, assistant in Prof. Schauta's obstetric clinic in Prague, has published his experience in the employment of Dührssen's plan of plugging the uterus with iodoform gauze for post-partum hæmorrhage due to an atonic condition of the organ. Dührssen recommends that, when post-partum hæmorrhage comes on, the bladder should be emptied, and forcible friction and intra-uterine irrigation of hot or cold water, along with ergotinin hypodermic injections employed; that if the hæmorrhage still continues, the cavity of the uterus should be filled with iodoform gauze, the irritation produced by this setting up active and permanent contraction. The method has, according to Dührssen, the advantages of great certainty, complete harmlessness, and facility in its performance. Olshausen, Veit, and Tehling, however, say that the contraction set up is not always permanent, and that the method is not so free from danger as Dührssen believes. In consequence of these conflicting views, Dr. Piering resolved to give the method a trial, and he details several cases in which he employed it with complete success. In no case was any harm done by it. He advises that resort to the plug should not be too long delayed, and he prophesies an important future for the plug of iodoform gauze in post-partum hæmorrhage.

BETHNAL-GREEN "POOR'S LAND."

IN a city like London, and particularly in its more populous districts, we can hardly go wrong in preserving for public recreation any vacant spaces which still remain. It is therefore with real satisfaction that we have noticed a protest recently issued by the inhabitants of the district in favour of the preservation in its present condition of what is known as the "Poor's Land" in Bethnal-green. This ground, which is situated in Cambridge-road, E., consists of several contiguous portions, in all amounting to six and a half acres area. Like many other open spaces, it has been threatened with absorption into the tract of stone and lime by which it is surrounded. Unlike many such, it is fortunately protected by a prohibition enjoined on trustees by its original possessors, who granted it *in perpetuo* as a pleasure ground, and forbade the erection upon it of any building whatever. Notwithstanding this, a majority of the present trustees, with the approval of the Charity Commissioners, have agreed to dispose of half of it as a site for certain public buildings—namely, a free library, town hall, and infirmary. Then these, no more useful edifices could be designed; but it must not be forgotten that Bethnal-green is already furnished with institutions which, if not identical with them, at all events fulfil the same functions, and also that other sites are obtainable. Public land, on the contrary, if it be once parted with, is not usually recovered. Understanding this, and the importance of retaining in so populous a district a city "lung" in fairly healthy condition, we congratulate the ratepayers of Bethnal-green on the stand they have made in this dispute, and on their success in having obtained for their cause the support of the County Council.

ENGLISH MEDICAL MEN IN FRANCE.

THE importance of the communication which was received from the Foreign Office at the last ordinary meeting of the College of Physicians can scarcely be measured until some further details are given; but that the gravity of the situation was fully appreciated by the Fellows can be gathered from the matter being immediately referred to the Council for consideration and report. The communication briefly stated that in future only in exceptional cases would English medical practitioners be allowed to apply to be examined for a licence to practise in France. What rule would be followed in the selection of these "exceptional cases" was not divulged. Hitherto English medical men desiring to practise in France have been put to considerable trouble and annoyance by having to obtain a licence by examination, whatever their degrees and professional standing in this country. This was always regarded as a curious anomaly in a country which tolerates so many of the shady sides of semi-medical work. The new regulation may be capable of explanation, but at present it seems very much like a stringent measure for creating a monopoly. This regulation is the more surprising in view of the cordial expressions of goodwill so recently exchanged at the various meetings at the Paris Exhibition.

TRISMUS FOLLOWING VACCINATION.

WE have received some further information as to the case of trismus following vaccination to which we referred last week. The details lack completeness as to certain dates and other circumstances associated with the vaccination, but they suffice to show the exceptional nature of the symptoms which resulted. From the date when the child's arm "took" it began to ail, and when first seen with trismus, "about three weeks" after the performance of the operation, the vaccination marks had sloughed, coalescing and leaving a somewhat considerable cavity. Within two days of this the child is stated to have died of distinct tetanic symptoms. We have already explained that six other children were vaccinated with the same lymph; and since no word of complaint is reported as to these six, we are bound to assume that the lymph as such was not the cause of the mischief. The sloughing, under these circumstances, seems to have been due to some condition affecting this one child, and similar cases are known to have arisen where a child has been either recently exposed to the influence of some other morbid or specific infection or is actually incubating such infection, the specific fever or other allied ailment appearing to abort on the occurrence of sloughing in connexion with the vaccinia inoculated. The undue irritation thus induced might not unreasonably be regarded as playing the same part in the production of tetanus as is played in other instances by wounds of a different character. Vaccination necessarily produces a wound which, although superficial, is the seat of a specific infection; and infants

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submitting to it cannot, whilst securing the immense boon of immunity from small-pox, which formerly decimated our infant population, be altogether preserved from the risks which other trivial wounds of different sorts also occasionally involve. But such cases as the one we report should tend to the exercise of much care as regards the vaccination of children who are liable, by reason of ill-health or exposure to the infection of other contagia, to be subject to complications during the course of their inoculated vaccinia.

"THERMO-PALPATION."

IT has been known for some time that there is a difference in the surface temperature of the body corresponding to the organs underneath—that is to say, the temperature is higher over the lungs than over the liver or the heart. From a communication published in the *Orvosi Hetilap*, one of the chief medical journals in Hungary, by Herr Jonás and Dr. Benczúr, it appears that this fact is available as a basis for a novel method of physical examination which may be styled "thermo-palpation." These observers say that it does not require any peculiar sensitiveness of touch or any special education to appreciate the difference of temperature on passing the fingers over the surface of the body from the situation of the lungs to that of the liver, and that patients themselves and students who had not yet learned percussion were quite able accurately to detect the height of a pleuritic effusion by the difference of temperature. Diseased and healthy organs can be mapped out in this way by going over the surface, first, say, downwards and then upwards, when the line of demarcation will be distinctly felt. The general principle appears to be that organs containing air, such as the lungs and intestines, permit of greater surface warmth over them than more solid organs such as the heart, liver, spleen, &c. Of course, instead of using the fingers, a differential thermometer may be employed, and much slighter differences may be recognised than is possible by the touch alone. The authors claim for thermo-palpation that it is so simple that it may be used by all practitioners as an additional method of examining their patients. Another advantage which occurs to us is that if the method is as trustworthy as they believe it to be, a good many sensitive patients will greatly prefer it to that of percussion, which, even when carried out with as much consideration for the patient as possible, is to some persons exceedingly distressing. Indeed, it is probable that some people avoid as much as possible sending for a medical man from the dread they have of being percussed.

NEW MEDICAL ASSOCIATION IN LIVONIA.

THE medical men practising in Livonia have recently established an association which is to hold an annual meeting lasting two or three days. The first of these was held last month at Wolmar, no less than ninety-nine members being present. A good many important papers were read and discussions held; some of them relating to subjects upon which Livonian practitioners have particularly good opportunities of forming valuable opinions, such as leprosy and the treatment of granular lids. It was decided that the officers of the newly-formed association for the current year should be: President, Dr. Truhart of Fellin; secretaries, Dr. Mercklin of Riga and Dr. Otto of Dorpat; also that the place of meeting next year should be Wenden. An arrangement was made that the *St. Petersburger Medicinische Wochenschrift*, one of whose editors, Prof. E. von Wahl of Dorpat, is one of the members, should act as the organ of the association, publishing all notices to members, and, what is of more consequence to the outside world, abstracts of the papers and discussions, which would otherwise very probably never be generally known.

MEDICAL INSTRUCTION IN INFECTIOUS DISEASES.

AS our readers are aware, Clause 4 of the Poor-law Act of 1889 authorises the use of the hospitals of the Metropolitan Asylums Board for medical instruction, if the Asylum Managers think fit, and subject to such rules and regulations as the Local Government Board may make. We learn that, on Dr. Seaton's motion, a small and influential committee of the Metropolitan Asylums Board has been appointed to consider the practicability of the suggestions for so using the hospitals, and the Royal College of Physicians have deputed Dr. Gee, Dr. Samuel West, and Dr. Seaton to confer with this committee on the subject. The Notification Act makes the study of these diseases more than ever important, and both the Medical Council and the Royal College of Physicians are displaying commendable earnestness in facilitating such study.

COOLING OF THE BODY BY SPRAY.

DR. S. PLACZEK, following up some laboratory experiments by Preyer and Flashaar, on the effect of spraying a considerable part of the body surface of animals with cold water, has applied the spray for the purpose of reducing febrile temperatures in human beings. In the case of a man suffering from phthisis, whose temperature was high, he found that by spraying about a pint of water at between 60° and 70° F. over his body the temperature fell to normal, and continued so for several hours. Again, a similar method was satisfactorily applied in the case of a girl with diphtheria. In the healthy human subject the spray lowered the temperature nearly 2°, and in animals which had been put into a condition of septic pyrexia by injections of bacteria the temperature was reduced to normal by the spray. By keeping healthy guinea-pigs and rabbits some hours under spray and using from half a pint to a pint of water at the temperature of the room—44° to 62°—the temperature of the animals fell several degrees.

INTERNAL URETHROTOMY IN CUBA.

DR. IGNACIO G. PLASENCIA, in his inaugural communication on the occasion of his admission to the Cuban Royal Academy of Medical, Physical, and Natural Sciences, gives an account of 133 cases in which he has performed internal urethrotomy. The conclusion to which practical experience as surgeon to the Mercedes and Paula Hospitals leads him, as compared with what he had previously seen in European clinics, is that strictures treated by cutting from within do particularly well in Cuba—a good deal better than in Europe,—the climate appearing to favour this operation in a remarkable manner, urethral fever being much less frequent, and, when present, less severe, than is usually found to be the case after urethrotomy in Europe. None of his cases were complicated by purulent infection, and extravasation of urine occurred in five only of the oldest and tightest strictures, which were not operated on as soon as they ought to have been. The instrument preferred by Dr. Plasencia is that of Maisonneuve. Four cases died, but some time after the operation, and apparently not in consequence of it.

TOXIC NEPHRITIS.

A DISCUSSION took place at the recent Congress of the Italian Society of Medicine upon Bright's disease (see *La France Médicale*, No. 127), in which the views of Semmola as to the dependence of albuminuria upon malassimilation of proteids were in part adopted by M. Rattone, who declared that nephritis is not invariably due to a primary renal lesion, but to a transmission through the kidney of

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substances which have a toxic action and produce inflammation of the vessels of the connective tissue and epithelium. In the majority of cases acute nephritis is, he thinks, due to the introduction of an organic (microbe or its product) or inorganic poison, as from chemical substances. M. Maragliano held the same view, but pointed out that the nephritis occasionally supervening in the course of pneumonia must be due to the absorption of toxic products from the diseased lung, but not of the micrococcus pneumoniæ itself, for this, according to Devoto and Rindfleisch, has not been found in the kidney. M. Rattone added that it was the same with tuberculosis; the bacilli were not found in the inflamed kidneys in that disease.

THE ALLEGED INOCULATION OF GLANDERS.

OUR contemporary the *Berliner Klin. Wochenschrift* of Nov. 4th states, with reference to the case of Dr. G. Hoffmann, assistant in the Hygienic Institute at Vienna, who fell a victim to glanders whilst conducting experiments with the virus (see THE LANCET, Nov. 2nd, p. 920), that the original surmise of his having contracted the disease through the medium of a hypodermic syringe has been disproved by the result of the post-mortem examination, which showed the respiratory mucous membrane to be the starting point of the infection.

MEDICAL REGISTRATION.

WE have been requested again to call the attention of our readers to the important notice which appears in our advertisement columns in regard to medical registration. It may be well to repeat and emphasise here that the failure upon the part of a registered practitioner to notify any change in his address renders him liable to have his name erased from the "Medical Register," and, in consequence, "to lose the right to hold certain appointments, to sign valid certificates, or to recover in any court of law charges for professional aid, advice, and visits, and the cost of any medicines or other medical or surgical appliances rendered or supplied by him to his patients."

THE BOGUS DIPLOMA TRADE IN THE UNITED STATES.

TO judge from the columns devoted to the capture of "Dr. Bradbury," the chief trader, as alleged, in the bogus diplomas we alluded to last week, one would think that it was the great event of the year. Without pretending to think such characters worthy of more than a paragraph, it is satisfactory to find the State authorities bent on exterminating this great fraud, and we shall be heartily glad to learn of their success.

PIG TYPHOID AND HUMAN TYPHOID.

DR. CAMERON, medical officer of health at Hendon, in a report upon a fatal outbreak of typhoid fever at a farm at Hendon, in September, points out that a month or six weeks before upwards of eighty pigs had suffered from swine fever. He thinks he could definitely exclude any possibility of the infection having been derived from outside the farm, or from contamination of a well on the premises or other local defects. Dr. Cameron notes the coincidence of the outbreak of swine fever, without, however, committing himself to a definite opinion as to this being the source of the disease in the inmates of the farm. The *Field* (Oct. 26th), in reference to this report, reminds us that Dr. Budd of Clifton pointed out the analogy between pig typhoid and human typhoid, but denied that the diseases were identical or intercommunicable, and Professor Axe has recently gone further as to their pathological identity, but also denies their intercommunicability; whilst Dr. Klein is emphatic as to the vital distinction between the two affections.

METROPOLITAN HOSPITAL SUNDAY FUND.

THE total amount received this year is £41,744 12*s.* 11*d.* This sum exceeds the record of the best collection in any previous year of the Fund's existence by £1137 5*s.* 3*d.*

FOREIGN UNIVERSITY INTELLIGENCE.

Prague.—The number of students in the German and Bohemian medical faculties is 611 and 1057 respectively, which, though fortunately somewhat less than last year, is still far too great for the accommodation provided. Complaints are made that the lecture theatres are far too small for the number of students that are crowded into them, and that, with the exception of the surgical clinic in the general hospital, all the clinics are too small and too overcrowded to be healthy either for students or patients. The gynæcological clinic, under Professor Schanta, is indeed often so overcrowded that some of the patients have to be put upon straw mattresses on the floor, and in consequence of this state of things it is sometimes impossible to undertake operations, as the after-treatment would be necessarily so lacking in hygienic conditions. The newly appointed Professor of Hygiene in the German University is in great want of enlarged accommodation and a better supply of apparatus. Hygiene in the Bohemian University is taught by Dr. Kabrhel, and it is expected that a hygienic laboratory will very shortly be erected. A new system of dental instruction is proposed by the Professorial Senate, according to which the students of that department will be no longer taught in the Polyclinic, but in a special Odontological Institute.

Buda Pesth.—The number of medical students this session is 1181, or three less than last year. There is also a slight falling off in the pharmaceutical faculty, but the diminution in both cases is apparent rather than real. Indeed, were it not for the new law concerning the military service of students, which has obliged some 150 young men to quit the University for the present, it is probable that the numbers would show an increase.

Kiel.—Dr. Rügheimer has been appointed Extraordinary Professor of Pharmaceutical Chemistry. Professor Theodor Zincke of Marburg has been appointed Professor of Chemistry in succession to Professor Ladenburg.

Marburg.—Professor R. Anschütz of Bonn is likely to be appointed to the chair of Chemistry.

Vienna.—Dr. Julius Hochenegg has been recognised as *docent* in Surgery and Dr. Ludwig Piskacek as *docent* in Obstetrics and Gynæcology.

THE United College of St. Salvator and St. Leonards was opened at St. Andrews on the 29th ult. by Principal Donaldson, who delivered the inaugural address before a good attendance of students, members of council, and of the general public. In the course of his address he announced that since the last meeting a donor had presented the University with £2000 to erect and equip a laboratory for the Chemical chair. There was, Professor Donaldson said, much need of a corresponding laboratory for the chair of Physics, and indeed the work of all the sciences would be greatly facilitated and extended by ample provision for experiment. He alluded to the satisfactory progress their library was making, and, in conclusion, expressed his strong conviction that St. Andrews University was peculiarly well circumstanced for realising a high ideal of a University, possessing, as it did, special advantages.

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WE regret to learn that Dr. Nicolson, Superintendent of Broadmoor Criminal Lunatic Asylum, was assaulted by one of the inmates, a man named Lyons, when visiting the wards about noon on Sunday, the 3rd inst. After an interview with Lyons Dr. Nicolson was proceeding on his way along the corridor, when he was struck on the head with a stone thrown with great force by Lyons. The attack was evidently premeditated by the inmate, as he had concealed the stone about him in anticipation of an opportunity. Fortunately, Dr. Nicolson's hat broke the full force of the blow, which took effect above the left temple, leaving a deep scalp wound and contusion. Dr. Nicolson is going on satisfactorily, and it is not anticipated that the results of the injury will prevent him from returning to duty in the course of a few days.

THE Société Médicale des Hôpitaux of Paris has, at the request of Madame Vincent, undertaken the award in July, 1891, of a prize of 1000 francs to the author of the best work on "Angina Symptomatic of an Affection of the Heart, and on Arterio-sclerosis." This work (printed or in manuscript) must have especial reference to the treatment of these diseases. Should the award not be made by the above date, the examination of works bearing on the question will be adjourned for another two years. The works, which must be written in French, should be sent to the General Secretary of the Société Médicale, 5, Rue de l'Abbaye, Paris, not later than April 30th, 1891.

THE Draft Report of a sub-committee appointed for the purpose of considering the question of hospital reform was, on the 4th inst., accepted by an influential preliminary committee of medical men, and will be laid before a general meeting of the whole profession in Birmingham on Wednesday, November 20th.

THE Bradshawe Lecture will be delivered by Thomas Bryant, Esq., on Thursday, December 5th, at 5 P.M., the subject of the lecture being "Colotomy, Lumbar and Iliac, with special reference to the choice of Operation."

ON Wednesday the Royal Commission on Vaccination examined Dr. Grimshaw, Registrar-General of Ireland, and Mr. F. F. MacCabe, Medical Commissioner to the Irish Local Government Board.

THE American medical journals announce the retirement of Dr. T. Gaillard Thomas from the position of Professor of Clinical Gynæcology in the College of Physicians and Surgeons, New York.

THE Morton Lecture, on "Cancer and Cancerous Diseases," will be delivered by John Marshall, Esq., F.R.S., on Monday, November 18th, at 5 P.M.

THE death is announced of Dr. Baierlacher of Nürnberg, a well-known authority on electro-therapeutics, in his sixty-sixth year.

HUMPHRY DAVY ROLLESTON, M.B., B.Sc. in first class of Natural Science Tripos, 1886, has been elected to a Fellowship in St. John's College, Cambridge.

KING'S COLLEGE HOSPITAL.—The Committee of Management have just been able to reopen a ward of thirteen beds, being one of two which were closed in 1885 for lack of funds. It is hoped that the benevolent public will support the committee in this extension of the usefulness of the charity in this its fiftieth year. The ward will be devoted to the relief of women, for whom the accommodation available has been found insufficient.

THE STUDY AND CURATIVE TREATMENT OF INSANITY.

PROPOSED NEW HOSPITAL.

ON Tuesday last, at the weekly meeting of the London County Council at the Guildhall (Lord Rosebery in the chair), Mr. R. Brudenell Carter, chairman of the committee appointed to inquire into, and to report to the Council upon, the advantages which might be expected from the establishment, as a complement to the existing asylum system, of a hospital with a visiting medical staff for the study and curative treatment of insanity, submitted the following report: The committee had received important *vivâ-voce* evidence from sixteen distinguished members of the medical profession, including not only eminent experts in insanity, and physicians chiefly engaged in the treatment of diseases of the nervous system, with which insanity is not necessarily associated, but also physicians and surgeons in more general practice. Printed questions had been sent to every medical superintendent of a public asylum in England and Wales, as well as to a few other persons of admitted authority, including the medical officer of St. Pancras Workhouse, who has had large opportunities of witnessing the operation of the present system. Sixty-five replies to these questions had been received and analysed. The committee had arrived at the conclusion that a hospital of the kind described would be likely materially to increase the present knowledge of the nature and causes of insanity, and therefore ultimately to increase the means available for its prevention and for its cure. They were consequently prepared to make the following recommendations:—

"(*a*) That an adequately equipped hospital, containing one hundred beds, for the study and curative treatment of insanity in pauper lunatics of both sexes, be established in the metropolis, and that it be under the direction and control of the Council. (*b*) That the ordinary medical staff of the hospital consist of a chief resident medical officer, who has had asylum experience, of an assistant resident medical officer, of four visiting physicians, each of whom shall hold office as physician or assistant physician in a general hospital, and of a pathologist. The members of this staff to perform such duties, and to receive such stipends or honoraria as the Council may from time to time direct. (*c*) That, in addition to the ordinary medical staff, the following honorary medical officers be appointed—namely: A surgeon, an ophthalmic surgeon, an aural surgeon, a laryngologist, and a gynæcologist. Each of these honorary officers should hold, or should have held, similar office in a general hospital, and they should all be available as consultants whenever required by the physicians, or for the performance of operations which fall within their respective departments, when such operations are decided upon." The Committee were of opinion, however, that these recommendations could not be adequately considered by the Council apart from the grounds on which they rest, and also that an account of these grounds should be rendered accessible to the ratepayers, in explanation of the expenditure which would be required in order to carry the recommendations into effect. They therefore recommend: "That your committee be instructed to prepare a detailed report upon the question submitted to them, with a sufficient summary of the oral and written evidence which they have received; and that this report and summary be printed prior to their presentation to the Council."

This report was, after discussion, agreed to.

THE ALLEGED FALSE CERTIFICATION OF DEATH

MR. ARTHUR BLOUNT of Hornsey appeared before Mr. Marsham, at the Dalston Police-court, to answer an adjourned summons, taken out by Mr. Charles Townley, the superintendent registrar of St. Mary's, Islington, for giving a false certificate of death. The prosecution had been instituted at the instance of the Registrar-General, and Mr. Besley now appeared for the defence. It was alleged

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last week that the defendant had issued certificates signed in blank for the use of an unqualified man named Cooper. Since the last hearing some correspondence has passed between Messrs. Berger, Wylde, and Moore, solicitors, to the defendant and the Registrar-General and Mr. Townley, which resulted in Mr. Townley writing to Mr. Blount, saying that he would go to the court on the adjournment and unconditionally and entirely withdraw the charge, he being satisfied that Cooper copied Mr. Blount's signature without that gentleman's authority. Mr. Townley added that had Mr. Blount put himself in communication with him or the Registrar-General, and given the explanation he had since made, he might have saved himself considerable trouble.—Mr. Besley replied that Mr. Blount was astounded at the course which had been adopted. There was no intimation on the summons as to who had issued it; and, in fact, the defendant did not know exactly what the charge was until he came into court.—Mr. Marsham said he was satisfied that Mr. Blount was perfectly innocent of the transaction, and it was a pity Cooper could not be brought to justice. He should dismiss the summons with £5 5*s.* costs, and he would add that the defendant left the court without a stain on his character.

SOMERVILLE *v.* ROSE.

(*From a Correspondent.*)

ON Monday, Oct. 28th, consolidated action was brought by a Mr. Somerville against Dr. H. Cooper Rose and Mr. Herbert Cooper of Hampstead for libel. On Oct. 10th, 1882, they had signed a certificate of lunacy based on the facts observed and communicated as set forth in the certificate. Just within the period of six years, the completion of which would have barred the action as exceeding the statute of limitation, a writ was issued, and after waiting for hearing for a year or more the case was decided by the Lord Chief Justice of England on the 27th ult. The counsel for the plaintiff, acting of course in accordance with his brief, made statements which were not founded on fact, and which would lead the public to believe that Dr. Rose had exhibited a want of care in giving the certificate; he stated, however, that no collusion or conspiracy had been suggested. Had it been necessary for the defendants' counsel to reply, of course all the statements would have been refuted. The fact was elicited before the certificate was given by Dr. Rose that the plaintiff had been in the habit of taking sedatives in sundry forms and in large doses. The rapid recovery of the patient when all these sources of mental disturbance were removed can be easily understood. About a fortnight was sufficient time to enable her husband to fetch her home. Mr. Walton, the defendant's counsel, relied on the fact that the right of plaintiff to sue was barred by 8 & 9 Vic., c. 100, Section 105, and the Lord Chief Justice immediately assented, and gave judgment for the defendants, with costs, remarking that the question had been decided over and over again, and that if it had been otherwise the statute would be most cruel and oppressive. Had the clause in 8 & 9 Vict., c. 100, failed, the clause in the recently passed Lunacy Law Amendments Act, which came into immediate operation and is retrospective, would doubtless have been pressed. This clause provides that no action shall lie against a medical man for giving a certificate in lunacy, unless it can be proved that he did not exercise due and ordinary care in performing the function, &c. The certificate as handed into court is as follows: "Schedule A, No. 2, Sections 4, 5, 8, 10, 11, 12, 13. I, the undersigned, Henry Cooper Rose, M.D., being a duly registered practitioner, and being in actual practice as a surgeon, hereby certify that I, on the 7th day of October, 1882, at 11, Christchurch-road, Hampstead, in the county of Middlesex, separately from any other medical practitioner, personally examined Anne Elizabeth Somerville, married, of 11, Christchurch-road, Hampstead, in the county of Middlesex, and that the said Anne Elizabeth Somerville is a person of unsound mind, and a proper person to be taken charge of and detained under care and treatment, and that I have formed this opinion upon the following grounds—viz.: 1. Facts indicating insanity observed by myself. I found her very much excited. She had smashed a mirror over the mantelpiece; and when I asked her why she did it, she told me she had done so because it was her birthday, and she wanted to call public attention to the fact. She also told me that she heard voices at night that kept her from sleeping. Her appearance and manner were both indicative of a person of unsound mind. 2. Other facts (if any) indicating insanity communicated to me by others. Her husband, David Hughes Somerville, told me she was often violent, that she often threatened to destroy herself, and that she behaved with violence towards her own children.—HENRY COOPER ROSE, M.D.—Penrose House, Hampstead, Oct. 18th, 1882."

Dr. Maudsley, Dr. Schofield, Dr. Thompson, Mr. Boulting, and the two defendants, Dr. H. Cooper Rose and Mr. Herbert Cooper, were all in court prepared to affirm that the plaintiff was of unsound mind at the time the certificates were signed.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5783 births and 3202 deaths were registered during the week ending Nov. 2nd. The annual rate of mortality in these towns, which had been 17·5, 18·7, and 17·5 per 1000 in the preceding three weeks, was again 17·5 last week. During the first five weeks of the current quarter the death rate in these towns averaged 17·8 per 1000, and was 2·4 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 11·6 in Brighton, 13·9 in Cardiff, 14·3 in Oldham, 14·6 in Leicester, and 14·7 in Nottingham. The rates in the other towns ranged upwards to 22·5 in Halifax, 25·0 in Blackburn, 28·2 in Newcastle-upon-Tyne, and 32·0 in Preston. The deaths referred to the principal zymotic diseases, which had been 414 and 356 in the preceding two weeks, rose again last week to 364; they included 79 from scarlet fever, 62 from diarrhœa, 58 from measles, 55 from whooping-cough, 59 from "fever" (principally enteric), 51 from diphtheria, and not one from small-pox. No death from any of these zymotic diseases were registered last week in Brighton or in Cardiff; whereas they caused the highest death-rates in Newcastle-upon-Tyne, Sunderland, and Plymouth. The greatest mortality from scarlet fever occurred in Blackburn, Salford, and Plymouth; from diarrhœa in Manchester, Bolton, and Preston; from measles in Norwich, Newcastle-upon-Tyne, and Sunderland; from whooping-cough in Portsmouth; and from "fever" in Preston. The deaths from diphtheria included 31 in London, 6 in Manchester, and 2 in Portsmouth. Small-pox caused no death in any of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and the London Fever Hospitals at the end of the week was 1500, against numbers increasing in the preceding eighteen weeks from 559 to 1450; 135 cases were admitted to these hospitals during the week, against 188 and 182 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 300 and 281 in the preceding two weeks, rose again last week to 300, but were 117 below the corrected average. The causes of 84, or 2·6 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Nottingham, Portsmouth, Brighton, and in four other smaller towns; the largest proportions of uncertified deaths were registered in Huddersfield, Blackburn, Bradford, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 20·5 and 19·3 per 1000 in the preceding two weeks, rose again to 20·3 in the week ending Nov. 2nd; this rate exceeded by 2·8 the rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 11·6 and 14·6 in Paisley and Greenock, to 23·7 in Glasgow, 23·8 in Leith, and 25·3 in Perth. The 519 deaths in the

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eight towns showed an increase of 25 upon the number in the previous week, and included 13 which were referred to diarrhœa, 10 to scarlet fever, 10 to whooping-cough, 9 to diphtheria, 7 to measles, 4 to "fever" (typhus, enteric, or ill-defined), and not one to small-pox; in all, 53 deaths resulted from these principal zymotic diseases, against numbers declining in the five previous weeks from 74 to 56. These 53 deaths were equal to an annual rate of 2·1 per 1000, which exceeded by 0·1 the mean rate last week from the same diseases in the twenty-eight English towns. The deaths attributed to diarrhœa, which had been 19, 16, and 12 in the preceding three weeks, were last week 13, and included 5 in Glasgow, 2 in Dundee, and 2 in Aberdeen. The 10 fatal cases of scarlet fever showed an increase of 4 upon the number in the previous week; 5 occurred in Leith, 2 in Glasgow, and 2 in Perth. The deaths from whooping-cough, which had declined in the four previous weeks from 15 to 10, were again 10 last week, including 5 in Glasgow and 3 in Edinburgh. The 9 fatal cases of diphtheria showed a decline of 4 from the number in the previous week; 3 were returned in Edinburgh and 2 in Glasgow. The 7 deaths from measles also showed a decline, 3 occurring in Aberdeen and 2 in Edinburgh. The deaths referred to "fever," which had been 11 and 6 in the two preceding weeks, further declined last week to 4, of which 2 were returned in Glasgow and 2 in Edinburgh. The deaths attributed to acute diseases of the respiratory organs in the eight towns, which had been 87, 118, and 122 in the preceding three weeks, further rose last week to 153, and exceeded the number in the corresponding week of last year by 52. The causes of 71, or nearly 14 per cent., of the deaths registered in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 26·5 and 21·0 per 1000 in the preceding two weeks, rose to 27·3 in the week ending Nov. 2nd. During the first five weeks of the current quarter the death-rate in the city averaged 24·8 per 1000, the mean rate during the same period being 16·2 in London and 17·1 in Edinburgh. The 185 deaths in Dublin showed an increase of 43 upon the number in the previous week; they included 11 which were referred to "fever," 7 to diarrhœa, 1 to scarlet fever, and not one either to small-pox, measles, diphtheria, or whooping-cough. Thus the deaths from these principal zymotic diseases, which had been 23, 19, and 18 in the three preceding weeks, were last week 19; they were equal to an annual rate of 2·8 per 1000, the rate from the same diseases being 1·6 in London and 2·3 in Edinburgh. The deaths referred to "fever" (typhus, enteric, or ill-defined), which had been 10 and 6 in the two preceding weeks, rose last week to 11, and exceeded the number returned in any previous week of this year. The 7 fatal cases of diarrhœa showed a decline of 2 from the number in the previous week. The deaths both of infants and of elderly persons showed an increase upon those returned in the previous week. Six inquest cases and 8 deaths from violence were registered; and 73, or considerably more than a third, of the deaths occurred in public institutions. The causes of 24, or 13 per cent., of the deaths in the city were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.—Surgeon-General William Sim Murray, M.B., has been granted retired pay (dated Oct. 28th, 1889); Deputy Surgeon-General Robert Wyatt Meadows to be Surgeon-General, ranking as Major-General, vice J. A. Marston, M.D., C.B., F.R.C.S., retired (dated Oct. 16th; 1889); Brigade Surgeon John Colahan, M.D., to be Deputy Surgeon-General, ranking as Colonel, vice R. W. Meadows (dated Oct. 16th, 1889); Surgeon-Major Francis Johnson, M.B., F.R.C.S. Irel., to be Brigade Surgeon, ranking as Lieutenant-Colonel, vice J. Colahan, M.D. (dated Oct. 16th, 1889).

ARMY MEDICAL RESERVE OF OFFICERS.—Surgeon John Adam Watson resigns his commission (dated Nov. 6th, 1889).

ADMIRALTY.—The following appointments have been made:—Staff Surgeon Francis A. Jeans to the *Pelican* (dated Nov. 19th, 1889); Surgeon Cornelius Bradley, M.D., to the *Redpole*, and Surgeon George Hewlett, M.B., to the *Curlew* (both dated Nov. 20th, 1889); Staff Surgeon Alex. B. Trowsdell to the *Australia;* Staff Surgeon Charles A. Macauley to the *Belleisle;* Surgeon Robert W. Anderson to the *Australia;* and Surgeon George Bate to Plymouth Hospital (all dated Nov. 19th, 1889).

ROYAL NAVAL ARTILLERY VOLUNTEERS (Liverpool Brigade).—The following gentlemen have been appointed Surgeons:—Charles S. Brewer, L.R.C.P., L.R.C.S. Edin.; John Edwd. Gemmell, L.S.A. Lond., and M.B., M.S. Edin. (dated Oct. 30th, 1889).

VOLUNTEER CORPS.—*Artillery:* 1st London (City of London): Robert Charles Gordon Dill, late Surgeon, Army Medical Staff, to be Surgeon (dated Nov. 19th, 1889).—*Royal Engineers:* (Submarine Miners)—The Severn Division: Acting Surgeon A. Rees to be Surgeon (dated Nov. 2nd, 1889). *Memorandum.—Infantry:* The Welsh Border Brigade: Surgeon-Major P. P. Giles, 1st Herefordshire Rifle Volunteer Corps, to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Nov. 2nd, 1889).

Correspondence.

"Audi alteram partem."

DEATH FORTY-SEVEN YEARS AFTER OVARIOTOMY.

To the Editors of THE LANCET.

SIRS,—In the issue of THE LANCET of Jan. 21st, 1837, there is a paper by Mr. King of Saxmundham, entitled "New Operations for the Removal of Abdominal Tumours." The first case he relates is an unsuccessful attempt to remove an enlarged mesenteric gland. The second case is described as "Movable Abdominal Tumour; Unsuccessful Exploration." The account leaves little doubt that the tumour was a movable kidney. Nothing was done beyond exploration, but the patient after her recovery declared that she had been "much better since the performance of the operation." The third case is "Ovarian Dropsy; Removal of the Cyst." I have several times referred to this case and the next when writing on the early history of ovariotomy in England. The operator in the third was Mr. Jeaffreson of Framlingham. The incision was only one inch and a half long. The pedicle was tied by a silk ligature, the ends cut short, and dropped into the abdomen. The patient recovered. In the fourth case Mr. King operated. He says the patient was thirty-seven years of age, but does not say if she was married or single. The incision was about three inches long. Twenty-seven pints of gelatinous fluid were collected, and some lost. There were no adhesions. A simple ligature of silk was tied round the pedicle; but this came off after the removal of the cyst, and three separate ligatures were afterwards applied, the ends cut short, and all dropped into the abdomen. The patient recovered, and I have just received the following note from an old friend, a former pupil and house-surgeon of the Samaritan Hospital, Mr. Grace Phillips of Leiston, which completes the history you published fifty-two years ago:—

"Whilst reading your work on 'Abdominal Tumours,' I noticed that you mentioned a case operated on by Mr. King of Saxmundham in 1836. You may be interested in knowing that she died in February, 1883, of ovarian dropsy with malignant disease of ovary, having therefore survived the operation for forty-seven years. My friend Mr. Wallis, of this town, who made the post-mortem examination and who attended her in her last illness, gave me this information yesterday. A niece of hers died in December, 1877, of cancer of the stomach."

It is quite unnecessary to point out to your readers the importance of making known the after-life history of patients who have recovered after any important surgical operation. I have just heard quite accidentally of the death of a lady in her seventy-seventh year upon whom I performed ovariotomy thirteen years ago, and my informant reminded me that a few years after the operation she went round the world with one of Cook's tickets.

I am, Sirs, your obedient servant,

November, 1889. T. SPENCER WELLS.

ON THE OPERATION FOR UNCIRCUMCISION.

To the Editors of THE LANCET.

SIRS,—At p. 886 of THE LANCET for Oct. 26th was a letter from Mr. L. Newton asking for information regarding the operation of restoring a circumcised person to his natural condition, alluded to in Dr. Smith's "Dictionary of the Bible."

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The passage in the Dictionary containing the allusion refers to the statement in the First Book of Maccabees, written between B.C. 120 and 100 (chap. i., 15), concerning certain Jews who, in the time of Antiochus Epiphanes, are said to have got power from the king to do after the ordinances of the heathen, and who proceeded to build a place of exercise at Jerusalem according to the customs of the heathen, and who "made themselves uncircumcised." A similar expression is made use of by St. Paul in his first Epistle to the Corinthians (chap. vii., 18), when (writing A.D. 57) he says, "Is any man called being circumcised? Let him not become uncircumcised."

Taking an antiquarian interest in Mr. Newton's question, I have consulted various sources likely to throw light upon the matter, and now beg to offer the result. Before, however, directly answering the question proposed by Mr. Newton, I must remark that authorities are not entirely agreed as to the sense of the word "uncircumcised" as used either by the writer of the Book of Maccabees or by St. Paul. For example, I find that in the so-called "Speaker's Commentary," the word is supposed to have been used by St. Paul, as it was often used by some of the Old Testament writers, merely in a moral or ethical sense, having no reference to any physical operation: the "circumcision" intended being that of the heart and mind, "not made with hands." St. Paul taught that the religious state at the time of the divine call was to be retained. People circumcised were not to act as did the heathen, who were uncircumcised.

The majority of commentators, however, take a different view, and interpret the word "uncircumcised" in both the passages which I have cited, in a literal sense. They understand that surgical operative interference is referred to. They suppose that the Jews in question, ashamed of their nation, and unwilling to bear reproach at the hands of Gentiles to whom they desired to assimilate themselves, sought to obliterate "the distinctive mark of their descent by means of some further surgical procedure." As far as I can gather, the commentators in this matter follow and are guided by the words of the Jewish historian, Josephus (A.D. 38-100), who, in his "Antiquities," Book xii., ch. v. (Whiston), describes certain Jews as wishing to adopt the laws of King Antiochus and the Grecian way of living, and, gaining permission to do so, built in Jerusalem a "gymnasium"—that is, a place, most likely in the open air, where people performed athletic exercises and often bathed in a more or less naked condition.[1] He states that they then "hid the circumcision of their genitals so that even when they were naked they might appear to be Greeks."

I will not adduce at any length the comments of later writers in favour of the view that a surgical operation was alluded to in the passages under consideration. I will merely quote shortly a few authorities. For example, in the Vulgate, the passage in the Book of Maccabees is thus rendered: "Et fecerunt sibi præputia"; and that in the Epistle to the Corinthians, "Circumcisus aliquis vocatus est; non adducat præputium."

Bishop Wordsworth, in his notes on the passage in the Epistle to the Corinthians, quoting St. Jerome, uses the words "ne attrahat ferro præputium."

Dean Stanley, in his work on the Epistle to the Corinthians (see pages 98 and 106), referring to the passage before-quoted, remarks, that, in later times, circumcision "was regarded by the Greeks and Romans as an opprobrious mark of barbarism, and, accordingly, some Jews, in their desire to accommodate themselves to Grecian usages, endeavoured to efface it." The Dean alludes, in connexion with the subject, to a curious essay by Professor G. Groddeck: "De Judæis præputium attrahentibus," appended to Schöttgen's "Horæ Hebraicæ." This essay contains, I find, some very ingenious speculations.

Wetstein, a learned commentator on the Greek Testament, takes the same view; and in "Winer's Bibl. Realwörterbuch," vol. i. (art. Beschneidung), is described "a singular and painful process by which a circumcised person is in some sort restored to his natural conditions."

The Latin poet Martial alludes to the practice of the Jew concealing the mark of his circumcision.

It being then assumed that the practice of uncircumcision was resorted to, it is to be pointed out, in answer to Mr. Newton, that Celsus, no doubt inheriting the knowledge from his predecessors, describes the operation of effacing the appearances of circumcision, pretty freely; and it is interesting to remember that he lived about the middle of the first century of our era, that is, he was contemporary with the historian Josephus, whose words referring to the operation I have quoted. In the first book of his work, "De Medicinâ," chapter xxv., after stating that "if the glans penis be bare, and a person, for the sake of improving its appearance is desirous of having it covered, the thing is practicable," he describes the operation *in cases resulting from circumcision* as follows: "An incision must be made immediately around the glans, detaching the skin from the body of the penis beneath. This is not very painful, because, after thus separating it at its extremity, it may be easily stripped up to the pubes by means of the hand, without causing hæmorrhage. Moreover, the detached integument is again extended beyond the glans; then it is freely fomented with cold water and encircled with a plaster," &c.

Following Celsus, Galen, A.D. 138-200, describes the operation, and, I believe, Dioscorides, also (second century). At the end of the sixth or beginning of the seventh century, Paulus Ægineta gives an outline of the mode of operation as adopted by a certain Antyllus. In the commentary upon his description[2] it is stated that Rhases, the famous Arabian physician, and later on Fabricius ab Aquapendente (who died 1619), described the operation also.

The above observations will suffice to show that surgical interference has been invoked for the purpose of concealing the badge of circumcision, and also the method which has been followed in its performance.

I am, Sirs, yours truly,

Cavendish-square, W., November, 1889. JOHN W. OGLE.

[1] The reader may probably call to mind the Spartan yearly festival of the "gynopædia," when naked youths performed choruses and dances around the statues of certain gods.

THE SO-CALLED PRESYSTOLIC MURMUR.

To the Editors of THE LANCET.

SIRS,—Dr. Dickinson's paper on the so-called Presystolic Murmur in THE LANCET of October 19th, again bringing forward a view of the mechanism of that murmur which had been sufficiently answered on many occasions, is to me so detrimental to the diagnosis and prognosis of heart disease that I feel bound, both in the interests of patients and students, to add what little I can to the objections already raised against his theory. Curiously enough, the next paper in the same number of THE LANCET is entitled, "Why should Medical Students Study Physiology?" And in it Professor Michael Foster says: "But not all the physiology so found [in medical practice] is good; much of it, indeed, is bad. Let the student, therefore, so train himself that he may be able to detect the bad—those physiological wolves in pathological sheepskins which make their way into the medical fold and do so much damage." It is indeed when considering the question from a physiological standpoint that we see the origin of the fallacy that the so-called presystolic murmur ending with a "snapping" first sound is caused by regurgitation of blood into the auricle through a narrowed mitral orifice, and occurring with the systole of the ventricle. Now, everyone knows that in health the true apex beat and the first sound which occur together represent the commencement of the systole of the ventricle; then follows the short first silence, *during which* the systole of the ventricle is continued; then occurs the second sound, which represents the end of the ventricular systole and the commencement of the diastole or long second silence. At the end of this, and just before the first sound (commencement of ventricular systole), the auricle contracts and finishes contracting with the first sound.

Now, in mitral stenosis, Dr. Dickinson admits the existence of the first short silence between the "snap" (first sound) and the second sound; he also states that the "snap" is the end of the systole of the ventricle. Then, if so, what is the heart doing during this first silence, if the ventricular systole is finished and the aortic valves not yet closed? Dr. Dickinson's theory does not explain this, but the ordinary theory gives an easy explanation.

In mitral stenosis Dr. Dickinson brings forward two statements to support the idea that the "snap" is the end of the ventricular systole. The first is that the carotid beat takes place at the same time as the snap. And in this connexion he states that the carotid pulse signifies that the

[2] See Sydenham Society's Translation, vol. ii., p. 366.

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blood sent by that particular systole "has got into the neck," and that the time between the snap and the carotid pulse is too short (practically synchronous, he says) for this to have happened. Now it is always understood physiologically that a pulse beat does not represent an actual flow of the blood current (which only travels at the rate of ·5 metres per second), but is really a wave of increased pressure in the arteries, which travels at the rate of 9 metres per second. Now taking, for the sake of argument, the distance between the aortic orifice to the carotid as about one-third of a metre, then the time taken for this pulse wave to reach the carotid would be only one-twenty-seventh of a second, a difficult interval to estimate by the unaided senses. I have repeatedly taken the carotid pulse while listening to a mitral stenotic "snap," and have found almost invariably—as seen, for example, in the under-mentioned cases—that it occurs very slightly after the snap, rarely apparently synchronously, and never before it.

The second statement is that although, as everyone agrees, the actual apex beat occurs with the snap, still there is a distinct lifting up of the chest wall before this. Now a normal cardiogram of the apex beat shows distinctly a slight rise (due to the auricular systole forcing blood into the ventricle) before the marked rise due to the apex beat. Similarly in mitral stenosis, a slight preliminary lifting up of the cardiac area, as felt by the flat hand, does sometimes occur before the actual apex beat, but this it has always seemed to me is due to the blood being forced into the ventricle by the auricle; and, moreover, if present is invariably in my experience accompanied by the presystolic thrill. This lifting up, however, is absolutely before and absolutely different from the true apex beat (representing the commencement of the ventricular systole) with which Dr. Dickinson seems to confound it.

Dr. Dickinson ignores the auricular systole in his diagrams, as he says they are matters of physiological rather than clinical observation; but here we have the very essence of the presystolic murmur. Why ignore clinically the existence of a something which undoubtedly happens, although we have no sensory evidence of it in a normal heart, but which is proved as I think by this very presystolic murmur in a case of mitral stenosis?

The mitral diastolic murmur is next considered; one heard only at the apex, but at exactly the same time as an aortic regurgitant. The mechanism of this Dr. Dickinson does not thoroughly explain, but says it is auriculo-ventricular, and is direct. This of course is so, but it cannot, however, be caused by the auricular systole, as at this time (that is, immediately the ventricle has commenced to dilate, as shown by the occurrence of the second sound) the auricle is finishing its dilatation. It is probably due to two causes—one a flow directly through the mitral orifice from the pulmonary vein, where the blood is at an abnormally high pressure, and possibly also by a suction action of the ventricular dilatation. He says it is rare to find the mitral diastolic running into the so-called presystolic, but in my experience this is not so uncommon; in fact, this prolonged murmur so produced, commencing loudly, becoming more soft, and running (without interval) into a presystolic murmur, soft at first and loud at the end, I often describe to students as an "hour-glass" shaped murmur, from the manner in which it may be graphically represented.

Dr. Dickinson finds it difficult to understand (on the old theory) those cases which are often seen when the mitral diastolic murmur is separated from the so-called presystolic murmur, and wonders that anyone can imagine the existence of two *direct* murmurs, separated by an interval, the blood running through the narrowed valve the whole time. The explanation seems to me easy. Immediately the ventricle commences to dilate (as shown by the occurrence of the second sound) the mitral valve opens, the blood at a high tension in the pulmonary vein flows forcibly through, causing the mitral diastolic. The tension being relieved, the blood flows through gently with no murmur; but immediately the auricle contracts and blood again flows through at a greater rate, gently at first, finishing very forcibly, giving the typical presystolic murmur ending with the snapping first sound.

Having endeavoured to answer some of Dr. Dickinson's points, I now go on to an explanation of what the heart is doing in the first silence between the "snap" and the second sound. He says the presystolic theory implies that the snap represents the whole ventricular systole. It does nothing of the kind; the snap merely represents the closing of the mitral valve at the commencement of the ventricular systole, and the first silence is occupied by the rest of the ventricular systole, which ends not with the snap, but with the second sound, as in a normal heart. But in mitral stenosis we very frequently hear something during the first silence, which Dr. Dickinson practically ignores, and this is a murmur commencing with the snap, heard best at the apex, conducted to the axilla and back, and soft in quality like all indirect (regurgitant) murmurs, quite different from the harsh presystolic so characteristic of direct murmurs. Now this soft murmur is the true mitral systolic heard in many cases of mitral stenosis, especially in the later stages of the disease. It is often heard accompanied by a mitral diastolic, and also a mitral presystolic. Dr. Dickinson fails to see how a presystolic runs into a systole, which involves an alteration in the pose of the valve and a reversion of the blood current, "without any jar, hesitation, or loss of continuity." Now there is, however, a most distinct jar and loss of continuity between these two murmurs, and that is the "snapping" first sound which indicates the sudden change from a dilated ventricle into a contracted one. The two murmurs are not truly continuous. In many cases of mitral stenosis one only hears at the apex the "snap," followed by the mitral systolic murmur, but after the patient has exerted himself we hear at once a presystolic before the snap and a systolic after it. In other cases (examining them from year to year) we have for a long period a marked presystolic and a snap; then only a snap, and, finally, as the heart becomes weaker and dilates, a snap and a systolic murmur. All these undoubted physical signs are difficult to explain if we believe that the presystolic murmur is due to the systole of the ventricle.

Since reading Dr. Dickinson's paper I have examined twelve cases of mitral stenosis, eleven of which are in the wards of the Manchester Royal Infirmary at present, one having died last week (diagnosis confirmed by post-mortem), and have obtained the following results. In all there was the peculiar snapping first sound at the apex with an accentuated (or reduplicated) second sound at the base, these two factors being to my mind the most important points in the diagnosis of mitral stenosis. In six cases there was a slight presystolic thrill and the slight preliminary lifting up of the whole heart. In four cases there was a marked presystolic murmur, which was accompanied by a mitral diastolic, separated from the presystolic, and a mitral systolic conducted to the axilla in one case, and with a marked diastolic running into the presystolic in another case. In seven cases there was a marked mitral systolic conducted to the axilla, accompanied in one case with a slight mitral diastolic. In one case there was nothing abnormal but an accentuated second sound with breathlessness and cardiac asthma, though in June, 1889, he had a marked systolic and a snapping first sound. In two cases no second sound could be heard at the apex; in two cases the second sound was reduplicated. In nine cases the carotid pulse was felt very slightly after the "snap"; in two cases distinctly after the "snap"; in one case apparently with the "snap." In ten cases there was a history of rheumatism, and in two cases of scarlatina.

Though I am perfectly aware that in the above remarks I have brought forward nothing but what has long been known, still, as one of the "rising generation" of which Dr. Dickinson speaks, I felt bound to combat his statements, even at the risk of being thought to hold "indurated" views.

I am, Sirs, yours truly,

ERNEST S. REYNOLDS, M.D. Lond., M.R.C.P.,
Resident Medical Officer, the Royal Infirmary,
Manchester.

November, 1889.

AN INSURANCE MEDICAL SOCIETY.

To the Editors of THE LANCET.

SIRS,—I venture to suggest that the medical advisers connected with the boards of the great insurance companies might usefully form themselves into a society in order to consider and settle important practical questions on which diverse action now takes place with regard to the acceptance, rejection, or loading of the lives of proposers. There can be no real scientific basis for the great variety of forms which the various offices now require to be filled up on the medical examination of proposers. One of the first works of such a society might be the settlement of a standard proposal and examination form, such form to be recom-

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mended for general adoption by insurance companies. A standard form would soon be thoroughly understood, and its points appreciated by medical men throughout the country. In reinsurance business it would save much time and difficulty to the advisers of the great companies, who have to adjudicate upon a continual flow of reinsurance proposals for large amounts. Take, again, the significance of minute quantities of albumen, as reported often in medical forms. In re-examining such lives it is my own practice to sample such urine by rejecting the first portion, so as to get rid of urethral discharges. If I still find "distinct traces of albumen," I then filter the sample, so as to get rid of bladder mucus. On then examining the filtrate I often find that the "distinct traces of albumen" is not a constituent of the true renal secretion, and that the life is perfectly eligible. In these cases the mere method of sampling the urine determines whether the life is to be accepted or rejected. The significance of small amounts of copper-reducing power in the urines of amply nourished men is, in my opinion, not of great moment under certain circumstances. But now one has to reject all such lives. Ought we to do this? Here the collection of one hundred such cases from different offices, with an addendum as to the condition of each life seven years after rejection, would throw light on this question. I cannot but think that there are a large number of such questions in which good professional work would be done by monthly meetings in London of such a society. If those who would be willing to join such a society would favour me with their names, I shall be glad, provisionally, to serve as the medium of communication for a meeting on the subject.

I am, Sirs, your obedient servant,

Grafton-street, Piccadilly, Oct. 16th, 1889. JAMES EDMUNDS.

HOSPITAL OUT-PATIENT REFORM AND THE PUBLIC MEDICAL SERVICE.

To the Editors of THE LANCET.

SIRS,—The following figures, given in tabular form, will help to show how very many persons in this country are receiving free medical relief in one year:—

Number treated at 759 hospitals and dispensaries	2,828,296
,, ,, 118 ,, ,, ...	No returns.
Number receiving Poor-law medical relief (medical included)	831,353
Number treated in metropolitan fever hospitals	6,537
Number treated in provincial cities and towns	No returns.
Number receiving free private medical aid from doctors	338,600
Total number receiving free medical aid.. ..	4,004,786

As regards the number treated at the voluntary medical charities, it has been said that one patient is counted two or three times over. I should like some proof of this. The Poor-law numbers are collected twice yearly only, in July and January, so that all the Local Government Board report says is that on these two dates so many persons are in receipt of relief. If all those who received relief between these dates were counted in, the number would be very much larger. If we had the total number of fever cases treated in the various municipal fever hospitals, the total would be very much greater. As to the number who receive private free aid from doctors, I take it that each doctor treats twenty such yearly. If we refer to the fourth report of the Statistical Committee of the Medical Council of 1888, we find that there were 16,930 doctors practising in England. These multiplied by twenty will give us the deplorable fact that one in every six says he or she is unable to pay for medical advice. The above numbers do not include the 457,301 persons who received *free* vaccination in one year. Nor do they include those treated at the various charitable homes for widows, orphans, fallen women, and such like. I think if one said that one in three was provided with free medical relief in this country, a very near approach to accuracy would be made. I do not say that the medical profession is not paid something for treating some of the above, but I have no hesitation in stating that if all the money received were evenly divided over the above number it would not exceed 1*d.* per patient per annum.

One correspondent has said that our profession should be a religious calling, and not a business. Very well. But are we not told that true charity should begin at home, and that instead of depending on these benevolent institutions we should make due provision for ourselves, our wives, widows, and children? There is no reason, moreover, why a "religious" profession should be an underpaid one. Is not the labourer worthy of his hire? Each clergyman in the Scotch Church has £200 a year, at least, guaranteed him. In the Church of England each curate has about £120 a year. What doctor has such advantages as these? But the chief point to grasp is, that we doctors, in giving free treatment to hospital patients, are *not* performing a charitable act, as it is well known that many thus supplied are in no sense deserving of our charity. True charity consists in giving to the proper kind of applicants, and not in making and encouraging well-to-do people paupers. True charity also consists in not only relieving disease, but in removing the causes which produce it. Why do our hospital reports repeat each year that they are glad to say there is an increase in the number of patients? Is this anything to boast of? If disease is preventable, we should rather be ashamed of the fact. However, a sickly and false sentimentality, when combined with a lucrative and 15 per cent. philanthropy, is the fashion in some quarters.

The above figures have so far been unchallenged, and may, I feel, be taken as fairly accurate. This being so, surely it rests with the medical profession to recognise its great responsibility, and to come forward with a scheme by which good honest treatment may be provided for the working classes. The very fact that cheap or sixpenny dispensaries flourish proves the necessity for our action. If anyone will refer to the *Brit. Med. Jour.* of Aug. 10th he will find a tabular statement of the *average* weekly wages paid to sixty-nine trades-union workmen, and taken from Blue-book C 5505, this showing clearly, I think, that these classes are well able to pay small fees, and only such. This is further proved by the fact that the last census returns showed that there were 8,649,259 of the industrial classes between the ages of fifteen and sixty-five in England. Of a population of 36,000,000, over 30,000,000 of these are in receipt of salaries of less than £150 per annum. Yet how are these to pay 3*s.* 6*d.* or 5*s.* fees? The vast amount of sickness, again, proves the necessity for our action. Sir James Paget has shown that 15,317,204 men and women between the ages of fifteen and sixty-five suffer over 20,000,000 weeks' sickness; and if we calculate that each one of the entire population suffers on an average nine days' sickness, this will give us a total sick-rate for the entire community of 38,845,000 weeks. At least 13,268,950 persons are ill each year in this country. It will not do to say that the various friendly societies supply the want of a Medical Service; for of the 4,000,000 members belonging to these, about 2,000,000 are insured for sick pay and a doctor, the others belonging to burial societies. It is, therefore, to be hoped that doctors will now try to bring about a lasting reform in our hospitals. If we all tried for once to agree, and not to boast that each one had a special solution of the difficulties, then there would be very little call for any Government inquiry, which, I fear, must show that the medical profession has been doing its best to pauperise a very large portion of the well-to-do public. What ends we have to gain by doing so we must know best. At all events, the subscribing public are looking rather askance at the present state of mismanagement. Whose fault is this?

I am, Sirs, yours obediently,

Liverpool, November, 1889. ROBERT R. RENTOUL.

ST. MUNGO'S COLLEGE, GLASGOW.

To the Editors of THE LANCET.

SIRS,—Dr. Anderson, in THE LANCET of Oct. 19th, stated that the St. Mungo appointments were made by the committee and not by the governors, and that the list of appointments was published before the governors knew anything of them. In my reply of Oct. 26th I gave you the facts of the case. The appointments were made by the governors duly called, and the purpose of the meeting was stated on the notice paper, and their meeting took place on Aug. 6th, while the publication of names was not made until Aug. 20th. In his letter of Nov. 2nd to you Dr. Anderson does not apologise for his misstatements, but under cover of the suggestion that there was not a quorum of governors at the meeting he seeks still to prejudice St. Mungo's College. This suggestion is as unfounded and untrue as his former statements, and until he apologises and withdraws both the statements and the suggestion I shall not deem it necessary to take further notice of any communications from him.

I am, Sirs, your obedient servant,

W. G. BLACKIE, LL.D.,

Glasgow, Nov. 4th, 1889. Principal.

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THE LATE DR. HABERSHON.

To the Editors of THE LANCET.

SIRS,—It is a matter of deep regret that the writer of the obituary notice in THE LANCET of Oct. 26th should have endeavoured to justify Dr. Habershon's opposition to the change in the system of nursing at Guy's Hospital by casting an unmerited slur upon those whom time has shown were acting for the best interests of the hospital. The new system of nursing is now fully established, and no one who knows the hospital in its present condition can doubt, now that the bitterness of the strife is over, that both patients and staff have largely benefited by the change. No progress which is worth making is made without difficulty, and if only those who took part in the controversy will forget its bitterness and recognise the benefits which have resulted, no one will pass a harsh judgment on any step which may have been taken during the heat of the strife. But it would be well to remember that it is no defence of a friend to cast undeserved reproach upon those whose views were not the same as his. I am, Sirs, yours faithfully,

Nov. 4th, 1889. CAROLINE D. ACLAND.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Education of the Deaf and Dumb.

A VERY interesting discussion took place at the Medical Institution on the 24th ult., on the education of the deaf and dumb and the report of the Royal Commission as to the respective merits of the oral and sign methods. Those who took part in the discussion comprised members who had had considerable experience of deaf-mutes, and their opinion was clearly in favour of the combined system in preference to the purely oral one. This appeared to be the general opinion of the meeting, and will commend itself to the profession at large. The language of the deaf and dumb has, like other languages, beauties of its own, as well as solid advantages. It comes naturally to deaf-mutes, and to interdict it would be as irrational, not to say impossible, as to forbid hearing children to speak.

Death of Francis James Bailey, L.R.C.P. Lond.

Within the last three weeks three well-known local practitioners have passed away, the first being Mr. Henry Lowndes, whose obituary has been recorded. Among the professional friends present at his burial was Mr. Bailey, who was on the 29th ult. seized with symptoms of apoplexy, and died on the following day, to the grief of a large circle of relatives and friends. He was the only son of the late James Bailey, surgeon, of Blackburn, and came to Liverpool many years ago as partner to Mr. Nottage, then surgeon to the Deaf and Dumb School, who subsequently left Liverpool and now resides in Lancaster. Mr. Bailey succeeded to the appointment, and only a few days before his death took part in a very interesting discussion at the Liverpool Medical Institute on the education of the deaf and dumb, both oral and by signs. He had a large practice, and took much interest in medical and other institutions of which he was a member. He was of a genial, sociable disposition, and was a general favourite with his professional and lay friends. His funeral was attended by a very large number of his medical friends, to whom his death, at the early age of fifty-six, had come as a great shock. He leaves a widow and three children.

Death of William McCheane, F.R.C.S. Eng.

The third death was that of Mr. William McCheane, which took place on Sunday last He was a native of Liverpool, and was born in 1820. He received his medical education partly at the Liverpool School of Medicine, partly at St. Bartholomew's Hospital, London, and after obtaining the old double qualification of M.R.C.S Eng. and L.S.A. in 1844 he returned to Liverpool, and was for some time house surgeon to the Liverpool Royal Infirmary. He subsequently commenced private practice here, and was in 1849 elected without opposition honorary surgeon to the Liverpool Lock Hospital, his senior colleague being Mr. Frederick Worthington, who, it may be stated, is living (though retired from practice) at the ripe age of eighty, and in the enjoyment of very fair health. Mr. McCheane continued to hold the office of surgeon till his resignation in 1882, on which he was elected consulting surgeon. In 1868 he was elected an honorary Fellow of the Royal College of Surgeons, and subsequently he became President of the Liverpool Medical Institution, which office he held for two years with much dignity and ability. He enjoyed a large practice and was extremely popular with all his patients as well as his professional brethren and friends for his genial disposition, which continued up to the last. He was for many years surgeon and for some years surgeon-major to the militia, from which latter he retired some years ago. For some time past it was noticed that he appeared to be in failing health, and, this increasing, he was attended by his old friend Mr. C. B. Wilson and Dr. Carter with unremitting care until his death, which was both peaceful and painless. The deceased was unmarried, but leaves an only sister to mourn her loss. The funeral took place on the 6th, and his remains were followed to the grave by a very large number of friends, including nearly all the leading members of the profession and his colleagues of the Royal Infirmary and Lock Hospital.

The Abattoirs.

The question as to whether the lease of the Abattoir Company shall be renewed still remains unsettled, and is the occasion of a very fierce war both in the daily papers and elsewhere. On the one hand are those who would wish to remove from the centre to the outside of the city that which is undoubtedly a very serious nuisance. Moreover, it has been proved beyond any possibility of dispute that the mortality of the district in which the abattoirs and their accompaniments are situated is considerably in excess of that in any other part of the city. Against this is the powerful influence of vested interests. Public opinion will, it is to be hoped, be on the side of sanitation. That slaughter-houses and their accessories of hide markets, piggeries, gut cleansings, &c., should be outside the city needs no argument; the region now covered by them would be much more appropriately occupied by dwellings for the lower middle and artisan class, which are greatly needed.

Liverpool, Nov. 6th, 1889.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Midland Medical Society.

THE inaugural meeting of this flourishing Society is announced for the 16th inst., when Dr. W. T. Gairdner will deliver an address on "Drunkenness and Dipsomania: Medical and Legal Preventives and Remedies." It is difficult to predict what will be given as new upon this subject after the Temperance Congress just held in this city. Unrestrained eloquence apparently dealt with every phase of the drink question in an exhaustive and somewhat exhausting manner. The known ability of the orator on this occasion will doubtless make the evil and its remedies appear in an interesting if not novel aspect.

Dangers of Escaping Gas.

There are various degrees of folly exhibited by individuals in the daily routine of life; perhaps no greater one could be adduced than that of searching for an escape of gas with a naked light. A man of mature age has recently had occasion to be impressed with the negligence he displayed in his endeavour to find the origin of an escape of gas in his house. Besides being badly burnt on the face, head, and arms, he became aware at the same time of considerable damage done to his household property.

Hospital Sunday.

Unfortunately the weather on Sunday last was as bad as on the preceding Sunday; it was intended to supplement the collections on the latter day by contributions from those whom the wet weather had prevented from going to church on the previous Sunday. Inclement as it was, a substantial addition was made, which will have the credit of placing this year's subscriptions considerably in advance of many years past.

The Abuse of Medical Charity.

A meeting of the medical profession in Birmingham is to be called for the 30th inst., to consider a report which has been drawn up by a committee appointed for the purpose of

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inquiry into the subject of hospital abuse. The report is intended to show that the voluntary hospital system as at present administered in Birmingham and elsewhere needs reconsideration and reform. Special attention is called to the following points: (*a*) That the original purpose of our medical charities has been widely departed from; (*b*) that as a result of this departure the demands made upon them are greater than they can adequately meet, and are increasing from year to year; (*c*) that a constantly increasing proportion of the community depends upon charitable medical relief in times of sickness, rather than on providence and self-help, and that this is unjust to the subscribing public, injurious to the recipients themselves, and an imposition upon the medical profession; (*d*) that in order to bring about a better state of things the voluntary hospital system needs to be reorganised, so that, on the one hand, it may work harmoniously with and supplement the Poor-law system; and, on the other hand, it may encourage and not hinder, as it now does, the development of provident institutions for medical treatment of the industrial classes. Tables are given to show the growth of the hospital system, which is given as 147 per cent. During the same period—from 1867 to 1887—the population increased by about 35 per cent., or that in twenty years hospital patients had increased more than four times as rapidly as the population. The figures show that in 1867 about one person in five received gratuitous medical treatment, and that in 1887 the proportion had arisen to the astounding height of one in every 2·6. It is true that many of the patients come from surrounding districts, and also that many of these comprise patients with venereal tickets. It is now twenty years since the late Mr. Gamgee drew attention to these circumstances in a forcible manner. It remains to be seen what will be the outcome of the proposed deliberations.

Birmingham, Nov. 6th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle.

I HEAR that the governors of the Royal Infirmary are about to take into consideration the propriety of reopening the doors of the institution to out-patients. It will be remembered that when the infirmary was made a free hospital, and the ticket system was abolished, the out-door patients also disappeared. It was supposed that attendance for this class was unnecessary, as they were already provided for by the dispensary and many excellent special hospitals of the city. I may mention that the Eye Infirmary has an out-door attendance of over 7000, while the Throat and Ear has an out-door attendance of close upon 3000. There will be, it seems, some strong opposition to this return on the part of the governors of the infirmary. It seems to be forgotten that there may be some difficulty in getting out-door patients back. As before explained, they have found their way to other institutions, and it will be a pity if we see again the overlapping of medical aid which called forth some remonstrance some few years ago.—I hear that Mr. Williamson's case of excision of the entire uterus for carcinoma has so far done well.—Mr. Jeaffreson is about to commence a course of lectures for students and practitioners at the Eye Hospital. A course is also announced at the Throat and Ear Hospital, by the senior surgeon, on the ear. These lectures will utilise the large amount of clinical material to be met with at the special hospitals.—The collections for the Sunday Hospital Fund were very generally taken at the various places of worship in Newcastle, Gateshead, and district on the 28th ult. Although the day, at least as regards the evening, was not very favourable as to weather, it is understood that the collections upon the whole rather exceed those of last year. The Saturday collections have to take place yet, and it is hoped, from the prosperous state of work in the district, that they may be also in excess.—A very sad accident took place at Wylam on Saturday last, by which a fine young man, Mr. Henry Atkinson, aged twenty-three, the youngest son of the late Dr. Atkinson of Wylam, lost his life. He had been home a few days from sea, and, being a good horseman, he was trying a new but rather spirited animal. In the course of the ride the animal bolted and got beyond control, and, in attempting to clear a six-foot gate, threw Mr. Atkinson with great violence against the gate-post, by which he sustained a severe fracture of the skull. Mr. Foulis of Wylam, his brother-in-law, was soon on the spot, and had him removed home, where he was shortly afterwards seen by his brother Dr. Atkinson of Newcastle, and also by Dr. Arnison; but Mr. Atkinson never regained consciousness and died in a few hours. Great sympathy is felt by many here for this bereavement occuring to a well-known and highly respected medical family so closely connected with Newcastle and the district.—I regret to hear that Mr. Hardie, house surgeon of the Gateshead Dispensary, has been compelled, owing to delicate health, to resign his appointment in order to take a sea voyage.

Death of Dr. H. R. Dale of Sunderland.

Much regret was felt in Sunderland on the news of the death of Dr. H. R. Dale, lately a well-known practitioner in Sunderland, who died in London last week. Dr. Dale came to Sunderland in 1878, after a distinguished career as a student, and until last July, when he was obliged to relinquish his practice on account of ill-health, he was looked upon, among the poorer classes of the town especially, as a most popular medical man. He was a great sufferer from a nervous affection, and died of exhaustion at the early age of thirty-three. He leaves a wife and two children to mourn their loss. Dr. Dale studied at University College, London, and at Brussels. He was a medalist or honours man in all his classes. He was a leading witness a few years ago in the celebrated "McMann" case, as to the application of electricity as an aid to diagnosis in paralysis &c.

Newcastle-on-Tyne, Nov. 5th.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

The Action by Edinburgh Lady Medical Students.

IN connexion with this now somewhat famous case, it will be remembered that Lord Kyllachy, before whom the action was raised, recommended the disputants to try to come to some amicable arrangement before the opening of the present session. This good advice was not taken, for we now have before us the decision of the judge. The pursuers sought for declaration that they were entitled to readmission to the school as professional students to complete their course of study. Otherwise payment of £500 to each of the pursuers was sought. The following is an abstract of the judgment. Lord Kyllachy thought that before 1887 the defendants had not agreed to provide a full curriculum, but that after the issue of the prospectus of January, 1887, matters were put on a totally different footing. A committee had then been organised, pupils had been secured, and there was now an express offer or undertaking to provide a full and complete curriculum of instruction, that curriculum extending over four years, and the classes for each year being specified; the fee was to be paid for the whole course, and if not paid in one sum, which it might be, the sums paid in each year were to be paid as instalments. When the two pursuers entered their second year's course—in October, 1887,—they did so under the new prospectus, and from that date were entitled to receive a complete course of instruction, which the defenders had undertaken to provide. In return, the pursuers were, in his opinion, not bound to abstain from criticism of the arrangements made for their tuition, whether by the executive committee or by the organising secretary. If the regulations laid down by the secretary seemed unnecessary or unreasonable, they were entitled to discuss them and to complain of them, and, while obeying them, to do so, if they pleased, under protest. They were not children sent to school by their parents, but grown-up women, who were providing themselves with medical education, which the defenders had agreed to furnish on specified terms. The lady students were not, in his opinion, bound to submit to be lectured by the organising secretary, still less to be insulted by her. Upon the matter of contract, the defenders did not dismiss the pursuers on the ground of any alleged fault. They did so, or rather Miss Jex Blake with the consent of Dr. Balfour did so, because they thought that at the end of the session they were entitled to do so without reason assigned and at their pleasure. The two specific charges against the conduct of the pursuers now advanced by the defenders

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were: (1) The alleged breach of regulation on June 8th, 1888, by staying in Leith Hospital beyond 5 o'clock; and (2) the alleged insubordination in connexion with the matter of Miss Sinclair's certificate. In the first, the pursuers were decidedly in the wrong; but the defenders never thought of putting an end to the contract with the pursuers and the other students implicated in that matter. In regard to Miss Sinclair's certificate, his lordship did not see what the secretary, Miss Jex Blake, had to do with the matter at all, and he considered that the defenders had entirely failed to justify their action by reference to either of the specific instances which they alleged. As to the general evidence of discontent, disputing regulations, &c., of which the defenders' evidence was full, his lordship attached very little value to it. It was obviously much exaggerated, and whenever brought to the test of particulars came to nothing. The truth was, that Miss Jex Blake mistook and overrated her position, and by demanding too much, perhaps, failed to received the consideration to which she was entitled. He thought it was very possible that the young ladies, including the pursuers, sometimes forgot, under the provocation of her masterful ways, how much they owed her, and how much a title she had to their consideration and gratitude. Those, however, were topics which lay outside the sphere of legal obligation, and which he thought scarcely even affected the question of damages. Upon that matter he had only to say, in conclusion, that he did not consider that the pursuers had suffered in their character, or that they were entitled to or desired much damages. He thought the sum of £50 each would probably repay their pecuniary loss and sufficiently mark the sense which he entertained of the wrong they had sustained. His lordship accordingly gave decree for that sum, with expenses.

The Scottish Microscopical Society.

At a very large meeting of the Scottish Microscopical Society held on Friday last, Sir Wm. Turner, the President, delivered his inaugural address. After describing the objects that those who were interested in the promotion of the Society had in view, the President reviewed the discoveries that had been made by means of the microscope, giving a history of the cell theory, especially in so far as the structure, function, and mode of division of the cell nucleus were concerned. He took the opportunity of laying special stress on the work done in this region of scientific observation and deduction by an Edinburgh graduate, Dr. Martin Barry, to whom far more credit was due than was usually awarded. His papers in the Philosophical Transactions were even now well worthy of consultation by those who were engaged in histological work. Good work had been done in the past, and he hoped that there would be a continuous succession of such work in the future. On the motion of Professor Rutherford, Professor Simpson seconding, a hearty vote of thanks was accorded to Sir William Turner for his address. The list of office-bearers is a very strong one, and the Scottish Microscopical Society has certainly entered on its career under most auspicious conditions.

Edinburgh Medico-Chirurgical Society.

The following is the list of office-bearers for the ensuing year as recommended by the retiring council: — President: Professor Alex. Simpson. Vice-presidents: Dr. Clouston, Mr. A. G. Miller, and Dr. Brakenridge. Councillors: Drs. Ireland, Matthew, and A. H. F. Barbour, Mr. Charles W. Cathcart, and Drs. John Smith, Strachan, Alex. Bruce, and G. Sims Woodhead. Treasurer: Dr. Francis Troup. Secretaries: Dr. James Ritchie, 14, Charlott-square, and Mr. F. M. Caird, 21, Rutland-street. Editor of Transactions: Dr. William Craig, 7, Bruntsfield-place.

Edinburgh, Nov. 5th.

PRINCE ALFRED HOSPITAL, SYDNEY.—The Hon. E. KNOX, M.L.C., presided at the monthly meeting of the board of directors held on July 11th last. The minutes of the last meeting were read and confirmed. The hon. secretary reported the receipt of a donation of £1000 to the Nurses' House Fund. A resolution was adopted to appoint an honorary assistant surgeon for diseases of women, whereupon it was announced that Mr. Freeman had offered to give gratuitously, until further notice, a course of twelve to twenty-four clinical lectures on the diseases of women each year, an offer which was accepted.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

DUBLIN.

Rotunda Lying-in Hospital, Dublin.

AN election for a Master in the room of Dr. Macan, whose tenure of office had expired, was held on Friday last. Applications from five candidates were received by the governors, who elected Dr. William J. Smyly to the vacancy. Dr. Smyly, although comparatively young, has deservedly obtained a high reputation as an obstetric physician, and his election to the Mastership of the Rotunda Lying-in Hospital was generally regarded as probable. He is an Examiner in Midwifery at the College of Physicians, and has been attached as obstetric physician to the City of Dublin Hospital, while his contributions to the branch of the profession he has selected have been of a very high order.

Royal Academy of Medicine in Ireland.

The opening meeting of the session was held on the 1st inst., when Dr. E. H. Bennett, president of the Pathological Section, delivered an address on fractures. Dr. Bennett has in this city a high reputation in this particular subject, and his remarks were extremely interesting as well as practical. Mr. Wm. Thomson has been re-elected general secretary and treasurer of the Academy.

Dinner to Sir John T. Banks, K.C.B.

The past pupils of the Richmond, Whitworth, and Hardwicke Hospitals entertained Sir John Banks, the eminent Dublin physician, to dinner last week, as a mark of esteem and in recognition of the K.C.B. which had been conferred upon him. The chairman, Dr. Gordon, proposed the toast of their guest, and said they all loved, respected, and admired him. Prof. Purser proposed the toast of the hospitals, which was responded to by Mr. William Thomson, and, in an excellent speech, he showed that the institution had maintained its high and long established reputation as a great clinical hospital. He pointed out the defects of the proposed Dublin Hospitals Bill, and dwelt on the injurious effect it would have, if passed, on their hospital as well as other institutions.

Dublin Hospital Sunday Fund.

The annual collections in aid of fifteen of the Dublin Hospitals will take place on Sunday next, the 10th inst. Last year the sum obtained amounted to £4096 10*s.* 3*d.*, being an increase of £139 1*s.* on that raised in 1888. The work done by the hospitals which participate in the fund costs about £40,000 a year, of which about 10 per cent. is supplied by the collections on Hospital Sunday.

Monkstown Hospital, co. Dublin.

A grand bazaar in aid of the building fund will be opened this week at the Town Hall, Kingstown, by her Serene Highness the Princess of Saxe-Weimar. It is intended to increase the accommodation at an estimated cost of £2500, as of late the hospital has been much overcrowded. The new wing will give accommodation for six extra beds, making a total of twenty-six when completed.

Proposed Memorial to the late Mr. Robert McDonnell.

A meeting of friends of the late Mr. R. McDonnell was held on Tuesday for the purpose of taking the necessary steps for inaugurating a memorial to the deceased gentleman. It is intended to receive subscriptions from members of the profession only, and the form of the memorial will be a marble bust and a portrait to be placed in the College of Surgeons.

Mr. J. Brennen, registrar of the Royal College of Surgeons, died on Saturday last at his residence in Dundrum. The deceased had, owing to failing health, been unable to discharge the duties of his office for a considerable time past. He was attended in his last illness by Mr. Wheeler and Mr. Rawdon Macnamara.

An election for a member of Council, Royal College of Surgeons, took place on Tuesday, when Mr. A. H. Corley was returned by a considerable majority.

The death is reported of Mr. John W. Williams, at Killucan, in his seventy-eighth year. Deceased was a

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graduate in Arts and Medicine of the University of Dublin, a Fellow of the Royal College of Surgeons in Ireland, and late Surgeon-Major of the Westmeath Rifles.

Dublin, Nov. 5th.

BELFAST.

Opening of the Winter Session.

The session has now opened at the College and the various hospitals. On Thursday, Oct. 31st, the introductory address was delivered in the Royal Hospital by Dr. J. A. Lindsay, one of the physicians. The theatre of the hospital, in which the lecture was given, was crowded, and for the first time three lady students were in attendance. After a few preliminary words of welcome Dr. Lindsay announced as his subject "The Faculty of Observation, its mode of exercise, the laws that should govern its operation, and the fallacies to which it is liable." He advised the student always to employ his senses—especially sight, touch, and hearing—in a certain fixed order in the work of clinical observation, and to employ a similar fixed routine in his examination of the various organs of the body. Such a fixed routine might be superfluous for the expert, but was indispensable for the beginner. He dwelt upon the information to be derived from the careful observation of the physiognomy of disease. He then passed under review the various fallacies to which the process of observation is liable, stating and illustrating the fallacies of non-observation and of mal-observation. Without entering into the question of inductive reasoning he pressed upon his hearers the necessity of acquiring some knowledge of the logical principles which govern the process of drawing conclusions from observed signs and symptoms. In conclusion, he urged the students to aim at a high standard of individual efficiency for their own advantage, for the public weal, and for the honour of science and the credit of the profession of medicine.

The Bushmills Dispensary.

The election of a medical officer for the Bushmills Dispensary (vacant through Dr. Macaw's death) took place on Thursday, Oct. 31st. There were three candidates, but on the final vote Dr. Huey was elected.

Tuberculosis in Cattle.

The question of the existence of tuberculosis in cattle and its transmission to human beings is exciting considerable attention in Belfast since the seizure of the cattle, and the public prosecution. At the monthly meeting of the Town Council, on Nov. 1st, a resolution was carried by a majority of one recommending the Town Committee to approach the Privy Council with the view of having all such cases of tuberculosis placed on the same footing as those of pleuro-pneumonia—that is, in favour of compensating the butchers. The Town Clerk, who is a solicitor, pointed out that, so far as granting compensation was concerned, there was no analogy between pleuro-pneumonia and tuberculosis, as in the former disease animals were killed to prevent its spreading, and so causing loss to the country. The Mayor did not think they would be justified in spending the public money in compensation. Buying cattle suffering from tuberculosis, he said, would appear to come fairly under the rule *caveat emptor*. At a meeting of the North of Ireland Branch of the British Medical Association, held on Oct. 31st, the following resolution was proposed by Dr. Calwell and seconded by Dr. J. A. Lindsay: "That in view of the recent discoveries with regard to human and bovine tuberculosis, and of the opinions held by many eminent scientific authorities concerning the communicability of tuberculosis from man to animal and from animal to man, and in view of the enormous prevalence of the disease in one form or another among mankind, this meeting of the North of Ireland Branch of the British Medical Association disapproves of the practice of allowing any part of the carcase of an animal which has been shown to have been affected with tuberculosis to be sold as sound and wholesome meat." After considerable discussion, it was decided to defer the further consideration of the matter until December, when a special meeting of the Branch is to be held. A sub-committee was appointed to examine the recent literature of bovine tuberculosis, and to report to this special meeting upon the evidence of tubercle being transmitted from animals to man.

Health of Belfast.

At the monthly meeting of the Dispensary Committee, held on Nov. 4th, the medical officers of the city and suburban districts reported that typhoid fever, which had been very prevalent last month in the city, was greatly on the decrease. Four cases had been registered as having occurred at some of the military barracks; however, the epidemic had much abated, and, on the whole, the health of the city was considered fairly good.

Belfast, Nov. 5th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Death of Doctor Ricord.

THE death of this well-known member of our profession at the ripe age of eighty-nine removes one more of the links connecting the ends of two centuries. As you have already given a detailed account of his professional career, I would merely add that he was as well known in the social as the professional world. As evidence of this let me cite his funeral, which was one of the largest as well as one of the most imposing ceremonies of this kind which has taken place in Paris for some time past. It was timed to start from his historic house in the Rue de Tournon, at noon; but, from the hour of ten, a considerable crowd literally invaded the street and its approaches. The large courtyard of the house was beautifully draped and converted into a *chapelle ardente*. At the foot of the coffin were placed on a velvet cushion his numerous decorations. Four sisters of St. Vincent de Paul recited the prayers for the dead. At noon precisely the 4th Regiment of the Line, headed by its band, arrived, followed by a battery of the 31st Regiment of Artillery and a squadron of the 26th Dragoons armed with their lances. These military honours were rendered to the deceased doctor as a Grand Officer of the Legion of Honour. The *cortège* then set out headed by the military, while the band played Chopin's pathetic funeral march. Following these came a brigade of police under the orders of their officers. Immediately behind the hearse walked twelve religious sisters representing the various congregations which until recently supplied the nurses to the various Parisian hospitals. Next came the officers bearing the cushions of honour, on which were placed the various medals and orders. It goes without saying that the profession was strongly represented from all over France and even from the Argentine. The service at the church of St. Sulpice, which was entirely draped, was extremely impressive. The church, although large, was quite inadequate to contain the number of persons in attendance. During the service some beautiful pieces of music were rendered by a full choir, the organ of which was reinforced by the harp and other instruments. One of the most touching incidents here was the playing by M. Batta (an intimate friend of Dr. Ricord) on his violoncello of the "Adieux de Marie Stuart," a favourite musical *morceau* of his deceased friend. The religious ceremony over, the *cortège* re-formed in the same order and set out for Père la Chaise, where some eloquent parting words were delivered by Dr. Pean on behalf of the Academy of Medicine, and M. Peyron on behalf of the Assistance Publique. Altogether it was the most impressive homage to the great dead which I have seen rendered for many years.

Tuberculosis.

At the meeting of the Academy of Medicine last week, Dr. Daremberg read a note on the resistance of animals to tuberculosis. He observed that this resistance varies, not only with the species of animal, but with the channel of inoculation, the quantity of virus, and the previous state of health. The animal may be rendered more apt to contract tuberculosis when glycogen is administered to it, either by the mouth or subcutaneously. This suggests that it is hyperglycogenesis that predisposes the diabetic to grave tuberculosis. The resistance to tuberculosis is increased by feeding animals with oils and fats when the inoculation is subcutaneous. When the inoculation is direct into the veins the invaded organism can no longer benefit by the favourable elements which the oils afford it in its struggle against the virus. Cod-liver oil, the most digestible of oils, because it contains bile,

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should therefore be given only in tuberculosis which is not "*d'emblée infectante.*" Cod-liver oil does not act against the bacillus of tuberculosis, but it gives resisting power to the organism, as does super-alimentation, permanent aeration, and the other general agents of hygiene. It is an agent of defence and not an agent of attack against the malady. In short, Dr. Daremberg demonstrates that in all consumptive maladies general restoratives act in enabling the organism to struggle against the poisons formed in the stomach and intestines by abnormal fermentations. These restoratives permit the kidneys and skin to eliminate the poisons produced in the cells of the organs by defective nutrition. Dr. Daremberg shows that tuberculous subjects who have good digestions live a very long time, because death ultimately ensues from denutrition before the tuberculous process is completed. He proves that one can retard the evolution of tuberculosis in certain animals by habituating them gradually to support the tuberculous virus. One might inoculate them subcutaneously with small doses of cultures of tuberculous microbes or of cultures deprived of their microbes, and containing only the soluble poisons produced by the metabolism of the latter. The same result is obtained by inoculating under the skin an emulsion of the spinal marrow of animals dying of tuberculosis. From all these facts Dr. Daremberg concludes that the tuberculous virus is a poison which may be dealt with in the same manner as mineral or organic poisons. One might almost at will increase or diminish its toxicity. On the other hand, one might augment the resistance of the organism against its destructive action. He therefore firmly believes that in the future the proper degree of attenuation to confer immunity will be found, and the virus thus transformed into a vaccine.

It will be remembered that at the meeting of the Academy on July 30th last Dr. Villemin submitted, in the name of the permanent Commission of the Congress of Tuberculosis, instructions intended for the public, in order that it might know how to defend itself against this terrible malady. This document was severely attacked by Drs. Dujardin-Beaumetz, Daremberg, Germain Sée, Lancereaux, and others, and it was finally made over to a new Commission for revision. At the meeting of Oct. 29th Dr. Villemin presented a new report in his own name. If the instructions as regards the use of cows' milk have been preserved, the same cannot be said concerning the cooking of meat, for nothing more has been said of the dangers of raw or underdone meat. It is anticipated that this subject will be warmly discussed at the Academy before any definite measures are proposed.

A New Operation.

On July 13th last Dr. Terrier performed an operation which had not been before attempted in France. He established a permanent fistula between the gall-bladder and the duodenum in a woman whose ductus communis choledochus was obliterated, and who, being affected with extreme jaundice, presented very grave symptoms. Dr. Terrier had lately seen the patient since the operation. The jaundice had disappeared, the bile passed into the intestine, and the health was excellent.

The Faculty of Paris.

The winter session of the Faculty of Paris was opened on the 3rd inst., and the following are the courses of lectures that will be delivered during the session:—Anatomy, Prof. Farabeuf; Medical Physics, Prof. Gariel; Medical Pathology, Prof. Dieulafoy; Medical Chemistry, Prof. Gautier; Surgical Pathology, Prof. Lannelongue; Operative Surgery, Prof. Duplay; Histology, Prof. Mathias Duval; Pathological Anatomy, Prof. Cornil; History of Medicine and of Surgery, Prof. Laboulbène; Forensic Medicine, Prof. Brouardel. Clinical Medicine: Prof. Germain Sée, at the Hôtel Dieu; Prof. Potain, at La Charité; Prof. Jaccoud, at La Pitié; Prof. Peter, at Necker Hospital. Mental Pathology and Diseases of the Encephalon: Prof. Ball, at Sainte-Anne Asylum. Diseases of Children: Prof. Grancher, at the Hospital for Children. Syphilitic and Cutaneous Maladies: Prof. Fournier, at the Hôpital Saint Louis. Maladies of the Nervous System: Prof. Charcot, at Salpétrière. Clinical Surgery: Prof. Verneuil, at La Pitié; Prof. Trélat, at La Charité; Prof. Le Fort, at Necker Hospital. Clinical Ophthalmology: Prof. Panas, at the Hôtel Dieu. Clinical Obstetrics: Prof. Tarnier, at the Clinical Hospital; and Prof. Pinard, at the Maternité.—Prof. Richet, who had virtually retired some years since from the Clinical Professorship at the Hôtel Dieu, has now officially resigned his appointment.

Paris, Nov. 5th.

Obituary.

MR. VINCENT RICHARDS.

MAIL advices from India announce the death, at the end of September, of Mr. Vincent Richards, M.R.C.S. Eng., 1863, F.R.C.S. Edin., 1882. Deceased, who entered the Indian Medical Service in September, 1866, was for the greater part of his service stationed at Goalundo, of which station he was the civil surgeon. He attracted considerable attention in connexion with his researches regarding snake-poison, and was appointed a member of the Indian Snake-poison Commission, being afterwards appointed Government referee in all matters connected with snake venom and antidotes. His first and chief publication was "The Landmarks of Snake-poison Literature," 1885. A pamphlet on "Hydrophobia and M. Pasteur," in which he attacks Pasteur's prophylactic system of treatment as being imperfect; and a paper on "Cholera among the Coolies on their way to Assam," in which he shows that the cholera was contracted before the coolies went aboard at Goalundo, and not from drinking impure water supplied aboard the steamers, may be mentioned among his remaining works.

ROYAL COLLEGE OF PHYSICIANS.

AT the adjourned comitia of the Royal College of Physicians, held on the 7th inst., Sir Andrew Clark, Bart., President, in the chair, a portrait of the late Dr. Wilson Fox was presented to the College by a number of his friends, and its acceptance was gracefully acknowledged by the President.

Dr. Edward Liveing and Dr. W. M. Ord were, on the nomination of the President, appointed to the Committee of Management.

Dr. W. Newman (Stamford) was admitted a Member of the College.

On the recommendation of the Management Committee, the reappointment of Drs. Stevenson, Ballard, Thorne Thorne, and Corfield as Examiners for the Diploma of Public Health was agreed to.

The Committee having drawn attention to the resolutions of the General Medical Council in reference to regulations for the diploma in Public Health, and prescribing a curriculum for candidates, it was decided that counsel's opinion should be taken as to the question whether the General Medical Council has the legal power to impose such rules.

With reference to a suggestion by the Committee that the College should declare the desirability of an extension of the period of professional study to five years, it was resolved to refer the question to the Council for report upon the proposal.

On the motion of Dr. Allchin, seconded by the Senior Censor, the subject of the appointment of Examiners in Hygiene by the Committee of Management was also referred to the Council.

A report from the Committee of Management advising certain alterations in the regulations of the Examining Board was accepted.

A detailed report, embodying recommendations for the management and general regulation of the new scientific buildings erected by the two Colleges, was received and adopted.

It was resolved, on the recommendation of the committee on the extension of the Examination Hall buildings, to provide that institution with a hydraulic lift.

NEWSVENDORS' BENEVOLENT AND PROVIDENT INSTITUTION.—The Queen has contributed £25 towards the Royal Victoria Pension Fund of the Newsvendors' Benevolent and Provident Institution.

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ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual meeting of Fellows and Members of the Royal College of Surgeons was held on Thursday afternoon at the College, Mr. Jonathan Hutchinson, President, in the chair. In opening the proceedings the President referred at some length to the various topics mentioned in the Council's report of transactions during the collegiate year ending in July last, and congratulated the Fellows and Members on the progress that had been made in the various departments of College work. With reference to the points still under adjudication in the courts, he stated that if any resolutions were submitted concerning them he should have to rule them out of order. As to the question in dispute in regard to the rights of the Members to vote for the Council, it was the desire of the Council that it should now be allowed to rest. The College was now in a state of prosperity, and it prayed for peace. Dr. Elliston moved the following resolution:—"That this meeting of Fellows and Members of the Royal College of Surgeons of England, having considered the Report of the Council dated Oct. 17th, 1889, is of opinion that immediate steps should be taken to forward the introduction early in the next Parliamentary session of a Bill to amend the constitution of the College, so as to secure to the Members a just representation in and upon the governing body of the College." The resolution was seconded by Dr. Danford Thomas, and, after a brief discussion, was adopted by a very large majority. A vote of thanks to the President brought the proceedings to a close.

[A full report of the meeting will appear in our next issue.]

Medical News.

BANQUET GIVEN BY MR. BURROUGHS.—A dinner was given on Saturday, the 2nd inst., at Delmonico's new restaurant, Paris, by Mr. Burroughs to a number of fellow exhibitors and Paris physicians.

ROYAL INSTITUTION OF GREAT BRITAIN.—James Edmunds, M.D., F.C.S., has been elected a Visitor, in the room of Edward Pollock, Esq., resigned, who has been elected a Manager of the Institution, in place of Sir Crichton-Browne, resigned.

RABIES.—The number of dogs in England officially reported during the week ending Oct. 26th as affected with rabies was six against five in the previous week. All were killed. The distribution was as follows:—London, 2; York, West Riding, 2; and Essex and Kent, 1 each.

THE PASTEUR INSTITUTE FUND.—At a meeting of the committee of the fund this week, it was resolved that the Lord Mayor be requested to transmit to M. Pasteur the sum of 40,000 fr., in recognition of the services rendered by him to 200 British subjects bitten by rabid animals.

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Mr. George Stevenson, of Northfields, Clapham Common, bequeathed £100 each to the Brompton Cancer Hospital and the Hospital for Consumption and Diseases of the Chest, Brompton, and £50 each to the Victoria Hospital for Children and the City of London Truss Society.—The Committee of the Leeds Musical Festival, recently held in that town, have made the following grants to the Leeds medical charities: The Infirmary, £1527; Dispensary, £470; and the Hospital for Women and Children, £352.—An anonymous donation of £150 has been received by the treasurer of the British Home for Incurables.—The net result of the bazaar recently held in Inverness, for the benefit of the Northern Counties Convalescent Home, at the Tradespark, Nairn, amounted to £1027 11*s.* 8*d.*—Mr. A. S. Haslam, the recently elected vice-president of the Derbyshire Children's Hospital, has given £100 to the funds of the institution.—The late Mr. J. H. Hunter, of Sheffield, bequeathed, free of legacy duty, £500 to the Sheffield General Infirmary, £250 to the Sheffield Public Hospital and Dispensary, £250 to the Jessop Hospital for Women, and £100 to the Sheffield Children's Hospital.—The workmen of Messrs. Spencer and Sons, Newton Steel Works, Newcastle-on-Tyne, have contributed £75 to the Newcastle Royal Infirmary.

THE BECKETT HOSPITAL.—Mr. Alderman Marsden, the Mayor of Barnsley, on Saturday, the 2nd inst., formally presented to the Governors of the Beckett Hospital an ambulance carriage, with complete fittings, provided by public subscription, at the cost of upwards of £130.

THE DENTAL HOSPITAL OF LONDON.—The annual dinner of the staff and past and present students will be held on Saturday, Nov. 30th, at the Holborn Restaurant, under the presidency of Christopher Heath, Esq. Gentlemen either now or formerly connected with the hospital or medical school who may, through inadvertence, not have received special notice, and who desire to be present, are requested to communicate with the dean at the Dental Hospital, 40, Leicester-square.

ROYAL UNIVERSITY OF IRELAND.—The following Exhibitions and Honours have been awarded:—First Examination in Medicine—Exhibitions: Second Class, £10 each (disqualified by University standing), William McMath, Daniel J. O'Connor. Honours: Second Class, William McMath, Daniel J. O'Connor. Second Examination in Medicine—Exhibitions: First Class, £25, Alexander J. Blaney. Honours: First Class, A. J. Blaney. Third Examination in Medicine—Exhibitions: Second Class, £20 each, Andrew Fullerton, James B. Moore. Honours: Second Class, Andrew Fullerton, J. B. Moore. Medical Degrees Examination, M.B., B.Ch., B.A.O.—Exhibitions: First Class, £40, John W. Wolfe. Honours: First Class, John W. Wolfe.

CRUSADE AGAINST QUACKERY IN BELGIUM.—The Belgian Medical Federation proposes to make a prolonged and searching inquiry into the existence of quackery, which is illegal in Belgium. In pursuance of this plan the West Flanders branch of the Federation has just issued a circular to its members, requesting that all illegal acts of the kind alluded to may be carefully noted, and the circumstances, with the full names and addresses of all persons able and willing to bear testimony to them, put down in writing, and sent in annually about the month of September. Absolute secrecy is guaranteed where it is desired; indeed the members are authorised, in case they do not like to report any case to the local members of the profession, to send their statement direct to head-quarters in Brussels.

ST. GEORGE'S HOSPITAL GRAPHIC SOCIETY.—On Friday, Nov. 1st, a meeting was held in the large theatre of the Medical School, Sir Prescott Hewett in the chair, to inaugurate a society for the encouragement of the pictorial and allied arts amongst past and present students of the hospital. In opening the meeting the chairman expressed his opinion of the extreme value of drawing and painting to the medical man, not only for the actual results produced, but also, if seriously followed, on account of the value of the training. The following resolution was proposed and carried: "That a society be formed in connexion with St. George's Hospital for the purpose of encouraging sketching, painting, engraving, modelling, carving, photography, and the arts of representation in general." Past students of St. George's who may be desirous of joining the society are requested to send their names to Dr. Penrose, the hon. secretary, at the hospital.

THE "DESTRUCTOR" QUESTION.—At the quarterly meeting of the Yorkshire Branch of the Society of Medical Officers of Health, held at the Bradford Town Hall on the 29th ult., Dr. McLintock read a paper on "The Treatment of Ashpit and other Refuse by means of Fryer's Destructors, to which Jones's Cremator and Horsfall's Steam Injectors have been added." He gave an account of certain works in the town, from which, despite the "destructor," had proceeded formerly smells of an offensive character, forming a serious nuisance to the neighbourhood. After describing the reason of these objectionable products escaping, he said that the Sanitary Committee saw the desirability of seeking a remedy. Of all the schemes suggested for the cure of the defect, only two seemed to offer a hope of success—namely, Jones's "cremator" and Horsfall's "steam injectors," and by a happy thought the two were combined. The result was a great increase in the heat of the furnace, and a more rapid and effectual consumption of the refuse. The destructors now consumed, roundly, about 500 loads of refuse a week, and this enormous quantity was disposed of in such a way as to be rendered quite innocuous.

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PROVINCIAL HOSPITAL SUNDAY AND SATURDAY COLLECTIONS.—A collection for the South Devon Hospital, made on the 20th ult., at the Cathedral, Exeter, realised about £5; the Ludlow Hospital Sunday collection on the 27th ult., in aid of the Ludlow Cottage Hospital, amounted to £6 5*s*. The joint committee of the Glasgow Master Masons' Association, and of the United Operative Masons' Association, allocated on the 24th ult. the amount subscribed this year on behalf of the Glasgow Medical Charities as follows: Royal Infirmary, £50; Western Infirmary, £50; Victoria Infirmary, £20; Glasgow Eye Infirmary, £5; Ophthalmic Institution, £5; Dunoon Seaside Homes, £15; and the Lenzie Convalescent Home, £7 7*s*. The Hospital Sunday collection at Bolton-on-Dearne, on the 3rd inst., produced £7 1*s*. The workmen of the Jarrow Chemical Company, Limited, Friars Goose, have contributed £14 13*s*. 6*d*., and the firm a like amount, to the Hospital Saturday Fund, Newcastle-on-Tyne. The Warwick Hospital Saturday Collections Committee awarded, on the 30th ult., £55 to the Warneford Hospital and £30 to the Warwick Cottage Hospital.

VOLUNTARY EXAMINATION IN SHORTHAND FOR MEDICAL STUDENTS.—The following is the result of the examination (11 candidates) held on October 11th, 1889:—Part I. General Examination—Class I., in order of merit: Herbert Caiger, University College, and Alfred E. Russell, St. Thomas's Hospital (equal), prize; William L. Brown, London Hospital; William A. Savage, University College; David L. Soutter, King's College. Class II. (alphabetically): William P. Purvis, St. Thomas's Hospital; Arthur S. Ransome, London Hospital; Edward H. Smith, London Hospital. Part II. Special Examination in Method of Use—William L. Brown, prize; Herbert Caiger, *proxime accessit;* Alfred E. Russell and William A. Savage, commended. Examiners: E. B. Gray, M.D. Oxon., Honorary Physician to the Radcliffe Infirmary; Thomas A. Reed, Honorary President of the Phonetic Shorthand Writers' Association. N.B.—The committee desire to intimate that the general examination in proficiency for students already engaged in medical studies is exceptional, and that it will not be held after this year, in order that there may be no inducement to devote to learning shorthand the time that ought to be given to professional work. This part of the examination will therefore, in future, be restricted to first-year students.

COTTAGE HOSPITALS.—At the annual meeting of the subscribers to the Northallerton Cottage Hospital on Oct. 31st, the report, which was of a satisfactory character, and which was unanimously adopted, stated that although they had not had so many patients as in former years, the cases they had had were of a very serious nature, and had been treated with great success. The hospital had, despite all vicissitudes, passed its twelfth year, and was now firmly established.—At the annual meeting of the subscribers to the Boston Cottage Hospital, held last week, the report and statement of accounts were approved. A small charge of 5*s*. per week was made in the case of each patient; that sum, however, did not pay more than one-third of the cost of the patient's maintenance. A letter was read from Mr. H. J. Atkinson, M.P., offering to give £60 towards the reduction of the debt on the hospital if the balance were contributed by the end of the year. Several gentlemen present put their names down for £5, and a motion was carried that the secretary be instructed to send out circulars asking for subscriptions, and that Mr. Atkinson be written to asking him to extend the period of his promise.—The twenty-third annual report of the Cromer Cottage Hospital shows that during the past twelve months sixty patients from nineteen different parishes had been admitted. Notwithstanding an increase in the expenses, the committee are glad to be able again to give a good report of the funds.—On the 26th ult., Lady Meux formally laid the foundation stone of the Cheshunt Cottage Hospital. Her ladyship has been a large contributor to the building fund, and, on the occasion of the present ceremony, announced her intention of endowing the hospital to the amount of £500. The institution will be a memorial of the Queen's Jubilee, and when completed will have accommodation for six beds and two cots.—The proposed Mexborough Cottage Hospital continues to receive generous public support. The Manver's Main Colliery Company has promised to contribute £20 annually to the hospital funds. The furniture for the wards has also been promised, and the institution will be opened at Christmas.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

AMY, JOSEPH, L.R.C.S. &c., Edin., has been appointed Physician to the Paisley Infirmary.

ANNINGSON, BUSHELL, M.D., M.R.C.S., has been reappointed Medical Officer to the Cambridge Union District.

BEATSON, G. T., M.D., L.R.C.S. Edin., has been appointed Assistant Surgeon to the Glasgow Western Infirmary.

BELL, G. C., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of the District School, Forest-gate School District.

BRAYN, RICHARD, L.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed Governor and Medical Superintendent of Woking Female Convict Prison, vice Power, deceased.

BRODIE, R. C., M.B., has been appointed Junior Assistant to the Glasgow Royal Asylum.

BROWN, JOHN, M.D., has been appointed Physician for Diseases of Children to the Central Dispensary, Glasgow.

COOPER, EDWARD, L.R.C.P. Lond., M.R.C.S., has been appointed Assistant House Surgeon to the Royal Portsmouth Hospital.

COX, C. H., L.K.Q.C.P., L.M., & L.R.C.S Irel., has been appointed Medical Officer of the Collingham District, Chesterton Union.

DALZIEL, T. K., M.B., C.M. Edin., F.F.P.S. Glas., has been appointed Surgeon to the Glasgow Western Infirmary.

DUNLOP, JAMES, M.B., C.M. Glas., has been appointed Dispensary Physician to the Royal Infirmary, Glasgow, vice G. S. Middleton, M.A., M.D., resigned.

GIBB, WILLIAM FLETCHER, M.D., C.M. Glas., has been appointed Surgeon to the Paisley Infirmary.

GIBSON, L. P., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Royal Portsmouth Hospital, vice J. O'Conor, M.B., resigned.

GRANT, F., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer to the Fourth District and Workhouse, Market Harborough Union.

HELME, T. ARTHUR, M.B., C.M. Edin., has been appointed Resident Medical and Obstetrical Surgeon to St. Mary's Hospital, Quay-street, Manchester.

HUNT, A. H. W., M.R.C.S., L.R.C.P., has been appointed Resident House Surgeon to the Wolverhampton and Staffordshire General Hospital.

KERR, JAMES, M.A., M.B., B.C., D.P.H. Camb., has been appointed House Physician to the Bradford Infirmary.

MAYLARD, A. E., M.B., B.S. Lond., F.F.P.S. Glas., has been appointed Surgeon to the Glasgow Western Dispensary.

OSWALD, LANDEL R., has been appointed Senior Assistant to the Glasgow Royal Asylum, vice John Hay, M.D., retired.

PARSONS, GEORGE GOODEN, L.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed House Surgeon to the Weston-super-Mare Hospital, vice Dr. Temple, resigned.

RENTON, J. C., M.D., M.B., L.R.C.P., L.R.C.S. Edin., has been appointed Assistant Surgeon to the Glasgow Western Infirmary.

SEATON, EDWARD, M.D. Lond., F.R.C.P., has been reappointed Medical Officer of Chelsea.

STARK, J. NIGEL, M.B. Edin., has been appointed Physician for Diseases of Children to the Central Dispensary, Glasgow.

STEDMAN, A., M.R.C.S., L.S.A., has been reappointed Medical Officer of Effingham District, Dorking Union.

WALLS, W. KAY, L.R.C.P. Lond., M.R.C.S., has been appointed Junior Surgeon on the Resident Medical Staff of St. Mary's Hospital, Quay-street, Manchester.

WELLBURN, E. D., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer and Public Vaccinator of the Sowerby District, Halifax Union, vice Horsfall, deceased.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. Also Resident Medical Officer. Salary £100 per annum, with board &c.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer. Salary £80, with board and lodging.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—Ophthalmic Surgeon.

HOLLOWAY AND NORTH ISLINGTON DISPENSARY (address: Honorary Secretary, 68, Aldermanbury, E.C.)—Resident Medical Officer. Salary to commence at £150 per annum, with unfurnished house, coals, and gas, and an allowance of £20 per annum for servant.

LIVERPOOL ROYAL INFIRMARY.—Honorary Surgeon.

LONDON HOSPITAL, Whitechapel-road, E. — Surgical Registrarship. Salary £100 a year.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.—Junior House Surgeon. Board and residence in the hospital.

METROPOLITAN ASYLUMS BOARD, Norfolk-street, Strand, W.C.—Assistant Medical Officer at the South-Eastern Fever Hospital, Newcross, S.E. Salary £15 per month, with board, furnished apartments, and washing.

NORTH DEVON INFIRMARY, Barnstaple.—House Surgeon. Board and lodging in the house, washing, firing, lights, and attendance. Salary £100 a year, with certain conditions.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, E.—Junior House Surgeon for six months, at a salary of £30.

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OWENS COLLEGE, Manchester.—Senior Demonstrator in Physiology. Stipend £150 per annum.

PARISH OF EDAY, Orkney (address: Inspector of Poor).—Resident Medical Officer. Salary £70 a year and practice.

PERTH DISTRICT ASYLUM.—Assistant Medical Officer. Salary £100 per annum, with board and lodging.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiners in Anatomy and Physiology for the Fellowship.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Assistant House Surgeon. Salary £25 for six months, with board and lodging.

SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds.—Dispenser for twelve months. Salary £40 per annum, with board, lodging, and washing.

SUSSEX COUNTY HOSPITAL, Brighton.—House Surgeon. Salary £120, rising to £140 per annum, with board and lodging in the hospital, and washing.

TOWER HAMLETS DISPENSARY, White Horse-street, Stepney, E.—Resident Medical Officer. Salary £120 per annum, furnished rooms, coals, gas, and attendance.

VESTRY OF ST. GILES, Camberwell, Vestry Hall, Camberwell.—Public Analyst. The fees payable are on on a scale fixed by the Vestry, and average about £160 per annum.

WARNEFORD HOSPITAL, Leamington Spa.—House Surgeon. Salary £100 per annum, with board, lodging, and washing.

WOODSTOCK UNION, Woodstock.—Workhouse Medical Officer. Salary £35 a year, and for midwifery 10*s.* 6*d.* each case, and for each case of successful vaccination 1*s.* 6*d.* Also Medical Officer and Public Vaccinator, for the Woodstock No. 1 District. Salary £40 a year; and for midwifery 10*s.* 6*d.* each case, and for each case of successful vaccination, 1*s.* 6*d.* within two miles, and 3*s.* beyond two miles, from the officer's residence.

Births, Marriages, and Deaths.

BIRTHS.

BRUMELL.—On Oct. 30th, at Pethgate, Morpeth, the wife of Dr. Arthur Brumell, of a daughter.

CLELAND.—On Nov. 4th, at The University, Glasgow, the wife of Professor Cleland, M.D., of a son.

DUKE.—On Oct. 29th, at Kennington-park-road, S.E., the wife of Maurice S. Duke, M.R.C.S., of a daughter (Dorothy).

EVANS.—On Oct. 31st, at Denmark Lodge, Clapham-common, the wife of Dr. Lewis Evans, of a daughter.

GAY.—On Nov. 3rd, at Upper Richmond-road, Putney, S.W., the wife of John Gay, M.R.C.S., L.R.C.P., of a daughter.

HOLDSWORTH.—On Oct. 31st, at Park View, Kidderminster-road, Croydon, the wife of Ernest Charles Holdsworth, of a son.

REYNOLDS.—On Nov. 1st, at Limehurst, Stapleton-hall-road, N., the wife of Dr. Reynolds, of a son and daughter.

SEWILL.—On Oct. 31st, at Wimpole-street, the wife of Henry Sewill, L.D.S., M.R.C.S., of twins—boys.

WALE.—On Oct. 27th, at Waddon Old-road, Croydon, the wife of George Wale, L.R.C.P. Lond., M.R.C S., of a daughter.

MARRIAGES.

BARNETT—WEBB.—On Oct. 30th, at Coalbrookdale, Shropshire, Horatio (Guy) Barnett, M.A., M.B. Cantab., of Church Stretton, Salop, to Margaret Elizabeth, youngest daughter of the late Matthew Webb, M.R.C.S., of Ironbridge, Shropshire.

BARROLL—PEACOCK.—On Nov. 2nd, at St. Peter's, Brighton, George William Barroll, late Army Medical Staff, to Annie Sophia, daughter of Edward Peacock, of Chivalry-road, Wandsworth-common.

BARTON—GOOLD.—On Oct. 30th, at St. Mary Magdalen's, Brighton, George Alex. Heaton Barton, Surgeon, to Matilda Mary Goold (Ellora), youngest daughter of the late Francis Goold, Surgeon, H.M. Bombay Army, and step-daughter of the late J. R. Roe, M.D., of Bridgnorth.

CHEETHAM—DAWSON.—On Oct. 31st, at St. Oswald's Church, Guiseley, near Leeds, W. H. Cheetham, M.D., to Louie, elder daughter of the late Smith Dawson.

LIMRICK—TAIT.—On Oct. 31st, at St. Mary-in-the-Castle, Hastings, Osborne Edward Barber Limrick, L.K.Q.C.P., L.R.C.S.I., Liverpool, to Mary Jane, fourth daughter of Sir Peter Tait.

MURRAY—DUNNE.—On Oct. 8th, at Graaff Reinet, Cape Colony, George Everitt Murray, M.B., F.R.C.S., eldest son of W. G. Murray, Esq., of Roode Bloem, to Kathleen, second daughter of Capt. J. J. Dunne, late Governor of Castlebar Prison, County Mayo, Ireland.

TATE—WHITE.—On Oct. 3rd, at Bangalore, Alan Edmundson Tate, Surgeon, Medical Staff, third son of the Rev. C. R. Tate, B.D., Rector of Trent, Somerset, to Zaidée, third daughter of Frank White, Esq., The Widenings, Loughborough.

DEATHS.

CRADDOCK.—On July 25th, at Kalanea, Kanai, Hawaiian Islands, of rheumatic fever, Sydney Ernest Craddock, M.R.C.S., elder surviving son of the late Surgeon-Major William Craddock, B.M.S.

FENTON.—On Oct. 31st, at 89, Asylum-road, S.E., George Fenton, M.R.C.S., late of Westminster and Hastings, in his 63rd year.

MCCHEANE.—On Nov. 3rd, at his residence, Shaw-street, Liverpool, William McCheane, F.R.C.S., in his 59th year.

ROCHE.—On Nov. 5th, at his residence, 78, St. Stephen's-road, Norwich, John Roche, M.D., aged 74.

SPENCE.—On Nov. 5th, at Woburn-place, London, W.C., Surgeon-Major James Atkinson West Spence, late H.M. Madras Medical Establishment.

STORRS.—On Oct. 30th, at his residence, Hall Gate, Doncaster, after three days' illness, Robert Storrs, M.R.C.S., &c., in the 54th year of his age.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, November 11.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Marmaduke Sheild: A case of Cerebral Abscess due to Ear Disease evacuated by the Trephine.—Dr. Ewart: Pneumothorax and the Value of its Treatment by Aspiration, with observations on the Composition and Pressure of the Gaseous Contents of the Pleura.

Tuesday, November 12.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Bland Sutton: A case of Ruptured Tubal Pregnancy, with remarks on the Cause of Early Rupture.

Wednesday, November 13.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.—4 P.M. Dr. James E. Pollock: On the Medical Selection of Lives for Assurance.

HUNTERIAN SOCIETY.—8 P.M. Clinical Evening. Mr. Clement Lucas: (1) A case of Intussusception cured by Inversion and Inflation; (2) Recurrent Orchitis in a Gouty subject.—Dr. Turner: A case of Hemiatrophy of the Tongue.—Mr. Poland: Case of Amputation through the Knee-joint. And other cases.

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Ordinary Meeting.

Thursday, November 14.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK, E.—4.30 P.M. Dr. Heron: On the Question of the Contagiousness of Consumption.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Patients and Card Specimens at 8 P.M. Mr. C. Wray (introduced): A form of Conjunctivitis.—Mr. Silcock: Anomalous Position of the Ciliary Processes, conjoined with Shrunken Lens and Persistent Capsulo-pupillary Membrane.—Mr. Doyne: Recovery from Hemianopsia, with subsequent Autopsy.—Dr. James Anderson: Homonymous Hemianopsia, recovery, subsequent death and autopsy.—Mr. Priestley Smith: On the Size of the Cornea in relation to Age, Sex, Refraction, and Primary Glaucoma.—Prof. Snellen of Utrecht (introduced): New Methods of Treatment for (1) Symblepharon, (2) Ptosis, (3) Episcleritis.—Mr. J. Tatham Thompson: Note on a case of Hereditary Tendency to Cataract in Early Childhood.

Friday, November 15.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—9 P.M. Prof. Hausen Grut of Copenhagen: Anomalies of the Positions of the Eyes. (Bowman Lecture.)

Saturday, November 16.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, November 7th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Nov. 1	29·64	S.W.	50	49	84	56	44	·04	Raining
,, 2	29·90	W.	42	41	82	55	41	·06	Bright
,, 3	29·83	S.W.	50	49	..	54	42	·04	Raining
,, 4	29·81	S.W.	52	50	68	56	49	·20	Overcast
,, 5	29·92	N.W.	39	38	58	49	38	..	Foggy
,, 6	30·31	W.	46	45	58	53	38	..	Foggy
,, 7	30·50	W.	44	43	58	49	42	..	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

TREATMENT OF CARBUNCLE BY CARBOLISED SPRAY.

To the Editors of THE LANCET.

SIRS,—A few months back several letters appeared in the medical papers on the treatment of carbuncle by carbolised spray. I first saw this treatment recommended about two years ago (I forget by whom), and have since used it many times with the best possible results. Several of the carbuncles were on the face, and had they suppurated freely would have caused serious disfigurement. The spray was used night and morning, and carbolic lotion constantly applied instead of the usual poultices. I should like to hear the result of the subcutaneous injection of the carbolic acid, what strength is best to use, and if it causes much pain? I am, Sirs, yours truly,

October 30th, 1889. M.R.C.S.

C. M.—The appointments of medical officers to the Prison Service (convict or local) are appointments to the Civil Service of the country. Medical officers are not allowed to engage in private practice. The salary of an assistant surgeon begins at £250 and rises to £300. The salary on promotion to medical officer ranges from £300 to £600. A house is also given. They are entitled to pension on the Civil Service footing after ten years' service, if invalided or if sixty years of age. Further information can be had by applying to the Directors of Convict Prisons, Home Office, Whitehall, S.W.

Mr. H. Knowles.—There is a large number of works on the subject. But perhaps as valuable as any published is the series of articles by Dr. F. J. Mouat which appeared in THE LANCET of June 4th, 1881, and several succeeding numbers.

Mr. Aden Havenhance.—Such diplomas are not yet registered. Fees could not be recovered on the strength of those qualifications.

Hypatia.—The letters L.R.C.S.Ed., with others, follow the name in the Medical Register.

NURSES AT HONG KONG.

To the Editors of THE LANCET.

SIRS,—While so many efforts are being made to improve the condition and prospects of hospital nurses, the following paragraph in the annual report of the senior colonial surgeon of Hong-Kong is worthy of note. "Five French sisters of mercy will shortly arrive as nurses to the hospital." It will, no doubt, be an advantage to have trained female nurses in the Hong-Kong Government Hospital, but the only possible reason for having French sisters of mercy is that they can be imported more cheaply than English nurses. This, however, is surely not a sufficient reason for filling Government appointments with Frenchwomen, when there are hundreds of Englishwomen thoroughly trained to hospital work seeking employment. I am, Sirs, yours obediently,

Oct. 24th, 1889. M.D.

QUEEN ELIZABETH'S PHYSICIAN.

To the Editors of THE LANCET.

SIRS,—It may interest some of your readers to know that I have an official record, dated 1620, of the grant of a coat of arms by Queen Elizabeth to Richard Masters, M.D., her physician, in the year 1568; the original grant having been also accompanied by the more substantial gift of very considerable property—namely, the site of the Abbey of Cirencester, with lands in fifteen counties.

Dr. Masters was educated at All Souls' College, Oxford, admitted to the degree of M.D. in 1554, and installed Prebendary of Fridaythorpe in the Cathedral of York in 1562. He came of a Kentish family, and his heirs have lived at Cirencester Abbey from that time to the present. Sir Walter Scott, in his "Kenilworth," chap. xv., alluding to Dr. Masters, makes the Queen say, "There is at no Court in Europe a man more skilled in this holy and most useful science [of medicine] than Dr. Masters." The pedigree attached to the record shows that many members of his family have been fellows of their colleges at the universities, and otherwise very distinguished. William Masters, his cousin, Fellow of King's College, Cambridge, became orator at the University in 1563, and in that capacity received Queen Elizabeth when she visited Cambridge. He was a man of parts and eloquence, had travelled in France and Italy, and was a modern as well as a classical linguist.

Robert, son of the doctor, Fellow of All Souls', LL.D., Principal of St. Albans Hall, was Chancellor of the Diocese of Rochester, and afterwards of Lichfield and Coventry, and Thomas, another son, Master (or, as it was then termed, Minister) of the Temple at London. Michael, named in the deed, held the honourable office of Marshal of the Hall to King James; and William, the doctor's great grandson, was Fellow of Merton College, and appointed Prebendary of St. Paul's in 1666. Robert Masters, B.D., Fellow of Corpus Christi College, Cambridge, Rector of Landbeach in 1756, and my maternal great grandfather, wrote the history of his college, and was a Fellow of the Society of Antiquaries.

The deed referred to reads as follows: "Be it remembered that these arms beneath depicted were granted and confirmed unto Richard Masters, Doctor of Physic and Physician to Queen Elizabeth, the son of Robert Masters of Wissborough, in the county of Kent, with the consent and approbation of the high and mighty Prince, Thomas Duke of Norfolk and Earl Marshal of England, by letters patent, under the hands and seals of Sir Gilbert Dettrick, Knight, *alias* Garter Principal King of Arms; Robert Cooke, Esq., *alias* Clarenceux, King of Arms of the East and West parts of this Realm of England from the river of Trent southward; and William Flower, Esq., *alias* Norroy, King of Arms of the North parts of this Realm of England from the said river of Trent. Dated on the first day of December, Anno Dni. 1568, in the 10th year of the reign of Queen Elizabeth; exemplified at the request of Michael, Master of Wissborough, in the county of Kent, Gent., Marshal of the Hall to our Sovereign Lord King James, and sworn Servant to His Matie. Ratified and confirmed under the seal of the General Office, and testified under the bond of Sir William Segar, Knight, *alias* Garter Principal King of Arms. 20th Maii, Anno Dni. 1620."

Arms: A lion rampant guardant, tail forked, or., supporting between his paws a rose, arg.; stalked and leaved vert. Crest: Within a ring two snakes entwined and erect on their tails, endorsed az. Motto: Virtute et ingenio. I am, Sirs, yours truly,

Hull, Oct. 19th, 1889. T. M. EVANS.

Stoker.—We believe the Board of Trade do not issue instructions as to the examination of the sight of railway officials. The tests usually adopted in the services will be found in Sir T. Longmore's work, the "Illustrated Optical Manual," published by Longmans.

Dr. T. Harris.—We hope to find room for the Lectures in the course of two or three weeks.

CYCLING.

To the Editors of THE LANCET.

SIRS,—With reference to perineal pressure produced by cycle saddles, I wrote a few months ago pointing out the defects of the usual form of cycle saddle, and remarking on its dangers. I found the matter so serious that I was afraid I should have to give up cycling. I am happy to say, however, that I have now a saddle which entirely prevents perineal pressure. I got it at the last Stanley Show at the Crystal Palace. It is "Captain Pattisson's," and is a very peculiar saddle. I may add that I tried and looked at several other saddles at the Show, but could not find one which relieved the pressure, though several were stated to do so. I shall be happy to show anyone interested my saddle. I am, Sirs, your obedient servant,

E. D. TOMLINSON, M.D.

St. James'-road, Upper Tooting, S.W., Nov. 2nd, 1889.

Mr. W. D. Dietz (San Francisco).—Medical officers retiring from the service at their own request before completing twenty years' service on full pay may receive a gratuity of £1250 after ten years' service, £1800 after fifteen years', or £2500 after eighteen years' service, if specially recommended by the Commander-in-Chief and approved by the Secretary of State. No gratuity is given under ten years' service; after twenty years' they become entitled to a daily rate of retired pay.

Dr. A. Leitch (Gourock).—The words "scarlet fever and scarlatina" should have been placed within inverted commas, to signify the way in which the report was circulated in Plymouth and its vicinity.

T. K. D.—We shall be pleased to receive the paper.

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THE ITALIAN MEDICAL CONGRESS.

MESSRS. HEARON, SQUIRE, AND FRANCIS call our attention to the fact that St. Marco Lithia Water, which they conceive to be included in Signor Cantani's general condemnation of Italian waters, quoted in our last issue (page 935), obtained a silver medal at the above Congress.

Mores, M.R.C.S.Eng.—We should recommend no measures to restrain—rather such as would encourage—the gentleman in question to complete his qualification. Its incompleteness does not prevent him practising in medicine, but it disables him from enforcing payment in medical cases.

Mrs. H. Stiff.—We are unable to assist our correspondent.

HOSPITAL CONSTRUCTION AND ADMINISTRATION.

To the Editors of THE LANCET.

SIRS,—Will any of your readers kindly give their experience of bedrooms for nurses being placed in the roof as attics (with dormer windows) over surgical wards? This is the intention of the committee of the hospital of which I am one of the honorary surgeons, and my feeling is that it is quite opposed to all modern and accepted views regarding hospital construction.—I am, Sirs, yours truly,

Nov. 4th, 1889. HOSPITAL SURGEON.

Perplexed.—The answer to the question depends on the nature of the contract between our correspondent and his principal. Speaking generally, it is understood that an assistant is prohibited from commencing practice in the town in which he has acted as assistant He could not do so honourably without the consent of the principal.

J. W. D.—We think there is likely to be danger of the kind indicated by the use of raw meat-juice.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Spencer Wells, London; Dr. A. Duke, Dublin; Dr. Savill, London; Mr. Mark Judge, London; Dr. J. W. Ogle, London; Sir J. Sawyer, Birmingham; Dr. Bell Taylor, Nottingham; Dr. Blackie, Glasgow; Mr. Hale White, London; Sir M. Mackenzie, London; Mr. F. Marsh, Birmingham; Dr. Herschell, London; Mr. M. Sheild, London; Dr. Leslie Phillips, London; Mr. Eve, London; Mr. W. D. Butcher; Mr. Bland Sutton, London; Dr. Lediard, Cardiff; Dr. Tims, London; Mr. Hine, Ealing; Dr. Gogarty, Canterbury; Mr. Craven, Kendal; Dr. Meeres, Plymouth; Mr. A. W. Shirley, London; Dr. Ewell, Chicago; Mr. V. Jackson, Wolverhampton; Dr. Blake, Yarmouth; Prof. Humphry, Cambridge; Mr. Hutton, Manchester; Mr. A. Wilson, Leytonstone; Dr. Stephenson, Boston, U.S.A.; Dr. W. Sharp; Messrs. Ewart and Sons; Dr. A. R. Paterson, Revesley; Mr. A. Bernard; Mr. Dietz, San Francisco; Mr. Bromley, London; Mr. Kühn; Messrs. Lambert and Co.; Mr. Frost, London; Mr. Irving, London; Dr. R. Newman, New York; Mr. Crichton, Gateshead; Mr. D. W. Roberts; Messrs. Clay and Sons, London; Mr. A. Wilson, Leytonstone; Messrs. Burgoyne and Co., London; Dr. A. J. Lindsay, Belfast; Messrs. Whitehead and Co., Manchester: Dr. J. M. Smith, London; Dr. Newth, Hayward's Heath; Dr. J. W. Matthews; Messrs. Spon, London; Messrs. Dakin Bros., London; Dr. H. Woods, Highgate; Mr. T. K. Douglas, Scone; Mr. Armitage, Grimsby; Dr. Howard, California; Messrs. Masters and Sons, London; Mr. C. W. Dulles, Philadelphia; Messrs. Rowntree and Co., York; Mr. Raven, Broadstairs; Mr. A. W. Macdougall, Richmond; Mr. Buck, Bromley; Dr. Rentoul, Liverpool; Mr. H. Briggs, Liverpool; Mr. Garner, Bradford; Dr. Gwynne, Sheffield; Mr. Hardwicke, Buffalo; Dr. Tomlinson, Tooting; Mr. K. Thornton, London; Mr. W. Fowler, London; Dr. Leitch, Gourock; Mr. Heim, London; Mr. Browning, Manchester; Mr. Lucas, Paris; Dr. Tomes, India; Mr. Lamond, Glasgow; Dr. Drysdale, London; Mr. Ballachey Chelford; Mr. Brice, Sheerness; Mr. Spitta, Clapham; Messrs. Lee and Martin, Birmingham; Mr. Schofield, Wisbech; Messrs. Keith and Co., Edinburgh; Mr. Saunders, Manchester; Mr. Hodges, New York; Mr. Saxon, London; Dr. Caiger, London; Messrs. Wright and Co., Bristol; Dr. Sainsbury, London; Messrs. Hearon, Squire, and Francis, London; Mr. Hordley, Stoke-on-Trent; Messrs. Wyleys and Co., Coventry; Dr. J. More, Rothwell; Mr. Bourchier, Sussex County Hospital; Mr. Jeaffreson, Newcastle-on-Tyne; Messrs. Orridge and Co., London; Dr. Hall, Brighton; Dr. R. V. Smith; Dr. McKeown, Belfast; Dr. G. Stoker, London; Mr. R. W. Boyd; Mr. Armstrong, Newcastle-on-Tyne; Mr. Radley, London; Mr. Hornibrook, London; Dr. Murrell, London; Mr. Maycock, Leamington; Mr. Hawkings, Woodstock; Dr. Leet, Bootle; Mr. Reid, London; Bonus, London; C. F.; M. O.; Secretary, School of Massage, London; Patent Borax Co.; M.D.; M.R.C.S.; C.M.; Perplexed; A Cicestrian; Sanitary Wood Wool Co., London; Spiro, London; A. B., Shrewsbury; Lady Superintendent, London; Doctor, Bournemouth; Secretary, London Temperance Hospital; General Infirmary, Gloucester; P. E.; I. C. H., Leeds; Hypatia; J. W. D.; Club.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Taylor, Notts; Dr. Adams, London; Mr. Eye, Pontypool; Messrs. Cheston and Peet, Birmingham; Mr. Hamilton, Bradford; Messrs. Blondeau et Cie., London; Mr. Ungent, Cookstown; Messrs. Woolley, Sons, and Co., Manchester; Mr. Hammond, Monkstown; Messrs. Maythorn and Son, Biggleswade; Mr. Hughes, Carnarvon; Messrs. Schweitzer and Co., London; Mr. Godfrey, Northampton; Mr. Wood, Leeds; Mr. Tully, Hastings; Mr. Brake, Wigan; Dr. Alexander, Newcastle-on-Tyne; Mr. Dixon, Gateshead; Mr. Wallace, Glasgow; Mr. Hay, Hull; Dr. Blandford, London; Mr. Tyte, Minchinhampton; Mr. Leet, Liverpool; Mr. Allsop, London; Mr. Williams, Oxford; Dr. Balby, Lahore; Mr. Cheetham, Leeds; Mr. Lawrence, Barnstaple; Mr. M. Evans, Penybont; Dr. Maynard, Erith; Mr. Bowlan, Newcastle-on-Tyne; Dr. Vernon, Somerset; Dr. Kennard, Berks; Mr. Hubbersty, Stamford; Mr. Dixey, Ipswich; Mr. Paul, Liverpool; Mr. Purland, Woolwich; Dr. Clouston, Edinburgh; Mr. Wellington, Shanklin, Isle of Wight; Mr. Martyn, Saltash; Mr. Roche, Norwich; Messrs. Bullock and Reynolds, London; Mr. Wright, Harrogate; Messrs. Savory and Moore, London; Dr. Walter, Manchester; Mr. Good, Scarborough Hospital; Dr. Wood, Gloucester; Dr. Marsden, London; Mr. T. Mark Hovell, London; Mr. Crickmay, Framlingham; Dr. Leckie, South Wales; Mr. Day, Staplehurst; Mr. Sangster; Mr. Spencer, Basford Union; Mr. Soper, Dartmouth; Mr. Simmons, Hyde; Mr. Heywood, Manchester; Mr. Forsyth, Glasgow; Mr. Morton, Glasgow; Mr. Dale, Weston-super-Mare; Mr. Livingston, Bristol; Mr. Brown, Westgate-on-Sea; Mrs. Land, Tunbridge; Dr. Bower, Bedford; Mr. Hamilton, Yorks; Dr. Mackay, Durham; Mr. Dixon, Openshaw; Mr. Huish, London; Messrs. Hooper and Co., London; Alpha, London; Z. A. B.; Membership, London; Perak, London; Royal Western Ophthalmic Hospital; Spero, London; M., London; Secretary, Royal Southern Hospital, Liverpool; P., London; M.R.C.S., Northampton; Perth District Asylum; C. P. T., Parkstown; Alpha, Durham; Euonymised Cocoa Co., Birmingham; M.D., Birmingham; Secretary, Flintshire Dispensary; Puck, London; E. J., London; Secretary, St. Thomas's Hospital; Q. E. D., London; Sister, London; Alpha, Leeds; Delta, London; X., Birkenhead; Spiro, London; Cerium, London; Y. A. J., London; K. B. D., London; Fractures, London; Secretary, Stamford General Infirmary; M., Hammersmith; Domus, London; Towcester Union; C. T. J., London; X. C., London; Northumberland County Asylum; L. S., Edinburgh; Enquirer, Bournemouth; West Herts Infirmary, Hemel Hempstead; M.R.C.S., Kennington; J. Murray's Royal Asylum, Perth; M. N., London.

Boston Guardian (Lincolnshire), Sunderland Herald, Surrey Advertiser, Reading Mercury, Mining Journal, Torquay Times, Weekly Free Press and Aberdeen Herald, Gazette de Charleroi, Carlisle Journal, Newsagent, L'Opinion Progressiste, Hertfordshire Mercury, Journal de Charleroi, Preston Chronicle, L'Union de Charleroi, Boston Herald (U.S.), &c., have been received.

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Clinical Lectures

Delivered to the Students of the

MANCHESTER ROYAL INFIRMARY

during the Summer Session, 1889,

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LECTURE I.

THE VARIETIES OF PULMONARY PHTHISIS.

GENTLEMEN,—I have chosen as the subject of to-day's lecture the "Varieties of Pulmonary Phthisis." We shall have to consider the subject from a purely pathological standpoint and also from the clinical aspect. It is necessary to consider this twofold aspect, because the physician has commonly adopted different terms and a different classification from that employed by the pathologist. The physician often employs terms to distinguish the varieties of phthisis which he recognises at the bedside, which terms are not found among those usually employed by the pathologist. This difference of terms is a very unfortunate one. It is not only extremely confusing to the student, and even to those possessed of considerable pathological and clinical experience, but also because it appears to be in great part unnecessary. If we can bring our clinical experience into accord with the pathological appearances seen on the post-mortem-room table, we shall more clearly understand the life history of the cases of phthisis which come under our observation.

We will look at the subject of the varieties of pulmonary phthisis firstly from the pathologist's point of view. Pathologists recognise two groups of cases of phthisis. The one group of cases, which is very much the larger one, owes its origin to the action of the specific germ of tubercle—the tubercle bacillus. The number of cases which do not owe their origin to the action of that micro-organism, and are therefore not included in the above group, are very few, and comprise only a very small percentage of the cases of phthisis. We have two groups, including espectively the tubercular and the non-tubercular cases of phthisis.

The tubercular class of phthisis comprises by far the majority of cases of phthisis which we meet with either at the bedside or on the post-mortem table. We see, however, great variety in the changes which are found in the lungs in different cases where the disease is advanced, and also differences in the seat of the commencement of the affection. From the differences which cases present, as regards the seat of the commencement of the disease, and from the different changes which bring about the phthisical destruction, pathologists have recognised different varieties of tubercular phthisis. Tuberculosis may commence in the lungs by changes within the alveoli or by changes outside the alveoli, in the alveolar wall or interstitial tissue. When the changes commence within the alveoli we have the variety of tubercular phthisis known as caseous or tubercular broncho-pneumonia; whilst, when the phthisical change first begins outside the alveoli, we have no term which accurately describes the change in all cases. The term that is most commonly employed to describe the cases of tubercular phthisis, where the first and principal change is outside the alveoli, is tubercular peribronchitis. The term, however, is not a very good one, because, although the tubercular process in these cases does probably very frequently begin around the small bronchial tubes, it does not do so in all cases, in some commencing in the alveolar wall, in others in the interstitial pulmonary tissue apart from the bronchi. We must, however, employ this term tubercular peribronchitis, in the absence of a better one, to describe those tubercular cases commencing not only round the bronchi, but anywhere in the interstitial tissue or alveolar walls, or where the chief change, even in advanced cases, is found in these positions. We thus have two varieties of tubercular phthisis: tubercular or caseous pneumonia, and tubercular peribronchitis.

Caseous pneumonia affects the lungs in one of two ways. It is met with in small isolated patches, as the disseminated or lobular caseous pneumonia, or it involves a larger area of lung tissue, may be the whole or greater part of a lobe, when it is known as the lobar variety of caseous pneumonia. The former is much the more common variety of the disease. Both varieties attack especially the uppermost part of one or other lung, and the disease commencing in the apex gradually involves a larger and larger area of pulmonary tissue. This extension of the disease is brought about partly by the gradual peripheric extension of the primary focus, partly by the development, in the neighbourhood of the first patch of disease, of similar secondary foci. Softening gradually ensues in these areas of consolidation, and, the softened material breaking into a bronchus, a cavity is formed, which increases subsequently in size. The rate at which these changes follow one another varies considerably. In some cases a very extensive tract of lung is rapidly broken down, as is seen in the acute cases of phthisis; or the process is a very slow and chronic one, the primary focus remaining limited to one apex for a long time and softening only slowly ensuing in it. Between these two extremes of very rapid and of very slow progress we meet with great variety as regards the rate of extension of the disease. The microscopical changes in cases of caseous pneumonia consist especially in changes within the alveoli. An exudation ensues into the alveoli, and that exudation subsequently undergoes caseation. The character of the exudation varies in different cases and in different parts of the same patch of consolidation. In some parts the exudation is rich in cellular elements, the alveoli are full of cells, some indistinguishable from ordinary leucocytes, others larger and of a more epithelial type, similar to the large cells seen in acute catarrhal pneumonia. In other parts of the consolidated patch, and often mixed up irregularly among alveoli containing the cellular exudation, are other alveoli containing an exudation rich in fibrine. The relative number of the alveoli presenting this fibrinous exudation varies considerably; but in some cases the consolidation of the lung is chiefly effected by such an exudation, and, at first sight, sections taken from such portions of lung have a close resemblance to sections taken from a case of ordinary acute croupous pneumonia. This exudation in caseous pneumonia differs from that of acute croupous pneumonia in that, at some part of the patch of consolidation, signs of caseation can be recognised. The exudation becomes more and more homogeneous in appearance and stains diffusely with logwood, whilst at the same time the outlines of the alveolar walls become lost, and several alveoli appear to be thrown into one large space, where the fibrine is seen to persist often until a remarkably late stage of the disease, and when caseation is considerably advanced.

In addition to this change in the alveoli in caseous pneumonia, we always meet with other changes in the walls of the alveoli and in the interstitial tissue of the lung. The gradual disappearance of the alveolar walls separating the alveoli, containing the above described exudation, from one another has been already mentioned. In addition, the alveolar walls and interstitial tissue are thickened in different parts of the affected portion of lung. In some parts we have simply a small round-cell infiltration of the interstitial tissue, often more or less circumscribed in outline; in others, among these round cells are larger cells of an epithelioid type, and in other parts large typical giant cells are to be seen. We thus have in the interstitial tissue all the elements of tubercle. The relative amount of the exudation into the alveoli and of the changes in the interstitial tissue varies in different cases. We shall see that it is in the cases of tubercular peribronchitis that this interstitial tuberculosis is the prominent feature; but even in typical cases of caseous pneumonia we see a considerable amount of such change. The changes in the interstitial tissue lead in part to softening, in part to fibroid change, the formation of fibrous tissue. The amount of fibrous tissue so formed varies in different cases—the more chronic the case, the more fibrous tissue is formed in the lung. Fibrous tissue is formed not only in the interstitial tissue,

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but also in part by an organisation within the alveoli themselves, exactly as has been frequently observed in chronic croupous pneumonia.

Caseous pneumonia as above described accounts for the changes in the lungs in a large number of the cases of phthisis. It is especially well marked in the acute cases of phthisis, and the rapid destruction of the lung in galloping consumption is in great part due to this change. "Tubercular peribronchitis" is the name given to the other variety of tubercular phthisis. In many cases the name accurately describes the changes met with at an early stage of the disease; since in many cases, if not in the majority, the process begins by a tuberculosis round the smaller bronchial tubes. It is not, however, necessary that the process be confined to the immediate neighbourhood of the bronchi. It probably does in some cases commence elsewhere in the interstitial tissue or in the wall of the alveoli, so that under the term tubercular peribronchitis we understand a tubercular process which has its chief seat in any of the parts indicated. The changes in tubercular peribronchitis are similar to those described as affecting the interstitial tissue in the cases of caseous pneumonia. We have all the elements of tubercle formed in the interstitial tissue. Frequently the process commences round the smallest bronchial tubes by a small cellular infiltration, which thickens the wall of the bronchus, and gradually invades the surrounding parts. At a later period we find at various parts round-cell infiltration, with or without larger epithelioid cells and giant cells. We also have here again the formation of fibrous tissue, and as these cases constitute some of the most chronic cases of tubercular phthisis, we may meet with an excessive formation of fibrous tissue. It is these cases, where much fibrous tissue is formed, that sometimes closely resemble, clinically, true cases of fibroid or non-tubercular phthisis. In tubercular peribronchitis, although the change chiefly is in the interstitial tissue, we also get a variable amount of change in the alveoli of the character described under caseous pneumonia. In fact, cases of caseous pneumonia and of tubercular peribronchitis may be said to differ from one another only in the relative proportion of alveolar and the interstitial changes present. In all cases of tubercular phthisis we have changes within and without the alveoli; but, where the intra-alveolar change is the predominant factor, we speak of the case as one of caseous pneumonia; whilst where the interstitial changes predominate, we have to do with tubercular peribronchitis.

Both the cases of caseous pneumonia and the cases of tubercular peribronchitis owe their origin and nature to the tubercle bacillus. If we consider tuberculosis as a specific chronic inflammation, we shall have very little difficulty in understanding how it is that in some cases of phthisis we have to do chiefly with caseous pneumonia, in others with tubercular peribronchitis. In inflammation we meet with two chief changes—an exudation from the bloodvessels, and a proliferation of tissue elements of the part inflamed. In some cases of inflammation the one element predominates, in others the other element. So it is in tubercular phthisis. In some cases, as where we have caseous pneumonia, the exudation element is to the front; whilst in others the proliferation is most marked, and we see a phthisical lung presenting the appearances of tubercular peribronchitis. There is therefore no essential difference between these two classes of cases of tubercular phthisis. We have simply to do with a preponderance in one case of a change which is less marked, but still present to a certain degree, in the other case. The caseous pneumonia specially accounts for the acute cases of phthisis, whilst the tubercular peribronchitis is the factor which is most pronounced in the chronic cases.

We now pass on to consider the other varieties of phthisis besides the tubercular. Cases of non-tubercular phthisis are undoubtedly very rare as compared with the number of cases of the tubercular affection. By the non-tubercular form of phthisis we mean a phthisis which does not owe its origin to the action of tubercle bacilli. The best recognised cases of non-tubercular phthisis are the cases of so-called true fibroid phthisis. I say *true* fibroid phthisis because unfortunately some writers have used the term fibroid phthisis to embrace all cases of phthisis, whether of tubercular or non-tubercular origin, where there has been an extensive formation of fibrous tissue. It must be clearly understood that, in the course of these lectures, by fibroid phthisis is always meant a non-tubercular affection.

The actual existence of true fibroid phthisis has been repeatedly questioned, and although I have no doubt about the existence of such a disease, it is equally certain that many cases, which are diagnosed as belonging to that group, are really cases of very chronic tubercular phthisis, where there has been much fibrous tissue formed in the lung. Fibroid phthisis was formerly regarded as a much more common malady than it is believed to be at the present day, and probably the explanation of that fact is the one above given, that many cases so described were merely cases of chronic tubercular phthisis. True non-tubercular fibroid phthisis is an exceedingly rare affection. By true fibroid phthisis is meant a form of destructive inflammation of the lung where the whole or greater part of one organ is first transformed into a mass of fibrous tissue, in which cavities are subsequently formed. Such cavities are formed partly by a necrosis of the imperfectly nourished fibrous tissue, but chiefly probably by an ulceration of the bronchi running through the fibroid lung. The history of cases of true fibroid phthisis varies. In some cases there is an acute onset to the illness, with a subsequent chronic course of the disease; in others the affection is chronic from the very commencement. This difference in the history of such cases can be traced to the manner in which the fibroid condition of the lung has been brought about. We can recognise three varieties of fibroid phthisis, varieties which differ in the mode in which the fibrous change has been effected. These three varieties of fibroid phthisis are:—

1. Chronic croupous pneumonia.
2. Chronic catarrhal pneumonia.
3. Chronic interstitial pneumonia.
   (*a*) Primary (Corrigan's cirrhosis).
   (*b*) Secondary to inhalation of foreign particles (pneumono-koniosis).

Chronic croupous pneumonia is where a case of acute croupous pneumonia has not resolved, but instead the whole or part of a lung has become transformed into fibrous tissue. This is a rare termination for acute croupous pneumonia, but it is one which is well recognised, and on the patbology of which a considerable amount of work has been done. We have, in the course of the last ten years, had several cases in the pathological department of the infirmary, and I show you here a preparation from one of the cases. The fibrous tissue in these cases of chronic croupous pneumonia develops in part in the interstitial tissue of the lung, but in addition, also, we get an organisation taking place in the interior of the alveoli. The croupous exudation within the alveoli becomes replaced by fibrous tissue. In some cases of chronic croupous pneumonia the affected lung appears of a red, in others of a grey, colour, and hence pathologists have recognised a red and a grey variety of the disease. It is probable that the difference in colour depends upon the age of the affection, the grey representing a more advanced stage of the disease than the red.

Chronic catarrhal pneumonia is probably a very rare termination of acute catarrhal pneumonia. Where acute catarrhal pneumonia does not resolve and terminate in recovery, the most common change to ensue is for caseation to take place; in other words, for the case to become tubercular, and for the lung to present on post-mortem examination patches of caseous pneumonia. But in some cases, where resolution does not take place, it is probable that the lung does not become tubercular, but that, as we have seen in the croupous variety, fibrous tissue is formed, and portions of one or both lungs remain consolidated, the consolidation being due to the formation of the fibrous tissue. Probably there is such a disease as this non-tubercular chronic catarrhal pneumonia, but it is certainly a very rare affection, and, I believe, even more so than chronic croupous pneumonia. The most common unfavourable result of acute catarrhal pneumonia is for the case to become tubercular, and ordinary caseous pneumonia to be found after death. A much more rare result is for the case not to become tubercular, but for one variety of true fibroid or non-tubercular phthisis to develop.

Chronic interstitial pneumonia is a form of fibroid phthisis which has been much longer recognised than either of the above two varieties. It is a simple chronic inflammatory process in the interstitial tissue, which results in the formation of fibrous tissue. As a rule, one lung alone is affected, and it may be only the lower part of the lung. Probably,

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as before stated, many of the cases which have been described as belonging to this class have been really only very chronic cases of chronic tubercular phthisis, where there has been much fibrous tissue formed. Nevertheless, there are some cases of simple, non-tubercular, fibroid phthisis, which may be correctly placed in this class of chronic interstitial pneumonia. In some cases the disease begins without any known cause, and we then have the malady which we may term primary chronic interstitial pneumonia. This form is often known under the name of Corrigan's cirrhosis of the lung. In other cases the exciting cause of the chronic interstitial change has been the inhalation of some foreign particles, usually arising from the occupation which the patient has pursued. This class of secondary chronic interstitial pneumonia has been termed pneumono-koniosis. The most common varieties of fibroid phthisis comprised under this head are those seen in colliers from the inhalation of carbonaceous particles (anthracosis), those seen in stonemasons from the inhalation of particles of silica (silicosis or chalicosis), and those from inhalation of particles of the red oxide of iron (siderosis). It is necessary to remind you that not every case of phthisis seen in persons following the above occupations is to be classed as true fibroid phthisis. Colliers and stonemasons far more commonly suffer from ordinary tubercular phthisis than they do from anthracosis or silicosis respectively. It is noteworthy that although we are in the immediate neighbourhood of a large coal mining district, and in a district where a large number of stonemasons are employed, we exceedingly rarely ever see a case of true fibroid phthisis in colliers or stonemasons, but we not unfrequently see tubercular phthisis among such individuals.

A variety of phthisis termed pleurogenic phthisis has been described by many writers. It is one form of true non-tubercular fibroid phthisis, where we have a very thickened pleura and the lung itself in a condition of fibroid induration. It is especially noted in these cases that large bands of fibrous tissue stretch from the thickened pleura into the lung. The term pleurogenic phthisis is not a good one for these cases, as it probably does not accurately describe the changes which have effected the consolidation, and is apt to mislead the student on that point. It is not probable that the broad fibrous bands stretching from the pleura into the lung and the other excessive formation of fibrous tissue throughout the lung have arisen from a simple pleurisy which has spread inwards from the pleura. It is more probable that the thickened pleura owes its origin to simple pleurisy, and the induration of the lung to simple pneumonia—that, in other words, we have had to deal with a pleuro-pneumonia. In some cases these instances of pleurogenic phthisis would be classed among our rare group of primary chronic interstitial pneumonia; in other cases they should be placed in the class of chronic croupous pneumonia. It seems unnecessary to recognise by the special name of pleurogenic these cases of true fibroid phthisis.

It will be thus seen that fibroid phthisis may begin as an acute disease, either as acute croupous or as acute catarrhal pneumonia. In other cases it is chronic from the very commencement, the pathological anatomy then being accurately described as chronic interstitial pneumonia, which may be primary or secondary to the inhalation of foreign particles (pneumono-koniosis). Also that true fibroid phthisis is a very rare disease, and as compared with tubercular phthisis it comprises very few of the cases of phthisis.

It is possible that in addition to tubercular and to true fibroid phthisis we have another form of phthisis.

Destructive changes in the lungs are very common in cases of diabetes. In some cases of diabetes we have ordinary tubercular phthisis developing, in other cases true pulmonary gangrene supervenes. In a third series of cases where destructive lung changes occur in diabetics, we have to do neither with tubercular phthisis nor with true pulmonary gangrene. In such cases the clinical history and physical signs have many points of resemblance to other forms of phthisis, but one great and important difference is, that repeated examinations of the sputum reveal no tubercle bacilli. The pathological appearance, also, of such lungs is not that of tubercular phthisis, but often has a more close resemblance to some forms of pulmonary gangrene. These cases have been termed the non-bacillary phthisis of diabetics. They are very interesting from a pathological point of view, and it is very difficult to classify them when speaking of the varieties of phthisis. We cannot escape from the conclusion that diabetics are subject to a form of phthisis which is non-tubercular. Our difficulty is to know where to place such cases. I believe that some of the cases described as the non-bacillary phthisis of diabetics, are really varieties of chronic croupous pneumonia, and would consequently come under our heading of fibroid phthisis in a pathological classification. In other cases, which cannot be described as forms of chronic croupous pneumonia, we get a subacute ulcerative process in the lungs of a non-tubercular nature. In the present state of our knowledge it seems best to place this last group of cases in a separate class, and to recognise them as cases where we have a subacute ulcerative process in the lung which does not owe its origin to the action of the tubercle bacillus. Our classification of phthisis will consequently be as follows:—

- I. Tubercular phthisis
  - 1. Caseous pneumonia.
  - 2. Tubercular peribronchitis.
- II. Non-tubercular phthisis
  - A. *Fibroid phthisis*
    - 1. Chronic croupous pneumonia.
    - 2. Chronic catarrhal pneumonia (ending in simple fibroid induration).
    - 3. Chronic interstitial pneumonia.
      - (*a*) Primary (Corrigan's cirrhosis).
      - (*b*) Secondary (pneumono-koniosis).
        - (1) Anthracosis.
        - (2) Silicosis &c.
  - B. Non-bacillary phthisis of diabetics

Probably some cases of true fibroid phthisis become at a late stage tubercular, the tubercular process becoming as it were grafted on the simple chronic inflammatory condition which first led to the induration of the lung. It seems very probable that a lung, the seat of simple chronic fibroid induration, might be a favourable seat for the settlement and development of tubercle bacilli. Although this secondary development of tubercle in a lung, the seat of fibroid induration, is very probable, it is a very difficult one to prove conclusively.[1]

The relation of phthisis to pneumonia will possibly have been comprehended from the foregoing remarks. Frequently, however, students have great difficulty in understanding that relation, so possibly the tabular statement on the following page may make the subject more clear.

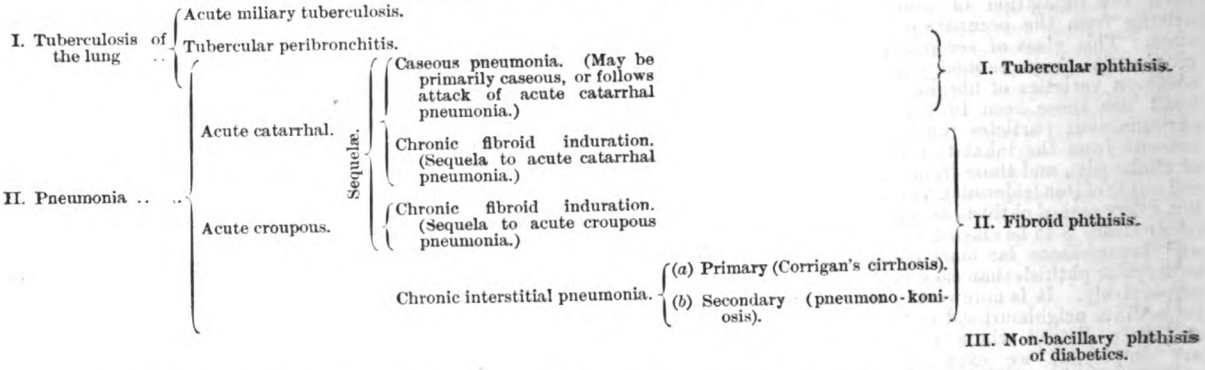
If we now direct our attention to the clinical aspect of the question of the varieties of phthisis, we are at once met with the difficulty caused by the different classifications which have been adopted by different clinical observers. You will frequently meet with such terms as "pneumonic phthisis," "apex catarrh," the "tubercular form of phthisis," and "fibroid phthisis," employed by different clinical observers. Some of these terms you will notice have not been heard of when we were considering the varieties of phthisis from the purely pathological aspect, and other terms used by these clinical authorities are employed in a very different sense from what we have used them in our pathological considerations. For instance, by the "tubercular form of phthisis" the physician has described not all forms of tubercular phthisis, but one variety of tuberculosis of the lung, which has certain clinical features. Also "fibroid phthisis" has been applied not only to true non-tubercular fibroid change in the lung, but also to all forms of tubercular phthisis, where there has been much fibrous tissue developed; and, further, in clinical works we still frequently meet with the term "apex catarrh." This last term appears to me to be specially unfortunate, and to be very misleading. It is probable that in all the cases described as "apex catarrh" we have to deal with a more extensive and serious affection than the term would be thought to apply to. That in such cases there is already, at the time the diagnosis of "apex catarrh" is made, a true tubercular consolidation of a limited portion of the apex, although the indications of that consolidation may be very indefinite.

[1] A case which I published (Journal of Anatomy and Physiology, 1881) some years ago was probably a rare instance of the grafting of tubercle on a lung which had previously become completely consolidated by chronic croupous pneumonia

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It appears to be very desirable that we should select some classification for clinical purposes which will not be out of harmony with the pathological one which we adopt; and we should seek some method of classification which will as nearly as possible correspond with the varieties of phthisis seen on the post-mortem-room table. The following is a very simple classification, which, in the present state of our knowledge, will probably be found to be more useful than classifications including a larger number of varieties. The basis of the classification is the fact whether the phthisis is a tubercular or a non-tubercular one, and the sub-varieties depend upon the acuteness or chronicity of the case.[2]

Table showing the relation of Phthisis, Tuberculosis, and Pneumonia to one another



Clinical Classification of Phthisis.

I. Tubercular phthisis	(*a*)	Acute.
	(*b*)	Subacute.
	(*c*)	Chronic.
II. Non-tubercular phthisis ...	(*a*)	Fibroid.
	(*b*)	Non-bacillary phthisis of diabetics.

The first group (I.) comprises the great majority of the cases of phthisis. It comprises all cases which owe their origin to the tubercle bacilli, and so corresponds to the class of tubercular phthisis in our pathological classification. It includes the cases described in the pathological list as caseous pneumonia and those as tubercular peribronchitis.

The acute tubercular phthisis (I. *a*) includes the very acute cases of phthisis, the cases of so-called galloping consumption; cases which run a fatal course in from a few weeks to a few months. The chronic tubercular phthisis (I. *c*) includes the cases of phthisis of bacillary origin, which last a considerable time, cases which vary from two years to ten, or even in rare cases fifteen or twenty years in their duration. The cases which last a very long time are associated with the formation of much fibrous tissue, but, nevertheless, if they are of tubercular origin, they are placed here, and not under the head of fibroid phthisis. The subacute class of tubercular phthisis (I. *b*) includes those cases which are intermediate in their duration between the acute and the chronic cases.

The class of non-tubercular phthisis includes all the cases of phthisis which do not owe their origin to the tubercle bacilli. It has two sub-divisions, the fibroid phthisis and the non-bacillary phthisis of diabetics. The sub-group (II. *a*), fibroid phthisis corresponds exactly to the fibroid phthisis in the pathological classification. It includes all cases of chronic fibroid induration of the lung of a non-tubercular nature. Clinically, these cases of fibroid phthisis are chiefly characterised by their long duration, by the absence of pyrexia during the greater part of their course, and usually by only one lung being affected (may be only the lower lobe of one organ), and by the absence of tubercle bacilli from the expectoration, even after that has been repeatedly examined for those organisms. Cases of very chronic tuberculosis of the lung, where there has been much fibrous tissue formed, are therefore not included under this heading of fibrous phthisis. It is to be remarked, however, that some cases of very chronic tubercular phthisis have many of the clinical characteristics of true fibroid phthisis. The resemblance between these cases is sometimes so close that we can only satisfy ourselves that the case is not one of true non-tubercular fibroid phthisis by the discovery in the sputum of tubercle bacilli. I show you here such a case; it presents a unilateral affection of the chest, which is running an apyrexial course, where there is evidence of consolidation of the whole of one lung with excavation in parts, and where the man is very well nourished although the disease has been in progress for the past seven years. The case presents, in fact, the features of fibroid phthisis; but although the sputum was examined seven times for tubercle bacilli, with negative results, the eighth examination revealed a few undoubted bacilli. So that the case is one, not of true fibroid, but of very chronic tubercular phthisis. It is probable that many of the cases which have been described as examples of fibroid phthisis, and of that variety known as Corrigan's cirrhosis of the lung, were cases similar to this one and were really instances of very chronic tubercular phthisis with the formation of much fibrous tissue. Sufficient has already been said in reference to the non-bacillary phthisis of diabetics, and also as to the possibility of a case of non-tubercular fibroid phthisis afterwards becoming tubercular, when speaking of the varieties of phthisis from a pathological aspect.

[2] It must be noted that the sub-varieties depend upon the course of the disease, and not upon its mode of onset, since cases of chronic phthisis not unfrequently begin very abruptly.

Clinical Lecture

ON

MASSAGE SCOOPS AND IRRIGATION IN THE EXTRACTION OF CATARACT.

Delivered at the Ulster Eye, Ear, and Throat Hospital.

BY DR. McKEOWN.

(*Concluded from page 785.*)

IN my desire to reach the fundamentals in relation to massage as a force to remove cortex I may not have conveyed a full idea as to this method. I now supply the want. Massage is of different kinds. It may be a circular friction or rubbing through the eyelids, so as to affect the peripheral part of the lens and bring the cortex into the pupil, but in my former remarks I was not concerned with this harmless procedure, but with the power of massage to remove sticky and resistant cortex into and through the wound. I have now finished the argument in relation to the physical and theoretical side of the question; but theory and practice do not always agree, for theory may be quite sound whilst practice may lead to results quite different from what might have been reasonably expected. Of course practice is at a disadvantage because of so many sources of error which theory has overlooked; for, assuming that physical laws and theory settled that injection and irrigation were the most rational methods, still we would have to consider: (1) The possibility of the introduction of germs inside the eye; (2) the possible irritation of the iris from injection and irrigation; (3) whether irrigation or

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injection is not attended with a larger percentage than usual of loss of vitreous. I shall now answer these questions. With the precautions I take there is little chance of the introduction of germs into the eye. In forty-seven intraocular injections in the year 1888 I have not had a single case of panophthalmitis or suppuration of the corneal wound. In the last four years I have irrigated or injected 177 times, and have had four losses by panophthalmitis, but I cannot attribute even one loss to irrigation. One was caused by a lacrymal affection, one occurred three weeks after the operation on snipping off vitreous which I found in the wound on the sixth day, and did not retract; one began in the wound six days after the operation; and one occurred in an unmanageable patient with traumatic cataract, who would not be quiet, but removed the bandages and inspected his eye. As to the irritation of the iris and consequent iritis, comparing my experience of the last five years in operations of the most varied kind—operations many of which, according to current views, I should not have performed,—I have not had more, but perhaps less, iritis than when I carefully selected my cases during the previous thirteen years of my practice. But I cannot go into this matter minutely, as in statistics dealing with small differences, to be of real value, one must not only weigh the numbers but investigate each case. I can speak very definitely about the loss of vitreous. In the first years of irrigation and injection the losses were above the average, but that is not strange for a new method. In the year 1888, in forty-six irrigations, exclusive of irrigation in traumatic cataract, I have had only one real loss, and in another case a bead of vitreous appeared in the wound, which I could not call a loss, and in the present year I have not had a single loss. I think I have now in this matter a record which equals that of the best of the operators who only operate on ripe cataract.

And now I wish to contrast my practice with that of other ophthalmic surgeons in dealing with patients. To a patient with a striated cataract, or a cataract with facets of transparent cortex, an ophthalmic surgeon with old notions usually says, "Your cataract is not ripe; it will be in a month or two, come back then." In such a case I say, "I will operate on you now." To a patient with a very slowly progressing cataract going on a number of years, but leaving him sufficient vision to go about, and read large type, and even very small type close to the eye, the ophthalmic surgeon with old ideas says, "Your cataract is unripe, and may be so for years; come back in some time, and if the disease have advanced sufficiently I will operate." I say in a like case, "If you have means to live and a contented mind, you may go about without an operation; but if you have not, I advise an immediate operation."

I now call your attention to various points subsidiary in a sense, but still very important in relation to the removal of cortex. I have only spoken of irrigation and injection in relation to removal of cortex after expulsion of the nucleus, or of so much of the lens as can be expelled by pressure; but there is another form of injection which I frequently practised at first, and to which I referred specially in my address to the British Medical Association in Belfast in 1884—viz., the injection by a fine needle inside the capsule before the expulsion of the body of the lens, to break up sticky and transparent cortex, and make extraction more perfect and easy. I afterwards abandoned that method because of the apparent capability of irrigation to remove any sort of cortex after expulsion of the nucleus, iridectomy having been performed. Lately, however, since the reintroduction of operation without iridectomy, I have returned to the method of injection inside the capsule by the fine needle, especially in cases of sticky cortex, in which I do not perform iridectomy. I also do it in cases of transparent cortex, in which iridectomy is performed. I consider this method has a good future, but I shall not further now refer to it. Should iridectomy be performed as a rule, or only in exceptional cases? There is no doubt that an operation without iridectomy is better than one with iridectomy, assuming that the cataract is one which can be easily removed, that the iris does not prolapse in the wound, and that the patient can be relied on for quietude after the operation. It causes less traumatism. There is no vascular structure injured, except one might say the iris was bruised in the expulsion of the lens, but I think far too much importance is attached to this. Indeed, in the old days bruising of the iris was the alleged cause of inflammation, but the real cause was usually retained cortex. The rule I follow is this. If the patient be quiet, if the lens be one which the surgeon can clear out by preliminary injection by a fine needle and by irrigation or injection after expulsion of the nucleus without iridectomy, then iridectomy should not be performed.

If the cataract be very unripe, and if at the time of the operation it is evident that the iris does not show contractile power, but tends to go into the wound, then an iridectomy should be performed. When a patient during the first stage of the operation shows want of control, then iridectomy should be performed before expulsion of the nucleus. When a patient loses control after expulsion of the nucleus and the iris comes into, or tends to come into, the wound, then iridectomy is a very hazardous proceeding. I have thought of how to meet this difficulty. Chloroform and ether are out of the question because of the struggling and congestion. I have determined in such a case to have nitrous oxide gas administered. It produces lividity from want of aeration of the blood, but no congestion, usually no struggling, and the eye looks down when the patient is completely under its influence, just in the best position for performing an iridectomy. I have had the apparatus for administration, but I am glad I have not had yet to use it.

Should injection or irrigation be made by introducing the nozzle inside the capsule of the lens or only from the exterior by depressing the sclerotic edge of the section? This depends entirely on the character of the cataract, for if the surgeon operate only on ripe cataract, he may wash out the residue by irrigation from the outside; but if the surgeon operate on obviously unripe cataract, or if he operate on a cataract presumed to be ripe, but which turns out resistant, then he may have to introduce the nozzle of the syringe or irrigating bottle into the eye. The superiority of irrigation with the nozzle inside the eye over irrigation from the outside you have just lately seen in the case of Owen M——. He had an unripe cataract, an anterior synechia, and some corneal opacity. Irrigation from the outside had no effect, but when I introduced the nozzle inside the capsule of the lens the whole of the cortex was instantly removed.

Is the electric light of advantage for eye operations? I think it of much advantage for my operations, and I therefore use it. It allows the operator to see masses of transparent or semi-transparent cortex, particularly after iridectomy, very well, and when a haze is shown by it over the pupil the operator may determine, especially when irrigation is used, whether the haze is owing to the capsule or to a film remaining after blood in the anterior chamber, and not to retained cortex, and thus stop needless efforts to attain perfection.

After all I have said to you, still the question of the relation of intraocular irrigation and injection to unripe cataract is the cardinal one for progress in this department of ophthalmic work. Though I may follow, for the purpose of comparison, the dicta of ophthalmic surgeons in regard to what are called unripe cataracts and call them unripe, yet I affirm that many cataracts supposed to be unripe for ordinary operations are quite as ripe as many operated on. Unripeness is a relative term. It has no substantial positive signification in itself. It simply shows the want of resource of the surgeon. Indeed in the old days, when depression and reclination were the rule, soft cataracts which we much like to operate on now by extraction were thought to be unripe because they could not be depressed—that is, they were unripe for the operation for the time being in vogue.

When I look at the various and changing elements in my operative work since the spring of 1884, I find it very difficult to frame short statistics, especially as cases must be weighed rather than counted. I have operated with and without injection or irrigation, with and without iridectomy, with and without injection inside the capsule by a fine needle; I have operated on cataracts ripe, over-ripe, striated, with transparent facets, with periphery quite clear and only a cloud in the centre, incipient, posterior polar—in fact, there is no grade or condition of cataract on which I have not operated. It is difficult to make things clear to you with such a multiplicity of details. I shall limit my examination to the last year, as representing my present practice and results. But I do not include traumatic cataract, as no generalisation can be made in that branch of operative work, and I omit an almost hopeless case, in which there was retinal detachment.

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In 1888 I operated on twenty-six ripe cataracts, and in eighteen of these I did not perform iridectomy; on fourteen cases of unripe cataract (striated cortex, and cortex with transparent facet), and in ten of these iridectomy was not performed; in six very unripe cases of cataract (embracing two posterior polar, one in which V = $\frac{1}{8}$, and three could count fingers at four feet) iridectomy was performed. Injection inside the capsule by fine needle was performed fifteen times—viz., ten times in cases of unripe cataract, and three times in very unripe. I have spoken before about one escape of vitreous and one threatened escape. I had only two secondary operations. I had two prolapses of the iris, one by accident and one without known cause, but both ended well; and now I come to the cases in which vision has not been restored. In one case in which there was some loss of vitreous in one eye the wound did not close for about six weeks. There was a negative result. In the other eye of the same patient the wound likewise did not close for upwards of six weeks. She could count fingers at twelve feet when I saw her last, but from what her medical attendant has told me since I fear that vision has diminished. I do not agree with members of the profession who now attribute all to germs, and seem to think if germs were banished we should have no disease at all. The case¶ I have just referred to was one of great want of reparative power. I saw a like case, but a worse one, some ten years ago. The cornes of one eye absolutely would not heal. After several weeks a sort of molecular loss of substance began at the wound, and went on till the cornea was destroyed, leaving a bulging vitreous. I fed him well for perhaps a couple of months, and operated on the other eye; but in this instance there was not slow molecular death, but a quick suppurative ophthalmia. The next case of loss is one of posterior polar cataract. I had performed preliminary iridectomy, and had used Förster's method without apparent effect on the opacity. I afterwards extracted, and everything went well for a fortnight, when an irritation began at the wound, the capsule became thickened, the iris adherent, and the vision diminished quite out of proportion to the external appearances. I found there was loss of retinal sensibility in the lower part. I had operated previously on her brother for a similar cataract with success, but I had previously needled it. Another case of misfortune is No. 41 in my report for 1888. It was a case of cataract of brownish centre, with peculiar yellowish-white striated ring peripherally, whilst the surface of the lens in the pupil was partly transparent. She could count fingers. I thought from previous experience that I might remove this lens without iridectomy, and I did so; the pupil closed by thickened capsule, but she could see bulk. I think if iridectomy had been performed the result would have been different. She may yet be improved. The loss of the eye in No. 28 in the report is one which no skill could prevent. The operation was completed, when suddenly the eye became tense, then iris and vitreous came into the wound, and the patient complained of severe pain. The eye was lost from intraocular hæmorrhage.

I have detailed my failures, and the circumstances. We must always look to advances, and the surest way of making them is to look fairly at the unfavourable cases and not hide or gloss over them; but, on the contrary, give them prominence, and try to face such cases more successfully on a future occasion. As to my successes, three have vision $\frac{3}{4}$ of normal; twelve, $\frac{1}{2}$; ten, $\frac{1}{3}$; three, $\frac{1}{4}$; ten, "excellent," and "very good"; one counts fingers at 12 feet; one, $\frac{1}{8}$; two congenitally blind till thirteen years of age are learning to see.

Now, gentlemen, I have little more to say, but I must give you a caution. You are not to suppose that irrigation and injection are very simple matters, and that anybody can do them straight off as a mere routine affair. Numerous failures of surgeons are doubtless to be charged to this cause. If the corneal section be made above, the surgeon must be prepared for the eye rolling upwards occasionally, and, if this take place, he must be expert in removing the nozzle. Although my losses of vitreous are very small, it is to me very evident that a surgeon who has had no experience may be alarmed by the sudden rolling upwards of the eye.

I have just a little to say on a personal matter. I thought that whatever credit or honour there might be attached to intraocular injection or irrigation I was fairly entitled to it; but I find that now in France there are discussions about priorities, and a large part of some papers and pamphlets is occupied with the subject. But whilst surgeons, doubtless, have injected inside the eye before me, I must claim the initiation, without any previous guidance or suggestion, and the carrying out and giving force and effect to the method of irrigation and injection. When I brought the matter before the profession in Belfast in 1884, in the presence of representatives from England, Scotland, Ireland, Germany, France, and America, not one knew anything or had ever heard of such a thing. A discussion about priority is, however, a compliment to the method and a presage of its value.[1]

ELEVEN CASES OF INTUBATION IN YOUNG CHILDREN.

By W. H. C. STAVELEY,

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(*Concluded from p. 949.*)

CASE 8.—Thomas G——, aged sixteen months, was admitted to hospital on April 13th. Previous history: Had been under treatment for chronic bronchitis for three months as an out-patient. On admission, at 9 A.M., there were loud snoring rhonchi, and signs of blocking of larger tubes. Fauces congested; no membrane seen. Temperature 99·8°. At 8 P.M. an attack of croupy dyspnœa came on, which increased towards midnight. Restless, and refused to swallow. An emetic was administered through a nose tube, followed by violent cough, and a large piece of membrane ejected without relief. Intubation was performed at 1.45 A.M. on the 14th. After a fit of coughing quieted down and slept well. At 11.30 A.M. recession returned, and inspiration was croupy. An examination was made, and the tube found to have slipped below the level of the vocal cords. It was readily withdrawn by means of the attached string, and a larger tube inserted with relief.—15th: The tube was coughed out at 5.15 A.M.; replaced at 6.15 A.M. Temperature 104·4°.—16th: Breathing rapid, but easy. Taking food freely. Crepitations at left base.—17th: Condition unaltered. Temperature 102·6°.—18th: Tube coughed out at 5 A.M.; replaced at 5.50 A.M.—19th: Tube coughed out at 2.15 A.M.; replaced at 3.15 A.M. Large quantity of mucus expelled. Coughed tube out again at 10.10 A.M.; replaced at 11 A.M. Much glairy mucus. At 5.40 P.M. the breathing was very bad; constant cough, with much rattling in chest. Tube removed, and tracheotomy performed, with great relief. Coughing ceased, and the child fell asleep. Temperature 105°.—20th: Died at 9.15 A.M.—*Remarks:* Necropsy refused by the parents.

CASE 9.—Mildred M——, aged four years and six months, was admitted to hospital on April 20th. Previous history: Under treatment as an out-patient for strumous ozæna for six months. Had never had any difficulty in breathing until the day previously to admission, when she awoke at 4 A.M. with much stridor and rapid breathing. Emetics were administered without relief, and during the evening she became very blue. On admission, at 4.30 P.M., the patient was breathing very rapidly, with stridor and retraction of ribs; colour and pulse good. Glands at angle of jaw enlarged; tonsils not enlarged, and no membrane seen. Temperature 99·4°. She was placed in a steam tent, and rapidly improved, the stridor diminished, and retraction disappeared. At 11 P.M. the dyspnœa returned, with marked stridor and retraction. An emetic was administered, followed by free vomiting, but very slight relief. At 12.30 (midnight) she became somewhat cyanosed, the retraction was very marked, and respiration rapid; sweating profusely. Intubation was performed, with immediate and complete relief. Temperature 99·4°.—21st: Slept seven hours and a half. The tube was coughed out at 12.45 (midday), and a definite piece of membrane was found in the lumen. Breathed well until 2 P.M., when dyspnœa returned, and the tube was

[1] In my desire to make a convenient syphon arrangement without the ordinary disadvantages of the syphon, I overlooked the law of hydrostatics that the pressure of the water would just be the same without the syphon-tube, for the pressure depends only on the depth and density of the liquid, and not on its quantity. The syphon-tube may therefore be dispensed with.

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replaced. Temperature 103·2°.—22nd: Slept ten hours. Numerous small pieces of membrane coughed up. Temperature 102°.—23rd: Breathing quite easy, the child bright and lively.—The 25th: Tube was coughed out at 6 A.M., and was not required again.—May 17th: Sent out well with exception of slight difficulty in swallowing and some hoarseness of voice.—*Remarks:* Intubated twice. The tube, twice coughed up, was worn three days and a half altogether. When last seen the voice was still slightly hoarse; there was also some paralysis of the soft palate.

CASE 10.—Frederick S——, aged sixteen months, was admitted to hospital on May 8th. One sister was admitted here on May 1st with nasal diphtheria. Previous history: Eight days previously to admission he was sick, had constant cough, and aphthous patches were noticed on the tongue. On the morning of admission his breathing became stridulous, he became blue once, and the mother stated that he was suffering from whooping-cough. On admission he presented the appearance of an ill-nourished child, suffering from frequent croupy cough, but with no definite paroxysms resembling pertussis. Occasionally there were slight retractions of the lower ribs, and much falling in of the episternal notch during inspiration. The tongue was covered with aphthous patches; one small follicular patch on the right tonsil; glands enlarged at the angles of the jaw. Temperature 99°. Tracheal breath sounds were conducted all over the chest.—9th: Constant cough, occasional attacks of dyspnœa, during which patient cannot lie down. No membrane seen.—10th: Condition unaltered in the morning, but towards evening he got much worse, refusing food and was fed by the nose. At 10.45 P.M. he had not slept all day; constant cough, restless, expression anxious, sitting up and clutching at the sides of the bed. Marked stridor and retraction; no cyanosis. Intubation was performed, with complete relief, after a fit of coughing which lasted ten minutes; he then fell asleep and passed an excellent night; took food well.—11th: At 1 P.M. much rattling below tube, so removed, cleansed, and replaced after half an hour's interval. Did not take food so well, but slept continuously, breathing quite easy.—12th: Passed a good night. Tube coughed out at 11.30 A.M. Definite membrane on tonsils; breathing very stridulous. Tube replaced at 11.40 A.M. Temperature 102°.—13th: Breathing quite easy, but general condition very feeble. Temperature 102·4°.—14th: Died, with no return of dyspnœa, the tube *in situ*.—*Remarks:* As in Case 1, intubation completely relieved the laryngeal symptoms. Permission for a necropsy was refused.

CASE 11.—George H——, aged five, was admitted to hospital on April 30th. Previous history: Had measles recently, and suffered from sore eyes ever since. On April 28th "seemed poorly and had a bad cough," and during the afternoon of the 30th had an attack of dyspnœa and became blue. An emetic was administered without benefit. On admission (9.15 P.M.) a fat boy, with livid face and blue lips, sweating profusely, crowing inspiration and marked retraction. No membrane seen, cervical glands enlarged. Temperature 102·6°. Intubated immediately, and after vomiting some blood-stained mucus and a violent fit of coughing quieted down and colour returned. 10.10 P.M.: Tube coughed out. Dyspnœa returned, and tube replaced at 10.23 P.M.—May 1st: Passed a good night. The temperature rose to 104°, and a profuse measles rash appeared. Trace of albumen in urine. 5.30 P.M.: Tube coughed out, and was not required again.—4th: Albumen disappeared.—7th: Acute follicular tonsillitis.—10th: Some fine shreds of doubtful diphtheritic membrane coughed up. Urine, one-sixth albumen.—21st: Albumen again disappeared.—25th: Sent out well.—*Remarks:* In this case there was extreme dyspnœa urgently requiring relief, and completely disappearing after twenty hours' intubation. The dyspnœa was probably due to the laryngitis of measles, but the somewhat persistent albuminuria and the doubtful shreds of membrane made the diagnosis uncertain. Out of eleven cases, ten of which were undoubtedly diphtheritic and one doubtful, though suffering from extreme dyspnœa, there were seven deaths and four recoveries. The average age of the fatal cases was sixteen months; the eldest was aged two years and two months; of those who recovered the average age was four years and four months.

In three cases, all of which were fatal, tracheotomy was resorted to, owing to the presence of large quantities of mucus obstructing the tube and giving rise to constant and ineffectual cough, the child being too feeble to expel it. It appears to me that the larger lumened tracheotomy tube gives a better chance than intubation in feeble children when there is broncho-pneumonia present with the diphtheria. The various forms of semi-solid food usually recommended were not used. In no case was any serious difficulty in feeding experienced, and fluid food was given in all. In three of the successful cases the voice was recovered completely at the end of ten days. In one there is still some hoarseness, but there is also slight paralysis of the soft palate, and some difficulty in swallowing. After the tube had been inserted, the string was left attached in all the cases except one, the free end being secured to the left temple with a piece of strapping, and not withdrawn, as usually recommended. The hands were fastened to the side of the bed with a flannel bandage of sufficient length to give the child enough liberty to play with its toys and yet not reach the mouth. Usually, the child seemed quite reconciled to the presence of the string after feeling it with the tongue for one or two minutes. The advantage of having it attached was found in Case 8, where the tube undoubtedly slipped below the level of the vocal cords, but was readily withdrawn. In one case the string was withdrawn, as the child habitually bit it through immediately after insertion of the tube.

In comparing tracheotomy with intubation, the following is a brief *résumé* of my experience as a house surgeon. With an O'Dwyer's tube, should there be any membrane or collection of mucus exciting cough, in a fairly vigorous child the tube acts as a moderately tight wad, offering just sufficient resistance that an energetic cough causes its immediate expulsion and with it any mucus or loose membrane that may lie below it. Complete relief, which, however, is of very variable duration, follows,[1] due, I believe, to a temporary displacement of the œdema of the cords from the pressure exerted by the tube. A tracheotomy tube, on the other hand, being tied in, no effort on the part of the child can expel it, and the removal of the inner tube is frequently quite insufficient to enable the child to rid itself of the cause of the obstruction, and it is imperative that a skilled nurse or medical officer shall be within call. The brief time required for the insertion of an O'Dwyer's tube, and no anæsthetic being needed, are points which have been fully dwelt on by others. I am also of opinion that the amount of practice required to intubate fairly rapidly cannot be compared with that required for tracheotomy. Against this, however, is the fact that two assistants are absolutely essential in intubation—one to hold the child and another to steady the head and control the gag. I do not think too much stress can be put on the importance of the patient's body as well as head being held fair and square before the operator, the head being neither fully extended, which causes the larynx to be so much less easy to reach, nor yet flexed on the sternum. And last, but not least, when dyspnœa imperatively demands relief, and the patient's friends are assured that the operation does not necessitate the use of the knife their consent is readily and usually cheerfully granted, whereas in tracheotomy consent is often withheld until recovery is at best extremely doubtful. I have to thank the physicians of the hospital for permission to publish the notes of these cases.

P.S.—Since the above paper was written, five more patients have been intubated for diphtheria by my colleague, Dr. W. W. Ord, and myself, three of whom recovered and two died. This brings the number of cases up to sixteen—seven recoveries and nine deaths. The average age of the fatal cases was under two years, and of those who recovered five years.

THE WINTER CLIMATE OF THE NILE.

BY THOMAS SAVILL, M.D. LOND., M.R.C.P.

HAVING made three trips up the Nile the winter before last, two to Wady Halfa and one to Assouan and back to Cairo, and having taken observations on various points connected with the climate, it occurred to me that such records might be of use to those interested in the subject of winter climates.

The part of the Nile which is most accessible in times of peace and most attractive to tourists lies between Cairo and Wady Halfa (second cataract), between 22° and 30° north latitude, a distance altogether of 800 miles. The river winds a

[1] See Recent Observations on Intubation, by Dr. Francis Huber: Archives of Pediatrics, No. 61, January, 1889.

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great deal; it is broad, and in the winter months shallow, and its bed consists of an ever-shifting alluvial mud mixed with a small quantity of sand. The banks consist chiefly of the same material, which has been brought down by previous floodings of the river, and they form a cultivated strip on either side of the river, varying in breadth between a few hundred yards and in places several miles. Beyond these fertile areas, on each side, is the arid sand of the desert, occasionally broken by rugged limestone or sandstone hills.

The vegetation, besides agricultural produce, consists chiefly of palm trees, acacia and carob-bean trees, sugar-cane in large quantity, and a few orange and lemon groves in the neighbourhood of Luxor.

Daily observations were made on the following points. The height of the barometer each morning about 9 o'clock; the maximum, minimum, and mean temperature of each twenty-four hours; the rainfall; the relative proportion of cloud and sunshine each day, roughly estimated; and the force and direction of the wind. The percentage humidity was calculated once, twice, or thrice a day at irregular hours between 7 A.M. and 11 P.M. (most frequently at 9 A.M. and 3 P.M.), and occasionally the fall of the temperature immediately after sundown. I will first give the particulars of the observations on these various points, and then a few general remarks on the climate of the Nile from an invalid's point of view.

The *barometric* readings were not corrected to sea-level, but since the level of the Nile varies very little it may be taken that not much correction is needed. It may be stated, I believe, that the climate of Egypt in the winter presents longer spells of fine weather than any other within the same distance from London. Now it is generally supposed that a high and steady barometer is an indication of fine weather. Here, then, is a curious circumstance—viz, that out of sixty-four barometric readings in January, February, and March, 1888, on only six occasions did it reach or exceed thirty inches, and it only once reached 30·15. It may be doubted if the instrument was correct, but it had been carefully tested just before leaving England, and there was no reason to doubt its accuracy. The only explanation I can offer is, that the remarkable dryness of the desert air, as will be seen from what follows, resulted in an increased rarefaction and lightness of the atmosphere.

In January, 1888, the highest temperature[1] recorded in the twenty-four hours was 77°, the lowest 40° (two readings during the night); the average of maximum readings, 70·3°; the average of minimum readings, 47·2; *the average temperature of the month, 60°*. The average fall of temperature after sundown of six readings was 3°, the temperature read one hour before sundown being compared with the reading one hour after. There were four days during this month on which there were slight showers, when we were between Kalabshee and Aboo Simbel, but they seem to have been very local. Eight other days were partially cloudy, fifteen days were bright and sunny. Light to fresh northerly breezes were the prevailing winds.

Forty observations were made during this month on the humidity of the atmosphere, by means of the wet and dry bulb method, and the percentage (saturation being represented by 100) calculated by Glaisher's hygrometrical tables. The highest record of the month was 88 per cent. on Jan. 21st, at Aboo Simbel, and it exceeded 80 on five occasions. The lowest of the month was 34 per cent., at Assouan, and there were eighteen readings below 60. The *average percentage humidity* of the month of January was 62.

Between Feb. 1st and March 11th, 1888, the highest temperature was 100° (March 5th) at Assouan. There were six readings of 90° and upwards, and twenty-four of 80° and upwards. The lowest during this period was 44° at Assiout, and there were nine readings below 50°. The average maximum temperature was 84·5°, the average minimum 54·2°, and the *average daily temperature* between these dates was 67·7°. There were two showers, each of a few minutes' duration, at Luxor in February; but between Feb. 1st and March 11th there were only seven days which were more or less cloudy, the remaining thirty-three were bright and sunny. The prevailing wind in this period also was northerly, fresh during February and strong during March. There were two days of moderate *khamseen*, or desert wind, in February, and two in the early part of March. The average fall of temperature at sundown was 3·8°.

In February and the early part of March the highest recorded percentage humidity was 80 per cent. (at Ayat, just above Cairo), but on four occasions the percentage was above 60. The lowest recorded was 24, but there were thirteen occasions when it fell below 40. The *average percentage humidity* during that period, when fifty-three observations were made at all hours of the day, was 49·5.

As we were constantly moving, these readings were taken at different points of the Nile; still they represent the true conditions under which tourists and invalids are placed when visiting the Nile. I was prepared, when going to Egypt, to find a dry and sunny climate, but it far exceeded my expectations in these respects. During the three months January, February, and March there were only four showery days, and only three other days when a few drops of rain fell, which scarcely amounted to a shower; and during the same period of time there were upwards of sixty-five days when the sun was not at all obscured by clouds. It is worth noting also that the rain which fell at Luxor in the latter part of January, 1888, was the first which had been seen since Feb. 11th, 1887. The *mean temperature* for the three months just named was 65·1°, which corresponds approximately with the July and August average in and near London.

It might be thought that so near a river—especially such a broad, shallow one as the Nile, and with its sloping mud banks—the air would be very damp, but the facts show just the contrary. The humidity recorded on the boat on the Nile gives an *average of 53·3 per cent.* (saturation being represented by 100) between January 1st and March 11th, 1888, as compared with an average of 76 per cent. near London at the same time of year, and 60·5 per cent. in July and August, the driest months in England.[2]

As regards quantity of sun, small rainfall, and dryness of atmosphere, winter on the Nile will bear most favourable comparison with any winter climate. But there is another point of advantage in the climate of the Nile during the months of December, January, and February, which would hardly be anticipated, but one on which I would nevertheless insist—namely, the bracing character of the air. The prevailing wind during these months is northerly, and comes therefore from the sea, 500 to 1000 miles away. It has become dried by its passage over desert tracts, and thus derives the quality named; but even in the east and west winds bracing and tonic properties may be observed, which are scarcely to be expected in so warm a climate. It is only the southerly winds which enervate.

The fall of temperature at sundown is justly dreaded by invalids travelling in hot climates, but it is very small on the Nile; and, although it is quite usual to see a low river mist hovering over the banks, no dew was ever observed on the boat at any time. A copious dew is so usual an occurrence in warm climates having clear air and cloudless skies that I was led to speculate on its non-occurrence on the Nile; and the probable explanation is that the atmosphere being so excessively dry the cooling down of the earth's surface at sundown by radiation is unable to reduce the adjacent air to its dew point. This explanation, however, is not altogether satisfactory, else when the air contained as much as 88 per cent. (which it did on one occasion), how is it that there was no dew? The river Nile has at all times an advantage (by no means a small one) over the land in there being less flies, mosquitoes, and dust than there are on shore.

Hitherto I have only pointed out the advantages which the Nile climate possesses, but there are certain disadvantages which ought to be mentioned. Although the fall of temperature at sundown is small, it will be seen that there is a wide diurnal range, and that the nights are often very cold, as low as 40°. The *average diurnal range* of temperature for the three months named was 28·5°, but it was often much more than this. On thirteen occasions the diurnal range amounted to 30° and upwards, on six occasions to 35° and upwards, and once to 43°. The coldest time in the twenty-four hours was always at night, and, as far as could be judged, was between three and four o'clock in the morning. The lesson to be learned from this is, that it is unsafe for delicate people to leave their windows open all through the night. With windows shut invalids are never exposed to the cold night air.

But the most serious disadvantage in the climate of the Nile is the occurrence of the *khamseen* or desert wind. It blows from the S. or S.W. quarter, usually with more or

[1] All temperature readings are on the Fahrenheit scale. They were always made in the shade, and the instruments were fully exposed to the air.

[2] From observations made by Mr. Edward Mawley, F. Met. Soc.

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less violence, and scorches like the blast from a furnace. If it be sufficiently violent, and it is often so, it brings up clouds of fine dust which obscure the view, and find entrance through the finest crevices of dwellings. The guide-books say that it rarely comes till April. This would seem to be not quite correct, and, according to the best information, it makes its appearance for the first time, occasionally in February, but usually about the middle or end of March, and lasts, as its name implies, more or less, during fifty days.[3] It generally blows for three consecutive days at a time, separated by intervals of about three to five days.

As regards the best time of year to visit the Nile, December, January, and February are the most agreeable and healthy months, for then it is not too hot for moderate exertion, and the *khamseen* has not yet begun to be troublesome. October is generally too hot, and the mosquitoes are very annoying. November, which is a very nice month in Cairo, is said to be not so dry on the Nile; but January and February, which are often chilly or damp in Cairo, are undoubtedly the pleasantest months of the whole year on the Nile. The latter end of March and the month of April are not very agreeable either at Luxor or on any part of the Nile, for it is beginning to get too hot. Moreover, the *khamseen* winds usually begin to blow about this time, and I have often heard inhabitants and English residents say that they greatly prefer the summer months, in spite of the heat, to the month of April on this account. The *khamseen* is said to be felt less in Cairo, and if so it is quite possible, though not agreeable, to stay in the city until the middle or end of April.

With reference to the relative merits of the different parts of the Nile, it is remarkable what few local variations there are over a distance of 800 miles from Cairo southward, probably on account of there being no very high mountain ranges. It is this fact which, combined with the proximity of the desert, doubtless accounts for the small amount of rain. Perhaps the most equable and lovely climate on the Nile, or, indeed, in any part of the civilised globe, is the climate of Luxor. Assouan, surrounded by hills on nearly every side, is undoubtedly the hottest part of the Nile north of the second cataract, much hotter than Wady Halfa, although the latter is situated 200 miles further south, and well within the tropics. Cook's new tourist steamboats are replete with every comfort, and afford a good opportunity of seeing the Nile, but invalids ought not to undertake the excursions at the various stopping places except under the strictest medical supervision. The difficulties of catering are no doubt very great, and it is almost impossible to procure liberal supplies of fresh milk and butter. The only hotels on the Nile are at Assouan and Luxor, and the latter is most frequented by invalids.

The winter climate of the Nile may be summarily described as exceedingly dry, sunny, and mild, the air having a far more bracing property than is to be found in most warm atmospheric conditions. During the winter of 1887–88 very severe weather prevailed over the whole of Europe, but it did not trouble Egypt. Here there was scarcely a drop of rain, and a delightful temperature all the while.

The cases most suitable for treatment are incipient phthisis and rheumatism. The dryness is especially suitable to the latter, and I have seen wonderful improvement take place in rheumatic affections of the muscles and joints. From the cases of phthisis (in an early stage), asthma, emphysema, and other chronic lung affections observed while there, I should say that all of these affections may derive benefit from this climate; but it is the martyr to chronic rheumatism who finds a veritable elysium in Upper Egypt. It is, of course, questionable if any climate will avail when organic changes have taken place in the osseous structures of the joints, but even in these cases the pain may be lessened and the joints become more supple.

There are some sulphur baths at Hammam Helouan, near the Nile, a few miles out of Cairo, which have some reputation in the treatment of rheumatism, but I am not in a position to form an opinion on their effects apart from the climate. Gouty subjects, where strict dietetic regimen is of so much importance, would perhaps do better in Cairo, for circumstances do not admit of a strict dietary table being adhered to on the river; but in Cairo there is no difficulty on this score.

The clothing best suited is that worn during an English spring. No one should go without a good warm overcoat, for the evenings are often chilly. As for amusement, there is more than enough for the lover of history, archæology, and the study of a simple-minded race; and there is also abundance of water sport. The Nile water should never be drunk unless previously boiled and filtered, otherwise the risk of diarrhœa and zymotic disease is incurred.

Paddington Infirmary, W.

[3] *Khamsa*, Arabic, fifty.

FIBRINOUS BRONCHIAL CASTS IN THE SPUTUM OF ACUTE CROUPOUS PNEUMONIA.

BY ERNEST S. REYNOLDS, M.D. LOND., M.R.C.P.,
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THE following case may be of interest on account of the rarity of the appearance of bronchial casts in the sputum of acute croupous pneumonia.

David C——, aged forty-five, cabman, was admitted to the Manchester Royal Infirmary, under the care of Dr. Bury (who has kindly allowed me to report the case) on April 20th, 1889. He was found to be suffering from typical croupous pneumonia affecting both lungs, which, according to the history, was of one week's duration. The signs and symptoms were in no way peculiar, except that the face was rather more purple than is usual in such cases. His temperature was 104·6°, respiration 54, and pulse 104, irregular in force and rhythm. In spite of a free administration of stimulants, he became rapidly weaker, and died on April 24th at 4 A.M. On the morning of the 23rd it was noticed that the sputum was of a most unusual character. Up to then it had been viscid and rusty, but now it was found to be somewhat more fluid, still rusty, but that floating at the top were many worm-like masses exactly like cooked macaroni. The patient was also seen to expectorate these after considerable difficulty. They were removed from the rest of the sputum and floated in water, when they were found to be most beautiful and perfect casts of the bronchial tubes. Though some were smaller than others, yet the great majority were as follows. They were about six inches in length from the broad end to the finest ramifications, and seemed to be of much the same shape, as if they had all come from a particular system of tubes. The main stems were made up of three or more segments, about a quarter to three-eighths of an inch wide and an inch to an inch and a half long, joined together by narrower constricted and short necks. From these constrictions secondary long branches arose, which divided almost dichotomously, and finally ended in very fine filaments. The main stem also by a rapid division near the end divided into secondary branches, which also terminated in many fine filaments. The masses were of a beautiful white colour, just tinged with yellow, and on a few spots a distinctly rusty appearance was noticed. They were very firm in consistence, and could not be broken up with the finger. The fine terminal filaments were solid, but the larger stems appeared to be formed of irregular concentric layers, with a central core full of air. On microscopic examination the mass was found to consist of pure fibrine, and no cells could be seen, except a few red blood-corpuscles in the part which was of a rust colour. Probably about thirty of these casts were coughed up in all. The patient's wife told me that some years ago he had an attack of pneumonia, and she thinks that then he also coughed up some of the same material. She said that he had never had such symptoms as I described to her would have been present in plastic bronchitis.

At the post-mortem examination I found the lungs most extensively affected with pneumonia, the left lung showing red hepatisation in the upper lobe and grey hepatisation in the lower. The right lung showed grey hepatisation in the upper lobe, red hepatisation in the middle and upper part of the lower lobe, and the lower part of the lower lobe was congested, but unaffected with inflammation, and contained air. The bronchial tubes of both lungs were opened up as far as possible with scissors, but no casts could be found *in situ*. They contained a small quantity of muco-purulent material. The walls of the bronchi were congested, but otherwise appeared

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healthy. On squeezing the consolidated lower left lobe, however, a few small branching casts were expelled. The pleuræ were both rather firmly adherent from old pleurisy. The right side of the heart was much engorged, and a firm ante-mortem clot was found in the pulmonary artery, extending for a considerable distance into the branches of the right and left divisions. This curious condition of the sputum seems to be very rare. Personally I have never seen it before, though I have examined nearly two hundred cases of pneumonia since 1886; indeed no case of expectoration of bronchial casts has occurred in any of the 4500 cases of all kinds admitted to the medical wards of the Manchester Royal Infirmary since January, 1887.

Jürgensen in Ziemssen's Cyclopædia of Medicine and Lépine in the "Dictionnaire de Médecine et de Chirurgie pratiques," in speaking of the expectoration of pneumonia, both state that Remak[1] first discovered small, almost microscopic, ramified cylinders, casts of the finest bronchi. These he obtained by shaking up the sputum with water, when the little greyish-white particles could be easily separated. He thought that they were formed of the fibrine set free by the inflammation. Gubler[2] and Kuss found on the surface of these casts ciliated epithelium cells, and they, together with Grisolle, maintain that the fibrine of the blood plays the most important part in their formation. Lépine, in describing the anatomical varieties of pneumonia, gives one the name of "variété avec moules fibrineux des bronches," and shows that in these cases the bronchi are found filled with solid fibrinous cylinders, even as thick as the finger. These seemed to have been hinted at by Morgagni, but have been more carefully described by Puchett, Lobstein (in children), Reynaud, Nonat, and Rokitansky and Wyts,[3] and the last two specially mention that the widest casts were hollow, and the smallest solid. In the sixth volume of the Transactions of the Pathological Society, four similar cases are recorded by Dr. Bristowe and one by Dr. Wilks, and in the last case there was an absence of respiratory sound over the diseased lung during life. Lépine also mentions that they are described very fully by Grancher as filling the bronchi of a lung up to the hilus in a case of pneumonia of five days' duration; here the irregular concentric arrangement of the large casts is noticed, and compared to elder pith from the presence of little hollows filled with air. Schützenberger states that in this variety of pneumonia, the blood always shows a large buffy coat, and that the pulmonary arteries are filled with fibrinous coagula. As seen post mortem, it is not very uncommon to find these large bronchial casts in pneumonia, but the presence of them in the sputum of such a large size seems to be extremely rare.

Manchester.

CELLULITIS OF THE NECK, SPREADING TO THE APEX OF THE LUNG: A SEQUELA OF TYPHOID FEVER.

By C. E. HARRISON, M.B. LOND., F.R.C.S.,
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PRIVATE J. F—— was admitted to hospital on Oct. 11th, 1887, complaining of diarrhœa, and with a temperature of 104·4°. His illness had commenced five days previously—very shortly after he had been accepted as a recruit for the corps of Royal Engineers. He had walked from the north of England to London with the object of enlisting in the army. The symptoms of typhoid fever developed, the attack proving a severe one, with high temperature and rapid dicrotous pulse. The presence of rose spots on the abdomen was noted on Oct. 16th, and hæmorrhage from the bowels occurred on the 21st and 24th. The temperature commenced to fall on the 25th, but again showed an ascending scale on Nov. 5th; and, notwithstanding careful feeding with peptonised milk and fluid nourishment, the first normal evening temperature was not registered until the 28th, forty-nine days after admission. Progress was then satisfactory, but a relapse occurred on Dec. 20th, with an evening temperature of 104·3° on the 25th. A fresh crop of rose spots was noted on the 28th. This relapse subsided on Jan. 13th, 1888. A further relapse occurred on Jan. 23rd, the evening temperature registering 104° on the 30th, and a fresh appearance of rose spots being noted on the 31st. This relapse subsided on Feb. 16th. He gained ground in March, and on April 20th he was able to be up all day in the ward. Early in May the skin appeared a little jaundiced. On May 5th the patient complained of sore-throat. On examination nothing was observed beyond a little redness of the fauces. In the evening he complained of his throat feeling more uncomfortable, the tonsils appearing a little swollen. Early on the following morning the medical officer on duty was summoned to see the man in consequence of difficult and noisy respiration which had developed gradually during the night. Poultices were applied to the throat, and he was placed in a tent with a steam kettle. At 10 A.M. the breathing was still noisy from laryngeal obstruction, with dilatation of the alæ nasi, and there was difficulty in swallowing. The skin was rather jaundiced. Five grains of calomel were ordered to be taken, and a warm water enema to be administered. Some fulness was observed on the right side of the neck below the jaw. At 6.50 P.M. the bowels had acted twice. He was now unable to swallow, fluids returning through the nose. The swelling in the neck had rather increased, and the right tonsil was swollen and œdematous. Respiration was much the same in character. Nutrient enemata, with an ounce of brandy in each, were ordered to be given every four hours. Temperature 102·8°; pulse 129. At 11 P.M. the temperature was 103·6°; pulse 146. On the 7th at 2 A.M. the temperature was 104°; pulse 145. At 10.45 A.M. the temperature was 102·6°; pulse 147; respiration 20. The swelling on the right side of the neck had steadily increased, and passed across to the left side. The swollen tissues felt brawny, and this condition was most marked below the right side of the lower jaw. Inability to swallow continued. At 4.50 P.M. the temperature was 103·3°; pulse 140; respiration 24. The swelling was passing down to the front of the chest, and a dark blush was present below the jaw on the right side of the neck. With a view of relieving the tension which evidently existed beneath the layers of deep fascia, I determined, after consultation with my colleague, Surgeon-Major Magill, to make a deep incision in the middle line of the neck in the interval between the jaw and hyoid bone. The fascia having been reached, it was divided on a director. At 11.30 P.M. the temperature was 102·5°; pulse 134; respiration 24. He was now drowsy and inclined to sleep, and his respiration assumed an irregular character. Three deep inspirations, during which a fairly free entrance of air to the lungs took place, were succeeded by four or five shallow inspirations, during which no air passed the larynx; and his face then becoming dusky, a deeply drawn breath followed, to be succeeded by the same alternation of a series of deep and shallow inspirations. On the 8th, at 2.30 A.M., the respiration remained of the same character, and his condition gave rise to much anxiety. The swelling of the neck had, however, decidedly decreased since the incision was made, and he was able to swallow. At 3.30 A.M. an enema, composed of milk, an egg, brandy, and a drachm of spirit of ether, was administered, and a hypodermic injection of ether. It was thought advisable to make the central incision in the neck more free, and a deep incision was made behind the upper portion of the sterno-mastoid muscle, dividing the fascia. An ounce of brandy was ordered to be given by the mouth every hour. At 8.40 A.M. the respiration was much improved. Pulse 112. Shortly after mid-day the temperature was 102·4°; pulse 120; respiration 26. In the evening the temperature went up to 104·8°; pulse 132; respiration 28. The œdema of the neck was subsiding. An ounce of brandy was ordered at intervals of two hours. On the 9th, at 8.15 A.M., the patient was drowsy and respiration catching. Temperature 104°; pulse 114; respiration 30. The œdema of the neck was mostly gone. He had slept from time to time during the night. There had been diarrhœa during the early morning, and a mixture containing carbonate of ammonia with bark and quinine was consequently discontinued. There was evidence of commencing consolidation of the apex of the right lung,—impairment of percussion resonance with harsh respiration. At 1.30 P.M. the temperature had gone up to 105·5°; pulse 132. As the temperature was rising and the pulse increasing in frequency, towels

[1] Diagnost. und Path. Untersuchungen, III. Abschnitt, p. 137, Berlin, 1845.
[2] Concrétions ramifiées fibrineuses trouvées dans les Crachats: Société de Biologie, 2me. série, tome ii., 1855.
[3] London Medical Gazette, 1847.

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wrung out of cold water were applied over the chest, abdomen, and legs, and renewed at frequent intervals. Ten grains of quinine were ordered to be given at once, with five-grain doses at intervals of an hour until twenty grains had been taken. At 2.30 P.M. the temperature was 104·4°; pulse 120. At 5.45 P.M. the temperature was 104·3°; pulse 128; respiration remained of the same character. A cold wet pack was applied and renewed at 6 30 P.M. with pounded ice sprinkled over the body and legs. At 7 P.M. the temperature was 103·8°; pulse 116. At 11.45 P.M. the temperature had fallen to 102·6°; pulse 122. On the 10th, at 3.30 A.M., the temperature was 104°; pulse 128; respiration 36. There was some diarrhœa. Ten grains of quinine were ordered, and an astringent draught. At 9.30 A.M. the temperature was 102·4°; pulse 123; respiration 35. The breathing had been very fair during the night. The skin was moist and the man's aspect better. The bowels were loose. The œdema of the neck and chest had almost entirely disappeared. The physical signs of consolidation of the apex of the right lung were more marked. The uvula and fauces remained red. At 7 P.M. the temperature had risen to 104·6°; pulse 122. He had slept well all the afternoon. There was still some diarrhœa. Ten grains of quinine were ordered to be given at once, and to continue the ten-minim doses of tincture of perchloride of iron every four hours which had been commenced in the afternoon. On the 11th, at 8.30 A.M., the temperature records during the night had shown a fall, and the thermometer now registered 101·2°; pulse 98; respiration 28. Astringents had been administered to check diarrhœa. Returning crepitation was audible over the apex of the right lung. At 7.15 P.M. the temperature had risen to 103·5°; pulse 110; respiration 32. Ten grains of quinine had been given in the afternoon. On the 12th, at 8.30 A.M., the temperature had fallen to 100°; pulse 98; respiration 28. He had slept during most of the night. Sputum yellowish, clear, and tenacious. He complained of some pain in the right side of the chest. In the evening the temperature had fallen still lower—namely, 98·5°; pulse 86; respiration 21. He was sweating rather profusely. The tongue, which had been dry, still remained so. He had slept much during the day. From this time he steadily improved. On May 23rd the crepitant râles audible at the apex of the right lung had almost disappeared, and on the 30th he was quite convalescent. On June 8th he was discharged from hospital to join his corps at Aldershot.

Remarks.—This case illustrates well the features which characterise this grave disease, and also the relief of the urgent symptoms which is afforded by incisions made through the cervical fascia with a view of relieving the pressure on the deep structures of the neck. The symptoms and treatment of cellulitis of the neck are so rarely referred to in text-books on surgery that I would in conclusion mention Mr. Croly's paper, entitled "Observations on Diffuse Inflammation of the Areolar Tissue of the Neck (Cellulitis): Importance of early, free, and deep incisions: With practical reference to the Surgical Anatomy of that Region," which was published in the *Dublin Journal of Medical Science* for May 1st, 1873. In this paper he points out "the lines of safety" and "lines of danger" as a guide in making incisions to divide the fascia of the neck. The "lines of safety" are (1) the mesial line from the chin to the interclavicular notch, and (2) the line along the posterior border of the sterno-cleido-mastoid muscle, taking care to avoid the spot where the muscle is crossed by the external jugular vein. Mr. Croly also refers to Mr. Bickersteth's paper on this subject in the "Liverpool Medical and Surgical Reports," vol. iii., Oct. 1869. A recent paper by Surgeon G. H. Young, A.M.D., will be found in the *British Medical Journal* for 1884, vol. i., page 1141.

Guards' Hospital, Rochester-row, S.W.

LONDON LOCK HOSPITAL.—A special effort is being made to raise £1000, and so to free the London Lock Hospital and Asylum, Harrow-road, W., from debt by the end of the present year. The Hospital and Asylum are under one roof and under the same governing body, and the Asylum has been the means of rescuing from a life of shame thousands of poor women and obtaining for them suitable occupation. As the Lock Hospital and Asylum have no investments and no endowment, an earnest appeal is made to all interested in "rescue work" to enable the much-needed £1000 to be raised, and so to end the year 1889 out of debt

LEPROSY IN KASHMIR: ITS DISTRIBUTION AND ETIOLOGY.

BY ERNEST F. NEVE, M.D., F.R.C.S. ED.,
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(*Concluded from page 901.*)

IN its early stages leprosy may be recognised by certain integumentary changes or by anæsthetic patches. One looks instinctively to the forehead, especially the superciliary ridges. If leprous, the skin is somewhat thickened in this position, dusky in colour, but not necessarily irregular. The hair of the eyebrows is scanty. Sometimes the forehead is free, and on the face a raised, slightly indurated, reddish area, perhaps on one cheek, is the only sign. In this case the differentiation from syphilis is not always easy. But even here, in a certain proportion of patients, impairment of sensation of the feet and legs will be found. Speaking broadly, there are two main types of leprosy in the Valley—the anæsthetic and the tubercular. I have seen one striking case of macular leprosy with a wide area of circular patches varying in size from a farthing to a five-shilling piece, and darkly pigmented at the borders. Anæsthesia was, however, associated, and not unfrequently one may see patients presenting at one and the same time anæsthesia, macules, tubercles, and ulcerations of soft tissues and bone. It is distinctly more common to find a patient with anæsthetic patches, but without tubercles, than the converse. Take, for example, the case of A. M——, a patient who was under my observation for more than two years. About five years ago his sciatics were stretched for anæsthetic leprosy. Since then there has been no new manifestation of the disease. His general health improved, and he was regarded as practically cured, not, I believe, by the nerve stretching, which only alleviated and favourably modified the disease in the lower extremities, but by the assertion of the vitality of the tissues over the morbid elements. This patient died quite recently from acute but obscure symptoms—possibly a perforating ulcer of the stomach or intestines.

Anæsthesia seldom remains for any length of time uncomplicated. Blisters are apt to form, and then local death of tissue and ulceration. This process is no doubt partly trophic. Perforating ulcer of the sole is a common and early symptom in leprosy. Wide tracts of superficial ulceration are often observed on the sides of the legs and forearms. Two seats of election are the outer aspect of the leg over and immediately below the head of the fibula, and over the ulnar aspect of the upper third of the forearm. Exposure to friction partly determines these spots; but withdrawn nerve influence is greatly concerned, as the beneficial results of nerve stretching demonstrate. In later stages the quiet necrosis of phalanges is probably due to the same cause. Portions of bone removed by operation are spongy, and appear to have undergone a process of rarefying osteitis. In all these cases the nerves supplying the part are found on clinical examination to be thickened and sometimes tender; while if inspected, as in nerve stretching, the trunks are markedly enlarged, and usually pink and of firm consistence. If a portion be excised, a great excess of fibrous tissue is demonstrable by the microscope. Apart from the observations of Tschiriew[1] on the Morbid Anatomy of the Spinal Cord in Leprosy, showing atrophic changes, there seems every reason to suppose on clinical grounds that the spinal cord sometimes participates in this change. For stretching of one sciatic nerve is found occasionally to favourably affect the sensation of the opposite side. The nerves most often involved in leprosy are, in order of frequency, the sciatic, musculo-spiral, ulnar, and median. In the earlier stages hyperæsthesia and burning pain are often referred to the area of distribution of one of these. The changes in reflexes in leprosy are essentially of the nature of diminution. Superficial reflexes disappear early. If the eye is affected the conjunctival reflex becomes increasingly impaired. Ankle-clonus can but rarely be elicited. I have examined the knee-reflex quite recently in seven cases. Of these, four were advanced cases. In three the reflex was greatly diminished. In one not impaired on one side but dimi-

[1] THE LANCET, vol. i. 1880, p. 731.

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nished on the other. In three other less advanced cases, two showed marked diminution. One patient, however, had well-marked knee reflex on both sides. In advanced cases marked muscular atrophy occurs. This is often very evident in the interossei of the hand, and there is a tendency for the hand to assume the "griffin claw appearance." The resemblance to the condition in progressive muscular atrophy is sufficiently striking to suggest affinity in point of central lesion. At the same time the distortion of the hand is apt to be accentuated by morbid changes (attended with loss of substance) in the sheaths or substance of the tendons. Muscles, also, and their sheaths undergo change. In stretching the sciatic nerve the consistence of the biceps is often found to be altered. In some cases its substance is friable, and it is glued by adhesions to the cellular tissue around in such a way as to render definition difficult. Associated with this, healing power is distinctly below par. Then when anæsthetic leprosy is well established in addition to the deformities from loss of tissue and cicatrisation, the skin as a whole shows peculiarities: a dried parchment-like epidermis often traversed by lines at angles gives the surface a fish-scale-like appearance. There is in fact a condition of leprous ichthyosis. The tubercular form is apt to be distinctly more severe. For one reason, it often coincides with the anæsthetic, being superadded. When tubercles are appearing or spreading there may be elevation of temperature. At an early period the face becomes distorted, with elevations from one to three or four lines in diameter, especially affecting the forehead, nose, and auricles, producing the characteristic leonine appearance, but scattered also over the limbs and, indeed, the whole body. At first the epidermis is not implicated. This process is not confined to the skin, but affects the mucous membrane of the palate, pharynx, nose, and alimentary tract, accounting thus for obscure digestive disturbances. The larynx is sometimes implicated. On one patient, now in the wards, a year ago I had to perform tracheotomy for tubercular leprous lesion of the aryteno-epiglottidean folds. Even the eye does not escape. A patient lately in the hospital showed gradual progress of a tubercle from under the conjunctiva at the outer margin of the cornea, extending towards the centre with convex pink fleshy-looking edge, involving and fixing the iris.

Tubercles are more apt to ulcerate through the mucous membrane than at the skin surface. As far as the skin is concerned, where ulceration occurs it has appeared to me to arise as an area of softening and pus formation under the epidermis. Again, apart from actual tubercles, the hair-follicles seem to suffer, for the hairs become pale, brittle, and scanty. Clinically, I am inclined to think the sebaceous and sweat glands are also attacked, for there is a marked tendency to dryness and harshness of skin, with utter absence of secretions. Enlarged lymphatic glands can frequently be detected. In one such excised I failed to demonstrate the bacillum. With regard to complications, they are certainly not common. Antecedent syphilis no doubt influences ulcerative processes to a certain extent. I have recently seen a leper whose ulcerated throat I think illustrates this. One leper now in the wards had an epithelioma following a burn.

As treatment, iodoform, iodide of potassium, mercury, arsenic, quinine, phosphate of soda, and mudar root have been tried internally, while balsam of Peru and gurjun oil have been rubbed on externally. Carbolic acid and iodine have been used for wounds, nerve stretching has been adopted for anæsthesia and trophic ulcers. None of these is a specific. Lepers react well to generous diet. If we inquire into the Japanese "Goto" treatment, which is claimed as a cure,[2] we notice how large a part good diet plays. The bath treatment there recommended is also calculated to be valuable in a disease in which skin secretions are so disordered. But the polypharmacy of Dr. Goto rather shows that he also has hitherto failed to discover a drug specific. So far no remedy has been discovered which modifies the course of leprosy in a manner analogous to the effect of iodide of potassium and mercury salts on syphilis. Phosphate of soda appears to be of some value in doses of twenty to forty grains twice daily. Lately the mudar root (Calotropis gigantea) has been tried. It is a drug not dissimilar in its action to ipecacuanha. In doses of five to ten grains it acts as a diaphoretic. It has a certain reputation in India for leprosy. Its action appears to improve the condition of the skin. Hydrocotyle asiatica[3] has also a similar reputation. Leprosy is, however, so irregular in its progress and so prone to become temporarily arrested that the results of drugs the administration of which does not produce early and definite improvement have to be accepted with caution. Especially is this the case with chaulmoogra oil. Distinct improvement follows the external application of gurjun oil, but copious dilution with sweet oil does not appear to detract from its activity.

Nerve stretching is most valuable as a palliative. During the past few years more than two hundred and seventy nerves have been stretched in this hospital,[4] representing about one hundred cases of leprosy. Great improvement is often obtained in the tracts supplied by the nerves; but we cannot anticipate improvement in the face and parts supplied by cranial nerves, neither do we observe it. However slight the risk of contagion may be, I am emphatically in favour of segregation. Marriage should certainly be discouraged. In other respects lepers should be placed in easy comfortable circumstances, with good food and no hard work.

Kashmir.

[2] Ibid., vol. i. 1887, p. 39.

[3] Ibid., vol. i. 1885, p. 444.

[4] Ibid., vol. i. 1886, p. 1070; vol. ii. 1886, p. 325. Edin. Med. Journ., Nov. 1884, p. 433.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

COLOTOMY BY GUNSHOT WOUND; FÆCAL FISTULA; RECOVERY.

By A. VAUGHAN BERNAYS, B.A., M.B.CANTAB.

ON July 9th, 1889, I was hastily summoned to G. G——, aged thirteen, who had received a gunshot wound in the back while shooting blackbirds with his brother. I found the lad in bed, with no appearance of shock about him, but complaining chiefly of pain in the left inguinal region, radiating down the left thigh, probably due to irritation of the lumbar plexus. On examination I found a wound exactly midway between the centre of the crest of the left ilium and the last rib, penetrating in a funnel-shaped manner forwards and slightly outwards. On the surface it was about two inches and a half across, but it narrowed so as to barely admit the point of the finger at the bottom. The skin and the surface of the wound were blackened and burnt, owing to the fact that the gun was actually touching the boy's back when it was discharged. On making inquiries I found that, fortunately having run short of the "sinews of war," the gun contained barely a third of the ordinary charge. Placing the boy under chloroform, I succeeded in extracting several shreds of jacket and about a score of shot, and I made out clearly from the direction of the wound that the colon was probably injured, even if the cavity of the abdomen had escaped. The lad did well generally, his temperature never going beyond 101°, and became normal within the week. On the third day the patient's bowels, which had been somewhat confined before, were moved, and about a dozen shot appeared in the motion; at the same time the discharges from the wound became fæcal. This continued for about a fortnight, and then gradually ceased, the wound healing slowly. No treatment was adopted, save daily irrigation with weak carbolic and the insertion of a drainage-tube for the first few days. The case seems to me to be interesting, not only on account of the rarity of such a method of colotomy, but as illustrating the resistant power of fæces, the fact of the colon being loaded undoubtedly saving the patient from the serious risk of penetration of the abdominal cavity.

Solihull.

MENTAL SHOCK PRODUCING FALSE CONCEPTION IN A PREGNANT WOMAN.

By ALLAN MINNS, L.R.C.P. Lond.

MRS. C——, a woman aged forty, the mother of several children, all born healthy, came under my treatment about eight months ago for profuse loss from the uterus. Upon examination the uterus was found to be slightly enlarged

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and somewhat tender on palpation. The losses continued for the space of a fortnight and then ceased, but the patient was still in a low state. She gradually became stronger until the beginning of February of the present year, when the uterus was about the size of a cricket-ball, and she would be about three months advanced in pregnancy. At this time a niece, who had only parted from her two days previously, and to whom she was much attached, committed suicide by drowning herself in the river, for no apparent cause. The news of this acted upon Mrs. C—— as a severe shock. I was summoned to her, and found her in a state of great collapse, from which she was with great difficulty aroused, and did not wholly come out of it for several days. Small hæmorrhagic discharges were now of daily occurrence from the womb, and examination showed that the womb was enlarging and the os slightly ulcerated. By the administration of ergot and tannin, alternated with iron and acetate of lead, the hæmorrhage was checked, but kept breaking out at intervals of a fortnight or so.

On the morning of Aug. 5th the woman had pains, which proved to be labour pains, accompanied with great loss of blood, and at 5 A.M. she passed a mass, which upon examination proved to be the degenerated fœtus and placenta—one mass of fat and globules. Upon examination, the interior of the uterus was found to be covered with soft, adherent particles similar to the mass which had been extruded. These were removed with the finger and the parts well washed out with Condy's fluid and water, and absolute rest enjoined. The case has since run an altogether normal course, no bad symptoms having arisen.

This case was extremely puzzling to diagnose; several examinations were made, externally and per vaginam, but nothing definite could be made out, and the last examination, conducted on the day prior to the confinement, led me to think that it was a case of placenta prævia; but the uterus, though large, was easily and perfectly malleable, very soft, no tumour such as fibroid or anything of a like nature to be discovered, and the only diagnosis, the correct knowledge of the state of affairs, was furnished by nature when the mass was expelled. From the early examination I was led to think that all would have gone well had not the system received so rude a shock by the sudden announcement of the suicide of her niece.

Thetford, Norfolk.

ON A CASE OF SUDDEN UNEXPECTED DELIVERY IN A PRIMIPARA.

BY WORSLEY J. HARRIS, M.R.C.S., L.R.C.P., &c.

CASES of very rapid delivery with no symptoms of any kind to give warning of the approach of labour are sufficiently rare to be worthy of record. I think the following case will be interesting in showing how rapidly and unexpectedly the uterus, without any apparent reason for so doing, will empty itself of its contents.

M. C——, aged twenty, a single woman of robust health, about five feet three inches in height, well developed muscles, broad hips, and pelvis shallow and capacious, was, according to her own reckoning, eight calendar months pregnant, and expecting delivery in a month's time. One morning at 10 A.M., while doing her usual routine of house work, which was that of a woman in the lower ranks of life, she felt sick and giddy, so went up into her bedroom to lie down. After lying for about five minutes she was seized with an irresistible desire to defecate, and rushing to a night stool in the adjoining room was immediately delivered of a small but well-formed male child. There being no one in the house, she severed the cord, but left the child in the commode, and then went and lay down. No one came to the house for an hour, when, the baker's boy calling, she asked him to run for a friend, an old midwife, who came and took away the placenta. The case occurring in the country, and some five miles away, I did not get the message until 4 P.M. When I got to the patient's house I found the girl undressed and in bed, and in every way doing well. The uterus contracted; no hæmorrhage; no laceration of perineum. In the night stool was a well-formed but small male child, situated with its head downwards, the occiput anterior and inclined slightly towards the left side of the commode, with forehead posterior and to the right. The shoulders, too, presented in the left oblique diameter of the night stool (if I may be allowed to use that expression); the thighs and knees were flexed. There was about a pint and a half of mixed blood and liquor amnii, in which the child's head and face were buried. I found the placenta entire and healthy in a separate utensil.

Post-mortem examination of the child.—Sixteen inches long, four pounds and a half in weight. The child slightly but beautifully formed; no marks of bruising or injury anywhere; dark hair on head; no membrana pupillaris; pupil midway between contraction and dilatation; face and lips somewhat blue and congested; nails formed, and reaching to the tip of the fingers and toes; umbilicus between a quarter to half an inch nearer to the pelvis than to the ensiform cartilage; the liver, heart, spleen, and kidneys were normal; the lungs were perfectly consolidated, without the slightest sign of an air-vesicle; with various trials they sank in water.

I think that the position in which the child was situated in the night stool goes a long way to prove the truth of the mother's story. For it is not at all likely that the mother, and especially an inexperienced woman as this one was, would have placed the child in such a truly natural position. And then, again, the tendency of the occiput to the left and forehead to the right and the position of the shoulders in the left oblique diameter (so allow me to call it) of the night stool would seem to point to the fact that the child presented originally in the first cranial position, and that it had passed through the parturient canal without any decided rotatory or adaptive movements, and this would be for the most part likely to occur in a case with rapid and strong uterine contractions, and a broad, shallow, roomy pelvis. The post-mortem examination showed that the child was about an eight months' fœtus; it was in every respect well formed, and if it had been given a chance to breathe it would probably have lived.

Blackheath.

A STRANGE CASE OF MALINGERING.

BY GEORGE THORPE, L.S.A. LOND., &c.

M. C——, aged seventeen, a plump healthy-looking country girl, in service in a minister's family, was brought to me by her mistress, about the end of March last, complaining of severe pricking pains on the dorsal surface of the left hand. Her mistress informed me that the girl was not at all fond of work, and that she had a deal of trouble to get her to do it; that since the hand had been bad, she would do nothing but sit down and cry. On examination of the hand I found it puffy and inflamed, and on asking if she felt the pricking sensation at any particular point, was referred to a spot in the centre of the hand. On touching this with my finger I distinctly felt something sharp and pointed. I used a pair of dressing forceps and extracted a full-sized sewing needle, which had been pushed obliquely into the flesh until the whole of it was out of sight. She could give no account of how it got there. Three evenings afterwards she was again brought in, and from the same place and in the same manner I extracted another needle. About a week after she came again, and this time I withdrew a pin (which had been pushed in until the head was covered) from the same place. A few days after she came again, with her hand (of course previously inflamed from her treatment of it) very œdematous and of a bright-blue colour, which I found she had produced by a liberal use of the blue bag and vinegar. I felt so disgusted with her that I advised her mistress to get rid of her at once, which was done, and the girl returned to the country. It seems hardly credible that a person of her age could be so cunning, and would inflict so much pain upon herself to avoid work.

Walthamstow.

THE INFECTIOUS DISEASES NOTIFICATION ACT.—At a meeting of the Council of the County Borough of Cardiff, held on Saturday, Nov. 9th, a resolution was passed "That the Infectious Diseases Notification Act, 1889, shall be adopted in the districts of the urban and port sanitary authorities respectively, and that the said Act shall come into operation on December 16th next."

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A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

EVELINA HOSPITAL FOR CHILDREN.

CASES FROM THE SURGICAL OUT-PATIENTS, WITH REMARKS.

(Under the care of Mr. FREDERIC S. EVE, Surgeon to out-patients, and Mr. LEONARD A. BIDWELL, Registrar.)

HÆMOPHILIA has well been described as the most hereditary of all diseases, and presents very many aspects of great clinical importance; one of the most interesting of these is the occurrence of joint swellings in those who are the subjects of this diathesis, and we give below an interesting example, in which these joint swellings were very marked. In this case the earlier affections of the joints appear to have been of traumatic origin, but no evidence of injury was offered when the later affections developed. According to Dr. Wickham Legg,[1] the joint affections which are found in hæmophilia first appear between the seventh and eighth and the thirteenth and fourteenth years of life; there is, however, a case on record where swelling without apparent cause first developed in the elbow-joint of a child eighteen months old. This case also bears out an observation by Dr. Legg that the swelling of the joints is often a more marked feature in the disease than the bleeding; he also says it is commonly the result of exposure to cold, being especially frequent in the spring and autumn or in sudden atmospheric changes. The resemblance of these swellings in the joints to those produced by subacute rheumatism is well known, and without a history it is almost impossible to diagnose them. Howard Marsh[2] says they "are the result of synovial hæmorrhage; these hæmorrhages produce more or less articular swelling (which, although it usually slowly subsides, is sometimes permanent), and are followed by a low form of inflammation and the development of adhesions, by which movement is limited; and also by degenerative processes, consisting of fibrillation and absorption of the cartilages, and other changes closely resembling those met with in osteo-arthritis." The pathological changes met with in the joints of those who have died from this disease are not often seen in our museum collections; perhaps the best examples are those in the museum attached to St. Bartholomew's Hospital. As regards treatment, rest, with the application of cold, is usually sufficient to produce a cure, and suppuration is not a complication to be feared; the surgeon should, however, be on his guard to prevent the formation of adhesions in the joint, and careful not to employ violence in breaking them down should they have already formed.

CASE 1. *Hæmophilia.*—Joseph B——, aged five years, was suffering from swelling of the right knee when he first came as an out-patient in February of this year. He was a pale, clear-skinned child, with light hair and blue eyes. His mother stated that he was a fat and apparently healthy child till he began to walk at the age of eighteen months. The falls which he then had produced very large ecchymoses, and on several occasions lumps formed upon the buttocks about the size of a hen's egg, which disappeared in a few days in a bruise. When two years old he fell on his right elbow, which became swollen and discoloured. He was taken to the Evelina Hospital and treated with a splint; this very quickly got well. When three years old the left elbow became swollen after a fall; this also quickly got well. From this time up to August, 1888, no joint was affected, and his general health was good. He then slipped, but did not actually fall, after which he complained of pain in the right hip. He was taken to a hospital and kept there, on the presumption that the case was one of hip disease, till February of this year. He was discharged wearing a single Thomas' splint. A few weeks later, the right knee became swollen and tender, although the child was still in the splint and resting. At this time he came to the out-patient department. The hip was then freely movable and painless, but there was a semi-fluctuating swelling about the right knee, and some pain on movement. A splint was applied, and the knee strapped. The knee was quite well fourteen days later. In March the left knee became swollen without any history of injury; it was then that inquiries were made into his history, and the case diagnosed as one of hæmophilia. Rest, without a splint, was advised. The joint quickly subsided. Three weeks later the right wrist became affected, and again got well in a week's time. In May the left knee became again affected, and quickly subsided after rest. A month later the left ankle became swollen, and remained so for a few days. The patient was then sent to the seaside, and seemed much benefited; however, when last seen, Aug. 14th, the right ankle had just become affected. Since last summer the joints have become affected without any definite injury, such as a fall. The child bruises very easily, and when pinched at school becomes black and blue all over. He has never suffered from any external hæmorrhage, epistaxis, or hæmaturia. On inquiring into the family history, ample proof of the hæmophilic tendency of the child was obtained, as will be seen by the following table:—

GRANDPARENTS.

Grandfather. Dead; cause unknown.

Grandmother. Died aged 55 of heart disease.

Thirteen children. Males, 9; females, 4; (of these 5 bleeders).

Five brothers died in infancy. Cause unknown.	Thomas, aged 7. Died at Guy's of hæmorrhage.	James, aged 22; bleeder. Cause of death unknown.	Harry. Died aged 26; bleeder. Several times in hospital for bleeding. Cause of death cardiac disease.	Margaret, aged 36. Bruises easily. Alive and unmarried. Bleeder.	Mother of patient, aged 30; not bleeder, but suffered from flooding after two confinements.	Sister; married; six children; no bleeders.	Sister; married; three children; no bleeders.	Brother; unmarried; not a bleeder

Three children (two bleeders).

Patient, aged 5.	Male, aged 18 months. Died from hæmorrhage after circumcision.	Male, aged 18 months; alive, and so far has shown no evidence of bleeding.

Remarks.—In the above tree it will be noticed that there is the usual prolific tendency of such families, and that there is a preponderance of males over females, as noticed by Mr. E. Lane.[3] But it is rather strange that, in the mother's family, the females were as liable to show the tendency as the males; for, out of nine male children, only three were bleeders, although the death of five other brothers in childhood points to some unusual cause of mortality, whereas, out of four female children, two showed evidence of bleeding. The fact that the patient had been admitted into a hospital as a case of hip disease, and discharged as nearly cured, suggests that some of the cases of joint disease, especially those affecting the hip, diagnosed as tubercular, and which have yielded rapidly to treatment, may be in reality cases

[1] A Treatise on the Hæmorrhagic Diathesis.
[2] Diseases of the Joints, p. 161.
[3] Brit. Med. Jour., vol. i., 1885, p. 840.

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of a similar nature. Thus we find the report of a bleeder admitted into the Sunderland Infirmary for synovitis of hip, who subsequently developed a tonsillar abscess, which on being opened caused almost fatal hæmorrhage. On inquiry it was found that the patient came of a hæmorrhagic stock.[4] This probably was a case of hæmorrhagic effusion into the hip, as we learn that it quickly got well.

CASE 2. *Supernumerary auricle on neck.*—F. T——, a healthy boy, aged six months, was first seen on June 25th. On the left side of the neck, over the middle of the anterior border of the sterno-mastoid, was a nipple-like projection about half an inch in length; a rod of cartilage was prolonged into it from a thin plate which was freely movable in the subcutaneous tissue. This plate felt somewhat the shape of an auricle, being concave in front and terminating above and anteriorly in a sharp point. The projection had increased in size since birth. After a drawing had been made, the projection was removed by an elliptical incision. A process existed, dipping down deeply apparently beneath the sterno-mastoid, to which it was attached. The wound unfortunately suppurated, but healed quickly after a counter-opening had been made in the front of the neck. The condition found on dissecting the projection is shown in the accompanying drawing. The



nipple-like nodule of skin contained a delicate rod of fibro-cartilage, which is attached below to a curved bar of bone, and this again terminates in a plate-like expansion, also of osseous material. The bar lay in the subcutaneous tissue, while the plate was deeply situated and was firmly attached to a muscle, probably the sterno-mastoid. A resemblance may easily be fancied between this structure and the pinna, the bar representing the anti-helix terminating below in the antitragus and the plate-like expansion the lobule. But unfortunately the deep situation and the osseous structure of these parts of the excised mass are at variance with the notion. The terminal rod of fibro-cartilage is the only part which could be considered the homologue of an auricle, while all that can be said of the deeper part is that it is a bar of bone probably formed in a branchial arch. To carry analogy further it may be compared to a hyoid or even a mandibular arch.

ROYAL INFIRMARY, NEWCASTLE-ON-TYNE.

A CASE OF ATROPINE POISONING; REMARKS.

(Under the care of Dr. OLIVER.)

POISONING by atropine is not of frequent occurrence, and the following case is an important contribution to the literature on the subject. A dose of two grains of atropine has proved fatal in the adult.[1] Dr. Oliver's patient appears to have taken nearly twice that amount, and the symptoms produced by the drug were severe. Drs. Ott and Colman[2] found the increase of body temperature produced by atropine to be independent of the blood pressure, and believe its influence to be a stimulation of the thermogenetic centres in the spinal cord, considering that the rise of temperature is paralleled by that which occurs in tetanus. This case also adds one to the fairly large group in which the subcutaneous administration of morphia has apparently done good, a result contrary to the finding of the Edinburgh Committee, that "meconate of morphia does not act antidotally after a large dose of atropia; thus, whilst atropia is an antidote to morphia, morphia is not an antidote to atropia." For the following account we are indebted to Mr. T. W. Gibbard, house-physician.

M. A. D——, aged twenty-one years, was admitted into the Royal Infirmary, Newcastle-on-Tyne, on Aug. 4th, 1889, with symptoms of belladonna poisoning, having taken nearly one ounce of "eye-drops" (four grains of sulphate of atropine to the ounce) twelve hours previously, whilst drunk. Salt and water had been given by her friends, which had failed to produce vomiting. On admission, at 12.15 P.M., the patient's condition was as follows:—The face was flushed, the lips dry and blistered, tongue and mucous membrane of mouth dry. The eyes were somewhat prominent, the conjunctivæ injected, the pupils widely dilated and they did not react to light. There were twitchings of the fingers and toes, with marked tremor. She did not answer to her name, and refused to take milk. She was delirious, constantly moving in bed, picking the bed-clothes, muttering, and pointing to imaginary objects. The movements were irregular and the skin dry. Temperature 101° F., pulse 135, respiration 32 (irregular). No vomiting. There was retention of urine, and the plantar and patellar reflexes were increased. She was ordered one ounce of castor-oil with eight minims of tincture of opium. At 3.30 P.M. the patient was still delirious and very excited; she did not appreciate questions and kept talking incoherently. There was no rash. Nearly forty ounces of urine, sp. gr. 1015, medium amber colour and free from albumen, were removed with difficulty by catheter, patient offering great resistance. She was given three minims of the hypodermic solution of morphia. At 6 P.M. she was not nearly so noisy. Free perspiration; temperature 100·4°. At 8 P.M. she was given another hypodermic injection of morphia, followed by four hours' sleep.

Aug. 5th.—Patient seems much better, talks quite sensibly, knows her name, and appreciates everything that is said to her; has taken milk. Her pupils are still dilated, tongue dry, and she complains of thirst. The skin is hot, temperature 103°, pulse 128. Chest resonant on percussion and no abnormal sounds on auscultation over lungs. Heart sounds healthy. Has passed urine. Bowels have not acted. During the day she was very drowsy. Evening temperature 102°.

6th.—Morning temperature 100·4°, evening 101°. Still drowsy.

7th.—Morning temperature 100°, evening 99·8°; an enema was ordered, the bowels not having been opened since admission. The next day her temperature was normal and continued so, but she was still constipated, requiring a calomel and jalap powder on the 10th.

A week after admission the pupils were still dilated, though her sight was good. She was discharged well on the 16th.

Remarks by Mr. GIBBARD.—I think the points of interest in this case are the following:—1. The high temperature for the first three days. This, in the absence of any inflammatory cause, confirms the opinion of most therapeutists as to the pyrogenic influence of atropine—*vide* Mitchell Bruce, who, however, regards the rise of temperature as correlated with the increased nutritive activity caused by quickened circulation and respiration. The heightened pulse and quickened respiration, noticeable before the rise of temperature, suggest that a large dose of poison was taken, a moderate dose being supposed to slow the pulse. 2. The constipation, which continued for a week after taking the poison, the patient requiring an enema on the 7th and calomel on the 10th, this being contrary to the general idea that belladonna has a tendency to cause increased peristalsis of the bowel, and is probably explained by

[4] Ibid., 1884, vol. ii., p. 714.

[1] Taylor's Medical Jurisprudence, p. 433.
[2] Wood's Therapeutics, p. 215.

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the peculiar effect of atropine upon the secretion of mucous surfaces. 3. The good effect of morphia in this case, the skin becoming moist, and the delirium entirely disappearing after the second injection.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

TWO CASES OF LITHOLAPAXY IN CHILDREN.

(Under the care of Mr. F. E. MANBY.)

WE presented our readers a fortnight ago[1] with the records of four cases of removal of stone from the bladder in male children, two by means of litholapaxy and two by means of supra-pubic cystotomy. In the former the stones were of small size, weighing ten and thirty grains respectively, and in the latter 215 and 562 grains. The following cases are equally good examples of the successful crushing and removal of small stones, and resemble them in many particulars. It is advisable that the surgeon be provided with a second lithotrite, as one may get out of order or break. For the following notes we are indebted to Mr. J. Harley Gough, late house-surgeon.

CASE 1.—Ernest P——, aged five, was admitted into the hospital on Feb. 4th, 1889, suffering from symptoms of stone in the bladder. The boy was sounded and a small calculus detected. On March 8th litholapaxy was performed under chloroform, a No. 5 lithotrite being used to crush the stone, and the débris evacuated with a Thompson's bladder aspirator and No. 6 cannula. The patient soon recovered from the effects of the anæsthetic, and towards evening was playing in bed apparently quite well. He passed urine freely, and only complained at first of a slight scalding sensation in the urethra. There was some little sandy deposit in the urine for the first two days. On March 17th he was sounded under chloroform very carefully, but nothing abnormal was detected in the bladder. He was discharged cured on March 24th. The stone was composed of uric acid, and the dried fragments weighed nine grains.

CASE 2.—Frank R——, aged nine, was admitted on July 29th, 1889, with very severe symptoms of vesical calculus, and when sounded a moderate-sized calculus was detected. On July 25th the stone was crushed under chloroform with a No. 5 lithotrite, and the fragments evacuated as in the preceding case. The operation lasted about forty minutes. The patient soon rallied from the effects of the operation, and expressed himself much relieved, all his urinary troubles having disappeared. On July 28th he was sounded under chloroform again, and with negative results. The boy was discharged cured the next day. The calculus was a uric acid one, with an external layer of phosphates; the dried fragments weighed thirty-six grains. These boys were seen recently, and the parents of each say they have been quite well, and have had no bad symptoms since they left the hospital.

[1] THE LANCET, Mirror of Hospital Practice, vol. ii., p. 903.

Medical Societies.

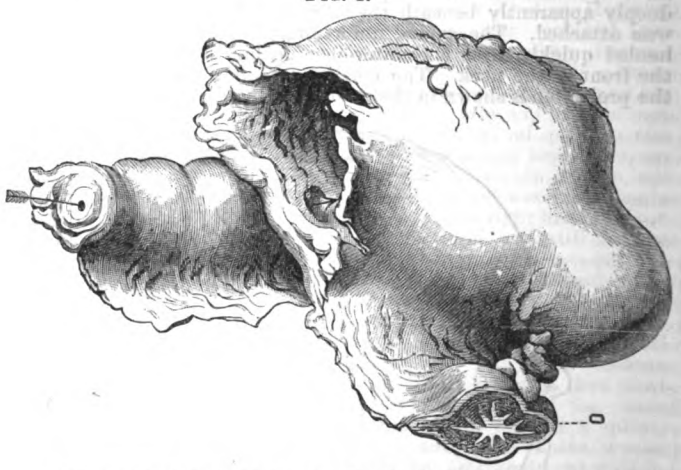
ROYAL MEDICAL & CHIRURGICAL SOCIETY

Ruptured Tubal Pregnancy.

AN ordinary meeting of this Society was held on Nov. 12th, the chair being occupied by the President, Sir Edward Sieveking.

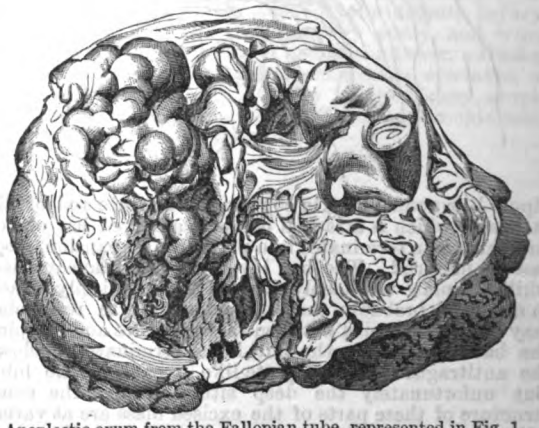
Mr. BLAND SUTTON communicated a paper on a case of Ruptured Tubal Pregnancy, and added some remarks on the cause of early rupture. The patient was a woman aged thirty-seven, who, though married for seventeen years, had never before been pregnant. There was no history of gonorrhœa. The catamenia had been regular till three months before admission, when she missed two periods. Five weeks before admission the patient was attacked with collapse, from which she slowly recovered; a few days later a swelling was noticed in the right side of the abdomen. On admission into the Middlesex Hospital a swelling was found in the right iliac fossa, which extended upwards to the costal arch and inwards to the mid-line. A sound introduced into the uterus passed to the extent of three inches. In Douglas's fossa on the right side a swelling was felt behind the uterus; there was tenderness over the abdominal aspect of this swelling. The temperature for the twelve succeeding days varied between 99° and 101° F. Laparotomy was performed, and putrid blood clot was found in the pelvis extending up to the liver. Smart bleeding from the right broad ligament occurred, which was checked by transfixion of the ligament close to the uterus. The tube and ovary were removed, the abdomen washed out with warm water, and a glass drainage tube inserted for three days. The patient did well. The ovary contained a true corpus luteum of pregnancy, and a rounded mass removed contained an apoplectic ovum in which was a fœtus of the seventh or eighth week. The varieties of apoplectic ovum were then discussed, and it was suggested that if an ovum of the size of a walnut became suddenly enlarged by hæmorrhage to that of an orange the result would be expulsion if it lay in the uterus, but rupture with hæmorrhage if it lay in the tube. The author urged finally that early rupture was to be attributed to the formation of an apoplectic ovum suddenly distending the tube, and held that no intra-peritoneal hæmatocele should be attributed to ruptured tubal pregnancy unless membranes, a fœtus, or both were forthcoming, however suggestive the clinical evidence might be. (Figs. 1, 2, 3.) It would also be valuable to obtain an

FIG. 1.



The distended Fallopian tube, showing the situation of the rupture.
o, Ovary with corpus luteum.

FIG. 2.



Apoplectic ovum from the Fallopian tube, represented in Fig. 1.

FIG. 3.



Distorted head of the fœtus. About seventh or eighth week of gestation.

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expression of opinion as to the significance of the presence or absence of breast signs in tubal pregnancy.

Mr. SUTTON also communicated details of another case. A woman aged twenty-five was admitted into the Middlesex Hospital, under Dr. William Duncan's care, with pelvic pain and painful menorrhagia. Vaginal examination revealed a tumour on the left side of the uterus as large as a Tangerine orange. In September, 1886, a few weeks after her admission, abdominal section was performed by Mr. Sutton, and a hæmatocele, encysted in a portion of the great omentum, was removed with tube and ovary. The hæmatocele was supposed to be due to rupture of an ovarian follicle, of which many large ones existed in each ovary. A more critical examination of the specimen showed that it was a ruptured tubal pregnancy. The rupture occurred about an inch from the abdominal ostium of the tube, and an apoplectic ovum lay snugly nested in the omental fold, surrounded by blood clot. The ovum equalled a chestnut in size and would correspond to about the fourth or fifth week. How long the hæmatocele had existed it would be very difficult to state, as it was impossible from the history to fix the date of rupture. The patient made a rapid and excellent recovery.

Dr. PRIESTLEY desired to dwell on one or two practical points which might serve as guides with reference to the question of operation. Some cases of ruptured tubal pregnancy had occurred which were not due to an apoplectic ovum. He remembered one patient whose gestation continued for between three and four months, and then the tube ruptured. No trace of apoplectic ovum existed, but there was quite a distinct placenta and cord. He had seen other cases also in which the ovum was not embedded in clot, but the tube had been unable to bear the strain, and this had given way. He thought that Mr. Sutton had exercised a wise discretion in removing the tumour when he did. It was necessary to remember that there was the greatest possible difficulty in diagnosing between hæmatocele and intra-peritoneal rupture. In pure hæmatocele the patient usually got well, but if the case were interfered with by operation it was liable to go wrong, either from the direct results of the operation or from subsequent hæmorrhage. Such cases should be interfered with only when suppuration took place. But when a pregnancy occurred and the tube burst, it was best to remove the ovum and the tube at the same time. The dangers of leaving an ovum extravasated into the peritoneal cavity were by no means slight, and operation early performed might save the patient from many misadventures. The initial collapse might arrest the hæmorrhage, the patient might rally, and the ovum remain in the pelvis; it then might grow, and the patient be liable sooner or later to fresh dangers, which had to be met by a more serious operation. The difficulty of diagnosis was very great; some of the symptoms might be absent—as, for instance, the breast symptoms were in Mr. Sutton's case; indeed, there might be no other signs but the missing of the period. In cases of doubt he would be disposed to give the patient the benefit of that doubt and leave the case alone. He referred to the case of a lady who was seized suddenly with the symptoms of hæmatocele, and nearly died of collapse. Operation was postponed for a few hours, but in the morning the patient was so much better that it was not done. Later an abdominal pregnancy developed, and laparotomy had to be performed.

Dr. MATTHEWS DUNCAN said that the successes of Mr. Lawson Tait and others had led to an extension of laparotomy in cases of this kind that he could not follow or adopt. It appeared to him quite impossible at present to lay down conditions as to when operations should be resorted to and when it should be avoided. These enthusiasts for operation taught that there was no such thing as a hæmatocele except those produced by ruptured tubal pregnancy; whereas it was known that hæmatocele was common even in virgins. Mr. Sutton rightly said that a case could not be considered one of ruptured tubal pregnancy unless ovuline structures were found. If it were admitted that all these cases were pregnancies, and that all were otherwise unavoidably fatal, it of course followed that it was necessary to operate on all of them. But that a tubal pregnancy might rupture without a fatal result was certain. His own impression was that those which were let alone did quite as well as those which were operated on. During the last twelve months he had seen quite a dozen cases in which the clinical signs of tubal pregnancy were strongly marked in some of these he had urged operation, but they had all got well. Referring to the case to which Dr. Priestley had alluded, he was called to the patient, who was supposed to be pregnant, and found her collapsed from rupture of the tube. She was pulseless, cold, white as marble, and supposed to be dying. It seemed impossible to interfere surgically, as she was in such a critical condition. But she rallied in a remarkable way, and eight months afterwards she was operated on, and a dead fœtus extracted from the abdomen. Many such cases were known in which a woman recovered from the rupture of the tube while pregnancy still went on. He repeated that the presence of hæmatocele was no evidence of tubal pregnancy. He did not understand Mr. Sutton to mean that an apoplectic ovum was a frequent cause of ruptured tubal pregnancy, but that in the two cases he had related it was the precipitating cause of the rupture.

Dr. HERMAN asked what was an apoplectic ovum? If Mr. Sutton meant by that a slight hæmorrhage into the chorion, he was prepared to agree with him. One could not expect to find a partly organised "carneous mole," such as those coming from the uterus. In these cases, first there occurred one or two slight hæmorrhages, and then followed a much larger one, which caused the rupture. Dr. Janaway of New York was responsible for this theory, and pointed out in support of it that blood of different dates was often found in these cases. The amnion had been found lying quite loosely in the tube, and showing no signs of distension with blood. He thought that the symptoms complained of in tubal pregnancies (the severe paroxysmal pain &c.) were also to be explained by an apoplectic condition of the ovum; the cause of these pains being slight hæmorrhage into the chorion, distending the tube.

Dr. GRIFFITH wished to point out that Mr. Sutton opened the abdomen seven weeks after rupture of the tube. To establish his theory it would be necessary to prove that the hæmorrhage was of the same amount immediately after the rupture. He would arrange the sequence of events in a different order; the apoplectic ovum he thought first died, then the hæmorrhage followed; he considered that it still remained to be proved that the hæmorrhage was the cause.

Dr. ROBERT LEE asked for an anatomical definition of an apoplectic ovum. Was it a hæmorrhage into the sac of the amnion, or where did it take place? The bleeding, he thought, in most cases came from the ruptured tube. A specimen of this kind in the College of Physicians Museum showed no hæmorrhage into the amnion. Could it be called an apoplexy of the chorion? He believed it was a hæmorrhage external to the decidua, and that the membranes within lay clear of blood. In that case "apoplectic ovum" was not a scientific term, the hæmorrhage coming from the sinuses of the decidua. He thought that the action of the chorionic villi produced a gradual atrophy of the surface of the tube, and that this explained the occurrence of rupture. The best method of treatment was to cut down at once, but one must be guided by the individual symptoms.

Dr. HEYWOOD SMITH said that the desirable thing was to formulate guiding rules for treatment. Cases of undoubted rupture of the tube occurred, and yet the patient survived. He related a case in which the diagnosis was confirmed by the escape of a decidua from the uterus, and yet the patient recovered without operation. Granted that a patient might recover from rupture of the tube, there was still the possibility of the fœtus living and producing graver complications. He therefore advocated operation either at once or soon after rallying had taken place.

Dr. CULLINGWORTH was glad that Mr. Sutton had raised his voice against the tabulation of those cases as gestation where no ovum had been found. Intra-peritoneal hæmatocele might occur from numberless causes besides ruptured tubal gestation. During the last few months he had observed clinically a large number of hæmatoceles, and in the last two cases he had examined he detected by palpation a large tube. He advised abdominal section, and a considerable amount of soft, dark clot was found encysted in the peritoneum, but the source of the hæmorrhage was not a ruptured tube; for in one it was an ordinary hæmatosalpinx, and in the other a ruptured varicose vein. The proper treatment of hæmatocele in the greater number of cases was not to interefere, but where one could diagnose a large tube, and the cause of the hæmorrhage still remained, it was one's duty to advise abdominal section and to remove the cause. If he could diagnose tubal gestation and he felt that the diagnosis was fairly well

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founded, even if there were no signs of rupture, he would advocate laparotomy and make the diagnosis certain. The majority, if left to themselves, ruptured, and ended fatally; it was, therefore, advisable to open the abdomen and remove the enlarged tube, together with the gestation. And if this was advisable before rupture, it became all the more so after this had occurred.

Dr. WALTER of Manchester read a short abstract of a case which he ventured to think corroborated the theory of apoplectic ovum being the cause of ruptured tubal pregnancy. The patient was a woman aged thirty-two, a weaver, who had been married eleven years, and who had two children and five miscarriages. Three weeks before admission she had been seized with sudden pelvic pain and faintness whilst at work. She considered herself to be two months pregnant, and had milk in the breasts and morning sickness. The case was looked on as one of ruptured tubal pregnancy. The patient rallied well, and was able to go about, but on several occasions had a good deal of pelvic pain, and for a week before admission was confined to bed. On admission the whole pelvic cavity was found occupied with an elastic tumour in close contact with the uterus. Dilatation of the cervix and examination of the interior of the uterus gave a negative result. Laparotomy revealed a dark-coloured elastic tumour reaching nearly to the umbilicus; the parts were much matted together. The swelling was tapped, and over a pint and a half of chocolate-coloured fluid escaped. A clot as large as a closed fist was found in the floor of this cyst. The patient ultimately recovered, after the supervention of an attack of pelvic inflammation. Examination by Mr. Sutton of the clot removed resulted as follows: The concave aspect of the clot was lined with chorion; a small fleshy mass was found within the clot shaped like a fœtus of the sixth week, and on teasing this the remains of the intestine and a piece of viscus resembling liver was exposed; it was evidently an apoplectic ovum.

Mr. SUTTON, in reply, said that Dr. Priestley had given it as his opinion that not all the cases of rupture were due to apoplectic ovum. The mere immersion of the fœtus in blood would not produce an apoplectic ovum, for the effusion occurred into the decidua itself, and took place before the placental circulation was thoroughly well established. It was not necessary to find hæmorrhage into the amnion in order to establish a diagnosis of apoplectic ovum. The conditions were comparable with those of cerebral hæmorrhage; in the latter the effusion might be either so profuse as to rupture into the ventricles or it might simply lacerate and tear up the brain substance without involving the ventricular cavities. The ovum from the uterus usually possessed a central cavity containing perhaps a fœtus or a cord, but the ovum from the tube generally showed a compressed amniotic cavity, being squeezed up by the pressure of the exuded blood. He believed that the hæmorrhage usually took place into the decidual membranes before the ovum left the tube. He could not discuss the points raised by Dr. Griffith until he had examined more specimens, and it remained for Dr. Griffith to prove his own peculiar views with reference to the sequence of events in the case of a "carneous mole" in the uterus, which were quite at variance with those usually received. He was pleased to find so many speakers agreed that cases of intra-peritoneal hæmorrhage should not be classed as instances of ruptured tubal gestation unless some evidence of fœtus or membranes were forthcoming. He considered it unjustifiable to say in these negative cases that the fœtus had been dissolved, but cases in which embryoes were not found should be put in a class by themselves until a true cause for them could be found.

CLINICAL SOCIETY OF LONDON.

Myeloid Sarcoma of Humerus.—Round-celled Sarcoma of Testicle.—Myositis and Neuritis.—Actinomycosis.—Myxœdema.—Rheumatoid Arthritis.—Pott's Fracture followed by Tetanus.—Dislocation of Forearm.—Paroxysmal Methæmoglobinuria.

AN ordinary meeting of the Clinical Society was held on Nov. 8th, the President, Mr. Christopher Heath, being in the chair. Living specimens were first shown.

Mr. MACNAMARA showed a patient in whom the head and neck of the humerus had been excised for Myeloid Sarcoma, and there had been as yet no recurrence of the disease.

Mr. MACNAMARA also introduced a man one of whose testicles he had removed for a rapidly growing Round-celled Sarcoma. Two years had elapsed since the operation, and the patient remained free from the disease.

Dr. HANDFORD showed a man, aged forty-eight, the subject of Unilateral Myositis and Neuritis. Four months and a half ago the right arm began to fail in strength and œdema and swelling supervened. The biceps, deltoid, and pectoralis major had a "wooden" feel, and considerable atrophy had followed. The points about the case were its unilateral distribution and the association of the muscular affection with the neuritis. Was the myositis primary, and had it by pressure on the nerves produced neuritis, or was the neuritis the primary lesion and the muscular condition induced thereby?

Dr. KELLER showed a case of Actinomycosis in a clerk. Three months before coming under observation the patient developed a swelling at the side of the jaw which was attributed to a carious tooth, though the latter had given no pain. It was extracted, but the swelling persisted. Then incisions were made into it both from without and within, but the tumour had remained. The pus which was discharged was characteristic, being viscid, mixed with blood, and containing grains of the "ray-fungus" of actinomycosis. He had made inquiries about the diet, but could find nothing to suggest the origin of the disease. The patient had had nothing to do with cattle. He diagnosed the disease because there was a fistula which opened and closed without local cause, such as necrosis &c., and there was no history of specific disease. In another case there was a considerable amount of induration around the incision. He proposed to lay the abscess freely open, scrape it, and apply iodoform locally.

Dr. ABERCROMBIE brought forward a case of Myxœdema in a young subject. A girl aged fifteen had developed symptoms between the ages of eight and nine. It came on after an illness which was said to be Bright's disease, and, from being a bright child, she had become apathetic, the skin had grown coarse, and the features altered. The girl suffered a great deal from cold. She had been late in teething and walking, but otherwise had been a normal child. Her growth was stunted, the features typical of myxœdema, and the hands spade-like.

Mr. G. H. MAKINS exhibited a case of Rheumatoid Arthritis in a child. When between three and four it had fits, and then became unable to walk. All its joints except the shoulders had become affected, and the child was bedridden. There was double hallux valgus, though the child had not worn boots. The skin of the forearms was glossy.

Mr. W. RIVINGTON then read notes of a case of Pott's Fracture, with Fracture and Displacement of the Astragalus, followed by symptoms of Tetanus, which subsided after removal of the displaced fragment. The patient, a labourer, aged twenty-seven, fell a distance of fourteen feet from a scaffolding, and sustained the above-mentioned injuries to the left leg and foot, on Oct. 26th, 1887. He was admitted into the London Hospital. There was a good deal of swelling, and the limb was placed on a splint. Inflammation of the soft parts was followed by suppuration and some sloughing over the displaced astragalus. Symptoms of tetanus supervened on Nov. 24th, when Mr. Rivington explored the part and removed the displaced astragalus (which was broken across the body just below the lateral facets) by means of his forceps. The symptoms subsided in a day or two, and the patient recovered with a useful foot. Cases of dislocated astragalus in which tetanus supervened and subsided after amputation, referred to by Bryant and Holmes, were cited, and the possible causes of tetanus—viz., nerve irritation, nerve inflammation, nerve tension, muscle tension, and blood poisoning—briefly discussed. The author considered that, if practised early, excision was preferable to amputation, but that where the tetanic symptoms were fully established probably amputation might be regarded by some as the safer procedure.—Mr. HEATH asked what was Mr. Rivington's experience in removing immediately the broken portions of astragalus. Was his success so great as to warrant immediate interference in cases of this kind?—Mr. RIVINGTON replied that he had operated four times for this lesion, once primarily and three times secondarily; in one of the latter the skin was on the point of sloughing. If he had another such

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case, he would certainly advise immediate removal of the fragment.—The PRESIDENT added that in his experience these amputations for tetanus were almost invariably fatal.

Mr. W. G. SPENCER then detailed a case of simple recent Dislocation backwards at the Elbow of both Bones, irreducible from the lower end of the humerus, being held like a button by a rent in the anterior capsular ligament. A boy ten years of age was knocked down by a carriage, and a dislocation of both bones backwards at the elbow was found. Reduction with and without chloroform was tried, with negative results. After a week, reduction under chloroform again failing, the boy was admitted into Westminster Hospital, and a further attempt, both by Astley Cooper's and Lister's methods, made, but without avail. After two weeks' rest in bed the arm remained semi-extended without active or passive movement. Three weeks after the injury a posterior vertical incision was made into the joint, and the olecranon with the whole of the great sigmoid notch of the ulna was removed. A tight band was then found stretching across the back of the humerus at the level of the olecranon fossa. This band was found to become tighter when any attempt at flexion was made, or when the hand and forearm were pulled upon in the long axis of the limb. The forearm was pushed upwards sufficiently to slacken the band, which was then pushed over the end of the humerus. The lower end of the humerus became quite free, and the rent in the anterior ligament could be felt. After the wound had healed and the boy had become an out-patient, passive movement was not well kept up. Still he had recovered with a good arm, and was shown at the meeting. He could flex it to a right angle and extend it to about 150°. Complete extension was apparently obstructed by the lower end of the humerus, which was not taken away. The manner in which the backward dislocations took place was then referred to, also their production on the dead subject. Only one case could be found in which a *simple recent* dislocation had been examined. In this case, under Professor Michaux of Louvain, the arm was amputated for gangrene a week after the injury, during which time several forcible attempts at reduction had been made. The lower end of the humerus had torn the anterior ligament and the brachialis anticus. The tendon of the biceps and part of the brachialis anticus were behind the external condyle. (Both the median nerve and the brachial artery had been ruptured. The radial pulse had been felt after the accident and before the manipulations, after which it disappeared.) Therefore, in this case, both Cooper's and Lister's method of reduction tightened the rent in which the lower end of the humerus was grasped, and any great force would have certainly torn off the lower epiphysis of the humerus. No subcutaneous tenotomy could have got at the band. Active treatment was indicated, since it was impossible to bring the arm to a right angle, as had been done in other cases of irreducible dislocation.—Mr. HEATH remarked that injuries about the elbow-joint gave the surgeon a good deal of trouble. Under the methods of modern aseptic surgery much light might be thrown on these obscure cases by exploration. The subject of excision of the elbow in young subjects opened a wide field for discussion. He would like to know what were the prospects in store for them as to the growth of the limb, and its ultimate usefulness.—Mr. RIVINGTON said he had seen two or three cases in children, but he had been unable to trace them after the operation.—Mr. SPENCER, in reply, said he had seen one case in a child of ten in which much shortening followed, and another in a girl of fifteen. The latter was employed as a lacemaker, and with the aid of an instrumental appliance attached to the elbow was enabled to use the hand for even the most delicate movements.

A case of Paroxysmal Methæmoglobinuria, which had been under the care of Dr. Ringer was then related by Mr. BARTON. The patient, a man aged thirty-nine, came to University College Hospital complaining of passing bloody urine at intervals with shivering. He had had ague in India, and primary and secondary syphilis; he had also been in a lunatic asylum. His first attack came on in India. He caught cold while out walking, and suddenly began to shiver, his face and hands becoming blue and cold. He experienced numbness in the feet and legs, gradually extending upwards to the trunk, and followed by shooting pains in the region of the kidneys. This was followed by the passage without pain of some dark urine. He then went home to bed, and after sweating, and a few hours' sleep, woke, feeling quite well. All his organs were healthy except for slightly enlarged liver. There was nothing in the family history bearing on his disease. The attacks usually lasted about six hours, and he felt quite well in the intervals. In those which occurred whilst under observation it was noticed that on one occasion albumen was present before the colouring matter could be detected; that the greater the depth of colour the less the quantity of urine passed, the quantity gradually becoming normal as the colour disappeared; and that the urine after the attacks was very light in colour and of low specific gravity. In the urine passed during an attack no corpuscles, oxalates, or crystals were found. A specimen was sent to Dr. McMunn for spectroscopic examination, who claimed that *all* its colour was due to methæmoglobin, and stated that all the cases of paroxysmal hæmoglobinuria whose urine he had examined gave the same result. The blood of a finger round which a ligature had been tied, and the finger immersed in ice-and-water for ten minutes, showed little tendency on the part of the corpuscles to form rouleaux. The corpuscles were irregular in shape, and had a tendency to adhere to one another at their edges. The white corpuscles were often smaller than the red, and the effect of a meal on the relative number of white to red corpuscles showed no deviation from the normal. With other methods of treatment chlorate of potash was given in gradually increasing doses, the time of administration being strictly from 9.30 A.M. to 12 midday, until in that time he took half an ounce. On another occasion two four-grain doses of nitrite of sodium were given with half an hour's interval, but in neither case was the urine, or blood, or the patient obviously affected. Nitro-glycerine tablets of 100th of a grain were tried, and on one occasion the patient took twenty-eight, or more than a quarter of a grain in two and a half hours, without obvious effect on the urine or blood. The treatment was unsatisfactory. The arsenic, however, seemed to produce longer intervals between the attacks; but this may have been due to the approach of summer, when his attacks became always less frequent.—Dr. BARLOW said that the observation of the passing of a large quantity of albumen before the pigment was interesting. In order to elucidate these cases it was necessary to note carefully the co-existences. The association with syphilis was noteworthy, though that of itself could not be the cause. Other cases had been associated with ague. Syphilis, like ague, seemed to lessen the power of resistance of the vessels, and so render their equilibrium more easily disturbed. The similarity to Raynaud's disease was to be noted, for the patients also had attacks of paroxysmal hæmoglobinuria, and they sometimes passed into a sleepy state. He asked if blood-jaundice had been noticed on the day after an attack; in some cases a certain amount of yellow staining had been seen.—Dr. ARCHIBALD GARROD inquired if the blood-serum was stained in this case. Some of these patients had intermittent albuminuria at times when hæmoglobin was absent. It had also been pointed out that some cases of acute nephritis were preceded by hæmoglobinuria.—Dr. COUPLAND alluded to the work of the late Dr. Mahomed on this subject. He had pointed out that in scarlet fever blood-colouring matter escaped by the urine before evidence of nephritis existed. This suggested the presence of a poison, acting not only on the walls of the vessels, but also on the blood itself.—Sir DYCE DUCKWORTH said it would be interesting to know the after-history of the cases which had been reported up to the present time.—Mr. BARTON, in reply, said that the conjunctivæ had a lemon colour. No hæmoglobin was found in the serum of a blister experimentally raised, and the temperature had not been high.

MEDICAL SOCIETY OF LONDON

Cerebral Abscess.—Pneumothorax.

AN ordinary meeting of this Society was held on Nov. 11th, Dr. C. Theodore Williams, President, in the chair.

Mr. MARMADUKE SHEILD read a short paper on a case of Cerebral Abscess due to Ear Disease evacuated by Trephining. The patient was a Scotch gentleman aged thirty, of active, intellectual habits. The leading symptoms were long-standing otorrhœa, pain in the head, rigors, and occasional vomiting, but no optic neuritis. All these symptoms

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disappeared, and he improved so much under treatment that he was about to return home, when more grave complications suddenly arose. There were Cheyne-Stokes' respiration and sluggish cerebration, especially denoted by slow stammering speech. Trephining was performed, and an abscess found in the temporo-sphenoidal lobe, containing greenish, offensive pus. The operation quite failed to relieve the symptoms, and death occurred in about forty-eight hours. The leading points of the necropsy disclosed extensive caries of the temporal bone, and an opening in the anterior aspect of the *pars petrosa*. The abscess was not of recent date, being lined by a distinct membrane, and it had opened by a small aperture into the ventricles. The latter cavities were full of pus, and recent basal meningitis extended from the pons to the Sylvian fissure on the right side. It seemed clear that the operation had been performed just too late. The clinical fact of these abscesses existing without declared symptoms was emphasised, and arguments were advanced advocating the employment of a small trephine aperture for purposes of exploration, whereby exploratory punctures into the cerebral substance might be more early and safely performed.—Dr. H. SAINSBURY related the case of a boy aged seven, who was admitted into the Royal Free Hospital suffering from pain in the right side of the head, with fever, vomiting, and diarrhœa; there was a discharge from the right ear, and his health had been gradually failing for three weeks before admission. The optic papilla was found to be swollen, and afterwards well-developed optic neuritis supervened. Then followed drowsiness and convulsions, slight conjugate deviation of the eyes to the left being noticed. The case was trephined, but puncture over the cerebellum failed to find pus. Post mortem a large abscess was found in the antero-lateral part of the cerebellum, pressing on the veins of Galen and thus producing considerable effusion into the ventricles.—Mr. BATTLE, the operator in the case described by Dr. Sainsbury, said that at the first exploratory puncture made into the cerebellum the patient turned faint, and he was therefore unable to proceed with the operation. Slight relief followed the escape of some of the cerebro-spinal fluid from the ventricle, but it was not maintained, and the patient died comatose. Dr. McEwen had published a case somewhat similar to that detailed by Mr. Sheild, an old abscess being found in the centre of a more recent one.—Dr. DE HAVILLAND HALL dwelt on the importance of these cases from an insurance point of view. He thought those were wise who would reject altogether cases having a discharge from the ear.—The PRESIDENT had made it an invariable practice to refuse these cases when applying for insurance, for a great many people with a slight discharge from the ear paid absolutely no attention to it, and carelessness might produce serious complications at any time.—Mr. SHEILD, in reply, said the case related by Dr. Sainsbury and Mr. Battle showed the difficulty sometimes experienced by surgeons in finding an abscess even when the cranium was opened. Children bore pressure on the brain remarkably well, and therefore, if signs of pressure in them were developed, it usually indicated a large lesion. Many patients might have disease of the middle ear without discharge; it was therefore well to seek for odour (the smell of a suppurative otitis being characteristic), and to examine with a mirror and speculum. In a patient with chronic ear disease three things were likely to set up acute inflammation—salt water, blows on the head (especially boxing the ears), and the performance of some slight operation; in the latter case the germs always present appeared to gain admission through the open vessels laid bare by the operative procedure.

Dr. EWART then read an exhaustive communication on Pneumothorax and the value of its Treatment by Aspiration, with observations on the composition and pressure of the gaseous contents of the pleura. He ranged his subject under five heads: (1) the narration of clinical cases; (2) ante-mortem and post-mortem observations on the intra-pleural pressure in pneumothorax; (3) the causes and effects of intra-pleural pressure; (4) the chemical composition of the gases of pneumothorax; and (5) the question of the advisability of tapping. He related the clinical history of three cases. The first was one of alcoholic neuritis; left empyema was diagnosed, but this was found not to exist, though there was swelling and œdema of the subcutaneous tissue, dulness over the affected area, and modified breath and voice sounds. An aspiratory puncture at the left base gave a negative result, but after the needle was withdrawn sudden orthopnœa developed, and the patient lingered and died on the eighth day afterwards. The second case was one of chronic phthisis; left pneumothorax gradually supervened, with increasing dyspnœa. Aspiration was performed and gave temporary relief, life being prolonged for one day. The third case was one which had been under the care of Dr. Dickinson, and Dr. Ewart made his acquaintance with it on the post-mortem table. It was one of rapid phthisis in a young man, the symptoms of pneumothorax being acute, and death following within a week. Purulent fluid as well as air were found in the pleural sac. Operation was performed by Dr. Powell's trocar, introduced into the sixth interspace. A water manometer connected with it remained at zero, showing that there was no intra-pleural pressure. But after an act of coughing the pressure rose to twelve cubic inches of water, and then afterwards gradually returned to only a quarter of an inch. Then, when aspiration was used, the heart gradually returned to nearly its normal position. At the necropsy the left apex was found adherent, and towards the axillary surface a thin stretched membrane was perforated. The actual cause of the pneumothorax appeared to be a ruptured emphysematous bulla. The opening was extremely minute, and seemed to be gradually becoming closed. Dr. Ewart performed certain post-mortem experiments on the second case. He introduced a trocar into the left fifth intercostal space, connected it with a water manometer, and obtained therewith the following results: When the subject was in a position of dorsal decubitus there was a positive pressure in the pleura of 10½ cubic centimetres of mercury. When the trunk was raised to a semi-reclining position the pressure rose to 16½ cubic centimetres; placed horizontally again, it fell to 11 cubic centimetres. The cæcum and sigmoid flexure were then laid open to let out the gas from the colon; this reduced the intra-pleural pressure to 8½ cubic centimetres. The abdominal cavity was next laid open by a free vertical and transverse incision, which brought down the pressure to 6½ cubic centimetres. On removing the abdominal organs and dividing the inferior vena cava, there still was found a positive pressure of 3·3 cubic centimetres. The diaphragm on the affected side bulged 11 centimetres below the xiphoid cartilage, though the central tendon remained horizontal. On opening the pericardium through the central tendon the heart was found entirely to the right of the mid-sternum. The pressure after letting air into the pericardium remained the same as before. The left auricular appendix was then excised, but the pressure still remained the same. The right pleura was opened; the right half of the diaphragm then descended and the left intra-pleural pressure rose to 4·8 cubic centimetres, and the heart moved more to the left than it had previously done. The smallness of the increase of pressure on the left side as the result of opening the right pleura was accounted for by the diseased condition of the right lung. The right half of the diaphragm was then laid freely open from below, and the left pleuro-pericardium was seen to bulge inwards. The experiments proved that the heart underwent a simple translation of position without suffering rotation. The author summed up the main displacements as follows:—Flaccidity, and in some cases protrusion of the intercostal spaces; unilateral flaccidity or prolapse of the diaphragm, and displacement of the liver, spleen, or stomach downwards, the latter varying according to the side affected. Dr. Ewart then dealt at length with the variations of intra-pleural pressure, the oscillations of which were in many cases identical with the normal. In one of his patients ordinary breathing gave rise to no oscillation of intra-pleural pressure, but when he coughed there was a considerable pressure, this being due chiefly to an increase of the pneumothorax. He then referred to and compared the condition of the diaphragm in inspiration when the patient was suffering from pneumothorax or paralysis respectively. He showed that after the act of coughing the pressure in the pneumothorax would be increased both directly and indirectly. The question of the composition of the gases found was next dealt with. The quantity of nitrogen appeared to remain the same, and there was an even interchange between the oxygen and carbonic acid—the former decreasing, the latter increasing. He thought that the interchange took place chiefly from the pleura rather than from the lung. Some experiments performed by the brother of Sir Humphry Davy were quoted, showing that gases might be absorbed at different rates from the two pleuræ of the same animal.

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The collapsed lung containing cyanosed pulmonary blood, he thought, might exhale carbonic acid, and some oxygen might be withdrawn from the pleura by this blood, but the chief part of the oxygen found its way into the active capillaries of the parietal pleura, the latter giving out and taking in extra moisture, and the gas being absorbed by the fluid. With regard, lastly, to treatment, he asked if it were worth while to introduce an aspirator and relieve the tension; he thought this should be done even in phthisis, where there was little prospect of relief. Again, he recommended aspiration to assure diagnosis—to distinguish, for instance, between phthisical and the so-called spontaneous pneumothorax. And then, if a first operation had been performed and the heart had not returned to its place, after a reasonable lapse of time a second aspiration might produce a more favourable result.—Dr. THEODORE WILLIAMS enumerated at least five causes of pneumothorax: the spontaneous variety due to rupture of an emphysematous vesicle, the traumatic, the bursting of a gangrenous abscess into the pleura, the discharge of an empyema by way of a bronchus, and tubercular pneumothorax. In considering operation the question whether the pneumothorax were general or local should be weighed, for if it were localised no operation was needed. He would limit aspiration to tubercular cases and those following empyema. When general pneumothorax occurred in phthisis, it was usually in association with the acute form, in which it was rare to get adhesions early. In some cases there was great pressure, while in others there was none; this depended to a great extent on the shape and multiplicity of the openings. — Dr. HAWKINS asked as to the duration of the third case related. He thought exploration rarely of value.—Dr. EWART, in reply, said the man had probably had pneumothorax a month before the aspiration, and he died twenty-four hours afterwards. In reply to Dr. Black, he said he had not taken the temperature of the air withdrawn. The phthisical patients usually had a high temperature of the hectic type.

HUNTERIAN SOCIETY.

Foreign Bodies in the Air-passages.—Clinical Examination of the Colour of the Urine.

A MEETING of this Society was held on Wednesday' Oct. 23rd, Mr. R. Clement Lucas, B.S., F.R.C.S., President, in the chair.

Mr. T. MARK HOVELL read notes of two cases of Foreign Bodies in the Air-passages. Case 1 was that of a woman aged thirty-three. A piece of bone from a sheep's head, which she had been eating, three-quarters of an inch long, was lodged in the trachea a quarter of an inch below the vocal cords for two months. It was successfully removed through the mouth by means of forceps after the larynx had been sprayed with cocaine. Case 2 was that of a lady with a quarter of a peeled walnut lodged in the right bronchus. It was coughed up at the end of five days.

Mr. F. ROWLAND HUMPHREYS read a paper on "The Clinical Examination of the Colour of the Urine." After praying the indulgence of his audience on the ground of the difficulties in carrying out a thorough investigation on the subject of the paper in a general practice, the author proceeded to give a sketch of the life-history of the urine pigments. They were principally two in number: urobilin, which had not been isolated, and which appeared to be hydrobilirubin absorbed from the contents of the intestines; and urochrome, discovered by Thudichum, excreted to the amount of 0·551 gramme per diem. Both pigments came from the hæmoglobin of the blood. In his investigations, the author had made use of comparison of the colour of the urine with that of a 4 per cent. solution of tinct. iodi, P.B. The method was as follows: the standard amount taken was one drachm (3·4 cubic centimetres); half of this was placed in a large test tube, and water added till it was of exactly the same colour as a sample of the urine (previously cleared by warming or filtering, and if then cloudy diluted with water equal parts), placed in a similar test tube, and compared by means of light reflected through the two liquids from a sheet of white paper held close behind them. The test was done twice, the sum of the diluted solutions being measured in a 100 cubic centimetre measure, and the result recorded either as a fraction whose numerator was 1, and whose denominator was the number of cubic centimetres, or else this fraction multiplied by 1000, and divided out to give a convenient whole number, the total urine for the twenty-four hours being reduced to the normal fifty ounces for men and forty ounces for women. All the pigments in recently passed urine being yellow, such a record would give the total colouring power of the yellow pigment matter of the urine, but would not of course differentiate them. A gas jet surrounded by an opaque white globe formed a good source of light where daylight could not be obtained. In order to apply the method to pathology, it was necessary to first obtain the normal excretion in health and its variations. Each sample of urine passed by a healthy adult on six successive days was investigated as to its pigment, giving, summed shortly up, the following results: the pigment was at its true maximum 3·5 hours after a (nitrogenous) meal, like the excretion of the bile salts, which had the power of causing solution of the red blood-corpuscles. It was increased by nitrogenous food, constipation, and severe brain work. It was diminished during the night, though the first morning urine was highest in colour, and by free action of the bowels. As to disease, a sudden leap from one extremity to the other, in either direction, was after the first sign of recovery. It was increased largely in acute febrile conditions, less so in parenchymatous nephritis; in some forms of anæmia, apparently when the waste of hæmoglobin was in excess of its formation; in hysteria (in two cases great increase in the quantity of urine and of the salts passed) and in gastric catarrh. It was decreased immensely in acute uræmia, less so in renal cirrhosis and in chronic uræmia. A steady fall in the excretion preceded death in one case, apparently when the formation of hæmoglobin was deficient. The paper was illustrated by numerous charts, by some samples of urine showing varying degrees of colour, and by a demonstration of the method of examination which had been employed.—Dr. THUDICHUM expressed his pleasure at this subject having been taken up for practical purposes, as it would be advanced thereby. The author's method would become useful provided that he produced an invariable and reliable standard. The author had correctly said that writers on the subject of the colouring matter of the urine all disagreed. This arose from the fact that most of them had never studied the subject practically, nor even its literature. When such impure extracts as that called "urobilin," containing a substance which gave a feeble spectrum, but which had never been isolated and had never been analysed, were held up as chemically defined bodies, science came to an end. Now he (Dr. Thudichum) had shown that the body which showed that spectrum was not an immediate principle of the urine at all, but one of four decomposition products of the normal urinary colouring matter, urochrome. The entire subject, however, of the alleged chemical relationship of the pigments of the body was in so shadowy a state that he would caution the audience not to connect any practical considerations with them. Clinical or practical medical work of any kind must be placed upon a firm chemical basis in the first instance. The teaching of the text-books regarding the urinary pigment in disease was just as deficient as that regarding the normal pigment.—Dr. PYE SMITH congratulated Mr. Humphreys upon his interesting paper, and remarked on the great amount of labour entailed and the patience required in carrying out his urinary experiments. Work such as Mr. Humphreys' was much needed. Daily variations in many of the constituents of the urine needed as much investigation as the physiological process in other organs. Reflected light as from a sheet of white paper transmitted through the urine was the best for judging of the colour, much better than direct sunlight. Urine in febrile states, although high coloured, did not necessarily contain an increase in the amount of pigment, inasmuch as the urine is usually scanty and the water diminished. Again in hysteria the urine, although pale and of low specific gravity, was abundant and much diluted, and therefore the colouring matter excreted might be normal or in excess. Dr. Pye Smith added that the amount of pigment in the urine is often of value in cases of chronic Bright's disease as a guide to the activity of the kidney in secreting urea. He concluded by again expressing his belief in the practical as well as the scientific value of such observations as they had heard in Mr. Humphreys' interesting paper.—A few remarks were also made by the President and Dr. F. J. Smith, and Mr. Humphreys replied.

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MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE quarterly meeting of this Association was held at Bethlem Hospital on Wednesday, Nov. 6th, Dr. Hayes Newington, President, in the chair.

A paper was contributed by Drs. Dodds, Strahan, and Greenlees on Assistant Medical Officers in Asylums; their Status in the Specialty. And Dr. Baker showed and described a new form of Urinal, a Fireguard with Spring Lock, an Inspection Plate for Asylum Doors, and Marble Tiling for Turkish Baths, all of which were in use at the Retreat, York. A discussion followed, in which the President, Drs. Ireland, Greenlees, Savage, Hack Tuke, Whitcombe, Hyslop, Needham, Bowers, and Bonville Fox took part. Drs. Strahan and Baker replied.

Dr Hyslop exhibited under the microscope sections showing Leiter's Cells and the Neuroglia of the Brain.

Reviews and Notices of Books.

A Text-book of General Therapeutics. By W. HALE WHITE, M.D., F.R.C.P. Pp. 371. London: Macmillan and Co. 1889.

WHILE admitting that Dr. Hale White has performed good service in the publication of this book, it may be questioned whether some more appropriate title might not have been found, as the above is apt to be misunderstood. The subject is broadly defined by the author in his preface. It is intended to give "an account of modes of treatment which do not fall under the heading of drugs," and the first conception of the book appears to have arisen from lectures delivered at Guy's Hospital. When we consider that, according to the prospectus, the lectures on materia medica and therapeutics are intended to meet the requirements of students preparing for the first conjoint examination and for that of the intermediate M.B., we cannot but marvel at the energy which finds room for dealing with the subjects discussed in this book in the short space of the summer session.

The volume commences with three chapters devoted to general medical climatology, classification of climates, and the treatment of disease by climate. The last is disappointing in its brevity and in a certain lack of precision. The instructions are too vague and too general to be of much use, but a short list of authorities is appended, and the original sources of information can therefore be consulted. The chapter on treatment by compressed air also fails to satisfy. When dealing with Oertel's treatment Dr. Hale White appears to be treading on firmer ground, though it seems rather unnecessary to head the chapter "Chronic Cardiac Disease" when Oertel's book treats of circulatory derangements, and his method is essentially directed against venous stasis. Several continental physicians are quoted in this connexion, but the work of English observers is passed over without a reference. The chapters upon diet contain a good *résumé* of the subject, and show many indications of the wide scope of the author's reading and the freshness of the authorities consulted. There is, however, room for improvement in the arrangement; e.g., the dieting of infants, although often the fruitful source of illness, should scarcely find a place in a chapter on "diet in different diseases." The brief summaries of the uses of the various natural waters, for drinking and for baths, may be of value to those who have not larger books at hand for reference, but the author is clearly of opinion that the part played by these agencies as remedies is, in a large number of cases, secondary to that of the altered diet, compulsory holiday, exercise, fresh air, regular hours, &c., and in this view we entirely concur. The use of cold as an antipyretic has been so often referred to of late that the subject might be deemed dull and uninteresting, but by copious quotations from the writings of James Currie (1797) the tedium is considerably lightened. "The great merit of Currie's work is that he took the temperature of his patients." So on page 174 we meet with an account of his encounter with scarlet fever in his two sons, and how he waged war armed only "with plenty of pump-water and a pocket thermometer." The boys recovered, but the energy of the fray can be inferred from the fact that "the heat rose in the eldest to 109°, in the youngest to 108°." Artificial baths, and "lavage," or washing out the stomach, form the subjects of short chapters, and then comes Massage, of which the author speaks from personal observation. He resists the temptation to use all the pedantic terms by which the various processes have been dignified and mystified, and writes in simple straightforward language, explaining the good results upon sound physiological grounds. On the other hand, he speaks with equal boldness against the universal employment of massage, and uses plain speaking in a way for which he may not readily be forgiven in certain quarters. In dealing with venesection, again, he writes with much energy and conviction. He is as sure that venesection is sometimes the only right treatment as he is that, as formerly indiscriminately employed, it was distinctly harmful. That he should have had the assistance of Dr. Pitt in the chapters on Electricity is sufficient guarantee of their accuracy and trustworthiness; the introduction of the figures showing Ziemssen's motor points further adds to their utility. Metallotherapy and hypnotism naturally fall under discussion, and the differences of opinion between the Nancy school and the Salpêtrière or Charcot school are concisely summarised, but at the end of the chapter the author remarks: "The whole subject of the therapeutical use of hypnotism is in its infancy. We must receive all reports of cases said to have been cured by it with the greatest caution, and probably future experience will show that many authors have exaggerated its value." The suspension treatment of diseases of the spinal cord is noted, and the book is brought to a close by some sensible remarks upon the general treatment of acute diseases, convalescence, and insomnia.

From the above it will be seen that Dr. Hale White employs the term "General Therapeutics" in a very general sense. He wanders a great deal from the ordinary beaten tracks to cull what good he may in many of the bye-paths so often associated with danger signals in the minds of those who are, perhaps, oppressed by an undue abhorrence of mystical methods. That he should have done so, and yet have produced a book which is fairly free from "much that is worthless," is distinctly to his credit. There are marked inequalities of work, but upon the whole the book may save students the trouble of searching for much scattered information, and the brief bibliography appended to many chapters may guide those who desire to consult larger works. The volume is remarkably free from printer's errors and is furnished with a good index.

Studies in Clinical Medicine. Vol. I., Nos. 1 to 8. By BYROM BRAMWELL, M.D. Edinburgh and London: Young J. Pentland. 1889.

WITH the opening of the summer session Dr. Byrom Bramwell commenced the fortnightly publication of a record of his experiences and teaching in the out-patient department of the Edinburgh Royal Infirmary. The publication, suspended during the vacation, has now been resumed with the eighth number. To us in this country the scheme is novel, but in Paris it has been for the past year or so carried out in connexion with M. Charcot's clinique. The object is apparently to enlarge the circle of those who derive advantage from the attendance in these departments, for in the cases selected a

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verbatim report is given of the physician's questions to the patient, the latter's replies, the results of the examination, and the more or less extended commentary made by the physician upon the case and the condition it illustrates. It is obvious that the fulfilment of such a task must involve considerable time and pains, but Dr. Bramwell's characteristic energy has enabled him to prepare what is, on the whole, an interesting and useful series of cases. Some of the subjects have been dealt with quite exhaustively—e.g., that of facial paralysis; and there is a liberal use of pictorial illustration of the text. The treatment of phthisis by intra-laryngeal injections of menthol is exemplified in two or three cases, and there is a very interesting disquisition on herpes zoster, and another upon anæmia. The weak point in the "Studies" seems to lie in the questions put to the patients, which are certainly in some cases too obviously of a "leading" character to be of much service in eliciting the actual facts. Nevertheless, the publication is certainly not lacking in information.

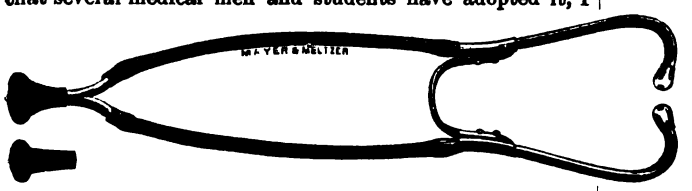
Hygiene and Public Health. By LOUIS C. PARKES, M.D., D.P.H. Lond. Univ. London: H. K. Lewis. 1889.

DR. LOUIS PARKES inherits a name which will ensure for him a ready hearing on matters relating to hygiene and public health; and it is evident from the work now before us that he has availed himself of the opportunities at his command to fit himself as a teacher in the subject. The work is another text-book dealing, in the main, with those subjects of which a knowledge is required by medical men who present themselves before the various bodies giving diplomas in State medicine and public health; and, whilst it is somewhat more scientific in its details than some other similar works, it has the great advantage of bringing the information available on a number of matters discussed up to current date. No ordinary text-book on the progressive science of public health can be expected to do much more than give the reader an intelligent insight into the class of subjects which he must make a study if he would become an expert in matters relating to the health of communities; and whilst some subjects in Dr. Parkes' book are well thought out there are others—notably that relating to vaccination, the contentious aspects of which have for some years past been prominently before the public and the medical profession—which are disposed of in a somewhat cursory way. But the work has a distinct value for the purposes indicated.

New Inventions.

AN IMPROVEMENT IN THE STETHOSCOPE.

HAVING experienced some difficulty in getting immediate adjustment of the ordinary stethoscope in very thin persons, and in those who had been the subjects of rickets &c. with rough irregular sternums, the idea of a soft inflated indiarubber cap or ring suggested itself to me. I have used the cap now for more than two years; and learning lately that several medical men and students have adopted it, I



am desirous to make known what advantages I believe it to possess. I originally designed it as a cushion to be put on any stethoscope in auscultating, an uneven chest wall. The cardinal point was, does the cap influence the conducting power of the instrument? I have tried all sizes of caps, on all kinds of stethoscopes, and have come to the conclusion that over wood it does not add to the conduction of sound, but over metal it adds to the acoustic value of the instrument in so marked a degree that I should like auscultators to give it a fair trial and judge for themselves, as it only costs a trifle. Having established, at least to myself, that the conducting power of a metal chest-piece is increased, I am free to state certain other merits which it possesses. First, it gives instant conveyance to the ear of the sound listened to, and can be stamped down, as it were, with a decided movement almost of force (as it cannot hurt), whereas the wood or metal end must be put down carefully and cautiously. In out-door hospital work this will be found a clear gain after a little familiarity in using. Secondly, I have made a point of trying both the cushioned and the bare stethoscope on numbers of patients; and on asking them which instrument they liked best, the answer has always been in favour of the one with the soft end. There can be no comparison in the feeling conveyed in the touch, and this is by no means a trifle, as patients are very sensitive over these matters. In conclusion, I may say that the binaural stethoscope with the metal upper part and metal spring, pear-shaped ear-pieces—not globular, as I and others have had to consult the aurist from using the latter—plain indiarubber tubing of large calibre—not small, as it warps or kinks—with an indiarubber cap over its metal end, forms the best stethoscope with which I am acquainted. Messrs. Mayer and Meltzer, Great Portland-street, have made the caps to my entire satisfaction, and they keep them in stock.

Weymouth-street, W. JAMES MURRAY, M.D., &c.

A NEW FORM OF BANDAGE FOR USE AFTER AMPUTATION OF THE BREAST OR ANY OPERATION ABOUT THE CHEST.

THE accompanying illustration represents a new form of bandage which I have devised and used after amputation of the breast and other operations about the chest. After an extensive trial I have no hesitation in saying that the bandage is a great improvement upon the ordinary method

FIG. 1.

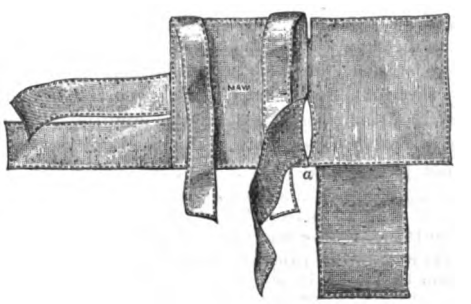


FIG. 2.



adopted for bandaging patients after operations on the chest. The bandage is so arranged that it acts not only as a support to the parts operated on, but also forms a most comfortable sling for the arm. It is furnished with shoulder-

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straps, which prevent it slipping. The slit (a) at the side of the bandage allows of the appendage, which forms part of the sling, being passed through, according to the side for which it is required. The advantages claimed for this bandage are obvious. 1. It can be applied most easily and with the least possible disturbance to the patient. 2. During the after-treatment the wound can be examined as often as necessary without disturbing the patient in the least. 3. Pressure is maintained evenly over the whole chest. 4. The arrangement for fixing and slinging the arm is most efficient and comfortable. This bandage may be applied and will be found most serviceable for many other uses than that for which I have designed it—viz., fractured clavicle, fractured ribs, or any mischief or injury to the shoulder-joint in which it is all important to keep the arm at perfect rest. The illustrations represent the bandage (Fig. 1), the pattern (Fig. 2), as seen when applied. The bandage is now being made by Messrs. Maw, Son, and Thompson, in three different sizes.

Upper Wimpole-street, W. F. BOWREMAN JESSETT, F.R.C.S.

REPORT OF THE COMMISSIONERS OF PRISONS.

THE report of the Commissioners of Prisons for the year ending March 31st, 1889, shows the number of prisoners received during the year to have been 153,963 under sentence of the ordinary courts, 1222 soldiers and sailors sentenced by courts martial, and 8664 debtors, or imprisoned on civil process, making a total of 163,849. This shows an increase of nearly 7000 upon the numbers of the preceding year, and has occurred chiefly in prisoners under the sentence of the ordinary courts. The average daily number in prison was 15,255, of whom 12,673 were males and 2582 females. The cases of sickness treated in hospital of male prisoners were 3324, or 262 per 1000 of mean strength, and 1274, or 493 per 1000, of the females. The deaths of the males, exclusive of 19 executed, were 107, or 8·44, and of the females 21, or 8·13 per 1000; no female was executed. But this does not show correctly the liability of the prisoners to death, for there were 54 males and 21 females released on medical grounds. Of the latter, however, 11 were on account of pregnancy, thus reducing to 10 the number on account of disease. Of the male prisoners, 26, or nearly one-half, were released on account of phthisis or tuberculosis, but only three of the females. These cases, if retained for the full period of their sentences, would doubtless have added materially to the death-rate. The medical inspector, Dr. Gover, complains that "it not unfrequently happens that persons who are in an advanced state of disease, and even dying, are sent to prison," and suggests that such cases should be taken to the nearest hospital or to the workhouse infirmary, and not to prison. But such a course would probably lead to a considerable amount of malingering. They can be equally well, or perhaps better, treated in the prison infirmary, under the care of the medical officers who are well accustomed to such cases. It is true the other course would make an apparent reduction in the prison death-rate, just as the discharges on medical grounds do; but this is really of no importance, for it would not in any way benefit the unfortunate prisoners. Among the causes of death, suicide is assigned for 12 males and 3 females, being respectively in the ratio of 0·95 and 1·16 per 1000, which seems a high proportion; but no details are given of the cases or of the manner in which the act was committed. There were 349 cases of insanity during the year, of which 210 were removed to asylums; 93 are stated to have been found insane upon reception, and 59 to have originated in prison. Of the other cases, it is said that "it is highly probable that although insanity was not immediately recognised, yet that it really existed on reception in a majority, if not the whole of them." Dr. Gover remarks: "The local prisons of England and Wales are at present used to some extent as hospitals for the treatment of mental and bodily disease, but as they are not intended for or adapted to that purpose, it is advisable that the practice in vogue should be discontinued as far as possible." We can hardly suppose that he means that convicted prisoners labouring under bodily disease should be exempted from undergoing their punishment of imprisonment on that account; and, as regards mental disease, the fact of 256 cases having occurred in which no such state was detected by the prison medical officer on admission justifies an opinion that the abnormal mental condition could scarcely have been ascertained before the prisoner was sentenced. Under such circumstances, it is difficult to understand how the prisoners could have been dealt with more satisfactorily in the interests of the public and for their own benefit.

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

THE autumn general meeting of this Association took place at 11, Chandos-street, London, W., on Thursday, Nov. 7th. Dr. Richard Fegan (Blackheath), President, was in the chair. Sir Thomas Crawford, K.C.B., was amongst the guests.

The Chairman of Council, on behalf of the members of Council, presented to Mr. James Stewart an illuminated address and a handsome clock, in recognition of his labours for the Association as one of its hon. secretaries for the last five years, and as a mark of their personal regard. An alteration of Rule VII., enabling the Council to increase the number of hon. secretaries, was then proposed, seconded, and adopted. On the proposition of Mr. Stewart, a vote of sympathy was passed to Dr. John Eadie of Yeovil, a member of the Association, on the occasion of the false charge to which he had been recently subjected. On the motion of Dr. Abraham, hon. sec., seconded by Sir Thomas Crawford, a vote of congratulation to Sir John Thomas Banks, K.C.B., a Vice-President, and former President, of the Association, was adopted, on the occasion of the distinguished honours of which he has recently been the recipient.

On the same evening fifty-four of the members and their friends dined together at the Holborn Restaurant, the President in the chair. After the loyal toasts had been given and received with musical honours, Dr. White proposed "H.M. Services," which was responded to by Surgeon J. O'B. Williams, R.N., and Surgeon-major Norton, Commandant, Volunteer Medical Service. The toast of the evening, "The Association," was given by Professor Curnow, and acknowledged by Dr. Gilbart Smith. "The President's Health" was proposed by Sir Thomas Crawford, and one or two other speeches followed. A musical programme of part-songs, &c., was contributed by Messrs. W. B. Martin, Cummins, R. and H. Turner, Taylor, Bentham, and Drs. P. S. Abraham, Brown, and Campbell Pope.

MEDICAL DEFENCE UNION.

A LARGE and influentially attended meeting of medical men was held in the Council room of the British Medical Association on the 8th inst. Mr. Lawson Tait, the President of the Union, occupied the chair. It was resolved to form a metropolitan branch or division, with Dr. T. Bridgwater as President and Dr. Campbell Pope as Secretary. Vice-presidents, council, and executive were also elected. The lines upon which the branches of the Union are conducted are: The branch shall be practically automatic, the Central Council of the Union retaining the right to veto improper proposals or proposals which would lead to greater expenditure than the financial position of the Union justified. The president and secretary of the branch are *ex officio* members of the Central Council, of which there is a standing emergency committee in London, having power to deal with applications from members for assistance and to take initial proceedings. It is the experience of the Union that if charges improperly brought against medical men are met with an *immediate* bold front, and an offer made by return of post, in the name of the Union, to accept service on behalf of the medical man, the matter at once collapses, and immediate action is therefore the policy of the executive.

All further information may be obtained from the Secretary of the Metropolitan Branch, or from Dr. Leslie Phillips, Birmingham.

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THE LANCET.

LONDON: SATURDAY, NOVEMBER 16, 1889.

THE important address on a new antiseptic dressing, which Sir JOSEPH LISTER delivered before the Medical Society of London on the 4th inst., was printed *in extenso* in our last week's number, and has already been studied by many thousands of our readers. It presents the results of a long, laborious, and—as it would appear—triumphantly successful series of researches in the field of science with which the name of the illustrious author will for ever be connected. The history is in itself a revelation of the scientific acumen, perseverance, and minute attention to details which are required for the perfection of such a work, and it furnishes a valuable lesson to any surgeons who may be inclined to forget the extreme importance of real and thorough scientific knowledge in their branch of the profession. No one without great chemical knowledge could have even attempted with any chance of success such labours as those by which Sir JOSEPH LISTER has revolutionised surgery. Many a modern student who now contents himself with the hastily-acquired and ill-digested smattering of chemistry that satisfies the Board of Examiners will hereafter grieve to find himself unable even to understand the train of new triumphs which pass before his eyes.

The present address, in spite of its modest title, carries on the history of the author's work from the date—now five years ago—when he last addressed the Society. At that time he had shown not only that corrosive sublimate formed a compound in the albumen in which the properties of the former were preserved, but that this compound, even after drying, was capable of dissolving in blood serum. Hence came the sero-sublimate gauze, which had a definite and admitted value. But certain defects soon revealed themselves in the gauze, which was somewhat harsh and not very absorbent. So the investigator pushed on, and sought for new agents. The first that offered was substantially the double chloride of mercury and ammonium, called sal alembroth. This presented great advantages; it was a better antiseptic, and at the same time was less irritating than corrosive sublimate. But again objections turned up, for the compound was so soluble, not only in water but in serum, that when the discharge was considerable too much of the mercurial compound got to the edge of the dressing, and great irritation was caused. So another start was made with cyanide of mercury. This was found to be, in the author's language, high as to inhibitory, but low in germicidal, power. But it was irritating as well as very soluble, and the double cyanides—of which, without counting such bodies as the ferrocyanides, there are many—were next tried. Mr. MARTINDALE suggested one of the insoluble double cyanides of mercury and zinc; such a compound has proved superior to all other substances hitherto used. There are several of these double cyanides, and they have recently been investigated by VARET, whose papers in the *Comptes Rendus* are doubtless familiar to Sir JOSEPH LISTER. There seems indeed some doubt as to the precise compound which exists in the preparation which is now used; but it is certain that the mercury in it is an important, though not in quantity a large, factor. The very ingenious method by which, after many trials, the substance was incorporated with starch, with which it forms a kind of combination whereby it can be affixed to gauze so neatly that in the dry state it does not become detached, and in the wet state does not wash away, and the apparently perfect success of the gauze, which is at once antiseptic, porous, permanent, and non-irritating, the address describes in detail, and we need only here refer to it.

But even the zinc mercury cyanide was not immediately successful, and some early difficulties caused it to be for a time abandoned. Then the patient investigator turned his attention to iodide of mercury. This is known to have antiseptic powers, and is besides very sparingly soluble in water. It is more soluble in blood serum, but then it is very irritating and difficult to fix to the gauze. The latter objection was removed by the employment of starch, then tried for the first time. Here, as with the double cyanide, a loose kind of molecular combination seems to take place, and the iodide does not dust off. But still the experimenter was not satisfied, and therefore, with the experience gained from the starch experiments, fell back on the double cyanide, with which, under carefully prescribed conditions, he is for the present contented.

With the full text in their hands our readers will not care for a fuller summary of this masterly history than this brief sketch. But enough has been said to show that if the new discoveries given to the world are of profound moment to the surgeon, they are scarcely less interesting to the physiological chemist and the biologist.

THE outbreak of enteric fever at New Herrington,[1] on which Dr. PAGE has just reported to the Local Government Board, has acquired considerable notoriety: first, because of its suddenness, no less than 100 cases occurring in the first nine days; and, secondly, because it appeared to simulate the outbreak of "pneumonic fever" which caused an epidemic at Middlesbrough-on-Tees in the spring of 1888. Indeed, Mr. PARK, the medical officer of health of the northern division of the Houghton-le-Spring rural district, in which New Herrington lies, who first discovered this peculiarity, had his misgivings as to this confirmed by Dr. PHILIPSON of the Newcastle School of Medicine. It appears that the first cases met with presented symptoms of pleuro-pneumonia only, or those of enteric fever ushered in by pneumonia. Some cases, too, began and ended with pneumonia only, a few multiple cases of this sort being observed to occur in the same house; others, again, amounting to nearly one-third of the attacks, had distinct pneumonia, and it was only on its subsidence that enteric fever symptoms were observed; and, lastly, there was a proportion of cases, of a sort not uncommonly met with, in which pneumonic complication ensued at a comparatively late stage of genuine enteric fever. The pneumonic symptoms were also, in each of the classes referred to, more common during the early than in the later stages of the epidemic.

[1] Eyre and Spottiswoode, East Harding-street, E.C.; A. and C. Black, Edinburgh; Hodges, Figgis, and Co., Dublin. Price 6d.

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Thus, the prevalence was, from this point of view alone, one of interest.

The discovery of the cause of the epidemic also involved several noteworthy considerations. Before dealing specifically with the cause it must be explained that the outbreak involved a series of villages connected with collieries belonging to the Earl of DURHAM, that these villages had nothing in common as regards sewerage or drainage, and that the question of milk as a vehicle of the infection could with much certainty be excluded. But whereas 258 attacks of enteric fever were discovered amongst some 4400 persons living within the area of the Herrington water-supply, only seventeen attacks could be heard of during the same period amongst no less than some 12,000 neighbouring people living within the area of the Houghton supply. And this incidence of the disease upon houses supplied with the Herrington water was made out the more clearly as it was ascertained that villages lying within the epidemic area, but getting their water from other sources, remained quite free from the fever. Amongst other striking points in this connexion there is also the fact that the distribution of the disease in point of time varied with the distance at which people lived from the source of the water, those taking supplies from mains nearest to the reservoir being the first to suffer from the disease.

The Herrington water is derived from a well sunk through clay and other formations into the sandstone strata of the coal-measures to a total depth of 330 ft., the sides of the well being lined with bricks set in mortar, this steining being regarded as impervious, and all the water being looked upon as entering from the bottom of the well. Inquiry into the precise distribution of the fever showed, however, that any pollution to which the supply might have been subjected must have occurred before its distribution from the reservoir into which it was pumped from the well, and, after eliminating several possible sources of mischief, investigations were made as to possible pollution of the well itself by reason of contamination from such sources as the deposit of human excreta as manure on the land adjoining. But while this was being investigated the well itself was opened, and, contrary to anticipation, it was found that a feeder of water was entering through the brickwork at the rate of twenty-two gallons per minute; and this accidental supply exhibited nearly twice the amount of chlorides that was found in the well water as a whole.

Several experiments were next made with a view of tracing the source of this water flowing from the feeder, and ultimately it was decided to ascertain whether soakage towards it could take place from a farmhouse and buildings at Herrington Hill, where closet contents and liquid refuse found an escape through a fissure in the magnesian limestone, this fissure being at a higher level than, but at a distance of no less than three-quarters of a mile from, the well. This was done by means of common salt, two tons of which were thrown down the fissure on May 11th. Excess of chlorine in the water from the feeder as compared with the well water was soon discovered, and between May 24th and 29th daily testings were made, with the result that the amount of chlorine per gallon rose from 2·3 to 6 grains per gallon. Five tons of common salt were next washed down the crevice with a hose pipe, and by June 5th the chlorine reached 24 grains per gallon. Here, then, was the source of pollution, but unfortunately no information could be procured as to the origin of any specific excreta having had opportunity of being mingled with the polluting matter which had had access to the well.

The history given is instructive on another point—namely, the difficulty of securing evidence as to water contamination of a mischievous sort by mere chemical analysis. On April 24th the verdict of the chemist was that it was "a good water for drinking"; on May 3rd a second sample was reported on, when to the same statement it was added that the water was "very free from organic impurities"; and a third sample was stated by the same chemist to be "quite suitable for drinking purposes." But, samples being sent to another chemist, the analyst was led to seek for any indications which the microscope could afford, and, on the strength of the discovery of such things as starch granules, cloth fibres, broken hairs, and other evidences of household refuse which could hardly have got access to the water except through sewage, he very properly declared it to be dangerous. And, as the result showed, this view was correct. In two samples examined an excess of albuminoid ammonia was discovered, which also pointed to sewage pollution of recent date. But three other samples indicated no such excess, this indication of mischief being apparently an intermitting one. Whilst, therefore, the positive evidence afforded by chemistry was of distinct avail, by way of leading to further investigation, the negative evidence was misleading in so far as the detection of the danger was concerned; indeed, this latter form of evidence as to potable waters can rarely be relied on in connexion with the etiology of disease.

THE recent legal proceedings in Glasgow, Belfast, and elsewhere with regard to the sale of meat affected by tuberculosis have naturally directed attention afresh to the question of the contagiousness or otherwise of the disease. Few questions are more worthy of the most anxious attention, and few seem so difficult of satisfactory elucidation. Since from one-fifth to one-seventh of the human family succumb to tuberculosis in its various forms, and since the disease when well established is one of the most formidable nature, the questions of its etiology and of its preventive treatment are of overwhelming importance. Yet, although the discovery of KOCH is now a good many years old, and its substantial accuracy is no longer seriously questioned, we are still far from having attained a much to be desired unanimity regarding its clinical significance and its practical bearings. The difficulty arises largely from the fact that on this question pathology and clinical observation seem to speak with discordant voices. The former shows strong *a priori* ground for expecting that tuberculosis should be contagious; the latter very feebly, if at all, confirms this expectation. The pathologist seeing in a specific virus the cause of the disease, and perceiving the unlimited facilities offered for its dissemination, is naturally predisposed to regard tuberculosis as infective. The clinical observer, on the contrary, finds that to him the most striking features of the disease are its dependence upon hereditary taint, upon unhealthy modes of life, upon malnutrition and the like; and he is at a loss to discover sure

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instances of its transmission from one individual to another, although the opportunities for such transmission are unhappily only too abundant. If the attention which is now being given to the question of the transmission of tuberculosis from animals to man should avail to throw new light upon the wider question of the contagiousness of the disease, it will have been exceedingly well bestowed.

It is believed by many able pathologists that these two apparently discrepant views of tuberculosis are in reality quite reconcilable, that the apparent opposition between them is like the dispute in the fable as to whether the shield was made of gold or of silver. One observer saw only one side, and forthwith proclaimed that it was made of gold, while the second observer who saw only the opposite side was equally convinced that it was made of silver. It did not occur to either disputant that his opponent was right as well as himself. Hence it may be suggested that tuberculosis has its resemblance on the one hand to the communicable diseases, and on the other to those maladies of which impaired nutrition is the most essential feature. It may be argued with much apparent plausibility that just as some maladies, such as measles or small-pox, seem to find a suitable nidus in almost everyone exposed to their influence (unless protected by a previous attack or by vaccination), and in these cases individual susceptibility offers only very slight variations, so there are other diseases, such as diphtheria, where susceptibility is relatively much more important, and there may be diseases where susceptibility is really the main question and the presence of the virus relatively unimportant. There can be little doubt that predisposition, whether of constitution or of environment, is the main feature in the etiology of tuberculosis, but we must not let this conclusion, borne in as it is upon us by such a multitude of facts, blind our eyes to the truth that predisposition is not causation.

Any inquiry into the *vera causa* of tuberculosis is greatly impeded by the natural history and course of the disease. The infective fevers, which from the dawn of medicine have been readily recognised as communicable, have such a defined onset and comparatively rapid and fixed course that it is very often easy to point to the reception of the virus and to its development during the period of incubation. But tuberculosis is commonly one of the most chronic of maladies, beginning not unfrequently by vague signs of failing health, and pursuing an erratic and uncertain course. Hence any attempt to point to the source of infection is embarrassed by very peculiar difficulties. The facts also that tuberculosis affects one epoch of life above all others, that of adolescence and puberty; that epidemics of it are unknown; and that, although nothing is more familiar than to see it attacking one member of a family after another, it is somewhat unusual to see it affecting two members of the same family simultaneously—such facts raise difficulties in the way of any infective theory. It may be that their true importance is only to emphasise the large part played by predisposition.

The suggestion of the communicability of tuberculosis and its dependence upon the specific virus naturally raised the strongest hopes of a new and fruitful departure as regards preventive and curative treatment. It must be owned that these hopes have been doomed to disappointment. The antiseptic treatment of phthisis, begun with so much hope, has not prospered even in the hands of its warmest advocates, and is probably now being quietly dropped by the majority of those who are sufficiently unprejudiced to refuse to become the victims of a preconceived idea. Inhalations by the respiratory passages, injections per rectum, the air of pine forests, carbolic acid, creasote, fluoric acid, and a host of other such remedies have had their trial, and the result has been disappointing. We are still forced to rely for success mainly on measures that seek to diminish susceptibility and to increase the constitutional resistance to the disease, on tonics, high feeding, analeptic measures generally, and change of climate.

If the present attitude of the profession in this country towards the question of the communicability of tuberculosis is still one of expectancy and suspended judgment, we must be content simply to take stock of our present knowledge, and to await further light. Pathology and clinical observation must go hand in hand, and it is not too much to hope that the great scientific activity of the present age may within a reasonable time succeed in removing the apparent opposition now subsisting between them in connexion with the subject of tuberculosis.

Annotations.

"Ne quid nimis."

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

ONCE more has the annual meeting of the Fellows and Members been held at Lincoln's-inn-fields, and again has the assembly pronounced its verdict on the inadequate representation of the body corporate on the governing body of the College. The newly-elected President of the Council (Mr. Hutchinson), in his able address, endeavoured to defend the present attitude of the Council and the policy of the governing body. He stated that the College Council enjoyed the *advantage* of having at its meetings more than half of the Court of Examiners, and emphasised the jealous guardianship of the College Council over the legitimate interests of the Fellows and Members of the College. Mr. Hutchinson noted with fairness that by the introduction of the use of voting papers, the number of Fellows taking part in the annual College election has more than doubled. He naturally dwelt upon the advantages of the National Museum at the College, and eulogised the present standard of examinations insisted on by the Council of the College and by the authorities of the College of Physicians. He stated that the number of candidates for the diplomas of Member and Fellow continued to increase, and implored the meeting not to waste its time or strength on possibly unprofitable pursuits. Then followed the very significant resolution of Dr. Elliston and Dr. Danford Thomas: "That this meeting of Fellows and Members of the Royal College of Surgeons of England, having considered the report of the Council dated Oct. 17th, 1889, is of opinion that immediate steps should be taken to forward the introduction early in the next parliamentary session of a Bill to amend the constitution of the College, so as to secure to the Members a just representation in and upon the governing body of the College." If the exercise of the function of issuing qualifications to practise were the whole and sole *raison d'être* of any college, we should certainly endorse the opinion of the Council; but we have contended, and shall continue to contend, that this is but one element

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in collegiate existence, that far wider interests and aspirations are involved, and that the reasonable demand for enfranchisement on the part of the Members has to be met by the Council, and must be granted. Is it not strange for any College to point with pride to the excellence and stringency of its examination tests, to the very fine sieve employed at the College for separating the good from the bad, and then to deny to the good, who have reached or even surpassed this standard, the elementary right of representative government? The Council of the College of Surgeons has a great opportunity *now* for admitting, without danger to its prestige, the claim that Membership should carry with it further rights than that of a mere right to practise, and for gracefully yielding to the necessity of our times. Such a policy more than any other would tempt young men nowadays to become Members of a reformed College. It is true that the governing body of the College welcomed the Members on this last occasion with more than usual cordiality, and that those present were entertained at an afternoon tea. The enfranchisement of Members of the College, the right of meeting in their own house, and the abolition of obsolete bye-laws are modestly-conceived reforms; to gain these rights every legitimate effort must be made. There can be no doubt that the present position of the College of Surgeons, as a close corporation, is neither an enviable nor a tenable one. For the credit of the College, as well as for the real dignity of every Member of the College, we should be glad to see peace and quietness restored; but how can there be peace so long as the points at issue are being tenaciously fought for? It is a trial of strength between the many and the few, and, for certain, the weaker side will have to go to the wall.

AUSTRIAN MEDICAL LEGISLATION.

A VIENNA Medical Association has petitioned the Austrian Legislature for certain amendments in the new criminal law now before Parliament. The first clause it wishes to see amended imposes a fine equivalent to £10 on all physicians and midwives who, in cases of emergency, refuse or delay their help without sufficient reason. The association asks that no prosecution should take place except when this refusal or delay has resulted in distinct harm to the patient, as in such cases only it can be proved that there was any real emergency. The association also takes exception to the expression "delay," as this gives an unlimited latitude to malevolent people, whose sole object is to harass both authorities and medical men. The next clause to which the association takes exception imposes in the first instance a fine of £10, and in cases of repeated prosecutions a fine of £20, or imprisonment, on all people who, without the possession of the proper licence, practise for gain, sell drugs, perform circumcision according to the religious rite, or act as midwives. The petition points out that employing quackery as a means of gain can rarely be brought home to the accused, and that in any case it is the duty of the State not merely to punish quackery, commercial or otherwise, when it has been proven, but to make any kind of quackery impossible by preventive measures. As the best means for this purpose the association wishes to have the words "for gain" struck out of the law. Another clause which has given offence to the Viennese medical men imposes a fine of not more than £20, both on the chemist who makes or offers a present to a medical man for sending him prescriptions, and on the medical man who accepts such presents. Why should it, for instance, be wrong, ask the petitioners, for a chemist to send a medical man medicines, especially new preparations, for the poor or for clinical use, free of charge, even if he avowedly does so in acknowledgment of his general support? All our clinics, say the association, all our great institutes, all our busy professors and general practitioners, gratefully accept such presents, and use them for their sick poor. It would be an incalculable loss to the whole poor population if a law were passed to prevent such presents. But even if a medical man receives a present from a grateful chemist, whose business in the neighbourhood he has intentionally or otherwise supported, why should he be treated as a criminal, for the transaction is not to the disadvantage of anybody? The greatest interest, however, centres in those clauses in the new law referring to malpraxis, and the petitioners profess to see no necessity for any increased stringency such as is proposed in these new clauses. They consider that as even the present comparatively mild law has been made the source of great annoyance and loss to many perfectly innocent medical men, a prosecution should only be allowed in cases of really culpable neglect. It is a sad fact, the petition points out, that the worst and most calumnious accusations are made with a light heart, the theory of neglect being easily accepted, and so leading to a prosecution, when nothing but an unfortunate accident or, perhaps, the neglect of the patient himself or of his friends, has led to some lamentable result. The association proposes that in every case of accusation for malpraxis, a well-known responsible medical authority or the nearest medical faculty should be consulted before a public prosecution is instituted.

A NEW MEDICAL INSTITUTE.

THE building now being erected by the Royal College of Physicians and the Royal College of Surgeons adjoining the Examination Hall comprises a theatre capable of accommodating 400 persons, and laboratories to be devoted to scientific investigations in pathology and therapeutics. The recommendations of the committee appointed for the purpose and adopted by the Colleges are to the effect that the management of the building be entrusted to a Laboratories Committee of six members, three to be appointed by each College. This committee will nominate a director, who will be annually appointed, and re-eligible for seven years, after which period he will be ineligible except by a special vote of the two Colleges on the recommendation of the Laboratories Committee. It was also agreed that Mr. Hallett should be appointed secretary to that committee, and have the general superintendence of the building; and it was decided to make application for the registration of the building under the Act 39 and 40 Vict., cap. 77 (1876). The following are the conditions relating to the use of the laboratories:—"1. Permission to work in the laboratories shall not be restricted to those whose names are on the Medical Register. 2. All applications for permission to work in the laboratories shall be made to the director in the first instance, and shall be submitted by him to the committee at its next meeting for decision. 3. When such application is made a description of the proposed investigation shall be sent in, with as complete a list as possible of the necessary instruments and apparatus. 4. No research, other than that originally approved by the committee, shall be undertaken without their previous sanction. 5. The publication of the results of work done in the laboratories shall be under the control of the committee. 6. Workers in the laboratories shall not receive pecuniary remuneration for work done, but the expenses of investigation approved by the director will be defrayed by the Colleges. 7. No purchase of instruments or apparatus shall be made without the sanction of the Laboratories Committee. 8. All instruments or apparatus provided by the committee are the property of the Colleges, and shall under no circumstances be removed from the laboratories." At the meeting of the College of Physicians, when this

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report was received, the question was raised whether some provision might not also be made for enabling members of the Colleges to carry out such chemical and histological investigations as they might require in connexion with their clinical observations. The suggestion is certainly one worthy of adoption, and it is to be observed that the space devoted to the laboratories where original research may be prosecuted does not absorb all the rooms at the disposal of the Colleges, so that no difficulty can be apprehended on that score. The Edinburgh College of Physicians has already set a good example in this respect, for, as may be gathered from the report of its director, Dr. Woodhead, the work done in its laboratory not only consists in original investigation, but in the furnishing of reports upon tumours &c. sent to the laboratory for examination. We may hope that the new London Medical Institute will thus, in more than one respect, fill a gap in the scientific institutions of the metropolis.

EXAMINATIONS FOR HOSPITAL APPOINTMENTS IN LYONS.

THE medical school of Lyons has an excellent reputation, and, though in France there is always a tendency to centralise everything in Paris, it is, we believe, generally held by students that the examinations in Lyons are quite on a par with those of Paris itself. Dr. Augagneur, the editor of a Lyons medical journal which is not slow to point out abuses, has just printed a leading article calling attention to the unsatisfactory way in which the competition for the much-coveted resident posts—the *internat*, as it is called—is conducted. These examinations are oral. At the late competition the candidates had to express their views—in five minutes—on the following three questions:—The treatment of penetrating wounds of the thorax, of comatose uræmia, and of the hæmorrhages caused by the abnormal position of the placenta. Dr. Augagneur remarks that, owing to the scanty time allowed, it was impossible for the students to express any opinions they might have formed, and to justify them; all they could do was to recite some aphoristic phrases which unfortunately were not those expressing the opinions of the majority of medical men of note, but those believed to correspond with the more or less original or peculiar views known to be held by the members of the jury. The plan adopted is for each of the seven judges to mark the candidates entirely according to his own judgment, the maximum marks for each portion of the examination being twenty. At the conclusion of the competition the marks are added up, and whoever has obtained the highest total number is declared the winner. This would be just if all the judges were to act honourably and to mark the candidates fairly; but this is what Dr. Augagneur declares they do not do, and he says that it is notorious and fully admitted in general private conversation that marks are obtained as much by favouritism as by merit. He further says that there is a coterie of those belonging to the "clerical party" who always do their best to help one of their own set to place; the judges belonging to this party know the students who also belong to it, and, what is of more importance, they know also the questions which these students have prepared. Of course, favouritism on one side tends to provoke reprisals on the other, so that a man who is marked too highly by certain judges will be marked too low by others. As an example of this, the case of one candidate is mentioned who in one judge's list was twelfth, while in that of another he was twenty-fifth. The only suggestion made by Dr. Augagneur for the improvement of the present state of things is that the method of voting should be altered. Probably the English system of making most competitions depend mainly on the result of paper work combined with practical exercises would not suit the French taste any more than the French competitive orations would suit us.

THE ELECTION AT CAMBRIDGE OF A REPRESENTATIVE ON THE MEDICAL COUNCIL.

NEVER, we suppose, before has there been such a poll for a representative on the Medical Council as at the recent election at Cambridge, when 194 votes were given for Dr. Macalister and 140 for Dr. Latham. At Cambridge, as at Oxford, there being no executive committee or council of the Senate, each question has to be decided by the whole body of the Senate, which is a very large one. On no former occasion, however, has there been any contest, Professors Bond, Paget, and Humphry having been successively elected at Cambridge, and Professors Acland and Rolleston, and Drs. Chambers and Church, at Oxford, without opposition. Such unanimity is not, however, always to be expected. One of the candidates, Dr. Macalister, had the support of the Medical Faculty and a large proportion of the residents. The other candidate, Dr. Latham, had the support of several heads of colleges and many senior members of the Senate. Some members of the College of Physicians, where he is one of the Censors, took an active part among the medical graduates in London on his behalf, and several other non-resident members of the Senate voted for him, not, however, in sufficient force to counterbalance the preponderance of the residents in favour of Dr. Macalister. This new member of the Medical Council was Senior Wrangler in 1877, and is one of the very few who have attained that highest academical distinction and subsequently devoted themselves to Medicine. He is fellow and medical tutor in St. John's College, physician to Addenbrooke's Hospital, and Lecturer in Medicine in the University, as well as secretary to the Medical Board. He is a Fellow of the College of Physicians, and recently delivered the Croonian Lectures on Fever. He is also the translator of Ziegel's "Pathologische Anatomie."

TUBERCULOSIS IN MEAT.

THE Health Committee of the Sheffield Town Council have had before them the request of a deputation of butchers that in the examination of carcases of suspicious quality the medical officer of health should be assisted by a jury of three butchers and a veterinary surgeon appointed by them. The committee reported to the Council that they could not assent to this proposal, since the Public Health Act of 1875 imposes this duty upon the medical officer of health and the inspector of meat. The Committee also passed a resolution requesting that in the case of legal proceedings being taken with respect to the condemnation of any carcase, the medical officer of health be empowered to obtain such "scientific evidence as he, with the authority of the chairman, may think necessary in support of the proceedings." Mr. W. H. Hill, Vice-President of the Sheffield Butchers' Association, forwarded a communication to the Health Committee on the resolution adopted by that body respecting the two carcases which had been condemned by the medical officer of health. Mr. Hill maintains that a medical officer of health cannot from his professional training and duties have acquired such a complete knowledge of the diseases of cattle as either a jury of respectable butchers or a veterinary surgeon. With respect to one of the carcases condemned on Sept. 19th, there was no question as to its being advanced in disease and rightly condemned; but in the other the disease was in a mild form, the tubercles being small and scanty, and the meat healthy in appearance. Reference is made to a third carcase which had been condemned, but where portions of the flesh were examined by

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Dr. J. W. Martin and by Dr. G. Newton Pitt of Guy's Hospital, the latter stating in his report that there were no tubercle bacilli and no evidence of disease in the meat submitted to him, adding that this, together with the naked-eye appearances "justified a positive opinion that the joint was fit for human food."

ABUSE OF MEDICAL CHARITIES IN BIRMINGHAM: A PROTEST.

THERE has lately been a very strong feeling of dissatisfaction among medical men in Birmingham at the enormous growth of out-patient charity in hospitals; and a meeting of about fifty practitioners was recently held there, with a view to make a powerful appeal to the public on the subject. We hope the profession will be unanimous in its protest. The *Birmingham Gazette* of the 6th inst. contains a quiet and impressive article on the subject. It summarises the views of these practitioners to the effect that, whereas the population of Birmingham has increased only 35 per cent. during twenty years from 1867 to 1887, the patients treated in the local hospitals have increased 137 per cent. It is contended that the hospital system, regarded as a charitable agency, has far exceeded all reasonable limits. It is well pointed out that the Hospital Saturday Fund, so much promoted by our lamented friend, Sampson Gamgee, and so well intended by him and others, has not been without harm in a way that we have often pointed out. Such schemes beget in the minds of working men an idea that they are paying for hospital treatment, and may therefore go to a hospital for everything. True, they are trying to make a contribution to the payment of hospital expenses; and all honour to them for that. The fallacy is in thinking that they are paying for ordinary medical attendance. They are paying for the treatment of grave sickness or accident that may overtake them, or their fellow-workmen, or their families, but no more. Their Hospital Saturday contributions are a charity—not a contract. The subscriber of a guinea or five guineas does not buy a right to have his family's ordinary ailments treated; neither does the working man, and he degrades his subscription by putting that construction on it. We wish this Birmingham movement every success. London must soon follow suit.

EXECUTION BY ELECTRICITY.

THE law recently passed in New York State determining that criminals sentenced to death shall be executed by means of an electrical shock remains up to this time inoperative. There is at the present moment a prisoner under sentence for a capital crime, and although the time usually allotted to criminals of this class has passed he is still in the land of the living, and is still left to the endurance of the pangs of hope and of doubt which must befall a human being in so fearful a position. It is impossible to think of any ordeal more terrible than such a delay—a delay the more reprehensible because it depends on experimental hesitation as to the success of the proposed new method. The electricians themselves—that is to say, the best and most accomplished of them—do not take to the experiment. They feel that if it were a success it would not add to the honour of electrical science, but would rather take away from the credit that science has acquired as an agent for the amelioration of human misery. They are jealous of a truly noble art degenerating in the hands of the common executioner, and they are not certain that the electrical discharge will always, under the particular conditions required, perform the task demanded of it without some risk of mishap. It might not always kill the man it is intended to kill, and it might by accident kill where it was not designed to kill. Still more, a great many persons believe, and rightly believe, that the present method of capital punishment, rude as it is, and from such veritable rudeness deterrent to some minds, is not, after all, a more painful mode of death, when it is carried out properly, than the proposed new mode. From all these causes of doubt there springs the present delay. The infliction of death by the new mode in the culprit under sentence has been called in question, and the learned judge who tried the case has been appealed to. He refuses to interfere, on the ground that, the sentence having been passed and the mode of death declared in accordance with the law of the State under which he administers justice, any change or reversal of his judgment must come from a higher legal authority. There may consequently be another appeal to the "General Term," and if that reaffirms the mode of carrying out the sentence the question may finally be referred to the Supreme Court, unless, meantime, the Legislature interferes and gives full powers for the new method to be rendered absolute in its application, in all States which, like that of New York, may choose to adopt it. It is to be hoped that the common sense of the State of New York will put an end to the whole of the difficulty, and that the sentence on the miserable prisoner may be commuted.

THE VESSELS OF THE VALVES OF THE HEART IN MAN IN HEALTH AND DISEASE.

A MEMOIR with this title has just appeared in the report published by MM. Ranvier and Malassez on the work done in the Histological Laboratory of the College of France during the year 1888. The author of the memoir is M. Darier, and in his introductory remarks he observes that very different opinions have been expressed at different times, and that the question of the existence of vessels in the valves may still be regarded as under discussion. Apart from its interest as a pure matter of anatomical investigation, the fact of their existence or absence is one of considerable pathological importance in view of the frequency of valvular lesions in different diseases. The earlier French writers do not seem to have had their attention drawn to the point, no reference being made to the presence of vessels by Sénac, Meckel, or Bichat. Gerlach in 1848 remarked that the endocardium and valves are very poorly supplied with vessels, and Rokitansky, in his "Pathological Anatomy," only observed that inflammatory congestion is rarely seen in the acute period of endocarditis. Luschka was the first anatomist who made any definite statement in regard to the vascularity of the valves. In a paper contained in one of the early volumes of Virchow's *Archiv* he described the auriculo-ventricular valves as having a well-marked supply of vessels near their adherent border, and adds that he has counted from four to six descending branches in each valve which form an irregular large-meshed plexus extending towards the free border of the valve, whilst other branches anastomose with them which proceed from the musculi papillares, and accompany the chordæ tendineæ. Luschka makes no reference to the semilunar valves. Gerlach, in the second edition of his Histology, speaks of the slight vascularity of the auriculo-ventricular valves, and expressly states he has never been able to discover any in the semilunar valves. The same view seems to be held by Henle, Frey, Cruveilhier, Sappey, and others. MM. Ranvier and Malassez give the details of the numerous observations they have made, and the results at which they have arrived may thus be summed up. First, in health the semilunar valves of both the pulmonary and aortic orifices never contain vessels, nor are vessels present in the fibro-elastic portion of the auriculo-ventricular valves. The valves of the tricuspid and the mitral valve are usually entirely composed of fibro-elastic tissue. The right or posterior valve of the

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initial valve has, however, at its upper part a fleshy vascular region which does not in general exceed one-sixth of the height of the valve. In the new-born child muscular fasciculi extend to a variable distance into the auriculo-ventricular valves, and are accompanied by vessels, but neither muscular tissue nor vessels reach the inferior fourth of the valve. In pathological conditions vessels may be found throughout the whole extent of the aortic semilunar and mitral valves, which appear to result from a neoplastic process following inflammation. They consider that the conditions which favour the development of the vessels under pathological conditions are at present insufficiently known, and MM. Ranvier and Malassez are further of opinion that the hæmatomata of the valves which occur so frequently in the new-born child do not stand in relation with the vessels existing at the moment of birth; their formation appears to be in relation with the process of retrogression of the vessels which exist in the valves during the fœtal period.

SMOKE ABATEMENT IN MANUFACTORIES.

MANY of us are too ready to abandon ourselves to the idea that there is but one really practicable means of escape from the inconvenience of city fogs—namely, the disuse of coal and the substitution of a smokeless illuminant. In the absence of any known substance at once as effectual for its purpose and as inexpensive, every other alternative suggestion is therefore worth recording. One such in particular is of recent interest. We refer to the proposal recently brought forward by the Manchester and Salford Noxious Vapours Abatement Association to test the value of existing appliances for smoke prevention. At a meeting held in Manchester Town Hall a few days ago, this action on the part of the Association was generally approved, and an executive committee appointed. It is satisfactory to learn that the balance of opinion at this meeting tended to show that, even in the case of manufactories, the emission of black smoke was avoidable, and that without material increase, if any, in the sum of working expenses. There is, indeed, little doubt that much of the smoke so liberally discharged over our large cities would, if it could be utilised, prove a useful means of combustion in various chemical processes, so that the proposed reform, if carried out, might even be profitable to its promoters. It is, at all events, a hopeful sign that a proposal of this kind should have emanated from a great manufacturing and commercial centre, and we sincerely hope that the purpose thus indicated may surely, if slowly, ripen to a satisfactory result.

THE ITALIAN SAUSAGE INDUSTRY.

THE excitement caused throughout Italy by the detection of extensive frauds in the Bologna sausage manufacture is spreading. Other cities, notably Florence, are demanding an immediate inspection of the same articles of food as are vended in Italian warehouses. The public, says the *Nazione* of that city, are entitled to some such inquiry in their behalf as has just yielded such startling results in Bologna. Instead of the pig's flesh popularly supposed to form the main ingredient in the Italian sausage, horseflesh is that which is really used—horseflesh, moreover, of more than dubious origin, taken from animals that have died of infectious disease, and even that in an advanced state of decomposition. According to the *Tribuna* there has been collusion between certain sausage manufacturing firms and the veterinary authority, the latter winking at frauds which it ought to have exposed. The new powers conferred by the Codice Sanitario, indeed, are finding material for their exercise in quarters hitherto above suspicion—in an industry, to wit, which has long been one of the special boasts of Italy.

RARE SURGICAL CASES.

THERE are at present in the wards of St. Thomas's Hospital, under the care of Mr. Croft, three cases of unusual interest to surgeons, which have been admitted during the last few days. On the 11th inst. a patient was admitted suffering from a wound from a revolver in the chest on the left side. He was much collapsed. The aperture of entry was about three inches below the nipple, and an inch and a half nearer the middle line, and the ball apparently traversed the lung and pleura. Hæmoptysis came on three hours after the injury; there was dulness over the left base posteriorly. At midnight there was vomiting, the vomited matter containing blood. Mr. Croft at 2 A.M. on the 12th, in consequence of the character of the vomiting and the presence of tenderness in the epigastrium, decided to explore the region of the stomach for a wound of that viscus. After a careful examination, as no injury to the diaphragm or abdominal contents was found, the wound was closed. The man is progressing satisfactorily. On the 13th his temperature was subfebrile; he was without pain, and there had been no vomiting for twenty-four hours. In the second case, the same surgeon removed the head of the humerus from the axilla into which it had been displaced after comminution of the upper end of the bone, with dislocation. The patient, a feeble man, about thirty years of age, had received the injury by falling through a trap-door. The accident occurred in the evening of the 8th inst., and was attended with much contusion of the nerves. In the third case Mr. Croft removed a piece of the articular cartilage of the femur from the knee-joint, which had been detached three days before by means of a violent twist of the knee. The joint was not struck by anything, neither did the patient strike his knee by falling. The patient was a boy of seventeen, without history of any previous trouble in the joint. The piece of detached cartilage, with a thin layer of bone covering the surface, measured one inch by five-eighths of an inch. We hope to be able, in a future number, to give these cases more in detail.

OYSTERS.

OYSTERS are so nutritious and of so much value in many forms of convalescence, as well as so largely employed as a luxury, that it is to be regretted they should have fallen under the ban of a scare. It is so easy, when the public mind is disquieted and alarmed by the prevalence of an epidemic, to fix the blame upon one special article of diet, and to be lulled into a false sense of peace provided that this substance is avoided; but, on the other hand, the connexion between the disease and the supposed peccant substance is very frequently imaginary. The relief obtained by branding some possibly innocent substance may occasionally serve to divert attention from some radical sanitary defect, while it also causes an irrational distaste for some article of diet which requires much time and experience to eradicate. Contamination with sewage is justly regarded as a danger, and one of the latest suggestions is that some epidemics of typhoid fever are to be traced to the use of oysters thus poisoned. It is an undoubted fact that sometimes attacks of diarrhœa follow the ingestion of oysters, but the comparative rarity of this leads many to brave this danger with an easy mind. The proof of the connexion between typhoid and oysters can only be established by careful inquiry. So many sanitary defects exist in Dublin that we should be sorry to find the stigma cast upon foreign oysters regarded as a satisfactory solution of the problem, still less as a reason for taking no measures to relieve that city from the frequent and powerful odours which at present pervade it. While it is possible that oysters may cause disease, it is certain that the other question urgently calls for attention and improvement.

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THE DEATH OF MR. ERNEST WELLDON.

THE painful circumstances which surrounded the death and burial of Mr. Welldon furnish more than one lesson, which it behoves both the relatives and medical advisers of deceased persons to take to heart. Mr. Welldon was only twenty-nine years of age at the time of his death. It was alleged that there were facts open to more than one interpretation as to the cause and method of his death. Now, however, that a post-mortem examination and analysis have been made and an inquest held there seems no reason to doubt that death was the result of natural causes, as understood by the statute law. It was proved before the coroner that deceased had admitted having been addicted to intemperance since his fifteenth year, and, further, that the habit had grown as he became older. There was some discrepancy in the opinions of the medical men as to the proximate cause of death. Mr. Farr, who attended deceased, assigned it to uræmic convulsions, whilst Mr. Hebbert, who conducted the autopsy, thought it was due to cardiac failure either from delirium tremens or chronic alcoholism. The fact that Mr. Hebbert did not find advanced kidney disease must be taken in connexion with the circumstance that the examination was not made until some days after the death, when the renal epithelium would have undergone post-mortem changes not altogether easily distinguishable from the effects of disease. Chronic alcoholism spares but few tissues. It has a special proclivity to link itself with nervous, cardiac, and renal disorders, both functional and organic; and it may well have been that—temporarily at least—both directly as the result of excessive indulgence; and, indirectly as the consequence of cardiac weakness, the kidneys, so to speak, struck work, and so were responsible in great measure for the death. We feel compelled to subscribe to the delivery of the coroner when he deprecated the filling up the death certificate by one medical man and the signing it by another. Such a procedure is calculated, even by mischance, to lead to complications and difficulties. In the above case the Messrs. Farr acted in perfect good faith, but we doubt whether they exercised the greatest discretion in the matter of the death certificate.

THE PRESYSTOLIC MURMUR.

THE study of the rhthym of cardiac murmurs seems to possess some highly fascinating properties for physicians. It has certainly been productive of many an ingenious theory and more or less subtle speculation. The recent lecture by Dr. Dickinson published in these columns demonstrates that he at least abides by his previous contention as to the nature of the "so-called" presystolic murmur, which, when enunciated two years ago, led to so prolonged and exhausting a controversy. His argument is plausible, and is supported by statements of fact and inference which are stated so clearly and in so entertaining a manner as to divert the attention from any possible physiological inconsistencies they may involve. The matter lies in a nutshell. The peculiar character of the presystolic murmur with its abrupt termination is held by the "orthodox" to indicate the eddy of blood as it flows from the auricle to the ventricle, the bruit being completed by an intensified systolic sound; whilst it is believed by Dr. Dickinson and his adherents to be throughout due to a regurgitant flow into the auricle, and is therefore wholly systolic, the sharp sound indicating the end, and not the commencement, of systole. The question has been so much debated, and has, indeed, so often been put to the test of cardiographic experiment, that it seems hardly desirable to reopen it; indeed we cannot afford more space to a controversy upon a subject which is in one aspect merely an intellectual puzzle. At the same time it must be pointed out that Dr. Dickinson has laid undue stress upon the coincidence of the carotid pulse with the abrupt sound that terminates the presystolic murmur, for the time between the ventricular systole and that pulse is almost inappreciable; so that, on the regurgitant hypothesis of the bruit, the pulse should be felt much earlier in the latter's course. After all, whether the bruit be regurgitant or direct, there is, at any rate, unanimity upon one point—viz., that it is indicative of mitral stenosis; and, for our part, we can see no valid objection to renaming the bruit as Dr. Dickinson originally suggested, so that its name might not convey any preconceived opinion as to its mode of production. The only objection to this proposal is the general one of the difficulties which are encountered in any attempt at revision of clinical nomenclature.

THE NEW REGULATIONS FOR THE DENTAL DIPLOMA.

WE are glad to be able to chronicle a great advance in the curriculum required by the College of Surgeons of England for their dental licentiates. At the meeting of the Council on Thursday such alterations were effected as to make the requirements for the first and second professional examinations for the conjoint diploma and those for the L.D.S. practically identical, and it is sincerely to be wished that the dentists will readily take advantage of the opportunity held out to them of acquiring the M.R.C.S., L.R.C.P., and L.D.S., thus bringing our esteemed colleagues, the dental surgeons, into a closer bond of union with the rest of the medical profession. We publish on another page the new regulations, by which it will be noticed that the subjects to be taken at the general hospital are identical with those required for the first two professional examinations for the conjoint diploma, save only that practical pharmacy is omitted. Moreover, it is now possible for the dental student to take chemistry, materia medica, and the three years' mechanical work before registration as a dental student. The courses in anatomy, physiology, practical physiology, and dissections are the same for both diplomas, and all students alike are required to attend the class examinations. These changes must of necessity raise the status of the dental profession in the eyes of their medical *confrères*, and tend greatly to remove the stigma that too often is attached to the dental students at our hospitals; while the rest of the medical profession will be pleased to welcome gentlemen who practise the science of dental surgery, since their professional education is so similar, as worthy and honourable members of a learned profession.

"PIOUS FOOLS."

THERE is a wise saying attributed to the late Dr. Chalmers, that no people do so much harm in the world as pious fools. One of the greatest proofs of the truth of Christianity is its persistent survival in spite of all the stupid things that are said and done by those who profess it. Faith-healing is only one of the many illustrations of our remark. To take a poor consumptive girl away from doctors to "Bethshan" and then to Worthing, and then expose her by a drive till she got pneumonia superadded to phthisis, and died, was eminently worthy of the class of persons contemplated by Dr. Chalmers. It is no excuse for this conduct that the patient herself believed in it; neither is it improved by the fact that when death threatened they sent for a doctor to fill up a certificate and avert a coroner's inquest. The use of doctors is not to certify the cause of death, but to save life. Dr. Gostling gave his evidence with much clearness, and showed that the deceased's death was caused, prematurely at least, by exposure and by want of medical direction.

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The coroner summed up with much strength and moderation, and the jury very properly added a censure to those in charge of the patient for not sending for a doctor in time. We wish we could believe that people who so discredit Christianity would act more wisely. We can only appeal from them to Him they so poorly represent, whose teaching was that they that are sick need a physician.

TESTING THE QUALITY OF GASTRIC SECRETION.

DR. ALFRED GÜNZBURG of Frankfort publishes in the *Deutsche Medicinische Wochenschrift* a paper on the diagnosis of the contents of the stomach by means of a less disagreeable mode of procedure than the use of the stomach-pump. He recommends that the patient should swallow substances which are easily found in sputum and urine, so that from the examination of these secretions an inference as to what is occurring in the digestive tract may be drawn. It is only necessary, says the author, to encase such a substance in an envelope which can be digested by the juice of the stomach. He chooses iodide of potassium for his experiments, because minute quantities of iodine may be discovered in the sputum, and this can be easily examined every five minutes. The plan he adopts is as follows:—Into short well-vulcanised gutta-percha tubes with very thin walls are inserted tablets of from three to five grains of iodide of potassium with a little gum, one into each, their ends being then twisted so as completely to close them; they are then all tied in precisely the same manner by three simple fibres of fibrine which have been preserved in alcohol. The little sealed tubes are preserved in glycerine, dried before use, and put into a gelatine capsule. The patient swallows one of these capsules an hour after Ewald's "experimental breakfast," and expectorates every quarter of an hour into a test glass in which iodide of potassium is searched for by testing with starch. The gelatine capsule is in all cases equally quickly dissolved in the stomach; but the rapidity with which the tube bursts from the swelling of the fibrine ligatures depends upon the quantity of hydrochloric acid in the gastric juice; the iodide of potassium tablet is then very soon dissolved. The author admits that the tubes may not open at all in the stomach, but only in the gut, for one may occasionally pass through the pylorus untouched, together with the chyme. It is therefore necessary to repeat the experiment several times, but this cannot be done immediately, as iodide is usually excreted continuously for more than twenty-four hours. The ten healthy people on whom Dr. Günzburg experimented excreted the first iodide of potassium on an average one hour and a quarter after swallowing the capsule, the absorption, which is always pretty uniform, taking ten minutes, the difference—i.e., sixty-five minutes—being the average time taken by the ligatures to swell sufficiently to burst the tube.

THE EFFECTS OF BAD FISH.

AMONG the most curious problems of medicine must be reckoned the strange diversity of results which follow the ingestion of various articles of diet. Frequently shellfish are accredited with having produced serious symptoms, and numerous theories of explanation have been proposed, the one which is now currently accepted being that a poisonous principle is formed which has been isolated by Bricger and termed "mytilotoxine." This substance, however, is said to act like curara in paralysing motor nerves, and must be considered as distinct from the material which so often gives rise to gastritis and enteritis. In an inquest recently held by Dr. G. Danford Thomas evidence was given of the ingestion of fried plaice, and the symptoms appear to have followed this so closely as to leave little room for doubting a causal connexion. On the other hand, it would seem that others who partook of the same meal were not affected. The whole question bristles with difficulties, and has hardly received the attention it merits in this country. The existence of ptomaines possessed of poisonous properties has long been assumed, and in many cases demonstrated, but the conditions under which they are produced, and their effects upon the human being, have scarcely been satisfactorily formulated. In the subject of the inquest above referred to some special circumstances must have been in operation, rendering the deceased more prone to toxic agencies. Special immunity from the effects of a poison cannot be taken to disprove its existence, for it is a matter of common experience that a certain proportion of those exposed to infectious fevers escape.

A MUNIFICENT GIFT.

AT the usual weekly meeting of the London County Council, held on Tuesday, the 12th inst., the Chairman, Lord Rosebery, read a letter from Sir Sydney Waterlow, Bart., offering as a free gift an estate of nearly twenty-nine acres in extent, situated on the southern slope of Highgate-hill, in the parish of St. Pancras, for the purpose of being laid out as a public park for the north of London. The grounds are described as "undulating, well timbered with oak, old cedars of Lebanon, aud many other well-grown trees and shrubs. There is also an acre and a half of ornamental water supplied from natural springs." This splendid contribution to the "lungs" of London is accompanied by a donation of £6000, to be expended in connexion with the park in such manner as the Council may deem most desirable. It need hardly be said that the Council decided by acclamation that Sir Sydney Waterlow should be heartily thanked for his gift, and that the letter should be engrossed on the minutes. This noble present comes as a fitting crown to the great services already rendered to the inhabitants of London by Sir Sydney Waterlow. His energy in promoting the cause of the Hospital Sunday Fund movement—and we are well aware to what a degree the success of that movement is due to his efforts—and the philanthropic and practical interest he has always displayed in the welfare of the working-classes will long cause his memory to remain green. When the time comes (and may it be far distant) to write Sir Sydney Waterlow's epitaph, the simple and appropriate legend might run: "He did good with both hands."

CHLOROFORM AND LOCOMOTOR ATAXY.

DR. THIEM, having had to give a patient with slight signs of locomotor ataxy chloroform for the purpose of examining an abdominal tumour, was surprised to notice that as she was being helped from the room, while still somewhat under the influence of the chloroform, she walked with a typical ataxic gait, though this symptom was not ordinarily present. On watching other patients who were not suffering from this affection trying to walk while still partially under the influence of chloroform, Dr. Thiem convinced himself that the peculiar gait only occurred in the subjects of ataxia in whom the semi-narcotic state brings out the want of coördination in the movements of the legs. The explanation would appear to be that inasmuch as the peculiar gait is not due to any paralysis of the muscles, but only to the want of coördinating power, which is set in action by the control exerted by the muscular sense and the sense of sight, when, as in the case of a half-chloroformed subject of locomotor ataxy, both the central coördinating apparatus and the peripheral regulating machinery are in a more or less inactive condition, there is a double reason for the existence of the well-known jerking and sliding move-

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ments of these patients. It would appear, then, that in doubtful cases of locomotor ataxy some assistance towards a correct diagnosis might sometimes be obtained by partially anæsthetising the patient and then observing his gait as he walks across the room.

ASSISTANCE FOR POOR INVALID AND CRIPPLED CHILDREN.

AMONG the many societies which from time to time have entered their claim to public support, few, if any, are more truly charitable or more useful to the persons they benefit than the Invalid Children's Aid Association. In the words of its first report, just issued by the Society, its purpose is briefly stated to be that of finding a friend for any and every poor and invalid or crippled child in London. Its work is done by an executive committee represented by visitors, each of whom has the supervision of two or more children, the total number of the latter now on the books being about 600. The friendship exhibited by the Society towards its youthful charges is eminently practical. It steps in to fill a gap which neither hospitals nor dispensaries can efficiently stop. It seeks out the chronic halt and maimed of needy childhood, and discharges towards them with equal care, and perhaps with even more intimate sympathy, the brotherly kindness of the good Samaritan. It provides, as occasion requires and its means allow, visitation, trained nursing, medical advice, comforts, food, clothing, dressings and surgical appliances, the loan of spinal and other carriages, hospital or seaside accommodation, and, if needful, money, for the relief of the suffering children. Such a work hardly needs to be commended. It is its own best advocate, but we have thus briefly touched upon its characteristics in the hope that something may thus be done to direct the speedy and substantial aid of willing givers everywhere towards the present office of the Association, at 18, Buckingham-street, Strand, W.C., and to promote the formation of similar institutions in other cities.

MODE OF ELECTION OF MEDICAL STAFFS TO HOSPITALS.

THE evils of canvassing the governors of a medical charity by candidates for medical appointments are so patent, and the ordeal to the candidate himself is so trying and distasteful, that nothing can be said in support of the system, which we are glad to see is being generally abolished. This step in the right direction was taken at a special court of governors of the Royal Berks Hospital on the 5th inst., when it was resolved that, when a vacancy was notified to the board, it should be advertised in the local newspapers and medical journals; and that the election should take place at a special meeting of the Board of Management, in conjunction with the medical staff and twelve other governors, such meeting to be held within thirty days and not less than twenty days from the date of the advertisement. "All canvassing on the part of a candidate will disqualify him" is one of the most important clauses of the resolution.

TYPHOID FEVER.

FROM experiments made with cultures from the bacillus typhosus (Eberth) in beef peptonoids and in peptonised milk, Dr. Rachford of Ohio (*Medical News*, Oct. 26th) infers that the nerve symptoms and fever present in the inoculated disease depend in great measure on the ptomaines produced, and that these ptomaines vary with the food material in which the bacillus is grown. Thus in rabbits inoculated with bacilli cultures in broth and beef peptonoids showed stupor and high fever; but when the culture was in peptonised beef and brain, the rabbits showed stupor but subnormal temperature; whilst the effect of inoculation of milk cultures was to cause neither fever nor nervous symptoms. The intestinal lesions, it may be remarked, were similar to those of typhoid fever. The inference is that milk is the best diet in the disease—a conclusion long ago arrived at by practical physicians.

THE LIVERPOOL ROYAL INFIRMARY.

A SPECIAL GENERAL MEETING of the trustees of the Liverpool Royal Infirmary was held on the 11th instant for the purpose of electing a surgeon in place of Mr. Reginald Harrison. The chairman of the committee (Mr. H. B. Gilmour) paid a graceful tribute to that gentleman, whose connexion with the infirmary dates from 1860, and has been continuous since 1868. Mr. Harrison commenced as senior house surgeon and ended as senior surgeon. The committee thus looked upon him as specially their own, and one of whom they had come to be very proud. His resignation was a matter of very general and sincere regret, and he took with him the confidence and heartiest good wishes of all who knew him. Mr. Frank Thomas Paul, F.R.C.S. Eng., was elected to the vacancy without opposition. Mr. Paul was formerly resident medical officer to the infirmary, and for some years past he has been honorary surgeon to the Royal Southern Hospital.

MODIFICATIONS IN REGULATIONS OF THE CONJOINT BOARD.

ON the recommendation of the Committee of Management, the College of Physicians adopted the addition of wards to the regulations relating to the discharge of duties of medical clinical clerk and of surgical dresser, to the effect that these duties should in each case be discharged in the wards during not less than three months, so that the amended regulation now runs: "9. Of having discharged, after having passed the second examination, the duties of a medical clinical clerk during six months, and of a surgical dresser during other six months, of which, in each case, not less than three months shall have been in the wards." It was also resolved to require a certificate of three months' further instruction in diseases peculiar to women, as well as in midwifery, from those candidates who fail to pass that part of the third or final examination.

THE MEDICAL DEFENCE UNION.

THE Medical Defence Union have done well to establish a Metropolitan Branch, with local officers, in or near London, with Dr. Bridgewater of Harrow as President; Dr. Bantock, Treasurer; and Dr. Campbell Pope as Secretary. This step was taken at a meeting in London on Nov. 8th, presided over by Mr. Lawson Tait, who described the success of the Union in several instances of vexatious prosecution and in suppressing illegal practice. The success of the Union has been shown in several cases in the best of all ways—viz., by arresting vexatious litigation in its early stages by merely showing that there were the means and the organisation for a determined resistance.

HONOURS FOR ARMY SURGEONS.

THE following appointments to be Companions of the Distinguished Service Order have been gazetted: Surgeon-Major Aylmer Ellis Hayes, Army Medical Staff (employed with the Egyptian Army), L.R.C.P. Edin., M.R.C.S. Eng., "in recognition of his services during the recent action at Toski, on the Nile"; and Surgeon Ignatius Purcell Doyle, Indian Medical Service, Madras, L.K.Q.C.P. Irel., L.R.C.S.I., "in recognition of his services during the late operations in Burmah."

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THE HYDERABAD CHLOROFORM COMMISSION.

WE learn by telegram from Dr. Lauder Brunton, who, as our readers are aware, proceeded to Hyderabad on Oct. 4th on behalf of THE LANCET, and in consequence of an invitation extended to us by the Nizam, for the purpose of repeating and amplifying the experiments made by the Hyderabad Chloroform Commission in 1888, with a view to confirm or correct its conclusions, that the work is progressing in an entirely satisfactory manner, and the facilities placed at Dr. Brunton's command are unrivalled; 275 experiments on dogs and monkeys have already been completed, and the result so far has been to practically confirm the conclusions arrived at last year by the Hyderabad Commission. The telegram adds that the Nizam's Government is acting in a most liberal manner, and, in conclusion, states that the Nizam and the British Resident paid a visit to the laboratory on Monday last and inspected the work.

UNIVERSITY OF CAMBRIDGE.

THE financial board of the University of Cambridge have had under their consideration an offer made by Dr. Sidgwick to give £1000 now and £500 more within the next two years as a contribution to the expense of the proposed new buildings for the Department of Physiology, the buildings to be commenced without delay. The whole cost is estimated at about £5000, and the financial board recommend to the Senate of Cambridge University that Dr. Sidgwick's offer be accepted with thanks; that, in addition to Dr. Sidgwick's donation, the sum of £2500 be appropriated from the General University Building Fund, and a sum not exceeding £1000 from the Chest, to defray the cost of the buildings, and that the work be commenced at once.

GROUND WATER AND ITS INFLUENCES.

THE influence of ground water and shallow wells in relation to public health is the subject of a somewhat exhaustive paper just published by Dr. W. B. Featherstone. The matter is dealt with from many points of view, including its geological, its chemical, and its health aspects, and on each point the information which has been compiled by other investigators, whether foreign or English, is given at some length. The number of diseases which, in one or other way, are stated to be associated with defects in, and with impurity of, ground water, and of shallow well water, is a very considerable one; and the work hardly measures sufficiently the degree to which the various diseases may be allied to ground water, in so far as production or spread are concerned. But students of the subject would do well to read the work, which summarises in a useful form the principal facts which are known or alleged to bear upon the subject.

DEATH OF MR. HAYNES WALTON.

WE regret to have to record the death, at the age of seventy-three, of Mr. Haynes Walton, F.R.C.S. Eng. The deceased was formerly House Surgeon at St. Bartholomew's Hospital and lately Surgeon and Surgeon in charge of the Ophthalmic Department at St. Mary's Hospital, besides holding several other appointments. We hope in our next number to give a more extended notice of the deceased.

FOREIGN UNIVERSITY INTELLIGENCE.

Christiania.—Dr. S. Terup has been appointed to the chair of Physiology, in succession to the late Professor Worm-Müller.

Dorpat.—Dr. Werner Zoege von Manteuffel has been appointed to a lectureship in Surgery.

Geneva.—Dr. Vincent has been appointed to the chair of Hygiene in place of Dr. Dunnant.

Heidelberg.—It is proposed to establish a Hygienic Institute, under the direction of Professor Knauff.

Liège.—Dr. Ch. Frike has been promoted to be Professor of Bacteriology.

Valencia.—Dr. Don Nicolás Ferrer Julve, Professor of Surgical Anatomy and Operative Surgery, has been appointed Dean of the Medical Faculty.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

The deaths are announced of Dr. Bonnemaison, Professor of Clinical Medicine in the Medical School of Toulouse, and of Dr. La Loggia, Senator of Italy.

THE munificent legacy of £100,000 has been bequeathed to St. Andrews University under the deed of the late Mr. David Berry, one of the oldest and wealthiest Australian colonists, who died last September. Mr. Berry came into the Australian estates of the late Dr. Alexander Berry, an old student of St. Andrews University, who died in 1873. It was understood at the time that Dr. Berry had left an unsigned will bequeathing a quarter of a million sterling to his *alma mater*, but had left it to his brother David to carry out the provisions as he thought proper. St. Andrews University will not participate in the bequest until 1894.

PROF. A. EULENBERG celebrated on the 11th inst. the twenty-fifth anniversary of the commencement of his academic career, his first appointment being as assistant physician to the University Hospital at Greifswald, when Ruhle was the dean. Prof. Eulenberg is best known for his contributions to neurology, his first writing on the subject being his prize essay (1862) on Cerebral Hæmorrhage. His text-book of Nervous Diseases is well known, and so is the Real-Encyclopædie der Gesammten Heilkunde, which he edited, and of which the second edition is now appearing.

THE *London Gazette* states that the Queen has been pleased to give directions for the appointment of Edward William Rawle Branch, Esq., a medical officer in the Leeward Islands, to be an official member of the Legislative Council of the Virgin Islands.

M. DU CHAILLU was present at the meeting of the Edinburgh Graduates' Club on Wednesday evening, presided over by Sir James Crichton Browne. The eminent traveller received a hearty welcome in connexion with the toast of his health, proposed by Dr. George Harley.

ACCORDING to a St. Petersburg medical journal there has arisen in the province of Viatka a serious outbreak of ergotism or raphania. No less than 683 persons have been attacked, of whom 34 have died.

DR. FRANCIS WARNER has been appointed Lecturer on Materia Medica and Therapeutics at the London Hospital Medical College.

DR. J. MACKENZIE has been appointed Italian Vice-Consul at Kimberley.

TUBERCULOSIS.—The prizes offered by the Belgian Academy of Medicine for the best essays on the public and private hygienic methods for preventing the development and propagation of tuberculosis in Belgium have been awarded to two Brussels practitioners—Drs. Destrée and Gallemaerts.

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Pharmacology and Therapeutics.

SALINE HYPODERMIC INJECTIONS IN POST-PARTUM HÆMORRHAGE.

IN the Dresden Lying-in Hospital the plan of introducing a large quantity of a solution of common salt under the skin has been very successfully employed in several severe cases of post-partum hæmorrhage. The solution is of the strength of 0·6 per cent., and the quantity injected is a litre, or a little under a quart. The spots selected for the injection are the infra-clavicular and the inter-scapular regions. During the progress of the operation the swelling produced under the skin must be manipulated by a sort of shampooing movement so as to disperse the liquid as much as possible. The water with which the solution is made must be sterilised or well boiled. The advantages of the plan are that it can be easily carried out by any medical man, as it is far less difficult than transfusion, besides which it is not so dangerous. Dr. Münchmeyer considers the plan so suitable for private midwifery practice that he suggests that a little apparatus, which is made on purpose for it, should always be carried in the obstetric bag, together with the proper quantity of common salt. Boiled water can always be procured, and this, when cooled down to the temperature of the body, 98·6° F., will do very well, though in hospital clinic he employs a more strictly sterilised solution.

ANTIFEBRIN IN EPILEPSY.

Dr. Theodore Diller of Danville has been using antifebrin in the treatment of epilepsy in nine cases in which bromides and other modes of treatment had previously been employed. He finds that in all the cases in which the drug was given continuously there was noted a reduction in the number of fits ranging from about 25 to 75 per cent., as compared with other months during which the patients were on bromide and tonic treatment alternately. The remedy was in all cases well borne, producing no apparent mental or physical depression, this forming a marked contrast to the depressant effects noted after a course of bromides. No skin eruption was produced. In spite of these results, however, he believes that in any given case, in which a great number of fits are occurring, and where it is desirable to control them as soon as possible, bromides would be of far more value than antifebrin. From the table appended to his paper it would appear that the beneficial effects of antifebrin were most marked only after the drug had been employed for over three months. In two cases no improvement followed the use of antifebrin.

EFFECT OF ALCOHOL ON THE SECRETION OF BILE.

Dr. Cheltsoff publishes in the *Ejenedélnaya Klinicheskaya Gazeta* an account of some experimental observations on dogs undertaken with a view of determining the nature and amount of the influence of alcohol upon the secretion of bile. He made biliary fistulæ in the animals, and after all the disturbance caused by the operation had passed off he proceeded to observe the effect of introducing alcohol in various quantities into the stomach. The bile as it was secreted was collected in glass receivers, which were changed every few minutes, the contents being measured, weighed, and otherwise examined. The results showed that small quantities of alcohol either have no perceptible effect on the bile or serve to increase it slightly. Large doses, on the other hand, perceptibly diminish the flow, though sometimes there is at first a temporary increase. Medium doses do not give any constant result. Dr. Cheltsoff has come to the conclusion that the alcohol acts directly on the hepatic cells.

SOMNAL.

A new hypnotic, which has been named somnal, is described in a Berlin pharmaceutical journal by Herr Radlauer, who states that, chemically speaking, it is ethylated chloral-urethan, its formula being $C_7H_{12}Cl_3O_3N$. It has a melting point of 42° C., and boils *in vacuo* at 145° C. It is not acted upon by nitrate of silver or by acids, and can be prescribed in half-drachm doses, dissolved in water with a little syrup of some kind. As a rule, a dose such as this acts in about half an hour, and produces six or eight hours' sleep. No unpleasant after-effects have been observed. There appears to be no interference with the digestive, circulatory, or respiratory organs, so that, according to the writer, the new drug has all the advantages of chloral without any of its disadvantages.

NAPHTHALIN AND CATARACT.

Dr. Kolinski, writing in Von Graefe's *Archiv*, Band xxxv., 2, points out that naphthalin, which is coming a good deal into use from the powerful effect it seems to have on the micro-organisms existing in the intestines in some cases of diarrhœa, possesses also the property of producing changes in the nutritive power of the blood, thus being liable to set up degeneration of the bloodvessels. As the eye is one of the most highly vascular organs it is one of the first to show any of the changes induced by interference with the nutritive property of the blood. Naphthalin is said first to cause small extravasations in the choroid and in the ciliary body, then ecchymoses and white patches in the retina, and finally cloudiness in the lens and crystals in the vitreous.

THE SMOKE OF HYOSCYAMUS NIGER IN TOOTHACHE.

A Russian practitioner recommends the use of hyoscyamus seeds for toothache. His plan is to burn the seeds and to convey the smoke through a little paper tube to the hole in the tooth. He declares that in nearly all cases one application, or at most two, will suffice to cure the toothache.

FISH FRAUDS.

BY J. LAWRENCE-HAMILTON, M.R.C.S.

No. VII.

KNOWINGLY and intentionally to sell or offer for sale, or cause to be sold in markets, shops, hotels, eating-houses, or by street hawking, inferior or cheaper kinds of fish, whether fresh, cured, tinned, salted, bottled, potted, or otherwise, as and for superior kinds of fish, as well as loading shellfish with bits of fish, being a fraud upon and at the expense of the consumer, should be made by statute a punishable offence. The adulteration or treatment of salted, cured, tinned, potted, bottled, or preserved fish, by unwholesome ingredients, and by avoidable filth, should also be made a punishable offence. By chemical analytical experts, aided by fish naturalists, a Government report on the condition of these preserved fish and fish products would yield startling revelations. By 12th Anne, chap. 2 (1713), it was enacted that all foul salt should be thrown overboard and destroyed, to prevent its use in curing fish. In 1884 some French soldiers in Algiers suffered from poisoning after eating salted red cod, due to a parasite attributed to the foul salt derived from marshes near Copenhagen. The bacteria appear to have been the *Clathrocystis rosea Persicana* of Cohn, *Sarcina morrhuæ*, or *Sarcina littoralis*, according to different observers. Such red salted cod is accused of infecting curing-houses, fishing-vessels, warehouses, and wharves. This red salted cod must not be confused with the so-called red codfish, especially good eating, whose colouration is attributed to its excessive feeding on shellfish and starfish. Recently, at Baltimore, owing to a sardine tin being improperly soldered with lead on the *inside*, a child within twenty-four hours of having partaken of some of its contents died, and two other persons were made ill with lead poisoning. The public, including its medical officers of health and fish inspectors, would do well to recollect the following fish-trade tricks and frauds. Occasionally, stale codfish have their gills smeared with fresh bullock's blood, as if recently captured. On the fish vendors' slab cod and other fish are sometimes, by means of a blowpipe, inflated with air or *blown*, so as to make skinny, flabby fish look plump and fat. Small haddocks and rock pouters—cheap, common fish—are often skinned, their tails inserted into their mouths, and sold at a high price for whiting. Painting and varnishing the gills and other parts of stale fish, and even artificially colouring cured fish to make them look fresh, are practised at home and abroad. By a statute of Henry VII. in 1499 no fish was allowed to be coloured and offered for sale. "Filleted soles" are often dressed weavers (stinging fish) or plaice. Halibut and brill are passed off as turbot. "Turtle" soup is often manufactured from conger eel, and

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not turtle. On capture, red mullet have their scales removed to intensify their redness. Stale eels and skate are rubbed over with sand to make them look as if recently caught, and also to increase their weight. In France skinned dog-fish are sold as "Dutch" eels. Sprats are often canned and labeled sardines or anchovies, and form the basis of "anchovy paste." "Dressed" juvenile split herrings in America are passed off as anchovies, and small herrings sold for sardines. The so-called "Russian sardines" are small herrings flavoured with spices, largely exported from Germany. Covered with a special varnish of a smoky taste, herrings so doctored have been sold as "*smoked* herrings." Into lobsters and crabs which have become by reason of age of lighter weight are introduced portions of fresh haddock or roker—in the case of the lobster at the juncture of the tail (abdomen), and in the case of the crab by inserting through a side opening the fragments beneath its upper shell. This is technically called "loading." Broken lobsters are pegged with wood to unite the body and tail together, in which operation the two parts may be from two individual lobsters. Lobsters and crabs unfit for human food are "*freshened up*" by reboiling, thus partly concealing the odour of commencing decomposition. Lobsters killed in boiling salted water (one pound of salt to the gallon) have firm flesh, as found by bending their so-called tail; but if dead and stale prior to boiling, owing to muscular decomposition, the flesh is soft and flabby, and upon slight pressure the tail easily and readily bends or waggles.

Caviares made from the roes of the sturgeon, cod, mullet, &c., are often adulterated with rancid or decomposed caviare, with roes taken from inferior coarse fish, and with avoidable filth. Often canned and cured fish, besides being more or less decomposed, is put up or submitted to the curing process without being washed. Sardines are frequently carelessly canned in inferior oils instead of in pure olive oil. Canned "oysters" are often mussels with their byssus or moorings removed. "Plumping" oysters consists in placing them in shallow vessels, with an inch or so of fresh water, to which salt or oatmeal is added. This method, whilst it increases the size, whiteness, and firmness of the oysters, deprives them of their natural healthy delicate flavour. Being thus kept confined in vessels supersaturated with their own waste products, the oysters soon sicken and die. The fish thus deteriorated by fraud are chiefly sold to the poor, whose fresh food supplies are always dear, and too frequently unwholesome and unpalatable, acting as one of the overlooked factors which drive many of them to chronic intemperance.

Bad cooking and waste of food.—Compared with foreigners abroad, the British workman, as regards fresh food, gets the minimum value for his money. Foreign rivals, with less wages, live better and produce cheaper goods, and thus outbid English manufacturers. The wasteful extravagance and bad cooking of the average Englishwoman are a national calamity and a financial loss. Foreigners could actually live well upon the unused kitchen products thrown away by many English families. Accepting lower wages than the English workmen, the foreign workmen in England obtain more of the real comforts of life, because they and their foreign wives know better how to economise their food and deal generally with household matters.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual meeting of the Fellows and Members of the Royal College of Surgeons was held on Thursday, Nov. 7th, Mr. Jonathan Hutchinson, President, in the chair. There was a large attendance.

The PRESIDENT, in submitting the Report of the Council, said he desired to pass in rapid review some of the most important topics with which it dealt. The number of candidates for the diploma continued to increase, and the association of the College of Physicians with them for the purpose of giving a combined and more complete examination and a joint licence continued to work exceedingly well. With regard to their own higher diploma of Fellow, it was with great satisfaction that he noted a very definite advance in the number of those who sought it. The average number of candidates at the final examination for the Fellowship from 1879 to 1883 was thirty-seven, while from 1884 to 1887 it was sixty-four. Those who had taken the trouble to look into the tables would be struck with the great reduction in the number of those who presented themselves for the final as compared with those who appeared for the earlier examinations. At each stage the number diminished, and when the final was reached it was found that somewhat less than three-fifths succeeded. These facts might be held to indicate that on the whole the curriculum of study laid down for the successive examinations required worked well, and that at the earlier stages many were eliminated who were not qualified for professional pursuits. They might, he thought, also be held to show that those to whom the College entrusted the most important duty of protecting the profession against the entrance of imperfectly educated men had performed that duty with care and success. It was impossible to say of a College which rejected at the final examination for its diploma more than two-thirds of the already much reduced number of aspirants that it gave its credentials too easily, or that it in any way permitted motives of self-interest to influence its conduct. A challenge from the other side, a complaint of too great strictness, was not likely to be made excepting from one of two quarters, the public or the candidates themselves. There was no loud complaint from the public as to any defect in the supply of medical advisers, and, whilst he sympathised with the natural feelings of candidates or their relatives, he knew well that the real interests of the public and the profession were served best by keeping the standard high. It might then be taken for granted that the present standard was not too high, either for the wants of the public or the dignity of the profession. If the means taken to ascertain the relative merits of candidates were just and adequate, and the right men were always taken and the unsuitable ones always left, they could scarcely have too high a standard. During the past year much attention had been given to the details of the examinations, with a view to possible improvements, especially with reference to the question of the practicability of making the performance of operations on the dead body a necessary part of the examination for membership. In the Conjoint Board, when inquiring into the causes of the heavy rejections in anatomy and physiology, the belief was arrived at that it was not wise any longer to permit students to come up for those two subjects separately. The College Council enjoyed the advantage of having at its meetings more than half of the Court of Examiners, as well as a few of those constituting the several boards. The opinions and experience of those gentlemen on all details were thus always at their service. The Joint Committee of Management, on which no examiners had seats, had had special conferences with the examiners, with a view to ascertain whether there was any desire for alteration in the mode of conducting the examinations. It was satisfactory to find that those conferences did not lead to any important proposals for change. A similar result attended the appointment of inspectors by the General Medical Council. The Committee of Management were able to thank the Medical Council for a copy of their report, and to advise the College that the report did not call for any comment from them. It was, in fact, in the main commendatory of the examinations as at present conducted. The College, as would be seen from the report, had declined to transfer to the Medical Council the guardianship of its honour in reference to the conduct of its members, and he had no doubt that that decision would meet with the approval of the meeting. Amongst the instances of professional misconduct which had been brought under their notice during the past year, in only two, he was glad to say, had the offences seemed to the Council grave enough to require the extreme penalty of the withdrawal of the diploma. In each of those instances the proceedings were deliberate and careful, and the fact of the removal of the name was communicated to the Registrar of the General Medical Council, and led to its being struck off their Register. He felt assured that they need not allow their pleasure at the fewness of those cases to be in any degree dashed by the suspicion that the Council had either been negligent as to its vigilance or restricted in its powers. It had neglected no case brought under its notice, and in each had found its powers adequate to what the occasion seemed to demand. The College had had in hand, during several years, the extension of its

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premises for the threefold purpose of its library, its museum, and the promotion of experimental research. The past year had witnessed considerable activity in all directions. The library in its improved condition had been in full use. An experiment was being tried for three months as to whether the library should be opened in the evenings or not. The first of the two museums for which plans had been prepared was now so far advanced as to be ready for its fittings, and it was expected that within a few months it would receive its contents. The other and much larger room was not yet begun, but the plans were in hand, and the buildings which occupied its site were in rapid process of removal. Among the objects to be speedily realised increased accommodation for casts, models, and drawings would, he trusted, be one; and another would be the better display of the series of beautiful dissections which had been recently accumulated, and which now encumbered the cases in the larger museum. In addition to these two special objects, they might feel sure that all departments of the collection would share in the advantages of the increased space, and that the utility of the Hunterian museum would be vastly developed. To those who, with himself, believed that if there were a royal road to knowledge in such subjects as natural history, anatomy, and pathology, it lay through the galleries of a well-arranged, well-catalogued, and well-labeled museum, the prospect of larger accommodation for the museum afforded unmixed pleasure; nor would he conceal his own strong hope that in the future the objects specified in the original resolution under which they commenced to build would not be forgotten, but that they would endeavour to achieve in the collection a museum which should illustrate diseases in the living subject on even a wider basis than that which was now the pride of the Hôpital St. Louis in Paris. During the year a large, well-fitted photograph room had been opened in the College premises, and a well-qualified gentleman had been appointed to take at any time records of disease in the living subject; and if any practitioner were inclined to send to the College a rare instance of a living subject worthy of photographing, they were prepared, under certain restrictions, to undertake its illustration. The College was engaged, jointly with the College of Physicians, in the erection of some large premises on the Embankment behind the Examination Hall. They would comprise a double series of workrooms and a commodious lecture theatre. They would be opened as a school of advanced research in subjects connected with medicine and surgery. The various courses of lectures had during the past year been given as usual, but with more than usual success. They had resulted in the permanent addition to surgical literature of several volumes which would make their mark, by Sir Spencer Wells, Mr. Berkeley Hill, Mr. Howard Marsh, Mr. Mayo Collier, Mr. Bland Sutton, Dr. William Hunter, Mr. Ballance, Mr. Priestley Smith, and the museum conservator, Prof. Stewart. It was the duty of the President each year to choose a Bradshawe lecturer, and he had this year chosen the senior Vice-President, Mr. Bryant. The lecture would be given on Dec. 5th. He had the pleasure to announce that under the appointment of the Council the Morton Lecture on Cancer and Cancerous Diseases would be delivered on Nov. 18th by the President of the General Medical Council and past President of the College, one to whom they had been under obligations for many years, Mr. Marshall. The new bye-laws having been approved by the Secretary of State had come into action in the summer. The principal change introduced by them was the permission to vote by proxy paper at the election of the Council. The last election was conducted under that rule, and the result was that 600 Fellows recorded their votes, whereas the average of the preceding years under the rule requiring personal attendance had only been 270. In June last an important memorandum in reference to the proposed amendment of the Lunacy Acts was drawn up by the President at the request of the Council, and forwarded to the Secretary of State for the Home Department. By the benevolent action of the proprietors of THE LANCET a fund had been constituted for the relief of the necessitous members of the profession, and a request was forwarded to the President that he would act as one of its almoners. With the approbation of the Council, Mr. Savory accepted for himself and his successors in office that responsible but very agreeable duty. The willingness of the Council to co-operate, whenever thought suitable, in works of philanthropy was also displayed in the appointment of Sir James Paget as one of the almoners of the Father Damien Fund for the relief of lepers, and of two other members of the Council to act in co-operation with others in a standing committee for the investigation of that disease. The Council on June 13th last was one which was to be ever regretfully remembered in the College annals. In it Sir James Paget sat officially among them for the last time. It was not too much to assert that no one in the past had ever excelled Sir James Paget in devotion to the interests of the College in all its various departments of work. No one could approach him in the amount of time which had been freely given, and none could rival him in the ability with which that time had been used. It was a deep pleasure to know that, although no longer on the Council, Sir James was still in full energy and able at any time to assist with his sagacious advice. The retirement of Sir Henry Pitman, too, from work was a loss to professional education, which would be felt more especially by the sister College to which he belonged. The two Colleges were, however, now so happily associated that a loss to one was felt as such by the other. None who knew Sir Henry Pitman could have failed to form such an estimate of his character and ability as would make his retirement from active duty a matter of most sincere regret. Although Mr. Savory had retired voluntarily from the chair which he had filled for four years, he had fortunately not left them in any other sense, and they would still enjoy his services in the Council. It was not the less right that at the end of so prolonged a tenure of the highest office the meeting should express their high appreciation of the dignified and most able manner in which he had discharged his duties. If any resolution were proposed bearing upon matters concerning the College which were at present under adjudication in the law courts, it would be his duty to rule them out of order. The reasonableness of this would be obvious to all. The restriction, however, did not extend far, for the issues before the Court of Chancery at present were distinctly limited. A resolution had been placed before him which affirmed the desirability of giving a vote for the Council to the Members. If the meeting wished it, the resolution must be discussed, but he would call attention to the resolutions adopted by the Council a year ago. In the short summary of the College year which he had put before the meeting he had endeavoured to show that the affairs of the College were in a prosperous condition. There was a life and energy in every department of their multiform organisation. The Council was doing its very best, in the examinations it conducted and in the influence it exerted on medical education, to maintain and raise the standard of professional qualification, to afford to its members the most ample opportunities for the acquisition of surgical knowledge. It was ever ready to defend the dignity of the profession as represented by those who held the diploma. Not the shadow of an abuse that he knew of existed, nor had any personal grievances been brought to the knowledge of the Council. So far as the daily work of the Council was concerned, no one had ever contended that there was any need for important change. It would be unsuitable for him to refer to the merits of the question which the resolution he had alluded to dealt with. It was the earnest desire of the Council that it should be allowed to rest. They were in a state of prosperity, and they prayed for peace. He asked no man to suppress his convictions, but in any discussion which might ensue he hoped they would remember the more important part of the duties which lay before the College; that they would remember at the same time that life was very short and art was very long; that they would take care not to waste their strength in anything which might be likely to prove unprofitable. If he had seemed to praise the actions of the College during the past year, he hoped they would bear in mind that he was praising no individual and no body of men. He was not thinking of the President or the Vice-presidents for the past year; they had simply been those who had temporarily held office under the organisation of the College, being representatives of the Members and Fellows. In conclusion, he asked all to remember that in anything they might think it their duty to do, either as defending the present condition of things or in the very laudable endeavour to improve it, they were the guardians of the interests of an institution which had a long and most noble pedigree, and one which, at the present time, in relation to the promotion of the science of healing as based upon anatomy, biology, and pathology, stood second to none in the world.

Dr. ELLISTON (Ipswich) then moved: "That this meeting

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of Fellows and Members of the Royal College of Surgeons of England, having considered the report of the Council dated Oct. 17th, 1889, is of opinion that immediate steps should be taken to forward the introduction early in the next parliamentary session of a Bill to amend the constitution of the College, so as to secure to the Members a just representation in and upon the governing body of the College." He said the motion was brought forward by request of the committee of the Association of Members. He hoped that the moderation of its demands would meet the support of the Fellows and Members. The Council had declined to accede to the requests contained in the resolutions carried at the last annual meeting; a new Charter had been granted, and no provision whatever was made to give the Members of the College any participation in government such as the resolution had called for. Seeing the course that the Council thought proper to adopt, it seemed to the Association that two courses only were open to them. One would be to seek restitution of what they believed to be their just rights in a court of law; the other, and he thought the wiser, course, and the one which they proposed to follow, was to endeavour to obtain an Act of Parliament in the next session for permission to amend the Charter of the College. They adopted this course, not wishing to squander large sums of their own money or that of the College in litigation. They relied upon the inherent justice of their cause in the fact that they had been deprived of their just rights by Royal Charter, and in their belief that no Royal Charter could override an Act of Parliament. No Act of Parliament had, so far as he knew, been attempted to be introduced since 1797. The object of that Act was to do away with the rights and privileges of the Members, but that was rejected. It would be a wise end to the question if they now appealed to Parliament for the solution of this difficulty. The Corporation of the College consisted of Fellows and Members, and it was governed by a Council of twenty-four members elected solely from the Fellows and by Fellows. The Fellowship was now open to any Member of the College who felt himself competent; but it was so shackled with irksome conditions as to age, the amount of hospital curriculum and dissection required, that it was impossible to obtain the necessary credentials unless their lines happened to fall near a school of medicine. The Members failed to see in what way the Fellows were more eligible for the franchise than they were. It seemed extraordinary that the 17,000 Members—most of them general practitioners, hospital physicians and surgeons in the public service of the State—should not be considered equal to exercise this franchise. Certainly, it might be said of them that they were not the least cultured or intelligent of Her Majesty's subjects. No doubt the expenditure of the College was carefully watched over; but, in spite of the large annual income of £28,476, the expenses on capital account had been so large that stock had been sold out to the extent of £3600, and the balance of £4000 at the beginning of the year was reduced to a matter on the other side. In questions of finance of that kind the Members were quite as competent as the Fellows to give an expression of opinion, and that was one great reason why the franchise should be extended. They believed, too, that the change was necessary in the interest of the College itself. Time was when the great bulk of the profession obtained their surgical diplomas from that College; but now in every district were numbers of men who had obtained qualifications elsewhere who would not care for the further expenses of the membership of that College if the privilege offered them was merely that which they had already—the right to practise.

Dr. DANFORD THOMAS seconded the resolution. He said the course mentioned therein had been resolved upon after very careful consideration, and steps were being taken to ensure its success. The Bill had already met with a very favourable response from a very large number of Members of Parliament, and Lord Randolph Churchill had promised to introduce it in the Commons. He hoped that the Council, if they desired a peaceful solution of the question, would take no steps to oppose that Bill.

Dr. WILLIAM HAUGHTON said that, if the alleged rights of the Members existed, the proper tribunal in which to assert them was the High Court of Justice. The reason that those rights were not taken there for adjudication was very obvious—viz., they did not exist. It was something new to him to be told that Parliament could interfere to take its rights away from a Corporation any more than from a private individual, and he believed that, whatever resolution the Members might pass, Parliament would not interfere and take away rights which had hitherto been regarded as inviolable.

Mr. W. C. STEELE stated that the Members had proceeded to the courts of law on this question, and they had not asked the Crown to alter the Charter of the College.

Surgeon-Major SMITH having expressed the strong feeling of the profession in Bristol, as shown by the large number of signatures obtained to the petition,

The resolution was put and declared to be carried by a large majority.

On the motion of Mr. BROWN, seconded by Dr. COLLUM, a resolution of thanks was accorded to the President for his introductory address and conduct of the meeting.

The proceedings then terminated.

SANITATION IN BRUSSELS.

(From our Special Correspondent.)

IT will be remembered that at the International Congress of Hygiene, when Dr. Martin described the wonderful saving of human life achieved by the Sanitary Bureau of Brussels, an ovation was given in honour of its chief director, Dr. Janssens. The death-rate of Brussels has been reduced in a manner that is admirably illustrated by charts, recently published. On examining these charts, it will be seen that the average death-rate of Brussels from the years 1868 to 1873 was 29·3 per 1000 of the population, and the zymotic death-rate 4·60 per 1000. From 1874 to 1876 the Bureau d'Hygiène dealt with an annual average of 757 cases relating to sanitation; 237 insalubrious houses were improved, and 399 premises were disinfected. From 1874 to 1878 the average death-rate fell to 25·7 per 1000, and the zymotic death-rate to 2·02. From 1877 to 1879 the sanitary authorities had to deal with, on an average, 801 cases. They improved 325 dwellings and disinfected 243 premises. From 1879 to 1883 the average death-rate was 25·3, and the zymotic death-rate 1·58. The average sanitary works from 1883 to 1885 were 1916, no less than 1155 dwellings had to carry out sanitary improvements, and 491 premises were disinfected. Finally, from 1886 to 1888 the average number of cases that came under the notice of the Bureau d'Hygiène annually rose to 2146. Sanitary works were executed in 1241 houses and 367 premises were disinfected. As the work of the sanitary authorities increases, we note a corresponding decrease in the death-rate, and, what is still more significant, in the death-rate from zymotic diseases. Thus the average death-rate from 1884 to 1887 was 23·9 per 1000, and the zymotic rate 1·66; while the death-rate in 1888 was 22·9, and the zymotic rate 1·31. The zymotic death-rate has, therefore, fallen from 4·60 (average of the years 1868–73) to 1·31 in 1888, and the general death-rate from 29·1 to 22·9 in the same period. On the other hand, the number of cases of insalubrity coming under the notice of the sanitary authorities, nuisances removed, sanitary improvements accomplished, or premises disinfected, has increased from the annual average of 757 to 2146. As was stated at the International Congress of Hygiene, the Brussels Sanitary Bureau costs 48,000 francs per annum; and if we estimate every life saved at only £40, this outlay in sanitary administration is equal to an investment bringing in an annual interest of 1400 per cent.

As I was able briefly to explain, when describing the debates of the International Congress of Hygiene, these excellent results have been achieved by a strict enforcement of the French law of Dec. 14th, 1789, and that of August 16th and 24th, 1790—laws that came into force in Belgium when the French Republican army had triumphed at Jemappes and Fleurus. These laws have been further strengthened by the enactment of the 30th March, 1836, and the article 471 of the Belgian Penal Code. In France, on the other hand, the law of the 10th April, 1850, rendered the excellent Sanitary Acts of 1789 and 1790 inoperative. The town of Brussels, basing its action on the legislation just mentioned, has drawn up bye-laws containing the following clauses:—

"Art. 120: The College of the Bourgmester and sheriffs is authorised to prohibit the habitation of houses,

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tenements, &c., that are unclean, where there is not sufficient ventilation, and where the drainage is such as to compromise, in a permanent manner, the public health."

If the owner of a property refuses to carry out the sanitary improvements demanded by the Bureau d'Hygiène, a report is drawn up by the Local Medical Commission, and, after due notice to the inhabitants, the police compel them to evacuate the premises. The legal proceedings that lead to these extreme measures are simple and rapidly executed. They can give rise to no wearisome contentions, to no expensive litigation. The tenants who are driven out have a right to prosecute their landlord for the inconvenience and disturbance. They demand and generally obtain very heavy damages. Consequently, when the landlord sees, after a little resistance, that the sanitary authorities are in earnest, he almost invariably does all that is required. The bye-laws relating to the construction of houses clearly describe what should be done by every house owner. Art. 79 stipulates that every building serving as a place of habitation or of meeting should be provided with closets that have a door or a window opening on to the outer air, and that are so constructed as to in no wise endanger public health. Where one closet is used by more than one family, there must be at least one seat for every twenty-five inhabitants. A great number of regulations have been drawn up with regard to the construction, fall, diameter, &c. of the soil and drain pipes. These coincide with our English principles of domestic drainage. Art. 91 enforces the principle that every drain pipe must be trapped. The soil pipe traps or syphons placed within the houses must (Art. 92) have a dip equal to six centimetres (about two inches and a half). But the traps or gullies placed in yards or gardens must have a smaller dip. Consequently, if pressure from the sewers forces the gases through these traps, those in the open air will be the first to yield. If more than one closet communicate with a soil pipe, to prevent syphonage the soil pipe must be prolonged to the roof of the house and there left open for ventilation purposes. If any house in Brussels does not conform to these stipulations, an anonymous communication may be addressed to the Bureau d'Hygiène. This will lead to an inquiry and the prompt adoption of the measures necessary to have all defects removed.

Such, briefly, are the sanitary enactments with regard to the construction of dwellings which have been enforced of late years with much rigour and very excellent results. But this alone has not sufficed to bring about the notable decrease in the death-rate demonstrated by Dr. Janssens' charts. Vaccination—from the calf—has been employed with ever-increasing zeal; and very noteworthy improvements have followed the gratuitous administration of preventive medicine in primary schools. All the children are carefully and medically examined; the feeble are supplied, at public expense, with cod liver-oil and other suitable medicaments.

Dr. Janssens has also introduced an excellent measure to render disinfection more effective and practical. He has succeeded in obtaining possession of an old Octroi or Customs Post, situated in the centre of the broad Boulevard du Midi. This building occupies, at some distance from the busiest parts of the town, and yet not too far away, a comparatively isolated position. The public disinfector and his wife live on the premises. On the first floor there are dormitories, carefully ventilated and kept scrupulously clean. Here are conveyed, free of all cost, the families from tenements undergoing the process of disinfection. A good warm bath is given them on admittance, and an excellent breakfast of milk and coffee and bread. They remain in this sanatorium twenty-four or forty-eight hours, according to the time it may take to thoroughly disinfect their homes. The accommodation is generally superior to that afforded in their own dwellings, the beds are beautifully clean and very comfortable, the caretaker kind and sympathetic. The building has a dignified official look; it stands out well in the midst of trees, and seems like a little mansion. Therefore there is no prejudice against the institution. The poor people go there willingly. Care is taken that they should not imagine that they are receiving any charity; but, on the contrary, they are taught that, by thus facilitating the work of the sanitary authorities, they are performing a duty for the benefit of the public. By methods such as these, by a humane policy which is at once wise and just, the work of sanitation is rendered popular even among the most ignorant.

With the same judicious spirit a public mortuary has been established in the very heart of the town, close to the Central Market. The vestry of an old church was selected for this purpose. It is a handsome building, with a beautifully sculptured and lofty roof. Openings have been cut in the walls, so that there is a very ample and thorough ventilation. On either side of the room there are receptacles for the bodies of the dead, and these can be walled off by movable wooden partitions or screens. Thus the family may come and sit or pray in private by the body in an atmosphere which is constantly renewed. This institution has proved a great boon to the poorer sections of the population, who can thus, pending burial, dispose of the bodies of loved relations without any sense of humiliation or any feeling that they are not paying sufficient respect to the lost friend or parent. Such are some of the principal measures taken by the Bureau d'Hygiène of Brussels; and, in conclusion, I may quote a few more figures from another chart, also published by the chief of the bureau, Dr. Janssens. These set forth the average mortality from diphtheria, croup, typhoid fever, small-pox, measles, and scarlet fever, in sixteen principal towns of Europe. During the years 1875 to 1888 the average annual mortality per 10,000 inhabitants, caused by these diseases was 67·5 in St. Petersburg, 44·6 in Bucharest, 42·4 in Buda-Pesth, 31·2 in Christiania, 31 in Berlin, 29 in Stockholm, 28·7 in Rome, 28 in Munich, 27·9 in London, 25·1 in Paris, 25 in Vienna, 24·6 in Dresden, 24 in Amsterdam, 22·9 in Copenhagen, 22·1 in Bern, and only 17·5 in Brussels!

PROVINCIAL MEDICAL MAYORS.

OF the 280 Mayors elected in England and Wales, on Saturday, the 9th inst., to serve for the ensuing year, the following are members of the medical profession:—

Bath.—Alderman John Stothert Bartrum, F.R.C.S.Eng., L.S.A. Second time of election.

Bedford.—Alderman James Coombs, M.D. Erlang., M.R.C.S.Eng., J.P. Second time of election.

Congleton.—Alderman Hugh Moss, M.D. St. Andrews, M.R.C.S.Eng., L.S.A.

Hedon.—Mr. William Kirk, M.R.C.S. Eng., L.S.A.

Hull.—Mr. John Sherburn, M.B. Edin., C.M., M.R.C.S. Eng.

Leicester.—Mr. Henry Lankester, M.R.C.S. Eng. and L.S.A.

Pembroke.—Alderman Joshua Wm. Morison, L.R.C.P.E., M.R.C.S. Eng., L.S.A., J.P.

Rye.—Mr. John Amos Woodhams, M.R.C.S. Eng., L.S.A., J.P.

Wrexham.—Mr. Henry Venables Palin, M.B., C.M., L.R.C.P., L.R.C.S., L.S.A. Re-elected.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following are the new regulations relating to the Diploma in Dental Surgery just passed by the Council of the College:—

Education.—Candidates who registered as Dental Students on or after Jan. 1st., 1890, are required to produce the following certificates:—1. Of registration as a dental student by the General Medical Council, 299, Oxford-street, London, W. 2. Of having been engaged during four years in the acquirement of professional knowledge, subsequently to the date of such registration. 3. Of having received instruction in chemistry, including chemical physics, practical chemistry, and materia medica. 4. Of having attended, at a recognised medical school: (*a*) A course of lectures on anatomy during not less than six months, or one winter session; (*b*) a course of lectures on physiology during not less than six months, or one winter session; (*c*) a separate practical course of physiology during not less than three months; (*d*) a course of lectures on surgery during not less than six months, or one winter session; (*e*) a course of lectures on medicine during not less than six months, or one winter session. (Students are required to attend examinations which are held in the several classes.) 5. Of having performed dissections at a recognised school during not less than twelve months. 6. Of having attended, at a recognised hospital or hospitals, in the United Kingdom the practice of surgery and clinical lectures on surgery during two winter sessions. 7. Of having attended, at a recognised school, two courses of lectures upon each of the following subjects—viz., dental anatomy and physiology (human and comparative), dental surgery, dental mechanics, and one course of lectures on metallurgy, by lecturers recognised by this College. (Students are required to attend examinations which are held in the several classes.) 8. Of having been engaged, during a period of not less than three years, in acquiring a

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practical familiarity with the details of mechanical dentistry, under the instruction of a competent practitioner. In the cases of qualified surgeons evidence of a period of not less than two instead of three years of such instruction will be sufficient. (This instruction may be taken prior to the date of registration as a dental student.) 9. Of having attended at a recognised dental hospital, or in the dental department of a recognised general hospital, the practice of dental surgery during the period of two years. 10. Of being twenty-one years of age.

Note.—Professional study prior to the date of registration as a dental student is not recognised except in the case of chemistry, practical chemistry, and materia medica, and of instruction in the details of mechanical dentistry; see clauses 3 and 8.

Examination.—The examination is partly written, partly practical, and partly oral. The written examination comprises general anatomy and physiology, general pathology and surgery, dental anatomy and physiology, and dental pathology and surgery. At the practical examination candidates may be examined: (*a*) On the treatment of dental caries, and may be required to prepare and fill cavities with gold or plastic filling or material, or to do any other operation in dental surgery (candidates must provide their own instruments); (*b*) on the mechanical and surgical treatment of the various irregularities of children's teeth; (*c*) on mechanical dentistry. The oral examination comprises the several subjects included in the curriculum of professional education, and is conducted by the use of preparations, casts, drawings, &c. Candidates who have passed the second examination of the Examining Board in England, or who shall produce evidence of having passed the examination in anatomy and physiology required for the licence in Surgery of the Royal College of Surgeons of Edinburgh, the Royal College of Surgeons in Ireland, or the Faculty of Physicians and Surgeons of Glasgow, or an examination in anatomy and physiology required for a degree in Medicine or Surgery at a University in the United Kingdom, will be exempt from re-examination in those subjects. Candidates, who are Members of the College, or who have passed the examination in Surgery of the Examining Board in England, or who shall produce evidence of having passed the examination in surgery for the licence in surgery of the Royal College of Surgeons of Edinburgh, the Royal College of Surgeons in Ireland, or the Faculty of Physicians and Surgeons of Glasgow, or an examination in surgery for a degree in Medicine or Surgery at a University in the United Kingdom, will be exempt from re-examination in general surgery and pathology. A candidate whose qualifications shall be found insufficient will be referred back to his studies, and will not be admitted to re-examination within the period of six months, unless the Board shall otherwise determine. Examinations will be held in May and November in each year. Candidates are required to give fourteen clear days' notice of their intention to present themselves for examination. The fee for the diploma is ten guineas.

Note.—A ticket of admission to the museum, to the library, and to the College lectures will be presented to each candidate on his obtaining the diploma.

EDWARD TRIMMER, Secretary.

March 8th, 1888.

BRITISH NURSES' ASSOCIATION.

THE following statement has been forwarded to us for publication:—

To the Chairman of the Committee of Management of the .....

SIR,—Fifteen years ago Dr. (now Sir Henry) Acland, President of the General Medical Council of the United Kingdom, suggested the advisability of the registration of trained nurses and midwives. Since then nursing has become universally recognised as a skilled calling; the training to which nurses are subjected in hospitals, and the general usefulness of these workers, have alike materially advanced; but to a large extent both these improvements are still nullified, so far as the public is concerned, because any woman, however ignorant of nursing or midwifery she may be, can without let or hindrance term herself a trained nurse or midwife, can obtain employment in private houses in either capacity, and by her ignorance bring about great danger to the sick and discredit to the calling. At present there is no possible means of preventing this evil, or even of controlling midwives or nurses who, once certificated, become unworthy of trust. For instances are, unfortunately, well known where such women, by drunkenness, theft, or even graver faults, have brought repeated disgrace, not only upon themselves, but also upon the hospital whose testimonial they are able on each occasion to produce. It would, therefore, seem to be most manifestly for the good name of nurse-training schools, as well as for the benefit of nurses themselves, and for the safety of the public, that some system should be enforced which would (1) furnish an official and easily-ascertained guarantee of the technical efficiency of every trained nurse or midwife; (2) prevent any certificated nurse or midwife who has been proved unworthy of trust from again disgracing her training school and her calling.

For two years past this Association has been carefully considering the subject, and now suggests that a system of registration of certificated nurses and midwives should be so carried out as to meet both these essential requirements. It is, doubtless, unnecessary to remind you that this system has for many years been enforced by law for the medical and other professions, and that the control of medical registration is confided to the General Medical Council, which is composed of representatives of every university and medical corporation. This Association, then, suggests that for a certain limited "period of grace" every woman who can produce proofs of having been actually engaged for three years in tending the sick or women in labour, and of satisfactory moral and professional character, should, as a matter of justice and "prescriptive right," be enrolled on the Register, but that thereafter only those who can bring satisfactory evidence that they have been efficiently trained should be registered. And, furthermore, that the authority conducting the registration should have power to remove temporarily, or permanently, from the Register the name of any registered nurse or midwife who proves herself unworthy of that title to public confidence. The Association suggests that a Registration Council should be formed, upon which—in view of the importance of this matter to those engaged in training nurses—every training school for nurses and midwives in the United Kingdom is now invited to appoint a representative; the British Nurses' Association, as comprising more than one-fifth of the whole nursing profession, being represented by the members of its executive committee. It is hoped that to the council thus constituted may be added a certain number of representative medical men. It is suggested that the council should meet once or twice a year, should draw up all the necessary rules and regulations for registration, and be, in short, the governing body of the scheme. It is next suggested that once in three years the council should appoint from its members a Registration Board of about twenty-four persons, to meet as often as requisite, to supervise and carry out the details of registration.

Her Royal Highness Princess Christian and the members of the executive committee of this Association have promised to act upon the proposed council. For the opinions of the President of the General Medical Council and of many eminent medical men as to the grave importance of registration we beg to refer you to the report, and other papers accompanying this.

We would now venture to request you, Sir, to be good enough to bring this matter to the notice of the Committee of Management of your great institution, feeling confident that your co-operation may be hoped for in the effort to secure a very necessary measure of professional reform and public utility. Should your committee be willing to appoint your matron or one of your medical staff to express your views and wishes upon this Registration Council—and, if elected thereto, upon the Board—the executive committee of the Association would feel much indebted if you would acquaint us with the fact as soon as possible. It is proposed to hold a first meeting of the Council on Friday, Dec. 6th, at 2 P.M.; and it would be the wish of the Association to offer some small measure of hospitality to your representative. An early reply would, therefore, greatly oblige, Sir, yours faithfully,

BEDFORD FENWICK, M.D., Hon. Secretary.
CATHERINE J. WOOD, Secretary.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Bethnal Green.—On an estimated population of 130,500, Dr. G. P. Bate gives the death-rate for this division of the metropolis as 22·6 during 1888, the birth-rate having been 37·8 per 1000 during the same period. Nearly half the total deaths—namely, 48·7 per cent.—were amongst children under five years of age; indeed, it is assumed that the death-rate amongst children reaches 72·1 per 1000 of those living under that age. Scarlet fever was somewhat in excess during the year; and diphtheria caused 52 deaths in addition to 46 fatal cases of so-called "croup." Some of the excess of diphtheria mortality is regarded by Dr. Bate as due to altered fashion, since cases of membranous laryngitis, which formerly were styled croup, are now set down as diphtheria. Few can object to the change, for many attacks of diphtheria in its fatal form have been brought about by want of caution in dealing with so-called attacks of croup. It is satisfactory, in one sense, to note that only two deaths were uncertified, although it has to be remembered that Bethnal Green is the happy hunting ground of "fourpenny dispensaries," where, it is to be hoped, the skill in treatment is not to be measured by the amount of fee at which the dispenser appraises his services. Indeed, a shilling secures registered medical attendance with medicine for a whole week, and hence it would hardly be creditable to die without a doctor's certificate. A good deal of attention has been given to offensive trades, especially in connexion with the flock factory nuisance, and a number of premises have been reported under the Artisans and Labourers' Dwellings Acts, 1868.

St. Mary, Islington.—Dr. Tidy reports a birth-rate and death-rate of 27·6 and 14·0 per 1000 respectively, the rate of mortality from zymotic diseases being the lowest on record. A number of dwellings were reported during 1888 under Torrens' Act, and Dr. Tidy hopes that some to which he especially refers will be demolished. A scheme for demolition and subsequent improvement has also been reported to the London County Council. Amongst houses let in lodgings, 327 are upon the register, and are duly visited. Under the Sale of Food and Drugs Acts, 480 samples were submitted for analysis by the inspectors, and in 37 instances the adulteration detected led to prosecutions. These were made up of 31 samples of milk, 3 of cocoa, 1 of pepper, 1 of rum, and 1 of butter. No fault was found with the remaining 443 samples.

Basford Rural District.—This district contains some important manufacturing and mining localities near Nottingham, and, notwithstanding a period of depression, a number

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of new houses continue to be built. The birth-rate for 1888 was 33·8 per 1000 living, the lowest on record; fortunately the death rate was also low—namely, 14·7 on an estimated population of 51,957. The zymotic rate was 1·80, diarrhœa and whooping-cough being the largest contributors to the zymotic mortality. As regards the former of these causes, Dr. Boobbyer points out that three out of four of the children brought up by hand die in indirect consequence of hand-feeding; and it is well known that hand-fed children suffer often from a neglect of which the refusal of the breast is only one indication. Enteric fever has appeared autumnally in Kirkby, where the poison diffuses itself mainly through local water supplies. A new public supply has now been brought in, and it is hoped that this may lead to an abatement of the disease in the future. At Nuncar Gate, five out of eight persons helping to nurse a baby suffering from enteric fever sickened of the disease, the poison being in all probability diffused by the washing of the infant's soiled napkins at a sink without the adoption of any proper precautions. Such cases should prevent general statements being made to the effect that enteric fever is not infectious, the difference between it and other specific fevers in this respect lying essentially in the variety of the vehicles by which the infection is conveyed and of the channels by which it is received into the system. A voluntary scheme of notification in the district is said to work well and to be of value for sanitary purposes; but the authority lack the means to give the most important effect to the information they thus receive, for they have neither a hospital for isolation purposes nor any ground on which a temporary erection could be put up in case of an emergency. Nottingham has declined to allow of combination with Basford for this purpose. Dr. Boobbyer has endeavoured to secure proper midden-privy construction by issuing lithographs of a design embodying modern principles. But its adoption is voluntary, and hence it in some respects fails, an admission which seems to imply that the local bye-laws regulating new buildings are imperfect. But perusal of the annual report shows that carefully supervised sanitary work is steadily in progress.

Malton Urban District.—Dr. William Young records a death-rate of 14·5 per 1000 during last year; and he states that there was no death from either scarlet fever, diphtheria, or diarrhœa, besides which no small-pox death has taken place for sixteen years. The subject of the contamination of the town water by floods is a matter which calls for attention, and the mere fact that chemical analysis of individual samples does not reveal the precise form which the danger assumes should by no means weigh with such obvious signs as that which the altered colour of the water affords of the presence of matters which it should not contain. The schools are regularly inspected, and systematic supervision over the district is said to be maintained.

Malton Rural District.—This sanitary district is also within the jurisdiction of Dr. Young's area for health purposes, and it had during 1888 a death-rate of 11·5 per 1000. The list given of sanitary inspections and local improvements effected shows that a large number of matters still need constant and unremitting attention, and that it is only by the adoption of permanent improvements that the proper standard of health can be maintained. Sickness from preventable causes fortunately receives attention, as well as fatality of attack; and where school influence is expected to be operative in spreading disease measures are taken in co-operation with the school officials to stay any further mischief from this cause. It is satisfactory to note that during the year no death was registered as due to diarrhœa.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5967 births and 3321 deaths were registered during the week ending Nov. 9th. The annual rate of mortality in these towns, which had been 17·5 per 1000 in each of the preceding two weeks, rose last week to 18·1. During the first six weeks of the current quarter the death-rate in these towns averaged 17·8 per 1000, and was 2·6 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 12·2 in Birkenhead, 13·6 in Salford, 15·0 in Brighton, 15·4 in Nottingham, and 15·5 in Norwich. The rates in the other towns ranged upwards to 24·5 in Preston, 24·6 in Bradford, 24·9 in Sunderland, 25·0 in Newcastle-upon-Tyne, and 26·0 in Plymouth. The deaths referred to the principal zymotic diseases, which had been 356 and 364 in the preceding two weeks, declined last week to 326; they included 81 from scarlet fever, 66 from measles, 51 from whooping-cough, 47 from "fever" (principally enteric), 43 from diarrhœa, 36 from diphtheria, and only 2 from small-pox. No death from any of these zymotic diseases was registered last week in Halifax; while they caused the highest death-rates in Wolverhampton, Preston, Sunderland, and Plymouth. The greatest mortality from scarlet fever occurred in Birmingham, Blackburn, Wolverhampton, Bolton, and Plymouth; from measles in Wolverhampton, Nottingham, Preston, and Sunderland; from whooping-cough in Oldham, Wolverhampton, and Portsmouth; and from "fever" in Derby and Cardiff. The 36 deaths from diphtheria included 23 in London and 2 in Plymouth. Small-pox caused 1 death in London and 1 in Bolton, but not one in any of the twenty-six other great towns. No small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and the London Fever Hospitals at the end of the week was 1557, against numbers increasing in the preceding nineteen weeks from 559 to 1500; 204 cases were admitted to these hospitals during the week, against 188, 182, and 135 in the previous three weeks. The deaths referred to diseases of the respiratory organs, which had been 281 and 300 in the preceding two weeks, further rose last week to 318, but were 107 below the corrected average. The causes of 62, or 1·9 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Sunderland, Portsmouth, Brighton, and in nine other smaller towns; the largest proportions of uncertified deaths were registered in Huddersfield, Leicester, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·3 and 20·3 per 1000 in the preceding two weeks, declined again to 19·8 in the week ending Nov. 9th; this rate exceeded by 1·7 the rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 7·9 in Perth and 15·6 in Dundee, to 20·4 in Leith and 24·1 in Glasgow. The 507 deaths in the eight towns showed a decline of 12 from the number in the previous week, and included 10 which were referred to measles, 10 to diphtheria, 10 to diarrhœa, 9 to scarlet fever, 8 to whooping-cough, 6 to "fever" (typhus, enteric, or ill-defined), and not one to small-pox; in all, 53 deaths resulted from these principal zymotic diseases, against numbers declining in the six preceding weeks from 74 to 53. These 53 deaths were equal to an annual rate of 2·1 per 1000, which exceeded by 0·3 the mean rate last week from the same diseases in the twenty-eight English towns. The deaths from measles, which had been 9 and 7 in the previous two weeks, rose last week to 10, of which 6 occurred in Glasgow and 3 in Edinburgh. The 10 fatal cases of diphtheria exceeded the number in the previous week by 1; and included 4 in Edinburgh, 2 in Glasgow, 2 in Aberdeen, and 2 in Paisley. The deaths attributed to diarrhœa showed a further decline from recent weekly numbers. Of the 9 deaths from scarlet fever, 4 occurred in Glasgow, 3 in Edinburgh, and 2 in Leith. The 8 fatal cases of whooping-cough showed a further decline from recent weekly numbers, and included 6 in Glasgow. The deaths referred to "fever," which had been 11, 6, and 4 in the previous three weeks, rose again last week to 6, of which 3 occurred in Edinburgh and 2 in Glasgow. The deaths attributed to acute diseases of the respiratory organs in the eight towns, which had increased in the preceding four weeks from 87 to 153, declined again last week to 121, but were 37 above the number in the corresponding week of last year. The causes of 51, or 10 per cent., of the deaths registered in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 21·0 and 27·3 per 1000 in the preceding two weeks, declined again to 24·5 in the week ending Nov. 9th. During the first six weeks of the current quarter the death-rate in the city averaged

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24·8 per 1000, the mean rate during the same period being 16·2 in London and 17·1 in Edinburgh. The 166 deaths in Dublin showed a decline of 19 from the number in the previous week, and included 13 which were referred to "fever" (typhus, enteric, or ill-defined), 2 to whooping-cough, 2 to diarrhœa, 1 to measles, 1 to diphtheria, and not one either to small-pox or scarlet fever. Thus the deaths from these principal zymotic diseases, which had been 18 and 19 in the previous two weeks, were again 19 last week; they were equal to an annual rate of 2·8 per 1000, the rate from the same diseases being 1·4 in London and 2·7 in Edinburgh. The deaths referred to "fever," which had been 10, 6, and 11 in the preceding three weeks, further rose last week to 13, and exceeded the number returned in any previous week of this year. The 2 fatal cases of diarrhœa showed a further decline of 5 from the numbers returned in recent weeks. The deaths both of infants and of elderly persons were fewer than those returned in the previous week. Two inquest cases and no death from violence were registered; and 59, or more than a third, of the deaths occurred in public institutions. The causes of 14, or 8 per cent., of the deaths in the city were not certified.

DEATHS IN NAPLES IN 1888.

The statistics of deaths in Naples in 1888 which have just been published in a Foreign Office report show that the average death-rate per 1000 was 27·5, being a diminution of 0·7 per 1000 as compared with the preceding year. Altogether, the deaths numbered 14,963, including diseases of the fœtus and congenital malformations, 258; syphilis, 96; marasmus and senile wasting, 587; diseases of the nervous system, 2272; diseases of the respiratory organs, 5481; diseases of the circulatory apparatus, 1314; of the digestive apparatus, 1901; of the reproductive and urinary systems, 358; of pregnancy and childbirth, 91.

Correspondence.

"Audi alteram partem."

THE SO-CALLED PRESYSTOLIC MURMUR.

To the Editors of THE LANCET.

SIRS,—Before I touch upon any correspondence which my recent lecture on the so-called presystolic murmur has called forth, I may say a word about some valuable observations by Drs. Fenwick and Overend, which appeared shortly after it. Their paper records, among other matters, the attempt in two cases to associate the so-called presystolic murmur as heard with the stethoscope with the movements of the heart as displayed by the cardiograph, and the conclusion that the murmurs they observed were truly presystolic. Such observations cannot but have weight. I must own myself to want of skill with this instrument. I found the apex so much covered by machinery that the use of the stethoscope at the same time was not satisfactory. I therefore had recourse to the simpler cork and pin as a means of timing the apex beat; but afterwards came to think that the unassisted but practised finger, or the ear upon the skin, gave for timing murmurs the best indication of the heart's impulse. Be this as it may, the subject must be pursued with the help which this paper affords.

With regard to the two cases from which Drs. Fenwick and Overend have given tracings, I would observe as to the first that the murmur to which the term presystolic is applied began *immediately after the second sound*, and corresponded with the part of the tracing which marked the diastole. But was this the so-called presystolic murmur? Was it not rather what is known as the mitral diastolic? It was an indubitably diastolic murmur, for it immediately followed the second sound which the so-called presystolic does not. This murmur was probably truly presystolic, but was it the murmur in dispute? As to the second case there were two murmurs: one beginning in the middle of the diastole, the other systolic. The question which suggests itself again is whether the first murmur was not what would be called the mitral diastolic rather than the presystolic. What was the systolic murmur? Was it an ordinary systolic or what some would call presystolic? In a case of mitral stenosis, as this apparently was, the two murmurs which most often present themselves together are the mitral diastolic and the so-called presystolic. I think that further investigations on the lines pursued by Drs. Fenwick and Overend will be well rewarded, and I for one shall look with interest for the results.

The same number of THE LANCET contains a letter from Dr. Acland which is addressed so pointedly to myself as to call for reply. I state that the knock or snap which immediately follows the so-called presystolic murmur occurs at or towards the end of the systole. Dr. Acland finds it not easy to understand that the snap should occur during the systole, while that it should occur at the end of the systole is to him incomprehensible. The case stands thus: unless there is a murmur which runs through it, which is not often, the knock, however it may be made, stops abruptly; there is nothing ostensible after it but the short silence and then the second sound. Hence it would seem that with the knock the systole is so far over that nothing remains of it afterwards except what can be conducted silently. Very shortly comes the second sound, when the blood is evidently going the other way. Obviously enough ventricular contraction survives the knock to account for the short prolongation of the murmur beyond it when it is so prolonged, or when in common phrase a presystolic murmur runs into a systolic. But whether or not a little blood leaves the ventricle after the snap is less to the point than whether the major part of the systole is transacted before it; which I maintain to be the case. These remarks will apply also to Dr. Reynolds, who is much in accord with Dr. Acland in this matter.

Next says Dr. Acland, "If the first part of the murmur preceding the snap be really regurgitant, and the second soft blowing murmur which follows it be also regurgitant, then there are two murmurs generated by a flow of blood in the same direction and at the same orifice, differing entirely in character and often separated by an interval, a possibility which cannot be entertained." Now I deny that the so-called presystolic murmur is thus separated from the systolic which follows it; to my hearing the two are inseparable and continuous. I agree with Dr. Acland in not entertaining the possibility of two murmurs generated by a flow of blood in the same direction, at the same orifice, and yet different and separate. But is not Dr. Acland here like the prophet who was inspired against his will?—is he not supporting the cause which he meant to oppose? Is not the direct mitral murmur continually separated by an interval from the so-called presystolic? Does it not differ from it entirely in character, and are not the two, on the theory which Dr. Acland espouses, both made at the same orifice by blood flowing in the same direction? I myself have hesitated to adopt this view, and shall hesitate the more now that I have Dr. Acland's countenance. Dr. Acland tells us that the carotid beat occurs *after* the snap, and adds that the blood takes a tenth of a second to get from the ventricle to the carotid. Here I say, with a greater logician, "I deny your major." I have taken all the pains I am capable of with finger and stethoscope, and have convinced myself that there is no appreciable interval between the snap and the beat, but that the beat follows coincidently with the snap immediately after the so-called presystolic murmur—the murmur runs up to the beat. I may be wrong, but my senses give me this evidence, and upon this I found. Dr. Acland demurs to my view that the first sound of the heart is in great measure produced within the ventricle. I need not follow him with any disquisition on this matter, but will briefly call his attention to some experiments made many years ago by Dr. Halford which I well remember. In these Dr. Halford produced a very fair imitation of the first sound by passing water through a dead heart in which the contraction was imitated by external force.

I thought that the thrill so often heard in these cases was synchronous with the apex beat, an observation which, if correct, had its value. I here left it without discussing the cause with the remark that the circumstances of blood thrills were various. If systolic, that was enough for the purpose. I like to proceed with caution when the subject is difficult, and go no further than I think I can see my way. But this does not satisfy Dr. Acland, who "can hardly think that such an uncertain statement is calculated, as Dr. Dickinson predicts, to relegate the presystolic

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murmur to a place among the errors of the past." Of course not. I cannot suppose my argument to be advanced by what I do not state, but only by what I do. Where I confess or imply ignorance (and occasions press at every turn) there the evidence ceases: the confession is warrant rather of my integrity than my intelligence. But it does not follow that because I do not know everything, therefore I do not know anything. An observation or argument may be valid though we do not add another to it. We must stop somewhere, and perhaps my command to halt comes soon in the march. I do not pretend to know all about blood thrills; I suppose Dr. Acland does, for he would scarcely twit me with uncertainty were he uncertain too. I can only congratulate him on having attained at so early a time of life to information so extensive and so sure.

Dr. Reynolds opens his discourse with admonition rather than argument. He rehearses for my benefit some excellent words with which Professor Foster warns us to distinguish between good and bad physiology, and to discard the bad. The advice is good, but as it is apparent that by good physiology Dr. Reynolds means his own, by bad mine, there may be two opinions as to the application of it. Considering that there are two sides to this question, or he would not be writing about it now, Dr. Reynolds' letter is curiously pervaded with an assumption of the matters in dispute. With regard to the time of the apex beat in relation to the snap, a question at the root of the whole matter, Dr. Reynolds says that "as everyone agrees the actual apex beat occurs with the snap." I must be nobody, for I do not agree with this. Not that I accuse Dr. Reynolds of intentionally reducing me to a nonentity, but I must try to put clearly my difference with him on this point. I think that the actual apex beat occurs mainly before the snap, and on these grounds. In a well-marked case of mitral stenosis, with a so-called presystolic murmur in a thin person, it is common to feel and see a long heaving or lifting of the surface over the apex which, so far as I see, can only be from ventricular movement; this not only protrudes the skin, but imparts hardness; it accumulates and then lessens. This visible and palpable impulse is to my senses coincident with the murmur, or at least continues with it, though in some cases the murmur may begin an almost inappreciable fraction of time before it—the valve may begin to leak before the motion is appreciable externally. This movement runs up to and ends at the snap. I have often asked myself whether it be possible that this conspicuous impulse should be made by the filling of the ventricle before systole, but I have been unable to reconcile this view with what we know of cardiac action. I am aware that the cardiograph shows a slight elevation of surface before systole, but the strong visible impulse to which I have referred can scarcely be of this nature. If, then, it be systolic, so is the murmur, if I may attach any weight to my own observations, and with the murmur is usually the thrill. Thus, far from agreeing with Dr. Reynolds that the true apex beat accompanies the snap, my position is that it precedes it.

Next I come to a small misunderstanding into which Dr. Reynolds has fallen, with no fault of mine. He says: "Dr. Dickinson ignores the auricular systole in his diagrams (!), as he says they are matters of physiological rather than clinical observation. Why ignore clinically?" &c. "They" refers to the auricular systole. But I have not ignored the auricular systole in my diagrams. On the contrary, I give it name and place; and, as if to guard against any misconception, I allot two columns to it—one at the end of the chart, one at the beginning. I can only suppose that Dr. Reynolds has misunderstood what was, I thought, clear in the few words of explanation with which I introduce the diagrams. I say that the division indicating the auricular systole is a matter of physiological rather than clinical observation, while the position of the apex beat of the second sound and of the carotid pulse could be ascertained clinically. The apex and the carotid are to be felt, the second sound is to be heard. These, therefore, are our landmarks. The auricular systole, as real, is not ordinarily distinguishable by sight or hearing, and has its place assigned as the result rather of physiological than clinical observation. By clinical observation I mean observation upon human beings in bed. Were the thorax open to view, or were our patients dogs, it might be different. It is obvious that the murmur cannot be used as the clinical indication of the physiological fact, because, in the first place, it is not always present; in the second, the position of the murmur with regard to the heart's action is the point in question. But I owe my readers an apology for thus holding a candle to the sun and labouring to make clearer what was clear enough before.

I need not again refer to matters of difference with Dr. Reynolds, which have been perhaps sufficiently dealt with in other relations; one is the continuity of the so-called presystolic murmur with the systolic, which I affirm and he denies. I need not again revert to the points on which I chiefly rely. Of these the most convincing to me is the relation of the murmur to the visible and tangible impulse, and the chief question I have put to myself has been whether the bulging and hardening of surface commonly attributed to the systole could be otherwise than systolic. If the contraction of the ventricle is indicated by the impulse, to me at least it is beyond doubt that the murmur is systolic, for it progresses with the movement and stops with it, even in cases where it has begun before the movement is appreciable.

I am, Sirs, yours truly,

Chesterfield-street, Nov. 12th, 1889. W. H. DICKINSON.

*** We have already devoted considerable space to this subject, the discussion of which we think must now cease.—ED. L.

NURSING AT GUY'S HOSPITAL.

To the Editors of THE LANCET.

SIRS,—It is a great pity that Mrs. Acland should have opened up the nursing question at Guy's Hospital, seeing that all are now working together so amicably at that institution. Nothing can be further from the truth than the idle tale fabricated by some interested persons that the medical staff were opposed to an improved system of nursing, and that they were clinging to old methods both effete and full of abuses. So far from this being the case the late treasurer was memorialised a short time before to make alterations, and answered that the funds of the hospital would not allow of it. The opposition between the governors and staff had to do only with the question of discipline, protesting, as the latter did, against the formation of a new and independent department of nursing, whilst maintaining that this should be controlled by the authorities—viz., the governors and medical staff. After continued assertions of legal right on the one side and protestations on the other, the governors proposed (what was already in operation in many other hospitals) the formation of a committee made up of governors and the medical staff, who, in consultation with the matron, should frame rules for the nursing administration of the hospital. The staff assented, including both Dr. Habershon and Mr. Forster, who did not resign until long after this system had been in working order.

I am, Sirs, your obedient servant,

Nov. 12th, 1889. SAMUEL WILKS.

ON THE APPLICATION OF ICE TO THE CHEST IN HÆMOPTYSIS.

To the Editors of THE LANCET.

SIRS,—The whole treatment of hæmorrhage is one of everyday and ever-increasing interest, and that to the physician no less than to the surgeon. Professor Esmarch says: "He only becomes a good operator who has learnt calmly to enter into the struggle with hæmorrhage." The physician, too, I need not say, has to face this struggle, and it is well when he also is calm and ready with tried remedies and approved methods of treatment. Dr. Thorowgood, in your last week's correspondence on this subject, has pointed out the danger of a prolonged application of ice to the chest in cases of hæmoptysis. This point may be said to lie at the root of the whole treatment of hæmorrhage by the application of cold. Like all so-called vaso-motor remedies which act on the calibre of the arterioles, their effect depends entirely on the way in which they are applied. The physiological attitude of all the peripheral bloodvessels is one of rhythmical semi-contraction, and during hæmorrhage, of the kind under consideration, this semi-contraction has given place to paresis, paralysis, or even rupture of their vascular walls. Our remedies then are those which are supposed to constrict those vessels and restore them to their normal condition. What we aim at is to accentuate their physiological state, taking care not to overstep the limit and bring about an opposite condition by over-stimulation.

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Of all vaso-constricting remedies cold is perhaps the most immediate, the most decided, and the most perfect, and just in proportion is it likewise the most lethal of all vaso-motor remedies, when not applied on strict physiological principles. The initial constriction of the arterioles caused by the application of cold (say, by ice) is of the nature of a spasm caused by shock, and this spasm very soon passes into paresis and subsequent paralysis, if the application is prolonged for any length of time. Even in the familiar cold bath it is found, according to Leichtenstern, that the peripheral contraction of vessels is greatest at the commencement and remits somewhat in the course of it, and in the case of unusually long duration or of excessive cold of the bath, relaxation of the vessels succeeds their over-stimulation. These statements accentuate the fact that it is the *intermittent*, and not the too *prolonged*, application of cold which should be followed in the treatment of hæmorrhage. This is especially the case in post-partum hæmorrhage. As the outcome of a large obstetric experience, I am led more and more to trust to this simple method in the treatment in these alarming cases. By the intermittent yet not too prolonged application of cold cloths to the vulva, the sacrum, and sometimes the abdomen, such cases, however severe, generally yield in time. The point is to carry the cold application as far as constriction and no further. Beyond this point there is danger, not only of not arresting the flow, by the sudden relaxation of the over-stimulated vessels, but of causing fatal syncope from paralysis of the whole abdominal vascular area. It is wise to remember that the whole column of blood in the body can be held and retained in this same abdominal vascular area. Paralysis of this area simply means fatal traumatic syncope. No blood in the brain, no blood in the heart, but all the abdominal veins gorged with a now useless, non-nutritious, and venous blood.

Even with those remedies (like ergot) which have, in medium doses, the effect of constricting the arterioles, do we not find that, like cold, they cause in large or lethal doses an opposite effect? We do. Yet, in spite of this, I should be disposed to rely on full and frequent doses of this vaso-constrictor in all cases of hæmoptysis in preference to any other mode of treatment, just as I would on the intermittent application of cold in all cases of uterine hæmorrhage. Sudden and alarming hæmorrhage will always be a burning question with everyone, but terribly so to the country practitioner, for then he has to decide at once and for himself what methods of treatment have justified his faith. I am, Sirs, yours obediently,

Rothwell, Northampton, Nov. 5th, 1889. JAMES MORE, M.D.

THE ICE-BAG TREATMENT IN PNEUMONIA.

To the Editors of THE LANCET.

SIRS,—I consider the necessity of writing with considerable diffidence in dissenting from the opinions of so careful an observer and eminent judge of medical treatment as Dr. Lees. I am, however, convinced that the statistics of results as to the ice-bag treatment in pneumonia are fallacious and misleading. I am old enough to remember the time when venesection, tartar emetic, and mercurials were the orthodox modes of treatment for pneumonia. I can also recollect when the treatment by warmth, poultices, and stimulants by ammonia, backed by nutriment, came into use. From a lengthened practice, public and private, in town and country, I have no hesitation in declaring my faith in the last-named mode of treatment. Granted the ice-bag treatment may lower the temperature. Does it not also tend to depress the vital powers and diminish the *vis vitæ* upon which so largely depends the power of fighting through an attack of severe pneumonia? Although not in a position to furnish numerical statistics of cases treated, I can conscientiously assert that since I rejected the old treatment of reduction and adopted that of local warmth, moderate counter-irritation, and nourishment, I cannot recall the loss of one patient (and many were of double pneumonia) in which the result has been fatal where the treatment has been adopted *early*. I should also apprehend considerable risk from the ice treatment in cases where, as is so often the case, pneumonia is engrafted on dilatation of the right cardiac cavities. The marked alleviation of pain, the sense of comfort, and relieved respiration, confirm my belief in the moderate stimulative treatment of acute pneumonia. I am, Sirs, yours truly,

Ealing, November, 1889. S. D. HINE, M.R.C.S.

HOSPITAL OUT-PATIENT REFORM.

To the Editors of THE LANCET.

SIRS,—There are a few points in your editorial article of Nov. 9th which I wish to notice. First, as regards the Manchester system of checking abuse. There are really no diverse statements by those who know what they are speaking of. If any of your readers will send to J. Smith, 6, Queen-street, Albert-square, Manchester, and ask for the last issued report of the Manchester and Salford Provident Society, this will be noticed:—

"The following figures show the percentages year by year of those applicants to the medical charities co-operating with this Association who were found on investigation to be *ineligible* for gratuitous medical relief, and who were in consequence referred to the Branch Provident Dispensaries:

1875	42·32 per cent.	1881	14·48 per cent.
1876	24·50 ,,	1882	13·51 ,,
1877	24·00 ,,	1883	12·12 ,,
1878	19·64 ,,	1884	14·19 ,,
1879	13·61 ,,	1885	13·57" ,,
1880	14·76 ,,		

These are the *official* figures: let who will dispute them. Since 1885 the percentage of abuse has been steadily falling. I called Sir Andrew Clark's attention to his remarks at the Mansion House, and he wrote thanking me for the correction and stating that it would be omitted when the speech was published in pamphlet form. Evidently, I would suggest, someone supplied Sir Andrew Clark with the abuse-rate of a late year. But the fact remains clear, true, and unshaken that in 1875, when the Manchester people began to inquire into hospital abuse, 42·32 of every 100 applicants were found to be ineligible. No one can with truth deny this. It is to be noted that in Manchester relief is refused to any wage earner making over 12*s.* per week, or to any man and wife making over 18*s.* I propose that this should be 20*s.* and 25*s.* per week—a large and generous difference. One regrets to find that, although there are sixteen hospitals and five dispensaries in Manchester, only five hospitals see their way to co-operate with the Provident Society, and also that, although a "wage limit" of 30*s.* was originally fixed as the limit of membership to the Provident Dispensaries, this has been removed, and with the result that abuse is creeping in and discontent is prevailing. Whose fault is this? Why certainly the medical men. Of course most will agree to this; but then, when doctors holding hospital appointments are chided for not coming forward, you say they must not be blamed! It certainly will be strange if medical men show business men they can sink small differences, and combine to bring about the greatest good for the greatest number. I think, rather than have ourselves and our rather queer actions shown up by a Government inquiry, we should set to at once to do what is right, for shown up we shall be by a Royal Commission.

As regards a Public Medical Service, my point is that we must, of necessity, give the industrial classes the means by which they can secure treatment by the *immediate* payment system. Supposing the hospitals agree to turn off, say, 45 per cent. of their out-patients, where are these to go to? They cannot join a provident society, for the chief rule of this is that persons must be members for *at least* four weeks before being eligible for treatment, just as in any other insurance. And I hold that, until we doctors can say to the hospital committees, "we have a scheme which will give perfect treatment to these out-patients whom you will turn away," the hospital committees would act unjustly and cruelly in turning such patients off to the tender mercies of quacks, bogus clubs, prescribing chemists, and unqualified practitioners.

I have all along held that a Public Medical Service is not complete without a provident society as well. This anyone can see by referring to my original paper, a copy of which I will gladly send to any applicant. I should be happy to accept your suggestion that the fact of a working man having been a member of a provident society might give him a prior claim for admission as an in-patient to a hospital. However, the mere fact that he has been ill, and that he is not in receipt of wages amounting to 20*s.* or 25*s.* per week for work, would entitle him to admission. As to securing the help of chemists, my aim is to try to induce them to give up "counter prescribing." I fear, if we do not get their aid and harm is done to them, they will only retaliate by putting an inferior class of medical men into their back

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parlours, thus setting up a fierce competition. Besides, I have found that the average cost of each prescription dispensed by a provident society is about 5½*d.*, and for this amount any good chemist will guarantee to give good medicines. But if it be the wish of medical men, *and if they will agree to act in harmony on this point*, I have no objections to their dispensing for themselves, or in having a dispenser at the branch of the service. Naturally the conditions in a country village will vary greatly, so that we must not dispute over details, but settle the main facts.

As to the percentage of abuse, we have the recorded *facts* of THE LANCET Commission of Inquiry into the London Hospitals of October, 1869, the reports of the Charity Organisation Society, that at the London and St. Bartholomew's Hospitals, Manchester, Leicester, and Devonport.

Trusting you will continue to give this vital and important question your valuable help,

I am, Sirs, yours faithfully,

Liverpool, Nov. 1889. ROBERT R. RENTOUL.

A DISCLAIMER: HARNESS'S ELECTROPATHIC BELTS.

To the Editors of THE LANCET.

SIRS,—For some time past the following advertisement has appeared in a large number of newspapers. I believe, from communications I have received both from members of the medical professon and the public, that from the clever way in which the advertisment has been drafted, I am supposed to recommend the use of Harness's electropathic belts. The advertisement is as follows:—

"DEBILITATED CONSTITUTIONS.

"*Reprinted from* 'The Family Doctor.'

"It is extraordinary how many men suffer nowadays both in mind and body from a multitude of ailments resulting simply from weak nerves, consequent upon overwork, worry, and other debilitating causes. Doctors have tried for years past, and are still trying, to find some drug which will cure the distressing symptoms of nervous exhaustion, but the best they have been able to do in this direction up to the present is to afford slight temporary relief in some simple forms of the disease. The Consulting Physician and Electrician at St. Bartholomew's Hospital has, we are glad to say, made a move in the right direction. After finding that physic is practically useless for the relief of nervous sufferers, he writes:—

"'There is no doubt that electricity is one of the most powerful nerve tonics we possess. No agent so quickly restores the depressed condition of the system resulting from illness. In all states of nervous depression, as from long mental strain or overtaxed bodily powers, general galvanism has proved a refreshing and most invigorating tonic.'

"The next point, therefore, to be considered is as to the best method of applying these galvanic currents to the system pleasantly without any discomfort, and for this purpose we cannot do better than strongly recommend all nervous sufferers to wear one of Harness's electropathic belts."

The last paragraph is from "The Family Doctor."

I have never recommended the use of Harness's belts. The quotation from my writings is taken from a paper I read before the British Medical Association at Belfast in 1884. In a subsequent part of the same paper I have said: "The galvanic belts and portable batteries so extensively advertised are not of the slightest use, and are great impositions on the public. If it were possible to pass a weak current of electricity through the body, or any part of the body, for an indefinite time, no doubt great tissue changes would take place. It would be impossible for such a powerful agent—one capable of splitting up all chemical compounds—to be passed through the body without causing great tissue changes. But the skin offers such a resistance to the passage of electricity that the body may almost be said to be insulated. No weak current, such as is produced by these battery-belts, could pass through the skin. If one pole from the battery-belt be applied to the body, and a galvanometer introduced between the body and the other pole, no deflection of the needle can be detected. If the current from these appliances were strong enough to overcome the resistance of the skin, sloughs would in a short time be produced at the points of application of the negative pole. The same objection holds good with regard to the electric brushes; no battery that they can contain could produce a current strong enough to penetrate the skin of the scalp."

As direct reference is made to me in the public press in a way calculated to give a wrong impression of my views, and, in my opinion, to the detriment of the public, I have felt it my duty to ask you to insert this disclaimer.

I am, Sirs, yours truly,

W. E. STEAVENSON, M.D. CANTAB.,
In charge of the Electrical Department at
Nov. 12th, 1889. St. Bartholomew's Hospital.

ST. MUNGO'S COLLEGE, GLASGOW.

To the Editors of THE LANCET.

SIRS,—In concluding this correspondence, I have only to point out that everything I have said, including the remark regarding the difficulty in getting at the facts of the case, has been stated to me by one or more of the half dozen governors with whom I have conversed on the subject. Not one of these gentlemen, accustomed as they are to accurate observation and method, has any recollection of the important business of Aug. 6th having been notified in the circular calling the meeting. I fail to see for what I owe Principal Blackie an apology. He really calls on me to retract, not what I have said, but what several governors have said to me. It is he who should apologise to me for suggesting that I have not spoken in good faith. But I leave it now to the profession to judge, in the light of the whole correspondence, whether the most essential truth lies on the surface of Dr. Blackie's official minute, or beneath the necessarily scanty data which I have been able to collect. In any case, it is safe to say that when the history, especially the secret history, of the origin of St. Mungo's College comes to be written, it will shed a lurid light on one local phase of medical and academic reform.

I am, Sirs, yours faithfully,

Glasgow, Nov. 11th, 1889. J. WALLACE ANDERSON.

AN INSURANCE MEDICAL SOCIETY.

To the Editors of THE LANCET.

SIRS,—The suggestion put forward by Dr. James Edmunds in THE LANCET of Nov. 9th is worthy of support. The idea of organising a Society of Medical Officers of Assurance Companies had also occurred to me, and I discussed the question with some friends, but press of work prevented me at the time from taking any further steps. A large amount of valuable information would be collected if medical officers would report to such a society all cases in which an extra was charged, together with the reasons for doing so, and the value of these reports would be still further enhanced if the results were filled in as the deaths occurred. By this means a more uniform system of imposing extra rates than at present exists would be attained. Very few discussions have taken place in the various societies on questions directly affecting life assurance, and yet there must be many medical examiners who are able to give much valuable advice on some of the knotty points of assurance. Believing that a Society of Medical Officers of Life Assurance Companies would effect a useful purpose, I shall be happy to assist in the foundation of such a society.

I am, Sirs, your obedient servant,

F. DE HAVILLAND HALL,
Wimpole-street, Nov. 9th, 1889. Physician to the Rock Life Office.

DIPHTHERIA, AND SOME OF ITS CONNEXIONS.

To the Editors of THE LANCET.

SIRS,—As it is only at rare intervals that special attention has been drawn to the possibility of disease in domestic animals being a great source of danger to man, perhaps the following case may be interesting to some of your readers.

On Oct. 10th I was called to see a lad aged fifteen years. His mother told me he had been indisposed for some days. On examination I found him feverish; temperature 102·2°; pulse 110, soft and weak. The submaxillary and adjacent glands were tender and enlarged, the tongue dry, and covered with a brown fur. His tonsils, uvula, and pharynx

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were swollen, and of a dark-red colour, where not covered with a thick dirty white membrane. The urine contained a slight cloud of albumen. The case being recognised as one of diphtheria, the patient was at once isolated, and placed under treatment, locally of perchloride of mercury, and internally of tincture of iron. He was practically convalescent in eight days. On making inquiries as to the cause, as there was no diphtheria prevalent, I was at first completely at fault. The sanitary arrangements were satisfactory, the milk and water above suspicion. The lad had not been out of the neighbourhood, and with the exception of having sniffed on one occasion some rather odoriferous manure, knew of nothing that would account for his illness. On talking the matter over with his father, he asked me whether it could have been caused by an animal, and he then told me that a pet cat of theirs that had frequently been nursed by his son had about three weeks prior to the lad's attack been very ill for about ten days, that it had lain about, had had attacks of sneezing and coughing (towards the end of which it frequently vomited some thick, white, frothy substance), had had diarrhœa, and had refused its milk and food.

From the above facts, inconclusive as they are (as of course cultivation of the dejecta of the animal and other modes of investigation would have cleared up doubtful points), I do not think the inference unreasonable that the cat in question suffered from some malady closely allied to, if not, diphtheria, and that possibly, if not probably, the patient was infected from that source. If such was the case, it clearly illustrates the close connexion between some diseases in domestic animals and in ourselves, and suggests the necessity in cases of illness in the former of taking in the future effective precautionary measures.

I am, Sirs, yours truly,

November, 1889. E. J. M.

"MEAN DURATION OF LIFE."

To the Editors of THE LANCET.

SIRS,—It seems to me that the mean duration of life in any district in any particular year can signify only one thing, and can be obtained only by the following or a similar process. Find out the number of days every person has lived in the district during the year, add the different numbers together and divide the sum by the number of persons considered. The answer must come out something under 365, for the mean duration of life in one year cannot be as much as a full year. This quantity, besides being very difficult to obtain, would be a very bad means of comparing the states of health of the district in different years, for apart from any decided difference in the general health it would vary so much according as the majority of births and deaths took place at the beginning or end of the year. The average age at death in any year is a far worse test still, for it simply shows whether the year has been advantageous for the young or the old. A year of cold and foggy weather will kill off a large number of old people, but these extra deaths will simply run up the average age at death, and give a roseate hue to the medical report based upon it. No doubt a steady rise in the average death age in a district indicates in a rough way an improvement in the health of the district, but even this is only a qualitative and not a quantitative indication. What process of the mind is implied when this mean age at death is called the mean duration of life for the year, I am at a loss to guess at.

I am, Sirs, yours faithfully,

THOS. GLOVER LYON, M.D. Cantab.

St. James's-street, S.W., November, 1889.

*** Our correspondent suggests a correct but practically impossible method for ascertaining the mean number of days lived in a given district by a population during a year, which would, however, be absolutely useless as a test of sanitary condition, although the aggregate number might be used for calculating the crude death-rate of such population. The fallacy involved by miscalling the "mean age at death" the "mean duration of life" is clearly pointed out. No reference is, however, made to the true meaning of the term "mean duration of life," as accepted by actuaries and vital statisticians, which was briefly referred to in the annotation published in our issue of the 26th ult.—ED. L.

ON THE SYMPTOM OF PAIN IN SLOW INTRA-PERICARDIAL HÆMORRHAGE.

To the Editors of THE LANCET.

SIRS,—Dr. Naismith, in his very interesting article on the above subject in THE LANCET of the 9th inst., makes reference to a case of ruptured left ventricle published by me in a contemporary of April 6th, and states that the patient in that case is reported by me to have complained of pain at the præcardia only, "and had, therefore, deductively, no abdominal pain at all." May I be allowed just to state that the inference so drawn by Dr. Naismith is quite correct, and that præcordial pain alone was present? The case reported by Dr. Naismith seems to my mind to show the great importance of post-mortem examinations being made more frequently in cases where diagnosis has been difficult or doubtful, and in *all* cases where death has been sudden or unaccountable.

I am, Sirs, yours truly,

Kendal, Nov. 9th, 1889. SAMUEL CLARKE NOBLE.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle Hospital Sunday.

THE Hospital Sunday Fund, so far as has been made public, shows some very substantial increases over the collections of last year. On Sunday last, the Mayor and corporation, in accordance with an old custom, attended service at the cathedral, when a collection amounting to £150 was taken; this is about £22 in excess of last year. The first collections of the Hospital Saturday have also been made, and show, as might have been expected from the prosperous condition of trade on Tyneside, a marked improvement over last year's.—The question of out-patients came up on Thursday last at the quarterly meeting of the governors of the Royal Infirmary. One party of the governors were in favour of re-establishing the out-door department, and in this they had the support of the medical staff. Another party which may be called the financial party, opposed this on the score of expense, even although a charge of 3*d.* per bottle was made for the medicine, as proposed by the "out-door party." The strongest opposition came from the working men's governors, who opposed the project *in toto*, contending that, as the hospital was called a free one, it should be really so, and as the working men were now regular contributors, it would be unfair to make any charge for medicine. The whole matter was felt to be too large for settlement by a quarterly court, so it was prudently shelved for the annual court of governors to be held in February next.

Durham County Lunatic Asylum.

The Commissioners in Lunacy have sent in a report to the Durham County Council, in which it stated that the numbers in the asylum on July 24th were 1071. Besides the numbers above stated at Sedgefield, 204 Durham lunatics were boarded out. The Commissioners state that there had been no restraint and no seclusion. Having a strong staff, Dr. Smith objected to the provision of padded rooms. The Commissioners had agreed that the further extension of this asylum should not be undertaken under any circumstances.

Doncaster.

Mr. Adams, who was assistant to the late Mr. Storrs, surgeon, has just died after a week's illness under very sad circumstances. Mr. Storrs died a week ago from pneumonia, said to have been contracted from a patient whom he had attended. The day following Mr. Storrs' death, Mr. Adams was prostrated also by pneumonia, and succumbed, as above stated. He was only thirty years of age.

South Shields.

A case of poisoning by phosphorus took place at South Shields on the 2nd inst. It appeared that a woman made an infusion of ten boxes of matches, which she drank. She was attended by Dr. Bootiman, whose evidence as to the effects of phosphorus was very clear, showing she suffered great agony for five days. It is to be hoped that Dr. Bootiman's evidence elicited by the coroner will make it well known that this mode of suicide is

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about as dreadful a one as could be devised. Poisoning by lucifer matches is easy to effect, and has of late become rather popular in the north. In Newcastle a few months ago there was quite an epidemic of match-poisoning, if such a craze can be termed an epidemic.

Newcastle-on-Tyne, Nov. 13th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

EDINBURGH.

The Arran Murder.

IN Edinburgh the great topic of conversation for the last few days has been the Arran murder case. The case is interesting from a medico-legal point of view, as the evidence offered by medical experts has been extremely conflicting and contradictory in respect to the interpretation to be put on the injuries found on the murdered man. For the prosecution, Drs. Gilmour, Fullerton, and Littlejohn were strongly of opinion that the fractures and bruises could best be accounted for on the supposition that the injuries on the face had been caused by blows inflicted, in part at any rate, whilst the body was lying on its back, and they contended that it was quite impossible that a single fall from a height could inflict so much damage as was found to the head and face. The dislodgment of the upper jaw could scarcely be brought about except as the result of blows with some heavy instrument. These facts, together with the absence of injuries on the extremities, were, they contended, against the theory of death by accidental fall. The rebutting medical evidence by Drs. Watson, MacGillivray, and Thomson was to the effect that repeated blows would not produce a continuous fissure in the skull; and Dr. Watson, in speaking of the condition in which the upper jaw was found—i.e., displaced downwards,—said that he had seen such a condition produced by a fall; and the other witnesses for the defence thought that the injuries described might be produced by either a fall or a series of blows. A strong feeling has been raised in Laurie's favour, and it is probable that most strenuous efforts will be made to obtain a reprieve, especially as the jury was by no means unanimous in its finding.

Edinburgh Health Lectures.

The Lord Provost, presiding at the first of the tenth series of health lectures given under the auspices of the Edinburgh Health Society, defined very succinctly the object and scope of these lectures, but he also pointed out to those who considered that a little knowledge was a dangerous thing that the best things were dangerous when misapplied. It depended entirely upon the use made of the knowledge. It was the people who knew nothing who feared nothing, and those who had some knowledge were at any rate in a position to take some precautions. Dr. Macdonald Brown, the lecturer, took for his subject "Man: a machine," and gave an interesting and popular sketch of the anatomy and physiology of the human body. He did this, he said, because he believed that the consideration of man, viewed in the light of an intricate machine, might not only aid them in understanding better the other lectures of the course, but might also invest with a fresh interest the little phenomena connected with their daily life. A most varied and instructive series of lectures is advertised, and if the attendance at the first lecture is to be taken as any criterion the financial success of the series is assured.

Edinburgh, Nov. 12th.

ABERDEEN.

The new Professor of Anatomy.

On Friday last, Dr. Struthers, who carried on the work of the Anatomy department from the date of the acceptance of his resignation to the appointment of his successor, offered his final farewell to the students. On Saturday his successor, Dr. Reid, late of St. Thomas's Hospital, London, was, at a meeting of the Senatus, formally inducted to the chair of Anatomy. Yesterday Professor Reid delivered his introductory lecture, and received a hearty welcome from an immense concourse of students who crowded the anatomical theatre. Many of the professors were present, and along with them was Dr. Farquharson, M.P. In introducing the new Professor of Anatomy, Professor Geddes said: "One's thoughts naturally revert to the many and important changes that have taken place in the Aberdeen professoriate. Of all the professors under whom Dr. Reid studied when a student here, not one is now attached to the staff of the University. Among the changes that have taken place none has been more regretted or more unexpected than the retirement of Dr. Struthers from the chair of Anatomy. By his retirement the University has sustained a great loss, the loss of a most influential and energetic professor. To him the thanks of the Senatus are due for the admirable manner in which he conducted the classes since the opening of the session, in a way showing his loyalty and duty to the University." Referring to Dr. Reid, he said: "He is no stranger to us. ..... He is a native of the county, and he has his name inscribed in the University of Aberdeen as one of our distinguished students with honours of recent years. But if anything could commend him to your favourable notice, it is the circumstance that he comes to us with unique experience. In the first place as having been Demonstrator of Anatomy under Dr. Struthers, as Assistant Professor under the same, as examiner in this University in the department of Anatomy, and finally, as having been the lecturer for a long period of years in one of the most important medical colleges in the country, St. Thomas's Hospital of London. With such credentials no one could come before us more highly recommended." Professor Reid said that he had received official intimation of his appointment only that day week, and in the midst of somewhat hurried arrangements to leave his former school came an intimation from the Dean of the Faculty that he was expected to deliver his introductory lecture on Nov. 11th. He was sure, therefore, the students would pardon his not troubling them with a long discourse. He first spoke of the changes that had taken place in the University since he acted as Demonstrator of Anatomy in the year 1872-73. Referring to the anatomical rooms, he said, "when I compare them with those of my time (1872-73) I am filled with admiration and wonder, and cannot but express deep gratitude and obligation, which I am sure is shared by all well-wishers of the University, to the ability and untiring energy of the Emeritus Professor. He informs me that he leaves to this Anatomical School his beautiful collection of specimens illustrating anatomy in all its aspects. I trust that we may prove worthy custodians of the same." Professor Reid then proceeded to trace the origin and progress of the science of anatomy. As to the methods of teaching and acquiring a knowledge of anatomy, he said: "Our University provides (1) systematic lectures and (2) practical teaching. As to lectures, it may be that I am still somewhat imbued with the spirit that pervades most of the London schools, and thereby rather prejudiced, but I think a little too much importance is paid to the acquisition of knowledge in this way. ..... As far as my experience goes of both the Scotch and the London teaching of anatomy, I think that a happy medium between the two is the aim to strive for—i.e., the combining the somewhat more theoretical Scotch with the somewhat more practical English." The remaining part of the address was taken up with an account of recent advances made in anatomical knowledge which have led to a few of the late rapid strides in the art of surgery. The surgery of the nervous system was taken as a striking example; cranio-cerebral topography was described, and it was pointed out how by its aid surgeons now ventured to perform some of the most daring operations which have been practised in modern times. Referring to the treatment of locomotor ataxy by suspension, Professor Reid said he was always sceptical as to the *rationale* of this treatment from an anatomical point of view. Recent experiments on the dead body by Dr. Sherrington and himself tended to confirm his original idea, and his "non-belief in this form of treatment, from an anatomical point of view, seems to be almost conclusively confirmed clinically" by the experience of Dr. Taylor, of the Hospital for Paralysis and Epilepsy in London.

Health of the City.

During the past week the following cases of zymotic diseases were reported: Measles, 3; diphtheria, 2; typhoid fever, 9; and whooping-cough, 3.

Aberdeen, Nov. 12th.

ST. GEORGE'S HOSPITAL. — The £65 Entrance Scholarship, open to students from the Universities of Oxford and Cambridge, has been awarded to Mr. Harold Bain Grimsdale, of Caius College, Cambridge.

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DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Royal College of Surgeons in Ireland.

A MEETING of the Council was held on the 7th inst., when an election to three professorships took place. Mr. Heuston was appointed Professor of Anatomy; Mr. J. A. Scott, Professor of Physiology; and Mr. Myles, Professor of Pathology. There was no question that Messrs. Heuston and Scott would be severally elected for their respective chairs; the only uncertainty that existed was in reference to the chair of Pathology. The contest here was a very close one, the voting being—Mr. Myles, 10; Dr. McKee, 9.

The McDonnell Memorial.

At a meeting of the professional friends of the late Dr. Robert McDonnell, held in the Royal College of Surgeons in Ireland, at Dublin, on Tuesday, the 5th inst., a general committee of eighty-two prominent members of the medical profession was appointed, with power to add to its number, and it was resolved that the most fitting form the proposed memorial could take would be a marble bust and an oil painting, to be placed in the Royal College of Surgeons, Dublin. It was also resolved to invite the co-operation of all those members of the medical profession who knew and esteemed a past president whose career shed such a lustre on his profession and on his College. Additional names to be placed on the committee and subscriptions (limited to one guinea) will be received by the hon. treasurer, Sir J. T. Banks, K.C.B., 45, Merrion-square East, Dublin, or by the hon. secretary, Dr. Anthony H. Corley, 16, Merrion-square North, Dublin.

Royal Academy of Medicine of Ireland.

Mr. Austin Meldon, President of the Royal College of Surgeons in Ireland, delivered the inaugural address of the Surgical session of the Academy on Friday evening, Nov. 8th, in the Albert Hall of the College. The speaker, having alluded in eulogistic terms to the late Dr. Robert McDonnell, F.R.S., past president of the College and Academy, dwelt at considerable length on almost every branch of surgery, illustrated by cases coming under his care during the past quarter of a century in Jervis-street Hospital. The address was listened to with marked attention by a crowded audience of the profession. The President afterwards entertained nearly two hundred guests, both branches of the profession being well represented.

Typhoid Fever in Dublin.

There has been for some time past numerous cases of typhoid fever in Dublin and suburbs, the cause or causes for which it is difficult to explain in a satisfactory manner. During the quarter ended Sept. 28th, I find that the mortality in Dublin from typhoid amounted to forty-one, or eleven over the average for the preceding three months; while the number of cases admitted to hospital were 176, as against 127, of whom sixteen died. A correspondence has recently taken place in one of the papers as to the probability of typhoid fever in some instances being due to eating oysters, but I am inclined to believe that it depends mainly, should the suggestion be correct, upon the locality from which the oysters are obtained. It certainly may be that the illness which so many persons have experienced after swallowing oysters, believed to have been stale, was really due to the presence of sewage matter in the juice of the molluscs.

Hospital Sunday Fund.

Last year 259 congregations joined in the movement, as contrasted with 149 when the Fund was first started in 1874. As last Sunday was a very fine day, it is believed that the collections this year will not show any falling off as compared with previous years, but necessarily the returns will not be obtained for some time.

The hospital football match, now a recognised institution, took place on Saturday last, and was very successful, a sum of over £74 gate-money having been received, which is the highest amount ever obtained from that source.

The present master of the Coombe Lying-in Hospital will vacate his office in December of next year, and not this year, as currently reported, as his seven years' tenure of office will not be completed until that date.

Mr. Paul Dillon has been appointed extern physician to St. Vincent's Hospital, Dublin.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The French Surgical Congress.

THE "Treatment of Aneurysms of the Limbs" was the last of the most important subjects which occupied the attention of the Congress. M. Kirmisson opened the discussion by recounting the history of four cases which he had recently treated. In one, which belonged to the diffuse variety, he ligatured with perfect success the femoral artery. The other three were of the spontaneous kind. The first of these was a man thirty-eight years of age, with aortic insufficiency and a rheumatic, if not a syphilitic taint. Reid's method, digital and instrumental compression, were essayed in turn without success. At last the aneurysm, which was situated in the upper portion of the femoral, was completely subdued by the ligature of the external iliac artery. The ligature applied consisted of a large catgut. His second case was that of a woman fifty-six years old who presented a well-marked popliteal aneurysm. She also was the subject of aortic disease. Reid's plan was first tried for half an hour without further result than the production of extreme pain. Digital compression brought about some considerable diminution of the pulsations, but in the course of this practice it was ascertained that complete extension of the limb caused total suspension of the pulsations, whereupon this position was maintained by the application of a back splint, with the result that the patient was cured. His third case was also one of popliteal locality. He was a man sixty-four years old, with atheromatous vessels and a clearly marked syphilitic history. Compression was first tried, but as the sac threatened to rupture the femoral was ligatured. Inflammation of the sac unfortunately supervened, and the patient ultimately succumbed to gangrene and septicæmia. In conclusion, the speaker remarked that it was necessary to recollect that aneurysms were not dilatations of the vessels simply. These were secondary lesions, of which alcoholism, rheumatism, and syphilis were the chief originators. On the whole, the method of treatment which seemed to him best was the antiseptic ligature. The various methods of compression might of course be tried without prejudice.—M. Vaslin of Angers was not an advocate of the compression methods, which had always failed in his hands. In aneurysms of the lower limbs he believed the best remedy was the catgut ligature placed rather at a distance from than near to the tumour. But for aneurysms of the upper extremity he preferred extirpation.—M. Trélat of Paris remarked that aneurysms were relatively rare in France. As to the question of their treatment, it was evident that the tendency to-day was to go back to the old methods; indeed, it might be said that the contest for favour lay around two principal methods—viz., ligature at a distance and extirpation. Amongst the advocates of the ligature were to be found such eminent surgeons as Lister, Bœckel, and Lucas-Championnière, who maintain that since the ligature has become aseptic it is excellent. But in the therapeutics of aneurysms it is not only a question of the immediate issue of the operation; there is, besides, the profound disturbance of the circulation caused by the forced and abrupt disuse of a part of the main vessel, which part is considerable when the ligature is applied at a distance from the tumour. Cauchois of Rouen supplies us with a telling example of the risks since he describes a case in which, eight months after ligature, inflammation was set up in the sac, necessitating amputation of the limb. Delbet cites other examples. It is true that the ligature gives 60 per cent. of success, but there remain 40 per cent. in which it fails, and it is on account of this non-success in a proportion so remarkable that M. Trélat believes the future belongs to the extirpation method, which, while it has the merit of reducing to a minimum, the segment of disused artery is beyond danger of being followed by the subsequent complications known under the name of inflammation of the sac.—M. Guillet of Caen said he had recently to treat an aneurysm of the femoral in the region of Hunter's canal in a man seventy years of age. Digital compression was first tried and appeared to give satisfactory promise, but two months later the tumour and pulsations reappeared. His patient being hardly a subject for extirpation, he ligatured the vessel above the sac. Three weeks later, the patient having died of intercurrent cerebral troubles, it was found at the post-mortem examination that no appreciable modification of the sac or

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its contents had followed the ligature.—M. Mollière of Lyons supported the views of M. Trélat in favour of extirpation. For some years he had almost invariably adopted this method of procedure in voluminous aneurysms. He spoke favourably, by comparison, of this operation, for he had seen digital compression followed by gangrene of the toes, and again by suppuration of the sac and septicæmia.—M. Reclus was strongly opposed to compression and other such non-operative measures, and maintained they should be definitely discarded, and for several reasons. They gave rise to much unnecessary pain in their application. Moreover, they did not attain the object sought after; in one out of every two aneurysms they failed. But, most important of all, they were dangerous, not only as to their immediate consequences, but because they placed the vessels in the worst position for resisting the shock of the ultimate operation for ligature. Delbet records that amongst twenty cases of aneurysm of the popliteal treated by preliminary compression gangrene supervened in three. As to extirpation compared with ligature, he (the speaker) would hold to the ligature, for the operation was simple and the results generally good. Extirpation, he thought, should be reserved for exceptional cases.—M. Verneuil said that twenty years ago he was a strong partisan of non-operative methods. Although he believed they had had their day, he could not consent to their absolute proscription, for he believed they were still indicated in certain cases. After the age of seventy, especially, operations on the arteries were so discouraging that he thought we were hardly justified in having recourse to them. He considered the aseptic ligature excellent, whereas extirpation seemed to him a very difficult proceeding and beyond the reach of a great number of practitioners. Of course, the discussion being limited to the consideration of aneurysms of the limbs, he did not include in these remarks aneurysm of the trunk, in which the milder methods of procedure found their most successful application.—M. Peyrot of Paris brought to the debate the details of a case in which he had practised extirpation. It was a popliteal aneurysm in a woman fifty years old. She had a history of rheumatism, scarlatina, malarial fever, with liver troubles, and five pregnancies. In consequence of the thinness of the wall of the sac he rejected compression, which he feared might favour gangrene, and decided to perform extirpation. The operation was long and laborious. The popliteal vein was closely adherent to the sac, and after a prolonged attempt to separate it he desisted and proceeded to dissect out the tumour from below upwards. The subsequent progress of the case was marked by the threatened appearance of gangrene near the heel and great toe, but it came to nothing. For a time flexion of the limb was difficult, but it is now accomplished normally. He did not wish to generalise from this single case, but, while allowing ligature to be desirable in certain cases, he nevertheless believed that extirpation would be found to give the best results on the whole. It must be remembered that ligature did not avert so completely the risks of subsequent inflammation and gangrene of the sac, not to mention gangrene in a part of the limb at a distance from the tumour, and the fear of a return of the latter.—M. Dudon of Bordeaux defended the ligature. It had given excellent results in cases where milder procedures completely failed. It was not necessary to have recourse to extirpation as a rule, and he did not hesitate to say he found the ligature more easy of application, as well as more benign in the sequel.

A French Hospital in Constantinople.

At a Cabinet Council held in Paris on the 12th inst. it was decided to submit to the Council of State a decree authorising the Government to appropriate out of the legacies left to the State the sum of 4,000,000 francs for the erection of a French hospital in Constantinople.

Paris, Nov. 13th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

A New Edition of Virchow's "Cellular Pathology."

IT is said that Professor Virchow is rewriting parts of his "Cellular Pathology." The fourth and last edition appeared in 1872, and is now partly antiquated. Some of its theories have been refuted by some of Virchow's own pupils—e.g., the theory of the nature of inflammation by the late Professor Cohnheim of Leipsic. It is said that the new edition will appear next August, as a festal gift to the International Medical Congress, which will then be sitting.

Dr. Cornet's Writings on Consumption.

The Prussian Minister of Religious, Educational, and Medical Affairs has conceived so high an opinion of the writings of Dr. Georg Cornet on consumption that he has ordered a large number of copies to be bought and sent to official and other quarters where he thinks them specially worthy of attention. The titles of the publications thus distinguished are: "The Death-rate in the Orders for the Care of the Sick," "The Propagation of Tubercle Bacilli outside of the Body," and "How to protect oneself against Consumption." It may be necessary to explain that the "Orders for the Care of the Sick" are Sisters of Mercy and the like.

The so-called Fish-scale Disease.

In the Royal Hospital for Women here, Professor Olshausen recently showed to his numerous hearers a newly-born child affected by an extremely rare and remarkable disease. The whole white epidermis was thickened into scales, and marked all over with broad red stripes, due to congenital fissures. When one stroked the skin with the palm of the hand, a rough sound was produced; and if scratched, it peeled off in scales like the skin of a fish. This rare affection has been called the "fish-scale disease," but the well-known Berlin dermatologist, Dr. Lassar, who has examined the skin of the child in question histologically and with the microscope, objects to this designation. The boy has eyelids and eyelashes, but no eyes. He is the third monstrosity of the kind to whom his mother has given birth. One of them is preserved in the hospital collection in spirits of wine, the other in a faithful portrait. Several of the children of the same mother are free from the disease, and are still living. The causes are as yet unknown. Heredity is provable in many cases. There was once a woman in Vienna whose five sons were all affected by this disease, while her three daughters were not. Sometimes it spares one generation and reappears in the next or in a side-line. In the last century the Lambert family (a father and two sons), who suffered from this disease, gained a kind of celebrity by exhibiting themselves as "Cruxts" or "porcupine men," and were described and drawn by two physicians.

Berlin, Nov. 12th.

THE SERVICES.

ARMY MEDICAL STAFF.—Brigade Surgeon John Robinson has been granted retired pay (dated Nov. 4th, 1889).

ARMY MEDICAL RESERVE OF OFFICERS.—Surgeon Edwd. Luke Freer, 1st Volunteer Battalion, the Royal Warwickshire Regiment, to be Surgeon, ranking as Captain (dated Nov. 13th, 1889); Acting Surgeon Alfred George Bateman, M.B., 16th Middlesex Rifle Volunteer Corps, to be Surgeon, ranking as Captain (dated Nov. 13th, 1889).

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon James Flanagan has been placed on the Retired List, with permission to assume the rank of Deputy Inspector-General of Hospitals and Fleets (dated Nov. 7th, 1889).

RIFLE VOLUNTEER CORPS.—1st Volunteer Battalion, the Lincolnshire Regiment: Thomas William Jas. Allen, Gent., to be Acting Surgeon (dated Nov. 9th, 1889).—16th Middlesex (London Irish): Acting Surgeon A. G. Bateman, M.B., to be Surgeon (dated Nov. 9th, 1889).

The death is announced, at Southsea, of Fleet Surgeon Thomas George Wilson, L.M. and F.R.C.S. Irel., at the age of fifty-three years. The deceased, who was Deputy Inspector-General of Hospitals and Fleets, left his residence on the afternoon of the 7th inst., on his tricycle, leaving word that he would return in time for his dinner at 7 o'clock. Subsequently his lifeless body was found lying in the Merton-road. Surgeon Wilson entered the Naval Medical Service in August, 1857, and was Fleet Surgeon of H.M.S. *Inconstant* during the Egyptian War, 1882, for which he gained the Egyptian medal and the Khedive's bronze star.

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ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council of the College held on Thursday, the 14th inst., the minutes of the Quarterly Council held on Oct. 17th were read and confirmed.

The minutes of the Board of Examiners in Dental Surgery of the 6th inst., on the report from the board, were read. These involved considerable alterations in the curriculum for the diploma, and we print them at p. 1028.

The following report from the Committee of Management of the two Colleges was read, approved, and entered on the minutes:—

"Having in compliance with the request of the Council of the Royal College of Surgeons considered whether it is desirable that any alterations should be made in Clause 9, Paragraph II., Section I., of the Regulations of the Examining Board in England, relating to the discharge of the duties of medical clinical clerk and of surgical dresser, and being of opinion that it is desirable that those duties should in each case be discharged in the wards during not less than three months, the Committee recommend the two Colleges to add the following words to Clause 9, Paragraph II., Section I., of the Regulations:—'of which in each case not less than three months shall have been in the wards'; so that the clause may read as follows—viz.: '9. Of having discharged, after having passed the second examination, the duties of a medical clinical clerk during six months, and of a surgical dresser during other six months, of which in each case not less than three months shall have been in the wards.'"

The Committee have also to recommend the insertion of the words "and diseases peculiar to women" after the word "midwifery" in the tenth line, and the omission of the word "practical" in the twelfth line of Paragraph XIX., Section II., of the Regulations, so that the paragraph will read as follows—viz.:

"XIX. A candidate referred on the third or final examination, or on one or more of the three parts into which he may have divided it, will not be admitted to re-examination until after the lapse of a period of not less than three months from the date of rejection, and will be required, before being admitted to re-examination, to produce a certificate, in regard to medicine and surgery, of having attended the medical and surgical practice, or the medical or surgical practice, as the case may be, at a recognised hospital during the period of his reference; and, in regard to midwifery and diseases peculiar to women, a certificate of having received, subsequently to the date of his reference, not less than three months' instruction in that subject by a recognised teacher." These alterations are to take effect from January, 1890.

The President reported the result of the meeting of Fellows and Members on the 7th inst., and the resolution carried at the meeting was read and entered on the minutes.

A letter with the contained resolutions was read, dated the 25th ult., from Mr. Francis Fowke, general secretary of the British Medical Association, reporting resolutions carried by that Association in reference to the constitution of the College.

A letter of the 11th inst., from Mr. Wilde, was read, stating that the plaintiffs in the action, Steele *v.* Savory, had obtained an extension of time, which would have expired on the 15th inst., for the delivery of their statement of claim.

A letter was read from Dr. Liveing reporting the proceedings of the Royal College of Physicians in reference to matters concerning the two Colleges.

The President reported that there would be three vacancies in the Court of Examiners occasioned by the expiration of the term of office, on Dec. 11th next, of Mr. J. W. Hulke, Mr. J. Langton, and Mr. T. P. Pick; that there would be two vacancies in the Court of Examiners' section of the Board of Examiners in Dental Surgery occasioned by the cessation of office on the court of Mr. Hulke and Mr. Langton; and that the vacancies thus occasioned will be filled up at the ordinary meeting of the Council on Dec. 12th next. It is generally understood that Mr. Hulke will not offer himself for re-election.

Medical News.

[ROYAL COLLEGE OF PHYSICIANS OF LONDON.—In the list published on the 2nd inst., "Knox, Jas. K.," should read Knox, Jas. Jenkinson.]

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the necessary examinations, were at an ordinary meeting of the Council on the 14th inst. admitted Members of the College:—

Barker, John Hamer, L.R.C.P.Lond., Blackburn-rd., Manchester.
Bates, Stephen Henry, L.R.C.P.Lond., Univ. College Hospital.
Bentham, Andrew O., L.R.C.P.Lond., High-st., Standish, Wigan.
Bergin, George Fredk., L.R.C.P.Lond., West-pk., Clifton, Bristol.
Bevan, Tom W., L.R.C.P.Lond., Trefilan Rectory, Talsarn, R.S.O.
Beyts, Wm. George, L.R.C.P.Lond., Sunderland-road, Forest-hill.
Boase, Wm. George, L.R.C.P.Lond., Mannamead, Plymouth.
Bradbury, Arnold F., M.D.Durham, Regent's-place, Halifax.
Brohier, Louis Cyrus, L.M. & S.Ceylon, Torrington-square.
Burton, Harry, L.S.A., Marple-bridge, Stockport.
Cameron, Ewan Gordon, L.R.C.P.Lond., Wyndham-place.
Carrell, George N. Piccaver, L.R.C.P.Lond., Forest-hill-road.
Cato, Alex. McLean, L.R.C.P.Lond., Vambery, Norbury, Surrey.
Cayley, Cyril Henry, L.R.C.P.Lond., Elm-grove, Watford.
Cheetham, Sydney Wm., L.R.C.P.Lond., Grosvenor-ter., Bootle.
Cleveland, Robert A., L.R.C.P.Lond., Shrover Hall, Cosham.
Collett, Henry G. O., L.R.C.P.Lond., Randolph-gardens, Dover.
Collins, Algernon B., L.R.C.P.Lond., Hawthorn Lodge, Yapton.
Conway, Basil W., L.R.C.P.Lond, Belgrave-place, Stalybridge.
Cooke, John A., L.R.C.P.Lond., Trafalgar-sq., Ashton-under-Lyne.
Cuthbert, Henry Pierce, L.R.C.P.Lond., Clun, Shropshire.
Dewhurst, John H., L.R.C.P.Lond., Whin Field, Skipton, Yorks.
Dickson, Thos. H., L.R.C.P.Lond., Belvedere-road, Norwood.
Dowse, Henry E., L.R.C.P.Lond., Brisbane, Petersfield.
Duigan, William, L.R.C.P.Lond., Bernard-street.
Edmonds, George, L.R.C.P.Lond., Park Lodge, Bexhill.
Edwards, John H., L.R.C.P.Lond., Great Percy-street.
Elam, George, L.R.C.P.Lond., Harley-street.
Elliot, Robt. Henry, L.R.C.P.Lond., Green-lanes, Finsbury-park.
Enraght, Wm., L.R.C.P.Lond., St. Gabriel's Vicarage, S. Bromley.
Evans, Ernest William, L.S.A., Highbury-terrace.
Evans, Thos. Henry F., L.R.C.P.Lond., Highbury-terrace.
Findlay, Harry, M.B.Glasgow, Glasgow-street, Glasgow.
George, Alfred Walter, L.R.C.P.Lond., Regent-rd., Gt. Yarmouth.
Gibbs, Seymour F., L.R.C.P.Lond., Abercorn Lodge, Mill-hill.
Giffard, Gerald Godfrey, L.R.C.P.Lond., Southwell-gardens.
Glinn, Geo. Frederick, L.R.C.P.Lond., Stoke-terrace, Devonport.
Godding, James, L.R.C.P.Lond., Kingsclere Villa, Southsea.
Heath, Alan Jasper, L.R.C.P.Lond., Cavendish-square.
Hickley, Arthur Mackenzie, L.R.C.P.Lond., Edgware-road.
Higginson, John W., L.R.C.P.Lond., Thornleigh, Stoneygate.
Hooton, W. A., L.R.C.P.Lond., Kersal Towers, Higher Broughton.
Horton, Algernon John, L.S.A., High-street, Bromsgrove.
Hues, Frank, L.S.A., Soho-road, Handsworth.
Hughes, Alfred Edward P., L.R.C.P.Lond., Holy Trinity Vicarage, Darlington.
Hugo, Edwd. V., L.R.C.P.Lond., Bridge Avenue, Hammersmith.
Kelbe, Walter Edward, L.R.C.P.Lond., Falmouth-road.
Khan, Masha Allah, L.R.C.P.Lond., Bromley-street, Stepney.
Kitchin, Henry B., L.R.C.P.Lond., Crescent House, Mornington-pl.
Knox, Jas. J., L.R.C.P.Lond., Church House, Bakewell.
Lewis, Llewelyn, L.R.C.P.Lond., Southfield, Neath.
Ley, Geo., L.R.C.P.Lond., Gratton-road, West Kensington-park.
Lightbody, John H., L.R.C.P.Lond., Greenbank Drive, Liverpool.
Livsey, Wm. Edwd., L.R.C.P.Lond., Carisbrook-road, Liverpool.
Lord, Robt. E., M.B.Vict. (Manch.), Rotunda Hospital, Dublin.
Lourensz, Chas. Ball, L.M.S. Ceylon, Torrington-square.
Major, Arthur Cundell, L.R.C.P.Lond., Hungerford, Berkshire.
Mallard, Frank Reginald, L.S.A., Cripplegate, Horsham.
Manning, Harry Paul Owen, L.R.C.P.Lond., Falmouth-road.
Mansbridge, Josiah, L.R.C.P.Lond., Cornwall-road, Bayswater.
Martin, Albert Edward, L.R.C.P.Lond., Southborough-road.
Meerwald, Osmond Spencer, L.M.S. Ceylon, Alfred-place.
Meyers, Donald Campbell, L.R.C.P.Lond., Scott-street, Toronto.
Milner, Arthur Samuel, L.R.C.P.Lond., Hackney-road.
Morris, Graham, L.R.C.P.Lond., Hayes, Kent.
Naylor, Joseph, L.R.C.P.Lond., Lordship-park.
Niell, Balfour, L.R.C.P.Lond., Rockport, Craigarad, Belfast.
Nolan, Joseph Adam, L.R.C.P.Edin., Oxford-street, Edinburgh.
Norburn, Albert Edward, L.R.C.P.Lond., Cazenove-road.
Norton, Everitt Edward, L.R.C.P.Lond., Highbury-hill.
O'Leary, Arthur P. Evelyn, L.R.C.P.Lond., Redland-grove, Clifton.
Olive, Eustace John Parke, L.R.C.P.Lond., Stroud-green.
Ormerod, H. L., L.R.C.P.Lond., Westbury-upon-Trym, Bristol.
Osborne, O., L.R.C.P.Lond., Sylva-road, Snaresbrook, Essex.
Paget, Peter, L.R.C.P.Lond., Croombe-road, Croydon.
Paul, Maurice Eden, L.R.C.P.Lond., Brunswick-buildings.
Pires, George, L.R.C.P.Lond., Bedford-place.
Pollock, Chas. Stewart, L.R.C.P.Lond., The Croft, Putney.
Powers, Charles Henry, L.R.C.P.Lond., Atherstone, Warwickshire.
Purnell, Purnell, L.R.C.P.Lond., Woodlands, Streatham-hill.
Rayne, William Theodore, L.R.C.P.Lond., Belgrave-road.
Rees, John Milsom, L.R.C.P.Lond., Penydre House, Neath.
Rendel, Arthur Bowen, L.R.C.P.Lond., Lancaster-gate.
Richardson, William, M.B.Edin., Union Mills, Isle of Man.
Rudyard, Henry A., L.R.C.P.Lond., St. Albans-road, Watford.
Saunders, Fred. W., L.R.C.P.Lond., Hendingham House, Clapham-common.
Shepherd, H. B., L.R.C.P.Lond., Kirkby Lonsdale, Westmoreland.
Simmons, F. H., L.R.C.P.Lond., Sutherland-avenue.
Simpson, Godfrey W., L.R.C.P.Lond, Vincent-square.
Smith, Henry W., L.R.C.P.Lond., Hamstead-road, Birmingham.

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Speechly, Harry M., L.R.C.P.Lond., Railton-road.
Stabb, Arthur Francis, L.R.C.P.Lond., Vincent-square.
Standage, Robert F., L.R.C.P.Lond., Holland-road, Kensington.
Stokes, William George Gabriel, L.R.C.P.Lond., Fentiman-road.
Sullivan, Edward Henry Charles, L.R.C.P.Lond., Fentiman-road.
Taylor, Ernest Edmund, L.R.C.P.Lond., Cemetery-road, Sheffield.
Tindall, Ernest Edward P., L.R.C.P.Lond., Hillside-villa, Redhill.
Toller, Seymour Graves, L.R.C.P.Lond., Royal Crescent.
Tuppen, Harry Stacey, L.R.C.P.Lond., Tregunter-road.
Walker, T. Greaves, L.S.A., Groombridge-road, South Hackney.
Walters, A. P., L.R.C.P. Lond., Waterden-crescent, Guildford.
Warde, Wilfred Brougham, L.R.C.P. Lond., Woburn-square.
Watkins, H. E., L.R.C.P. Lond., Stoke Legh, Newton-le-Willows.
Whitman, Royal, M.D. Harvard, Boston, U.S.A.
Wightman, H. T., L.R.C.P. Lond., Clark-grove-road, Sheffield.
Williams, E. McKenzie, L.R.C.P. Lond., Cavendish-place, Bath.
Williams, Ernest G. H., L.R.C.P. Lond., College-lawn, Cheltenham.
Woodall, R. W., L.R.C.P. Lond., Milner-square, Islington.
Woodcock, Herbert de Carle, L.R.C.P. Ed., Moorville House, Leeds.

The following gentlemen, having passed the necessary examinations, were at the same meeting admitted Licentiates in Dental Surgery:—

Ambrosoni, Francis Angelo, Grand Parade, Brighton.
Bright, Stanley Charles, Via Assaroth, Genoa, Italy.
Carter, Edward George, Edgware-road.
Cowell, Charles Joseph, Christian-road, Preston, Lancs.
Day, Joseph Henry, Alfred-street, Brompton.
Dunlop, James Nairn, Lord-street, Southport.
Haycroft, Frederic Theodore, South Lawn-terrace, Exeter.
Harper, Henry Guy, Charleville-road.
Knowles, Albert Vernon, Albion-place, Reading.
Mallet, John Aubrey, Powderham-crescent, Exeter.
Parrott, John Ernest, Hagley-road, Birmingham.
Richardson, Frank Victor, Kibworth, Leicester.
Seville, John William, Belvedere, Bath.
Spray, George Goldfinch, Conway-road, Canton, Cardiff.
Stoddart, Walter Guy, Lower Seymour-street.

The following gentlemen passed the First Professional Examination for the diploma of Fellow at a meeting of the Board of Examiners on the 11th inst.:—

C. Barker, student of Sheffield School of Medicine; H. E. R. James, of Charing-cross and Dublin; and J. R. Morison, of Edinburgh University. (17 candidates were referred).

Passed on the 12th inst.:—

T. E. Leadbeater, of London Hospital; R. M. Littler, of Owens College, Manchester; A. W. McMichael, of Queen's College, Birmingham; W. H. Maidlow, of St. Bartholomew's and Durham; A. W. Sheen, of Guy's Hospital; C. Williams, of University College.

VICTORIA UNIVERSITY.—The following is a list of candidates who have qualified for Medical degrees:—

Doctor of Medicine.—John Brown, M.B., Ch.B., Owens College, Manchester; Robert James M'Lean Buchanan, M.B., Ch.B., University College, Liverpool; Henry Waytes Pomfret, M.B., Ch.B., Owens College, Manchester.

Bachelor of Medicine and of Surgery.—First Division: *Albert Edward Brindley, *Theophilus Nicholas Kelynack, *Robert Ellis Lord, Jas. Sinclair M'Gowan, *Arthur James Moss, and *Frank Lomax Wood, Owens College, Manchester.

Second Division.—Richard Alcock, Albert Ashton, John Dunlop, and *George Fredk. Edwards, Owens College, Manchester; John Wm. Ellis, University College, Liverpool; *Charles Frederick Marshall and Harry Merrall, Owens College, Manchester; Edwd. Molyneux, University College, Liverpool; Thomas Porter, James Simcock, Frederic Wilson Stansfield, *John Clough Thresh, James Wilcock Unsworth, Arthur Blair Watson, and Fredk. James Webb, Owens College, Manchester.

* With distinction.

CONJOINT SCHEME OF THE COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND.—The following gentlemen have passed their Fourth Professional or Final Examination:—

E. Corbett, W. B. Croker, L. Dorran, T. Gilcriest, T. A. Goodchild, L. M. Hingerford, P. H. Lennon, M. J. Madden, J. H. Pim, R. P. Ryan, E. F. Stephenson, T. G. Stephens, J. S. Stewart, J. J. Tate, R. E. Thompson, R. S. Young.

ABERDEEN UNIVERSITY CLUB, LONDON.—The next half-yearly dinner of this club will take place at the Holborn Restaurant on Wednesday, Nov. 20th, at 7.30 P.M., the Hon. Mr. Justice Stirling in the chair.

BEQUESTS.—Mr. John N. Murphy of Clifton, Cork, has left £100 to St. Patrick's Hospital for Incurables; £100 to St. Vincent's Children's Hospital, Cork; and £100 to the Mercy Hospital, Cork.

METROPOLITAN HOSPITAL SATURDAY FUND.—A special meeting of the Board of Delegates was held on Saturday at the office of the Fund, for the purpose of appointing Sir James Whitehead, Bart., as chairman and vice-chairman to the Fund, who had intimated his willingness to undertake the office. It was at the same time announced that Sir H. A. Isaacs, the present Lord Mayor, had accepted the position of president of the Fund. These appointments having been made, resolutions were carried, on a report of a special sub-committee, in respect to a scheme for the appointment of annual and life governors at the various hospitals receiving grants from the Fund.

EXHIBITION OF AMBULANCE APPLIANCES.—At a council meeting of the Animal's Institute, held this week, it was decided to open an exhibition of ambulance and first-aid appliances, when the medals of the institute will be awarded to successful competitors. All exhibits must be sent in by Nov. 27th to 9, Kinnerton-street, Wilton-place, S.W.

RABIES.—The number of dogs in England officially reported during the week ending Nov. 2nd as affected with rabies was nine, against six in the preceding week. Of these, eight were killed and one died. The distribution was as follows: Middlesex (excluding London), four; Yorkshire (West Riding), two; and Essex, London, and Sussex, (Western Division), one each.

A NEW PATENT BED.—A new patent bed called the "turnover," the invention of a nurse, was exhibited last week at the Fine Arts Rooms, Gower-street. When sufficient funds have been subscribed to defray the cost of the invention, it is proposed to present the bed to a hospital, or else to utilise it for nursing the sick poor in the East-end. Particulars may be obtained from Lady Mary Glyn, the Vicarage, Kensington.

PROPOSED CONVALESCENT HOME FOR LEICESTERSHIRE.—On the 6th inst., a large and influentially attended meeting was held at the Town Hall, Loughborough, for the purpose of establishing a convalescent home for the borough and the shire, Mr. Alderman Griggs, the Mayor, presiding. The existing Home at Woodhouse Eaves, consisting of three cottages, was totally inadequate to meet the demands of the county. A building containing forty beds, capable of extension, was required. Resolutions were adopted pledging the meeting to take the necessary steps to promote the object in view. An offer of an eligible site in the Charnwood Forest had been made, and before the meeting closed subscriptions amounting to £1075 were promised.

ST. JOHN AMBULANCE ASSOCIATION.—Mr. John Turley, the energetic honorary director of the above Association, had the control of the wheeled ambulance transport which was posted along the line of route of the Lord Mayor's procession on Saturday last. Two-horse ambulance carriages and two Ashford litters were posted at Scotland-yard, the Embankment, and Law Courts respectively, and detachments of men from the St. John's Gate and Stratford (G.E.R.) divisions of the metropolitan corps of the St. John Ambulance Brigade, under the command of Superintendent W. J. Church Brasier, were on duty, and during the day did much good service in the case of the various slight casualties which occurred.

NEW (JUBILEE) HOSPITAL, MANSFIELD.—On Monday, Mrs. Hollins, Pleasley Vale, formally laid the foundation-stone of the new Mansfield and Mansfield District Hospital, situated in the West Hill Drive, and which is to commemorate the Queen's Jubilee. The amalgamation of the two existing cottage hospitals at Mansfield and at Mansfield Woodhouse (a long-felt desideratum) having been accomplished, the joint committee are enabled to commence the erection of this new hospital for the district. For this purpose £2800 is in hand or promised. The estimated cost of the building, site, and furnishing is £2733. There will be two wards containing five beds for in-patients.

NATIONAL DENTAL HOSPITAL AND COLLEGE.—The medical officers and lecturers of this institution, situated in great Portland-street, dined together with a number of guests on the 8th inst., at the Holborn Restaurant, on the occasion of the annual distribution of prizes. Mr. Henry Morris, M.A., M.B., was in the chair, and the company included the Dean, Mr. F. H. Weiss, and Dr. B. W. Richardson. Prizes for dental anatomy were given to Messrs. R. S. Faro and J. N. Dunlop, and for dental surgery to Messrs. F. L. Haycroft and J. N. Dunlop. Messrs. S. Keele and A. Moore received prizes for dental mechanics and metallurgy respectively, whilst the Rymer gold medal was awarded to Mr. J. N. Dunlop. There were fourteen certificates. The Chairman, in proposing "The Hospital and Staff," said that a new hospital was about to be erected in Great Portland-street, and three-fourths of the necessary funds had already been subscribed. The Dental College had wrought a revolution in the large section of the medical profession known as dental surgeons, whereby charlatanism, quackery, and imposition were being eradicated.

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MEDICAL OFFICERS OF HEALTH.—An ordinary meeting of the Society of Medical Officers of Health was held on the 8th inst. at the Scottish Corporation Hall, Fleet-street, E.C., the President, Dr. H. Armstrong, in the chair. The report of the Council was read, and the consideration of a paragraph recommending that medical men qualified in public health be eligible for election to the Society was adjourned till the next meeting, Dr. Dudfield remarking that it was a point vital to its constitution. A recommendation in the report was adopted that the Society should request the Metropolitan Asylums Board to "star" the names of patients removed to hospital in the returns which they furnish weekly of the cases of infectious diseases notified in London, and that the Board be also requested to supply medical officers of health with a summary of the return. Several new members were elected, and the President read an interesting paper on "The Education, Training, and Qualification of the Medical Officer of Health," which was followed by a discussion.

PRESENTATIONS.—Mr. William Lees, M.R.C.S., for upwards of five years house surgeon to the Chester General Infirmary, has been presented by the nursing staff of the institution with two handsome cases of surgical instruments; and the same staff has also presented to Mr. Alfred Mann, M.B., C.M. Edin. (who has retired from the office of visiting surgeon), with a similar case of instruments.—The Mayor of Hull (Mr. J. Sherburn, M.R.C.S), on the 6th inst., at the Town Hall, among other presentations for bravery, presented the Royal Humane Society's bronze medal and certificate to Mr. J. H. Wilson, surgeon, of Hull, for saving a little boy from drowning at Newington on Sept. 13th, 1888.—Dr. P. Murray Braidwood has just received an award at the Glasgow Exhibition for his exhibit of plans of hospital ships. It consists of a beautiful work of art, and, together with similar awards for the same subject obtained at the Liverpool and Adelaide (South Australia) Exhibitions, forms a gratifying recognition of the usefulness of Dr. Braidwood's idea, and its adaptation for relieving the sufferings of the sick and wounded at sea.—At a large and enthusiastic meeting held at Cambois on the 11th inst., the vicar (Rev. Mr. Usher) presented Dr. James Mason with a gold chain and seal, on behalf of the members of the ambulance class of that place.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BEACH, L. B., L.R.C.P. Lond., M.R.C.S., has been appointed House Physician to King's College Hospital.

BEALE, P. T. B., M.D., M.R.C.S., L.R.C.P. Lond., L.S.A., has been appointed House Surgeon to King's College Hospital.

BROADBENT, F., M.R.C.S. Eng., L.R.C.P. Edin., has been appointed Medical Officer of the Collingham District, Newark Union.

BROOM, ROBERT, B.Sc., M.B., C.M. Glas., has been appointed House Surgeon to the Maternity Hospital, N. Portland-street, Glasgow, vice G. Scott MacGregor, M.B., C.M. Edin., resigned.

CHEADLE, A. H., M.R.C.S., L.R.C.P. Lond., has been appointed Senior House Surgeon to King's College Hospital.

COTES, C. E. H., B.A., M.B., B.S. Cantab., F.R.C.S., has been appointed Surgeon to Out-patients at the Lock Hospital and Asylum, Harrow-road, London.

DUNN, EDWIN L., M.B., has been appointed Assistant House Surgeon to the Liverpool Dispensaries.

GRIFFITHS, EVAN, L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of the Llanybyther District, Lampeter Union.

GUNN, F. W., L.R.C.P. Lond., L.S.A., M.R.C.S., has been appointed House Accoucheur to King's College Hospital.

HALL, E. F., M.D. St. And., M.R.C.S. Eng., has been reappointed Medical Officer of Huyton-with-Robey Union District.

HEWLETT, R. T., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant House Physician to King's College Hospital.

JONES, HUGH, M.B., C.M., D.P.H. Glas., has been appointed House Surgeon to the Maternity Hospital, N. Portland-street, Glasgow, vice Henry L. G. Leask, M.B., C.M. Glas., resigned.

MONTEITH, JAMES, M.B. & C.M., has been appointed Assistant Medical Officer to the Dorset County Asylum, vice R. D. Booth, M.B., resigned.

NEALE, George, L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of Barry District, Cardiff Union.

PALMER, SYDNEY J., M.B., has been appointed Assistant House Surgeon to the Liverpool Dispensaries.

PENNY, J., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to King's College Hospital.

RÉES, E. D., L.S.A., L.R.C.P. Lond., has been appointed Assistant House Accoucheur to King's College Hospital.

SHEPPARD, CHARLES E., M.D., B.S., F.R.C.S., has been appointed Second Chloroformist to the Middlesex Hospital.

SHIELL, W. J., L.R.C.S., L.R.C.P. Edin., L.M. Rot. Dub., has been appointed District Surgeon of Peddie, S.A., under Colonial Government.

SWIFT, SIDNEY S., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant House Surgeon to the Liverpool Dispensaries.

WILSON, THEODORE S., M.R.C.S., has been appointed Assistant Physician at the General Hospital, Birmingham, vice Foxwell, resigned.

WINSHIP, W. A., M.R.C.S., L.S.A., has been appointed Medical Officer of the Eladon District, Rothbury Union.

YEOMAN, W. M., M.R.C.S., L.S.A., has been appointed Medical Officer of Stokesley Rural District.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer. Salary £80, with board and lodging.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—Ophthalmic Surgeon.

HALIFAX INFIRMARY AND DISPENSARY, Hope hall, Halifax.—Senior House Surgeon. Salary £80 per annum, advancing to £100, with residence, board, and washing. Also Assistant House Surgeon. Salary £50 per annum, with residence, board, and washing.

KING'S COLLEGE, London.—Sambrooke Surgical Registrarship.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.—Junior House Surgeon. Board and residence in the hospital.

MAIDSTONE UNION, Maidstone.—District Medical Officer and Public Vaccinator for the 6th District of the Union. Salary as Medical Officer £60 per annum, exclusive of fees for midwifery cases and surgical operations allowed by orders of the Local Government Board, and fees for each case of successful vaccination.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, E.—Junior House Surgeon for six months, at a salary of £30.

OWENS COLLEGE, Manchester.—Senior Demonstrator in Physiology. Stipend £150 per annum.

ROYAL COLLEGE OF SURGEONS.—Examiners.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—Demonstrator of Physiology.

WARNEFORD HOSPITAL, Leamington Spa.—House Surgeon. Salary £100 per annum, with board, lodging, and washing.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant for six months. Board, lodging, and washing provided.

WOODSTOCK UNION, Woodstock.—Workhouse Medical Officer. Salary £35 a year, and for midwifery 10*s.* 6*d.* each case, and for each case of successful vaccination 1*s.* 6*d.* Also Medical Officer and Public Vaccinator for the Woodstock No. 1 District. Salary £40 a year; and for midwifery 10*s.* 6*d.* each case, and for each case of successful vaccination, 1*s.* 6*d.* within two miles, and 3*s.* beyond two miles, from the officer's residence.

Births, Marriages, and Deaths.

BIRTHS.

ANDERSON.—On Oct. 10th, at Barbados, West Indies, the wife of Surgeon Louis E. Anderson, Army Medical Staff, of a son.

CASTOR.—On Oct. 21st, at Mahaica, British Guiana, the wife of C. F. Castor, M.B., J.P., Medical Superintendent Leper Asylum, of a son.

FOLEY.—On Oct. 29th, at Marmora House, Honor Oak, S.E., the wife of C. N. Foley, L.R.C.P. Lond., M.R.C.S., of a daughter.

OSBORN.—On Nov. 13th, at Maisonnette, Datchet, the wife of S. Osborn, F.R.C.S., of a son.

WILSON.—On Sept. 28th, at Hughli, Bengal, India, the wife of Surgeon-Major Joseph Wilson, M.D., I.M.S., of a daughter.

MARRIAGE.

SLATER—MANDER.—On Nov. 7th, at Francis-road Congregational Church, Edgbaston, Birmingham, John S. Slater, M.R.C.S., L.S.A., of Evesham, to Agnes, eldest daughter of Elisha Mander, of Marston-green, Birmingham.

DEATHS.

BIANCHI.—On Nov. 8th, at Blackfriars-road, of angina pectoris, Robert Bianchi, Medical Officer of Health for St. Saviour's District, Southwark, aged 58.

CLAY.—On Nov. 9th, at Clapham, the Rev. W. French Clay, M.A., M.D., M.R.C.S., formerly of the Indian Medical Service, Bombay, aged 67.

SADLER.—On Nov. 11th, at Purton Court, near Swindon, Saml. Champernowne Sadler, F.R.C.S., J.P., within a few days of attaining his 81st year.

TREVAN.—At Park Villa, St. Endellion, Cornwall, Matthew Trevan, Staff Surgeon Royal Navy, aged 47.

WALTON.—On Nov. 7th, at Brook-street, Hanover-square, W., Henry Haynes Walton, F.R.C.S., aged 73.

WILSON.—On Nov. 7th, at Southsea, Fleet Surgeon Thomas George Wilson, F.R.C.S. Irel., Deputy Inspector-General of Hospitals and Fleets, aged 53.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

Monday, November 18.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—5 P.M. Mr. John Marshall: Cancer and Cancerous Diseases. (Morton Lecture.)
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Haslam (Birmingham): (1) A case of Ruptured Gall-bladder; (2) Malignant Growth of Colon with Impaction of a Foreign Body.—Dr. de Havilland Hall: Acute Catarrhal Laryngitis, with urgent Dyspnœa, in an Adult.

Tuesday, November 19.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.
ROYAL STATISTICAL SOCIETY.—7.45 P.M. Opening Address by the President (Dr. T. Graham Balfour).
PATHOLOGICAL SOCIETY OF LONDON (at 20, Hanover-square).—8.30 P.M. Dr. S. West: Gastric Ulcer communicating with Colon.—Mr. A. Marmaduke Sheild: Tumour of Gracilis Femoris Muscle.—Dr. Hale White: Symmetrical Aneurysms of Vertebral Arteries.—Dr. Washbourne: Microscopical Sections of the same.—Mr. J. Bland Sutton: Albinism, Nystagmus, and Imbecility in a Monkey.—Mr. Norman Moore: Specimens of New Growth at Root of Lung.—Mr. E. Hurry Fenwick: Sarcoma of Crus Penis. Card Specimens:—Dr. H. W. G. Mackenzie: Congenital Disease of Heart, with Right-sided Endocarditis.—Mr. Alban Doran (for Sir Spencer Wells): Dermoid Ovarian Cyst, Infiltration of Broad Ligament with Fat.—Dr. Hawkins: Pelvic Calculi in Kidneys.

Wednesday, November 20.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.—4 P.M. Dr. John Tatham: On Cancerous Growths in the Lungs.
SOCIETY OF ARTS.—8 P.M. Opening Address of the 136th Session by the Duke of Abercorn, C.B., and Presentation of Prizes.

Thursday, November 21.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK, E.—4.30 P.M. Dr. Heron: On the Question of the Contagiousness of Consumption.
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. Knowsley Thornton: The Surgery of the Kidney. (Harveian Lecture.)
NEUROLOGICAL SOCIETY OF LONDON (The National Hospital, Queen-square, Bloomsbury).—8.30 P.M. Patients at 8 P.M. Dr. Hale White: Case of cured Cerebro-spinal Meningitis.—Dr. F. W. Mott: Bilateral Spasm (Chorea?) in a Child.—Dr. Hadden: Defect of Articulation in a Boy.—Dr. Buzzard: Two cases of Lead Paralysis.—Dr. T. Savill: Widespread Amyotrophy in a Girl aged seventeen years.

Friday, November 22.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON (at 20, Hanover-square).—8.30 P.M. Dr. Sidney Martin: Case of Pyloric Gastric Ulcer, with Systolic Epigastric Thrill; Death following Hæmatemeses.—Dr. C. Scott Watson: Case of Ptomaine Poisoning.—Dr. Coutts and Dr. A. Garrod: Three cases of Rheumatic Periostitis.—Mr. Bland Sutton: Tumour of Supra-orbital Nerve.

Saturday, November 23.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, November 14th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Nov. 8	30·52	N.W.	55	54	71	59	43	..	Foggy
,, 9	30·40	W.	49	48	62	57	47	..	Foggy
,, 10	30·38	S.E.	52	49	71	57	49	..	Foggy
,, 11	30·43	N.E.	54	52	..	55	45	..	Overcast
,, 12	30·41	S.E.	45	43	64	48	43	..	Overcast
,, 13	30·34	S.E.	39	39	64	50	38	..	Foggy
,, 14	30·33	S.E.	46	46	..	48	38	..	Foggy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE PROPOSED FIVE YEARS' CURRICULUM.

To the Editors of THE LANCET.

SIRS,—I see by your issue of the 9th inst. that the Conjoint Board think of extending the medical curriculum to five years. Except, as you mention in your leader, this is made compulsory on all the examining boards of the United Kingdom, it would only tend to the injury of the Royal College of Physicians of London and the Royal College of Surgeons of England, as men find it often difficult enough to obtain the means for a four years' studentship, and would, therefore, go to other examining boards.

There is one point that I have thought much of which would be to the great advantage of both the older and younger men in the profession—viz., that before being granted their diplomas, and after passing all the examinations of the College, they should be compelled to produce a certificate of having been engaged in the duties of a general practice for, say, twelve months, so as to enable them to be more capable of undertaking private practice for themselves, and also to teach them a subject that I have found many freshly qualified men ignorant of—dispensing.

Further, before the Boards put a greater strain upon the medical students, some steps should be taken to prevent the large number of unqualified men from not only acting as assistants, but taking charge of branch practices and doing work as locum tenens. Within the small radius of my practice—not in a large town—there are not less than five unqualified men who do even more than a fair share of the various practices. One man is to be seen constantly driving about in his employer's brougham. Another has lately been locum tenens for a practitioner during his holiday. None of these men are known to have ever passed a professional examination, and are doing the work which should be done by the junior members of the profession. This was the subject of a paper read by me before a branch of the British Medical Association twenty years ago under another heading.

In my opinion the old apprenticeship prior to hospital work is beginning at the wrong end.—I am, Sirs, yours faithfully,

Nov. 11th, 1889. AN APPRENTICE OF 1846.

Suffolk.—THE LANCET of Aug. 8th, 1885, contained an extract from the *Justice of the Peace* of Aug. 1st, which set forth, in the shape of question and reply, the law of the case as regards the demand of School Boards for medical certificates for non-attendance of scholars. The gist of the reply is that "there is nothing in the Education Act requiring a doctor to give a medical certificate without a fee, or at a prescribed fee, and the party who applies to him for such certificate must pay him."

Dr. McVail (Kilmarnock).—The packet, for which we thank our correspondent, has been received, and will have attention.

Dr. A. Tucker Wise.—The cases are not quite comparable, though certainly the notification fee is inadequate.

Mr. F. D. Hamilton.—We regret we cannot assist our correspondent.

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THE MUTUAL LIFE INSURANCE COMPANY OF NEW YORK.

THIS Society has been long and honourably distinguished among kindred institutions for the magnitude of its operations and the excellence of the results which it has been able to show. These points are elaborated and enforced in a handsome pamphlet, of which we have received a copy. The wholesale scale of its transactions is not only demonstrated by figures in which millions figure with bewildering facility, but is also presented to the eye by a series of drawings of the Chief Office accommodation and Chief Office staff, in which the number of persons engaged about such operations as the actuarial business of the Company strikingly brings home the vast dimensions of the work in progress. The well-merited popularity of such a society as this is a very considerable factor in the success of life assurance as an institution of the present day.

H. L.—If the non-resident district officer is appointed only for a certain time (as is generally the case), it is quite open to the medical man residing in the district to apply for the appointment at the termination of the contract, and if his qualifications are sufficient and there is nothing against his character, it is the duty of the guardians to appoint him. It is not in the power of our correspondent to upset the present arrangement prior to an election.

Madeira.—An examination must be passed, conducted in the Portuguese language, in one of the medical schools of Portugal, or in that of Funchal.

THE MOON DEFENCE FUND.

To the Editors of THE LANCET.

SIRS,—At a meeting of the West Kent Medico-Chirurgical Society, held on Friday evening, Nov. 8th, 1889, at the Royal Kent Dispensary, Greenwich, the following resolution was passed unanimously:—"That the congratulations of this Society be given to Dr. Frederick Moon on the result of the recent trial (Oct. 28th, 29th, and 30th) at the Old Bailey, a verdict of acquittal on all the serious charges alleged against him being returned by the jury." And it was further resolved that a special appeal be made to the profession generally in aid of the local efforts to raise a fund to defray the heavy expenses incurred by Dr. Moon in his defence. Subscriptions may be sent to Mr. Thos. Moore, F.R.C.S., President of the Society, 6, Lee-terrace, Blackheath; Prior Purvis, M.D.Lond., Treasurer, 5, Lansdown-place, Blackheath; Peter Horrocks, M.D.Lond., 9, St. Thomas-street, Bexough, S.E.

I am, Sirs, yours faithfully,
H. W. ROBERTS, M.R.C.S., Secretary.

Wickham-terrace, Lewisham High-road, S.E., Nov. 9th, 1889.

The following subscriptions have already been received:—

Peter Horrocks, M.D. ..	£5 5 0	Anonymous	£1 1 0
Thos. Moore, F.R.C.S. ..	3 3 0	Ernest Clarke, M.D. ..	1 1 0
John Anderson, M.D. ..	2 2 0	Thos. Creed, M.D. ..	1 1 0
J. Hammersley, M.R.C.S.	2 2 0	Alex. Forsyth, M.D. ..	1 1 0
H. W. Roberts, M.R.C.S.	2 2 0	J. Mainwaring, M.R.C.S.	1 1 0
Henry Wintle, M.D. ..	2 2 0	Jno. McGavin, L.R.C.P.Ed.	1 1 0
Prior Purvis, M.D. ..	1 11 6	Jno. Prior Purvis, M.R.C.S.	1 1 0

M.R.C.S.Eng.—1. Pretty full information will be found in THE LANCET of 1888 on pp. 531, March 17th; 596, March 24th; 647, March 31st; 700, April 7th; 745, April 14th; 798, April 21st; and 926, May 12th.—2. We must refer our correspondent to our advertising columns for an answer to his second query.

Dr. A. Dube (Dublin).—We regret to be unable to make a definite promise.

EMPYEMA OF THE ANTRUM.

To the Editors of THE LANCET.

SIRS,—Will you allow me to correct two mistakes which I find have crept into the otherwise excellent abstract of my paper on the above subject published amongst the annotations in your issue of to-day?

Firstly, in my paper I divided the cases of empyema of the antrum into (1) that class in which there is *free* discharge into the nasal cavity, and (2) that class in which from some cause the ostium maxillare is not patent. The reason of this subdivision is that the symptoms materially differ in both classes of cases. Instead of "free" discharge, I am in the corresponding sentence of the annotation made to say "no" discharge, by which, no doubt, clerical error my division altogether loses its meaning.

Secondly, I stated that when there is retention of the discharge in the antrum owing to obstruction of the nasal opening, *any* wall of the antrum may become distended, not only the "inner" wall, as I am made to say in the annotation. As this is a point of considerable diagnostic importance, I should be much obliged if the mistake were as speedily as possible corrected. I am, Sirs, yours truly,

Wimpole-street, W., Nov. 9th, 1889. FELIX SEMON.

"THE SO-CALLED PRESYSTOLIC MURMUR."

To the Editors of THE LANCET.

SIRS,—Might I be allowed to correct two clerical errors in my letter of Nov. 9th?

Instead of "they are matters of," on p. 977, 1st col., l. 36, it should read *it is a matter of*; and "systolic" on same page, 2nd col., l. 54, should read *presystolic*. I am, Sirs, yours truly,

The Royal Infirmary, Manchester. ERNEST S. REYNOLDS.

"COCAINE IN WHOOPING-COUGH."

To the Editors of THE LANCET.

SIRS,—In answer to the inquiry in THE LANCET of Oct. 12th as to the effect of cocaine and its mode of application in whooping-cough, would call your correspondent's attention to a letter published in the *New York Medical Journal* for Nov. 6th, 1886. In September, 1885, I treated a little girl of two years, who had a broncho-pneumonia complicating a pertussis. The cough was so severe that it was almost impossible for the child to retain any food. The application of a 4 per cent. solution of cocaine made to the throat with a swab gave relief from cough for some time. The applications were persevered in, and the child recovered. An older sister of this patient had a severe bronchitis with the pertussis. Her throat was washed with the cocaine solution much in the same manner as in the other child. I have used cocaine quite extensively, but latterly not so much as when it was introduced. I generally order the 4 per cent. solution applied to the throat just after a paroxysm of cough. The peculiar dryness that the drug causes has been disagreeable in a number of cases. That and the difficulty that parents and nurses have in treating a child's throat have led me to discontinue the treatment by cocaine, except in such cases as reported above. Dr. Holt read a paper before the New York Clinical Society on "Cocaine in Whooping-cough," and the communication was published in the *New York Medical Journal*, Oct. 23rd, 1886. Your correspondent will find further references in the *Index Medicus*.

Hoping that this reply will not be received too late to be of some use to Dr. Dearden, I am, Sirs, yours very truly,

New York, Oct. 30th, 1889. WALTER LESTER CARR.

"TREATMENT OF CARBUNCLE BY CARBOLISED SPRAY."

To the Editors of THE LANCET.

SIRS,—To the inquiry respecting the subcutaneous injection of carbolic acid in the treatment of carbuncle made by your correspondent "M.R.C.S." in his letter published in THE LANCET of last week, and headed as above, I forward the following note as a reply, which I have taken from the *Journal de Médecine de Bordeaux*, 1889, Nos. 38 and 39.

Drs. Arnozan, Lande, and Maurange have cited two cases of grave carbuncle cured by the subcutaneous injections of carbolic acid. They injected into the cellular tissue of the inflamed peripheric zone five grammes of a solution composed as follows:—Glycerine and distilled water, of each fifteen grammes; crystallised carbolic acid, three grammes. These injections were practised at five different points circumscribing the inflamed region. They represent a total dose of fifty centigrammes of carbolic acid. The authors affirm that under the influence of this medication the amelioration of the local and general state was prompt, as in twenty-four hours after the first injections the probability of a cure was manifest. In short, this treatment, which was introduced by Prof. Verneuil some time ago, is now generally adopted in the Paris hospitals.—Yours obediently,

Paris, Nov. 12th, 1889. ALEX. BOGGS, M.D.Paris.

SOMERVILLE *versus* ROSE.

IN the summary of this case which we published last week, contributed by a correspondent, by a typographical error the action was represented as having been brought by "Mr. Somerville." It should have been, as the context clearly shows, *Mrs.* Somerville.

A Constant Reader.—The ordinary custom is to charge less for children, who really require most attention. The rule of the Coventry Provident Dispensary is that any member above twelve pays one penny per week, and under that age a halfpenny, except in a family of not more than three persons, when one penny per week, and in a family of more than three twopence per week, shall be considered sufficient for all under twelve.

THE ITALIAN MEDICAL CONGRESS.

To the Editors of THE LANCET.

SIRS,—On page 988 of your last issue you state: "Messrs. Hearon, Squire, and Francis conceive St. Marco Lithia Water is included in Signor Cantani's *general condemnation* of Italian waters quoted in our last issue, page 935." If you refer to page 935 you will find Signor Cantani does not condemn Italian mineral waters. Far from doing so, he praises them, and you report him as follows:—"We have [he says] waters superior to those of Vichy and Karlsbad, but almost unknown or fallen into discredit through having been improperly worked by private and non-professional speculators." As St. Marco Water is the only Italian mineral water imported into this country, we shall be obliged by your allowing this correction to appear, as St. Marco Water was awarded a silver medal at the above Congress last month, and you will observe Signor Cantani praises the Italian waters and only condemns the system by which they are worked.—Yours faithfully,

Coleman-st., E.C., Nov. 14th, 1889. HEARON, SQUIRE, & FRANCIS.

Cough Mixture.—1. Ammon. carb. or ammon. chlor. may be given with spirits of chloroform, or with acetate of ammonia, or with camphor water. These may be mixed in the usual proportions. It is also frequently used with compound tincture of cardamoms and infusion of cloves.—2. The taste is usually rendered less unpleasant by spirits of chloroform and syrup, or else by tincture of squill. Numerous other combinations will be found in Squire's Pharmacopœias of the London Hospitals.

Dr. Deckrell.—In an early number.

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MEDICAL DEFENCE UNION.

To the Editors of THE LANCET.

SIRS,—We are requested by the Treasurer of the Medical Defence Union to ask you to allow us to acknowledge in the columns of THE LANCET the receipt of £3 1s. 3d., as a donation towards the funds of the Union, sent by Mr. Reginald Sleman, this sum being the balance of a subscription invited by Mr. Sleman for the purpose of eliciting a declaration of the exact title which the qualification L.S.A. carries. A resolution was passed at the Council Meeting of the Medical Defence Union on the 8th inst. thanking Mr. Sleman for his kindness to the Union.

We are, Sirs, yours faithfully,

A. G. BATEMAN, } Hon. Secs., Medical
Nov. 12th, 1889. LESLIE PHILLIPS, } Defence Union.

Mr. H. Allan.—The report was issued by a committee appointed by the British Medical Association, and was commented on in THE LANCET of July 28th, 1888.

ERRATA.—On p. 918, second column, twentieth line from top, for "vaccination" read *cremation.*—In the review of the French Pharmaceutical Section of the Paris Exhibition, published in our issue of Oct. 12th, there were a few typographical errors. At page 759, thirty-eighth line from bottom of first column, for "fagoglycine" read *fugo*-glycine Gressy; and in the thirty-second line from bottom of same column "Aspic" should be *Espic.* In the same column "M. Chaissaing" should be *M. Chassaing.* Further, in mentioning the pills exhibited by Messrs. H. Fournier and Co., which bear clearly printed outside each pill its contents, it should be stated that the pill is *non*-sugar-coated.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Wm. Roberts, London; Dr. Wilks, London; Dr. Semon, London; Dr. Ward Cousins, Southsea; Dr. Marshall, Nottingham; Messrs. Worth and Co., London; Mr. T. Bryant, London; Dr. Gowers, London; Dr. James Anderson, London; Dr. E. S. Reynolds, Manchester; Messrs. Wilcox and Co., London; Mr. Meadows, Hastings; Mr. B. Squire; Dr. Wallace Anderson, Glasgow; Dr. Maguire, London; Messrs. Thompson and Co., London; Mr. H. W. Roberts, Lewisham; Dr. Bell Taylor, Nottingham; Dr. Steavenson, London; Dr. Whitaker, Derby; Mr. E. M. Sympson, Lincoln; Dr. M. Craven; Mr. Haviland, Douglas; Dr. Keith, London; Mr. Oldham, Liverpool; Mr. Stretton, Leeds; Mr. Nelson Hardy, Dulwich; Mr. Bramwell, Stapleford; Messrs. Macfarlan and Co., London: Dr. Walford, Cardiff; Dr. Corley, Dublin; Mrs. Acland; Dr. J. A. Gibson, Norfolk; Mr. W. H. Bennett, London; Lady Mary Glyn, London; Dr. Rentoul, Liverpool; Messrs. Gibbs, Cuxson, and Co., Wednesbury; Mr. T. P. Cowen, London; Messrs. Merryweather and Sons, London; Dr. J. A. Campbell, Carlisle; Dr. W. L. Carr, New York; Dr. F. Warner, London; Mr. Gates, Worthing; Dr. Ashburton Thompson, New South Wales; Mr. Staveley, London; Mr. Morton Smale, London; Mr. St. Dalmas, Leicester; Mr. Hoar, Maidstone Union; Dr. De H. Hall, London; Dr. Wolfe, Glasgow; Dr. Tucker Wise, London; Dr. Neil Macleod, Shangai; Messrs. Gibbons and Co., Leicester; Dr. R. J. Carter; Messrs. Burroughs, Wellcome, and Co., London; Dr. Shaw, Sheerness; Mr. T. Laffan; Dr. Beale, South Tottenham; Dr. Wetherell, Barnsley; Rev. E. Lacon; Messrs. Oliver and Boyd, Edinburgh; Mr. S. C. Noble, Kendal; Mr. Keen, North Wales; Dr. Gilroy, Ecclefechan; Dr. C. H. Leet, Dublin; Dr. Swain Scriven, Derby; Dr. Lawrie, Ayr; Dr. O'Neill, Belfast; Dr. Burnet, London; Mr. Michelli, London; Mr. Craddock, Bath; Dr. F. Beach, Dartford; Mr. P. S. Hutchinson, London; Mr. Macphail, Coatbridge; Mr. Barnett, Salop; Mr. Boyson, Clapham; Mr. Hawkins, Woodstock; Mr. Canney, Pulborough; Mr. Howe, Beds; Mr. Pound, Hants; Mr. Boake, Wigan; Mr. Peacock, Bradford; Mr. Sparrow, Southsea; Mr. Dixon, India; Mr. Jenkins, Dresden; Mrs. Levick, Paris; Mr. Swami, India; Mr. Dunlop, Southampton; Mr. Sergeant, London; Mr. Reid, Lambeth; Mr. Dunk, Leeds; Mr. Brice, Sheerness; Dr. Brecknell, Deptford; Mr. Earée, Bures; Dr. de Laprade, Lyons; Dr. Churton, Leeds; Mr. Nicholls, London; Dr. Maynard, Kent; Mrs. Pratt, Liverpool; M. Gallois, Paris; Mr. Bass, Langsett; Mr. Hubann, Loughboro'; Mr. Fuge, Taunton; Mr. White, Wolverhampton; Dr. Steele, Ealing; Dr. Field, Clapham; Mr. Butcher, London; Mr. Somerville, Norwood; Mr. Morton, Glasgow; Dr. Sibley, London; J. R. Endean, Locarno; W. D., London; M.R.C.S.Eng.; Suffolk; M.B.Glas.; Apex; Fairplay; E. J. M.; Simpson-Mackirdy Express Co., Liverpool; D. M.; Sanifer, London; The Patent Borax Co., Birmingham; M.D., Maida-vale; R. J. W., Edinburgh; Cough Mixture; Initial, Dudley; Medicus, Bristol; Secretary, City of London Hospital, Victoria-park; Cerium, London; Madeira; An Apprentice of 1846; Club, London; A. H. L.; L. M., London; Secretary, Worcester General Infirmary; Diploma, London; Mutual; Secretary, Yorkshire College, Leeds; Jeyes' Sanitary Co., London.

LETTERS, *each with enclosure,* are also acknowledged from—Sir Henry Thompson, London; Mr. Krishnaswaini, India; Messrs. Rowntree and Co., York; Mr. Young, Ayrshire; Dr. Grant, Yorks; Mr. Mark Hovell, London; Dr. Nicholson, Kensington; Messrs. Mertens and Co., London; Dr. Ord, Halesowen; Miss Measer, Hants; Messrs. Cox and Co., Brighton; Mr. Tyte, Minchinhampton; Messrs. Pownceby and Co., London; Mrs. Anderson, Carmarthen; Messrs. Robbins and Co., London; Mr. Davies, Newport; Mr. Phillips, Suffolk; Mr. Tully, Hastings; Mr. Ungent, Cookstown; Mr. Eyre, Pontypool; Mr. Laud, Tunbridge; Surgeon Lauder, Batley; Mr. Dunlop, Southampton; Mr. Skinner, Somerset; Mr. Harries, Llanelly; Messrs. Cheston and Veet, Birmingham; Dr. Owen, Holyhead; Messrs. Giles, Schacht, and Co., Clifton; Mr. Clements, Burton-on-Trent; Messrs. Roberts and Co., London; Mr. Wright, Harrogate; Mr. Laitz; Messrs. Beaman and Street, Lancs; Mr. Forsyth, Glasgow; Mr. Harkin, New South Wales; Mr. Campbell, London; Mr. Evans, Radnor; Messrs. Condy and Co., London; Mr. Coghill, Birmingham; Mr. Boyson, Larkhall Rise; Mr. Griffiths, Eastry; Mr. Norton, Somerset; Messrs. Antis and Co., London; Mr. Monson, Stornoway, N.B.; Mr. Forrest, Great Yarmouth; Mr. Day, Bournemouth; Mr. Stenhouse; Messrs. Battle and Co., Paris; Rev. W. Joscelyn, Tepworth; Messrs. Squire and Son, London; Dr. Field, Clapham; Mr. Allsop, Yorks; Messrs. Ross and Co., Belfast; Mr. Purland, Woolwich; Dr. Davies, Glamorgan; Mr. Trevan, Cornwall; Mr. Skinner, Somerset; Mr. Heywood, Manchester; Mr. Caudall, Guiseley; Mr. Knapp, Ross; Mr. Hamilton, Lancashire; Mr. Coleden, Bristol; Mr. Pound, Hants; Mr. Gobden, Edinburgh; Mr. Staff, Brighton; Mr. Davis, Russell-square; Sir J. Sawyer, Birmingham; Dr. Needham, Barnwood; Messrs. Grace, Bristol; Hospital, York; B. R., London; Secretary, Central London Throat and Ear Hospital; E. C., Manchester; Secretary, College of State Medicine, London; C. T., London; J. E. B.; Secretary, Royal United Hospital, Bath; M.D., London; Study, London; Secretary, Swansea Hospital; C. M. D., London; Finale, London; Secretary, Hamilton Association, London; Bruxelles, London; Royal Medical Benevolent College, London; Typo, London; Pharmacist, Kentish-town; Nurse Lucy, Goldstream, N.B.; B. B., London; T. N. G., London; Lady Superintendent, School of Massage, London; Secretary, Children's Hospital, Pendlebury; M.D., Somerset; Secretary, Glasgow Western Medical School; Surgeon, Grimsby; Manager, Hackney Furnishing Co., London; Verax, Brighton; G. R. V., London; Secretary, South Devon Hospital; B., Deptford; Medicus, Notts; Secretary, Borough Hospital, Birkenhead; Ogden; Insts., London; Medicus, Birmingham; Assistant, London; P. S., Liverpool; Medicus, Leeds; E. C. F., London; Clinique, London; F. W. H., London; J. M., London; J. B., Seaford; Medicus, Bristol; Medicus, Scarboro'.

Birkenhead News, Reading Mercury, Worthing Intelligencer, Margate and Ramsgate Gazette, Mining Journal, Surrey Advertiser, Hertfordshire Mercury, Weekly Free Press and Aberdeen Herald, Surrey Times, Pump Court, Glasgow Herald, Journal d'Amiens, &c., have been received.

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The Morton Lecture

ON

CANCER AND CANCEROUS DISEASES,

Delivered at the Royal College of Surgeons on Monday, Nov. 18th,

BY JOHN MARSHALL, F.R.S., F.R.C.S.,

PRESIDENT OF THE GENERAL MEDICAL COUNCIL; EMERITUS PROFESSOR OF SURGERY, UNIVERSITY COLLEGE.

MR. PRESIDENT AND GENTLEMEN,—I am of course reminded in this institution that I am within a very short distance of a splendid museum, from which I could have drawn a superabundance of material to illustrate the subject of this lecture; but my own impression is that it is far better for a lecturer on a special occasion like this to provide himself with his own material, and rely upon that or materials given to him by his friends, rather than to enter, as it were, into the domain of our vast collection, and perhaps overburden himself with its abundant material. I have therefore selected a certain number of objects which have been supplied to me by my friend Mr. Robert Boyce, assistant in the pathological department of University College, and through his ability and earnest work I hope to have an opportunity of allowing you to see certain specimens under the microscope and certain pictorial representations on the screen which will illustrate portions of the subject which I have to bring to your attention. By the rather illogical term "cancer and cancerous diseases" I presume it is intended that one should consider not only so-called true cancers, but sarcomatous tumours, and those which contain the elements of both—mixed tumours,—and not to travel beyond that line. On the present occasion, however, I must limit myself almost exclusively to the true cancers, for the subject is so vast that it is quite impossible to overtake every branch of it in one lecture, and if I were to attempt more I should most signally fail.

The term "true cancer" should be, I think, associated with those growths that depend primarily upon an over-development of a spurious form of epithelial, or *mesothelial*, or *hypothelial* tissue. I use the word *mesothelial* because it seems convenient to have a term to include those distinct forms of epithelioma which originate in the middle layer from those which commence in the upper layer of the embryo, or the under layer of the embryo. I shall therefore speak occasionally perhaps of the epitheliomata, the hypotheliomata, and the mesotheliomata. We are apt also here to speak of these growths as being more or less embryonic, and the term is an exceedingly happy one—very good indeed,—because it implies the incompleteness, at any rate, of the tissues of which these tumours are composed. At the same time, if used in too sharp a sense, it is untrue, because I contend there is nothing in the embryo like what you find in cancer, nor is there any cancerous element in the embryo itself. There is, in fact, a strange divergence from the embryonic type in these epitheliomatous and hypotheliomatous tissues—a strange divergence, which I would rather criticise by the word *anarchy*. They are anarchical evolutions from the embryo or from the embryonic tissues; and this is a very important matter, because we are apt to suppose that an inference may be built upon that word embryo or embryonic—namely, that the elements of these tissues may originate by a power of reversion to a true embryonic form. Now, if they were distinctly and absolutely like embryonic tissues, I should admit that theory, but until I find in a cancerous growth a distinct reproduction of the pure embryonic elements, I say that it is a dangerous expression, very likely indeed to shut up inquiry, to limit our investigations, and to pass glibly on, satisfied with the explanation that these are embryonic tissues. They are not embryonic tissues; they are like embryonic tissues; they originate from them even as the whole body does; they are part of the body, but they are not distinctly embryonic tissues; they are, as it were, irregular, uncontrolled tissues, and I would speak of them rather as *anarchical*. I would speak of them as anarchi-morphic, anarchi-bolic, and anarchi-synthetic—as building up a tissue.

Clearing our way, then, we pass on to consider what is the character and what are the surroundings of these tumours. And here I of course throw myself upon your own experience, for it must be just as great as mine in regard to the painful history of these perilous growths as a general rule. You know how they begin, how they progress, and you know their termination as well as I do. Nor do I dwell upon the particular conditions, significations, or qualifications of this or that stage of their development, and if I do not trouble you with the influence of age or of sex, of hereditary influence, or of occupation, or of diet, it is because I assume that you know about these points as much as I do.

I pass therefore directly, as far as I can, to ask what is the cause of cancer. And no doubt everyone here will say, "We know not the cause": and in that I entirely agree. But does that prevent us from endeavouring to ascertain the cause? Are we not compelled as members of a scientific profession to dive into this mystery? Is it likely that Providence has, as it were, struck such a fatal and fearful blow at the human construction, that there is no remedy for our ignorance, no knowledge but that which we now possess? We most surely stand in a position between the past and the future; and we are responsible for carrying on this investigation and inquiring into this disease until we know something more about it. Therefore there needs no apology for attempting the solution of what seems to be an insoluble problem. But let us see how it has been approached in past times, and let us be encouraged if we can by ascertaining the mode in which and through which knowledge has been advanced in regard to these important diseases. And here I claim that the most advance has been made through the study of structure. We of course know the importance of studying the pathological relationships, the history, the development, and the surroundings which are worked up, as it were, in this intricate problem,—those also of nation, of race, of family, of hereditary influence, and so on; but we cannot conceal from our minds, I think, that, as a structural condition affecting the living economy, it must be through the structural element that we must first try to reach the truth. Such has been the case, for if you study the older descriptions of this disease you will see that they are especially remarkable for the keen appreciation of the conditions of growth, their whereabouts, the progress they make, the general career, as it were, of these tumours; but the writers are specially ill-informed as regards their structure. If we take a most admirable Thesis by one George Tabor, published upwards of a hundred years ago in Haller's splendid "Disputationes Chirurgicæ," we shall find that he gives a most characteristic account of a cancer of the breast. He speaks of the epidermoid element, of the soft tissue, of its extreme vascularity, of the union of the ducts with the acini of the glands; and then he adds that there are two sets of lymphatics—which of course we now know to be an error,—one conveying material to the breast and the other bringing it back. Then he proceeds to speak of the life history of the disease, and he characterises the whole in a few remarkably good touches, expressed in a Latinity which we seem to have forgotten, embodying in a few sentences, or sometimes in a few words, what we now spread out into a paragraph.

Now, how have we advanced since that time? Plainly by anatomical investigations in the first instance; and if I venture to put upon the screen an illustration of what has been done in the past and then come to what we can do in the present, you will see that our advance since Tabor's time has been most remarkable. The diagram before me represents the plate in Dr. Walshe's "Cancer," which was executed on steel from drawings by myself in the year 1846. You will find in this illustration that we knew then something more than our friend Tabor. In the centre you will see the section of a cancer of the breast. It is hard, scirrhous, with fatty lobules round about, and at the margin, the marginal glandular acini still unaffected. You will see that we were able at that time to illustrate its peculiarities of structure, and to refer these by comparison to natural elements in the body: the red blood-corpuscle, the white blood-corpuscle, and then healthy epithelia, then unhealthy epithelioma, still more marked on this side, and still more wild-fashioned epithelial elements, and still more wild-looking growths in the heart of the cancer. Here you also

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see the remarkable stroma to which I shall have to direct your attention by-and-by—the peculiar stroma that surrounds the acini which contain the so-called cancer cells. I bring forward this plate merely to show that in the hundred and thirty years that have passed between Tabor and Dr. Walshe, the advance in knowledge was not in the history of the disease, not in its development, not in the peculiarities relating to sex, and so forth; but was in the extent of knowledge in reference to structure. I maintain that, in dealing with this point, I afford the key to the most material advances which have yet been made in regard to the nature of this disease. So that, I think, anatomy must still be the first path of inquiry.

I will now show some specimens to illustrate by example the mode in which anatomical research has already given us even more knowledge than we possessed in 1846. First of all, in regard to the cells, I am afraid it is too frequently the case that in using the words epithelial and epithelioid cells we have neglected or ignored the particular deviations which these cancer cells certainly manifest when you compare them with healthy epi-, meso-, or hypothelial elements present in the embryo. In the embryo all is methodical; all the cells of these tissues are undergoing a straightforward and well-defined career, not pressing each other out, not squeezing for victory, not forcing against any other tissue, but each coördinated to its destined end, and marked in the most peculiar way by characters leading to that end. Now, if you examine the epithelioid element in cancer you find distinct divarication and divergence from all that. What does it amount to? You are familiar enough with the forms of these cells, so that I need not sketch them; but you will allow me to remind you that the important part of the cell, according to modern physiological notions, is the so-called nucleus. Now, the nucleus governs, as far as we can understand it, the development, the evolution of the cell, as well as its multiplication. What are the peculiarities of the nucleus in a cancerous cell? They are described in a very perfunctory manner. But have we not new methods of analysis? Have we not methods of investigation which penetrate a little deeper than that? I fail to see until recently in a paper by Dr. Heneage Gibbes, that there have been any effective researches into the *modus operandi*, as it were, of the nucleus of a cancer cell. He has undertaken this inquiry, and Dr. Lauder Brunton is working on the same lines when using various tests of colouring agents. He is not only able to discriminate between different layers or strata of healthy cells, but he has led the way, which has been followed to a certain extent by Dr. Gibbes, in his discrimination of the different changes which he sees in the cancer cell. These reagents will unlock the mystery which is lodged in the nucleus. We know that the nucleus has important properties originating from the combination of seminal and germinal influence, developing the whole body, developing even the cancer which grows within the body. Now this germinal and seminal influence has been shown to be associated with remarkable movements and changes of form in the core of this little bit of nucleus, most wonderfully tufted columnar arrangements, feathering themselves out this way and that; and it is through the agency, no doubt, of this internal economy, through these remarkable changes, that the healthy embryonic cell, the germ-and-sperm cell, reaches the condition of the true embryonic cells which carry on their development still further. We must endeavour to search out this mystery, to look into the minute anatomy of the nucleus of the cancer cell. That is a hopeful, and it does not seem to me at all an impossible, thing. We shall find it, no doubt, *anarchic*, but shall we not be able to trace the steps of the anarchy? Shall we not hope, as it were, to unfold the mystery of mysteries which lies in the nucleus of a cancer cell?

But if we proceed further with regard to these cells, we find it is not only their structure which we must study, but we must study their composition. And here, again, it is by the agency of different tests acting upon them that we are able to discriminate between certain important portions of a healthy cell. Why should not this mode of analysis be applied at once to an unhealthy cell? Are there not swarms of agents in nature—colouring matters, chemical substances, and other things—which should be forthwith tried, to see whether we can develop by this sort of polarisation—not of light, but of chemical agency—abundant characters in these unhealthy cells which will lead us to see how they become anarchic and unhealthy? Then we must apply, of course, to the chemist, because these cells are not only anarchic in their form and evolution, but in the products which they yield. The healthy epithelial cells stand out amongst the secreting agents of the body. Their function is not merely to cover up and protect, but they have functions beyond that—metabolic functions of separating from the blood secretions of an infinitely varied kind, and that must be done through mechanism and chemical affinity. It is no use supposing that the process is blank. It is no use believing that a salivary is the same thing as a mammary gland cell; that cannot be. There must be some hidden secrets in the very substance, as in the very mechanism of these cells, which give origin to their metabolic action. There must be not only a peculiarity of structure as between the different glands in these little cells, but that must be associated with peculiarities of substance. And here we want the chemist to come in; we want chemical investigation of the highest character, and we are approaching the time when we may hope that chemists will take up this subject. We have them already engaged in investigating the poisonous substances which occur in the body from decomposition, and the other poisonous products which occur in the body in the shape of leucomaines, automaines, and toxines, things that may develop sometimes by foreign agency, as we know, and sometimes in a spontaneous manner; and we call upon chemists and demand their assistance, and we urge this on the younger members of our own profession who are showing zeal in various ways abroad and at home. We must take care of our honours, for foreigners are close upon our heels, and are even surpassing us; we must urge on our young chemists to take up these matters; and opportunities will be afforded them by the conjoined Colleges to undertake inquiries of this kind. It would, I say, be a pity—I dare hardly call it a shame—if some did not come forward and push on investigation in regard to these serious and calamitous forms of disease.

Now we see that metabolism, as well as the mere mechanical thrusting in of these morbid elements into the body, must be seriously at work, and we ask that that metabolism should be investigated. The epithelial cells are essentially secreting or excreting structures; although deformed, although disordered in their arrangement in cancers, that part of their duty is going on, but not going on right; it is going on wrong. What do they produce? Very many years ago I took a cancer immediately after it had been removed by Liston in the theatre of University College, and within a minute I tested the juice of the cancer, and found it acid. By degrees I found that this observation was not unique, and in fact it had been repeated and asserted over and over again, so that I thought little of it at the time; but it leads one's mind back at this moment to the thin edge of an inquiry—what is the acid? I tried to find it out, but with the imperfect means at my disposal, and my imperfect knowledge, I could not say anything more than that it yielded a viscid sort of acid and viscous liquid when it was evaporated, and I thought it was lactic acid. But I do not believe that lactic acid by itself is a sufficient answer to this inquiry. Here, therefore, looking at the secreting power of these cells, I say we ought to investigate, and we ought to have investigated, what it is that they secrete or excrete.

Such chemical researches will be most material for the subsequent examination of what takes place with regard to these cells. I have described their behaviour as anarchical. Now, what is the great governor of the body? The nervous system. It is very well to say that tumours can be developed in vegetables as well as in animals. Are we sure that this analogy is true? The world is full of analogies. A man to a certain extent is like a carrot, but he is very different; and so these cellular over-growths in plants, caused by irritation or puncture, lead us to study in a most interesting way the possible alliance or analogies between them. But that must not mislead us; we must not suppose necessarily that an anarchical growth in a plant is quite the same thing as an anarchical growth in an animal. The anarchical growth in a plant may, however, be due to a distinct detachment of that little protoplastic fibre which has been shown to run through many vegetable cells from cell to cell. With the growing plant there is a fine, delicate protoplasmic fibre, which has been long overlooked and only quite recently detected, which seems to govern the evolution of the outgrowing cells of the plant. Now, is there no such thing as that in the animal cell? Is there no connexion between the

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governing fibre—which really lays down, as it were, the form and structure—and the complication of the structure of the human body or the animal body? It is said that this is merely an adaptation of the form of the nervous system to the form of the animal. I disbelieve that altogether. I believe strongly and firmly that the nervous system is the centre which lays down and commands the growth of the body in this, that, or the other direction. If not, what does it do? I can understand that in the heart of the embryo cell there should be a molecular movement which will give onset, as it were, and impulse to the growth of the cell. I can suppose that; but when once that cell has multiplied itself into hundreds and thousands, can I believe that that cell or its actual contents *per se* still govern the body? No, the contents of that cell, the product of this nucleus, must be growing all the time in the other cells; and it must shoot out into them and command them to go thus far and no farther, and to develop in this way and not in another. I believe this may be. You may regard it as hypothetical; but let us see what happens with regard to cancer. Has anyone ever shown, as distinctly as has been shown with regard to the secreting cells, that the epidermoid or epithelioid cells of cancer are under the influence of the nervous system?

Not many years ago we were very much struck with the fact then expounded to us that distinct nervous filaments had been traced into the corpuscles of the salivary gland. I saw the drawing of it, and I would hardly believe it. I thought it too wonderful to be believed, but I gradually became accustomed to it, and now we know that nerve filaments do penetrate into all normal epithelial tissues. I may mention a case that occurred to myself only this last year, that of an extremely sensitive tumour which I removed from the lip, and which, on investigation, my friend, Mr. Boyce, showed me was teeming—although it was a thick piece of epithelium, with many layers where there plainly ought to be only a few, accumulated layers of epithelial cells growing from the rounded to the oval, and from the oval to the flattened form—with these little nerve filaments, exquisitely minute, running up between the rounded cells to reach the oval cells and others, and finally becoming lost, because the epithelium had done its work and was about to be cast off. We know it has been demonstrated that a nerve, a commanding thread, an electric cord, as it were, passes into each individual cell; and what can be assigned as a function to it except that it is the governing cord, the coördinating fibre of its life? The blood nourishes the cell; the lymph carries away its wasted or unused material; a duct conveys away its secretion. But what does this nerve fibre do? It gives sensitiveness, no doubt, in its own cell way, of the presence of external stimuli, not necessarily a consciousness of sensation. With a cut nerve there is no longer any sensation, but the cell is not destroyed. In the salivary gland the part from which the nerve is divided may still go on secreting; so may any other gland for a time, so long as the cells are in function and in health; they dwindle by degrees, but for a time may go on secreting. But the final control of the health and of the life of a cell must, I contend, be in the nerve filament; for I do not see in what other way it can be materially governed. In science we may not assume non-material agencies. We may try to conceive whatever there may be behind—that is, the great unknown,—but we are bound in this world to follow out material agencies, and not to be satisfied until we have traced every function through structure. After that function, and behind that, comes life, the original endowment which we can never understand and hardly approach; but once life has been imparted, it goes on in structure, and we can find out in structure everything which results from its evolution and disturbance.

Has anyone examined from this point of view the epithelioid cells of cancer? I have myself, and I cannot believe that when they are aggregated into these irregular masses and groups, when they penetrate along the lymphatic spaces as they do through the body, when they reach the lymphatic glands far away from any primitive nerve fibre which could possibly have once reached them, when they advance into distant tissues, when they recur in a cicatrix,—I cannot admit, without actual demonstration, that the nerve fibres go on with them, so as to regulate their disordered and anarchic government. We want to know this, and here is work for the microscopist, to study carefully in a recurrent growth, in an early yet well-developed growth in a lymphatic or a lymphatic gland, the connexions of possible nerve fibres with the epitheloid cells. We want an answer to that. I feel strongly upon this point. I suspect what the answer will be, from my own rude investigations. I can hardly suppose that in the pell-mell agglomeration which we see in a cancer, each cell has its own proper guiding nerve fibre. How and why may we suppose that these nerve fibres are severed? It may be simply from the extreme rapidity of the cell-growth; and this may afford one indication of the mode in which cancer originates from a comparatively healthy tissue. In the healthy formation of epithelial tissue the nerve tissue would still remain in it; but in the overgrowth excited by some long-continued injury at last the cells break away from the nerves; they retain the power of multiplication within themselves, because each cell, like the cell of a minute infusorial creature, contains the quantity and kind of material which is necessary to build it up, but it does not retain the governing tissue with its power of control—that must be retained by a centralised nervous system; and as soon as you pass from the unicellular animal to animals composed of many cells, you find the governing power, the control, in the presence of a nervous system. Now, why not try to solve this problem? It seems to me to lie at the root of a great deal of the explanation of cancerous growth. Even if it be shown that the primitive stimulus, the primitive irritant, is not a common irritant but a specific one, even if it be a bacillus or a bacterium, or any of those minute bodies which are supposed by some to be responsible for cancerous growths, even then the severance of the cell from its nervous connexions may lie at the root of the explanation of this anarchical form of growth. Of course I put it as a theory, as my own impression; I do not think it is established. I should be sorry for anyone to say that I believe it in that sense; but I do think there is a great deal in it, and that unless we can ascertain whether the nervous filaments do enter the cells or not we are ignorant of a fact which we ought to know; not only the growth of the nuclei, the characters of the nuclei, the mode in which they develop the cell itself, but the mode in which the cells are connected, so as not to be anarchical, should be made a matter of immediate and profound investigation, to say nothing of influencing changes occurring in the great nervous centres themselves.

We come next to the further question, What are the products of these cells? I mentioned that they were acid, but that is a very poor result; we must know more about them, in what tendency they run, what are their secondary products, and what will be the action of those products upon surrounding tissues. They may be the very agents which destroy the nervous connexions; they may, at all events, be the very products which alter the stroma around and help to dissolve materials, and carry them into the lymphatic spaces and channels so as to cause a dissemination of the disease. It is not necessary that a very large particulate cell should pass into a lymphatic channel in order to spread this disease; a very minute nuclear particle might suffice, or such particle might not be a particle of the cell itself, but a foreign product, though my own view is that it would be a particle of the cell itself.

Now let us go on to the question of the *stroma*. The stroma of cancer is acknowledged to be one great peculiarity of it, as distinguished from the basis of an ordinary sarcomatous tumour, distinguishing it from sarcoma as much as the sarcoma cell itself is distinguished from the epithelioid cells. This stroma of cancer is a very remarkable substance. Long ago, in my own lectures, I defined it as a spinous-looking structure. When you washed away the cells and disclosed the little loculi of the cancer, you found a crisp, fibrous, sharp, clear, bright-looking tissue, absolutely different from the areolar tissue of an ordinary tumour or from healthy fibro-areolar tissue, yet no doubt developed from it. Its bands are hard, glistening, vitreous-looking, and break off short; it does not run in the beautiful undulating lines of areolar tissue, but encompasses the cell-masses with curved bands of a most peculiar kind. It is always developed *pari passu* with the quantity of cells, provided the tissue in which these cells are developed is a firm tissue—the tissue of a firm organ. It is harder in the mammary gland than in the salivary gland; it is harder in the salivary gland than in the liver; it is softer still in the lymphatic glands. Of course, the lymphatic gland has a stroma which is capable of this remarkable transformation. I think this stroma has not been sufficiently studied. I do not think we know enough

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about it. Its curious, hard, shining, glassy character is further associated with that peculiar crispness when cut, that creaking sensation which in certain advanced stages becomes almost bony to the scalpel edge; it resembles in a remarkable way not a highly organised and regular tissue, but, in certain characteristics, the periosteal fibres of a growing bone which is developed from membrane, not from the cartilaginous basis of the bone. In Quain's Anatomy you will see something which will remind you of the spinous character of this tissue, of which I hope to be able to show you some representation on the screen. In Quain's illustrations there will be found numerous fibres. I do not say that they are like the stroma of cancer, but the stroma of cancer shows a sort of likeness in that direction.

And this leads me to say that chemistry will herein aid us, because long ago it was pointed out that cretification is one of the conditions apt to follow upon the growth of cancer, especially in the breast; and the cretification or hardness of the stroma is accompanied by a deposit of lime salts in the little alveoli themselves. So that here we find hardness and crispness and a likening to periosteal growth, associated with the presence of lime. Many years ago I had a special analysis made for me of this peculiar tissue, and the result was that its ash contained three or four times the quantity of phosphates that the ash of an ordinary piece of mammary gland did. There was nothing remarkable in that, because the fact had been demonstrated by the microscope and shown by Dr. Hughes Bennett many years ago, in beautiful illustrations of this transformation of tissue into a kind of calcified substance. Now this is extremely interesting, because it raises the question, What is the function of stroma, and what is its origin? Is the stroma a part of the cancer? Is it part of that extraordinarily powerful agent which invades the body and which produces these diseases in the healthy tissue, or is it not? Now, it seems to me there are very widely different opinions here—or, rather, one which is more commonly expressed than the other. It has been held by most writers that the stroma is a mere web that holds the cancer cells; that it is produced by the irritation of those cells; and that by degrees it may consolidate itself into such a hard, firm form as to crush the very cells under the influence and agency of which it has been developed. This, of course, leads the mind at once to a possible mode of killing these forms of disease; we cannot say that it will lead to that, but of course that is an inference easily and naturally drawn from it. But what I want to do is to have this stroma investigated; I want the anatomist to pay a little more attention to it to show in what it consists. It is utterly unlike the wavy forms of the filamentous tissue; it seems to be more like bands crushed up together, moulded as it were together, pressed into an indifferent form (if I may use the word), and then impregnated with earthy salts in some peculiar way. Now the acid secretion of the cells, finding its equivalent in earthy matter, may penetrate this peculiar tissue, may give it its character; and so we may learn something more of it if we know its chemical constitution and its relation to the surrounding areolar tissue. I shall be able to show you, I hope, some progressive changes which take place in areolar tissues towards the formation of this peculiar stroma. Here is a compressed mass of cancer cells with stroma passing through it. You see the peculiar stroma, with its compressed nuclei branching through it. You will see how extraordinarily different it is from the ordinary areolar tissue. I think myself that the history of this stroma has been neglected. I think that we may learn a great deal by a more patient and thorough investigation of the structure, the mode of formation, and the chemical composition of the stroma. Through these channels, through a more minute study of the cell growth itself and its relations, and a more deep and profound study of the stroma, I think there are still problems that require to be answered; that they will be answered in time I feel certain, and I trust that those answers will contribute to lighten our task in combating this painful disease.

Reserving till after the lecture the demonstration of the remaining figures, I omit what I hoped to say about the blood and lymph, and add a word or two about the mode in which this cancer invades the surrounding tissues. If the cancer cells secrete a substance in superabundance—and that they have secreting powers is certain, for that is their primitive function,—if they secrete something which induces the formation of the stroma, it may also serve to dissever the element of the cells themselves, and help to carry them on into the lymphatic spaces as they are called, and so into the lymphatics, and onward to distant parts. But its fibres may also break down the limits between the cancerous formation and the surrounding tissue; they may be the channels through which the disease spreads; and therefore, I say, the more we know of their nature, the more we may hope to arrive at a time when possibly, by remedies, we may stop the growth of the cell, stop the growth and production of these unwholesome products, and stop the invasion into the surrounding tissues, and perhaps—if it can be shown that that is a right procedure—to harden the stroma and try to crush the cells in their nests. The invasion of cancer must come about, I assume, in this way. The elements must pass into the intervals between the surrounding tissue; they must get into the lymphatics; they must reach the lymphatic glands. The proof of this is that the lymphatic glands in the neighbourhood are always the first to be infected, and there it is again we ought to study the remarkable constituents of cancer growth.

As to the recurrence of cancer—I do not mean the spread of cancer through the system or by the agency of lymphatic glands, and so into the blood,—but I speak of local recurrence after the removal of the cancer; this also affords us the most advantageous mode for investigating the isolated properties of the cell and stroma.

In recurrent growths the cells abound; in recurrent growths the stroma is scanty; in recurrent growths, therefore, we should find the anatomy and physiology, so to speak, or the pathology, of the cells much more easily followed than in the early growths. There cannot be a doubt that this recurrence very frequently takes place; and this is one important practical point which I wish to impress upon you if I can, that the true recurrence which takes place locally and on the margin of the site of old disease begins in atoms of diseased tissue which have been left behind. It is possible for an operator to say, "I know I completely removed this tumour, and it is utterly impossible anything can remain behind." But when you consider the number of lymphatic spaces, the smallness of the diseased units, and the facility with which these will creep through the healthy tissues, and the impossibility of detecting with the naked eye how far they have gone, you will see that it seems much more probable that the recurrence should be due to a local extension of the primitive disease rather than that it should be a new growth altogether. If it comes in a lymphatic gland, if it comes along the path of lymphatics, that is obvious; but we speak of recurrences near the growth, and those recurrences I have lately been studying, and I quite agree with Heidenhain that they are on the margin of the old incision. In this early recurrence, a very small one, you will find that the growth is not in the cicatrix; the cicatrix is composed of dense fibroid tissue like an ordinary cicatrix; but exactly in the margin between that and the healthy tissue there is found a growth springing up. It may invade the cicatrix, but it goes a long way into the surrounding tissue first, and I have never found one in which I have seen it actually come in the cicatrix, but always at the margin, or what is sometimes very deceptive, directly *beneath* the scar, which it may then invade. But suppose it did come in the cicatrix, what is the cicatrix? The cicatrix is a product of the body; it is a modified form of areolar tissue produced after accident, and intended not to kill, but to heal, to repair; and therefore it is a part of the frame, and is likely to contain its little channels and paths through which a morbid growth may extend. It is possible, therefore, that from the margin of the pre-existing tissue the cicatrix may itself become at once involved; but it does happen that the small recurrent nodule is not in the cicatrix, but in a thickened part of the surrounding tissue loaded with stroma. Now here, again, the lesson that we learn is a perfectly obvious one, one which I myself have learnt a long time ago; and that is to disregard the neatness of an operation, the closeness to the tumour, but to sweep far away beyond what you really estimate may be the seat of the disease. Do not be timorous and hesitating; do not care about a scar, but sweep away to a great distance; follow the tissues up specially towards the axilla, especially when the tumour is on the axillary side of the mammary gland. Remember also that there are deep-seated tumours in the mammary glands, and that these usually have their lymphatics, not going to the axilla, but through the

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intercostal spaces and directly into the thorax, or through the pectoral muscle, along under that, and reaching cervical or thoracic glands beyond. The position, therefore, of the growth in the mammary gland is of extreme importance. If it be central, you do not know where it may extend and affect the lymphatics; if it be to the outer side, which is more commonly the case than in any other position, it is nearly sure to affect the axillary glands; if it be deep seated, it may pass into the intercostal spaces through the pectoral muscle, even long before there is any lymphatic mischief in a lymphatic gland, within the thorax or in the neck. The spaces between the muscular fibres and the spaces under the muscular fibres may be involved; this I have seen over and over again in a most characteristic way. Mr. Boyce has come here to my assistance, and gives demonstration of the fact that the cancer cells do really impregnate, as it were, the deep-seated muscular tissue and the under space between the muscular fibres, and unless these are removed a return is almost sure to occur. The old form of sweeping operation therefore should be always held in respect. I believe that its good results, which were perfectly astonishing, depended on that. It does not matter about deformity—it is the preservation of the patient's life; and a very sweeping use of the knife is better, I would say, than any cautery, any electricity, any form of temporising with caustics, with pressure, with cold, or with any such means. They may answer, and in future that great force of electricity, now again on its trial in a special form by Dr. Inglis Parsons, may come to be specially useful. We admit its value, and wish it all success; but at the same time remember that it will only destroy what it reaches, and although it is extremely remarkable to find that the cancer tissues seem to dwindle under its influence whilst the healthy tissues resist it, still, remembering the acid juice of cancer, remembering the mode in which it penetrates into the vacuities of the living tissues, what a tendency it has towards them, and remembering that in spite of electrical destruction this may go on, and then considering, again, the requisite repeated application of electricity, which comes to be like the repeated application of a cautery of a simple character—remembering all this, I say we may find that it will ultimately be regarded as inferior to the knife.

The knife, which sounds so cruel, but which is not indeed cruel under the influence of anæsthetics and the use of antiseptic treatment — the knife is the most feasible method of removing these growths. After the knife, however, I certainly in my own practice, where I have the slightest doubt, apply some kind of acid caustic. I do that, and I have found it extremely valuable I have not cumbered this lecture with personal records, but when I look back to my own experience I find some in which accidental hæmorrhage came on, and in which I had to undo a wound and apply powerful caustics — perchloride of iron, and perhaps chloride of zinc. There are special cases in which I could point to persons living and now perfectly well, eight, nine, ten, eleven, and twelve years since operations of that kind. Comparing these cases with the hesitating use of the knife which formerly I myself practised, keeping as near to the growth as I was told to do by my teachers, as near to the tumour as possible, without of course leaving any ostensible mass behind, still keeping close to it,—when I compare these later cases with those I had under observation twenty or thirty years ago, I say their success is very remarkable.

It is truly gratifying to find that success follows in proportion as you remove tissues, in proportion as you work up to the axilla and remove the axillary glands, and even cauterise the base of the wound if there is the slightest sort of suspicion about it. The gratification which one feels at the success of these operations convinces me that that is a most important practical point, and a lesson never to be lost sight of.

Now, Mr. President and Gentlemen, the hour is at hand. Of course you will all understand that a lecture of this kind is but playing on the surface of a great subject. If it is ever published, I may venture to append or introduce here and there illustrations that will carry, perhaps, conviction to some of your minds who may not quite have followed me in all I have said. But, in the meantime, I thank you for listening to me for this hour, and I invite your attention to the diagrams and to the preparations which are upon the table.

ABSTRACT OF AN

Introductory Address

Delivered at the City of London Hospital for Diseases of the Chest,

BY SIR JAMES RISDON BENNETT, M.D., &c

THE lecturer commenced his address by giving an interesting account of the circumstances under which the hospital (out-patient department) was established in Liverpool-street in 1848, the necessity for the establishment of such an institution being shown by the fact that in the year 1846, of a total number of 49,089 deaths in the metropolis, nearly one-third occurred from consumption, other diseases of the lungs, or from diseases of the heart and organs of circulation; whilst in the following year (1847) the proportion was still larger, and exceeded one-third of the whole mortality.

The work of the medical staff at Liverpool-street soon became so great that it was necessary to appoint a clinical assistant, and the present President of the Royal College of Surgeons, Mr. Jonathan Hutchinson, was the first appointed, and worked for some time there with the lecturer and his colleagues. The first assistant physician appointed, and whose name appears in the report for 1855, was Dr. (now Sir) Andrew Clark, the present distinguished occupant of the presidency of the Royal College of Physicians. He left in the following year, finding it impossible to continue the work along with that of the London Hospital. He was followed by Dr. Edwards of St. Bartholomew's Hospital, and Dr. Stephen Ward. The first surgeons to the hospital were Mr. Erichsen and Mr. Hilton; and the first physicians, Drs. Peacock and Bentley and Sir R. Bennett. The hospital, therefore, may boast of having had two Presidents of the Royal College of Physicians and three Presidents of the Royal College of Surgeons. In 1851 the first stone of the hospital was laid by the Prince Consort, and in 1855 the building was opened for the reception of patients. At the same time the City branch in Liverpool-street was closed.

Sir James Risdon Bennett then continued as follows:—That special hospitals and specialism in medical practice are in danger of being carried too far and proving injurious, both to our profession and the public, I have long felt, whilst I am quite ready to admit that medical science has greatly benefited by the special study of particular disease, and that in the present day original investigation must be limited to certain departments of the wide field that our science now occupies; but that the establishment of special hospitals for large classes of disease, like those of the chest or of the nervous system, has been fully justified by their history cannot, I think, be doubted. Putting aside the question how far it may or may not be desirable for students during their curriculum of study to confine themselves to their general hospital, there cannot, I think, be any doubt that subsequently it is of the greatest advantage to them to be able to acquire a more intimate and practical acquaintance with particular classes of disease. That we have gained valuable aid by the introduction of cod-liver oil, and perhaps some other specific remedies, will be generally admitted; but that cod-liver oil has justified the encomiums passed on it by my namesake, its introducer, and by such authorities as the late Dr. C. J. B. Williams, is at least open to question. Its utility in scrofulous disease is doubtless often very great, and the bacteriologists will perhaps give us further light on the relation between scrofula and tubercular phthisis. In what way and to what extent the discovery of the tubercle bacillus may lead to altered and improved treatment of phthisis remains yet to be seen. The field of inquiry is doubtless a very enticing one, and cannot fail to be investigated by some of my audience as well as by others. My own opinion is that we have yet much to learn regarding the true relations between the microbe and tubercle before we can hope for much therapeutic aid from the discoveries already made. Prevention is, however, better than cure, and in this direction hope may arise. How fertile is the source of new remedies, and how largely do they augment the income from the penny post and the advertising sheets! But because some at least do afford

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the clinical physician valuable aid at the bedside, does it follow that we should so entirely lose faith in our old friends that we should altogether abandon them? I suppose most old practitioners think that they are not justified in so discarding their own past experience and that of their predecessors as to abandon altogether the use of the lancet. At all events, I would ask you to look at this question of bleeding from a clinical point of view, and not solely from the physiological or pathological side. I will cite only one instance from my experience in this hospital in justification of this advice. A man of large frame, beyond middle age, whom I see now distinctly before me, was the subject of pulmonary emphysema and bronchitis. He had been some little time in the hospital, and therefore in the most favourable surroundings, but without improving much, when, either from some change in the weather or other cause, he became suddenly worse. I found him at my visit heaving and gasping for breath, with livid features and cold extremities, his heart and circulation rapidly failing, and scarcely conscious—in fact, to all appearance, *in articulo*. Almost every remedy and appliance that could be thought of had been tried without avail, and swallowing was no longer possible. I hesitated for a moment and expressed my hesitation to the bystanders, then ordered him to be bled. After obtaining with some difficulty six or seven ounces of blood his pulse and consciousness returned, the signs of venous congestion greatly diminished, and I saw that his life was saved. He lived for some time after, though he ultimately died. Now it may be true that neither emphysema nor bronchitis is to be cured by bleeding, but it does not follow that life may not be saved thereby. Modern experience may have shown the inefficacy of bleeding as a means of arresting or curing acute inflammation of heart and lungs, and its injurious and even dangerous effects when carried too far and injudiciously employed, but I am convinced that in certain stages of acute disease and in certain conditions of the patient it is a remedy of unquestionable value, and I can call to mind instances in very recent times where it has not only importantly modified the progress of the disease, but manifestly saved the life of the patient. The advantages that have been gained through the aid of surgery in some important forms of chest disease and in certain stages since the opening of this hospital are very great. I need only refer to the treatment of pleuritic effusions, and the improved measures in the adoption of paracentesis, by which very many lives have been saved. It is not so very long ago that this operation was only had recourse to in extreme cases, and its success in such instances was often frustrated through imperfect exclusion of air from the pleuritic cavity. It is now available and had recourse to with the utmost confidence in numerous instances. I remember well the first case in which I ordered an incision to be made and a drainage-tube to be introduced into a large suppurating cavity in the upper portion of the right lung, in an advanced case of phthisis, and the subsequent employment of weak carbolic acid syringing. To what extent similar practice is now adopted I know not, nor what would be the general verdict as to its use. In the rich field afforded by such a hospital as this, worked by men of acknowledged competence, in mutual co-operation, important and trustworthy results might be attained. Let me illustrate my meaning by referring to the subject of heredity, of the greatest interest in connexion with tubercular disease, on which there has been considerable diversity of opinion, and to which attention is now again perforce directed, owing to recent discoveries in bacteriology. If we are to assume that tubercle is always associated with a specific microbe, and even go so far as to admit that the bacillus is the *vera causa* of tubercle, the question would still arise, Is there, or is there not, a special tendency to phthisis in certain families, and not in others? If the question be answered in the affirmative and the bacillus theory adhered to, we have to ascertain why the bacillus should prove so fatal to certain families and be practically innocuous to others. A very wide field would be open for inquiry in what soils is the bacillus cultivable and in what sterile? If we limit the term heredity to susceptibility or proneness to a particular disease, my experience would lead me to say that there can be no doubt that phthisis must be classed with hereditary diseases. But, on the other hand, I remember very well meeting with examples in the out-patient practice of this hospital that made a deep impression on me as supporting the view that this susceptibility may be acquired, and attain its maximum of intensity in one generation. A Scotch family, in whom after the most careful inquiry not a single case of consumption had been known or in any collateral branch, emigrated from the highlands of Scotland to the East-end of London. The family consisted of father, mother, and six or eight children, all advancing towards or having attained adult age. Within, I think, two years of their arrival in London the father and all the children, except two, had fallen victims to rapid consumption. Judging from the heart-broken mother and one son who came to the hospital, and from the mother's account of her husband and family, they were typical specimens of athletic Highlanders, and they were clearly steady, well conducted, industrious people, struggling in life, but not having suffered absolute poverty. Most physicians of much experience must have met with similar cases, illustrating the fatal susceptibility to phthisis in some families. On the other hand, there are not wanting facts and considerations which indicate remarkable insusceptibility to tubercular disease. My experience bears out that of many others—that the Jews, as a race, are long-lived, and that among them phthisis is a rare disease. At one time I saw a good deal of the Jews both in private and public practice. My friend, the late Dr. Livingstone, the illustrious African explorer, stayed with me on his return from his first great journey across Africa, and told me, among other observations relating to the diseases he had met with, that phthisis was so rare among the natives that he scarcely remembered ever to have seen a genuine case. But that the black races when residing in this country readily fall victims to the disease is well known, and some of the most remarkable examples that I have seen of tubercle distributed throughout the organs and tissues of the body have been in negroes of good social position and education. How far such cases are referable to climatic influences or change of food I know not; but the reference I have made to the Jews and other races leads me to say that I have long felt that the whole question of food in its relations to tubercle and some other diseases demands further careful investigation. One point, I know, received special attention from Mr. Jonathan Hutchinson in the early days of this institution—viz., the presence or absence of fats in the diet of consumptive patients. The Jews, it is well known, are very particular as to their food, especially meat, and that, among other things, they carefully abstain from the use of pork. Will my younger colleagues smile if I suggest that, among other bacteriological experiments, they will ascertain whether the tubercle bacillus likes or dislikes an infusion of fresh, so-called healthy pork? For, as bacteriologists tell us that a particular microbe is only cultivable in particular soils, may we not be able from this to derive information as to the character of the tissues and secretions of the body, that would be most likely to afford support to the microbe, and the kind of diet it would be most desirable to adhere to, in order to counteract the tendency of tubercular disease? I trust that my friend, Dr. Heron, or others, who may here carry out any such investigations, will not be dismayed by the new and important department now opened in the field they are studying, since this, among other requirements, will demand the most profound psychological studies. For according to M. Binet and others, micro-organisms have a psychical as well as a physical life, and the psychology of the tubercle bacillus will therefore demand careful study. If, as we are told, microbes are endowed with the intellectual faculties of pleasure and pain, fear, memory, and conscious selective discrimination, we may look for important light to be thrown on the question why certain constitutions and certain organs are by preference selected for habitation by such intelligent creatures as the protozoa. The fertilising action of certain spermatozoids it has been said may depend on their being attracted or repelled by different scents or chemical constituents, and there is certainly nothing improbable in the supposition that similar influences may operate in the case of other minute organisms, even if the inference should not be justifiable that the minutest are endowed with psychical faculties.

The reduced mortality from phthisis as shown by recent reports of the Board of Health seems to prove that it is due to improved sanitary conditions of certain localities where the mortality was formerly greatest, especially in connexion with improved subsoil drainage. Such facts, I need not say, are by no means opposed to the microbe theory and contagion. It is clear that the adoption of any theory of the contagiousness of phthisis will necessitate special regulations

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for the separation of consumptive patients from all others in any hospital for diseases of the chest. One line of inquiry you will not, I fear, be able to follow here, and that is whether tubercular disease, like anthrax, can be annihilated by protective inoculation. And yet, if the microbe theory of phthisis, pure and simple, be established, there seems no reason why protective inoculation should not prove as successful in the one murrain as the other. To this end I presume another Pasteur or Koch Institute will be needed. And assuredly the man who shall succeed in placing consumption in the same category with anthrax will beat the record of Jenner and the small-pox. Anyone who has seen much of consumption must have found reason to doubt the correctness of the common belief that mere feebleness of constitution alone is the main determining cause; or, on the other hand, that robustness of frame and constitution alone is a preservative. How frequently do we see, as in the instance quoted, vigorous, athletic men, leading a healthy, active life, develop tubercular disease running a rapidly fatal course. If there be an essentially tubercular habit of body, as in the case of gout, ought we not ere this to have acquired more knowledge of its characters than we possess? It is quite true that an experienced eye in numerous instances finds such physical and constitutional characters, in apparently healthy persons, as to convince him that in all probability they will die of phthisis, and are inadmissible as candidates for life assurance. But I have again and again passed lives for assurance whose physique, personal and family history, and social position and habits were free from objection, who have nevertheless died prematurely from consumption. In conclusion, I would venture again to impress on you the advantages here presented for acquiring strictly clinical information and therapeutic knowledge as distinct from pathological investigations, and the rich field you have for advancing our knowledge of the etiology of phthisis and such questions as heredity. That the clinical lectures and demonstrations which you propose to give will be appreciated and prove of the utmost value to those who may avail themselves of them I have not the least doubt, and cordially wish you success in your good work. If I have disappointed your expectations, as I fear, in occupying your time, by what you may call conversational chit chat on a variety of topics rather than by scientific discussion of any one of the grave problems you are called to study, I can only cast myself for forgiveness on your good nature and friendly disposition.

THE PATHOLOGY OF CHOREA: A SUGGESTION.

By ARCHIBALD E. GARROD, M.A., M.D., M.R.C.P.

THE manifestations of rheumatism may be arranged in certain groups, the members of which are apt to occur in association in the same patients, and in one such group are included erythema, sore-throat, and arthritis. It is a well-known fact that in cases in which an eruption of erythema is the most conspicuous feature of a rheumatic attack joint lesions of greater or less severity are usually present, whilst endocarditis and pericarditis are comparatively rare; and the same is true of rheumatic sore-throat. There is, moreover, an intimate connexion between sore-throat and erythema, for at the commencement of an attack of erythema some soreness of the throat is often complained of, even when there are no articular pains.

Now, in its rapid development, and equally rapid resolution, as well as in the manner in which it disappears after death, often leaving no trace of its presence, the arthritis of acute rheumatism has many points in common with cutaneous erythema, and it is interesting to note that Monneret long ago described this form of arthritis as an erythematous inflammation. The rheumatic sore-throat, which may either assume the form of injection and swelling of the palate and pharynx or of well-marked tonsillitis, was regarded by Lasègue as an erythema of the fauces, analogous to cutaneous erythema. It would seem then that there is some reason for thinking that these lesions so often occur in association, because they are processes of similar nature, although involving different structures. This conclusion receives considerable support from the study of another group of rheumatic lesions, of which endocarditis may be selected as the typical example. The lesion most intimately associated with endocarditis is the formation of those remarkable subcutaneous nodules of which M. Meynet of Lyons was the first to recognise the rheumatic origin; and, as Drs. Barlow and Warner have shown, there is not only a clinical association between nodules and endocarditis, but, further, the changes in the subcutaneous fibrous tissues, of which the nodules are the outward signs, are closely analogous to those which result in the formation of vegetations upon the valves of the heart. Similar changes have been described in other fibrous structures, such as the pericardium, and in a note published in a recent number of THE LANCET, Dr. Angel Money suggested that the formation of endocardial vegetations and of subcutaneous nodules are merely two phases of a much more general process which may involve any of the fibrous structures of the body. There is good reason for believing that chorea is in many cases a manifestation of rheumatism, and, like nodule formation, it is intimately associated with endocarditis; for chorea and endocarditis are often present together in cases in which no joint lesions are developed under observation, and no history of previous arthritis can be obtained, and in such abarticular cases subcutaneous nodules are sometimes present. Again, the class of patients most subject to chorea is precisely that in which there is most tendency to nodule formation, for both chorea and nodules are almost confined to children and young adults, and both are far more commonly met with in girls than in boys. Lastly, the duration of an attack of chorea is usually somewhat the same as that of the process of nodule formation.

These clinical observations seem to afford some basis for the hypothesis that we have here yet another example of the association together of lesions of similar nature, and that possibly chorea and endocarditis so frequently appear simultaneously because chorea is the outward sign of a lesion of this same group, and has its origin in a temporary overgrowth of connective tissue in the nerve centres.[1]

This hypothesis has the advantage of assimilating the pathology of chorea to that of certain diseases in which tremor is a conspicuous symptom; and at the same time it offers an explanation of its so frequent connexion with the rheumatic state; whilst, unlike the embolic theory, it does not involve the presence of antecedent endocarditis. Some observers have noticed increase of connective tissue in the brain and spinal cord in fatal cases of this condition, and I would suggest that such changes should be further sought for by those who have opportunities of examining the nerve centres of patients who have died during an attack of chorea.

Cavendish-square, W.

EFFECTS OF SULPHONAL.

By R. PERCY SMITH, M.D., M.R.C.P.

OF the value of sulphonal as a hypnotic there can be no question, its beneficial use having been recorded in numerous cases, especially in insanity; and the long-desired hypnotic which should leave no bad after effects and should not interfere with the patient's appetite would appear to be almost attained. Few instances of any action other than simply a hypnotic one have been recorded, but giddiness has been mentioned by some observers, and in the *British Medical Journal* for April 20th last is mentioned an observation by Dr. Perregaux of Montreux of "ataxic disturbance of certain fine movements of the hand," and the question raised whether a prolonged use of the drug can be altogether harmless in regard to the cerebral cortical functions. Dr. Samuel Garnier publishes in the *Annales Médico-Psychologiques* for January and March of this year a paper giving his experience of the drug; and, referring to its action on locomotion, mentions two cases, in one of which "la malade présentait une démarche maladroite et même chancelante," and in the other "il y avait dans la station un aspect non équivoque d'ivresse légère." He asks the question whether these phenomena were due to a

[1] The possibility of such an origin was suggested by Dr. Cheadle in his Harveian Lectures, 1888, p. 67.

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direct influence of sulphonal on the cortical motor centres, or whether they were due simply to vertigo, and refers to the difficulty of satisfactorily settling this point. He further quotes Kast as having noticed in dogs a loss of power in the posterior limbs shortly after administration of the drug comparable to that produced by the removal of the motor portions of the cerebral cortex. Dr. Otto of Dalldorf, in the fourth part of the *Allgemeine Zeitschrift für Psychiatrie* for 1888, publishes cases in which he has used the drug, in some of which the patient was not able to walk alone, but this was generally after doses of five grammes. At the meeting of the Medico-Psychological Association in York in March last, in the discussion on a paper by Dr. Watson, of the Govan Asylum, Dr. Yellowlees mentioned that he had met with giddiness as a result, but no other speaker had met with any detrimental effects.

The following cases of temporary loss of power in the lower extremities, which have occurred in Bethlem Hospital since the drug has been administered, appear to bear upon Dr. Garnier's question.

CASE 1.—M. B——, single, aged forty-five, suffering from acute mania with great violence and dirty and destructive habits of eight months' duration. On Dec. 8th thirty grains of the drug were administered at bedtime, to be continued every night. This was done till the 30th; but, no improvement taking place, it was discontinued. No bad effect was observed on this occasion. On March 7th sulphonal was resumed at night in the same doses and continued till the 15th. During this second administration about six hours' sleep every night was obtained, and the excitement became less both by day and by night; but the medicine was discontinued, as the patient seemed to be unable to stand and spent the day lying about on couches or on the floor. No amount of leading questions could elicit from her any complaint of giddiness, her replies being irrelevant and incoherent. The symptoms passed off in twenty-four hours after the drug was suspended.

CASE 2.—M. J. S——, married, aged thirty-nine, suffering from acute mania, with great excitement and sleeplessness and destructiveness. From Feb. 5th to the 19th she took thirty grains of sulphonal every night at bedtime; six hours' sleep resulted every night, and she was quieter during the day. The administration of the drug was then suspended till March 5th, when it was resumed every night in the same dose, the patient having again become sleepless and noisy. On March 20th she was noted to be "in a drowsy stupid condition, almost as if half drunk, unable to stand or walk properly." No sulphonal was given that night, and the next day, it was noted, "she has recovered from the effects." The knee-jerks were present and normal. After the suspension of the drug she continued to have six or seven hours' sleep every night, but she remained somewhat excited and incoherent. On April 1st she was noted to be relapsing and sleeping badly, and on the 7th thirty grains of sulphonal were ordered to be resumed every night. On April 15th it was noted: "Is much quieter, but to-day is in somewhat the same condition she was in previously, with apparently loss of motor power in the legs, as she rolls about when set on her feet, and apparently prefers lying on the floor." After this the excitement passed away, and in a month she was sent to the convalescent hospital. While excited no reliable information could be obtained from the patient as to whether she was giddy or not when apparently suffering from loss of power in the lower extremities, but on recovery she appeared to have a very clear memory of the attack, and stated that she had not suffered from giddiness, but that she had felt powerless to stand or to use her lower extremities effectively.

CASE 3.—M. M——, married, aged twenty-nine; third attack of insanity, following the birth of twins. Suffering from acute mania, with obscenity, destructiveness, and sleeplessness. From Jan. 29th to Feb. 19th she took thirty grains of sulphonal every night, the result being an average of six hours' sleep and a diminution of excitement by day. The administration was then suspended till March 5th, when, in consequence of a return of excitement, it was resumed and continued till March 21st, on which day it was noted: "Has slept generally seven hours after sulphonal, though without mental improvement, but without ill effects until to-day, when she had the appearance of being drunk, tumbling about and walking unsteadily." The next day the symptoms had all passed off with the omission of the drug. This patient has never been able to give a clear account of her sensations when fully under the influence of sulphonal, so that we cannot tell whether she was giddy or not, but she made no complaint of it at the time. She has since been excited again, and a readministration of sulphonal has produced no bad effects; but it has been suspended at intervals to avoid the production of loss of power.

CASE 4.—E. L. G——, single, aged fifty. Recurrent mania with intervals of health, the attacks of excitement being generally preceded by short periods of depression. On July 5th last she began to complain of sleeplessness, depression, and a feeling of impending illness. On the 9th sulphonal was ordered every night, in doses of thirty grains. On the 22nd she complained of feeling giddy, and also of inability to walk with any ease, her legs seeming to be too heavy. As the patient was perfectly intelligent, although depressed, one could rely upon her statement, and she was confident that the difficulty in walking was more than could be accounted for by the giddiness, and said there seemed to an actual want of power in her legs. The symptoms passed off with suspension of the drug. As it is important to try to ward off an attack of excitement in her, sulphonal has been resumed in doses of fifteen grains, producing sleep, but no ill effects.

CASE 5.—M. A. M——, single, aged fifty-one, suffering from melancholia, with hallucinations of hearing and sleeplessness, getting only two or three hours' sleep at night. On May 27th the patient was ordered thirty grains of sulphonal every night. After three doses, which produced nine hours' sleep every night, she became quite confused, walked with her eyes shut, though not asleep, did not know where she was, had to be washed and dressed, and could only walk with assistance, seeming to be unable to stand alone. The symptoms disappeared with the suspension of the drug, but the patient cannot give a clear account of her feelings at the time. She says that she "lost the whole of one day," and cannot remember any feeling of giddiness or weakness. She only knows from the statement of her attendants that she had to be dressed and led about. Sleeplessness having returned she has lately (since July 21st) had sulphonal at night in fifteen-grain doses with no ill effect.

The observation of these cases has given me the impression that the loss of power noticed was not due merely to giddiness but to some interference probably with the cortical functions. In two of the cases the patients were confident that their condition was not merely due to giddiness; and in the last case mentioned the staggering and apparent loss of power were associated with a complete mental confusion. In all cases suspension of the administration of the drug was attended by an immediate disappearance of the unpleasant symptoms, and in some the readministration has produced no bad effect. After the production of such symptoms, however, it is perhaps better if it be thought advisable to resume the drug to give it only every other night, or at least to intermit its use occasionally. In one case recently under my care, in which a patient suffering from acute puerperal mania with at the same time phlegmasia dolens of the left leg, in which there was fear of the dislodgment of clot, I gave sulphonal in doses of thirty grains twice daily for one week, in order not merely to give sleep, but to maintain a recumbent attitude; and this was effected, the patient very soon seeming to have no desire to attempt to stand, but there was no complaint of giddiness. No interference with the heart's action or the appetite resulted, and the patient recovered perfectly after only ten days' excitement, expressing herself as having slept through her excitement. No bad effect seemed to have resulted, and she has since been discharged recovered. Patients seem to vary considerably in susceptibility, Case 5 being very rapidly affected. It would be more satisfactory to know the opinion of those who have given the drug to sane patients, whose statements could be implicitly relied upon as to the presence or absence of giddiness in association with loss of power in the legs, but I am not aware whether any such observations have been published. My own feeling, judging from the use of sulphonal in the insane, is that it does in some cases interfere with the cortical motor functions.

Bethlem Royal Hospital.

LLANELLY HOSPITAL.—The report for the past year shows that the institution is in a satisfactory financial position; £360 had been received by the committee from the secretary of the Llanelly Musical Festival, and there was a balance to the credit of the hospital of £323 5s. 5d., of which £200 had been placed on deposit.

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NOTES ON SULPHONAL.

BY HENRY SUTHERLAND, M.D.,
PHYSICIAN TO THE ST. GEORGE'S (HANOVER-SQUARE) DISPENSARY.

AFTER repeated trials of sulphonal in various forms of insanity, I have come to the conclusion that in chronic cases associated with recurrent attacks of excitement sulphonal is a most valuable remedial agent, producing sleep, not only on one occasion, but also on two or three nights following its administration. In this form of insanity it also considerably allays excitement during the day, although it may have been given once only as a soporific at bedtime. My experience of its advantages in other forms of mental disease (and especially in continued chronic mania, as opposed to recurrent chronic mania) is less satisfactory.

I. *In chronic mania with recurrent attacks of excitement the good effects of sulphonal are very conspicuous.*

CASE 1.—Mr. B. R——, aged forty-seven. Usually very quiet. Has attacks of noisy excitement and sleepless nights at irregular intervals. Bromide and chloral in large doses have been given with but slight effect. One dose of thirty grains of sulphonal quiets him at once; not only during the night on which it is taken, but also on the two or three nights following. Strangely, while at the seaside this dose produced little or no effect.

CASE 2.—Mr. L. C——, aged seventy. Recurrent mania, with restless nights. Owing to advanced age bromide and chloral do not seem to be indicated. Takes twenty grains of sulphonal now habitually every alternate night, the result being a long refreshing sleep with two or three quiet nights to follow.

CASE 3.—Mrs. G. M——, aged sixty-seven. Recurrent mania with depression between the attacks. Formerly she was very violent. Bromide, chloral, opium, and all sedatives failed to quiet her until antimony was tried, which had a good effect. Owing to advancing age and the fact that she has a dilated heart, it is thought dangerous to prescribe this remedy any longer. The symptoms, too, are now limited to using bad language and shouting, her attacks upon her attendants being discontinued. Fifteen grains only of sulphonal produced sleep on one night and again on the two nights following, and also a condition of quietude during the day. If not given every three days sleep leaves her and the excitement returns.

II. *In chronic mania with continuous, unbroken excitement the effects of sulphonal are uncertain, and the maniacal symptoms seem to be increased during the day.*

CASE 4.—Mr. C. R——, aged thirty-four. Chronic mania (folie circulaire). Continually in a restless condition. Very dirty. Sleeps badly. Bromide and chloral have failed. One dose of thirty grains of sulphonal quieted him for a short time, but subsequent doses have had little or no effect.

CASE 5.—Miss B. D——, aged twenty-three. Chronic mania. Never talks. Attacks the attendants impulsively. Sleeps very badly. Bromide produces rash. Sulphonal was tried (fifteen to thirty grains). On some nights she sleeps badly after sulphonal, and on other nights she sleeps well without it. With one exception only she was always more excited during the day after taking this sedative.

CASE 6.—Miss G. A——, aged fifty-two. Chronic mania, with never-ceasing restlessness and moaning. Began with twenty grains. Very stupid the day after this small dose. Slept well that one night, but not well subsequently. Dose increased to thirty grains, and on one occasion to fifty grains. She had no sleep after this large dose. Coördination was much affected. She rolled about in walking next day as if intoxicated.

CASE 7.—Miss G. W——, aged thirty-four. Chronic mania, with violence. Once slept nine hours after fifteen grains; on another occasion slept only two hours after twenty grains. Thirty grains of sulphonal sometimes produce sleep, sometimes have no effect. More excited during the day after taking the drug.

III. *Effects of sulphonal in other forms of insanity.*

CASE 8.—Mr. G. T——, aged forty. Organic dementia, with hemiplegia. Very restless at night. Ten grains were given on one occasion with good effect. Being almost moribund, it is not thought advisable to continue the sedative.

IV. *Incipient general paralysis, with very*

CASE 9.—This patient derived benefit from of sulphonal taken one night; also on the follo nights. Took several doses, and it has never failed.

V. *Sane patient. Bad effects of sulphonal.*

CASE 10.—W. B——, aged twenty-six. Night wa Being new to the duty was unable to sleep by day. To thirty grains of sulphonal. Slept eight or nine hours, but woke with a splitting headache. Thirty grains were tried on a second occasion with the same result.

VI. *Sane patient. Good effects of sulphonal.*

CASE 11.—This patient had a severe cold, with high temperature and sleepless nights. Antipyrin was taken during the day. Sulphonal (thirty grains) taken nightly produced excellent effects.

Modes of Administration.

After a repeated series of experiments I find sulphonal (in the proportion of thirty grains to one ounce of the menstruum) to be insoluble in cold water, brandy, sherry, ether, nitric acid, and liquor potassæ. It is soluble in all these menstrua if boiling, but rapidly precipitates on cooling. It remains in solution far longer in brandy than any other liquid, and might be advantageously given by mixing boiling brandy with sulphonal in solution with hot beef-tea, which is, however, a nauseous compound. It is difficult to dissolve in any case, and is more appropriately administered in the solid form, as it is quite tasteless; nor does it burn the mouth as chloral does. It may be conveniently given as follows:—(*a*) In warm beaten-up eggs and milk; but the mixture must be well stirred before taken, or the drug will sink to the bottom. (*b*) In stewed fruit, with plenty of juice and white pounded sugar. (*c*) In milk puddings, either mixed with the pudding or with the sugar given with the pudding. (It has been tried in the gravy of meat, but is usually detected by the patient.) (*d*) In hot soup it is freely soluble, but the mixture must not be allowed to cool, or the drug will be found as a deposit at the bottom of the basin. (*e*) May be given also between two thin slices of bread-and-butter. A few grains of calomel may be added if necessary. Both drugs are tasteless. (*f*) Might be given made up in a confection or in jam. (*g*) With patients who do not refuse medicine the following formula may be used:—Sulphonal, 20 gr.; pulv. tragacanth., 20 gr.; syrup. aurantii, 1 dr.; aquam ad 1 oz. The draught to be well shaken. (This formula is from Mr. E. T. Hall.)

Conclusions.

Sulphonal is a most valuable sedative in chronic insanity with recurrent attacks of excitement. It is, however, somewhat curious that, in recurrent excitement, the drug should prove so efficacious, whilst in continued excitement (a form strongly resembling recurrent excitement) the effects should be not only slightly marked but also apparently injurious, by increasing the state of excitement in the patient on the following day. The lesson to be learnt from a study of the effects of sulphonal is that we ought to endeavour to ascertain in what form of alienation and under what particular conditions this or that individual drug is indicated. It is only by the application of one special remedy to a special symptom, or by a mixture of remedies appropriately chosen to a mixture of symptoms, that we can hope to gain any advance in the empirical treatment of insanity.

SULPHONAL IN THE INSOMNIA OF TYPHUS.

BY C. KNOX BOND,
RESIDENT MEDICAL OFFICER, CITY HOSPITAL, SOUTH LIVERPOOL.

A DRUG which will induce sleep in typhus fever (and yet avoid the tendency of some other hypnotics, notably opiates, to cause stupor and allied conditions leading up to coma), and further which can be given with confidence when these conditions are already to some extent present, substituting natural sleep for semi-stupor, would be of extreme value in the treatment of this disease. Sulphonal could scarcely be submitted to a more severe test as regards its harmless, sleep-causing powers than when tried in this direction, and in estimating its worth the following analysis of notes of twenty-three cases in which sleeplessness occurred as a prominent symptom among a total of seventy-

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yphus treated in the City Hospital, South
uring the past twelve months, may be of service.
uble and tasteless powder was given in thirty-grain
fixed with beef-tea, warm milk, or whisky-and-
at 8 or 8.30 P.M. The largest amount given was
ty grains in three doses divided over a period of six
ours. The typhus was of a severe type, diarrhœa being present in a large number of cases, and exerting its influence in this as in all febrile disorders, as perhaps the most pernicious symptom to be dealt with, the frequent ochrey-yellow alkaline "typhoid" stools, now almost rare in our enteric wards, reappearing amongst these typhus cases. In all the cases from which these notes were taken the spotted abundant eruption of typhus was present and unmistakable.

In nearly all cases sleeplessness had been present for a period of twenty-four hours and upwards before the drug was first given, and was associated with active delirium, and an estimate of its effect as a sleep inducer cannot be separated from consideration of its calming effect on delirium; in the few cases in which the drug had no immediate effect in causing sleep it was noted that the delirium was lessened and that the patient became quieter. After the sleep of sulphonal it was usual to find patients previously violently delirious had become quieter and more rational. Only in one case was it noted that the patient had become "more violently delirious and restless" after the drug; on the dose being repeated he still remained restless and delirious for three hours, then became quiet and had sound sleep for five hours, awaking quiet and sensible. This man had been a heavy drinker, consequently the delirium was intractable. The time before sleep was induced was commonly half an hour, the shortest time less than ten minutes, the longest three hours (the above case, and a case of maniacal delirium after abortion), and four hours (one case of pneumonia in which the next night sleep followed in half an hour). The drug failed in two cases to produce sleep; in one it was administered in the afternoon, in a case in which typhus and typhoid were both present, with severe diarrhœa and delirium, opium in considerable doses also failed; in the other the failure was due in great measure to the fact that the patient was under partial restraint, owing to violence of delirium, chloral also failing from the same cause. In five cases the first dose given failed, and had to be repeated, sleep following second dose, given four hours later; in four cases, in one a powerful man very violently delirious, and who had recently drunk hard, sleep did not ensue until after the third dose on two occasions, the three doses being given in one instance within nine hours, and on the following night within six hours. This man was afterwards quiet and tractable, and made a good recovery. The duration of the sleep averaged from three to five hours, the longest being twelve hours, the shortest an hour and a half. The character of the sleep in the majority of cases was sound natural sleep, from which the patients could easily be roused for nourishment, quickly dozing off again. In a few moaning and slight uneasiness were noted; in many the effect lasted during the following day, the patients being drowsy and sleeping at intervals. The patient's own sensations were seldom obtainable, owing to the mental condition. Equally no suggestion was present in their minds as to the anticipated effect of the powder, but the more rational always expressed themselves as feeling better after sleep; none suffered from headache. In a large proportion of cases pulmonary congestion was severe; in a minority pneumonia was present. These cases exhibited no increase of dyspnœa or lividity after taking the drug; in no case was the pulse found to be altered in force, volume, or rhythm. Dryness of either the tongue or skin was not increased. Moistening of the edges of the tongue and sweating were occasionally noted on the day after the powder was given. Any possble effect of the drug as a factor in the causation of the diarrhœa was carefully negatived. The difficulties in the way of obtaining evidence as to any effect on secretion of urine appeared insuperable as separate from those of the disease itself, albuminuria being usually present on admission. Diminution, increase, retention, and incontinence of urine were fairly common symptoms.

In only one case was there any suggestion of possible ill-effect of the drug. It was a man aged twenty-two years, in whom from the first there was evidence of profound heart failure, rapid cardiac dilatation, associated with petechial rash and albuminuria in excess; the whole condition pointing to impending collapse, which actually occurred at the time of the crisis. The temperature fell in a few hours from 104° to normal. Death ensued five days later, on the eighteenth day. Sulphonal had been given twice the previous night; but on careful examination of the facts of the case it would not seem to have contributed towards the fatal result, which was due to collapse at the time of the expected crisis. In this case diarrhœa, by far the most fatal factor in this series of cases, was present almost throughout the illness.

As far as these cases can be fairly said to prove anything, they indicate clearly that sulphonal is of very great value as a means of inducing sleep in typhus, and remarkably free from attendant disadvantages. With the few exceptions above noted, easy natural sleep was with certainty induced within a reasonable time, and the condition was again easily established on subsequent occasions. The patients benefited by the rest, and in no case suffered from the remedy. I have to thank Dr. Wm. Irvine, under whose care these cases were admitted, for permission to publish these notes.

A CASE OF

INTRA-PERITONEAL HÆMATOCELE DUE TO RUPTURE OF A TUBAL PREGNANCY TREATED BY ABDOMINAL SECTION, AND REMOVAL OF THE RUPTURED TUBE.

By LAWSON TAIT, F.R.C.S., &c.

NOTHING could offer a more striking—indeed I may say a more startling—contrast than the case I am now about to narrate when compared with the case narrated in THE LANCET of Aug. 24th by Mr. T. N. Thomas of Leicester. On the morning of Aug. 20th, at 11 o'clock, Dr. Thomas Nelson, of this city, walked into my consulting-room and told me that he had seen, the night before, a married woman of twenty-six, who had complained of sudden access of pain and discomfort in the lower part of the abdomen. She had rapidly got worse, and when seen by him on the morning in question she was found in a condition of collapse, acute anæmia, and all the symptoms of internal abdominal hæmorrhage, and the one point in the history which gave him a clue to the nature of the case was that she had gone two weeks past her time of expected menstruation. He made the diagnosis of ruptured tubal pregnancy, and from his description of the case I had no hesitation in concurring with him. I advised him to bring the patient in a vehicle to my private hospital as rapidly as he possibly could, whilst meantime I made all necessary preparations for immediate abdominal section. Within an hour everything was ready; the patient was found to be absolutely pulseless. She was anæsthetised. I opened the abdomen and, as one of the spectators afterwards said to me, "the rush of blood was as if I had opened a hydrant." Regardless of the blood and blood clots, I went straight for the fundus of the uterus, and in a moment discovered that the tubal pregnancy existed and had ruptured in the right Fallopian tube. Passing a needle swiftly into its base, I tied the broad ligament, cut off the tube and ovary, and then a little more leisurely proceeded to remove many pounds of clots and blood serum from all parts of the abdomen. I closed the abdominal wound, leaving in a drainage-tube. Not a single drop of blood was lost, and the progress of the case is briefly this. At 5 P.M. on the day of the operation the temperature was 36°, and no pulse could be felt save a slight flickering on deep pressure at the root of the neck. The patient's pupils were widely dilated, and did not respond to the stimulus of light. The only appearance of life was a slight movement of the nasal cartilages and of the diaphragm. Her face was a ghastly waxen yellow. By 11 P.M. the temperature had risen to 38°, but no pulse was perceptible, nor did the slightest flicker make its appearance till thirty-six hours after the operation, and it was fully forty-eight hours before it was possible to count it. The first record gives pulse 140; on the 22nd it came down to 126; on the 23rd it came down to 103; and on the morning of the 24th the temperature was 37°, and pulse 89, the abdomen being perfectly flat. In the evening of the same day she passed a characteristic decidual membrane. She is now beginning to eat,

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is perfectly comfortable, and may be regarded as having already entirely recovered from her serious condition.

In Mr. Thomas's case the tubal pregnancy ruptured outside the peritoneum; in this case the rupture took place into the peritoneal cavity. The trouble in both cases was the same—hæmorrhage. In Mr. Thomas's case the hæmorrhage was limited by the hæmostatic influence of the broad ligament. In my case there were none of nature's efforts to arrest the hæmorrhage, and in another hour it would have been hopelessly fatal. The differential diagnosis was made by the presence of a supra-pubic tumour in Mr. Thomas's case, and the absence of such in mine. This is the point upon which I have always laid most stress. The case was seen and the operation performed in the presence of Dr. Thomas Nelson, and my assistant, Mr. Teichelmann, Dr. Ostrom of New York, Dr. Arthur Johnstone of Danville, Kentucky, and Mr. O'Callaghan of the city of Carlow, and it constitutes the forty-fifth of the kind I have operated upon.

Mr. Teichelmann made a careful examination of the preparation, and the rent in the tube is not more than a quarter of an inch in extent, the fœtus is of not more than the fourth week of its existence, and lies in its membranes still *in situ* within the torn tube. There is no blood within the cavity of the tube, and the size of the mass is mainly due to effusion of blood in the muscular coat supporting the layers in all directions.

Birmingham.

REMOVAL OF SPLEEN.

By W. K. HATCH, F.R.C.S.

ALTHOUGH this case was a failure as far as the result was concerned, yet there are some points of interest connected with it which make it worth recording.

Enlarged spleens are common enough in India, but the operation of removal is seldom performed, nor would I press anyone to undergo it, although several successful cases have been recorded. The risks are so great that after a proper explanation of them has been given to the patient he may well be left to decide as to whether he is willing to undergo the operation. This patient came into the hospital urgently requesting to have the spleen removed, and therefore took on himself the bulk of the responsibility. At first he was treated in the medical wards by Surgeon Dimmock, but only a very slight improvement took place in his condition. As to when it is advisable to remove a spleen there are no very definite rules as far as I am aware. If, as in this case, the patient's life were made miserable, and medical treatment had given little or no relief, then I should say it might be considered desirable to operate. No one surgeon has had sufficient experience of these cases to formulate any precise rules as to the choice of cases for operation. I have myself only seen the operation once performed, and that on a man with a very soft spleen. The difficulties of "delivering" such a spleen are very great; certainly a firm, hard spleen is much more easily manipulated, and therefore more favourable for operation. The presence of adhesions cannot easily be diagnosed beforehand; the huge mass always appears unwieldy and more or less fixed above, though the margins may be easily elevated and depressed. In the present instance adhesions to the diaphragm were the direct cause of failure, nor do I see how their presence could have been detected. Apart from the danger of hæmorrhage by rupture of the spleen itself, or some of its vessels, the operation cannot be said to have any special dangers greater than those of ovariotomy, for instance; but this danger is so great that it almost negatives the desirability of performing it. Even from the abdominal incision the bleeding is very free, owing to the poor condition of the blood.

The patient, an extremely emaciated Hindoo of about thirty years of age, with the characteristic sallow appearance and flabby condition seen in cases of enlarged spleen, said that about eight months ago he had had fever (quotidian), not preceded by chills, but followed by profuse perspiration. This continued for a month, and then left him; a small swelling then appeared at the left costal margin, which gradually increased, but without pain; the weight caused him considerable inconvenience. Previously to this he had never suffered much from fever, but, being a professional beggar, was a good deal exposed at night, and lived in an unhealthy locality; at one time he had been intemperate in his habits. Had suffered from dysentery and puffiness of the feet and legs from time to time. He was extremely anæmic and emaciated, the abdomen looking very large in comparison with the wasted limbs and thorax, the legs œdematous. There was slight bronchitis, also diarrhœa, with blood and slime in the stools. The conjunctivæ were tinged yellow, and night blindness was complained of. The abdomen was much enlarged, and contained a small amount of fluid; a tumour (the spleen) extended from the left costal margin, and an inch below the umbilicus, and as far as the median line; it was somewhat movable, with a hard and smooth surface; the notch could be felt about an inch above the umbilicus. The tumour was painful, particularly during movement, and the patient himself said that he would rather die than remain burdened with his disease. The liver dulness was normal; the urine contained a slight amount of albumen, but no casts. Heart action weak, but normal. As before stated, the man was first treated in the medical wards, and there was some relief of the abdominal dropsy; the tumour continued painful. Quinine, arsenic, and iodide of potassium were given internally, and mercurial ointment was rubbed over the spleen. After two months of this treatment a very small diminution was recorded; but the man was not satisfied, and begged for removal of the tumour. The dangers of the operation were fully explained, and the patient remained firm in his determination to undergo it, merely stipulating that if he died his body was to be removed by Hindoos. I accordingly undertook to operate, and performed the operation on Aug. 14th, 1888, Surgeon-Major Banks and Surgeon Dimmock being present. A free abdominal incision was made, and the very free oozing stopped before opening the abdominal cavity. When this was done the interior was well illuminated by the electric light and the spleen examined. The hand was then carefully passed round in order to ligature the splenic vessels. While doing this adhesions were felt between the diaphragm and the spleen during their separation, which was most cautiously done. Hæmorrhage to an alarming extent suddenly occurred, the ligature was applied as rapidly as possible, but not before a considerable quantity of blood had been lost. The separation and delivery of the spleen were thus completed without difficulty. The peritoneal cavity having been cleansed and the pedicle inspected, the wound was closed and dressed with dry dressings. A saline injection was introduced into the right basilic vein, as the patient was in rather a critical condition. For a time he rallied, but became again collapsed, and died the same evening. Examination of the spleen showed that it was a suitable one for removal. It was extremely hard, and much pigmented; there were some rents in the capsule where adherent to the diaphragm. Post-mortem examination showed that the pedicle was safely secured; but there had been considerable oozing from the diaphragm, and ten ounces of blood were present in the abdominal cavity. It is not such an easy matter, as would appear from Sir Spencer Wells's case, to successfully pass the ligature without causing injury to the vessel or the organ itself, and very great care is required in this procedure. Should such injury occur, the bleeding is not easily controlled.

Bombay.

CASE OF SUICIDE AT GREENWICH.—A very determined and carefully planned suicide has recently occurred in Greenwich, where the deceased, who left voluminous descriptions of what he was about to do, with directions to assist the coroner to identify the articles left behind, seems to have swallowed 128 pills or pellets of crude opium, such as are used for smoking in the East, and weighing about a grain each. In addition to the 128 pills swallowed, 242 more were found, as to which the deceased considerately left a request that the remainder should be destroyed, for fear they should fall into the hands of some person unacquainted with the effects of "the mighty drug." Amongst other articles found was a tin box, which was labelled with a note saying that it contained "fresh butter and honey, to assist the palate in swallowing this great amount." The cause of the deed was ruin produced by "the cursed horse-racing," as to which the poor man goes on to remark that he had made a fair little fortune at it for years, but that this was easily spent, until at last he had lost all.

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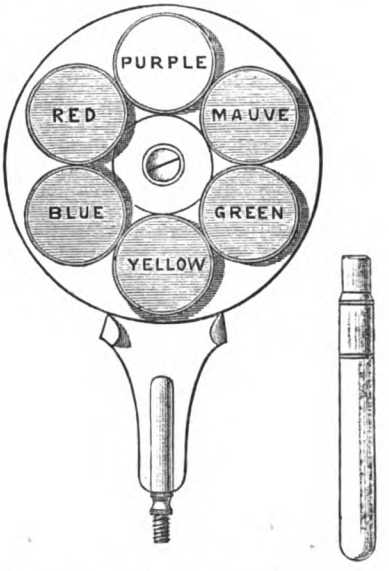
Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

COLOUR TEST FOR RAILWAY PURPOSES.

By H. A. LEDIARD, M.D., F.R.C.S. ENG,
SURGEON TO THE CUMBERLAND INFIRMARY AND TO THE LONDON AND NORTH-WESTERN RAILWAY AND OTHER RAILWAYS IN THE CARLISLE DISTRICT.

THE drawing which is here given represents a simple instrument, devised for the use of surgeons who are required to test the colour vision in men and lads taken for employment on the railway. The colours given are blue, yellow (i.e., the railway signal white light), green, mauve, and red. The test is used by holding the instrument against a light, and turning the disc round so that the person examined sees the colours in much the same way as he would were he looking at signals. The instrument has been made for me by Messrs. Curry and Paxton, and can no doubt be improved on; the addition of a piece of smoked glass, for instance, would make the colours much the same as they would be in a fog. I find all that is really needed is to test with the colours used on the railway, hence I limit the use of the instrument I have invented to that purpose. I believe that the colours being arranged so as to be rapidly changed will facilitate the work of the surgeon, and be a no less sure test of the colour-vision needed for railway purposes.



Carlisle.

A CASE OF ENURESIS OF LONG DURATION RAPIDLY CURED WITH BELLADONNA.

By GEO. HERBERT SALTER, L.R.C.P., M.R.C.S. ENG.

IN January last, whilst practising in Victoria, I was consulted by Mrs. B —— in reference to her son aged seventeen years. She told me he had always "wetted his bed" since infancy. She had consulted a doctor some years before, who told her the lad would grow out of it. On examination, I found the patient a bright, intelligent, healthy-looking boy. No sign of disease was discoverable. Bladder, prepuce, urethra, and urine were all they should be, and there was no evidence of worms. He told me that he passed his urine just before awaking from his first sleep, and that it had occurred, with very few exceptions, each night for as long as he could remember. That volition had been exercised fully in endeavouring to overcome the habit was proved by his informing me that he was so ashamed of himself that when visiting away from home he preferred and used to sit up the greater part of the night to avoid the usual disaster. I told him he might look forward to a speedy relief from his trouble, and gave him a mixture composed of twenty minims of the tincture of belladonna and ten grains of bromide of potassium in each dose, to be taken three times daily. In addition I advised him not to sleep on his back, to hold his urine rather longer than usual through the day, to drink neither tea, coffee, nor alcohol, but to content himself with milk or water, and be sure to drink nothing after 6 P.M. (he usually went to bed at ten o'clock).

I saw him three days after the first interview, and was more than pleased to learn that the second night after commencing the medicine he was free from incontinence. He took one drachm of the tincture of belladonna daily for a fortnight, and during another fortnight the doses were gradually diminished; at the end of that time he discontinued the mixture. I met him in the early part of April, just before I left the colony, and there had been no recurrence of the disorder. Fully six weeks having elapsed since he left off the belladonna, one could certainly consider him cured.

The case is, I think, an unusual one, considering the age of the patient, the duration of the disorder, and the rapid manner in which it yielded to treatment.

Edinburgh.

INTRA-URETHRAL CHANCRE, CAUSING RETENTION OF URINE.

By ROBERT J. CARTER, M.B. LOND., M.R.C.S.,
HOUSE SURGEON, MALE LOCK HOSPITAL.

I AM indebted to Mr. Milner, under whose care this patient came, for permission to publish the following notes.

C. G——, aged twenty-seven, presented himself at the out-patient department complaining of inability to pass urine. He had noticed difficulty in commencing micturition for the last week, and for eighteen hours previously to his attendance at the hospital, retention had been complete. On examination the bladder could be seen and felt as a distinct tumour, extending upwards nearly to the umbilicus. A small papular rash covered the thorax and abdomen. The lips of the meatus urinarius were everted and congested. Situated within the fossa navicularis could be felt an indurated mass, involving the whole circumference of the urethra. The dorsal lymphatic of the penis was thickened and indurated, and the inguinal glands on both sides enlarged and hard. There was no affection of the throat or other glands. A No. 3 silver catheter was passed without difficulty into the bladder, and the urine drawn off. The patient was directed to pass by means of a probe, a strip of lint covered with mercurial ointment, through the indurated urethra every time after micturition, and mercury was prescribed by the mouth. The subsequent history of the case is without any special interest, no more difficulty with micturition being experienced. Absolute retention of urine from this cause is, I think, sufficiently rare to justify the publication of the case.

LUXATION OF SACRO-ILIAC ARTICULATION.

By G. C. EDWARDES-KER, L.R.C.P. LOND.

A. F——, aged thirty-seven, married lady, multipara, hard constitution, and well developed, consulted me with regard to an excruciating pain catching her suddenly, and leaving her as quickly, in the sacro-iliac region. She stated it came upon her suddenly when she arose from the sitting posture, and was of such an intense sickening nature that, to use her own expression, "it took all her strength away." As a matter of course, owing to the season, I attributed it to some rheumatic disturbance, and prescribed the ordinary rheumatic lumbago-gouty remedies accordingly, and also ordered a belladonna plaster, which also, as a matter of course, did no good whatever. At my first visit, being somewhat puzzled by the peculiar description she gave of her ailments, I suggested an examination in the semi-nude state, and upon carefully going over the region complained of, I felt somewhat relieved of my own stupidity and denseness when I discovered a decided "fore

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and aft" movement in the sacro-iliac articulation accompanied each time by the sickening pain complained of. She being seven months advanced in pregnancy, I came to the conclusion that the mischief was being considerably aggravated by the weight and pressure of the child, even if it were not altogether caused by her pregnant condition, so I adjusted a stout jean bandage around the hips and sacrum, reaching low down over the mons veneris so as not to cause inconvenience to her abdominal economy, which latter part I have had supported by a laced abdominal belt, and am exceedingly gratified with the result, for, with the addition of a flat pad directly over the damaged articulation, I find there is little or no displacement taking place. Consequently the cartilage does not get jammed as hitherto, and I hope, in spite of her pregnancy, the sacro-iliac ligaments will regain their normal tenseness and prevent a recurrence of the distressing symptoms, which have modified considerably, so that she can attend to her household duties; but of course I have forbidden her to lift so much as a feather.

Woodbridge.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

EVELINA HOSPITAL FOR CHILDREN.

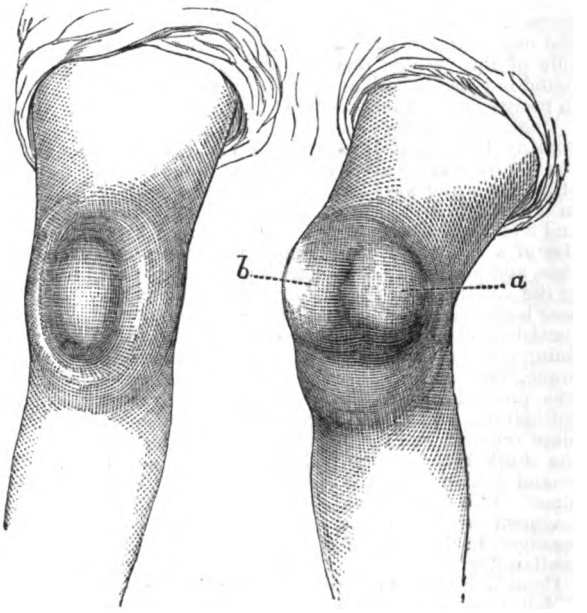
CASES FROM THE SURGICAL OUT-PATIENTS, WITH REMARKS—(*Continued*).

(Under the care of Mr. FREDERIC S. EVE, Surgeon to out-patients, and Mr. LEONARD A. BIDWELL, Registrar.)

THE following case of displacement of the patella illustrates a form of dislocation of considerable rarity, and one which is of much interest. In a large number of instances, the histories of which are on record, the displacement has been outwards, and not observed until some years after birth. That it is occasionally of congenital origin is proved by cases published by Holthouse,[1] Carswell,[2] South,[2] and other surgeons, in some of which the dislocation occurred on both sides. The term "spontaneous," suggested by Mr. Eve, or the word "recurrent," appears to describe the condition to which he draws attention, a form of outward dislocation of the patella occurring in children who, on examination of the part, do not necessarily present evident malformation or disease, and which is liable to recur without any (apparently) adequate cause. Various reasons have been suggested why outward dislocation of the patella should happen without severe injury; we cannot, however, do more than mention them: sudden muscular contraction in patients the subjects of knock-knee;[3] weakness,[4] or shortening of the quadriceps extensor following infantile paralysis; some mechanical cause acting during intra-uterine life; some congenital weakness of the part;[5] absence or want of development of the external condyle of the femur.[6] Professor Steubel,[7] from experiments on the dead body, came to the conclusion that it could only occur in joints the ligaments of which had been previously relaxed. Hamilton[2] says, "In some persons there appears to exist a preternatural laxity of the ligamentum patellæ or of the quadriceps extensor which exposes the subject to this accident from a very slight cause. This recurrent displacement is not necessarily accompanied with any inconvenience to the patient, and does not appear to be followed by inflammation or swelling of the joint, though sometimes the patient has pain and may fall suddenly whilst walking or running in the street. The use of massage or the application of an apparatus generally suffices to keep the patella in position, but operative measures have occasionally been tried. Wright (in his case a girl aged seven years and a half) operated through a lateral incision, pushed the patella inwards, passed two catgut sutures through the inner edge of the bone, and tied them firmly down to the tissues on the inner side of the joint. When last seen by him many months later the patella kept its place, and the knee did not trouble her. Mr. Davies-Colley has suggested osteotomy, and the production of a condition of bow leg. Fowler,[2] in a case under his care, divided the patellar tendon subcutaneously without benefit, and eighteen days later removed the patella itself—a somewhat severe procedure.

CASE 3. "*Spontaneous*" *dislocation of patella.*—Elizabeth D——, a well-nourished child six years of age, was brought as an out-patient at the beginning of the year. One year ago the mother had noticed that "the bone of the knee came out," but before this nothing abnormal had been observed. The child had a fall three years ago, after which she ran about, but did not complain of any pain. When the legs are extended, both knees appear normal, but there is some atrophy of the muscles of the left thigh. The left patella is unduly movable and can be pushed both outwards and inwards to a considerable extent, the latter

FIG. 1. FIG. 2.



movement being the most free. When the joint is flexed to a right angle, the patella slides into a position below and to the outer side of the external condyle of the femur. Fig. 1 represents the limb extended, the patella occupying its natural position; Fig. 2 the limb flexed, *a* indicating the patella displaced outwards, *b* the internal condyle. The condyles are nearly of natural form, but the outer appears somewhat rounded. The capsule of the joint seems to be lax, but the ligamentum patellæ is normal. The vasti are atrophied. The child walks naturally and has no pain. There was no evidence of rickets, the hip-joints were natural, and there was no difference in length between the two legs. No genu valgum. The patella can be kept in position by the thumb when the knee is flexed. The dislocation appeared to be due to the lax condition of the ligaments on the inner side of the joint rather than to any alteration in the articular surfaces of the bones.

Remarks.—The occurrence of displacement outwards is naturally favoured by the normal obliquity of the femora to the inner side of the axis of the limb. Three forms of this dislocation have been described by M. Berselhagen.[8] The first form, called "incomplete," is noticed only when the leg is extended and abducted; but on flexion of the knee the patella glides into its place. In the second variety, called "intermittent," of which the above case

[1] THE LANCET, vol. ii., 1872.
[2] Hamilton, Fractures and Dislocations, p. 893.
[3] Erichsen, vol i., p. 710.
[4] Pitts, Proceedings of Medical Society, vol. xii. See also Malgaigne.
[5] Wright and Ashby, Diseases of Children, p. 648, and others.
[6] Stokes, Proceedings Dublin Path. Soc., vol. ii., p. 247.
[7] Holmes' Surgery, p. 464.
[8] La Semaine Médicale, 1885, p. 33

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is a very good example, the knee appears normal on extension, and the displacement only occurs on flexion. The third variety is called "permanent," and in such cases the patella lies always over the outer side of the knee-joint, whether the knee be flexed or extended, and even under chloroform no replacement of the patella can be effected. In this form, too, complete extension is impossible. In the intermittent variety the patient can walk quite well on flat ground, and only experiences inconvenience when moving on an inclined plane. Mr. Golding Bird, in a communication to the Clinical Society,[9] considered that the deformity was caused by shortening of the quadriceps extensor following paralysis (probably infantile) of that muscle, and had, therefore, performed tenotomy of the ligamentum patellæ, but without any benefit. He suggests that the name of the dislocation should be altered from congenital to paralytic. Some objections might be raised to this view, as there was no history of paralysis in his case, and the electrical reaction of the muscles in his as well as in our case was normal. The atrophy of the limb appears more probably due to impaired function. The true cause of this curious displacement can only be discovered by careful dissection, and the opportunity for this has yet to come. In our case the parents objected to any operation, so that an attempt to remedy the malposition by shortening the capsule on the inner side could not be considered. A pelvic band with leg irons, allowing only limited movement at the knee, was given to the child, and a horseshoe pad was attached to the outer iron in such a manner as to press on the outer side of the patella, and so retain it in position. It was found impossible with any apparatus to maintain the patella in position when the knee was strongly flexed.

CASE 4. *Sub-hyoid dermoid cyst.*—Rose M. R——, a healthy looking girl, twelve years of age, was brought to the out-patient department in November, 1888, on account of a fluctuating swelling in the anterior part of the neck, in the middle line. This had been noticed five or six years, and had been increasing in size, having now attained the size of a cob nut. The tumour was not adherent to the skin, and projected between the hyoid and thyroid cartilages in the middle line. On opening the cyst, it was found to pass backwards and behind the hyoid bone. The contents consisted of oily matter and crystals of fatty acids. The lining membrane was smooth, and resembled mucous membrane, but no microscopic examination was made. It was probably lined with columnar and perhaps ciliated epithelium. As much as possible was removed, but complete removal was impossible, owing to the narrowness of the chink between the hyoid and thyroid cartilages. The wound healed within a fortnight, and no recurrence took place. This cyst probably originated by cutting off a small fragment of the mucous membrane of the respiratory passages, in the closure of the bronchial arches along the median line.

CASE 5. *Vascular tumour of meatus urinarius.*—E. J——, a delicate girl, aged six, was first seen on March 30th. She was brought on account of pain in passing urine, and some discharge from the vulva. There was a vascular tumour completely surrounding the urinary meatus and projecting from it about a quarter of an inch; its circumference was about the size of that of a hazel nut. It was very painful when examined. Electrolysis was tried without affecting the size of the tumour. A week later it was removed completely with scissors, the hæmorrhage not being excessive. When seen last (about one month later) the child was quite free from any recurrence or stricture. Notices of similar cases at such an early age are very rare.

CUMBERLAND INFIRMARY.

LYMPHO-SARCOMA OF TONSIL; LARYNGOTOMY AND ENUCLEATION; RECURRENCE IN CERVICAL GLANDS; EXCISION; RECOVERY.

(Under the care of Dr. HENRY A. LEDIARD.)

IT is now more than two years since the patient whose case is here recorded by Dr. Lediard first came under his observation, and the account given below shows a successful method of removal of malignant disease of the tonsil at the age of sixty-two years. At the time of operation the growth had been in existence between two and three months, but the glandular enlargement was not marked; it was not until seven months later that the glands were removed, and the operation required for that purpose, though extensive, has fully justified its performance. Lympho-sarcoma of the tonsil is a rare disease, and shows great malignancy, tending to recur soon after removal, and infiltrates the neighbouring glands at an early stage. There are few cases on record where the disease has not recurred locally or in the glands within a few months after removal. Mr. A. E. Barker's case resembles this in some respects; the patient, a man aged seventy, had a growth in his throat of three months' duration. This, a lympho-sarcoma, was removed through the mouth, and enlarged glands excised from the neck. He was alive a year afterwards. Butlin[1] recommends removal through the open mouth, "as removal of the disease through the mouth in suitable cases has not hitherto proved very dangerous. No case of cure can be claimed for operation through the open mouth, but several cases of relief of longer or shorter duration." He strongly recommends it, giving the mortality as 7·69 per cent., as against 20 per cent. in cases treated by removal of growths by incision from without, whether by the method of Cheevers, that of Czerny, or that of Mickulicz.

The patient's age was sixty-two, and he complained of difficulty in swallowing, the sensation being like "a lodgment in the throat." There was no appearance of ill health, neither had he lost flesh. The voice was thick, and, as far as he knew, the dysphagia was not more than of a month's duration. The right tonsil was uniformly enlarged by a growth which passed in front of and nearly concealed the uvula. To the touch the growth was soft and painless; it was of the same colour as the other tonsil and palate, and had a wide attachment in the usual site of an enlarged tonsil. It was as free behind as it was in front, and did not extend below beyond the usual limits of a much enlarged tonsil. Posteriorly, the surface was uneven; in front, it was smooth. On Sept. 28th, 1887, the patient was also seen by Mr. H. W. Page of London. He also went to Edinburgh at Dr. Lediard's request, to consult Dr. John Duncan, who agreed upon the advisability of operation. On Oct. 26th the patient was admitted into the Cumberland Infirmary. Dr. Sprague, who was house-surgeon at that time, wrote in the hospital case-book: "On Oct. 27th an operation was performed in the usual way, and a vulcanite tracheotomy tube introduced. The pharynx was then stuffed with a couple of sponges, and chloroform continued to be administered through the tube. The tumour was then snipped round the edge with scissors and removed with the finger, easily shelling out. There was very little hæmorrhage. The sponges were removed from the pharynx, and the tube from the larynx, the opening into the latter being covered with dry dressing. The patient was made to breathe warm, moist air, and to rinse the mouth out with Condy's fluid. He made an uninterrupted recovery, not having had any bad symptoms except a slight hoarseness, which rapidly disappeared. The patient left the infirmary on Nov. 7th, 1887." The tumour was soft, and somewhat friable; it was about the size of a large walnut, and, microscopically, consisted of a delicate network, enclosing lymphoid cells in great number. The specimen was exhibited at a meeting of the Carlisle Medical Society on Feb. 9th, 1888. At the time of operation a gland was felt on the right side of the neck, near the angle of the jaw; it was not large, and it was expected that it would subside after removal of the tonsil. This hope was, however, futile, for on May 5th, 1888, about seven months after operation, the patient came to show himself with a large swelling in the right side of the neck, behind, beneath, and in front of the sterno-mastoid. His appearance was bad, he was now pale and thin. There was no regrowth in the throat, and the same gland originally felt near the angle of the jaw was present, mobile but larger. The amount of disease was so extensive that he again consulted Dr. John Duncan, who wrote his opinion in full. Dr. Duncan anticipated a possible cutting of the internal jugular vein, but upon the whole he thought the operation of removal of the glands feasible, but not one to be urged upon the patient. There did not appear to be much pain in the neck, but its lumpiness was very unsightly. On June 20th, 1888, the patient was readmitted into the Cumberland Infirmary. The operation now to be performed was formidable, and Dr. Lediard was assisted

[9] THE LANCET, vol. ii. 1884, p. 778.

[1] Operative Surgery of Malignant Disease.

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by Dr. Lockie during the period of nearly two hours that was taken up by it. An incision along the posterior border of the sterno-mastoid of great length was made; the sterno-mastoid was then cut across and turned up and down, exposing a very large gland the size of a pear, which was easily removed. Numerous other glands, both large and small, were then met with somewhat unexpectedly and removed; they all shelled out with remarkable ease, but all the important structures of the neck were exposed in the process. Enlarged and diseased glands passed behind the anterior border of the trapezius muscle and were removed. Enlarged and diseased glands passed down behind the collar bone, and were also removed. Diseased glands lay amongst the cords of the brachial plexus, and required shelling out. Altogether, some twenty to thirty glands of various sizes were taken away. All of them were readily shelled out when the investing connective tissue was teased away. The sterno-mastoid was then stitched together, and the wound sewn up. There was not upon the whole much bleeding, as the knife was not used after the first steps of the operation. The wound healed by first intention, recovery was rapid and uninterrupted, as the patient went home on July 4th, 1888. Microscopic examination showed the same structure in the glands as that of primary growth. The patient regained health and strength, and is at the present time, August, 1889, in good health and active habits.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Gastric Ulcer communicating with Colon.—Tumour of Muscle.—Symmetrical Aneurysms.—Albinism in a Monkey.—New Growths at Root of Lung.—Sarcoma of Penis.

AN ordinary meeting of the Pathological Society of London was held on Nov. 19th, the President, Dr. W. H. Dickinson, being in the chair.

Dr. SAMUEL WEST showed a specimen of Gastric Ulcer communicating with the Colon, which was removed from a man aged forty, who had been admitted into St. Bartholomew's Hospital for intestinal obstruction. He had been well till three weeks before, and then was attacked with severe epigastric pain after straining and shortly after a meal. Vomiting took place, which relieved the pain, but bore no relation to the ingestion of food. A week after the beginning of the illness it became foul smelling, and afterwards the patient brought up fæcal contents, and passed motions of similar character. This confirmed a diagnosis of gastro-colic fistula. An exploratory incision was made, but nothing found, and the patient died of exhaustion forty-eight hours afterwards. At the necropsy a large ulcer was found in the stomach, extending nearly round its transverse axis and being two inches in width. In the centre of the greater curvature was a small hole, the site of perforation into the colon. In the latter a growth of similar character was found. There was a small cauliflower-like growth close to the pylorus, but separated from the ulcer by a band of healthy mucous membrane. There were no secondary deposits. He dwelt upon the absence of previous symptoms of gastric lesion, and said he had before seen gastric ulcers of great chronicity which during life had given rise to no signs. He pointed out likewise that the ulcer was of medullary cancerous nature, and asked for guidance as to diagnoses in cases of this kind.—Dr. N. MOORE thought perforation into the colon an uncommon occurrence. He had seen a case of cancer of the cæcum which perforated into the duodenum, and a cancer at the cardiac end of the stomach perforate into the small intestine and transverse colon. He was of opinion that it was not rare to find cases such as that described presenting no symptoms, and he recalled an instance in which a diagnosis of pernicious anæmia was made, and transfusion performed, but at the necropsy unsuspected carcinoma of the stomach was discovered.—Mr. ROGER WILLIAMS said that in some cases of cancer of the stomach no symptoms other than those of tumour were present. The pyloric orifice was usually considerably larger than normal in such cases, and he had witnessed the same thing at the ileo-cæcal valve.—Mr. J. H. MORGAN gave the details of a case possessing unusual interest. A man of fifty-eight, six days after being hustled in a crowd, had pain in the left illiac region followed by collapse, with feeble pulse and flaccid abdomen. He was free from pain. Next day the abdomen was full, tender, and tense. To complicate the diagnosis the patient was anæmic, the left femoral pulse was weaker than the right, and there were no gastric symptoms; ruptured aneurysm was suggested. Laparotomy was performed, and turbid but sweet fluid found in the peritoneum. It was washed out with iodine water, and a drainage-tube left in, but the patient died in the night. Next day a small perforation of the stomach was found in the centre of a large ulcer. An adhesion between stomach and transverse colon had prevented extravasation, but peritonitis was started by the breaking down of these adhesions. There was another ulcer near the greater curvature of the stomach, and he believed they were of malignant nature.—Dr. NORMAN DALTON said that the cases related occurred in the intestine, and the lateness of the development of the symptoms might be explained by the fact that the mucous membrane remained intact over the growth till a comparatively late period, and then, when it broke down and ulcerated, pain occurred.—Dr. DICKINSON had seen cases of gastric ulcer without symptoms, and thought it was because the orifices were not involved. He asked whether there was vomiting of solid fæces, indicating a connexion of the stomach with the colon. It was said that lumps of fæces had been vomited by patients suffering from obstruction of the large gut. He related an instance which had come under his notice at the Children's Hospital in which a child in apparently good health was said to vomit fæces, and the child had likewise passed motions by the nose and ears. Under close observation these assertions could not be confirmed.—Dr. WEST, in reply, said that at no time did his patient pass solid fæces by the mouth.

Mr. MARMADUKE SHEILD showed a specimen of Primary Tumour of the Gracilis Femoris Muscle. It was excised by a long incision from the right thigh of a lad aged fifteen, who also suffered from webbed toes. The operation was performed on Aug. 22nd, 1889, and the boy was discharged, walking well, on Oct. 4th. The glands and general health were unaffected, but there was a localised thickening in the right rectus femoris muscle, thought to be of the same nature. This, however, underwent no increase in size during the patient's stay in hospital. Reference was made to the various kinds of tumours and other formations found in muscles, and the rarity of true tumours was insisted upon. These cases had been so fully and ably treated by Campbell de Morgan and Teevan, that a dissertation on the subject would be mere repitition.—Mr. ROGER WILLIAMS asked if striated muscle fibre were found in the sections. It had been known to occur in teratomata, but he believed it to be the only tissue which did not occur in neoplasms.—Mr. BLAND SUTTON asked whether syphilis had been excluded.—Mr. SHEILD, in reply, said that the tumour infiltrated and displaced the muscle fibres, many of which appeared in transverse section. There was no appearance of syphilis and antisyphilitic treatment was tried without effect before excision was resorted to.—On a motion by the PRESIDENT the specimen was referred to the Morbid Growths Committee.

Dr. HALE WHITE then showed a specimen of Symmetrical Intracranial Aneurysms of the Vertebral Arteries, producing symptoms resembling cerebro-spinal meningitis. The patient was admitted for pain in the head, pain in the muscles at the upper part of the neck, retraction of the head, sickness, optic neuritis, paralysis of the left side of the face, paralysis of both hypoglossal nerves, hæmaturia, a mitral murmur, and a slight rise of temperature. The patient died in a fortnight. The diagnosis made during life was that he had cerebro-spinal meningitis, and that possibly this was due to ulcerative endocarditis. At the necropsy it was found that he had got ulcerative endocarditis, and that there was on each vertebral artery about half an inch from their junction an aneurysm the size of a large pea; these aneurysms were the result of emboli. Each aneurysm pressed upon its corresponding hypoglossal nerve, and thus explained the lingual paralysis. The facial nerves were not obviously pressed upon, but the aneurysms were so near them that it is quite possible that during life when distended they caused some pressure. The precise explanation of the retraction of the head was not evident. The

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base of the brain was covered with blood-clot due to the fatal rupture of the right aneurysm. The retinal hæmorrhages and hæmaturia were embolic.—Dr. WASHBOURNE said that he had examined the mitral valve, kidneys, and spleen of Dr. White's case microscopically, and that by staining the sections by Gram's method he had been able to demonstrate chains of streptococci in all these organs, and that the sections were to be seen under the microscopes.—Dr. HADDEN asked if these aneurysms were not due to embolism. It was also interesting clinically that the patient had optic neuritis; this was rarely seen in such cases, because they died suddenly. Some years ago he dissected a specimen of symmetrical aneurysm on the middle cerebral arteries, at their first bifurcation.—Dr. WEST brought forward a precisely similar specimen to that described by Dr. Hadden, and no cause could be found for its development. The patient died suddenly three days after admission; she had been a hard drinker, and had a cirrhotic liver.—Mr. GODLEE asked if there was any spasm of the facial muscles. In a case of convulsive tic of the facial nerve an aneurysm in about the same situation was found.—Dr. CROOKSHANK said the specimens showed streptococci in the form of pure cultivation, and he regarded them as purely epiphytic. Similar, if not identical, organisms had recently been the subject of a somewhat acute controversy; they, or ones like like them, had been found in scarlet fever, especially where there were septic complications, and he referred to a paper in the *International Journal of Medical Sciences*, in which a distribution of the organisms in a manner corresponding to the present case had been found.—Dr. DICKINSON remarked on the rarity of finding aneurysms on the vertebral arteries.—Dr. HALE WHITE, in reply, looked upon the aneurysms as due to embolism. He thought the ulcerative endocarditis was severe enough to cause the slight optic neuritis observed to be present. He was not able to determine whether facial spasm was present before the paralysis developed.—Dr. WASHBOURNE also replied. He said it was impossible to distinguish between these micro-organisms by their morphological appearances, and he had made no cultivations of them.

Mr. BLAND SUTTON showed a drawing which was made from an Albino Macaque Monkey, Macacus simicus. The monkey was interesting in that it suffered from horizontal nystagmus. From an attentive examination of the monkey he came to the conclusion that it was imbecile. It would hang from the wires of the cage by means of its hands and feet many consecutive hours, sometimes uttering a low plaintive cry, taking no notice of the persons round about, but always ready to greedily snatch a soft nut from the hand of a keeper. The mouth was always slightly open, allowing the teeth to be seen, and a peculiar stiffness replaced the remarkable pliability so characteristic of a monkey. These things gave it the peculiar idiotic expression which the artist had succeeded in displaying in the sketch.

Dr. NORMAN MOORE showed some specimens illustrative of new growths. The first was one of Carcinoma of the Root of the Lung. The new growth extended round and into the large bronchi, and a very short distance into the lung. Microscopically it was a carcinoma, with spheroidal and subcolumnar cells and an abundant stroma. The secondary growths were three masses of pea size in the left lobe of the liver and one similar mass in the left kidney. The patient was a man aged fifty-one years, and was under his care in St. Bartholomew's Hospital. He was admitted with an empyema of the left side in August, and had had pain in that side since April. On Aug. 15th two and a half pints of pus were drawn off. The pleura soon filled again, and on Aug. 21st a piece of rib was resected, two pints of pus let out, and two drainage tubes introduced. Pus continued to come out until his death on Oct. 1st. The ultimate cause of death was acute pericarditis. Blood-stained pleural effusion was common in new growths of the root of the lung, but this was the only example in which he had seen a purulent effusion associated with primary carcinoma of the lung. The paucity of secondary deposits was exceptional; they were generally widely distributed. More than half the cases he had seen showed growth into some contiguous structure, and this was absent in this example. The duration of the growth seemed to have been about seven months. The second case was one of Carcinoma of Œsophagus. The lowest inch and a half of the œsophagus was infiltrated with a dense carcinomatous growth, ulcerated on the surface, and shown in microscopic sections to be a carcinoma with columnar and spheroidal cells in a dense stroma. It probably originated in the glands of the mucous surface. The patient was a woman aged fifty-eight years, under Dr. Gee's care in St. Bartholomew's Hospital. The rarity of carcinoma of the œsophagus in woman and the long duration of sixteen months made the case remarkable. The third case was a Sarcoma of Peritoneum, covering most of the abdominal organs, dense, white, and smooth on its surface. It did not enter the substance of any of the viscera. Microscopically, it was a sarcoma containing many spindle cells. The peritoneum over the liver but not the capsule was involved in the growth. It was primary in the right testis, which was removed in December, 1888, and showed a growth of identical microscopic characters. The patient was a boy, aged six years, under the care of Sir Dyce Duckworth in St. Bartholomew's Hospital, and after the operation no symptoms were observed till July, when his abdomen began to swell. He was tapped more than once, but there was little ascites. The growth could be felt as a dense mass extending into the right inguinal region.—Mr. R. WILLIAMS thought the specimen under the microscope was one of tubular carcinoma. Cases of œsophageal cancer commencing in the glands usually had a longer duration than those springing from the free surface. These growths were four times commoner in men than in women.—Mr. R. W. PARKER asked if Dr. Moore could account for the empyema. Did one of the nodules of cancer suppurate or open into the pleural cavity.—Mr. BOWLBY thought the infection of the peritoneum in the third case resulted from continuity of growth, which had spread from the testis up the inguinal canal. He had seen the same thing happen in the pericardium.—Mr. TARGETT asked if in the second case the growth did not originate in the stomach.—Dr. WEST gave it as his experience that the effusion was usually serous or hæmorrhagic, not purulent. He inquired if the tumour started from the bronchus itself.—Mr. GODLEE had seen only one case of purulent effusion, which was serous to begin with; the empyema did not close, and the patient died of a secondary tumour in the brain.—Dr. MOORE, in reply, thought the growth originated in, rather than round, the bronchi. He believed the pleurisy was gradually set up by irritation, and that it became purulent later. He agreed that the œsophageal growth commenced in the glands, and not on the surface, and in the third case the origin was œsophageal, and not gastric.

Mr. HURRY FENWICK showed a mixed Spindle and Round-celled Sarcomatous Growth which Mr. Waren Tay had removed eighteen months ago from the left crus penis of a man aged thirty-six. The tumour had been growing for three years and a half; there was no history of accident, no evidence of stricture, and no invasion of or even pressure upon the urethral canal; slight pain was experienced of a shooting character. The tumour before removal was distinctly elastic towards its anterior part, firmer more posteriorly, where it evidently possessed deep and strong attachments to the left crus; it was completely removed and a small portion of the left corpus cavernosum cut away with it. It originated most probably from the capsule and was invading the cavernous tissue at the time the operation was undertaken. Kaufmann quoted eight cases of the primary disease and two in which it was metastatic, the usual characters being a commencement in the glans penis, a very rapid course (e.g., eight and a half and four months), with multiple secondary deposits in the viscera.

Mr. ROGER WILLIAMS described a case of Malignant Growth he had observed originate in the crus penis. It was a tubular epithelioma, and probably commenced in Cowper's gland.

The following card specimens were shown:—

Dr. H. W. G. MACKENZIE: Congenital Disease of Heart, with right-sided Endocarditis,

Mr. ALBAN DORAN (for Sir Spencer Wells): Dermoid Ovarian Cyst, Infiltration of Broad Ligament with Fat.

Dr. HAWKINS: Phosphatic Calculi in Kidneys.

MEDICAL SOCIETY OF LONDON.

Rupture of Gall-bladder.—Cancer of Colon associated with a Foreign Body.—Acute Catarrhal Laryngitis.

AN ordinary meeting of this Society was held on Nov. 18th, the President, Dr. C. Theodore Williams, being in the chair.

Mr. HASLAM (Birmingham) read notes of two cases that

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had recently been under his care in the Birmingham General Hospital. The first was one of Rupture of the Gall-bladder. The patient, a man aged sixty-three, was admitted first on Aug. 5th, 1889, with a strangulated inguinal hernia on the right side; this was relieved by operation, and he left the hospital on Aug. 27th feeling perfectly well. Within twenty-four hours he was again admitted, with symptoms of peritonitis, and an inguinal hernia on the left side was down and constricted, but reducible by careful taxis. As the symptoms increased in severity, the abdomen was opened in the middle line and the peritoneum found acutely inflamed and containing a bile-stained fluid. The distension of the intestines was so great, and the man's condition so bad, that no attempt could be made to find the rent in the gall-bladder. Death occurred in eight hours. At the necropsy the gall-bladder was found to be extremely thin at its upper aspect over a space as large as a sixpence, and in the centre of this there was a small perforation. The parts about the transverse colon and stomach were very adherent, and the omentum reached into the left hernial sac. The cause of the rupture of the gall-bladder was probably the dragging due to the tension put upon the great omentum by the descent of the left hernia, or else the vomiting might have caused it. There was considerable difficulty in getting a history, but as far as could be made out the descent of the hernia preceded the peritoneal symptoms by a short time only.—Dr. WILLIAMS inquired whether jaundice was present.—Dr. DE HAVILLAND HALL wished to know the condition of the biliary ducts: Was there any obstruction leading to overdistension?—Mr. B. JESSETT asked what part of the intestine was found in the hernia.—Mr. HASLAM, in reply, said there was no jaundice present. He could pass a probe easily down all the bile-ducts. He thought it was the dragging of the omentum on the second hernia which caused the gall-bladder to give way.

Mr. HASLAM then read notes of a second case, one of Malignant Disease of the Descending Colon, associated with impaction of a foreign body. A woman, aged fifty-nine, was admitted on Sept. 5th, 1889, with the following history: For about four or five months her bowels had been difficult to open; she had often gone several days without passing a motion; during this time she had been getting thinner. For the last month there had been almost complete obstruction, and for the latter half of that time she had suffered from vomiting and pain in the abdomen. Enemata and purgatives had failed to give relief. On admission the abdomen was very much distended, and the coils of intestine were easily visible; there was considerable resonance, but no tumour could be made out. On rectal examination a small quantity of fæcal matter was found, but there was no sign of new growth. The general symptoms were thirst, dry brown tongue, vomiting at irregular intervals, quick feeble pulse, and great distress from the distension. An enema of castor-oil and turpentine was given, but nothing came away. The abdomen was then opened in the left inguinal region over the sigmoid flexure, and distended large intestine was at once found; this was sutured to the wound and left unopened. No attempt was made to find the actual cause of the obstruction, as the patient's condition would not permit of any prolonged operation. Within twelve hours from this the patient's bowels were opened, and continued to be so at intervals for the next two days—this gave temporary relief; but as there was still evidently considerable accumulation, the bowel was opened, and from this a very free discharge of fæces took place. For a few hours there was some further improvement, but she soon became weaker, and died six days after admission. At the post-mortem examination the opened intestine was found adherent to the wound; three inches above the opening there was an annular constriction, caused by a deposit of cylindrical epithelioma, that would just admit the little finger, and impacted here was a piece of bone, probably part of a rabbit's sternum. An inch and a half above this there was a rounded perforation, which must have existed for some time from the cicatrised condition of its margin; here there were some fæcal extravasation and local peritonitis. The heart was pale and flabby, the lungs showed some tubercular deposit and fibroid induration at the apices, with congestion of the bases, the kidneys were the seat of old calculous pyelitis, the intestines were soft and friable. Mr. Haslam drew attention to the fact that distended intestine was found below the seat of obstruction. This he believed was due to some leakage of flatus through this, which the patient, owing to her feeble condition, was unable to get rid of. The fact of the bowels acting after the operation was probably due to the bowel having been drawn down at that time, and either the obstructing body dislodged or a kink straightened out; this would also account for the fæcal extravasation by the adhesions around the perforation being disturbed.—Mr. BERNARD PITTS said that the occurrence of malignant disease in association with the presence of a foreign body was very rare. He related a case which had been under his own care in which he performed colotomy for annular stricture in the sigmoid flexure. The patient for two years afterwards passed fæces *per vias naturales*, the artificial anus being used only as an occasional vent. Later acute obstruction supervened, and on opening up the much contracted artificial anus, more than a dozen plum-stones were found impacted. In a second case acute obstruction followed upon chronic and he was uncertain as to its seat; he therefore performed a left lumbar colotomy. A little flatus passed by the opening, but the bowels were open naturally on the second day, and the patient progressed to convalescence. Four weeks afterwards death supervened from acute peritonitis, some fishbones having caused perforation of the gut. The case was then found to be one of cancer of the cæcum, the colotomy opening being below the point of obstruction. He advocated median exploratory laparotomy in these cases, which increased the risk but little and saved the making of an artificial anus in the wrong position. If on such exploration the disease appeared removable by excision, it was better at first to relieve the obstruction only, leaving the radical procedure till later.—Mr. JESSETT asked if, in cases of obstruction on the left side, valuable information might not be gained by passing a long tube up the rectum. He had seen the distal colon become distended after a colotomy; this he considered was due to paralysis of the gut. In cases of cancerous obstruction at the cæcum he advocated implantation of the ileum into the ascending colon, as being a preferable measure to the formation of an artificial anus.—Mr. BATTLE referred to a case on which he operated two years ago, and found a piece of bone impacted above the level of the cancerous growth.—Mr. HASLAM, in reply, could not see the value of the long tube in such cases. There were signs of obstruction low down, and this induced him to perform left lumbar colotomy.

Dr. DE HAVILLAND HALL read the notes of a case of Acute Catarrhal Laryngitis occurring in a lady aged fifty-six. The symptoms of laryngeal stenosis developed with great rapidity, and on examination the patient was cyanosed and suffering from urgent dyspnœa. The temperature was 102·4°, and the pulse 128. Laryngoscopic examination showed that the epiglottis was greatly swollen, erect, and of a bright-red colour. The ary-epiglottic folds were swollen, as were also the vocal cords, which were much congested. The pharynx and tonsils were normal in appearance. After an application of a 20 per cent. solution of cocaine, Dr. Hall scarified the larynx with Mackenzie's guarded laryngeal lancet. The immediate result was the expectoration of some bloody fluid and relief to the more urgent symptoms of dyspnœa. An ice-bag was applied to the throat, and the patient was directed to suck pellets of ice. A mixture containing three grains of iodide of potassium and ten of the bromide was ordered to be taken every four hours. Arrangements were made for the performance of tracheotomy in the event of urgent dyspnœa coming on. Next morning the patient was better, the breathing easier, and the cyanosis had disappeared. The larynx was much less swollen, and the mucous membrane had a crinkled appearance. The urine was found to be albuminous. With the exception of some congestion at the bases of the lungs, which confined the patient to bed for two or three weeks, there was no further cause for anxiety, and she left for the seaside quite convalescent. Dr. Hall drew attention to three points: 1. The rarity of urgent dyspnœa in acute catarrhal laryngitis in adults. 2. The freedom of the pharynx from implication in the catarrhal condition. 3. The treatment which was adopted.—Dr. THEODORE WILLIAMS advocated the old-fashioned plan of administering large doses of antimony in these cases, and he related a case of laryngeal phthisis which was much benefited by this treatment. Which cases were most suitable for the warm moist treatment, and which for treatment by ice?—Dr. W. HENRY WHITE described a case of acute laryngitis occurring in a plethoric man of thirty-five, who at first improved under antimony, but later developed pneumonia and phlegmonous erysipelas of the neck and

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trunk. The two latter complications bore out his opinion that the cause was the absorption of a septic poison.—Dr. FLETCHER LITTLE condemned the bronchitis kettle as ordinarily used, and was likewise dissatisfied with the material employed in the construction of the tents usually erected over the beds of such patients. He had prescribed antimony in cases of catarrhal laryngitis with the greatest advantage.—Dr. BENHAM advocated the employment of emetics in urgent cases. He related an instance in which an apparently moribund patient was restored after vomiting and purgation. He also mentioned with approval the application of leeches.—Mr. PITTS thought that such cases, if not relieved by ordinary remedies, were suitable, if any were, for intubation, which answered well for scalds in children, and was a less formidable measure than tracheotomy.—The PRESIDENT said that the inhalation of exceedingly hot dry air (at 300° or 400° F.) had proved of benefit in lesions of the pulmonary mucous membrane.—Dr. HALL, in reply, said that since he had adopted the routine use of the laryngoscope in these cases he had abandoned both antimony and emetics. He thought ice should be applied both internally and externally in the laryngitis of young adults with acute symptoms and high temperature, while those cases with chest complications were more benefited by the warm moist treatment. Cases with pharyngeal inflammation as well were almost invariably of septic origin. He did not recommend the application of leeches, but he was inclined to look favourably on the operation of intubation as being preferable to tracheotomy.

OPHTHALMOLOGICAL SOCIETY.

Hemianopsia, with Recovery and subsequent Necropsy.—Size of the Cornea in relation to Age, Sex, Refraction, and Primary Glaucoma.—Treatment of Symblepharon, Ptosis, and Episcleritis.

AN ordinary meeting of the above Society was held on November 14th, the President, Dr. J. Hughlings Jackson, in the chair.

Mr. DOYNE read notes of a case of recovery from Hemianopsia, with subsequent necropsy, occurring in an old man. The onset of hemianopsia (right-sided and homonymous) was sudden; the fields of vision recovered in the course of a fortnight, but subsequently a quadrant of the opposite side of each field was lost. Death occurred from cerebral apoplexy. At the necropsy, in addition to the extensive extravasation which caused death, there were found symmetrical lesions (softening) on both sides of the brain in the cortex of the occipital lobe, one evidently more recent than the other.—Dr. JAMES ANDERSON gave an account of a case of homonymous hemianopsia, with recovery, followed by death and necropsy, occurring in a warehouseman aged forty-one, sent to him by Mr. Waren Tay on March 28th, 1889, complaining of failure of vision for six weeks with severe frontal headache, and during the previous week much failure of memory and mental depression. He had been losing flesh for four months, had had no fit, no vomiting, and no loss of sensation or of motor power so far as he knew, but during the previous week he had had two severe falls from inability to see to his right side, and his speech and general manner had altered in character. The family and personal history threw no light on his trouble. He had eight healthy children, and denied all history of venereal disease. He was much depressed about himself, thin and anxious, and had some difficulty occasionally in finding words, but there was no loss of gross motor power or of general or special sensation except as regards vision. His gait and reflexes were normal, and the heart, lungs, and kidneys apparently healthy. The ocular and pupillary movements were normal, and with the exception of an old nebula on the left cornea there was no pathological change in either eye, the discs and fundi being quite healthy. He could read Jaeger 1 with each eye separately, but only with difficulty. The right halves of both visual fields were lost up to but not including the line through the fixation point; the left halves were of average extent. From the symptoms, Dr. Anderson concluded that the patient had an intra-cranial growth, probably malignant, and situated in the medulla of the left occipital lobe, also that a hæmorrhage had taken place into the tumour at the beginning of the previous week. He was admitted on March 29th into the London Hospital, and prescribed full doses of sod. iod. and liq. hydrarg. perchlorid. Perimeter charts taken on March 31st by Dr. Charles Wilson showed right homonymous hemianopsia, with some contractions of the remaining left half of the right visual field. Within a fortnight the headache and mental symptoms had much subsided, and the perimeter chart of April 18th showed only slight contraction of the right halves of the visual fields. Mr. Grimshaw, the clinical clerk, who watched the fields from day to day, believed that the right halves varied considerably, being smaller on days when there was severe headache. The patient left hospital on May 18th, was seized with severe headache and vomiting on May 22nd, and on the 29th had a transient attack of left hemiplegia, which had quite passed off when he was readmitted into the hospital on June 20th. The lower quadrants of the right halves of both visual fields were at this date deficient nearly up to the vertical line through the fixation point, especially on the left side, but otherwise the fields were of good extent, and reading vision was still Jaeger 2 with the right and Jaeger 3 with the left eye, and the fundi were normal. From this time he rapidly deteriorated in mind, and became extremely troublesome; his vision seemed to be more defective, but he would not allow his eyes to be examined. On Aug. 9th he was sent to Banstead Asylum, where he continued in a demented state and died on Oct. 1st. The necropsy made by Dr. Claye Shaw showed a recent blood clot in the posterior cornu of the left lateral ventricle of the brain, with hæmorrhage and softening in the tissue external to this, involving the whole of the angular gyrus up to its surface, the central part of the area being occupied by a walnut-sized cavity containing a straw-coloured fluid. The tissue replacing the angular gyrus was found to be gliomatous in structure. The rest of the brain and the remaining organs of the body seemed to be healthy, and there was no evident explanation of the temporary left hemiplegia observed four months before death. The improvement of the patient under antisyphilitic treatment, and the subsequent transient left hemiplegia, caused some doubt as to the early diagnosis, which was, however, confirmed by the necropsy. Dr. Anderson stated that he had not previously met with a case of recovery from hemianopsia; that in cases of hæmianæsthesia with hemianopsia, for example, from a vascular lesion in the area of the posterior cerebral artery, even when the former group of symptoms disappeared, the latter, very generally at least, persisted. Hæmorrhage had in this case pretty certainly taken place into the tumour at the date of the patient's coming under observation, and a second hæmorrhage into it had been the immediate cause of death. The case was interesting in relation to modern views of visual localisation.—The PRESIDENT said that the subject of the two papers just read concerned the very important question of cerebral localisation. He mentioned two cases which had been under his own care: in one hemianopsia was associated with hemianæsthesia; in the other there was much mental confusion, but neither hemiplegia nor hemianæsthesia. He also referred to the frequent association of hemianopsia and word-blindness.—Dr. HILL GRIFFITH inquired if Dr. Anderson's case had exhibited the hemiopic pupillary reaction.—Dr. S. J. TAYLOR spoke of a case of hemianopsia in which the fields of vision regained their normal limits. Death occurred shortly after, but no necropsy was obtained. Dr. STEPHEN MACKENZIE thought that the two cases now reported pointed rather to the hemianopsia being due to pressure exerted by hæmorrhage on the parts of the brain concerned in vision. The fluctuations in the fields of vision during recovery lent support to that view, rather than to the supposition that the function was taken on by some other part of the brain. He considered that the symptoms were caused by vascular changes in propinquity to the visual centres and the fluctuations in the field by variations in blood-pressure.—Mr. LANG referred to two cases of recovery from hemianopsia, and supported Dr. Mackenzie's views.—In reply, Dr. ANDERSON said that in his case the pupil acted well to light thrown on to either half of the retina. In Mr. Doyne's case it was certain that the two areas of softening in the brain were of different dates; the older patch being in the site of the hæmorrhage which occurred at the time of onset of the hemianopsia; the more recent patch marking the lesion which caused the subsequent loss of a quadrant of the fields in their opposite halves.

Mr. PRIESTLEY SMITH read a paper on the Size of the Cornea in relation to Age, Sex, Refraction, and Primary Glaucoma. He gave an account of certain facts obtained by measurement of the cornea in a large number of human eyes. The inquiry had been undertaken to test the

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truth of a suggestion he had previously made to the Society—namely, that small corneæ are specially connected with a liability to glaucoma in its primary form. The measurements were made by means of a simple keratometer devised for the purpose.[1] The horizontal diameter only was measured, and the nearest half-millimetre was noted. The eyes examined were chiefly those of private and hospital patients with refractive errors or slight ailments such as could not invalidate the result. A number of healthy eyes of old people in a workhouse and an almshouse were also examined. A number of persons affected with primary glaucoma were examined in like manner. The normal cornea: 250 males and 250 females were examined, giving a total of 1000 eyes, representing all life periods from five to ninety years of age. Age, sex, and refraction were noted in every case. Analysis gave the following results: General average, 11·6 millimetres, size variable in individual cases, but not often greater than 12 or less than 11 millimetres; number greater than 12, 34 per 1000—namely, 12·5, 30 eyes; 13, 2 eyes; 13·5, 2 eyes; number less than 11, 17 per 1000—namely, 10·5 in every instance. Stature and size of head were not systematically noted, but there were many larger corneæ in smaller persons and smaller corneæ in larger persons, and therefore no general proportional relation existed in this respect. Classification according to age gave the following results: Average, between five and ten years, 11·67; between ten and twenty, the same; between twenty and forty, nearly the same; after forty, rather smaller, but the difference not large enough to be very positively asserted. The cornea, then—or at least its visible part—attains its full diameter very early in life, many years before the rest of its body completes its growth. Comparison of other data relating to size and weight of different parts during intra- and extra-uterine life (quoted from Vierordt and Manz) shows that the development of the cornea is precocious in relation to that of the eye as a whole; that of the eye in relation to that of the brain; that of the brain to that of the whole body. In advanced life the height of the body and the weight of the brain diminish; the apparent slight diminution of the cornea at the same period may perhaps represent an actual shrinkage due to the same slackening of nutrition; but this is merely a suggestion. Classification according to sex showed a very slight but probably a real difference in each life period, the cornea of the male being on the average about one-tenth of a millimetre the larger. Classification according to refraction showed the unexpected fact that the size of the cornea bears no relation to the refraction, being no smaller in hypermetropia, no larger in myopia, than in emmetropia. This was further proved by comparison of 90 highly hypermetropic with 90 highly myopic eyes. The size of the cornea is determined early in life, and is not affected by the greater or smaller extension of the posterior hemisphere which may occur later. The cornea is full grown at five, or earlier; at any rate, it does not add one-tenth of a millimetre to its diameter after this age. The lens, a near neighbour of the cornea, is full grown only at the other end of life, and, if the life be a long one, adds at least 2 millimetres to its diameter after the cornea has ceased to enlarge. This involves a gradual change in the mutual relations of the two, which may have important consequences. The cornea in primary glaucoma: Sixty-nine persons having primary glaucoma in one or both eyes were examined in like manner. Number of glaucomatous eyes, 99; healthy, 32; some of the patients had lost one eye; the statistics comprise the whole. Average, 11·27; maximum, 12; minimum, 10. Number of corneæ measuring less than 11 millimetres (spoken of as "small corneæ"), 34—that is, 26 per cent. Comparing the glaucoma group with the same life periods in the healthy group, the small corneæ formed 26 per cent. of the one, 4 per cent. of the other. More important even than this, among the 1000 eyes of healthy persons there was not one cornea so small as 10 millimetres, while there were 9 such in the much smaller glaucoma group. A definite relation between the small cornea and primary glaucoma was thus proved. The explanation lay, in the speaker's opinion, in an undue proximity between the lens and the surrounding structures. But this explanation raised certain questions which called for answer. Is the smallness of the cornea a consequence of the glaucoma? The changes occurring at the angle of the anterior chamber might be supposed to opacify the corneal margin. This idea was disproved by the fact that in 7 of the glaucoma patients both corneæ were small, while only one eye was glaucomatous; in one of these the other eye was attacked later. This showed that the smallness of the cornea precedes the glaucoma, and is not caused by it. Is the small cornea small from youth up, or does it become so in later life? There are grounds for holding the latter view. Small corneæ are much commoner in the second half of life; but they are not entirely wanting in early life, and may at this early age be associated with glaucoma (witness Mr. Hartridge's case shown to the Society on March 11th, 1886). When the cornea is small, is the globe small in proportion? As shown already, the refraction gives no answer to this question; it can only be determined by a sufficient number of measurements of cornea and globe. In a recent case of the speaker's what appeared to be a faultless iridectomy, on a glaucomatous eye with a cornea of 10 millimetres, was followed by no relief of the glaucoma. On excision some months later, the eye proved to be exceptionally small, like the cornea—namely, 21 millimetres antero-posteriorly by 21 vertically by 22 horizontally. The refraction of this eye had been 5 D. of hypermetropia. Lastly, is the small cornea associated with a proportionally small lens? If so, the speaker's explanation of the matter falls to the ground. In the case described, the failure of the operation had arisen through obstruction of the wound, which could not have been made more peripherally, by the margin of the lens. Other specimens in the speaker's possession showed the same result. In the important case published by Hocquard and Masselon—microphthalmos with glaucoma—the eye resembled the one above described, but in an exaggerated form, and the lens was found to be "much too large for the eye." The structural conditions in question—large lens, small cornea—were not necessarily present in primary glaucoma, for the disease could occur in the absence of both; but they were conditions which either singly or together give to certain eyes a greater than ordinary predisposition to it.

[1] See Ophthal. Review, November, 1886.

Professor SNELLEN (Utrecht) described an operation for the cure of Symblepharon, which had given him very satisfactory results. His plan was to free the adherent lid, leaving any conjunctiva which might be present attached to the globe. A flap of skin was then dissected from the cheek, having a narrow pedicle close to the border of the lid near the outer canthus; a buttonhole being made beneath this flap from the inner surface of the eyelid, the flap was drawn through and attached to the raw surface of the lid. The conditions were peculiarly favourable for plastic operations, and Professor Snellen had been much pleased with the vitality shown by the flap. This plan had also proved of value in enlarging a socket for the reception of an artificial eye. Professor Snellen had recently adopted the following operation for cases of Ptosis. A ligature was passed from without inwards through the entire thickness of the lid at the upper edge of the tarsus; the needle was then passed outwards through all the structures but the skin at a point near the upper limit of the conjunctival sac, and made to perforate the skin near the original puncture. The ends of the ligature were then tied tightly on the surface of the lid. Three such ligatures were employed disposed rather towards the nasal side, on account of the position of the levator. In Episcleritis Professor Snellen recommended the injection once or twice a week of a 1 in 5000 solution of corrosive sublimate between the swollen and thickened conjunctiva and episcleral tissue. By this means he had obtained good results in a few cases of very intractable episcleritis.

The following living and card specimens were exhibited:—

Mr. SILCOCK: (1) Anomalous Position of the Ciliary Processes conjoined with Shrunken Lens and (?) Persistent Capsulo-pupillary Membrane; (2) Micro-cornea in a highly Myopic Eye.

Mr. KELSALL: (1) Aniridia; (2) Syphilitic Neuro-retinitis.

Mr. TATHAM THOMPSON: (1) Photograph of Unilateral Facial Hypertrophy, with Hypertrophic Ptosis; (2) Model illustrating Strabismus, Strabotomy, and Muscular Advancement.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

The President's Inaugural Address.

A MEETING of this Society was held on Wednesday, Nov. 13th, Sir Thomas Crawford, K.C.B., M.D., LL.D., President, in the chair.

In thanking the members for the honour they had con-

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ferred upon him in electing him President for the ensuing year, Sir T. CRAWFORD alluded to the good work done by the Society during the forty years of its existence in promoting correct views as to the nature, causation, and prevention of the diseases commonly known as epidemic, and in combating the erroneous notions still too prevalent among the non-medical public, which had their origin in an ignorant and superstitious dread of the "pestilence that walketh in darkness." He recited the aims of the Society as enunciated in the articles of its incorporation, remarking that though the Transactions of this Society, and of others that had of late years engaged in the same field, as well as the reports of the Local Government Board and of the medical departments of the army and navy, bore witness to an immense amount of useful work in tracing the causes of preventable disease, much still remained to be done before the public should be educated into realising that they were individually and collectively responsible for a large proportion of the deaths, illness, and loss of labour and money consequent thereon, which they were too much inclined to refer to the mysterious dispensation of Providence instead of to their own violation of those physiological laws which the Creator had revealed for their guidance. Many of the expressions in common use even among the best informed were but indications and cloaks of our ignorance, such especially as epidemic prevalence, constitution, influence, waves, &c., and would, with the progress of clearer knowledge, be modified or discarded as the true causes of the prevalence and progress of these diseases should be more clearly recognised. Quoting Sir W. Jenner's opinion that the acute specific diseases, "dissimilar as they are in their pathology, are so intimately connected in their etiology that the removal of the causes of one of the groups would certainly and greatly diminish the mortality from all," he said that the materials afforded by the reports of the mortality and sickness of the British army, scattered as it was over every quarter of the globe, under conditions more fully ascertainable than those of the civil population, presented a rich mine of data on which to base conclusions of the highest practical value, the more so as its stations were distributed over most of the regions where epidemic diseases prevailed, and along the routes of commerce by which they were believed to be carried through human intercourse, its average strength for the year 1887—from which he would draw his statistics—having been 195,932, exclusive of our native Indian forces and local colonial troops. He would confine his figures to the subgroup (1) of general diseases in the nomenclature of the College of Physicians, or the 22 often described as zymotic, and his remarks mainly to enteric fever. The strength of the troops for the time being quartered in the three divisions of the United Kingdom, and the rates per 1000 of admissions, deaths, and men constantly sick, were respectively thus: England, 72,329—17·2, 0·40, 0·99; Scotland, 3635—13·2, 0·27, 0·57; Ireland, 25,150—20·2, 0·48, 1·09. Of the total admissions under this head in the United Kingdom, 137 were of enteric fever, of whom 25 died, being just two-thirds of all deaths under this group. England contributed 61 cases with 16 deaths; Scotland, 3 cases with 1 death; Ireland, 73 cases with 9 deaths. No military district was entirely exempt; but in many instances no cause was assigned, and in some the cases were believed to have been imported—that is, contracted elsewhere by men on leave of absence. In a large proportion, however, the fever was evidently due to bad drainage and impure water—notably at Shoeburyness, where a foul open sewer from the village was held to account for 5 cases with 4 deaths, and at Parkhurst 4 cases with 2 deaths were ascribed to an impure water-supply; 50 cases with 4 deaths were reported from Dublin alone. The sanitary condition of the barracks had always been very unsatisfactory, and measures had been undertaken for their improvement; but that of the city itself, and especially the horrible state of the River Liffey, must be greatly altered before Dublin could be rendered a healthy station. The President then quoted statistics bearing on the sanitary condition of Gibraltar, Malta, Egypt, and different stations of India, and comparing the figures thus given, expressed the opinion that great strides had been made during the last thirty years in the sanitary administration of the army. But as to our knowledge of the etiology of disease, he believed we were still far from certainty. Notwithstanding the recent progress of bacteriology, he could not accept the germ theory as sufficient, in the face of sporadic cases occurring in the absence of any known previous local prevalence of the disease; nor was the pythogenic hypothesis more satisfactory to his mind, since enteric fever had broken out at stations in Afghanistan probably never before occupied by man, at any rate in the then present campaign. He could not look on enteric fever, diphtheria, &c., as originating, like small-pox, solely from contagion, but believed that the two great factors concurring in their production were the influence of man on his surroundings and of his surroundings on man. The former included all that we know as filth; the latter comprised not only insanitary conditions (of climate, as being beyond our control, he would take no account), but also the habits and food of a population. As regards the last, the extension of commerce had placed nearly all civilised nations on a level and in circumstances very different from those under which they were when they subsisted on the produce of their own soil; but there was no doubt that in the past the diverse characters of the peoples of Scotland and Ireland had been to a great extent the result of their diet, in the one case of oatmeal and pease brose, in the other of potatoes; might we not attribute to diet and surroundings the different susceptibility of various races to different forms of disease? He reviewed the evidence of Royal Commissions during the last fifty years on the housing and conditions of the working classes in our rapidly growing cities, and pointed out the immense improvement shown by the average mortality, though even now these were bad enough in some localities; and referred, in passing, to the reports on the longevity and vitality of the Jews, and their physical development, as well as to the returns of the recruiting department of the army and the deliberations of the London School Board on the semi-starvation of a large proportion of the scholars. In any schemes for the suppression or diminution of preventable diseases, he was convinced that, valuable as might be the aid afforded by notification, isolation, disinfection, &c., the chief attention should be directed to the amelioration of the material and moral conditions of the masses, so as to render possible the development of a race of higher physique, better able to resist the attacks of disease.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of the above Society was held on Wednesday, Nov. 6th, A. L. Galabin, M.D., President, in the chair.

The following specimens were shown:—Dr. BOXALL: Pelvic Hæmatoma following Delivery; death four hours after labour.—Dr. W. S. A. GRIFFITH: Microscopic Sections of the Uterus at different periods of the Puerperium; showing complete absence of the alleged fatty changes.—Dr. CULLINGWORTH: Uterus, Ovaries, and Tubes from a Case of Cæsarean Section.—Dr. DAKIN: Retroflexed Fœtus with Ectopia of the Viscera and Talipes Valgus.—Dr. W. DUNCAN: Myoma of the Broad Ligament.

A report was read on Mr. ALBAN DORAN'S specimen of Membrane passed from the Uterus, exhibited at the July meeting.

Large Chylous Cyst of the Mesentery. — This paper was read by Dr. RASCH. An anæmic girl, aged twenty-one, was admitted into the Deaconesses' Hospital at Tottenham on February 9th, 1889. About a month before admission she lifted a heavy trunk; a week later she was seized with severe abdominal pain. A large, roundish, elastic swelling occupied the middle of the abdomen, extending mostly to the left. Its upper extremity reached two inches above the umbilical level. The pelvic organs were normal. At the operation, on March 22nd, a glossy, pale-pink tumour was discovered. A milk-white fluid exuded on tapping. On exploration it became evident that what appeared to be a cystic tumour were the two layers of the mesentery, separated from each other by a collection of milky fluid. The inside of the cyst was intensely congested, and oozed freely. The cyst cavity was sponged clean, and, like the peritoneal cavity, washed out with warm boracic lotion. The cut edges of the cyst were sewn to the abdominal wound, and the cavity packed with iodoform gauze. The whole was covered with sublimate gauze after dusting with iodoform. Six pints of the cyst contents were collected. Next day the fluid, at first white, became pink, and contained a firm, pinkish clot. The microscope and chemical examination appeared to prove that the fluid was chyle. No epithelial lining could be found on a small piece of the cyst wall which had been cut away for examination. The patient made a fair recovery. The milk-white fluid

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oozed for some time from the cyst cavity, which at length closed up. During this drainage she lost weight considerably, and regained weight as the escape of fluid lessened. Dr. Rasch believed that this was the first recorded case of a chyle cyst of the mesentery occurring in a woman. Winiwarter has recorded a chyle cyst on the right hypochondrium of an infant. Dr. Kilian operated on a large retro-peritoneal lymph cyst. Dr. Rasch did not think that in his case the cyst arose from obstruction of the thoracic or other lymphatic duct, but more probably from the rupture of a mesenteric lymphatic during exertion. Dr. Rasch then spoke of the difficulty of diagnosis. Mesenteric tumours generally appeared first in the middle line, near the umbilicus, and had free transverse but little vertical mobility. Professor Bergmann's case of chyle cyst of the mesentery occurred in a man aged sixty-three. Dr. Rasch, lastly, justified his treatment as preferable to extirpation of the cyst or closure, after emptying of the contents, without drainage.—Dr. WILLIAM DUNCAN suggested that the tumour in Dr. Rasch's case might well be dermoid, and not chylous.—Dr. BOXALL could scarcely see how the escape of chyle into the loose cellular tissue of the mesentery could produce a cyst, but he thought that the possibility of a chylous cyst in that situation, originating in an echinococcus cyst, should be entertained. Hydatid cysts were sometimes barren, and if blood and bile could find their way into them, there were *primâ-facie* grounds for believing that in a situation in which lacteals abounded chyle might do the same, and distend the cyst, so that all trace of its pristine nature might eventually disappear.—Dr. C. H. CARTER referred to his case of large cyst of the mesentery simulating an ovarian cyst, published in the *British Medical Journal*, vol. i. 1883, p. 7. He agreed with Dr. Rasch that a tumour of this kind should not be enucleated, but stitched to the abdominal walls and drained.—Mr. ALBAN DORAN considered that Dr. Rasch's definition of the tumour as a chylous cyst was perfectly reasonable and probably correct. Non-ovarian dermoids of the abdomen were rare; dermoid cysts of the ovary frequently became detached from their pedicles and adherent to the omentum, mesentery, or bowel—an obvious source of fallacy, especially when the pelvic organs were not explored. In Dr. Rasch's case these organs were explored.—Dr. MATTHEWS DUNCAN mentioned a case where Mr. Thornton removed a large mesenteric cyst with clear contents. The operation showed no connexion with the uterus and broad ligaments. In another case Mr. Langton removed both ovaries, converted into dermoid cysts, and also took away a third dermoid tumour from between the layers of the mesentery; it had no connexion with either ovary.—Mr. DORAN remarked that an exogenous secondary cyst, springing from the surface of an ovarian dermoid, might easily become detached, and so be taken for a non-ovarian tumour.—Dr. RASCH was confident that the cyst in his case was chylous, and not of hydatid origin or dermoid.

Vesico-utero-vaginal Fistula.—Dr. CULLINGWORTH read notes of a case where incontinence of urine followed instrumental labour. The patient was thirty-seven years of age. A vesical fistula was found in the middle line of the anterior vaginal wall, running transversely, just in front of the cervix, in the furrow formed by the reflexion of mucous membrane from the vagina to the cervix. The fistula admitted the tip of the finger up to the first joint. The portion of the cervix projecting into the vagina was intact; but on passing the finger through the fistulous opening a laceration with ragged edges was detected higher up in the posterior wall of the bladder, extending into the cervix. On passing a uterine sound into the cervix, the point entered the bladder through the laceration. An operation was performed when the morbid condition was over two years old. Dr. Cullingworth divided the anterior lip of the os uteri; the cervical laceration at once gaped widely, and by elevating the anterior margin of the vaginal portion of the fistula with a hook it could be seen to extend obliquely upwards and to the left to the distance of about an inch. The edges of the laceration were then freshened and united by three or four silkworm-gut sutures passed from the outer aspect of the cervix and tied, presumably within the bladder. The ends, left long enough to reach the vulva, were brought through the vaginal portion of the fistula. By the milk test the vesico-uterine fistula was proved to be closed. On the thirteenth day the stitches were removed, and the wound appeared to have healed. The vaginal portion of the fistula was closed by operation six weeks after the first procedure; it had already undergone contraction, and its long axis was no longer transverse, but nearly parallel with the axis of the vagina. The sutures were removed on the eighth day. The patient shortly afterwards left hospital perfectly cured. Dr. Cullingworth called attention to his practice of leaving the ends of the sutures sufficiently long to hang down in the vagina. This plan greatly facilitated removal and avoided much irritation from pricking up of the vaginal mucous membrane. Had the first operation not succeeded, Dr. Cullingworth intended to dissect up the bladder from the cervix and deal with the uterine fistula after Dr. Champneys' method.—Dr. W. T. A. GRIFFITH had recently operated on a similar case by the usual operation. The bladder remained watertight, but he had heard that the menstrual blood passed entirely into the bladder. He offered to correct this condition, but the patient was so pleased with the freedom from the ordinary inconvenience of menstruation that she declined to have anything done.—Dr. WILLIAM DUNCAN always used silver sutures in vesical fistulæ, fastening them with coils and shot to facilitate removal, and passing all the sutures through a piece of india-rubber tubing, to prevent irritation of the vagina.—Dr. CULLINGWORTH referred to a valuable memoir on the subject by Mr. Milton, of the Civil Hospital at Cairo, published in the St. Thomas's Hospital Reports for 1887. Mr. Milton had operated on fifty cases; in some patients more than once. The native women, who simply waited till the child was born, were very subject to urinary fistulæ. On the other hand, lacerated perineum was scarcely ever seen. He trusted that Mr. Milton's paper would not be overlooked.

Lupus of the Vulva.—Dr. LEWERS read notes of this case. It was that of a woman aged twenty-two, and married six years, who was admitted into the London Hospital in August, 1888. There was a history of gonorrhœal but not syphilitic infection. A small growth appeared on the vulva, which became swollen. On admission, a spherical pendulous lump, whitish and smooth on its inner surface, brownish and nodular on its outer aspect, was found growing from the left labium minus, prepuce of clitoris, and part of the right inner labium. The labia majora were swollen, not pitting on pressure, and were studded externally with small warty prominences, also seen on the perineum and mons veneris. On August 28th, 1888, the tumour was cut away by the thermo-cautery, its base being first held secure by two Wells's large pressure forceps. In January, 1889, a lump the size of an almond was pinched up and dissected out from the right side of the vulva by the thermo-cautery. The labia majora remained swollen. Dr. Lewers found that the tumour consisted of an enormously hypertrophied labium minus. The tendency of lupus was towards hypertrophy, combined with ulceration, and there had been a recurrence in this case after apparently complete removal of the hypertrophied and ulcerated tissue. The general health of the patient had been little, if at all, affected.—Dr. WM. DUNCAN noted that, in the discussion on Dr. Matthews Duncan's paper on Lupus of the Vulva, Mr. Jonathan Hutchinson expressed his opinion that the cases were syphilitic, and not lupous. With this opinion Dr. W. Duncan strongly coincided, and he considered that Dr. Lewers's case was hypertrophic syphilide, exactly similar to several which had come under his own care. He asked if Dr. Lewers had put the patient under a course of strong antisyphilitic remedies.—Dr. LEWERS stated, in reply, that when Dr. Matthews Duncan read the paper referred to, it was agreed that the administration of antisyphilitic remedies decided nothing, since late results of syphilis were often unaffected by these specifics. Dr. Lewers gave reasons for rejecting any suspicion of syphilis in his own case. Winckel figured, in his "Diseases of Women," a morbid condition identical with that which was seen in Dr. Lewers's patient under the name "elephantiasis of the vulva."

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, NOV. 6TH.

MR. ROSS JORDAN IN THE CHAIR.

DR. WARDEN read a paper on Parosphrasia and Parageusia.

Heart Disease.—Dr. FOXWELL brought forward a case of doubtful cardiac condition, which he was inclined to regard

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as due to congenital disease. The patient, a boy of twelve, had his apex beating in the nipple-line, whilst the superficial dulness reached to the third cartilage and mid-sternum. The apical first sound was churning in nature, with a semi-thrill, but no murmur. The second sound was much accentuated, and over the pulmonary area it was doubled. The apical impulse was hypertrophied, and there was epigastric pulsation. The pulse was small and diminished on raising his arm. The boy appeared to be in excellent health, and, except for much sweating at night, and a curious total alopecia occurring suddenly eight months ago, and still persisting, there was nothing to note in either family or personal history. The urine was normal. Dr. Foxwell also showed a girl with advanced Phthisical Cavities at the right apex, breaking down at the left, who had been under his care for eighteen months. She first came to him for dyspepsia, which soon disappeared, and ever since she has been in good health, so much so that it has been extremely difficult to keep her under observation. She has remained well nourished, and quite able to do her work, though meanwhile the disease has made considerable progress. There was no previous history of any severe illness, though the girl remembered having a troublesome cold about two years ago.

Alcoholic Paralysis.—Dr. SUCKLING read the notes of a case of a man aged thirty-eight (a baker), who had been in the Queen's Hospital for three months suffering from alcoholic paralysis, and who was now cured. Besides the usual symptoms of the disease, there were two or three symptoms of much interest. He had slight optic neuritis, and dropped wrist was well marked, being more pronounced than dropped feet. Ataxia was also well marked in both upper and lower extremities, the muscular sense being very defective. The "reaction of degeneration" was present in a slight degree. The man had been a heavy drinker of spirits, and had suffered from alcoholic epilepsy and delirium tremens. Dr. Suckling laid stress upon the occurrence of optic neuritis in chronic alcoholism, and pointed out that cases of optic neuritis and ocular palsy due to alcohol might be mistaken for cerebral tumour, vomiting and headache being usually present also in the former. The knee-jerk had not yet returned, but this was the only remaining sign of disease.

Mr. CHAVASSE showed the following specimens:—1. A Tumour weighing nine ounces, removed from the thyroid gland of a woman aged forty. The history showed that its existence had been noted in the position of the right lobe of the gland very early in life, and a marked increase in size always followed each pregnancy. After the last parturition, fifteen months ago, the growth was rapid, causing displacement of the trachea, dyspnœa, and distressing symptoms. Recovery followed operation. 2. A Spindle-celled Sarcomatous Tumour the size of a Tangerine orange, removed from the abdominal wall immediately above the level of the umbilicus, of a lady aged seventy-seven. A tumour in the same situation was excised twenty-seven years ago by Sir W. Fergusson; again, fourteen years ago, by Mr. Carden; and, three years ago, by Mr. Chavasse. The present growth first manifested itself in April last, and its increase in size was more rapid than on previous occasions. 3. The Right Halves of the Thyroid and Cricoid Cartilages, removed by Laryngectomy. The patient was a boy aged five, who, as the result of diphtheria and intubation, had complete stenosis of the larynx. Ten days after the operation the condition of the patient was very satisfactory.

Mr. BARLING showed a girl aged seventeen the subject of Congenital Syphilis. She is the eldest of eight children, and the only one showing evidence of the disease. She is quite deaf, has double interstitial keratitis, Hutchinson's teeth, and severe ulceration of the palate. The soft palate is adherent to the base of the tongue, and food passes into the pharynx through a perforation on the right side, which is not more than half an inch in diameter.

BURIAL REFORM ASSOCIATION.—At the public conference held on the 14th inst., at the Church House, under the presidency of the Bishop of Marlborough, the following resolution was proposed by Dr. Norman Kerr, seconded by General Lowry, and agreed to unanimously: "That the true principle for the disposal of the dead body lies in providing against its becoming injurious to the living, and that, when buried, the body should be buried simply in a perishable coffin, and in suitable and sufficient earth."

Notices of Books.

A Text-book of Human Physiology. By AUSTIN FLINT, M.D. Fourth Edition. Pp. 872. London: H. K. Lewis. 1888.—Three editions of this work have been exhausted, and on comparing the present with the first edition, we find that the author has accomplished the rare feat, in these days, of reducing the size of the volume (even with larger type) by about one hundred pages, whilst still presenting in a thoroughly readable form a faithful reflex of the existing state of physiological science. A new plate of the corpuscles of the blood has been introduced, an old and erroneous one of Haeckel has been removed, and several woodcuts have been replaced either by better ones or by those illustrating new views—as, for example, Stirling's scheme of the course of the accelerant fibres. The additions, as well as the omissions, are just such as might have been expected from an author who has had large experience in teaching, and who sees the importance of riveting the attention of the student by an orderly and continuous exposition of facts and of principles, rather than by the presentation of a number of details, which can only be remembered by a great effort, and then only for a short time. As an illustration we may refer to the section on the quantity of the blood. In the first edition the whole experiment made by Lehmann and Weber on two criminals, with the weights of the salts obtained by examination of the different samples of blood, were given, whilst in the present edition the author judiciously gives the results only in general terms. So also the long list of the measurement of the red corpuscles of the blood given by Gulliver has been omitted. The cause of the coagulation of the blood is given on Schmidt's view. No reference is made to the observations of Green on the influence of the different inorganic salts—such as calcium sulphate—present in the plasma in the act of coagulation, or of Wooldridge's theory of the influence of lecithin, though both are of some importance. The work being primarily intended for students, Dr. Flint has rightly, we think, given very short accounts of the instruments and means by which the data of physiology have been established, and has contented himself with pointing out the conclusions that have received general acceptance. A short account of the histology of each organ precedes the description of its functions. Thus, under the head of the Nervous System the structure of the medullated and non-medullated fibres, the mode of termination of nerves in muscle and gland, in Paccinian corpuscles, in end bulbs, and the characters of ganglion cells are given in tolerably full detail. Dr. Flint does not attempt to theorise, and we find no conjectures respecting the uses of the cerebellum, or of the destiny of glycogen. The work is well got up, and reflects credit on the publisher.

Handbook of the Diagnosis and Treatment of Skin Diseases. By A. VAN HARLINGEN, M.D. Second Edition. Philadelphia: Blakiston and Co.—The fact that a second edition has been called for shows that the author has to some extent succeeded in his modest ambition of producing a work of "ready reference for the practitioner," and it must be admitted that the book is a fairly good one of its class. In this edition Dr. Van Harlingen has introduced some new short articles on the rarer affections unnoticed in the first, and has given several illustrations in black and white of a few of the less common diseases, such as leprosy, fibroma, and dermatolysis, &c. The descriptions are clear, and for the most part correct, and the treatment occupies a good proportion of the space assigned to each disease. In pursuance of his aim of ready reference, the articles are placed in alphabetical order, and so of course the relation-

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ship of the diseases is not indicated, but it is useless to cavil over details. There are always some persons who like their mental pabulum served up in small portions, and for these the author has done his best to provide.

A Dream of the North Sea. By JAMES RUNCIMAN. London: James Nisbet and Co., Berners-street, W.—We have here a graphic description of the isolation and danger connected with a fisher's life on the North Sea during winter, and a sketch in story of the process by which help, moral and medical, has reached him through the Deep Sea Mission. The hero of the tale is an honours graduate in arts and medicine of Cambridge, Lewis Ferrier, who foregoes the advantages of a professorship in order to employ his energies in organising a system of medical aid for the smacksmen. A yachting cruise introduces him to the storm, sickness, and surgery of the "banks." A perilous January spent in company with a friend on board a mission smack in the same bleak region adds greatly to his usefulness and his experience of hardship. He runs numerous risks, and twice at least is nearly drowned, but always carries himself with admirable patience and resolution, and returns to dry land more determined than ever to turn to account the lessons learned at sea by providing if possible an efficient ambulance and hospital service for the hardy seamen whose unspoken sufferings he has dared much to alleviate. Meantime an elderly millionaire on shore has become interested in the work. Several of his friends catch the infection. An influential company meet to talk the matter over and to hear the doctor's narrative of the fishermen's perils and endurance, with the result that before another winter a small steamship is built and sent to sea as a floating hospital, and a sailing vessel is in process of construction for the same service. Notwithstanding that the "dream" is largely one of stormy weather and hard work, it abounds in lively and chatty passages and touches of human interest. An appendix reminds the reader that it has to some extent come true, since one cruising hospital is now on the fishing station, and another is being constructed, while the cost of building a third, and partly that of a fourth, has been subscribed. When we reflect that in 1888 no fewer than 7485 sick and injured fishermen were relieved by the surgeons and skippers attached to the Mission, we can concur in the author's fervent hope that before long further provision will be made for the maintenance and due extension of this most useful branch of medical service.

Etude Critique du Traitement des Salpingites, et, en particulier, du Curettage de l'Utérus dans la Salpingite Catarrhale. Par ALEXANDRE RISKALLAH. Paris: Jouive. 1889.—This is a Paris thesis, the contents of which are sufficiently set forth in the title. The author reviews old-fashioned treatments, and pleads for the restriction of spaying. In our experience the symptoms of tubal disease are far too vague for any certain diagnosis. In the vast majority of cases diagnosis cannot be advanced beyond suspicion. The object of treatment is to produce a derivative action in the neighbourhood of the tubes rather than at a distance from them—e.g., by counter-irritation on the skin. The uterus is dilated, curetted, and injected with iodine. Illustrative cases are appended. May we implore our French medical brethren to pay a little more attention to the orthography of foreign names and words? There is, in this treatise, hardly a foreign proper name or reference which does not contain misspellings. One cannot help asking oneself if those who make such terrible havoc of foreign orthography are really competent to read and understand the works which they so misquote. In the case of a larger work we should give a list.

New Inventions.

AN IMPROVED TRACHEOTOMY DILATOR.

TWO years ago, when house-surgeon to Mr. Savory at St. Bartholomew's Hospital, I got Messrs. Ferguson to make me a tracheotomy dilator which I think is a distinct improvement on the ordinary pattern. Just as in Mr. Walsham's tracheotomy pilot for rubber tubes, there is a movable catch at the ends of the handles. When once the tracheal opening has been dilated and the dilator fixed at the proper width, the mere touch of a finger keeps it in position; this is valuable in such a short-handed operation as tracheotomy often is, allowing the operator to get a feather or tube and to introduce it with his right hand while the left holds the dilator—a somewhat troublesome business with the ordinary form, which is always trying to close; or, while the right hand holds the dilator, the tube may be introduced with the left hand, and the little finger will release the blades of the dilator. I know of no form of dilator much like this, though the principle is exactly the same as Mr. Walsham's, which is in Messrs. Arnold's catalogue.

Lincoln. E. MANSEL SYMPSON, M.B., B.C. Cantab.

THE INVALID'S "ODOURLESS" COMMODE.

THIS appears to be a valuable hygienic invention for the prevention of infection from the germs of zymotic diseases, and from the effects of the noxious gases which are so often unavoidably inhaled in sick-rooms after the use of the commodes at present in use. To the patients themselves, to nurses, doctors, and others having in any way to attend the sick, the advantages of the "Odourless" will, on inspection, be at once apparent. By simply pulling a handle, a sliding screen of air-tight material runs along prepared grooves, and instantaneously and hermetically seals the contents of the pan before the user rises from the seat of the commode. All infectious germs and foul fumes are thus confined therein and prevented from escaping into the sick-room. The inventor and patentee is Mr. Tyerman, 119, Algernon-road, Lewisham, S.E., and the manufacturers are Messrs. H. Rolfe and Co., 33, Snow-hill, London, E.C.

TWO FOUNTAIN PENS.

MUCH ingenuity has been expended in the attempt to produce a writing implement which shall minimise the labour of penmanship as well as economise the time consumed in the operation. Amongst the candidates for public favour which have been submitted to our approval are the Lacon fountain pen, and that introduced by Dr. Hommel. Each of these inventions possesses advantages, though neither of them can be said to be absolutely perfect. One distinguishing merit of Hommel's pen is the ease with which, when the ink in the reservoir has become exhausted, the store may be replenished. This result may be effected by simply turning one section of the stem upon the other. To maintain the supply of ink to the nib, however, a slight version in the opposite direction is required at repeated intervals. With the Lacon pen, which is of somewhat simpler construction, after the first filling, the supply of ink is maintained uninterruptedly, so that several sheets of note-paper may be covered without removing the arm from the desk. This instrument, indeed, is one of the best of the kind which has come under our notice, and, when furnished, as it is intended to be by the inventor, with a transparent barrel to make visible the condition of the reservoir, will be as satisfactory as can be desired. We have used the pen and can testify to its excellence. The inventor is the Rev. E. Lacon of Stockbridge, Hants.

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THE LANCET.

LONDON: SATURDAY, NOVEMBER 23, 1889.

MISS FRANCES POWER COBBE'S letter to *The Times* on the defects of the Act providing for Notification of Infectious Diseases is not altogether unreasonable, and deserves a serious notice from ourselves. Miss COBBE raises no objection to the principle of the Act. Evidently she thinks it no true breach of personal liberty to forbid persons with infectious diseases to be at large and to convey them freely to other people. More than that, she approves heartily of the provision in the Poor Law Act that the hospitals of the Metropolitan Asylums shall be available, under proper regulations, for the purposes of medical instruction in infectious cases. But here her criticism begins. She argues that the said students will become purveyors of infection, and that this will lead to an indefinite extension of the diseases whose range it is the object of this legislation to curtail. Her fears do not stop at medical students. She wants to know whether a medical man ought to practise indiscriminately in infectious and non-infectious cases, or what interval should elapse before he sees fresh cases, and by what code of rules, drawn up by the Colleges of Physicians and Surgeons, medical men are to regulate their conduct and their clothes. There is just a touch of the grandmotherly element in such suggestions from so fresh and original a critic; but we take it all in good part, and as not at all unreasonable from Miss COBBE'S point of view. We hope the distinguished men who now preside over the respective Royal Colleges of Medicine in the different divisions of the kingdom will notice what is expected of them and of their colleagues, and we should think it no unreasonable or unprofitable occupation of the time of a committee of their bodies to advise and encourage their diplomats and associates in the use of all conceivable precautions against what we take to be a very rare event—the conveyance of infection in medical or surgical practice. Our own opinion on this question is very strong. We hold it to be binding on medical men not only to take pains, but to go to some excess of trouble, to avoid even the appearance of transmitting or conveying the germs of disease; and when the disease is a grave one, like small-pox or scarlet fever, or puerperal fever, we should esteem the practitioner very culpable who neglected any reasonable precaution. Such accidents of conveyance have occurred. Miss COBBE seems herself to have had an experience which may well excuse her for writing earnestly on the subject. Not very long ago we had to comment on the painful occurrence of six puerperal deaths in the practice of one midwife, though she was warned at almost every step by medical men to desist attending on parturient women. We do not, then, differ from Miss COBBE in opinion or in principle, nor do we yield to her in the conviction that it is the urgent duty of medical men to be on their guard against the evil and the risk she indicates. But we hope to satisfy all reasonable people that the notification of the patient is enough, and that that of the doctor would be superfluous. First, we must be practical in all our suggestions. There is a quarantine that is a greater evil than the plague it would prevent, and it would be very hard upon people with a non-infectious disease to forbid them the services of an able physician or surgeon, simply because the practitioner may have seen in the course of the same day other patients with infectious diseases. But Miss COBBE seems to think that medical men who attend infectious cases should be restricted to them alone. She wants to know, as we have said, whether a medical man ought to practise indiscriminately in infectious and non-infectious cases. If this principle were carried out, the public would be deprived of its best advisers; but the results would be still more absurd, for evidently the restriction would have to be more developed. The practitioner for measles would not have to attend a patient with scarlet fever, and the small-pox physician would have to avoid both those diseases. We beg to assure Miss COBBE that there is practically no need for such refinements. In the case of the students who are to be admitted to the infectious hospitals, we apprehend that every precaution will be taken in their interest and in that of the public to prevent infection, precautions such as are taken, and have been taken for years, in the case of visitors to the London Fever Hospital. It is not necessary for us to specify these here. Of course they will not always protect students. Medical students and medical men worthy of their profession must take its risks. But there need be practically no risk to the public. Miss COBBE will admit that it is to the medical profession that the public owe all the methods for preventing disease—vaccination, disinfection, and even notification. Medical men have not only their own strong sense of duty to impel them to the use of all reasonable precautions, including the diligent use of disinfectants, but they have the sense of interest. They have to consider themselves and their own families, and their own reputation, which is based on curing, and not on conveying disease. It is satisfactory to know that a most influential committee of the College of Physicians is actually considering this very question, in view of the recent legislation, and in conference with the managers of the metropolitan hospitals. Surely a profession so careful, so interested, and withal so credited with its work in preventive and disinfectant medicine deserves to be trusted by the public as it is trusted.

THE recent publication by the New Sydenham Society of the Pathological Lectures of the late Professor COHNHEIM serves to direct attention to the striking and original views of that vigorous thinker regarding many of the vexed questions of pathology. Foremost among these must be reckoned his theory of inflammation, the cardinal question around which so many of the problems of disease necessarily group themselves. Three theories of the inflammatory process have been at various times widely accepted: the neuro-humoral theory of CULLEN, HEINE, and BRÜCKE; the cellular theory of VIRCHOW; and the vascular theory of COHNHEIM. It may be of interest to once more glance at these three theories, at the evidence upon which they depend, and the difficulties

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each has to surmount, may not be without instruction. It should be clearly understood that our difficulty in adopting any theory definitely and finally does not imply that we have not a very accurate and detailed knowledge of the various steps in inflammation. This we already possess, but we are unable to say with absolute certainty where the process begins, or upon what it in the first case depends.

The neuro-humoral theory gives the first suggested answer to these questions. It has two varieties—the *ischæmic* and the *paralytic*. According to the former, "it is to the contraction of the afferent arteries of a part, reflexly called forth by the excitation of sensory nerves, that the further circulatory disturbance depends." According to the *paralytic* version of the theory it is, on the contrary, "a reflex relaxation and dilatation of the arteries that occasion the inflammatory hyperæmia." To this theory COHNHEIM objects that narrowing of the vessels can produce only anæmia, or in extreme cases necrosis, not the peculiar phenomena of inflammation, and that active hyperæmia does not increase transudation or give rise to anything resembling the inflammatory tumour.

The cellular theory of VIRCHOW, which has long enjoyed such wide acceptance, teaches that the "genuine central point of the entire process must be sought in the tissue cells of the affected part. These are supposed to swell and enlarge on exposure to the inflammatory irritant and then to give birth to the new cells, the pus-corpuscles." To this theory it is objected by COHNHEIM that "it introduces into physiology a principle discovered *ad hoc*, and having no analogy elsewhere—viz., that of an attraction of the tissues or tissue cells on the vessels and their contents." It is also argued that there is good reason for believing that marked hyperæmia and considerable transudation are present before any change can be detected in the tissue cells. It is likely, however, that Professor VIRCHOW may have modified his views to some extent since the publication of the work of his distinguished pupil; and the forthcoming revised edition of his famous "Cellular Pathology" (which is to appear during the meeting of the International Medical Congress next year) will doubtless contain a discussion of the question in this new light.

If neither the nervous system nor the surrounding tissues be at fault in inflammation, there remains but one further possible theory—viz., that the process really begins in the vessels; and this is the vascular theory of COHNHEIM, which he supports with great force and clearness. He seeks to establish that the whole process may be explained "on the assumption of an alteration, a *molecular change*, of the vessel walls." The first step in the argument is to draw attention to the apparent anomaly that, while any injurious influence affecting the arteries causes a relaxation of the circular muscular coat, and hence a decrease of resistance to the blood-flow, yet, after a brief interval, the circulation in an inflamed area is considerably retarded, although the vessels remain dilated. One must, therefore, assume that the vessels have undergone some change which has increased the frictional resistance. COHNHEIM then proceeds to show ground for believing that neither the blood, the vaso-motor nerves, nor the surrounding tissues are primarily at fault. That the blood is not the peccant material is evident from the consideration that being in constant motion it is almost inconceivable that any change in it should be the origin of a local process like inflammation. Actual experiment also excludes this hypothesis, as it is found that if a ligature be applied to the root of a rabbit's ear, from the vessels of which all the blood has been previously removed by the injection of a solution of common salt, if now heat be applied to the vessels, and then the blood be allowed to re-enter, the entire phenomena of inflammation ensue. Here the blood, being *ex hypothesi* normal, cannot give rise to the process.

As against any vaso-motor theory, it is urged with much force that the most extreme vaso-motor disturbances may be set up by division of the sympathetic and otherwise, yet inflammation does not ensue. Again, all the usual effects may be produced by applying irritants to parts deprived of their connexion with the central nervous system. The tardiness of the various steps in the inflammatory process is a further argument against regarding them as due to nervous influence. That the surrounding tissues are not primarily at fault is argued from the difficulty of conceiving that any alteration in them could cause transudation of the solid constituents of the blood, and also from the absence of any positive evidence of such alterations.

Hence COHNHEIM argues that we are driven, *per exclusionem*, to regard the vessels as the starting-point of the process of inflammation, and believes that "we have to deal with a molecular change of the vessel walls, whose highest degree involves the death of the latter, but whose slighter degrees, on the other hand, call forth a certain typical series of abnormal events in connexion with the motion of the blood and the transudation. The sum total of these events, together with their consequences, have been for ages comprised under the notion and name of inflammation."

While we thus see three contending theories more or less ably supported, and more or less widely accepted, regarding the *rationale* of inflammation, we find, on the other hand, that from the dawn of medicine its distinguishing signs have been recognised and correctly described. The *rubor*, *tumor*, *dolor*, *calor*, and *functio læsa* of the earliest writers still constitute an accurate and succinct account of the signs and symptoms of inflammation. Here, as in so many of the departments of thought, it is the question of origin or starting-point that is the real difficulty. Whatever degree of acceptance the views of COHNHEIM may finally command, all will unite to recognise their brilliant originality, the force and moderation with which they are urged, and their adequacy to explain the facts in question. It is impossible too deeply to regret the loss to Germany, the world, and science involved in the death, at so early an age, of the distinguished pathologist whose views we have been considering.

WE have on various occasions felt compelled to enter our protest against attempts continually being made under one disguise or another to accomplish the impossible task of disseminating among the public the knowledge necessary for the diagnosis and treatment of disease. These protests may be regarded by the more unthinking section of the public as interested and prejudiced, but we feel sure that

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all truly educated and reflective minds will recognise that in so doing we are seeking not to maintain any selfish professional privileges, but to guard the people from a grave public danger. It may not be without advantage to recapitulate the reasons which not only justify, but compel, such an attitude.

The most fundamental objection to the attempt to convey, through the medium of popular handbooks, pamphlets, or journals, a really serviceable acquaintance with the methods of dealing with disease is that such an attempt is predestined to the failure which awaits all efforts to accomplish the impossible. All rational therapeutics rests upon a correct estimate of the nature, extent, probable course, and threatened dangers of the morbid condition which we aim at combating—in other words, upon an accurate diagnosis; and accuracy in diagnosis can only be gained by the previous study of normal and abnormal function—physiology and pathology,—by the cultivation of the habit of precise observation, and by the storing up of the fruits of long experience. The human body is a machine of infinite complexity, its aberrations from the normal are innumerable and indefinitely variable, and conditions the most diverse may bear an aspect of delusive identity. We generally find that the wider the acquaintance with disease the greater the caution in prognosis and treatment. The young practitioner, fresh from his books, thinks he knows everything. His more experienced brother smiles, and expects with perfect assurance the rude awakening which awaits such premature self-confidence. If the newly qualified doctor, with his years of training and study and all the advantages afforded by the wide field of observation presented by our hospitals, soon finds his knowledge imperfect and his experience inadequate, what must be the case of the too confident mother or sister, who relies upon the experience gained in one or two cases of disease, or upon the knowledge hastily gleaned from some popular manual, to pilot a dear one through the rocks and shoals of prolonged sickness?

The second fundamental objection to the popular study and practice of medicine is that not only are they useless and impracticable, but nearly always, when put to the test, absolutely hurtful. POPE'S well-known maxim about the danger of a little knowledge certainly finds an application in the case of medical science. It has been argued in contravention of this usually accepted precept that, while a little knowledge is a dangerous thing, no knowledge is more dangerous still. This is "true in a false sense." The reason why a little knowledge is dangerous is not because it is little, but because such knowledge is often imperfect, and hence misleading. In some subjects a little knowledge may be accurate as far as it goes, and hence of real utility. In medicine, however, a superficial acquaintance with the facts is fatally sure to lead to the gravest errors in practice. Let us suppose the following case:—A member of a family suffers from dyspepsia attended by vomiting, consults a popular handbook which recommends bismuth, which drug is thereupon taken with immediate relief. Some time after another member of the family is seized by vomiting; the same drug is taken and persevered in for some time without benefit, a medical man is called in who discovers a strangulated hernia or a depressed fracture of the skull. Or take another case which the experience of every surgeon can corroborate. A person falls down and "sprains his ankle." The popular guide is consulted, various remedies are tried without effect, at length the surgeon is called in and discovers advanced periostitis of the tibia, perhaps necessitating amputation. Such cases, which could easily be multiplied *ad infinitum*, are constantly occurring, valuable lives being frequently sacrificed in consequence of the time lost in that popular practice of physic so dear to some minds.

While we think the above facts amply justify the grave suspicion with which the profession as a whole regards a certain class of literature, unhappily on the increase, we are by no means advocates of maintaining any mediæval secrecy regarding the human body, its maladies and their treatment. It can hardly be doubted that a wider dissemination of the fundamental teachings of physiology would be an almost unmixed boon, and such practical instruction as that given by the St. John Ambulance Association regarding the course to be pursued in cases of sudden emergency has, whilst kept within legitimate bounds, our hearty approval. But the public must learn that the diagnosis of disease must inevitably remain the work of a specially trained and experienced class, and that household remedies and the precepts of popular handbooks, however innocuous in cases of trivial ailments, are a fatal snare in grappling with serious disease. It would be a real gain to society if the knowledge possessed by the trained nurse were made part of the education of every accomplished woman. Such knowledge would be worth a score of the "ologies" in many a dark hour of domestic sorrow, but then the nurse follows and does not lead, she obeys but does not command. She takes her estimate of the case and the general line of treatment to be pursued from the physician or surgeon, and is as invaluable in executing commands as she would be mischievous if permitted to originate them.

Those who know the whole facts of the case best will be the last to suggest that we discourage the popularising of medicine because it might tend to diminish professional incomes. The domestic empiric and the vendors and patrons of quack medicines are unconsciously the means of creating much professional work.

Annotations.

"Ne quid nimis."

THE PORT OF LONDON.

THE half-yearly report of the Sanitary Committee of the Port of London relating to the proceedings taken during the first six months of the year has been recently issued by Dr. W. Collingridge, the port medical officer. During the period in question 9713 vessels were visited, and in 2·9 per cent. orders as to cleansing were given and complied with. Of the total vessels arriving in the port 88·3 per cent. were British, the Germans and Scandinavians taking the next place with 4·1 and 4·0 per cent. respectively. An account is given of the cases of infectious disease on vessels during the period in question. The number of such was very small, and in most respects the arrangements available by the port sanitary authority are of an extremely satisfactory nature. Indeed, they are such that Dr. Collingridge is able to report that they are put into force without any delay or detention on the part of the

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authority. The port officers at once remove the sick on the notification being given off Gravesend, and the vessels are fumigated on their way up the river, so as to avoid, if possible, even the loss of a single tide. But there is, unfortunately, one flaw in connexion with the arrangements for isolation, and it is of a sort that may at any moment bring about serious consequences. We refer to the absence of any separate building in which to isolate small-pox; and Dr. Collingridge, knowing well what this means, has not failed to urge that the want should be supplied. Hitherto his suggestions seem to have been met by complimentary language as to the valuable nature of his reports, and there the matter has ended. Again and again it has happened, under similar circumstances, that a sanitary authority has found itself compelled to receive into its hospital, already containing other patients, a single case of small-pox; and though professing to do isolation work, it has found itself distributing disease to other sick persons, and this by reason of the lack of means properly to perform its duties as an isolation authority. We hope the London port sanitary authority, the labours and work of which are in so many respects a pattern of excellence, may be spared the humiliation of having to face such a misfortune as we have referred to. But if so, the recommendation of its medical officer of health must be acted on by the Corporation. The lack of adequate means of isolation for the training-ships *Shaftesbury* and *Arethusa* are also adverted to in the report.

THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

THE unfortunate circumstances which have led to the resignation of their secretary, at the request of the Council of the Royal Hospital for Diseases of the Chest, and which have caused a prolonged period of anxiety and trouble to the true friends of that institution, are succinctly set forth in a "statement" drawn up by the Council for presentation to the governors, who are summoned to attend a special meeting, to be held at the Cannon-street Hotel on the 29th inst. This "statement" gives a historical sketch of all that has transpired with reference to the matter since, in February last, the Council appointed a committee to investigate certain charges brought against the late secretary, "it having been reported to them that his action had in certain particulars been such as seriously to affect the interests of the hospital." The secretary, in his written defence, brought grave charges against the medical staff, asserting that he had "thought it his duty to watch carefully the increasing tendency to make the hospital less a hospital for consumption for the treatment of poor patients recommended by subscribers, than a school for the education of the doctors." In support of this assertion he cited the large number of "emergency cases" admitted, and singled out two cases in particular—one of tracheotomy, and the other of the treatment of aneurysm by wire, not, he adds, "as in any way pretending to offer an opinion as to the medical treatment of patients in the hospital, but as being anxious to maintain its reputation as an institution founded for the benefit of the poor of the neighbourhood, and supported mainly by local subscribers, employers, and working men." On the committee reporting to the Council, a resolution was moved to the effect that the secretary should be called upon to resign; but this extreme course was waived by the carrying of an amendment to the effect that he be censured. Naturally the medical staff could not rest under the imputations contained in the secretary's statement, and they promptly sent in their resignations, and demanded an inquiry into the charges, a step which was approved by the consulting surgeon, Mr. Jonathan Hutchinson, when the matter came to his knowledge. A special meeting of the Council was held on June 27th, when, after hearing a categorical and detailed explanation from Dr. Hensley on behalf of the medical staff, the Council unanimously decided to call upon the secretary to resign, and requested, at the same time, the medical officers to withdraw their resignations. It might have been thought that the matter would have ended here; but on the occasion of a special meeting of the governors on Oct. 7th Mr. Austin repeated his declaration that the hospital was being made a school for doctors rather than an institution for the poor, and a resolution was carried by 57 votes to 22 asking the Council to reconsider their decision. This the Council declined to do, and the meeting to be held next week has been called by requisition to consider the reply of the Council and to take steps to secure the "peacable and orderly working of the institution in the future." There can be little doubt how the governors as a body will regard the question, which involves the credit of the institution. Had the Council been less considerate in their dealings with their late secretary things might not have come to this pass, and it must further be observed that the action ultimately taken by the Council is the ostensible reason for the requisition for a special meeting. Nevertheless the late secretary impugned the discretion and judgment of the medical officers, and although he no doubt acted in the first instance from sincere motives, his conduct in persisting in his allegations after they had been thoroughly disproved cannot be justified on any ground. The specific instances he cited were so utterly frivolous that they are not worth considering; they are dealt with thoroughly in the reply of the staff, whilst there is absolutely no foundation for his general allegation of a perversion of the main objects of the institution. The public, naturally jealous of the administration of our charities, have been misled in this particular instance, as anyone who carefully peruses this statement can see. That the charges (which have never been withdrawn) were entitled to gain sympathy is also natural; but now that they have been shown to be baseless, the sympathy should flow in the opposite direction. The medical officers, at any rate, have had the interests of the institution at heart, and have fulfilled the objects for which it was founded. Upon them depends its reputation, and even those who have been most active in this business cannot find fault with the manner in which they have performed their duties.

BIRTH-RATES AND DEATH-RATES IN LONDON AND IN PARIS.

IT appears from the Registrar-General's Annual Summary that during last year the birth-rate was 30·7 per 1000 in London and only 27·0 in Paris; while, on the other hand, the death-rate was only 18·5 per 1000 in London, whereas it was 22·6 in Paris. On the strength of these facts a medical correspondent in an evening contemporary asserts that "if London had as low a birth-rate as Paris, its death-rate would probably fall to 15 or 14 per 1000." Here we have an example of the continual resurrection of the oft-exposed fallacy that high birth-rates cause high death-rates, and its corollary that a reduction in the birth-rate causes a similar reduction in the death-rate. It is true that a sudden increase in the birth-rate of a population, if such could occur without an alteration in the age distribution of the population, would raise the death-rate, in consequence of the excessive mortality that prevails among infants during the first few years of life. A high birth-rate, however, necessarily infers, in addition to a large proportion of infants, not only a large proportion of children and young adults when the rate of mortality is constantly low, but also a relatively small proportion of elderly persons, among whom the rate of mor-

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tality exceeds that which prevails among children under the age of five years. Thus the effect upon the mortality of the increase in the number of young children is more than balanced; and it follows that the age distribution of populations in which high birth-rates prevail is much more favourable to the uncorrected death-rate at all ages than is the age distribution of populations having low birth-rates. Thus part of the excess in the Paris death-rate is due to the unfavourable age distribution of its population, resulting from the low birth-rate that prevails in Paris and France. If the London birth-rate were to fall to the Paris level, and so continue for a series of years, the result would be not a reduction, but an increase in the London death-rate. This inevitable result would ensue because the decrease in young children would, in its effect upon the death-rate, be more than balanced by the reduction in the proportion of children and young adults at ages when the mortality is low, and by the increase in the proportion of persons living at ages when the mortality is high.

THE PATHOLOGICAL EFFECTS OF CHLOROFORM INHALATION.

THE question, especially interesting at this juncture, whether the inhalation of chloroform produces any remote effects upon the organism is most thoroughly studied by Dr. Robert Ostertag in a paper based on researches carried on in the Berlin Pathological Institute (Virchow's *Archiv*, cxviii., 2). The subject is introduced with the remark that it is doubtful if chloroform would have gained so ready an acceptance in medicine as it did had the knowledge of its fatal action upon animals been known at the time of its introduction. Fröhner stated that cats are highly susceptible to it, dying from respiratory paralysis; and that rabbits are even more susceptible than cats. There was, to be sure, some opposition to its use on the ground of its dangers, but it was pointed out that sudden deaths during operations were not unknown in pre-chloroform periods. Moreover, experience has shown how variable are the risks run by this anæsthetic, and figures are quoted in illustration. Thus Sansom places the chloroform mortality at 1 in 14,000, and Richardson at 1 in 3500. According to Kappeler, Billroth had 12,500 cases before his first fatality, Kœnig 7000 without a death, Kappeler himself 5000 cases and one death. Bardeleben from 1849 to 1875 had 30,000 cases without one fatality, but in 1876 he lost four patients from chloroform. The dangers of chloroform are not, however, limited to deaths during inhalation. Caspar pointed out that there is a "chronic chloroform poisoning," and gives a case of amputation of the thigh in which the patient died nine days after with cerebral symptoms attributed to the chloroform. Von Langenbeck lost a case seventeen hours after excision of the scapula, the symptoms being loss of consciousness, vomiting, and collapse, these being seemingly attributable to the chloroform. And Berend mentions cases fatal at from three-quarters of an hour to sixty hours after operation. Experiments on the effects of chloroformisation made by Ungar and confirmed by Strassmann, showed fatty changes in many organs (including the heart) without, however, appreciable change in the blood. The author's own experiments were of wide range. They consisted for the most part in the daily repetition for several days of chloroform narcosis for an hour or so in various animals, as rabbits, guinea-pigs, rats, pigeons, cats, and dogs; and the general result was to show the production of widespread fatty degeneration, sometimes jaundice, and other evidence of blood destruction. The application of these results to the human subject is, however, difficult. In some cases, to be sure, icterus has followed prolonged chloroformisation; and in many fatal cases fatty degeneration of the heart has been found, obviously, however (in the acute cases), pre-existent to the narcosis; still, in cases dying some time after the administration of chloroform, such degeneration may have been due to this agent. Again, so many other factors connected with operations—shock, sepsis, &c.,—may operate in producing a fatal result, that it is often impossible to attribute this to the chloroformisation. That many individuals tolerate it well is shown by records of prolonged and repeated chloroformisation as a means of treatment—e.g., in tetanus, chorea, &c., without any subsequent ill-effects. Nevertheless, the results of animal experimentation are sufficient to justify the non-employment of chloroform anæsthesia in long operations. At the close of his lengthy paper Dr. Ostertag sums up his conclusions as follows:—1. That after long-continued inhalation of chloroform by different animals there may arise fatty degeneration of organs, especially fatty infiltration of the liver, fatty metamorphosis of the cardiac and skeletal muscles, kidneys, and stomach. 2. These fatty changes result from the action of chloroform upon the blood (destruction of red corpuscles) and upon the tissue cells. 3. Some individuals have a greater susceptibility to this action of chloroform than others, and succumb at an earlier period to its effects. 4. The fatal effect is due to cardiac paralysis, which may occasionally be accompanied by but slight anatomical lesion of the myocardium, and also to gradual carbonisation of the blood.

THE BRITISH NURSES' ASSOCIATION.

THE publication of the first annual report of the British Nurses' Association will have, it may be hoped, the effect of bringing more clearly than heretofore before the public mind the aims and claims of this new society. These, no doubt, are perfectly well comprehended already by such as have been at the pains to inquire into them, but the movement is too young for its programme to be as yet fully "understanded of the people." It is well, then, that the objects of the Association should be distinctly and repeatedly stated, and not only its ultimate aim of raising the efficiency and status of the trained nurse, but also the more immediate objects which engage the attention of the members at the present moment, and serve as means to these desirable ends. The work to which the Council proposes to address itself during the coming year comprises (1) the formation of registers of nurses and midwives, (2) the formation of a Benevolent Fund, and (3) the establishment of one or more holiday houses, as funds allow. Of these objects the most pressing and withal the most difficult is undoubtedly the formation of a register. The magnitude of such an undertaking would probably be considered sufficient in any country except Great Britain to put it altogether beyond the compass of private hands or a voluntary association. But among ourselves the very largest enterprises have been happily inaugurated by private effort, and the State has habitually declined to undertake such a task as that of regulating and controlling a profession until the problems which it presents have been practically solved. So it will doubtless be with the British Nurses' Association. The advantage of a diploma from a central society will gradually make itself felt, and the more readily because it may be hoped that the foremost schools of nurses will be prepared to take their part in organising and maintaining the central institution. When once the public have learnt to look for such a testimonial of membership as the Association implies, the influence thence accruing to the society will enable it to erect and maintain such a standard of efficiency among nurses as shall discourage unfit persons from seeking to practise in this department. Professor Humphry, in submitting the Council's report to

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the annual meeting, alluded to the time within his own experience when "those who had gone through the active part of life were thought proper persons to undertake the duties of nursing," and he was able to contrast with that state of things the improved efficiency of trained nurses at the present day, when the "flower of womanhood" is engaged in this service. This great and most beneficent change has been brought about chiefly by the spontaneous action of the nursing schools, and serves to show how much can be done by unofficial effort. But the great schools do not and cannot supply the whole demand for nurses, and many women adopt the profession without any adequate training or qualifications. A better certificate than that which the great nursing schools already furnish it would not be easy to devise; but unfortunately the general public cannot distinguish between a woman whose training has been sound and effective and another whose designation of "trained nurse" is a mere figment of the imagination. This is the evil which cries aloud for such a remedy as the British Nurses' Association has been formed to supply, and we are glad to gather from the excellent report which has been made public that it has embarked on its great task not only with excellent spirit, but also with the most promising prospect of success. It will have been noticed from the statement published in our last issue (page 1029) that the Association has wisely extended an invitation to every training school for nurses and midwives in the United Kingdom to appoint a representative upon the proposed Registration Council.

INVALIDS AND THE SALVATION ARMY.

IF all that has been done in the name of religion were compared with what in some form or other most of us recognise as its guiding principles, there would often appear to be a lamentable discordance between the two. Excellent in itself, the element of spirituality has in many cases lost as much as it has gained from its alliance with human enthusiasm. The former abounds in mutual considerateness, the latter too often pushes forward the rough-and-ready methods of self-pretension, and seeks with them to carry all before it. This is true of deeper currents and of surface movements. It is true of many church methods, and it is true also of a great deal that is done by such bodies as the Salvation Army. However genuine, however useful the purpose of these organisations, it is not surprising that their *ad captandum* practices have been found at times to be a public nuisance. Anyone accustomed to the noisy parades of the Salvationists, especially on Sunday, will understand that the lives of dwellers near open spaces or main thoroughfares are not, even on the day of rest, so quiet as they might choose. Even persons in good health may not always find the throb of drums and the strains of a brass band, with other accompaniments, conducive either to rest or devotion. Invalids, again, must often have felt themselves ill-used in being made by the mere circumstance of position a restless and unconsidered part of the audience at these musical manœuvres. In their interest a protest is occasionally necessary, and the members of the Army, it must be admitted, have shown themselves not unreasonable towards applications of this kind. As regards the question of permission or suppression of such performances, we do not know of any action which can be taken so long as the right of thoroughfares is respected unless it be inspired by a complaint on the part of adjacent householders. Where it is felt that the proceedings of these bands constitute a nuisance this power of complaint is available. In cases of sickness where it is necessary to obtain as far as possible quiet out of doors, the power of veto, which rests with the householder, may and should be freely used.

INSANITARY DWELLINGS.

PRIVATE INDIVIDUALS are discovering that they can make independent application to a magistrate for the abatemen of nuisance, and that they need not wait for the action the local authority to undertake this duty. Thus, Mr. Bennet Burleigh, of the *Daily Telegraph*, has obtained an order from Mr. Montagu Williams for the closing of certain houses in Shoreditch, which, on inspection, the magistrate found to be unfit for human habitation. The supercession of local sanitary authorities by the Mansion House Council and private persons is calculated to stimulate the action of those upon whom this duty really devolves. The Bethnal-green vestry, who some two years ago were roused by a Home Office inquiry, have now taken out summonses against the owners of some fifty houses, and there is every appearance that a more serious effort is being made to improve the condition of a number of the streets in that parish. Bethnal-green, it was shown by the report issued as the result of the inquiry, is suffering from arrears of sanitary negligence. The vestry have been well advised by an able medical officer of health, who has urged upon them the necessity for dealing with many of these houses under the Artisans and Labourers' Dwellings Act, but the vestry declined to put that law in force, and one of the most useful Acts in the Statute-book became a dead letter. In districts where the medical officer has been appointed since April 1st of the present year, copies of reports under this Act are sent to the London County Council, who, in default of proceedings by the local authorities, can themselves carry out the law. It may be expected that gradually this system will extend over the whole of London, and we may then anticipate that medical officers' reports will no longer be set aside.

DR. GUIDO BACCELLI.

THE President of the Accademia Medica di Roma and Professor of Clinical Medicine at the Sapienza has just been elected to the post of municipal councillor by a majority far exceeding that of any other of his colleagues. The public services of Dr. Baccelli, both in Parliament as Minister of Public Instruction and in the Roman municipality as leading member, have won him the confidence and support of the party of progress throughout Italy, and have given him in the Italian Chamber, as in Italian public life, a position similar to that long held by Professor Virchow in Germany. There is hardly an interest which Italians cherish on which he has not left the mark of his cultured appreciation and his public spirit. The architectural renovation of Rome, unfortunately marred, for the time at least, by over-haste, owes much of its redeeming character to his intervention—primarily, of course, in the all-essential feature of sanitation, and secondarily in such projects as that of the "Passeggiata Archeologica," or archæological promenade, to preserve and make accessible for the foreign visitor those ruins and relics of the past from which Rome derives her perennial attraction. These and many similar considerations account for the enthusiasm with which the latest of Dr. Baccelli's public successes has been hailed in the capital and the country as of good augury for the best interests of both. Among the demonstrations in which that enthusiasm culminated, the deputation, composed mainly of his own students and those of the other faculties of the Roman University, reinforced by many of the leading citizens, must have been the most gratifying, from its spontaneous origin and from the almost filial thought which inspired the bestowal of its congratulations on him in his own house. Sixty associations of different orders and interests, scientific, literary, artistic, and commercial, throughout the city, have also combined to present

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him with an *album d'onore* as a permanent acknowledgment of the admiration and gratitude embodied in the following address: "To Guido Baccelli,—The general administrative elections having been brought to an end in circumstances of extreme gravity for the economic interests of the commune and of the citizens, the undersigned associations, mindful of your constant promotion, through useful works, of the civic prosperity and rehabilitation of Rome, are confident that the voice of the electors and of the renewed municipal representatives will induce you to devote all your influence in behalf of the city, and they cherish the hope that your policy of enhancing the good government of the commune and the welfare of the public will obtain in the Capitol a consummation worthy of the Roman name."

SENSATIONAL EXHIBITIONS.

THE recent accident by which a female gymnast met with serious injury revives once more the question constantly suggested by acrobatic performances, whether nothing more can be done to minimise the risk of such occurrences? Adults cannot, as if they were children, be prohibited from performing by reference to any such convenient standard as that of age. They and their supporters can best judge of their fitness for the tasks which they undertake. The sight-seeing public, on the other hand, can hardly be blamed if they believe the substance of reports which are blazoned on every wall and hoarding, and encourage by witnessing a spectacle in which practice is declared to have given a facility difficult and remarkable indeed, but conceivably possible. The preventive action of law in the like circumstances would be a proceeding of debateable expediency unless it could be shown that the feat attempted was essentially hazardous in spite of technical training, or that the acrobat was manifestly incapable. As matters now stand the most obvious potential remedy in the case already referred to is that which was, we may conclude for the sake of scenic effect, entirely absent—namely, the net commonly extended below the performer. Had it been used in this case the injuries sustained would certainly have been considerably less than they were. The performance itself would not have been the less remarkable. It would probably have been carried out with greater confidence and precision, and the spectators would likewise have been better satisfied and quite as appreciative. No great good comes of these displays of muscular mobility, but if safety be provided for they are of course permissible, and while they pay they will continue. It should be remembered, however, by all concerned that the thinking part of the public in this country at least respects life and limb too highly to value exhibitions which render the performer a mere suicidal devotee.

HÆMOPHILIA.

DR. FISCHER of Munich describes in his inaugural graduation thesis a large family all the members of which had suffered more or less from hæmophilia. The family was very prolific, the members living to various ages. One child died at nine months, one man at sixty-two years, and two others at sixty-seven are still alive. The proportion of females to males is four to thirteen. The bleeding takes place chiefly from the nose and gums, and the loss from these parts is very heavy; but bleeding from the internal organs is rare. The author, having found that in patients suffering from hæmophilia the proportion of red blood-corpuscles to leucocytes is 1500 to 1, believes that the disease consists essentially in an alteration in the quality of the blood as well as of its quantity. He considers the disease to be caused by increased activity of the blood-making organs and their increased capacity for forming red blood-corpuscles. On this theory it is, as the author shows, possible to explain most of the symptoms of hæmophilia. Latency and paroxysms are the different stages of the disease. The alteration of the blood is naturally followed by an alteration in the functional activity of the various tissues. Hyperæsthesia of the whole nervous system and of some centres in particular, and an alteration in the elasticity and contractility of the bloodvessels, and in the density and firmness of their walls, are observed. Functional hypertrophy may arise from the increased resistance of the heart, the quantity of the blood being also abnormal. The author considers the frequent rheumatism and neuralgic symptoms in the bones and joints as equivalent to hæmophilous bleeding. Both serve the purpose of eliminating superabundant blood.

THE PRACTICE OF MASSAGE IN HUNGARY.

A QUESTION regarding the right of a certain masseur to undertake cases on his own responsibility at the Hercules Baths having come before the Hungarian Sanitary Council, the matter was fully considered and was made the subject of a minute referring not to the case in point only, but to the general question of non-medical persons practising massage. The minute states that it is contrary to the public interest to allow a person without medical qualification or supervision to practise massage or to give a licence for the purpose. The Sanitary Council bases this decision on the important part massage plays in general medical treatment, a brief account of its history being given. When, says the minute, massage was only practised by individual quacks it could certainly not be said to have formed any part of general medical treatment. Now, however, in consequence of the experimental and scientific basis on which it has been placed during the last decade, and of its regular administration and its value in prognosis, as well as in consideration of the results gained by this new treatment, it takes a high rank amongst remedial measures. In exceptional cases only would it be safe for a layman to practise massage; in certain rheumatic affections, for instance, he could do no worse than cause some slight extravasations of blood. In other cases of disease, however, a person without any knowledge of anatomy, physiology, or pathology, who could not make any proper diagnosis, might do considerable mischief. The public does not distinguish; it would consider only who has a licence to practise, not as a help to the physician, but as an independent specialist, who can not only practise massage, but medicine in general.

JURYMEN'S MEALS.

NOTWITHSTANDING the respect which is generally felt for the method of trial by jury, there is perhaps no honour which is less esteemed by individuals than that of exercising its duties. Twelve men may be good and true, and yet feel some regret at the frequently long duration of their enforced absence from business in order to attend in court. When to this is added from time to time the further hardship of being locked up without a prospect of necessary refreshment in order to consider a debated verdict, the position of even the unpatriotic juryman excites our sympathy. Is there no way out of this latter difficulty? In these days of police efficiency it is incredible that a body of men engaged in discharging an anxious public duty should not be allowed the ordinary privilege of taking food lest some chance collusion with the outer world should warp their judgment. Both in the interest of justice and of human frailty, some relaxation in the antique rigidity of law with reference to this matter is clearly called for. A hungry man may be innately just; nay more, he may by dint of patience persevere in an attitude of calm fairness in spite of his hunger. Most people, however, are

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not thus judicially perfect. If hungry they become proverbially angry, and the irritated mind is never the most just. There can be very little doubt, therefore, that a reasonable concern for natural wants, far from corrupting, would enhance the truth, as well as greatly expedite the facility of jury findings. If, then, it should be needful in any given case to imprison together for a time the twelve selected citizens, we earnestly hope that it may be found permissible to lock in along with them a due allowance of needful refreshment.

THE COAGULATION QUESTION.

THE *Journal of Physiology* (vol. x., No. 5) contains the last paper written by the late Dr. Wooldridge, whose "untimely death," says Professor Michael Foster in a prefatory note, has robbed physiology "of a bright and enthusiastic inquirer." The subject is the one in which this gifted young physiologist made his greatest discoveries, and the matter of the paper is wholly controversial. For it consists of a reply to adverse criticisms passed upon his (Wooldridge's) observations by Dr. Halliburton, in communications to the Royal Society and the *Journal of Physiology*, upon the coagulation question. Dr. Halliburton there declares that the febrin ferment is a cell-globulin, and demurs to the remarkable point made by Dr. Wooldridge that intravascular clotting depends on "tissue fibrinogens," at first explaining this clotting on the purely mechanical ground of obstruction of the vessels by the slimy solutions of these substances—a view, however, which he subsequently withdrew. Dr. Wooldridge points out certain inconsistencies in Dr. Halliburton's statements respecting the body A-fibrinogen obtained from peptone-plasma free from ferment and corpuscles, and removed from the plasma by magnesium sulphate. He also criticises Dr. Halliburton's observations, and shows that his own (Wooldridge's) statement as to the absence of ferment from fresh leucocytes accords with Rauschenbach's observations, and not with the view taken by Dr. Halliburton that leucocytes contain a very powerful ferment. Dr. Wooldridge does not deny that under destructive processes leucocytes may yield such a ferment, but he disputes the assumption that in the living state they contain it, and that its liberation from them causes extravascular clotting; a view in which Dr. Halliburton practically restates the now untenable theory of Schmidt, and leaves the subject "in the hopeless mist in which it has been for the last twenty years." Finally Dr. Wooldridge avers that Dr. Halliburton gives no proofs of his assertion that leucocytes contain or yield ferment.

PROSECUTION OF A HEALTH OFFICER.

IT is not often that a medical officer of health is accused of an infringement of the Sanitary Acts, and when the officer in question is well-known to be a distinguished and zealous official, the circumstances under which the accusation came to be made against him become matter of special interest. Mr. H. E. Armstrong, the medical officer of health for Newcastle-on-Tyne, has done wisely in publishing the shorthand notes of his own case, which terminated in his favour last week. Mr. Armstrong had been staying with his wife and children in a small country town. On Saturday, August 11th, one of his children was found to be suffering from scarlatina, and was removed to the hospital for infectious diseases; two days later his wife had slight sore-throat, but no other symptoms of scarlatina, and the family returned to their home in Newcastle, travelling by an omnibus and by train. The day after their return Mrs. Armstrong developed other symptoms of scarlatina, and was removed to the same hospital as her daughter. It will be perfectly obvious to everyone that no charge of wilful exposure could be maintained, and it will be further obvious that there were no grounds for suspecting that Mr. Armstrong wished to avoid sending his wife to the hospital, seeing that immediately her affection was diagnosed she was removed there, and that this was the same institution to which she would have been removed had her malady been recognised in the first instance. After hearing the evidence in support of the summons, the magistrates dismissed the case without calling any of Mr. Armstrong's witnesses. It is clear to anyone reading the evidence that the accusation ought never to have been made, and we can only regret that the machinery of a sanitary authority was allowed thus to be used for the annoyance of an able and energetic officer.

MR. HUXLEY ON PHYSIOLOGY AS A GUIDE IN THERAPEUTICS.

WE must leave Mr. Huxley and Mr. Herbert Spencer to settle their differences over the knotty question of "absolute political ethics." But we cannot forbear noticing one incidental point that has emerged out of their controversy in *The Times*—the value of physiology as a guide in therapeutics. Mr. Spencer, in one of his letters, compared Mr. Huxley's objections to his "social ideals" and abstract political principles, to the objections that might be raised by a practitioner of the Sangrado type to a modern practitioner whom Mr. Spencer supposes to "treat his patients by deduction from physiological principles" rather than by careful induction from the observed phenomena of disease and of the effects of medicine. Mr. Huxley's reply is valuable:—

"Well, all I can say is, Heaven forbid that I should ever fall into that practitioner's hands; and if I thought any writings of mine could afford the smallest pretext for the amount of manslaughter of which that man should be guilty, I should be grieved indeed. Whenever physiology (including pathology), pharmacy, and hygiene are perfect sciences, I have no doubt that the practice of medicine will be deducible from the first principles of these sciences. That happy day has not arrived yet, and I fancy it is not likely to arrive for some time; but until it comes, no practitioner who is sensible of the profound responsibility which attaches to his office, or, I may say, is sane, will dream of treating cholera or small-pox by deduction from such mere physiological principles as are at present well established."

SANITATION IN STAFFORDSHIRE.

THE *Birmingham Daily Gazette* has been doing good service in denouncing the bad sanitary arrangements in Staffordshire. Much that is published by this local organ confirms what was stated in our Special Commission Reports on Sweating in the Black Country, and on the Nail and Chain Makers of the Cradley Heath District. We complained that cesspools were badly constructed, leaked, contaminated the surrounding soil, and that people drank water from wells situated close by. Our daily contemporary in its leading article on the subject, says:—"Closets are permitted to discharge into cesspools so vilely constructed that the whole of the surrounding soil becomes permeated with their nauseous contents, and water is drawn for daily use from wells that are supplied by springs saturated with this accumulated excrement." We hinted that many evils could be removed if the local authorities encouraged their medical officers of health to apply the law rigorously. The Birmingham paper describes the premises of a member of a local board; relates how he has been prosecuted on account of their insanitary condition, that he is still a member of the board, and yet, according to the

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surveyor's report, his place of business is in as bad a condition as in the past. The medical officer of health, in his report, complains that his recommendations have met with no attention. The only hope seems to be in the new County Council, which may be able to combat the supineness of the older local boards. Thus, and in no measured terms, but in the strongest language, does the local press, after due inquiry and investigation, confirm the grievances we brought forward in the spring of the year. We trust that the wide publicity given to these grave matters will bring about the desired improvements.

ANOTHER MUNIFICENT GIFT.

LAST week we announced the offering as a free gift by Sir Sydney Waterlow, Bart., of his Highgate estate to be laid out as a public park for the north of London. This example promises to develop into a pleasing epidemic of beneficence, for this week it is our congenial task to chronicle the donation by Sir Edward Guinness of the large sum of £250,000, to be expended in the erection of clean and healthy dwellings for the poorest of the labouring population. Sir Edward Guinness has accordingly placed in the hands of Lord Rowton, Mr. Ritchie, President of the Local Government Board, and Mr. Plunket, First Commissioner of Works, a quarter of a million sterling, to be held by them in trust for the erection of the said dwellings; of this amount £200,000 will be expended in London and £50,000 in Dublin. The income derived from the rents of the houses is to be reinvested, with a view to the further development of the scheme. It now only remains to see that this princely gift really reaches the class for which it is intended—viz., in the words of the generous donor, "the people somewhat poorer than those who at present avail themselves of the existing artisans' dwellings," and who are "probably more highly rented, and certainly more badly housed, than any other class in the community."

FALSE CHARGES AGAINST VACCINATION.

A CASE recently occurred at Upholland, a little village about four miles from Wigan, in which the mother alleged that the child, nearly twelve months old, had never been well since it was vaccinated, and that it had a "vaccination rash" on its body. Although she lived near to the medical man who had performed the operation, she could not take it to him or send for him. She sent it occasionally to a neighbouring practitioner. When it got suddenly worse, medical aid was not available till too late. No certificate of death being forthcoming, Mr. Brighouse, county coroner, held an inquiry, and as the medical witness could not tell the exact cause of death without a post-mortem, he directed Mr. Johnstone to make one. The examination revealed that the child died from pneumonia, and that the rash or scabs on his head were due to want of proper care and cleanliness and not to vaccination. It is no uncommon thing for medical men nowadays to hear nearly all the ills that children suffer from attributed to vaccination. It is well, therefore, in such cases as this one, that a proper investigation should be held, and the facts plainly put before the public.

GUMMED ENVELOPES.

IT may perhaps appear somewhat punctilious to remark upon the gumming of an envelope, yet the matter is not too trivial for correction, and therefore merits a word of comment. We have now before us two such defective envelopes. In each of these a substance resembling wool is embalmed in the gum of the adhesive surface. It is exactly as if the still moist and sticky paper had been laid on some woollen material, and some such occurrence or the use of a dirty gum-bottle will probably explain the flaw in question. The subject deserves a little consideration on the part of those who supply one of our commonest wants. Most of us who write frequently moisten some at least of these gummed edges with the tongue, and we must all admit that such a proceeding gains no advantage from the uncleanliness with which we are then liable to be brought into contact. Clean gum solution and ordinary care in using it would prevent all such contamination.

THE GENERAL MEDICAL COUNCIL.

THE business to be brought before the General Medical Council at its session which begins on Tuesday next will, we believe, include the introduction of Dr. Church and Dr. Donald MacAlister as successors to Dr. Chambers and Dr. Humphry; the results of examinations for commissions in the medical departments of the army and navy; two penal cases of possible erasures from the Medical Register; four applications for restoration to the Medical Register; an application from Victoria University for the recognition of its diplomas in Sanitary Science; communications in regard to the registration of midwives, with a notice of motion thereon; a report in regard to the penal powers of the General Council; a report on the limitation of the expenses connected with the General Council's session; a report in regard to the results of the inspection of examinations; and a summary presented for discussion by the Examination Committee of inspectors' reports. It will be seen, therefore, that the meeting is likely to be an important one, as the educational questions to be brought forward are of considerable urgency.

FALSIFICATION OF WINE IN BRAZIL.

IT appears from a small pamphlet enclosed in a letter addressed to us by Dr. Campos da Paz of Rio de Janeiro that the manufacture of spurious imitations of wines and liqueurs flourishes unchecked in Rio and forms a more or less important industry. The replies, based on analyses, which were returned by the local official chemists to inquiries submitted by Dr. Campos da Paz and Dr. Freire show that extensive and systematic falsification of a kind likely to be seriously injurious to public health is practised. Indigo-carmine, dinitro-cresylate of potassium, aloes, chloroform, and the compound ethers of valeric, butyric, and caproic acids, oxalic acid, and amyl alcohol are among the ingredients used in this branch of vilely, if cleverly, misapplied chemistry. Such a development of native industry should be put down by the strong hand, and we cordially wish success to our *confrère* in his efforts to repress it.

A POST-GRADUATE COURSE FOR LONDON.

WE have received a copy of the prospectus of the "London Post-graduate Course," which has been established under the presidency of Mr. Jonathan Hutchinson, F.R.S., President of the Royal College of Surgeons. It has been decided to institute these courses of instruction, open to qualified members of the profession, in the belief that it is very desirable to increase the opportunities for clinical instruction in London, and also with a view to extend the usefulness for teaching purposes of those hospitals to which medical schools are not attached. Three courses, each of eight weeks' duration, will be given during next year, the first course consisting of seventy-two lectures or demonstrations. The secretary is Mr. J. Fletcher Little, M.B., 60, Welbeck-street, London, W., from whom all particulars can be obtained.

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THE HOWARD CENTENARY MEMORIAL.

DR. COOMBS, Mayor of Bedford, sends us a letter intimating that at a meeting in Bedford on the 12th inst. it was unanimously resolved that the proposed memorial to Howard should take the form of a statue in bronze in some public situation in the town. There may be some doubt as to *where* a monument to Howard should be erected—in Hackney, where he was born, or in Bedford, near which town he for a time resided. But there can be none as to the duty of commemorating such a man and his work by every device of art. He was indeed

> "A most incomparable man; breath'd, as it were,
> To an untirable and continuate goodness."

The hon. secretaries, who will thankfully receive subscriptions, are the Rev. E. J. Hillier, vicar of Cardington, and the Rev. W. P. Irving of Bedford.

FOREIGN UNIVERSITY INTELLIGENCE.

Dorpat.—Dr. Draggendorf, Professor of Pharmacy, has been reappointed for a further period of five years.

Freiburg (Switzerland).—The professorial body of this newly established university has decided to forego all fees from students.

Heidelberg.—A Hygienic Institute is about to be established, of which Professor Knauff will have the charge.

Innsbrück.—A new Anatomical Institute has just been publicly opened by the Minister of Education, Dr. von Gautsch.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. M. S. Libochowitz, chief medical officer of the Leopoldstadt Hospital.—Dr. E. E. Eichwald, formerly Professor of Medical Diagnosis in the Military Medico-Chirurgical Academy, St. Petersburg, and more recently Medical Inspector of the Empress Maria Fedorovna's Institutions. It is to Dr. Eichwald that the profession in Russia owes the establishment of the clinical institute for the instruction of qualified men which bears the name of the Princess Helena Paulovna. He had suffered for some time from carcinoma of the bladder, which he himself diagnosed by the microscope in the spring, after some severe periodical attacks of hæmaturia, which commenced in February. He will be greatly missed on account of his wonderful energy, his deep learning, and his great power both of pen and speech.

A DESPATCH, dated Oct. 4th last, has been received at the Foreign Office from Mr. G. H. Wyndham, Her Majesty's Minister at Rio de Janeiro, transmitting a translation of the final text of the sanitary convention between the Brazilian Empire and the Argentine and Uruguayan Republics, together with the regulations and protocol annexed thereto. The regulations for the carrying out of the convention deal with bills of health, organisation of the corps of sanitary ship inspectors, duties, and attributions of sanitary inspectors of ships, sanitary visits, quarantine regulations, and lazarettos.

MR. ANDREW CLARK, F.R.C.S., has been appointed Surgeon to the Cancer Out-patient Department of the Middlesex Hospital, in the place of Mr. Henry Morris, resigned.

DR. SIMON, the public medical officer of Singapore, is agitating for the establishment of a medical school for the Straits Settlement in that town, and hopes for Government support.

SIR JOSEPH LISTER will read a paper at the meeting of the Hunterian Society at 8 P.M. on Wednesday evening next, in the theatre of the London Institution, Finsbury-circus. Subject: "Two Cases of Long-standing Dislocation of both Shoulders treated by Operation, with remarks on the Antiseptic Treatment of Wounds." Members of the profession will be admitted on presenting their cards.

THE annual meeting of the Italian Medical Association of Hydrology and Climatology will take place in Rome on the 24th inst., when arrangements will be announced, as in a forward state, for the International Congress and Exhibition of Hydrology to be held in Rome in 1892, and also for the National Congress on the same subject which is to meet in Naples next year.

WE are glad to learn that Sir W. B. Dalby, who, as we announced a few weeks ago, had sustained an injury to his knee, has now so far recovered as to be able to resume professional work.

RECOLLECTIONS AND IMPRESSIONS
(MEDICAL, HYGIENIC, AND GENERAL)
OF THE
PARIS EXHIBITION OF 1889.

BY BENJAMIN WARD RICHARDSON, M.D., F.R.S.

THE many able and descriptive essays which have appeared in THE LANCET on the late Exhibition in Paris may seem to exclude the necessity for any further observation, and I would not think of repeating the various details which have been supplied so clearly and so faithfully. At the same time it may be agreeable to some readers of THE LANCET to peruse a few columns of matter giving a view, apart from all books, papers, catalogues, or guides of the Exhibition, of the impressions left on the mind from the *coup d'œil* of one who visited the Exhibition as an active idler to see what could be seen and retained in the shortest possible time.

To begin, then, with the impression most general, a comparison of this latest Exhibition with its predecessors. I have the good fortune, or, if increase of years be bad, the bad fortune, to remember well the first Exhibition of 1851 and most of the other exhibitions which have followed that memorable advent of competitive art; and, without any hesitation I am bound to say that the first and the last carry off the grand prizes both in methods and in details. In regard to beauty, in regard to art in its best sense, the Exhibition of 1851 still holds its pre-eminence, and is still retained most strongly in the mind, not alone on account of its novelty, but on account of its exquisite loveliness as the one perfect ideal of a home for the treasures of the world. Next to it, however, even in an artistic point of view, this one stands alone beyond dispute; while to the artistic excellency it displays must be added a much greater richness of collections in all departments, and an infinitely greater facility of seeing and understanding the whole sight as an object lesson, and a school lesson which once seen is bound to be learned as well as enjoyed. Thirty-eight years have made a mighty difference in the knowledge and skill of men in laying out these objects and lessons on a gigantic scale; and, again, the minds of men during the same period have widened and become more susceptible to and more susceptible of advanced impressions, for which reason probably the simplicity of the arrangements and the ease given to study in the present effort have stood forth with striking significancy. I overheard, unavoidably, an Englishman of the workman class telling a friend of the same class, "You *must* learn in this place, do what you will, because you can't help it." That was a true and faithful version of the whole affair. In short the Exhibition presented in a practical form one of the best teachings of Pope:—

> "Men should be taught as though you taught them not;
> And things unknown be told as things forgot."

The impressions I gleaned in regard to the exhibits bearing

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on practical medicine and surgery were not specially vivid. They rather suggested the idea of respectability than of pre-eminence, and if I am correct they indicated the medicine of France more than that of the world at large. This is no fault of France, no fault of the distinguished exhibitors, who, necessarily, in their own country, had the first opportunities, and who used their opportunities thoroughly well; but it seemed to me that other countries did not second France so efficiently as they ought to have done, and assuredly England was quite capable, had she put forth her best efforts, of making a much finer display than she did as a representative of medical and of surgical advancements. In plain terms there was little if anything in the way of illustration of medical and surgical art, including obstetrics, that could not have been found in London and the other large English centres if all our surgical treasuries were to furnish their quotas properly classified. It occurred to me that in the most refined productions of surgical art, in the way of instruments and appliances, we of this country have nothing to fear in comparison, and that for ingenuity of construction, as well as for invention, we are if anything a little ahead. In the ambulance department we should hold, I am sure, a much more prominent place, the surgical instruments and appliances of the French ambulance being quite antiquated and rough, as shown in the Exhibition, in comparison with those which we are accustomed to accept as the right things in our ambulances.

In like manner pharmaceutical medicine did not appear to me to stand above the ordinary exhibition level. There was a fair competition of exhibits, but nothing specially novel either in processes of manufacture or in classification of medicines, according to their value in therapeutical records; nothing, in fact, which conveyed to the mind the progress of therapeutical research or the immense advances and simplifications which have marked the course of therapeutical science during the past decade. The apparent lapse here may possibly be due to the rapidity of the changes which have been made in this important branch of science, or to the want of unanimity among physicians themselves in relation to the specific values and qualities of the specimens belonging to the host of new remedies so continuously being added to the ordinary and extraordinary pharmacopœias. But the fact, however it may be explained, remains and deserves to be remembered as a guide to the founders and classifiers of the next great enterprise of a similar character.

In other departments connected with medicine and surgery there was a great deal to be admired and a great deal to be learned. I considered the dental exhibits unusually excellent. In the cabinets illustrating improvements in mechanical dentistry fine workmanship was combined with remarkable ingenuity of construction. This was specially appreciable in the construction of plates for carrying artificial teeth. For these plates the metals, gold especially, vied more freely perhaps than has been common of late years with the vulcanite base. But, in every instance, lightness of workmanship was the leading feature, and was carried out most determinately in some plates which really were little more than light frameworks, leaving the major part of the mucous surface of the mouth in the natural state—that is to say, uncovered. Much improvement of detail was also here shown in the formation of plates of adaptation, as they might be called, for filling up cavities in the mouth, from cleft palate and other deformities, from disease, and from the results of mechanical injuries or surgical operations.

In the mechanical department of ophthalmic art there was again excellent illustration of skill and ingenious contrivance. One set of models illustrating diseased conditions of the eyeball were simply perfect of their kind, so perfect that it was almost difficult, whilst looking at the artificial object, to realise that the actual object was not under observation. For the clinical teacher such a series must be invaluable, and the more so because the view presented in each case was so free of every exaggeration, and so rigidly true, even in feeling, as the painters say, to nature.

The cabinets showing artificial eyes sustained this department equally well. I do not think the workmanship of this class could possibly be surpassed. Here, again, the idea of adaptability was prominent. From the artificial eye that was merely a shell to one that was almost a ball of the ordinary natural size there were the different gradations, with various plans for keeping the artificial organ in its place, for permitting it to have a certain degree of movement when possible, and for supplying colour of the iris to the most delicate shade.

One of the most popular of exhibit rooms was one in the building devoted to the liberal arts, in which the anatomy of the human body was displayed. So attractive did this section become, in the later period of the Exhibition especially, that a very strict rule of admission had to be sustained, and the order to move on was in constant requisition. That a good many of the sightseers in this chamber were persons speaking the English tongue was proved by the frequency with which the attendants employed our own vernacular intimation to keep the strangers in sharp progression. But the French people, the country people particularly, were equally fascinated, and to certain of the objects showed a predilection which was of the quaintest type. Amongst other objects there was a model of the pregnant uterus, with a fœtus, of nearly full intra-uterine growth, displayed through a rather large section of the uterine wall. To get a satisfactory view of this specimen, modelled in wax or some similar material, was somewhat like making the passage to Avernus—not difficult to get into, but excessively difficult to get out of when once in it. The women folk crowded on this spot, and the wondering but perfectly simple and innocent comments which they made upon the sight before them were quite unique. I heard a commentary in which pity was the prevailing sentiment for the poor infant cramped up in such a tiny space; a sentiment which took first place as the prevailing feminine expression of pity, though some extended it to the mother as well as to the prisoner in the womb. "To think that we've all been huddled up like that there, Sarah; well, I never!" were the last words I caught from an English woman whose voice I could plainly hear, but whose face I could not see, as I elbowed my way out of the throng. Many other things in this room were well deserving of the notice they obtained. The models of the muscles of the body, of the organs and parts of the circulation, and of the brain and nervous system, as a whole and in sections, were in excellent form, and afforded selections for teaching detailed anatomy in the medical school, and also for the demonstration of general anatomy in more popular seminaries of science and art; but another exhibition on one side or wall of this section seemed to me to be entirely out of place and quite unnecessary. It consisted of a number of pictorial models of skin diseases, and even of forensic displays of wounded surfaces of the body, which to the uninitiated were sensational horrors, without being in any degree instructive. Had there been set up a line of objects illustrating, in order, the cutaneous eruptions of the common epidemic diseases, such as scarlet fever, small-pox, and the like, it might have been urged that by them a practical lesson was conveyed. I am not certain that such a display would have been strictly advisable, but I am positive that the display that was set up was inadvisable altogether. It conveyed no intelligent instruction, it produced a mixture of confused disgust and wonder, and, as a general rule, it was really far from popular. More than one person of intelligence who has spoken to me about this exhibit has expressed annoyance at having been led to look at it, and no wonder. A public exhibition built to admit millions of people of all ranks and conditions, including large numbers of women in a state of pregnancy, ought never to be made a pictorial school of morbid anatomy in its worst and most repulsive characteristics.

(To be continued.)

FISH SALES BY GUESSWORK.

BY J. LAWRENCE-HAMILTON, M.R.C.S.

No. VIII.

AMONG the many abuses in the fish trade the anomalous habit of selling fish by guesswork, instead of by accurate weight as in other honourable trades, is a kind of gambling in fish within markets held on trust for the people, and these losses fall upon the consumer. Except oysters, which would still be sold by the number, in markets all fish and shell-fish should be sold by weight only, and all the expenses of providing weights, measures, and scales should be included in the market tolls. The weight of every trunk, box, barrel, and package of fish, exclusive of its contents, should be clearly branded on the outside, so as

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to save time and to avoid the possible necessity of having to weigh the fish separately and apart from its vessel.

The usual fish trunk has a capacity of 2¼ cubic feet, and a dead weight varying from 19 lb. 8 oz. to 27 lb. 8 oz. These trunks are occasionally so packed that from 20 per cent. to 40 per cent. or more dead weight of fish may be wanting. "Faking the load" is to divide the contents of three trunks and repacking the fish and selling it as four trunks. "Faking the box" is placing a few good saleable fish on the top of a box filled with small inferior fish, which may even be unsaleable in the hands of the retailer. On Sept. 11th, 1889, I had sixty fish trunks and their contents as delivered at a public fish market in the United Kingdom accurately weighed, though by special attention only the apparently full or well-packed boxes were selected for weighing. Underpacked boxes were not tested. Haddocks, 84 to 93 lb. of fish; soles, 89 to 109 lb.; plaice, 98 to 103 lb.; whiting, 70 to 90 lb.; turbots, 60 to 80 lb.; unmelted ice 8 oz. to 1 lb. 2 oz., or a maximum of about 1¼ per cent. as compared with the dead weight of the fish, or just sufficient moisture to circulate the contained filth of the foul fish trunks. It is surprising that as recently as 1882, in then granting the Shadwell Fish Market its special Act, Parliament passed a clause exempting these market authorities from being obliged to provide weighing and measuring facilities. I am, however, informed that, nevertheless, Shadwell Fish Market, without any extra charges, provides all facilities for weighing and measuring the fish and shell-fish sold in its market.

A statute of Henry II. (1423) ordained that fish imported in false measure into the markets should be forfeited. The 22 Edward VI. (1483) provided that fish in barrels should be truly, well, and faithfully packed according to measures then in use. Herrings were to be both as good and as well packed in the midst and in every part of the vessel as at the open ends. No starved or pulled eels were to be mixed with good eels, which were to be sold by themselves well and justly packed. In eschewing or avoiding the aforesaid common losses and deceits, the Mayors &c. for the time being shall choose discreet and expert persons to search and gauge *daily* all such vessels, in order that these be faithfully packed, keeping their lawful measure.

The 15th Charles II., c. 16 (1663), provided that all herrings, fresh or salt, should be equally well packed in the midst and in every part of the barrel by a sworn packer, and the vessel to be branded or marked with the *quantity*, *quality*, and *condition* of the included or packed herrings.

The Act of the Common Council of the City of London, dated Sept. 17th, 1674, provides for the finding of beams, scales, and weights for the accommodation and just satisfaction of buyers and sellers of provisions. The farmers or leasers of markets omitting these duties are liable to a penalty of £10 for every offence. In the Guildhall Library there is a pamphlet, entitled "The Oppressions of the Market People, or the Extortions of the Farmers of the City Markets. Reprinted for the Public Good, London, 1720." The Markets and Fairs Clauses Act, 1847 (10 Vict., c. 14), orders that the undertakers of markets shall fully provide weighing and measuring accommodation and apparatus. Every person selling or offering for sale any article in the market or fair shall, if so required by the buyer, cause the same to be weighed or measured. The penalty for refusing is a fine not exceeding 40*s*. For committing a fraud in weighing the penalty shall not exceed £5.

The Weights and Measures Act, 1878 (41 & 42 Vict., c. 49), provides that the same weights and measures shall be used throughout the United Kingdom. This Act confirms a previous one (22 & 23 Vict., c. 56, ss. 7, 8, 12) giving power to the clerks of markets to weigh or measure all goods sold, offered, or exposed for sale in a public market. If such goods be found deficient in weight, the offender for every conviction is liable to a fine not exceeding £5. This Act also compels the owners or managers of any public market in Great Britain, where goods are exposed or kept for sale, to provide proper scales, balances, weights, and measures, and that all such expenses shall come out of the market tolls. Every market clerk or toll collector omitting this is liable on each conviction to a fine not exceeding £5.

The Weighing of Cattle in Markets and Fairs Act, 1887 (50 and 51 Vict., c. 27), also makes it compulsory for markets and fairs to provide proper apparatus and accommodation for the weighing of cattle.

All sorts of curious technical names are given to the various kinds of weights and measures used for different fish and shell-fish. The public, seeing these trade terms quoted with prices in the daily papers, is unable to check these charges with those it pays its local fishmonger. All fish and shell-fish should be sold by the pound avoirdupois only.

ABSTRACTS OF

INAUGURAL ADDRESSES DELIVERED AT THE DUBLIN HOSPITALS.

SESSION 1889–90.

MEATH HOSPITAL.

SIR GEORGE PORTER, Bart., in the course of his lecture, said that a medical education was not the acquisition of any one particular branch of learning, however perfectly that may be accomplished. It was a fact that a man might be possessed of vast stores of special knowledge, and be but indifferently educated after all. In all diseases and accidents there were certain resemblances and principles more or less universally applicable; but when they discovered how they were modified by age, sex, diet, habits, clothing, climate, and a host of other influences, they must confess that all cases have features peculiar to themselves, and that the practice of medicine depends more on the capacity for observing facts and reasoning justly upon them than on any exercise of memory, however perfect. A good general education would be all important to them, and a classical education should be regarded as indispensable. They should also obtain some acquaintance with modern languages. The body was a comprehensive unit, a wondrous whole, its exterior and interior being amenable to the same laws of health and disease. The surgeon, therefore, should be a physician, and the physician well versed in surgery before he could rightly practise his own branch. It was a vulgar error to suppose that a man can be a good surgeon who was not also a good physician. The most carefully and dexterously performed operation might be marred by subsequent medical treatment, and patients might be subjected to useless operations by a surgeon incapable of medical diagnosis. The most important of all their studies was their attendance on hospital. It was at the bedside, above all, under the guidance of their teacher, that they would acquire the invaluable experience needful for their calling. It was there that they would learn that use of their senses—sight, hearing, and touch—which would lead to the power of diagnosis. In their bearing toward the poor they should be particularly courteous and considerate, making allowance for the fretfulness of the weak sufferer, bowed down by poverty, affliction, and disease. He urged on them the importance of pathology and morbid anatomy, and concluded his address by saying that it was a serious reflection that not merely their usefulness and success, but probably the welfare and safety of thousands might depend on the instruction they would receive there.

JERVIS-STREET HOSPITAL.

THE subject of Mr. MELDON'S address was on "Pasteur and Hydrophobia." Since the commencement of the treatment until March last 6870 bitten persons had been treated in the Pasteur Institution, the mortality being just 1 per cent., as against 15 per cent. of cases not so treated. The method now adopted was as follows:—For ordinary bites the injections commence at fourteen days' virus, and end at that of three days old. For more dangerous wounds on the hands and face the number of inoculations are greater, and pass to the more recent cords more quickly. The most remarkable point in the whole discovery of this preventive treatment of rabies was that the virus itself was as yet unknown, and all attempts to cultivate it outside the body of animals had failed. Pasteur has, therefore, been obliged to use the rabbit to cultivate it, and to such perfection has this been carried that a rabbit is ready each day, at a specified time, for inoculating patients. It has been shown in several infectious diseases that the microbe

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manufactures a poisonous product which itself can give rise to death. This was particularly so with the bacillus of diphtheria. His own impression was that in most cases it was with the nervous system that the secret lay. This theory was strengthened by the fact that if the poison of the charbon symptomatique was injected into a healthy rabbit no evil followed; but if the part injected was bruised or the animal weakened, then the disease was developed. Again, it was well known that a large number of those who died from hydrophobia were of a nervous temperament. Pasteur's treatment did not claim to be in any degree curative; it was prophylactic, and it was powerless when the first symptoms of the disease had appeared, and probably some days prior to this event. It was interesting to note that it had been found that turpentine had the power of completely destroying all the virulent property of the portions of the hydrophobia nerve tissue. Mr. Meldon considered that an institute like Pasteur's should be established in England. The Government should liberally endow it not only with funds, but with every instrument which science could suggest, and with a well-salaried staff selected by the voice of the medical profession, who could best form a judgment as to the qualities of the candidates. The institution should have free power to experiment, to hold commissions, and do everything which could throw light on rabies, as well as on cancer, consumption, cholera, diphtheria, and all kindred diseases. If the proper men were appointed to such an institution, many diseases which now puzzle medical science would soon be within its reach.

ST. VINCENT'S HOSPITAL.

MR. COX, in the course of his address, said that the wider and deeper the education of the students was, the higher the status of the profession they had chosen would be raised. The treatment of disease, and its prevention if possible, would be the natural study of the students. Physiology and its sister pathology were of the utmost importance. The value of physiology was best learned in the study of pathology, and he doubted if in the annals of the nineteenth century any name would shine out more illustriously than that of Louis Pasteur. He was worthy to stand beside Stanley and Livingstone for the services which he had rendered to man and to inferior nature. Chemistry, anatomy, and biology were the foundations upon which their work rested, and in the study of them, and in physiology and pathology, lay the keys to the mysteries of disease.

ADELAIDE HOSPITAL.

MR. KENDAL FRANKS said that in choosing the profession of medicine they were entering upon a life of anxious toil. They need not expect the easy pleasures or the roving life of English warriors, with the occasional opportunity of winning a world-wide reputation or a Victoria Cross by a signal act of heroism. Soldiers had in their career periods of active service. They had hardships to endure, obstacles to encounter and surmount, foes to contend with, death to face. But at least they knew that their country looked on, sympathised with their sufferings, and triumphed in their victories. In the medical profession they were always on active service; they were on duty day and night; they had to contend against a foe not less real because unseen, and who never makes a treaty of peace. They should all strive after eminence in their profession, but let it be the eminence of a spotless name, an honourable career, an unselfish life. Mr. Franks referred to the progress of antiseptic surgery, which had opened up new fields for surgical enterprise little dreamed of a few years ago. He concluded by saying that if, in the words he had spoken there, he had induced them to look upon their profession as one which progresses in knowledge, and which applies that knowledge to the relief of their suffering brothers; if he had kindled in their hearts a spark of enthusiasm to excel in all that was most noble, most unselfish, in the life of man, to imitate the example of the Great Physician who went about doing good, healing the sick, and at last sacrificing His life for others, his efforts would not have been in vain.

CHILDREN'S HOSPITAL, TEMPLE-STREET.

THE lecturer (Dr. MCVEAGH) contrasted the miserable surroundings of sick children at home with the bright lot of those cared for in the clean cots of the Children's Hospital, and said that many persons had asked, when demurring to the necessity of special hospitals for children, why these cases could not be treated in the ordinary hospitals. The reply was this, that these little children are not fit subjects for large hospitals, as they would require a special staff of medical officers, and would entail a vast amount of labour totally unsuited to the physicians and surgeons of a general hospital. Diseases of children, unlike maladies of adult life, were most difficult to deal with. The recuperative power is very great in children, but not in those of the poor, with whom they had to deal, as they often did not come into hospital until disease had been fully developed in their wasted frames. It had been a most fatal mistake in their licensing bodies that a regular attendance upon a children's hospital had not been a part of the curriculum in medical students' studies, as in after life, when in practice, this omission was found to be a most unfortunate one. He had often known medical men, and some of great eminence, quite at sea when a sick child was the patient to whom they were called. They should always bear in mind that to gain the affections of children they must adopt the *suaviter in modo*, not the *fortiter in re*. Even in domestic life the rod was, or ought to be, a thing of the past.

ROYAL STATISTICAL SOCIETY.

THE fifty-sixth session of this Society was opened on Tuesday, the 19th instant, at the Royal School of Mines in Jermyn-street, when the President, Dr. T. Graham Balfour, F.R.S. &c., delivered an opening address, in which, after congratulating the members on the continued prosperity of the Society, he referred in feeling terms of regret to the unusually heavy death roll since the opening of last session. Alluding to the value of statistics, Dr. Balfour remarked that information of this description received now much more official recognition and support than was formerly the case, and he thought it was characteristic of this country that private enterprise organised and executed many undertakings which elsewhere would be left to a department or bureau. Of all the problems created by the social and economical revolutions of the past hundred years, those involved in the growth and condition of London were, perhaps, the hardest to solve and the most imperative in their demands for an answer. The air was full of cries of distress and of proposed remedies, but before the one could be adequately relieved or the other finally accepted, a full knowledge of the circumstances and conditions should be obtained and recorded. Of the remaining subjects dealt with by the President, the most important was that of the connexion between statistics and the improvement in sanitary science, than which probably no science had made more rapid progress or been more thoroughly popularised during the last thirty years. He claimed for statistics the credit of being the solid foundation on which the fabric of public sanitation had been established, by which the success or failure of the various works undertaken had been measured, and the results brought from the hazy atmosphere of conjecture into the clear light of certainty.

HOSPITAL REFORM.

A GENERAL MEETING of members of the medical profession resident within twenty-five miles of Birmingham was held in the Birmingham Medical Institute last Wednesday, for the purpose of considering a report prepared by a preliminary subcommittee on the subject of the alleged abuse of hospitals, and to take action thereon. Dr. W. F. Wade presided over the meeting, at which over a hundred gentlemen were present. Mr. Priestley Smith, in moving the first resolution, "that in the opinion of this meeting the statement of the committee as to the existence

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of abuses in hospital management is correct," said he did not think there was a medical man present who could not prove that relief had been administered under circumstances to which the hospitals were never intended to apply, and demoralised the working classes by causing them to become improvident. One shilling per head on the number of cases treated in Birmingham hospitals would be no hardship, yet it would yield £25,000, and that sum really represented so much loss to the profession. A resolution was then proposed by Dr. Rickards—"That in the opinion of this meeting the proposed inquiry would be most usefully conducted by means of a conference between representatives of the general and special hospitals, of the general dispensary, of the Hospital Saturday Committee, of the board of guardians, of the existing provident dispensaries, of the Charity Organisation Society, and of the general body of the medical profession." Both resolutions were put and carried unanimously, and an influential committee was appointed to represent the profession, and to take such steps as might be necessary. This committee was instructed to appoint a deputation to wait upon the Mayor and respectfully request him to arrange for a conference as suggested, or to take such steps as might seem to him advisable. The proceedings, which were marked throughout by considerable enthusiasm, concluded with a vote of thanks to the chairman for presiding.

MEDICAL TRIAL.

DAVIES *v.* THE GREAT WESTERN RAILWAY PROVIDENT SOCIETY.

THIS was an action brought by the Medical Defence Union on behalf of Dr. Davies of Llantrisant against the Great Western Railway Provident Society for illegal dismissal. The case was tried in the local County Court some months ago, and the learned judge awarded the plaintiff £40 damages with costs. The defendants appealed, and the case was heard in the Queen's Bench Division of the High Court of Justice on the 6th instant. Without calling upon the counsel for Dr. Davies their lordships dismissed the appeal with costs.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5580 births and 3353 deaths were registered during the week ending Nov. 16th. The annual rate of mortality in these towns, which had been 17·5 and 18·1 per 1000 in the preceding two weeks, further rose last week to 18·3. During the first seven weeks of the current quarter the death-rate in these towns averaged 17·9 per 1000, and was 2·6 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 11·7 in Birkenhead, 12·1 in Bristol, 13·0 in Hull, and 13·2 in Derby. The rates in the other towns ranged upwards to 24·6 in Newcastle-upon-Tyne, 26·7 in Manchester, 26·8 in Sunderland, and 28·5 in Preston. The deaths referred to the principal zymotic diseases, which had been 364 and 326 in the preceding two weeks, rose again last week to 342; they included 72 from scarlet fever, 70 from measles, 56 from whooping-cough, 54 from diphtheria, 54 from "fever" (principally enteric), 36 from diarrhœa, and not one from small-pox. No death from any of these zymotic diseases was registered during the week either in Brighton or in Huddersfield; while they caused the highest death-rates in Preston, Plymouth, and Sunderland. Scarlet fever caused the greatest mortality in Preston and Plymouth; measles in Bradford, Preston, and Sunderland; whooping-cough in Wolverhampton; and "fever" in Bradford, Bolton, and Preston. The 54 deaths from diphtheria in the twenty-eight towns included 38 in London, 9 in Salford, and 2 in Manchester. No death from small-pox was registered in any of the twenty-eight great towns. Only one small-pox patient was under treatment at the end of the week in the Metropolitan Asylum Hospitals, and not one in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and the London Fever Hospitals at the end of the week was 1597, against numbers constantly increasing in the preceding twenty weeks from 559 to 1557; 176 cases were admitted to these hospitals during the week, against 135 and 204 in the previous two weeks. The deaths referred to diseases of the respiratory organs, which had been 281, 300, and 318 in the preceding three weeks, further rose last week to 321, but were 107 below the corrected average. The causes of 3353, or 2·0 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leicester, Blackburn, and in five other smaller towns; the largest proportions of uncertified deaths were registered in Sheffield and Liverpool.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 20·3 and 19·8 per 1000 in the preceding two weeks, was 19·8 in the week ending Nov. 16th; this rate exceeded by 1·5 the rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 13·6 and 14·0 in Leith and Dundee, to 22·8 in Glasgow, and 23·7 in Perth. The 509 deaths in the eight towns showed an increase of 2 from the number in the previous week, and included 16 which were referred to diphtheria, 14 to whooping-cough, 13 to measles, 11 to diarrhœa, 5 to scarlet fever, 5 to "fever" (typhus, enteric, or ill-defined), and not one to small-pox; in all, 64 deaths resulted from these principal zymotic diseases, against 53 in each of the preceding two weeks. These 64 deaths were equal to an annual rate of 2·5 per 1000, which exceeded by 0·6 the mean rate last week from the same diseases in the twenty-eight English towns. The deaths referred to diphtheria, which had been 9 and 10 in the preceding two weeks, further rose last week to 16, of which 4 occurred in Paisley, 3 in Glasgow, 3 in Edinburgh, 3 in Dundee, and 2 in Leith. The 14 fatal cases of whooping-cough showed an increase of 6 upon the number in the previous week, and included 10 in Glasgow and 2 in Paisley. The deaths from measles, which had been 7 and 10 in the previous two weeks, further rose last week to 13, of which 7 occurred in Edinburgh and 5 in Glasgow. The 11 deaths attributed to diarrhœa, 8 of which were returned in Glasgow, exceeded the number in the previous week by one. The 5 fatal cases of scarlet fever, including 2 in Glasgow and 2 in Leith, showed, however, a decline from recent weekly numbers. Three of the 5 deaths referred to "fever" were returned in Glasgow. The deaths attributed to acute diseases of the respiratory organs in the eight towns, which had been 153 and 127 in the preceding two weeks, rose again last week to 149, and exceeded the number in the corresponding week of last year by 45. The causes of 63, or more than 12 per cent., of the deaths registered in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 27·3 and 24·5 per 1000 in the preceding two weeks, rose again to 26·3 in the week ending Nov. 16th. During the first seven weeks of the current quarter the death-rate in the city averaged 25·0 per 1000, the mean rate during the same period being 17·4 in London and 17·6 in Edinburgh. The 178 deaths in Dublin showed an increase of 12 upon the number in the previous week; they included 7 which were referred to "fever," 2 to measles, 2 to whooping-cough, 2 to diarrhœa, 1 to scarlet fever, and not one either to small-pox or diphtheria. Thus the deaths from these principal zymotic diseases, which had been 19 in each of the preceding two weeks, declined last week to 14; they were equal to an annual rate of 2·1 per 1000, the rate from the same diseases being 2·0 in London and 2·3 in Edinburgh. The deaths referred to "fever," (typhus, enteric, or ill-defined), which had been 6, 11, and 13 in the preceding three weeks, declined again last week to 7. The deaths from the other zymotic diseases scarcely differed from the numbers returned in the previous week. The deaths of infants exceeded by 3, and those of elderly persons by 14, the numbers in the previous week. Eight inquest cases and 6 deaths from violence were registered; and 46, or more than a quarter, of the deaths occurred in public institutions. The causes of 23, or 13 per cent., of the deaths in the city were not certified.

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Correspondence.

"Audi alteram partem."

DR. KLEIN'S POSITION WITH REGARD TO THE COMMA BACILLUS AND HIS REPLIES TO CRITICISM ANSWERED.

To the Editors of THE LANCET.

SIRS,—In a leading article of THE LANCET of March 9th, 1889, discussing a conjoint paper on cholera by Mr. Milles and myself, you justly remarked that "Dr. Klein, as the most determined opponent of that [Koch's] conclusion, comes in for a great deal of criticism." That criticism dealt with Dr. Klein's cholera articles in the *Practitioner* for 1887. He has since published a reprint of these articles under the title, "The Bacteria in Asiatic Cholera," and therein he replies to the criticism, quoting, however, not from our paper in THE LANCET of March 2nd and 9th, but from an abstract published in the Reports of the Laboratory of the Royal College of Physicians, Edinburgh. The paper in THE LANCET he does not appear to have read. Will you do me the favour to place before the profession my reply to what Dr. Klein in his book designates "a criticism of the recently published researches of Messrs. Macleod and Milles"? In his preface to "The Bacteria in Asiatic Cholera," page 7, Dr. Klein twice represents himself as occupying the same position as Baumgarten, von Pettenkofer, D. D. Cunningham, and others—viz., that Koch's comma bacilli have not "been satisfactorily proved to be the cause of cholera." Now, in the work thus prefaced, Dr. Klein repeatedly advances what he regards as proof that Koch's organism *cannot* be the cause, but is the *result* of the disease, and therefore a normal inhabitant of the human intestine and multiplying as a result of the choleraic condition. The two positions are not both tenable at the same time. If Dr. Klein believes that Koch's bacillus is the result, and cannot be the cause of the disease, he thereby deprives himself of any claim to occupy the cautious attitude of the eminent authorities he cites, an attitude which admits the possibility that Koch's conclusion may be correct.

On page 177 of his book he says: "In criticising my statements they make certain strictures on me which are quite unwarranted."

It may be as well to mention that he quotes in every instance from a part of the paper for which I alone am responsible, as was stated in the paper itself. I plead guilty to freely criticising Dr. Klein's work, but not to making a single stricture on himself, having taken special care to avoid all personal references. Of these "strictures" the following is the only one he furnishes, page 177:—"On page 173 they say: 'Klein's experiments, in which he gave the opium in other ways than by the peritoneal cavity, and then injected the cholera bacillus with negative results, are inconclusive, as he never made a control experiment with his material to see whether he was able to produce Koch's results under Koch's conditions.' [The well-known attenuation of virus through cultivation is left out of consideration.] This is in so far an unwarranted statement, as I have made control experiments under Koch's conditions with the result described by Koch. After the eighty-five successful experiments recorded by Koch, I do not see the necessity for me or anyone else to emphasise the correctness of Koch's observations."

The sentence in parenthesis, and without which the meaning may not be clear, Dr. Klein omitted in his quotation. He is not charged, as he seems to think, with having omitted to verify Koch's results, but with having at the time of these thirty experiments omitted to make control experiments with the material then used, in order to test whether that material was virulent, since all his animals escaped. Koch's contention is that injection of a certain quantity of tincture of opium into the peritoneal cavity lessens peristalsis of the gut; Dr. Klein denies this, and affirms that it probably quickens peristalsis, and at all events produces a "diseased state" of the bowel, which state he does not further particularise. In support of this statement, *instead of testing by experiment the effect of opium on peristalsis* as alleged by Koch, Dr. Klein performed thirty experiments in which he produced narcosis in other ways than by injecting opium tincture into the peritoneal cavity. The cultures of comma bacilli used in these experiments did not kill a single animal, and he attributed their escape to the absence of the "diseased state" of the gut, since he had not interfered with the peritoneal cavity. As the animals might have escaped because of loss of virulence of the cultivations used—i.e., the results being negative—control experiments with the same material demonstrating their virulence were surely necessary. In October, 1888, Koch informed me that his material had become so attenuated by cultivation that he no longer could obtain his former results. Dr. Klein now informs his readers, two years after publishing his experiments, that he made the *necessary* control experiments, and complains that my criticism pointing out the omission is unwarranted. Surely if they were necessary to be made they were worthy of mention with the experiments they controlled. What does he mean when he says, *in this connexion*, "I do not see the necessity for me or anyone else to emphasise the correctness of Koch's observations"?

Concerning one of our conclusions Dr. Klein observes, p. 178: "Surely if anyone maintains, as they do on p. 177, 3, that 'the means used to introduce the comma bacillus into, and those used to lessen the peristalsis of, the small intestine of the guinea-pig, cannot be regarded as causing appearances like those of Asiatic cholera, or causing the death of the animal,' we should require proof by control experiment—i.e., we should require proof that by inducing narcosis otherwise than by intra-peritoneal injection of tincture of opium we nevertheless obtain the same positive results. But such control experiments do not seem to have been made by them."

With comma bacilli I made over fifty experiments in guinea-pigs under certain preparatory conditions with positive results. Over thirty additional experiments were made to determine whether these positive results could be due to those *same* preparatory conditions *alone*, and the results were embodied in the conclusion to which Dr. Klein objects. These latter experiments are commonly termed "control experiments." Dr. Klein appears to use the term control in quite a different sense, for he demands that I should have made other control experiments with *different* preparatory conditions! Is it possible that this new use of the expression has led to the complaint that "while I have made the necessary control experiments which Messrs. Macleod and Milles charge me with having omitted, I do not find anywhere in Messrs. Macleod and Milles' paper a reference to control experiments of their own" (p. 178). For, on reperusal of the abstract which he quotes, he will find over forty control experiments with opium alone, soda alone, soda and opium, normal ileum contents and cholera cæcal contents.

Another of Dr. Klein's complaints is as follows (p. 178):—"Amongst the numerous experiments made by these gentlemen, some partly in repetition of Koch's, partly of Van Ermengen's experiments, I do not find any experiments to show that my contention is wrong."

The experiments were expressly stated to be by one of us. His contention was, first, that injection of tincture of opium into the peritoneal cavity did not lessen peristalsis, and, second, that Koch's positive results were not due to the lessening of peristaltic action, but to a diseased state of the gut already referred to. The first part of the contention, which Dr. Klein himself appears to have lost sight of, was proved to be wrong by my experiments. These experiments are described in both the paper and the abstract. I did not point out that the second part of the contention was wrong, but that it was not borne out by his thirty experiments, vitiated as they were by two fallacies, and therefore I did not feel myself called upon to test experimentally a point so supported.

Another reference to our work is this (p. 178):—"Nor do I find elsewhere in Messrs. Macleod and Milles's paper a reference to the important experiments made on a large scale by Finkler with Finkler's comma bacillus, and described in a former chapter (p. 137). As has been stated, Finkler, experimenting on guinea-pigs with cultures of his comma bacillus after Koch's method, produced results identical with those produced by Koch's comma bacillus. I think this proves conclusively that the action of the choleraic comma bacillus thus experimented with in the guinea-pig cannot possibly be said to be identical with *cholera asiatica*; for if so, then both Finkler's and Koch's comma bacillus would have to be regarded as the cause of cholera, which would be an absurdity."

It is not quite the case that Finkler's bacillus produces on

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guinea-pigs results *identical* with those effected by Koch's, but granting that they do the argument here advanced would imply, unless its application is limited to this single instance, that one organism *constantly associated with a disease* cannot possibly be the cause of that disease, because another organism *not so associated* produces like effects on a guinea-pig. As well might Dr. Klein urge that one drug found in a dead body could not possibly be the cause of death, because another drug, not found in that body, produces like results in a guinea-pig.

One more, and the last, of Dr. Klein's replies. On p. 179 he writes: "In criticising an argument of mine as to the exemption from cholera of attendants and those who constantly are brought into contact with cholera dejecta, Messrs. Macleod and Milles compare on page 177 the mode of spread of the cholera contagium with that of syphilis; this, I think, is scarcely necessary for me to seriously consider."

I quite agree with Dr. Klein. Such criticism is not worth serious consideration. Since, however, a comparison of the mode of spread of the cholera contagium with that of syphilis was neither made nor implied, I venture to ask Dr. Klein's serious reconsideration of the point. The passage containing Dr. Klein's argument is as follows. "If, as many believe, the cholera dejecta *per se* were possessed of infective power, then it would be quite impossible to understand how it happens that the attendants, nurses, and physicians of cholera patients, those that handle the cholera dejecta, the friends and relatives living in the same room, remain so often exempt."[1]

Unless this argument applies to cholera alone, it must mean that "it is quite impossible to understand how it happens that the attendants &c. remain so often exempt" in the case of a disease the discharges of which "are possessed of infective power." Syphilitic discharges are possessed of infective power; does Dr. Klein find it quite impossible to understand how it happens that attendants &c. remain so often exempt from that disease? This is the criticism which he represents as a comparison of the mode of spread of the two diseases and scarcely necessary for him to seriously consider. Further commenting on this point in THE LANCET my criticism runs: "The fact that doctors, nurses, &c., in attendance on cholera patients are not specially subject to the disease, whilst it points to the inference that the cholera poison is not usually transmitted from person to person under these circumstances, by no means proves that such transmission cannot take place. ..... It is not usual to carry the discharges from the bowel directly to the mouth; hence, probably one of the reasons why those in attendance on the cholera sick do not suffer more than others." I am, Sirs, yours faithfully,

Shanghai, Oct. 4th, 1889. NEIL MACLEOD, M.D.

BLINDNESS BY DISABILITY.

To the Editors of THE LANCET.

SIRS,—A few weeks ago a girl was brought to me whose sight was destroyed nine months since by an attack of the intense optic neuritis which is an occasional consequence of chlorosis. She is blind for life, no chance of useful vision now remaining. Had the neuritis been detected in its early stage, and its cause treated, her sight would now be unimpaired; even when her sight began to fail it is probable that useful vision might have been restored. No symptom yields more rapidly to rest and iron. Chlorotic neuritis has been repeatedly described during the last ten years, as your own columns will bear witness. But it is to another matter, even more important, that I desire to call attention.

The patient was under the care of a doctor who could not use the ophthalmoscope. Instruction in the use of this instrument has been nominally given in our medical schools for thirty years. What proportion of the men who have been educated during that time, and now must constitute the majority of medical practitioners, are able to use it? What proportion of the men who now each year receive their diplomas are able to see an optic disc? What proportion of them can recognise a slight but unequivocal optic neuritis—a neuritis in the stage in which often enough it *must* be recognised, if the patient is to be saved from blindness?

Beyond these questions is another. Has this moderate knowledge, this moderate skill, necessary to save from blindness, ever yet been made essentially a necessary qualification before a man has been entrusted with the sight of others, more precious to them often than life itself? Has any student ever yet been definitely tested in the use of the ophthalmoscope in the pass examination for a diploma?

Whatever the answer may be, one thing is certain: skill may be acquired in the last months of the curriculum, but the knowledge cannot be. For this the use of the ophthalmoscope must be systematically and thoroughly taught at the commencement of hospital work. The student must use every opportunity he can obtain during the whole of his practical work if he would become able to recognise alterations that are even moderate and to interpret them aright. That at some schools a few students obtain this essential experience is due entirely to the efforts of physicians who happen, I may almost say, to have made themselves specially familiar with the instrument. Until the authorities are moved so it will be.

I am, Sirs, yours obediently,

November, 1889. W. R. GOWERS.

THE SO-CALLED PRESYSTOLIC MURMUR.

To the Editors of THE LANCET.

SIRS,—The position which your journal holds as a court of late, if not of last, appeal makes it necessary for me to draw attention to a matter small in itself but important in the issues it involves. You say that I have "laid undue stress upon the coincidence of the carotid pulse with the abrupt sound that terminates the presystolic murmur, for the time between the ventricular systole and that pulse is almost inappreciable, so that on the regurgitant hypothesis of the bruit the pulse should be felt much earlier in the latter's course." Now, I submit that on the regurgitant hypothesis the carotid pulse occurs just where it should. This pulse occurs during the systole of the heart, but at a time appreciably removed from its beginning. If you will look at some diagrammatic representations of the succession of events which make up the cardiac cycle (I have before me that one in Dr. Balfour's book) you will see that the carotid pulse, instead of being instant on the beginning of the systole, does not present itself until that act is half over, or until the first sound is more than half over, being separated from the commencement of the sound by an interval which can be recognised without other instruments than the stethoscope and the finger. Now the snap in mitral stenosis corresponds so closely with the arterial beat, and begins so nearly with it, that our senses can detect no precedence on the part of the sound. You, in fact, admit, and I take it to be generally admitted, that the snap and the beat are coincident. So short is the snap that, if the pulsations reach the carotid before it is over, it must be presumed to have begun before it. If the systole begins before the beat, it must begin equally before the snap, for the two are synchronous. Thus the attitude of the ventricle immediately before the snap is that of systole. But there is nothing between the snap and the murmur; the murmur runs up to the snap just as it runs up to the carotid beat. On this showing the murmur must be present in the systolic period; in other words, must be systolic and regurgitant. Thus, if the carotid pulse is correctly represented in regard to the systole, I can scarcely think that I have laid too much stress upon its coincidence with the snap. I am, Sirs, yours faithfully,

November, 1889. W. H. DICKINSON.

*** We gladly insert Dr. Dickinson's explanation, but regret to be obliged to differ from him in the conclusion to be drawn from the fact stated.—ED. L.

HOSPITAL OUT-PATIENT REFORM.

To the Editors of THE LANCET.

SIRS,—As one of the assistant physicians to the Manchester Royal Infirmary, who has a favourable opportunity of studying the effect of the application of what is now known as the Manchester system for checking hospital abuse, will you allow me to contribute a few facts which may be of interest to some of your readers? From your editorial article of Nov. 9th it is evident that some statement is necessary as to what has been the result of the system. Possibly also some information is also necessary as to the details of the plan. The system as applied at the

[1] Practitioner, April, 1887, p. 276.

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out-patient department of the infirmary is as follows:—Every patient on coming to the infirmary is closely questioned by the hospital clerk as to his or her weekly wage. If the applicant for relief is in receipt of a higher wage than the one stated below, he or she is invited to contribute a small sum towards the hospital. If they are considered to be able to pay a private medical practitioner, the fact is brought to the knowledge of the assistant physician or assistant surgeon for the day, and, unless he deems them to be urgently in need of medical attention, they are refused relief. All other applicants are admitted; but patients living in Manchester or Salford are almost immediately visited by an officer of the Manchester and Salford District Provident Society, who makes inquiries into their position, and is authorised to act as follows. If any single man or woman is in receipt of a wage exceeding 12*s.* per week, or a married couple of a wage exceeding 18*s.* per week (1*s.* 6*d.* extra being allowed for each child), the officer withdraws their infirmary card, and informs them that they are not admissible to, and can no longer receive treatment at, the infirmary. He advises them to join the provident dispensary of the district in which they reside, and gives them all necessary particulars for becoming members. Before a new member of the Society, however, is entitled to benefit, a period of a month must elapse; and in the interval, under an arrangement made with the infirmary authorities, he is permitted, on producing evidence of having joined the provident dispensary, to attend and to receive advice and medicine at the infirmary *without making any payment.* Further, if, after joining the provident dispensary, the dispensary medical officer considers the case more suitable for treatment at the infirmary, the person may continue at the hospital without payment, If such a provident patient is admitted as an in-patient to the infirmary, no charge is made, although all other in-patients are invited to contribute towards the expenses.

The results of this system in the hospitals which have adopted it is partly told by Dr. Rentoul in his letter to THE LANCET of the 16th inst. During the first year (1875) of the application of the system, it was found that 42·32 per cent. of the patients attending those hospitals were in a position either to join the provident dispensary or to employ a private medical attendant; in the following year the number had fallen to 24·5 per cent., and the fall has been almost continuous ever since. Last year it was found that the number of cases which were unsuitable for treatment at those hospitals was as low as 6·53 per cent. (at the Royal Infirmary it was only 6 per cent.).

As regards the effectiveness of this system in checking abuse, I can speak very positively. Unlike the hospital physicians to whom Dr. Rentoul refers, I am keenly interested in the question of hospital reform, and no one is more anxious than I am to prevent the abuse of our hospitals, an abuse which is not only demoralising to the patient, but detrimental to the interests of the hospitals and to all branches of the medical profession. For some time past I have closely watched for instances of abuse on the medical side of the infirmary out-patient department (I wish it to be clearly understood that I am only able to testify as to that branch of the infirmary work), but I have not found a single undoubted instance of a person coming whom I considered ought not to do so, and who resided within the area of the Manchester and Salford District Provident Society. The only cases where there has been any apparent abuse, and such instances have not been numerous, have been patients whose statements could not be verified, it being found impossible to inquire into the circumstances of patients living in districts outside Manchester and obviously widely scattered.

If I might be allowed to offer any criticisms on the details of this system, I should say that the wage limit is decidedly too low. I would make the wage limit about 15*s.* for a single person, and about 21*s.* for a married couple, allowing, say, 2*s.* extra for each child. Another apparent fault in the details of the system is that it is more fair to the provident dispensary than to the infirmary. A provident dispensary patient may not only be referred to the infirmary for out-patient treatment by the dispensary medical man, but if admitted as an in-patient he obtains advice and medicine free, no officer of the infirmary being *allowed to ask* such a patient to contribute to the hospital funds. It will be seen, however, that these faults, if faults they can be considered, are not due to the general system, but to details in carrying it out, and the remedy for these is in the hands of the board of management of the infirmary.

In conclusion, I wish to express my indebtedness to the general superintendent of the infirmary, Mr. W. L. Saunder, for much valuable information in connexion with this subject.

I am, Sirs, yours faithfully,

THOMAS HARRIS, M.D.

Mosley-street, Manchester, Nov. 18th, 1889.

THE SCOTCH UNIVERSITIES COMMISSION: WHY SHOULD DEGREES IN ARTS NOT BE MORE ACCESSIBLE TO MEDICAL STUDENTS?

To the Editors of THE LANCET.

SIRS,—Many matters, no doubt, will occupy the attention of the University Commissioners, and, having to consider the universities as a whole, they no doubt will deal with many matters connected with the separate faculties in a different manner than if they were dealing solely with one faculty, such as Law or Medicine. There is one subject which, though not strictly medical, is of such importance to medical men that it should certainly meet with the most careful consideration from the Commissioners. The importance of this matter alone warrants the occupation of the pages of THE LANCET with this article. It is to be hoped that the medical professors of the Scotch universities will make common cause to remedy what at present is a distinct hardship to the student of medicine. I allude to the subjects required and the time taken up in attaining the degree of M.A. The time may be practically stated as four winter sessions of six months each, the subjects are laid down on hard-and-fast lines, and little or no change has been made in the course within the memory of man. To graduate in Arts and Medicine in Scotland really means eight years of study. It is a great pity that the arrangements of all the universities as regards their Arts degree were not remodelled, made more elastic, and more in accordance with the requirements of the age we live in. In the Dublin University the medical student receives certain exemptions in the course for B.A., and at least two subjects that enter into his medical course can be taken in the Arts course.

Without taking up time by critically examining into and stating particularly the advantages offered by the more elastic mode in which an Arts degree can be attained in Oxford and Cambridge, I may just roughly state that botany, chemistry, and zoology can be taken at Cambridge in the Arts course, and such classes count in the Medical course; while in Oxford any student who has graduated as B.A., and has been placed in the first or second class in the School of Natural Science, and received from the public examiner a special certificate of his attainments in mechanical philosophy, chemistry, botany, or biology, need not be examined again for his M.B. degree in any science specified in such certificate. Now, if we turn our eye to the Scotch universities, we find that the course for the M.A. really extends over four winter sessions, and necessitates attendance on classes of Latin, Greek, mathematics, logic, moral philosophy, natural philosophy, and English literature. By passing an entrance examination on certain subjects it is possible to get the degree in three winter sessions of six months each; very few, however, seem able to get the degree in less than the usual four winter sessions. As in the Universities of Oxford, Cambridge, and Dublin, a B.A. degree once existed in some of the Scotch universities, but it was done away with at some date—about 1860. This is much to be regretted, and it is now almost imperative that the Scotch universities should make an Arts degree of a more comprehensive character than it is at present. In all universities such a degree as a pass B.A. should be a certificate of the training and knowledge necessary for a man to take his place in educated society, and it should furnish reliable evidence of his fitness for a learned profession. It would be very convenient if a degree in Arts were given in the universities with a complement of a certain number of subjects as a total for the degree, but with a certain number of such subjects optional, so that the divine, the lawyer, and the doctor of medicine of the future might, with a common groundwork, choose the number of subjects—when choice was allowed—that might suit their future career. Any subject which again entered into a degree examination in the different faculties should have a certain test value and standard, and should exempt from

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other degree examinations in such subjects. It would be unnecessary to have a college residence of more than two winters and two summers—the winter term six months, the summer term three months,—provided the examination could be passed. Having to spend four years in the acquisition of an Arts degree is what prevents its being taken, as it should be, by the bulk of M.B.'s.

The following rudimentary sketch will give an idea of what I should propose, and what I believe would meet with great acceptance, be useful to all the professions, increase the numbers of Arts graduates, and cancel the slur of want of general academic culture which hangs over the bulk of the medical profession. I would here point out the value of a knowledge of French and German to medical men. This has not so far received proper attention. The elementary education of medical men has so far been conducted too much on old lines. At one time Latin was the language of the learned of all nations, and, as such, a thorough knowledge of it was a necessity in foreign travel, in publication of researches, discoveries, and records, or, in short, for any work done in any branch of learning. It was an absolute necessity that such should be written in the Latin tongue, so as to be accessible to all interested in such subjects. A knowledge of Latin, the language of erudition, enabled the student, the divine, the lawyer, or the doctor to travel and to sojourn at seats of learning with comfort and profit, to give and receive knowledge, and to exchange opinions on topics of professional, scientific, or literary interest. Nowadays this is greatly changed, and in France, Germany, Switzerland, Austria, Italy, and Russia a knowledge of French is really, of all languages other than English, the most useful.

In the recent past, and even in the present, Latin and Greek have absorbed too much of the attention both of schoolmaster and scholar, to the exclusion of English, French, and German. A certain amount of Latin and Greek may be granted as necessary, but to devote several years almost exclusively to the study of the dead languages is altogether too much to require from those who intend to devote themselves to a profession where the best brain efforts are necessary to acquire a knowledge of the work which has been done even in one or two of its departments, not to speak of adding to that knowledge by original research. It is on these grounds that I would strongly press for some alteration in the present academic curriculum which eventuates in a degree in Arts. By all means make the Honour degrees high—make them severe tests of scholarship in the dead languages, more especially as qualifications for fellowships, where such exist; but at the same time reconsider and readapt the ordinary course of study for the requirements of the age; institute new chairs (notably of German and French) so as to enable such a course to be carried out. Institute an entrance examination in English, geography, arithmetic, the history of England, Scotland, Ireland, and France, and in Latin and Greek, then necessitate a two winter and summers' residence at a university and an attendance on at least four classes compulsory to all, and four classes to be selected as suitable to students of the different faculties, granting the B.A. degree on passing an examination on such subjects and exempting in future degrees from examination in such subjects, the tests being as high as in special degree examinations.

Sketch Plan for a B.A. Degree.

Compulsory to all.	Suitable for B.D.	For B.L.	For M.B.
Latin	Moral Philosophy	History	Botany
Greek	English Literature	English Literature	Natural History
Mathematics	Hebrew	French	Chemistry
Natural Philosophy	French or German	German or Medical Jurisprudence	French or German

At present the Arts professors in the Scotch universities rest from their labours for half each year. Why should they not have a three-months' summer course like their medical colleagues? From many points of view a summer term in Arts would be convenient for students, especially for the future student of Medicine.

Arts professors may probably look on the course and the degree from a point of view different from that taken by students, especially medical students. University professorial life insensibly tends to strong conservatism. Such an opportunity as now presents itself for remodelling the Arts degree, making it more accessible and more useful to the different professions, must be my excuse for touching on this subject.

I am, Sirs, yours faithfully,

Carlisle. J. A. CAMPBELL, M.D., F.R.S.E.

REPORT OF THE COMMISSIONERS OF PRISONS.

To the Editors of THE LANCET.

SIRS,—The writer of the article on the Report of the Commissioners of Prisons, in your last issue, has fallen into error with regard to the number of prisoners who were found to be insane on admission into prison. The total number of inmates of the local prisons of England and Wales who were found to be insane during the year ended March 31st, 1889, was 349. Of these as many as 290 were recognised as being insane on admission into prison. I state in my "notes" that 93 "*sentenced*" prisoners were found to be insane upon reception, and I give a table showing the number of insane prisoners received with sentences varying from three days to five years. Your reviewer takes this number (93) as being the number of prisoners found insane upon reception, and, deducting it from the total of 349, arrives at the conclusion that in 256 cases the insane condition was not detected by the prison medical officer upon admission. I should, perhaps, point out that many of the inmates of prisons are not undergoing sentences, but are under remand, or are awaiting trial.

I am, Sirs, your obedient servant,

Home Office, Whitehall, S.W., Nov. 18th. R. M. GOVER.

To the Editors of THE LANCET.

SIRS,—In your reference to Dr. Gover's statement "that it not infrequently happens that persons who are in an advanced state of disease and even dying are sent to prison," you make an objection to the inspector of prisons' suggestion that such cases ought rather to be taken to the nearest hospital or to the workhouse infirmary than sent to prison. You say that such a course would probably lead to a considerable amount of malingering; that such cases can be equally well, or perhaps better, treated in the prison infirmary under the care of medical officers, who are well accustomed to such cases; and you intimate that, though Dr. Gover's suggestion would undoubtedly lead to a diminution in the prison death-rate, such a result should not be considered to the benefit of the unfortunate prisoners. I cannot think that the writer of your editorial remarks can have given sufficient attention to the report of the Commissioners of Prisons, for he has entirely missed the humanitarian argument conveyed in Dr. Gover's remarks. Take the principal cases, mentioned in the report, of death soon after admission into prison. One, a woman of seventy-nine years, with a sentence of seven days, very infirm and exhausted on reception, who died on the sixth day. Another, a man of sixty-five years, with a sentence of seven days, suffering from advanced heart disease, died a few minutes after admission. Another, a man of thirty-five years, with a sentence of seven days, admitted dying of bronchitis, and who died on the following day. Another, a man of fifty-one years, with a sentence of six months, admitted ill with enlarged liver, died of syncope on the third day. Had these four unfortunate prisoners been examined by police surgeons none of them would have been suspected of malingering, nor would they have been sent to prison. If we think for one moment, no such cruelty should have happened. Because the law demands punishment for offences, does it pay no attention to a dying man or woman? Are such to be sent a journey, of perhaps ten to thirty miles, to die in a prison before even a week has expired? From my experience as surgeon of Canterbury Prison, I am convinced that magistrates should more often take the advice of the police surgeon when a prisoner's body or mind is affected, without considering the trouble of further investigation or the question of expense. I would gladly see an institution which would take up a position between a prison and a lunatic asylum, and would separately treat criminal imbe-

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ciles, persons taken up for drunkenness (each conviction with an increased sentence), and prisoners on their first conviction. Such an institution would relieve public lunatic asylums of criminals, prisons from drunkards (not *bonâ-fide* criminals), and enable those on first conviction to be kept from contamination with hardened offenders.

I am, Sirs, yours faithfully,

Nov. 18th, 1889. PUGIN THORNTON.

PAROXYSMAL METHÆMOGLOBINURIA.

To the Editors of THE LANCET.

SIRS,—At the last meeting of the Clinical Society Mr. Barton brought forward a case of what he terms paroxysmal methæmoglobinuria, from the fact that the blood pigment present in the urine during an attack showed the spectroscopic appearances due to methæmoglobin. It seems, however, that this addition to the ordinary nomenclature of the disease is somewhat unnecessary, since it was conclusively shown in a case which was brought before the Medical Society a few months ago by Dr. Bristowe and myself, and which has since been published in THE LANCET, that the pigment excreted was in every instance oxyhæmoglobin, and that the change to methæmoglobin took place during its stay in the bladder under the influence of the acid urine. In addition we found that occasionally acid hæmatin, a further derivative of hæmoglobin, was present; this being noticed when, as sometimes was the case, no urine was voided for four or five hours, or even more, after exposure to cold, so that following on the same lines the case would then have to be called "paroxysmal *hæmatinuria*." That this double change through the stage of methæmoglobin to that of acid hæmatin was really due to the exposure of hæmoglobin to the influence of acid urine at the temperature of the body was proved by experiment in the laboratory, a small quantity of laky blood being added to some of the highly acid urine passed by the patient in the intervals between his attacks. We found also that the breaking down of the blood-corpuscles was due to the direct influence of exposure to cold, as the greater the surface exposed the greater was the blood destruction, and the consequent elimination of pigment in the urine; while in very mild attacks either no pigment appeared at all, its place being taken by albumen, or else that albumen appeared alone at the commencement and end of the attack, a small amount of pigment making its appearance in the acid period. The presence of this albumen, however, was really due to the breaking down of blood-corpuscles, as was shown by the fact that it consisted for the most part of a globulin, doubtless derived from the hæmoglobin, the pigment apparently being disposed of in the body when set free in small quantities only at a time. That the depth of colour of the urine should be greatest when the quantity was least is only what might be expected, supposing that each attack was of similar severity; while the considerable flow of urine after an attack, which was also noticed in our case, appeared to be due to a diuretic action exerted by the hæmoglobin during its elimination by the kidneys.

I am, Sirs, yours faithfully,

York-road, S.E., November, 1889. S. MONCKTON COPEMAN.

SOUTH-WESTERN FEVER HOSPITAL, STOCKWELL.

To the Editors of THE LANCET.

SIRS,—An advertisement recently appeared in your columns offering registered medical men, under stated conditions, opportunities for the clinical observation of the diseases treated in this hospital. In response to that invitation, no one has applied for the appointment of clinical assistant. At the same time, one hears a good deal of a demand on the part of the profession for the admission of students to the fever hospitals for educational purposes. Now the appointment of clinical assistant offers far better opportunity for the clinical study of fevers than would be possible under any well-considered scheme for the admission of students to the practice of this hospital. A three-months' stay in a fever hospital as a post-graduate course surely presents greater advantages educationally than attendance at fever hospitals for special instruction previously to qualification. As I believe the material for study placed at the disposal of the profession by the managers of the Metropolitan Asylums District is not used because it is not generally known that such facilities exist, I trust by your drawing attention to it members of the profession will be induced to apply for these appointments.

I am, Sirs, yours faithfully,

R. A. BIRDWOOD, M.D.,

Stockwell, S.W., Nov. 14th, 1889. Medical Superintendent.

NOTIFICATION OF DISEASES ACT.

To the Editors of THE LANCET.

SIRS,—I have just seen the letter in your issue of the 2nd, signed S. Gourley, on the above subject, urging that the list of infectious diseases to be notified should be extended so as to include contagious venereal diseases. As one of the members of Parliament who opposed this Bill, may I say that Mr. Gourley's desire is fortunately impossible. The Act is strictly limited to infectious disease, and no contagious disease can be brought under it. Certain diseases are mentioned as being under the Act, and any other infectious disease may be added to the list with the joint consent of the local authority and the Local Government Board. But no contagious venereal disease can be included in the list. I have the assurance of Mr. Ritchie himself that it is utterly impossible. A new Act of Parliament would be required, and no one is likely to bring in a Bill for that purpose. If anyone were to do so, he would find he had entered on a hopeless task, and one which would raise a storm of opposition.

I am, Sirs, yours faithfully,

Nov. 14th, 1889. WALTER S. B. M'LAREN.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Hospital Sunday and Saturday.

THE annual meeting of the supporters of the Hospital Sunday and Saturday Funds was held on the 8th inst., and the treasurer was enabled to make the gratifying announcement that the total sum realised this year was £300 in excess of that of 1888. But it was short by £2000 of the year 1874, which was a year of prosperity, and marks very clearly that the falling off was due rather to the commercial depression than to any diminished interest in the medical charities. The increase over last year and other circumstances augur favourably for the Hospital Sunday and Saturday of 1890, which will be their twentieth anniversary.

The Royal Southern Hospital.

In accordance with a time-honoured custom, the newly elected mayor (Mr. Thomas Hughes) attended St. Barnabas Church in state last Sunday, when a sermon was preached by the Very Rev. Dean Lefroy, and a collection was made for the Royal Southern Hospital, which is situated near the church, and of which the incumbent is the honorary chaplain. After the service the mayor, accompanied by some of the members of the City Council, visited the hospital, and went through some of the wards. The collection amounted to £133, and several special donations of £10 each were promised for the Nurses' Home.

The Royal Infirmary

The recently adopted rule in the Royal Infirmary, which required all the surgeons to be Fellows of the Royal College of Surgeons of England, has considerably limited the number of candidates, and at the last two elections Mr. Rushton Parker and Mr. F. T. Paul have been allowed a "walk over." But each has fairly earned the distinction, the former by many years' service as assistant surgeon to the infirmary, the latter as having been surgeon to the Royal Southern Hospital for some years past, as well as having held other appointments, including that of resident medical officer to the infirmary. These unopposed appointments possess great advantages in one respect. They save the annoyance—a very serious one both to the candidates and the trustees—of canvassing; and the candidate a very considerable expense in advertising, printing copies of testimonials, &c. The contests of former days, moreover, were not calculated to raise the profession in the estimation of the public.

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A Year's Accidents in Liverpool.

The annual report of the Head Constable gives among other items the number of accidents occurring during the past year, with those of nine previous years for comparison. During the year ending Sept. 29th, 1889, there were 2110 accidents, of which 86 were fatal. The police saved 39 lives, and the lives of 265 additional persons were saved by others, illustrating the ready help which bystanders and persons passing render in cases of accident. Of the total number, assistance was rendered by the police in 1540 cases, or 73 per cent., thus showing the large number of accidents which come to the notice of the police, and the importance of their being instructed in ambulance duties.

A Year's Inquests.

The next table gives the numbers and detailed particulars of the inquests held by the city coroner. During the same year there were in all 1333 cases of death referred to the coroner for investigation. In 624 of these he made inquiries, but held no formal inquests, sending information to the registrar. In 709 cases inquests were held, the deceased being 427 males and 282 females. The greater number of males is only what might be expected in a city in which occurs so large a number of accidents to which men are necessarily more liable than women. In 197 cases the deceased were infants of one year and under; in 68 cases they were children of between one and seven years; and in 37 cases the ages ranged from seven to fifteen years. The largest number was that of adults between sixteen and sixty, while in 77 cases the age exceeded this. There were 6 cases of murder, 7 of manslaughter, 38 of suicide, 232 of accidental death, 155 suffocated while in bed with their parents, 23 found drowned, and 10 found dead; excessive drinking, 67; natural causes, 52; disease aggravated by neglect, 8; want, cold, and exposure, &c., 1; and other causes, 53. The large number of what may be called "preventable deaths"—deaths from excessive drinking, children being suffocated in bed with their parents, and deaths from drowning—will be remarked, and suggest very serious reflections for philanthropists and others who labour for the improvement of the condition of the working classes.

Liverpool, Nov. 20th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Victoria University.

IN the absence of a suitable room within the College precincts for the ceremony of conferring degrees, the gentlemen's concert-hall was utilised this year for that purpose. A large audience of the general public assembled, and the gallery was given up to the students. Owing to the unseemly noise and horseplay indulged in by the latter, the whole proceedings were, however, conducted in dumb-show from beginning to end. As usual the "medicals" were credited with the larger share in the uproar, which was totally devoid of anything approaching wit or humour, and it is to be hoped that on next degree-day the authorities will take measures to prevent a repetition of what can only be described as disgraceful and senseless behaviour. Twenty-four medical degrees were conferred, three M.D.'s and twenty-one M.B.'s. Amongst the graduates were seven ladies, five of whom took degrees in arts and two in science. At a meeting of the University Court held the same day, on the motion of Professor Morgan, a recommendation from the Council was approved, abolishing the terms "first," "second," and "final," as applied to the examinations for medical degrees, and substituting "preliminary examination in science," "intermediate examination," and "final examination" in lieu thereof. Another matter which led to considerable discussion was a proposal to confer upon such students as should pass certain examinations in technical and commercial subjects, the title of "Associate." To this the old Associates of Owens College strongly demur, as this latter title has now come to have a real value and well-defined status. The proposal was in the end rejected by a large majority, and some other title will have to be found to distinguish those who shall gain certificates in the subjects referred to.

Cremation.

The cremation movement is undoubtedly becoming much nearer to some practical results, here as elsewhere. The annual meeting of the local society was recently held, and it was resolved to approach the Cemeteries Committee of the corporation for the grant of a piece of land upon which a crematorium can be erected; failing this, it is proposed to endeavour to obtain an independent site within a reasonable distance of the city, and, if a capital of £3000 can be obtained, to proceed forthwith to erect the necessary buildings, &c. But to all who have studied this subject it is clear that, if a crematorium can be erected in or adjacent to an already existing cemetery, a great deal of the difficulty in bringing this desirable method of disposing of the dead to the favourable notice of the public at large will be overcome.

Smoke Prevention.

Whether this smoky, murky atmosphere of ours will ever become free from smoke-laden gloom it would be rash to say, but the "Noxious Vapours Abatement Committee" of the Sanitary Association deserves the thanks and support of the entire community for its endeavours to bring about a diminution of the smoke nuisance. At its instigation, a movement is now on foot for promoting an exhibition of all appliances &c. and methods known for the consumption of coal without producing black smoke. A large and very influential meeting was held recently under the chairmanship of Lord Egerton, and the Executive Committee now ask for a guarantee fund of £5000 to carry out their programme, though it is hoped with good reason that the guarantors may not be called upon for any contributions.

Attacks upon Medical Men.

Two rather unusual cases of assaults upon medical men have recently been before the police-courts. In the first, a young man, described as a medical student, violently attacked Mr. C. Kitchen in the public street, the alleged cause being that Mr. Kitchen had some months before, in conjunction with Dr. Braddon, certified that the defendant was of unsound mind. From the evidence given in the case, it was apparent that the prisoner is at the present time scarcely in a condition to be at large, and the magistrate hesitated as to whether he ought not to commit him to an asylum. He was ordered to find sureties of £200, or two months' imprisonment. In the second case, Mr. Ley, medical superintendent of the Prestwich Asylum, was attacked and severely injured, not by a patient, but by one of the attendants whom he had discharged for misconduct. The prisoner was committed for trial at the assizes.

Municipal Matters.

A vacancy having occurred in the City Council, Dr. Henry Simpson has been nominated to fill the vacancy. This nomination is free from all political bias, both parties supporting his candidature. Dr. Simpson has for many years been known as an ardent and practical sanitary reformer, and his presence in the Council at this time, when sanitary matters are so much to the fore, will be most opportune.—Much regret is felt at the recent resignation of Mr. Alderman Schofield as chairman of the Health Committee, over whose deliberations he has presided for nearly twenty years.—In a return recently issued of inquests held here last year, it is stated that 270 were on children under ten years of age, of whom no less than 130 had insurances effected upon their lives. It would be interesting to know what the amount of these insurances was, and the character of the offices in which they were insured.

Nov. 19th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Queen's College and Durham University.

THE proposed affiliation of the former with the northern University has advanced another stage. On the 19th, a deputation from the governors of Queen's College held a conference at Newcastle-on-Tyne with a deputation from the medical faculty of the University of Durham. A discussion was carried on, in which various suggestions were carefully weighed. The object of the proposed scheme is to enable the students of Queen's College to obtain medical degrees from the University without the necessity which at present exists of residence for a year. The initiative, it appears, was taken by the Durham authorities, who some months ago conveyed an intimation to Dr. Windle, the Professor of Anatomy at Queen's College, who was at the

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time one of the Assessors of Anatomy at the University of Durham, that such a proceeding would be favourably considered. Durham University has already two colleges affiliated on the terms desired by Queen's College—namely, Codrington College, Barbadoes, and a college at Sierra Leone. It is hardly likely that any competition will arise from these sources.

The Midland Medical Society.

Before a crowded audience on the 16th inst., Professor W. T. Gairdner gave an address to this Society, the delivery of which was preceded by a conversazione. The attitude taken by Dr. Gairdner was in favour of legislation for the treatment of habitual drunkards, and this was evidently upheld by the meeting, Dr. Wade proposing "that this meeting is strongly in favour of fresh legislation in the direction of compulsory provisions for the detention and treatment of well-defined cases of habitual inebriety, in the interest of the individual and of the community at large." Dr. Norman Kerr stated his belief that no drunkard was irreclaimable, and that, as a result of his observation and experience, there were but few cases in which he did not trace a disease element in the earlier stages.

The Scarlet Fever Epidemic.

The reports on this epidemic are encouraging, the number of fresh cases being on Nov. 16th forty, as against sixty-nine the previous week; the total number of cases in the hospital still stands at 478. With additional accommodation, aided by the advent of colder weather, a still further decline may be expected.

Birmingham, Nov. 21st.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle.

THE reverend chairman of the House Committee of the Royal Infirmary has made a statement of a fortnight's surgical work in the wards of the infirmary, which has been printed in our daily newspapers. The work done has been indisputably good, and the motives of the chairman are also above question, and honourable to him, but then the propriety of having these surgical details set forth in a daily paper is another thing, and has called forth some animadversion. We read of "three cases of that very formidable operation called ovariotomy. In this operation the belly is opened, and tumours of greater or less dimensions are opened. As the interior of the lining membrane of the belly is peculiarly liable to inflammation, this operation is a very critical one." It is stated that one of these cases has succumbed, "chiefly in consequence of her being subject to continual vomiting." In another case it is said: "A woman having cancerous sores on the inner surface of the uterus was operated upon. The cancerous matter was scraped off. The woman was too weak to allow the removal of the organ." I hope good taste will prevent these surgical details being again served up with the morning newspaper.—The Vicar of Newcastle, the Rev. Canon Lloyd, has called attention in the School Board meeting to the alarming state of the health of the city. He said "he had been looking at the returns of the twenty-eight largest towns for the last six weeks, and Newcastle headed the list." On Canon Lloyd's representation a motion was carried asking the corporation to appoint a committee to investigate the matter. The worst of these committees is that the reports, however valuable, are too tardy in appearing to have any effect upon the evil complained of. The meteorological conditions may have much to do with the prevalent illness; and if so, it is not to be expected that any health committee can change these conditions. For instance, succeeding a month of unusually heavy rains, with saturation of the soil, we have now a period of unusually high temperature, with a stagnant condition of the atmosphere. The forepart of the day for a long time has been marked by bright sunshine; after sunset we have a raw atmosphere, with much moisture and fogs. Primroses have been seen in flower in some of the gardens in the centre of Newcastle.

Middlesbrough.

The secretary of the North Riding Infirmary, Middlesbrough, has just been informed that, under the will of the late Mr. Joseph Laing, a former mayor of Stockton, who died recently at Barnes, Surrey, the infirmary will receive a legacy of £200.—Dr. Hinshelwood, who has just resigned the resident house surgeoncy, has been presented with a handsome testimonial from the medical staff, and an illuminated address from the governors, bearing testimony to his ability during a faithful service of three years.

Whitby.

Mr. Johnson Herbert, the late medical officer of health for Whitby, has written a forcible letter to the newspapers, complaining of the action of the Whitby Local Board in declining to adopt the notification clause of the Infectious Diseases Act. He thinks that, unless the board is prepared to afford an additional guarantee, as provided by this Act in its compulsory clause, for the benefit of those who come to Whitby in search of health, this favourite and rising watering-place must be prepared to allow visitors to ignore it, and so sink into the condition of a second-rate village.

Newcastle-on-Tyne, Nov. 20th.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

Edinburgh Health Societies.

THIS week the Edinburgh Health Society, the Social Union, and the Social and Sanitary Society have been vieing with one another in working for the common health in the commonwealth. On Saturday night Dr. Woodhead gave a lecture to the Edinburgh Health Society, taking as his subject "Milk and Milk-supply." He spoke of the importance of having an absolute control over the milk-supply of large towns especially, dealt at some length with the subject of milk and disease, showing how readily milk might be the means of spreading infection, and concluded with a number of suggestions for the improvement of the milk-supply of large cities, comparing the somewhat imperfect methods obtaining in this country with those in very general use abroad. The chairman (Lord Kingsburgh), in moving a vote of thanks for the lecture, said that one thing it made clear—that was, that a great deal was yet to be done in the direction of improving the milk-supply as regarded the health and safety of the community. It was also evident that there were other nations that were more alive than we had been in the past to the necessity of great care and organisation in this matter. He believed and hoped that those who supplied them with milk would themselves come to see that it was not only for the interest of humanity but for their own commercial interest that they should help to form the organisation that was necessary. The other societies mentioned have held their annual meetings, and have demonstrated how much well-directed efforts can do to ameliorate the condition of the poor. The members of the Social Union, by acting the part of landlords, decorators, cleaners, and teachers, are doing much to awaken a desire for comfort and cleanliness in the minds of those who could not otherwise be reached; and the Social and Sanitary Society, under the presidency of Lord Kyllachie, sum up their creed in a statement in their report, which runs as follows: "The energetic action of the Health Committee of the Town Council and its convener (Bailie Russell), the burgh engineer, the health officer, and members of the Council, stimulated and sustained by public sentiment, is gradually curing the evils that are amenable to their administration. It must, however, continue to be no small part of this Society's future endeavour systematically and perseveringly to enlighten the poor on sound health principles, by the distribution of the Health Society's leaflets, by co-operating with the Social Union in improving their houses, and generally by promoting their social welfare, by teaching them to help themselves." In commending the Society to the sympathy and support of the public, Mr. John Cooper, the burgh engineer, said he had always regarded the work of the Society as being a most essential improvement for the waste desert places of their city which they called slums. Its effect upon officialism had been for good repeatedly. The ladies could make suggestions of improvements in an encouraging way, and incite people to more hopefulness in their life, which, after all, was the grand secret of improvement anywhere. He pointed out that, while the authorities had condemned many insanitary

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houses, a process of subdivision in other houses had been proceeding, causing serious evils.

Queen Victoria Jubilee Institute for Nurses.

At the first annual meeting of the Scottish Branch of the Queen Victoria Jubilee Institute for Nurses, the chairman, Lord Provost Boyd, spoke of the satisfactory progress that had been made during the first year of the existence of the Branch. A home and a well-qualified lady superintendent had been found. The demand for the services of the nurses had been very much in excess of the available supply, and from April 1st to Oct. 31st, 1889, no fewer than 321 cases had been nursed. Other speakers referred to the class of work undertaken by the nurses, amongst whom it was desired that there should be a uniform standard of training, qualification, and work. It was mentioned that it was a requirement of the institute that in large towns the nurses should reside in homes under a qualified superintendent, and nurse their patients under the direction of medical practitioners. While not excluding cases of poor patients able to make some contribution, the services of the nurses must be confined to the poor in their districts, where they should attend to the general health and cleanliness of the abodes in which they are housed. There are now eight district nurses under the control of the superintendent, supplementing the infirmary work and continuing to nurse patients after they had been discharged from that institution, but also nursing continuously other cases where the emergency arises. It was decided that the institute should be recommended to the extended support of the public, and to ask for at least £1000 a year, as far more nurses are wanted throughout the country than can possibly be accommodated in the home at present. Donations are coming in liberally (£1737); but in the form of subscriptions there is as yet, exclusive of the grant from the Queen (£300), only £254, so that there is room for improvement in this direction.

Edinburgh University Court.

At a meeting of the University Court held on Monday, it was reported that under the New Universities (Scotland) Act, 1889, the present University Courts were continued in office till the new Courts under the present Act should be declared by the commissioners to be duly constituted, but without the additional powers conferred thereby, except that of agreeing to the affiliation of new Colleges. A representation by the General Council of the University, to the effect that the professional oral examinations at Edinburgh University should be open to members of all the Scottish University General Councils, was received. Instructions were given that it should be sent to the Senatus for opinion. On consideration of a minute of Senatus, the Court approved of an extra payment of three guineas a day to such of the additional examiners in medicine as were required to act as at the special final examinations in medicine held in October last, with travelling expenses to any of them residing at a distance from Edinburgh. The other business transacted was chiefly in connexion with the recognition of lecturers and class returns. In answer to applications for recognition by the College of State Medicine, London, and Mr. Howden, lecturer on Anatomy in the Newcastle School of Medicine, it was intimated that in neither case was special recognition necessary. Intimation was received from three of the recognised lecturers on medicine in Glasgow that the institution in which they were taught was now called St. Mungo's College.

Scottish Microscopical Society.

The second ordinary meeting of the Scottish Microscopical Society was held on Friday last, under the presidency of Professor Sir William Turner. There was a large attendance, and many new members were proposed and admitted. Mr. George Brook gave a *résumé* and microscopical demonstration of his *Challenger* work on the Antipatharia and Sea Anemones. Dr. G. Sims Woodhead and Mr. R. W. Gray gave a demonstration of the histology of the whale's stomach; Mr. J. C. Purvis, M.B., one on the use of blood-serum as a medium for injection masses; and Mr. Alexander Edington described and exhibited a new inoculating syringe for bacteriological purposes. The whole evening was devoted more to the examination of sections and special preparations than is usually the case at such meetings, and the subjects discussed excited very general interest.

The Weather.

At last the weather-wise have really something to talk about. The early part of November has been extraordinarily mild, and the papers are full of accounts of wonderful roses, dahlias, and other summer flowers, all grown in the open air. It is said that only once during the last thirty-five years has there been any November weather at all approaching that of this month.

New Appointment.

Dr. Berry Hart, late assistant physician to the Simpson Memorial Maternity Hospital, who was recently promoted to the office of physician, is succeeded by R. Milne Murray, M.A., M.B., F.R.C.P. Ed., F.R.S.E., who was yesterday officially appointed by the managers of the hospital.

Edinburgh, Nov. 19th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

DUBLIN.

Kingstown Main Drainage Scheme.

As was expected, the main drainage scheme, which it was proposed to carry out at an estimated cost of £50,000, has been postponed for twelve months, and the probability is that it will be quietly shelved, and that the ratepayers of the premier township will hear no more about the matter. The scheme, if carried out, would have interfered with Sandycove Bathing Place—the best of its kind on the coast,—for in an area comprising nearly twenty square miles the amount of sewage discharged at Sandycove would be so enormous that it would ruin it as a bathing place. It has also been pointed out by a deputation of ratepayers who waited on the Kingstown Commissioners that the sewage would remain in the intercepting sewer for seven hours out of the twelve, while the return of the sewage with the flowing tide would pollute the beach between the East Pier at Kingstown and Sandycove Point.

Rathmines Water-supply.

Rathmines is a populous suburb of Dublin, and its water-supply is obtained from the river Dodder. At a recent meeting one of the Rathmines commissioners condemned in forcible language the water as supplied to the residents, and as a result a panic ensued, as it was believed that some cases of typhoid fever in the township had been due to the water. The commissioners at once requested Sir Charles Cameron and Professor Lapper to analyse specimens of the water to allay the excitement which prevailed. Their reports were favourable as to the quality of the water, but it was nevertheless recommended that the water be filtered. As Sir Charles Cameron points out, filter-beds are indispensable, and to this recommendation few will object; indeed, it is singular that they have not been constructed before this, and the commissioners no doubt will carry out the recommendation without delay.

Surgeonship of Clare County Infirmary.

In the Supreme Court of Judicature, in the Court of Appeal, before the Lord Chancellor and three other judges, last week, an appeal was heard in reference to the surgeonship of this institution. It was an appeal from an order of the Queen's Bench Division, making absolute a conditional order for *quo warranto* setting aside the election of Mr. Hynes to the post of surgeon to Clare Infirmary, on the ground that three of the governors who voted on the occasion were not qualified to vote, two of them being members of Parliament, and the third not having paid his subscription before the vacancy. A preliminary objection was made by counsel on behalf of the respondent, Dr. Faris, to the hearing of the appeal, on the ground that an undertaking had been given by the appellant's counsel not to prosecute an appeal, on the faith of which a fresh election had been held, and on the further ground that the order appealed from was an interlocutory one, and that it was accordingly late. The Court dismissed the appeal on the two preliminary objections raised by the respondent.

Health of Ireland for the September Quarter.

During the quarter ending Sept. 30th the births registered in Ireland numbered 25,966, equal to a rate of 22·0, and the deaths to 17,929, or 15·2. The birth-rate was 1·2 under the average for the corresponding quarter of the past ten years, while the deaths were 0·2 above the average for the same period. The returns of pauperism show a decrease of 915, or 2·2 per cent., in the average number of workhouse inmates on Saturdays during the quarter, and a decrease of 2222, or 3·5

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per cent., in the average number on out-door relief. The zymotic death-rate, however, was in excess of the rates for the previous four quarters, a result due to the heavy mortality from diarrhœa in Belfast and Dublin, and the prevalence of typhoid fever in those two districts, and of whooping-cough in portions of the counties of Mayo and Cork. The deaths from typhoid fever numbered 202 against 162 for the preceding three months; of these, 40 deaths occurred in Dublin and 52 in Belfast.

Sir J. T. Banks, K.C.B., has been appointed High Sheriff for Monaghan County, and William Moore, M.D., J.P., has been elected to the same office for Antrim County.

Dublin, Nov. 19th.

BELFAST.

The Ulster Medical Society.

The winter session of the Ulster Medical Society opened on Wednesday, Nov. 6th, when, after a few words from Dr. Burden, whose term of office had expired, the new President, Mr. Andrew McConnell, took the chair and delivered his inaugural address. After thanking the members for the honour they had conferred on him, which he regarded as a compliment to the general practitioners of whom he said he was one, Mr. McConnell gave an interesting account of his experience at the Union Infirmary, of which he is one of the visiting surgeons, and where he has an immense number of patients under his care. He dwelt specially on two sets of maladies not frequently met with in general practice—lock cases and delirium tremens,—and of which he had a very large number of examples in the infirmary. At the conclusion of his address a cordial vote of thanks was passed to Mr. McConnell. Dr. McCaw, the secretary, reported that the special committee appointed to see if something could be done to make the Society more attractive to the members had decided against the formation of a medical club, but had taken steps to enlarge and extend the library. A long and very animated discussion then took place in reference to the Notification of Infectious Diseases Act, and it was finally decided to instruct the secretary of the Society to write to the Public Health Committee of the Corporation asking what was the plan they intended to adopt in carrying out the provisions of the Bill.

Belfast Royal Hospital.

From the report presented at the ninety-seventh annual meeting of this charity, held on Nov. 18th, it appears that during the past year, ending Aug. 31st, 2361 intern patients were treated; of these, 986 were medical and 1375 surgical. In the extern department 26,580 new cases had been treated; of these, 5810 were medical and 20,770 were surgical. The average daily attendance was about 190, and the total attendance for the year in the extern department was about 57,000. The in-door and out-door cases together were 28,941. Clinical instruction had been given in the wards to 136 students during the winter, and to 76 during the summer session. The financial year commenced with a deficit of £381 6*s.* 1*d.*, and terminated with an adverse balance of £1147 10*s.* 7*d.* The total receipts of the year were £9396 10*s.*, and of this £2501 15*s.* 7*d.* had been invested. In general subscriptions during the year there had been an increase, as well as in what was contributed by the working classes; but there had been a deficit in the sums received from church collections and from pay patients. In considering these reports two facts are worthy of notice. In the first place, the great increase in the number of patients treated at the Royal Hospital, and the deficit in the finances. As was stated at the annual meeting, one out of every eight of the inhabitants of the city of Belfast receives treatment at the Royal Hospital. It is quite evident that the present hospital must be enlarged and extended if patients are to go on in this increasing ratio. The lease of the building expires in twenty years, and there is a strong feeling that a new hospital, with all modern improvements, is an absolute necessity for such a rapidly-growing city as Belfast. The late Mr. Campbell has left in the hands of trustees property to the value of £200,000 to found a school or hospital, and efforts have been made to get the trustees (who have almost unlimited powers) to build and endow a new hospital which would be a credit to Belfast.

The Tuberculosis Question.

At the Belfast Police-court, on Nov. 15th, application was made for the destruction of the carcase of a cow affected with tuberculosis. The resident magistrate, Mr. Eaton, who had heard the first of these cases in Belfast, when this case was brought forward said that the borough Act under which this proceeding took place was passed forty-five years ago, before anything was known of the germ theory. If a carcase was then supposed to be unfit for human food the inspector had the right to seize it and bring it before the mayor and any two magistrates, and they, in the exercise of their discretion, could condemn it on view. In the first case which had been brought forward in that court in which the tuberculosis question was involved three or four witnesses of experience had been examined, and would not say that the meat which was the subject of the application was unfit for human food, and the case therefore had been dismissed. In the next case scientific evidence was given that the carcase was unfit for human food, placing it on a different footing from the previous one. Dr. M'Gee, who was evidently qualified to pronounce an opinion, had come to the conclusion—and his brother magistrates concurred—that the carcase was bad. He (Mr. Eaton) entertained a strong opinion on the subject. He was not by any means satisfied that the disease was communicable—although the preponderance of public opinion might say that it was. If so, the measures for stamping out the disease were totally inadequate. He thought the matter was one for legislation, and some arrangement ought to be made whereby the owners of the carcases could be compensated. One of the other magistrates (Dr. McGee) said the matter of compensating owners was altogether outside their province. The magistrates then retired and examined the carcase, and on their return (Mr. Eaton having retired) an inspector gave evidence as to the seizure of the meat, and Dr. Torrens stated that it was unfit for human food. The Bench made an order for the destruction of the carcase, Dr. McGee remarking that it was one of the worst cases he had ever seen.

Belfast, Nov. 19th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Hygienic Uses of the Sabbath.

AMONG the questions treated of at the recent Congresses, that of the observance of the Sabbath as a day of rest was not the least interesting. The Congress on this subject was presided over by M. Léon Say, who remarked that this rest, which several religions rendered obligatory, is a law of nature, and consequently a law of hygiene, the excellence of which has long been demonstrated, although it is not to be found in all national codes. The resting on the seventh day is of Biblical origin, and the custom of counting the days by seven was formerly the rule among the most diverse races—in India as among the Celts, in China as well as in Arabia. Now that hygiene has become a positive science, it confirms the moral and material necessity for a temporary rest on the seventh day. The idea was adopted in principle by all the members of the Congress, which received the patronage of two political celebrities—Mr. Harrison, President of the United States of America, and Mr. Gladstone. In a letter which was read publicly, President Harrison declared that he considered that all workers, whether with the hands or with the head, were in need of rest, which alone can guarantee the general observance of the Sabbath. Mr. Gladstone declared that he attributed his robust health and his longevity to his invariable observance of the Sabbath rest. Several reports were presented to the Congress, and physicians, professors, philosophers, and hygienists are in accord on this point. All, without exception, support for workers of all classes and of all ages a weekly day of rest, which should even be made obligatory. I may here note that in 1881 this subject was opened to competition by the Swiss Government for a prize, which was awarded to Dr. Niemeyer of Leipsic. The subject was brilliantly treated by Dr. Niemeyer, who observed that the Dominical rest is the first commandment of hygiene, which should be followed to obtain a peaceful and continued amelioration of society, and in this respect it is as much a rational institution as a religious one. The following is the summary of the conclusions voted by the great majority of the members of the Congress:—"Rest on Sunday is possible in varying degrees

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in all industries. Sunday is the day which best suits the employer and employed, both as regards the individual himself and his family, and it is well that the day of rest should be, as much as possible, the same for all. When the Sunday rest is impracticable for certain reasons, it should be replaced by some other day, so that the workman may have fifty-two days' rest in the year as equally divided as possible. This rest permits man to produce considerably more and better work, inasmuch as it contributes to maintain his zeal and to restore his physical forces."

Cold Baths for Typhoid.

At a recent meeting of the Société Médicale des Hôpitaux, a discussion took place on the efficacy or otherwise of cold baths in the treatment of typhoid fever. Dr. Josias communicated a report of cases of typhoid fever which he had occasion to treat by this method during the years 1888 and 1889. Of thirty-six cases he had only one death, or 2·77 per cent. Other members spoke in favourable terms of the treatment, and Dr. Chauffard also approved of Brand's method, but remarked that the formula of this author was insufficient in grave cases. One member observed that when there are several cases of typhoid fever in the same hospital it will be almost impossible to carry out the method in all its details as it would take an army of nurses to attend to the patients. Dr. Gaucher remarked that during the same period that Dr. Josias attended his typhoid patients as noted above, he treated sixteen patients suffering from the same disease, and although in the same locality and consequently in the same epidemic conditions, he did not lose one of them. A seventeenth patient, whose case was considered hopeless, was submitted to the cold baths, and died; but as Dr. Gaucher observes, this cannot be placed to the account of the baths, as the patient was in a dying state when he took them, but the other sixteen patients that he treated with mild purgatives and enemata without the cold baths were all cured.

Pure Air in Bedrooms.

At the last meeting of the Academy of Medicine, Dr. Nicaise read a note on the necessity for a person, whether sick or not, breathing pure air in his bedroom, day and night; and this applies more particularly to patients suffering pulmonary phthisis or other chronic affections. It was thought that by increasing the cubic space of a closed room this result would be obtained, but it has been found that the air always remains vitiated. To remedy this evil, Dr. Nicaise recommends permanent ventilation of the room by leaving the window ajar, and by other arrangements which will secure the object. A bedroom, he says, should never smell stuffy when opened in the morning, as is commonly the case, and if it be cold a fire should be kept up in the room, which would rather contribute to the ventilation than otherwise.

Ambulances for Infectious Diseases.

The Paris Municipal Council have decided upon the creation of two stations of ambulances for the conveyance of patients affected with contagious maladies. These stations are communicated with by telegraph and telephone. As soon as application is made, an ambulance carriage, specially constructed for every description of infectious disease, conveys a hospital official immediately to the residence of the patient, who, however, is not removed without a certificate from the physician in attendance. After each trip the carriages and horses, as well as the nurses and coachmen, are thoroughly disinfected. By this means the public cabs will gradually cease to convey patients suffering from contagious diseases.

The late Dr. Ricord.

Among the legacies left by Dr. Ricord, the following may be noticed: To the Academy of Medicine of Paris 10,000 francs, the object of which is to found with the interest a biennial prize in the name of the testator; to the Société de Chirurgie 5000 francs for founding a biennial prize; to the Association Générale des Médecins de France 10,000 francs; to the Hôpital du Midi his extensive library as a token of gratitude and as a souvenir of his twenty-nine years' service at that hospital. The Hôpital du Midi is henceforward to bear the name of Ricord.

British Doctors in France.

The Minister of Foreign Affairs has informed the British Government that no British medical man will, save in very exceptional cases, be authorised to present himself at the examinations for the Doctorate or the diploma of Officier de Santé of this country. The reason assigned for this restriction is that the Commission appointed to inquire into the matter have judged that the British diploma, not being delivered exclusively, as is done in France, by the State, the British Government did not exercise a sufficient supervision on the subjects and the programmes of teaching.

Paris, Nov. 19th, 1889.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

An Autobiography of Franz Cornelius Donders.

PROFESSOR ZEHENDER of Rastock has published an autobiography left by the late famous physiologist and oculist Franz Cornelius Donders. When he went to the University, he tells us, he knew little of Latin literature and absolutely nothing of Greek. He became a professor at twenty-four, "Professor *à la suite*"—i.e., one who had to fill up gaps left by the other professors. Thus it happened that he had to treat no fewer than six subjects in his lectures: normal and pathological anatomy, histology, anthropology, medical jurisprudence, and ophthalmology. In those first years as professor he lived entirely with the students. His selection of practical ophthalmology from this wide circle of studies was almost accidental. What he taught at that time was not exactly ophthalmology, but rather physiological optics, and he taught it so well that his friends earnestly advised him to devote himself to practical ophthalmology. It was a doctor from Cape Colony, named Dr. van der Bije, who induced him to go to London in 1851 to study under Bowman and Guthrie. At Guthrie's house he made the acquaintance of Albrecht von Graefe, who was then studying in London. Furnished with letters from Graefe, he went from London to Paris to study under Sichel and Desmarres. In 1851, just a quarter of a year after Helmholtz had invented the ophthalmoscope, Donders began practice as an oculist in Utrecht. It was partly necessity that, happily for mankind, drove him to take this step, for his salary as professor was too small for the support of his family. He continued his practice till 1862, when he got a better kind of professorship as Van der Kolk's successor. This autobiography, which is the only recent one of its kind except that of Arlt of Vienna, contains references to many interesting persons with whom Donders came into contact—Moleschott, Muller, Simpson, Nagel, Friedrich von Jaeger, Claude Bernard, Brown-Séquard, Lebert, and others.

School Hygiene.

In a country like Germany, in which the art of education is supposed to be so well understood, and in which undoubtedly medical science is far advanced, one might expect that the perfection of sanitary arrangements would be found in schools. If this is not the case the fact is partly due to the circumstance that pedagogues and physicians have not generally seen eye to eye hitherto; each class unfortunately but naturally tending to take a one-sided view of the matter. So much the more welcome is the appearance of the first instalment of a work on school hygiene by Privy Councillor of Medicine Dr. Eulenburg and Dr. Bach, headmaster of one of the so-called "Realgymnasien," or non-classical high schools of Berlin. Both are known as authorities, each in his department, and they have undertaken to discuss all the questions of the subject hand-in-hand in a strictly scientific, but at the same time easily intelligible, manner. The work is to come out in six or eight parts with numerous illustrations. The first part, which has already appeared, contains an excellent history of the development of school education, and a discussion of the fundamental question of school buildings. The historical section is enriched by an admirable statistical comparison of the present results of school hygiene in various countries.

Mother-of-pearl Ostitis.

At a recent meeting of the Berlin Medical Society, Dr. Levy introduced three young men, aged between twenty and thirty, who were suffering from a rare bone disease. They had worked for several years in a mother-of-pearl factory here, and had thereby contracted ostitis, which had resulted in the thickening of several bones. In one the right side of the upper jaw was so thickened that one could hardly introduce the finger between it and the cheek; in another, first, the shoulder blade, then the

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clavicle, and, finally, the right thigh-bone; and in the third the middle bones of the hands and feet showed similar alterations. As soon as they left their work the disease began to disappear, and returned when they resumed it. This quite peculiar bone disease has been described only in twenty-five cases before, all in Vienna, where Professors Englisch and Gussenbauer were the first to draw attention to it. It is called "ostitis of workers in mother-of-pearl." Professor Gussenbauer's explanation of the disease is that the very large molecules of the organic ingredient in mother-of-pearl dust enter blood through the lungs, and accumulate in the narrow arteries at the ends of the bones.

Berlin, Nov. 12th.

THE SERVICES.

THE BURMAH CAMPAIGN.

THE *London Gazette* of the 15th inst. publishes for general information the official correspondence and despatches relating to the recent operations in Upper Burmah. Major-General Sir George White, K.C.B., V.C., late commanding the Upper Burmah Force, in his list of general and other officers who rendered specially valuable service during the operations, thus alludes to the following medical officer:—"Surgeon I. P. Doyle, I.M.D. (Madras), distinguished himself much by personal courage and care of the sick. On Dec. 9th, 1888, he was twice wounded. On Jan. 1st, 1889, during the withdrawal from Kan to Gangaw, he again distinguished himself; and it is greatly in consequence of his courage and bearing that the wounded got safely into Gangaw. I commend this officer very specially to the consideration of his Excellency the Commander-in-Chief. The following officers have also well earned mention for service in the Chin Hills:—Surgeon-Major A. B. Strahan, 44th Gúrkha Light Infantry; Surgeon F. A. Rogers, 42nd Gúrkha Light Infantry; Surgeon W. H. B. Robinson, Indian Medical Service, Bengal. For specially valuable service with the Mogaung Field Force, Surgeon C. S. Cronin, Medical Staff, has also earned mention by his devotion to duty and care of the wounded. I have made the gallant conduct of Surgeon J. Crimmin, I.M.S., with the Karenni Field Force, the subject of a special report and recommendation. Some of the foregoing officers have already received mention in our columns as being the recipients of special honours for services rendered in Burmah." We now reproduce the names and records as they appear officially in the *Gazette*.

ARMY MEDICAL STAFF. — Brigade Surgeon William Temple, V.C., M.B., has been granted retired pay (dated Nov. 7th, 1889); Surgeon James Rose has retired on temporary half pay on account of ill-health (dated Nov. 7th, 1889).

INDIAN MEDICAL SERVICE.—The Queen has approved of the retirement of the undermentioned officers:—Deputy Surgeon-General William Walker, M.D., Bengal Medical Establishment (dated Oct. 31st, 1889); Brigade Surgeon Edward Sexton, M.D., Bombay Medical Establishment, (dated Oct. 1st, 1889); Surgeon-Major John Robb, M.D., Bombay Medical Establishment (dated Nov. 2nd, 1889).

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Surgeon Andrew Dillon Peyton has been placed on the Retired List of his rank, with a gratuity; Surgeon Justin Foley Donovan, M.D., has been allowed to withdraw from Her Majesty's Naval Service, with a gratuity.

The following appointment has been made:—Staff Surgeon Thos. E. H. Williams to the *Sultan* (dated Nov. 14th, 1889).

VOLUNTEER CORPS. — *Artillery:* 1st London (City of London): The services of Surgeon F. W. H. Ramsay, M.D., are dispensed with (dated Nov. 16th, 1889).—*Rifle:* 1st Volunteer Battalion, the Highland Light Infantry: Acting Surgeon H. St. Clair-Gray, M.D., to be Surgeon (dated Nov. 16th, 1889). — *Infantry:* The Staffordshire Brigade: Surgeon-Major Frederick E. Manby, 3rd Volunteer Battalion, the South Staffordshire Regiment, to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Nov. 16th, 1889).

THE Merchant Taylors' Company has granted the sum of twenty guineas in aid of the funds of the National Association for Supplying Female Medical Aid to the Women of India.

Obituary.

HAYNES WALTON, F.R.C.S.

MR. HAYNES WALTON died at his house in Brook-street, Hanover-square, on Nov. 7th. He suffered from an obscure affection of the liver, which we understand was never diagnosed. Mr. Haynes Walton was born in the island of Barbadoes on March 3rd, 1816. He was the son of Mr. John Walton, who held the office of provost marshal of that island. When young Walton was but ten years old he lost his father. Shortly after he was left fatherless he came to London, and in a few years entered himself as a student at St. Bartholomew's Hospital. There, by his hard work and energy, he attracted the attention of Sir William Lawrence, who spoke very highly of him. In 1851 Mr. Haynes Walton was appointed assistant surgeon to St. Mary's Hospital—an office which at that hospital he was one of the first to hold. About the same time he started the Central London Ophthalmic Hospital in Gray's Inn-road. He continued his connexion with that special hospital until he was appointed ophthalmic surgeon to St. Mary's Hospital. Conjointly with that post he discharged the duties of his office of surgeon to the Hospital. The pressure upon his time was thus so considerable that he had to relinquish his special work in the Gray's Inn-road. He was one of the medical advisers of the London, Brighton, and South Coast Railway. He was the author of a large work on ophthalmic surgery, and the article on "Operative Surgery" in Druitt's book was from Mr. Haynes Walton's pen. He contributed frequent articles to various medical periodicals, and had expressed in some of them certain original views concerning the coagulation of the blood. He was very fond of horse exercise, and his was a well-known figure in the hunting-field at the meets of the Queen's hounds. Until very recently he was to be seen almost daily riding in the Row or elsewhere in the vicinity of London. He married first a daughter of the Hon. J. G. Reed, of New Court, Gloucestershire. By her he had ten children, of whom only three survive—two sons and one daughter. His first wife died eleven years ago. Seven years since he married a daughter of Dr. Keelan, R.N., who survives him.

GAETANO LA LOGGIA.

ON the morning of the 9th inst., in his native town of Palermo, died Senator Gaetano la Loggia, a physician of rare accomplishment (particularly in mental diseases), a publicist whose services to his country were important enough to be historical.

Born in 1808, he gave early indication of the able and independent mind that characterised him as a professional man and as a citizen, and while yet at the threshold of his studies his sense of his country's political degradation induced him to become a conspirator of the *Carbonari*. At twenty-one he graduated as Doctor of Medicine, and shortly thereafter the University of Palermo secured his services for the chair of Physiology, vacated by the brilliant Foderà. In this post he laboured hard to keep the Palermitan school abreast of contemporary science, while all the time he strove to awaken the Sicilian youth to a nobler public life than the Bourbon despotism made possible for them. He was the first Sicilian to enrol himself in the ranks of Young Italy, and was in frequent and confidential correspondence with Mazzini. When the revolution of 1848 broke out he took a prominent part in its military organisation, and while more particularly employed on sanitary duty, he lent it what aid he could as a combatant. When the movement was suppressed he went into exile, and in 1850 was in Turin, then the asylum of expatriated Italians like himself, and by the influence of Cavour was appointed Lecturer on Biology in the University. From this post he continued to feed the flame of independence in his native island, and found his way back to Palermo in 1858, when he set himself, with characteristic energy, to promote the revolution. He it was who had the chief hand in addressing to Victor Emmanuel the invitation to become King of Sicily, and concurrently with this movement he collected the money and the arms required for the attempt that failed, though not ingloriously, on April 4th, 1860. On May 27th, the General Committee of the revolu-

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tion having been constituted, he was entrusted with the administration of the Interior, and thereafter became Director-in-Chief of the Sanitary Department in Sicily. These appointments he owed to Garibaldi, on the recommendation of Signor Crispi, with whom, in the Provisional Government that preceded the absorption of the island into United Italy, he acted as colleague, filling successively the posts of Minister of the Interior, Minister of Public Works, Minister of Public Instruction, and, finally, Minister of Foreign Affairs. When the plébiscite was taken by which the Sicilians declared their wish to be the subjects of King Victor Emmanuel, he was one of the Commission charged with the presentation of the vote to his Majesty. His country's independence as an integral part of the Italian kingdom being secured, he resumed his scientific studies, and rapidly acquired the confidence, as a consultant, of a large *clientèle*, not only in Palermo, but throughout the island. He published memoirs of much originality and soundness on mental disease and, in recognition of his skill in that department of medicine, was appointed director of the Manicomio (lunatic asylum) of Palermo. For more than twenty years he sat on the communal and provincial council of his native city, and always took the lead of the progressist and democratic party. No Liberal meeting reckoned itself complete without his presence, while he held high office in Sicilian Freemasonry, of which, indeed, he was for some time Grand Master. To quote from the organ of his old friend and colleague (now the Italian Premier), Signor Crispi, "he was of an adamantine character, always equal to himself, studious, free from all prejudice, and independent of all cliques, liberal in every sense, and passionately devoted to Italy and to his beloved Sicily."

His death, though for some time apprehended, came suddenly, as the result of an intestinal complication, and threw all Palermo into mourning. The chief public buildings hung out the flag of Italy fringed with crape, and all business, civic and commercial, was suspended for the day. His funeral, on the 10th inst., was attended by the municipality, by the Senatus Academicus, and by the leading representatives of the city and province.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the First Professional Examination for the diploma of Fellow at a meeting of the Board of Examiners on the 13th inst.:—

H. B. Wilkinson and G. T. S. Sichel, students of Guy's Hospital; J. H. Pringle, of Edinburgh and University College; F. J. Rawlinson, of St. Bartholomew's Hospital; A. A. Parry and J. S. Thomson, of Melbourne; H. Burden, of St. Thomas's Hospital; G. L. Cheatle, of King's College. (Eight candidates were referred.)

Passed on the 14th inst.:—

H. L. Brownlow and T. L. Paget, of St. Bartholomew's Hospital; C. J. Martin, of St. Thomas's Hospital; and H. Simpson, of Cambridge and St. Thomas's. (Eight candidates were referred.)

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At the Preliminary Examination held on the 13th inst. the following were granted certificates:—

J. Abraham, G. H. Ayres, J. T. Armstrong, J. D. Begley, H. H. Carter, H. G. Dawson, J. J. Dolan, J. English, S. Glenny, R. P. Hayes, E. B. Kelly, W. L. Martin, J. G. Morgan, H. Schlegel, and C. R. Tichborne.

The undernamed were granted additional certificates in Physics:—

G. H. Ayres, R. C. Boland, A. W. Bowen, O. H. Butt, C. S. Cahill, T. H. Clarke, M. A. Corcoran, H. G. Dawson, J. J. Dolan, J. English, P. Good, R. P. Hayes, A. Lavertine, H. S. Laird, H. McAvory, A. McCann, W. L. Martin, J. C. Morgan, F. Nolans, W. L. Norwood, J. R. O'Brien, and A. C. Seale.

COLLEGE OF PHYSICIANS IN IRELAND.—At the November Examinations the following gentleman obtained the Licences in Medicine and Midwifery of the College:—

John Welby Haughton.

THE LAWS OF FOOTBALL.—The committee of the Irish Football Association have suspended two members of the Linfield Athletic Football Club, one for a year and the other for two months, for rough play in the recent Irish Cup tie with Belfast Cliftonville. The same club was censured recently by the English Association for its rough play.

UNIVERSITY COLLEGE HOSPITAL.—On behalf of the rebuilding fund of this hospital the Irving Amateur Dramatic Club will give an entertainment at St. George's Hall, Langham-place, W., on Thursday evening, Dec. 12th.

BREAD-MAKING.—On Monday next a series of Cantor Lectures on "The Modern Developments of Bread-making" will be commenced at the Society of Arts by Mr. William Jago.

ROYAL SOCIETY.—A Royal Medal has been awarded to Dr. W. H. Gaskell, F.R.S., for his researches in cardiac physiology, and his important discoveries in the anatomy and physiology of the sympathetic nervous system.

MEDICINE AND POLITICS IN RUSSIA.—Sixteen students in the Military Academy of Medicine in St. Petersburg have been expelled from that establishment for the expression of practical sympathy with a deceased Nihilist writer.

LITERARY INTELLIGENCE.—Mr. H. K. Lewis announces the publication on December 2nd of an important work in two volumes by Professor Edgar Crookshank, entitled the "History and Pathology of Vaccination." It will be illustrated with twenty-two coloured plates and other engravings.

BROCKWELL PARK, SOUTH LAMBETH.—The vestry of St. Giles, Camberwell, has agreed (subject to the necessary Parliamentary powers being obtained) to contribute £6000 towards the purchase of Brockwell Park, for the use of the public as a recreation ground. It appears that £2500 only remains to be contributed to complete the amount of the purchase money.

FOOTBALL ACCIDENTS.—A young man named Cartwright, during a football match at Dorchester, on Saturday, between the Dorchester and Poole Clubs, badly fractured his leg at the knee.—A youth named Meredith, whilst playing in a football match at Bootle, on the 9th inst., and running with the ball, tripped and fell, death supervening on the following Wednesday from shock to the brain and spinal cord.

A SUPPOSED SHOOTING OUTRAGE.—It was reported early in the week that Dr. Hector Allan of Whaley Bridge, near Stockport, medical officer of health and public vaccinator, had been fired at three times, narrowly escaping injury. No motive could be assigned for the outrage, which appeared to be inexplicable. A later telegram states that the mysterious shooting had been traced to four boys, who were "playing Jack Sheppard" with revolvers.

THE INFIRMARY NURSES' HOME, BRISTOL.—The erection of this Home, in Terrell-street, Bristol, is nearing its completion. The committee intend to open it on Jan. 1st next. It is designed as a home for nurses connected with the infirmary. It will afford accommodation for twenty-six nurses. Each nurse will have a room to herself. The building will be known as the Bristol Royal Infirmary Nurses' Home and Institute, and may, as occasion requires, be utilised by other nurses engaged privately.

UNIVERSITY OF CAMBRIDGE.—The following are the dates of the examinations for medical and surgical degrees during the Michaelmas term, 1889:—First examination for M.B. and B.C.: Dec. 3rd, 4th, 6th, 9th, 10th, 11th. Second examination for M.B. and B.C.: Dec. 3rd, 9th, 10th, 11th, 12th, 13th. Third examination for M.B. and B.C.: Part 1, Dec. 10th, 13th, 14th, 16th; Part 2, Dec. 11th, 12th, 16th, 17th, 18th. Examination for M.C.: Dec. 13th, 14th, 16th.

THE MUZZLING QUESTION.—A public meeting of anti-vivisectionists and anti-muzzlers is announced for Monday next, at 8 P.M., at the Westminster Palace Hotel, in favour of the abolition of the muzzling regulations now in force in London with a view to the eradication of rabies. The Executive Committee of the Society for the Prevention of Hydrophobia, on the other hand, intend to move an amendment antagonistic to the purposes of the meeting, and the committee earnestly appeal to all who understand the great value of the present muzzling regulations to be present to aid the committee in carrying the amendment, and thus help in the final and successful extirpation of hydrophobia.

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RABIES.—The number of dogs in England officially reported during the week ending Nov. 9th as affected with rabies was four, against nine in the previous week. Of these, three were killed and one died. The distribution was as follows:—London and Suffolk, one each, and York (West Riding), two.

NOTIFICATION OF INFECTIOUS DISEASES.—At the last meeting of the Tendring Hundred Rural Sanitary Authority on Oct. 30th it was unanimously resolved to adopt the Infectious Diseases Notification Act, 1889, and that it should come in force on Jan. 1st, 1890, in that district.—The Darlington Town Council have decided to put the provisions of the Infectious Diseases (Notification) Act, 1889, in force in the borough, and to apply for the inclusion of measles in the list of diseases to be notified, on account of its prevalence and fatality amongst school children. For the same reason it was suggested that whooping-cough should also be added to the list, but this suggestion was not favourably received.

CAVENDISH COLLEGE, CAMBRIDGE.—On Saturday last Lord Hartington opened the new buildings of Cavendish College, which consist of a fine and spacious hall, cloisters, kitchen, and other offices, recently erected at the cost of the Duke of Devonshire and Mr. G. E. Foster, the well-known Cambridge banker. There was a large and distinguished gathering of members of the aristocracy and of the medical and other professions. Amongst the speakers were Sir Andrew Clark, Bart., Sir James Paget, Bart., Sir Henry Roscoe, and Professor Humphry, all of whom laid stress upon the educational advantages offered by Cavendish College—the characteristic features of which were its economy and the early age of entry—to those students who might otherwise be debarred from the benefits attaching to a University training.

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Miss Hadfield Ray, a Yorkshire lady, has left £1000 to the British Benevolent Fund.—By the will of Miss Sabina Robinson, late of Upper Norwood, legacies are left of £100 each to the Royal Hospital for Incurables, Putney, and the London Fever Hospital, Liverpool-road, Islington.—The Mayor of Cardiff (Mr. Alderman Sanders) has sent a donation of 50 guineas to the Glamorganshire and Monmouthshire Infirmary.—A concert on behalf of the Children's Hospital, Birmingham, given on the 26th ult. by the Severn-street Harmonic Society, produced £49.—The late Alderman R. Gregg of Chester bequeathed £200 to the Chester Infirmary.—Mr. Alderman J. G. W. Willows, late of Woodfield House, Southfields, Hessle, Yorkshire, left by his will £100 to the Hull General Infirmary, and £50 to the Hull and Sculcoates Infirmary.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BATELY, JOHN, M.D.Dur., M.R.C.S., L.S.A., has been reappointed Surgeon of Police, Gorleston District, Yarmouth.

BERGIN, G. F., M.R.C.S., L.R.C.P., has been appointed Assistant Physician to the Bristol General Hospital, vice H. Hill, M.R.C.S., L.R.C.P., resigned.

CONNOR, WM. G., L.R.C.S.Irel., L.K.Q.C.P., L.M., has been appointed Medical Officer and Public Vaccinator to the Earl Soham District, Plumsgate Union, and Bedfield District of the Hoxne Union.

DONALDSON, WM. IRELAND, B.A., M.B., B.Ch. Univ. Dub., has been appointed Senior Assistant Medical Officer to the Camberwell House Lunatic Asylum, London, S.E., vice Chas. J. Dabbs, M.R.C.S., resigned.

EVANS, WILLIAM, L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Anglesey Rural Sanitary Districts of the Anglesey and Holyhead Unions, and Beaumaris and Holyhead Urban Sanitary Districts.

HUDSON, T. J., M.D., has been appointed Medical Referee to the Gresham Life Assurance Society, and to the Health Insurance Corporation for Leeds and District.

LAIT, WILLIAM, M.R.C.S., L.S.A., has been appointed Medical Officer to the Workhouse Infirmary, Torrington Union.

LETTIS, THOMAS, M.R.C.S., L.S.A., has been reappointed Surgeon of Police Force, Yarmouth District.

MACLEOD, HAROLD HAY BRODIE, L.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed House Surgeon to the Salop Infirmary, vice J. F. Harries, resigned.

MILLER, G. VICTOR, M.B., C.M. Edin., has been appointed House Surgeon to the North Riding Infirmary, Middlesbrough, vice Hinshelwood, resigned.

PAUL, F. T., F.R.C.S., has been appointed Surgeon to the Liverpool Royal Infirmary, vice Reginald Harrison, F.R.C.S., resigned.

SAUNDERS, A. M., M.A., M.B., C.M., D.P.H. Aber., has been appointed Medical Officer of the Birsay, Harray, and Sandwick Medical Aid Association, Orkney.

THOMAS, ALFRED, L.R.C.P., L.R.C.S. Edin., Assistant Medical Officer to the Walton Workhouse, Liverpool, has been appointed Medical Officer to the West Derby Union Cottage Homes, Fazakerley.

WEBSTER, G. L., M.R.C.S., L.S.A., has been reappointed Medical Officer for Bewdley Borough.

WILSON, T. STACEY, M.B. & C.M. Edin., M.R.C.P. Lond., has been appointed Assistant Physician to the Birmingham General Hospital, vice Arthur Foxwell, M.B., M.R.C.P., resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ANCOATS HOSPITAL, Manchester.—Junior Resident House Surgeon (also visiting home patients in a prescribed district). Salary £60 per annum, with board, residence, and laundry service.

ATKINSON MORLEY'S CONVALESCENT HOSPITAL, Copse-hill, Wimbledon. Resident Medical Officer. Salary at the rate of £150 a year, with board and residence in the hospital.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer. Salary £80, with board and lodging.

HALIFAX INFIRMARY AND DISPENSARY, Halifax. — Senior House Surgeon. Salary £80 per annum, advancing to £100, with residence, board, and washing. Also Assistant House Surgeon. Salary £50 per annum, with residence, board, and washing.

JOINT COUNTIES ASYLUM, Carmarthen.—Junior Assistant Medical Officer. Salary £100 per annum, with board, apartments, attendance, and washing.

LEEDS BOROUGH HOSPITALS.—Resident Medical Officer of the Borough Hospitals. Salary £150 per annum, with board and residence.

LONDON HOSPITAL, Whitechapel-road, E. — Surgical Registrarship. Salary £100 a year.

MIDDLESEX HOSPITAL.—Surgical Registrar.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Assistant Physician.

PINXTON COLLIERIES, near Alfreton, Derbyshire.—Resident Surgeon. Stipend £300 per annum, with large house and stabling at a nominal rent; private practice allowed.

ST. GEORGE'S HOSPITAL.—Lecturer on Dental Surgery.

SUSSEX COUNTY HOSPITAL, Brighton.—Surgeon and Assistant Surgeon. Also House Physician and Assistant House Surgeon. Salary of House Physician £60, rising to £80 per annum, with residence and board in the hospital, and washing. The Assistant House Surgeon is provided with board, residence, and washing, but no salary given.

WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, 73, Welbeck-street, London, W.—Surgeon.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant for six months. Board, lodging, and washing provided.

Births, Marriages, and Deaths.

BIRTHS.

BATTEN.—On Nov. 16th, at Notting-hill-square, W., the wife of Rayner D. Batten, M.D. Lond., of a son.

CATON.—On Nov. 19th, at Rodney-street, Liverpool, the wife of Richard Caton, M.D., of a daughter.

HOOD.—On Nov. 16th, at Green-street, Park-lane, the wife of Donald W. C. Hood, M.D., of a daughter.

MCGACHEN.—On Nov. 17th, at The Gables, Bletchley, the wife of F. W. D. McGachen, surgeon, of a daughter.

MORGAN.—On Nov. 14th, at Mount Pleasant, Liverpool, the wife of Llewellyn Arthur Morgan, M.D., of a son.

MYDDELTON-GAVEY.—On Nov. 15th, at Brooks Hall, Ipswich, the wife of E. H. Myddelton-Gavey, M.R.C.S. Eng., of a daughter.

PHIPPS.—On Nov. 17th, at Guildford, the wife of Surgeon R. V. A. Phipps, Army Medical Staff, of a son.

THOMPSON.—On Nov. 9th, at Wellington-crescent, Ramsgate, the wife of Surgeon-Major S. J. Thompson, of a daughter.

WILKIN.—On Nov. 10th, at Hyde-park-street, W., the wife of G. Charles Wilkin, M.R.C.S., of a son.

MARRIAGES.

BALY—THORLEY.—On Nov. 16th, by licence, at St. Michael's, Heavitree, Ernest Baly, surgeon, youngest son of William Baly, F.R.A.M., to Frances Elizabeth Anne (Lil), eldest daughter of Joseph Thorley, late of Wells, Somerset.

HAGYARD—BLAKENEY.—On Nov. 13th, at Holy Trinity, Hull, Robert Hagyard, surgeon, Wright-street, Hull, to Julia Mary, elder daughter of J. W. Blakeney, Newington, Hull.

JONES—MORROW.—On Oct. 30th, at St. Stephen's Church, Halifax, Nova Scotia, by the Rev. H. G. Lancaster, Bishop's Chaplain, Guy Carleton Jones, M.R.C.S., son of Hon. A. G. Jones, M.P., to Susan, daughter of the late Robert Morrow, Esq., of Bircham, Halifax.

KEY—BOTHAMLEY.—On Nov. 9th, at Christ Church, Mayfair, Augustus Cooper Key, M.R.C.P., of Wilton-place, Belgrave-square, to Julia, only daughter of the late William Henry Bothamley, Esq., of Clarendon-road, Notting-hill.

TROUP—STEWARD.—On Nov. 19th, at the Pro-Cathedral, Kensington, Robert William Troup, Surgeon-Major Medical Staff (Retired), to Bessie, only daughter of the late F. Yorke Steward, Esq.

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DEATHS.

BUTLER.—On Oct. 26th or 27th, at Trinagar, Kashmir, Central Asia, Fanny Jane Butler, L.K.Q.C.P.I. & L.M., Medical Missionary C.E.Z.M.S., aged 39, third daughter of Thomas Butler, Esq., of Blackheath, late Assistant Secretary of the British Museum.

DAY.—On Nov. 13th, at Birmingham-street, Walsall, John Day, M.R.C.S., L.S.A., aged 78.

DEYUS.—On Nov. 10th, at North Walsham, Frederick Deyus, M.D. (New York), L.R.C.P. Lond., M.R.C.S.E., aged 60.

NUNN.—On Nov. 16th, at Feckenham, Redditch, after two days' illness, John Robert Nunn, surgeon, aged 29, only son of the late J. R. Nunn, surgeon, of Warwick.

PALMER.—On Nov. 15th, at Thorpe Cottage, Loughborough, William Grimes Palmer, M.R.C.S., L.R.C.P., in his 45th year. Friends will please accept this intimation.

SARGENT.—On Nov. 14th, at Pentlands, 55, Belvedere-road, Upper Norwood, London, Digory Warne Sargent, Retired M.R.C.S.E., late of Brixton and Camberwell, aged 74.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

BABYHOOD PUBLISHING COMPANY, New York and London.

Babyhood: a Monthly Magazine for Mothers, devoted to the care of Infants and young Children, and the general interests of the Nursery. Editor, L. M. Yale, M.D. Vol. V. Dec., 1888, to Nov., 1889. pp. 396.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.

The Student's Surgery. A Multum in Parvo. By F. J. Gant, F.R.C.S. 1890. pp. 817.

BLACKIE & SON, Old Bailey, London.

Down the Snow Stairs; or, from Good-night to Good-morning. By Alice Corkran. With 60 Illustrations. New Edition. pp. 257.

Tales of Daring and Danger. By G. A. Henty. Illustrated. 1890. pp. 160.

One of the Twenty-eighth. A Tale of Waterloo. By G. A. Henty. With Eight Illustrations and Two Maps. 1890. pp. 352.

The Hermit Hunter of the Wilds. By Gordon Stables, M.D. Illustrated. 1890. pp. 224.

By Pike and Dyke. A Tale of the Rise of the Dutch Republic. By G. A. Henty. With Illustrations and Four Maps. 1890. pp. 384.

History of King Alfred the Great of England. By Jacob Abbott. pp. 160. Price 1s.

Grettir the Outlaw; a Story of Iceland. By S. Baring-Gould. With Ten Illustrations and a Coloured Map. 1890. pp. 384.

CHURCHILL, J. & A., New Burlington-street, London, W.

Injuries and Diseases of Nerves, and their Surgical Treatment. By Anthony A. Bowlby, F.R.C.S. 1889. pp. 510.

DAVIS, GEORGE S., Detroit, Mich.

Syphilis of the Nervous System. By H. C. Wood, M.D., LL.D. 1889. pp. 135.

GRIFFIN & COMPANY, London.

A Text-book of Human Anatomy, Systematic and Topographical. By Alex. Macalister, M.A., M.D., F.R.S. With numerous Engravings. pp. 775.

GRIFFITH, FARRAN, OKEDEN, & WELSH, Newbery House, Charing-cross-road, London, and Sydney.

A Glossary of Anatomical, Physiological, and Biological Terms. By the late Thos. Dunman. Edited and supplemented with an Appendix, by V. H. Wyatt Wingrove, M.R.C.S. 1889. pp. 187. Price 2s. 6d.

KEGAN PAUL, TRENCH, & CO., Paternoster-square, London.

Principles of Universal Physiology. A Reform in the Theories of Physics, Chemistry, Biology, and Cosmology. By Camilo Calleja, M.D. 1889. pp. 146. Price 3s. 6d.

Egypt as a Winter Resort. By F. M. Sandwith, F.R.G.S. 1889. pp. 153. Price 3s. 6d.

LEWIS, H. K., Gower-street, London, W.C.

The Town Dweller; his Needs and his Wants. By J. Milner Fothergill, M.D.; with an Introduction by B. W. Richardson, M.D., LL.D., F.R.S. 1889. pp. 118.

On the Animal Alkaloids; the Ptomaines, Leucomaines, and Extractives in their Pathological Relations. By Sir William Aitken, M.D., F.R.S. Second Edition. 1889. pp. 112.

LONGMANS, GREEN, & CO., Paternoster-row, London.

Clinical Lectures on Varicose Veins of the Lower Extremities. By W. H. Bennett, F.R.C.S. With Three Plates. 1889. pp. 98. Price 6s.

MACLACHLAN & STEWART, Edinburgh.

A Manual of Practical Anatomy. By D. J. Cunningham, M.D. Part I.: Upper Limb, Thorax, Lower Limb. Second Edition. By the Author, assisted by H. St. John Brooks, M.D. 1889. pp. 464.

MACMILLAN & CO., London.

A Guide to District Nurses. By Mrs. Dacre Craven. 1889. pp. 137.

OLIVER & BOYD, Tweeddale-court, Edinburgh.

Contributions to the Surgical Treatment of Tumours of the Abdomen. Part II.: Electricity in the Treatment of Uterine Tumours. By Thos. Keith, M.D., LL.D. Edin., and S. Keith, F.R.C.S. Edin. 1889. pp. 255. Price 6s. 6d.

REYNOLDS, JAS., & SONS, 174, Strand, London.

Reynolds's Geological Atlas of Great Britain, comprising a series of Maps geologically coloured, from the best Authorities. With Sections and Views. Second Edition. 1889. pp. 48.

WATERLOW & SONS, London-wall, London.

Stammering: its Treatment. By B. Beasley. Tenth Edition. 1888. pp. 58.

WOOD, WM., & COMPANY, Lafayette-place, New York.

A Reference Handbook of the Medical Sciences, embracing the entire range of Scientific and Practical Medicine and Allied Science, by various Writers. Illustrated by Chromolithographs and five Wood Engravings. Edited by Albert H. Buck, M.D. Vol. VIII. Wor—Zym. Index. 1889. pp. 801.

WREDEN, FRIEDRICH, Berlin, and WILLIAMS & NORGATE, London.

Die Krankheiten der Frauen. Vierte Auflage. Von Dr. H. Fritsch. 1889. pp. 502.

Lehrbuch der Physikalischen Untersuchungsmethoden innerer Krankheiten. Bände I. und II. Von Dr. Hermann Eichhorst. 1889. pp. 480, 426.

Lehrbuch der Kinderkrankheiten. Dritte Auflage. Von Dr. Adolf Baginsky. 1889. pp. 954.

YOUNG J. PENTLAND, Edinburgh.

Cyclopædia of the Diseases of Children, Medical and Surgical. The articles written especially for the work by American, British, and Canadian Authors. Edited by J. M. Keating, M.D. Vol. II. Illustrated. 1889. pp. 1066.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland, at its Ninety-first Annual Session held at Baltimore, Maryland, April, 1889 (J. B. Kurtz, Baltimore, 1889).—Modern Methods for the Cure of Obesity: being a Report read before the Medical Society of Berlin, by Dr. Jacques Mayer, Karlsbad. Translated by W. Deane Butcher, M.R.C.S. (R. Oxley & Son, Windsor, 1889).—Transactions of the Hong Kong Medical Society: Papers and Cases read during the first two years of the Society's existence. Edited by G. P. Jordan, M.R.C.S.E., P. Manson, M.D., and John C. Thomson, M.B., C.M. Vol. I. (Sampson Low, Marston, Searle, & Rivington, London, 1889).—The A B C of a Healthy House: being Hints to Householders, according with the rules of Her Majesty's Office of Works for buildings under their control; by R. W. Boyd, Associate of the Sanitary Institute of Great Britain (Simpkin, Marshall, & Co., London, price 1s.)—Essay LVI.: Reply to a French Review of Essay LII.; by Wm. Sharp, M.D., F.R.S. (George Bell & Sons, London, 1889).—Recherches sur la Signification de la Statistique des Maladies Vénériennes et Syphilitiques dans l'Armée du Royaume des Pays-Bas, afin de pouvoir juger de l'Influence des Mesures locales pour combattre ces Maladies par la Réglementation de la Prostitution; faites par G. J. D. Mounier (W. A. Beschoor, La Haye).—Kritik der Vaccinations Statistik und neue Beiträge zur Frage des Impeschutzes; Denkschrift an den neunten Internationalen Medicinischen Congress zu Washington, 1887; von Joseph Körösi; Zweiter, Erweiterter Abdruck (Puttkammer and Mühlbrecht, Berlin, 1889).—Useful Hints for Small Dairies, together with a sketch of the "Speedwell" new theory of Cream Raising; by C. H. Lepper, F.R.C.S. (G. Kent, London, 1889, price 6d.)—Bath and her Thermal Waters: a Scientific and Rational view of their use in Disease; with a sketch of the History of Bath, a chapter on Massage, and a Description of the Baths; by S. Craddock, M.R.C.S. (published at the *Bath Chronicle* Office, 1889, price 1s.)—The Student's Handbook of Water Analysis; a complete Practical and Theoretical Treatise, specially adapted for Students in India; by R. G. S. Chew, M.D. (J. C. Bose & Co., Calcutta, 1889).—First Aid to the Injured; St. John Ambulance Association: Report of the Central Executive Committee submitted to the General Assembly, June 24th, 1889 (Charles Cull & Son, London).—Endoskopie und Endoskopische Therapie der Krankheiten der Harnröhre und Blase; von Dr. Emil Burckhardt (H. Laupp'schen Buchhandlung in Tübingen, 1889).—St. Mungo's College, Glasgow: Inaugural Address delivered 23rd October, 1889, by W. G. Blackie, Ph.D., L.L.D., with an Appendix (The Secretary, Registered Office, Glasgow).—The Detection of Colour-blindness from a practical point of view; by F. W. Edridge-Green, M.D. (Baillière, Tindall, & Cox, London, 1889, price 1s.)—Lehrbuch der Allgemeinen und Speciellen Pathologischen Anatomie; by Dr. Ernest Ziegler; sechste Auflage (Gustav Fischer, Jena, 1889).—Beiträge zur Pathologischen Anatomie und zur Allgemeinen Pathologie; redigirt von Dr. E. Ziegler; Band 5, Hefte 2 und 3, Band 6, Hefte 1 und 2 (Gustav Fischer, Jena, 1889).—Facts about the Matabele Mashonas, and the Middle Zambesi, giving a full description of the Countries; by Louis P. Bowler (B. Glückstein, Pretoria, 1889).—Surgical Notes: A Record of some of the more interesting Cases observed, and of some of the remarks made, on Mondays and Thursdays, at the Surgical Dispensary of the Western Infirmary, Glasgow; by J. C. Renton, M.D. (Young J. Pentland, Edinburgh and London, 1889).—Official Report of the Autumnal Meeting in Newcastle, 1889, of the Institute of British Carriage Manufacturers.—Mikrophotographischer Atlas der Bakterienkunde; von Dr. Carl Fraenkel und Dr. Richard Pfeiffer; Fünfte Lieferung (August Hirschwald, Berlin, 1889).

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Medical Diary for the ensuing Week.

Monday, November 25.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
THE THROAT HOSPITAL (Golden-sq., W.).—5.30 P.M. Mr. T. Mark Hovell: Some Affections of the Middle Ear. (Post-Graduate Lecture.)
SOCIETY OF ARTS.—8 P.M. Mr. William Jago: Modern Developments of Bread Making. (Cantor Lecture.)
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Clinical Evening. The following cases will be shown:—Dr. Savill: Myxœdema in a Male.—Mr. Hurry Fenwick: Ataxic Bladder treated by Semi-suspension.—Dr. Beevor: Congenital Pemphigus.—Mr. Battle: Tuberculosis of the Palate.—Mr. Walter Pye: Congenital Deformity of the Extremities.—Mr. H. Allingham: Cutaneous Eruption for Diagnosis.—Dr. Russell: (1) Functional Paraplegia; (2) Disseminated Sclerosis in a Girl aged eleven.—Dr. de Havilland Hall: Pulmonary Systolic Murmur (? Congenital).—Mr. Bowreman Jessett: Two cases of Inguinal Colotomy operated on by a novel method.

Tuesday, November 26.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.
BRITISH MEDICAL TEMPERANCE ASSOCIATION (Rooms of the Medical Society of London, 11, Chandos-street, Cavendish-square).—Report on 279 Returns of Medical Officers of Workhouses as to the Use or Disuse of Alcohol therein.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. A. W. Mayo Robson: A case of Cholecystenterostomy.

Wednesday, November 27.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.
ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND (Board-room of the London Hospital).—4.45 P.M. Specimens:—Dr. Thomas W. Shore and Dr. Lewis Jones: Specimens illustrating the Structure of the Vertebrate Liver.—Dr. H. St. John Brooks: Models illustrating the Topographical Anatomy of the Abdomen.—Mr. J. J. Clarke (for Mr. H. A. Kidd): Abnormal Pulmonary Valves.—Dr. Bertram Windle: Ununited Epiphyses.—Dr. A. M. Paterson: Fractured Cervical Vertebræ. Papers:—Dr. Beer: On the Development of the Sylvian Fissure in the Human Embryo.—Dr. D. J. Cunningham: On the Intra-parietal Fissure of the Human Brain.—Dr. John Struthers: On the Preservation of Bodies for Dissection.
HUNTERIAN SOCIETY.—8 P.M. Sir Joseph Lister: Two Cases of long-standing Dislocation of both Shoulders treated by Operation, with Remarks on the Antiseptic Treatment of Wounds.
SOCIETY OF ARTS.—8 P.M. J. Hall Gladstone, Ph.D., F.R.S.: Scientific and Technical Instruction in Elementary Schools.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens by Dr. Bantock and Dr. R. T. Smith. Papers:—Mr. Lawson Tait: Reply to some recent remarks on Ectopic Gestation.—Dr. Benington: On a case of Lunacy cured by Pessary.

Thursday, November 28.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK, E.—4.30 P.M. Dr. Vincent Harris: On Bronchitis, its Varieties and Relations to other Diseases.
THE THROAT HOSPITAL (Golden-sq., W.).—5.30 P.M. Mr. T. Mark Hovell: Some Affections of the Middle Ear. (Post-Graduate Lecture.)
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. Knowsley Thornton: The Surgery of the Kidney. (Harveian Lecture.)

Friday, November 29.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, November 30.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, November 21st, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Nov. 15	30·35	S.	52	51	76	60	46	..	Overcast
,, 16	30·50	W.	52	51	..	60	51	..	Overcast
,, 17	30·62	N.E.	52	52	..	54	51	..	Overcast
,, 18	30·66	S.E.	49	49	58	52	48	..	Overcast
,, 19	30·67	S.E.	46	45	..	47	44	..	Foggy
,, 20	30·67	S.E.	43	43	47	44	41	..	Overcast
,, 21	30·53	S.E.	41	40	..	43	39	..	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

MR. NELSON HARDY ON DR. RENTOUL'S PROPOSALS.

WE are sorry not to be able to find room for Mr. Hardy's paper, read at a recent meeting of the South London District Metropolitan Counties Branch of the British Medical Association, and opening a discussion on the proposed medical service. Mr. Hardy has gone through about forty columns of correspondence on this subject. He feels grateful to Dr. Rentoul for ably exposing the great abuse of the out-patient system, but disapproves of his particular proposals—his tariff, his suggested alliance with chemists, and his proposed organisation to enable one doctor to undersell another.

A Reader of THE LANCET.—We know of no evidence to warrant the belief that any article of diet is favourable to the production of cancer in the human subject.

Gricred.—We would advise our correspondent to send a copy of the circular to the Censors' Board of the Royal College of Physicians.

W. J. might put the questions to his medical adviser.

LONDON MEDICAL STUDENTS.

To the Editors of THE LANCET.

SIRS,—The Medical Prayer Union (Prof. A. Macalister, president) has arranged a Gospel Mission for London Medical Students, to take place in Devonshire House, Bishopsgate-street Without, each evening, from Nov. 25th to 30th (inclusive); address at 8 P.M. All members of the medical profession are heartily invited. A very representative number of the staffs of the various London medical schools have expressed their entire sympathy with the Mission. May I ask you to give this letter a place in your next issue?—I am, Sirs, yours truly,

JAMES L. MAXWELL, M.D.,
Hon. Sec., Medical Prayer Union.

Petherton-road, N., Nov. 18th, 1889.

A HINT IN OBSTETRICS.

To the Editors of THE LANCET.

SIRS,—For the sake of cleanliness and comfort I always keep my finger-nails very short, and consequently have often great difficulty in rupturing the membranes in a confinement. The patient's friends have, as a rule, a not unnatural dread of one's using a pointed instrument. Called to a case to-day in which the woman had been in labour about thirty hours, I found the membranes roll about in the usual exasperating manner. It struck me that a thimble would answer the purpose, and borrowing one I introduced it on the point of the forefinger. The moment I drew it across the membranes they ruptured, and the child was born in four minutes. I recommend that one should be carried in every midwifery bag. I am, Sirs, yours truly,

Nov. 17th, 1889. J. B. E.

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OVERCROWDING OF THE PROFESSION AT THE CAPE.

THE *Lantern* enlarges on the overcrowding of the profession at the Cape. In Cape Town, with 50,000 inhabitants, there are forty medical practitioners, without counting those in Government employment. In Johannesberg, South Africa, with 50,000, black and white, there are fifty-six doctors; and in Prætoria, with 20,000, there are over twenty.

M. O.—The possession of a diploma in public health is only requisite in the case of new appointments, or reappointments to the same office, of medical officers of health. The requirement does not come into operation until 1892—namely, three full years after the passing of the Local Government Act, 1888, and even then it is limited to districts, or a combination of districts, having a population of 50,000. But even for such districts the obligation to possess a diploma will not apply to health officers who have before 1892 held office for three consecutive years over an area having a population of not less than 20,000. At the same time, it is evident that sanitary authorities in electing medical officers of health are already showing that they give distinct preference to those holding such diplomas.

Dry-rot.—There is no reason to suppose that dry-rot is injurious to health, save in so far as it gives rise to noxious dust.

CHICHESTER: ITS DRAINAGE AND WATER-SUPPLY.

To the Editors of THE LANCET.

SIRS,—Chichester, situate on a gravelly soil, underlying which is a bed of London clay, contains 9000 inhabitants, and 1759 houses drain into this gravel by means of over 4000 cesspools and closet-pits, and from the water held in this bed of gravel nearly half the inhabitants now draw their water-supply. About eighteen years ago a company was formed to supply the citizens with water uncontaminated by sewage. At and before that time the death-rate of Chichester was very high, especially from typhoid fever. Strange to say, great opposition was given to the company, and for some years it was anything but a commercial success; but as the water came into use typhoid has diminished, and the death-rate lowered 3 per 1000; yet still for a provincial town so favourably situated as Chichester the death-rate is higher than it should be. All the medical practitioners save one, and many of the inhabitants, considering this system of drainage into the gravel under and around our dwelling houses, attendant as it is with considerable expense, not only unclean and abominably nasty, but fraught with great danger to the health of the citizens, brought forward candidates for the Town Council pledged to bring about a more modern system of drainage. Six other candidates were put forward by the anti-drainers. These gentlemen put out the enclosed thesis—"Thirty-nine Facts not generally known." It would be almost an insult to common sense to point out the many absurdities in this strange jumble. Specially would I draw your attention to Facts 25 to 32. I regret to say the anti-drainers have returned their men, and we are likely for some time to continue in our present insanitary condition.

NOTE.—Fact 31: The cesspool referred to is not such as recommended by the Public Heath Act, but such as is in general use here, dug well into the gravel, that the sewage may soak away.

I am, Sirs, yours truly,

Chichester, Nov. 4th, 1889. A CICESTRIAN.

*** We agree with our correspondent that a number of the thirty-nine "Facts" referred to are not facts at all; others are worded so as to be most misleading. And we observe, further, that whilst much is said as to the present state of Chichester being due to failure of the Town Council to put in force the powers they have under certain provisions of the Public Health Act, 1875, the signatories of the "Facts" significantly fail to remind the authority of Section 47 of that Act, by which "Any person who....allows the contents of any....cesspool to....soak therefrom" is liable to a penalty of forty shillings.—ED. L.

A NOTEWORTHY MIDWIFERY CASE.

To the Editors of THE LANCET.

SIRS,—Perhaps you may deem the following case worthy of record.

On Sept. 17th last I attended Mrs. B—— during the birth of her first child. It was a left occipito-anterior presentation, and the labour was somewhat more rapid than is usual in a primipara, especially as the child (a female) was a very fine baby. Whilst I attended to the baby (which did not show signs of life for some time), I instructed the nurse to lightly grasp the uterus, and carefully follow it down, if the placenta were to come away before I had roused the "vital spark" in the infant. The patient had one severe pain, and the placenta was expelled, the nurse (who is an experienced woman) using no force at all, but "following it down," as I had told her. I carefully examined the after-birth for membranes, &c., and found all intact. There was no hæmorrhage, no shock—no symptom of any kind to lead us to suspect that anything had gone wrong. On my examining her abdomen, however, I found, to my surprise, that there was no "ball" to be felt. I examined per vaginam, and found the womb in the vagina, and, indeed, partially projecting through the vulva. Of course, I immediately replaced it. The woman herself had no idea there had been anything wrong, and has made an uninterrupted recovery. The point worthy of note is total absence of shock, hæmorrhage, cold sweats, or even severe "dragging" pains.

I am, Sirs, yours truly,

Oct. 14th, 1889. J. W. W.

YAWS IN TRINIDAD.

ONE of the worst diseases to which the inhabitants of Trinidad are subject is that known as "yaws," a specific and highly contagious disease of African origin. In order to cope with it somewhat the Government have recently supplied medical advice and medicine free of charge. Dr. J. B. Tulloch, the colonial surgeon, however, has little faith in the present precautions adopted, since no provision has been made for the isolation of yaws patients, and attendance for treatment is only compulsory for children under eight years of age, while persons over that age may attend or not, as they please. In twelve months Dr. Tulloch has treated 626 patients; 345 were afterwards reported as cured; forty-two of these relapsed, and in two cases a second relapse took place. The average duration of treatment of those cured was eight weeks.

M. W.—We do not recommend practitioners.

A MUNCHAUSEN TALE OF A CANNON-BALL.

To the Editors of THE LANCET.

SIRS,—While on a visit to this interesting place my attention was directed by "Black's Guide to the Channel Islands" to a singular memorial inscription above the reading-desk in the parish church of St. Sampson, which was built in the twelfth century. I quote the words of the writing on the marble memento in the hope that some of your readers may be able to afford some explanation of the same. Surely, an outrageous falsehood is out of place in the house of God.

I remain, Sirs, your obedient servant,

Cobo, Guernsey, Channel Islands. MATTHEW CROOKSHANK.

"Dans cette Église et dans le même tombeau reposent les corps de Daniel Falla, Écuyer, de la Ronde Cheminée, fils cadet de Michel Falla, Écuyer, des Maisons au Comte, âgé de quarante-et-un ans, neuf mois, vingt jours, décédé au Seigneur, le 28 Février, 1792; et de Dame Susanne Le Pelley, son épouse, fille de Jean Le Pelley, Écuyer, des Pelley, âgée de quarante-quatre ans, neuf mois, vingt jours, décédée au Seigneur, le 30 Septembre, 1796. Ce Monument est érigé à leur mémoire, et à celle de leur fils cadet, Thomas Falla, Lieutenant du 12ème Régiment d'Infanterie, mort au siége de Séringapatam, le 6 Avril, 1799, âgé de dix-huit ans, six mois, vingt-cinq jours, des suites d'une blessure d'un boulet de canon solide, pesant vingt-six livres, qui s'était logé entre les deux os d'une de ses cuisses. La dite blessure s'était enflammée considérablement. Le Chirurgien du Régiment quoiqu'ayant examiné la plaie, ignorait qu'un boulet y fût renfermé, et ce ne fut qu'après sa mort, qui eut lieu six heures après l'événement, qu'il fût extrait, à la surprise de toute l'armée."

THE MOON DEFENCE FUND.

THE following additional subscriptions have been received:—John Poland, F.R.C.S., £2 2*s.*; J. Brindley James, M.R.C.S., £1 1*s.*; Mr. Deane (Henley-on-Thames), 10*s.* 6*d.*; Wm. Young Martin, M.D. (Walkden), 10*s.* 6*d.*

W. P.—The treatise of Hippocrates on "Air, Water, and Locality" was admirably edited by Coray (Paris, 1800). Of the two volumes of which the edition consists, the first gives an analysis of the treatise, a statement of the sources from which the revised text has been framed, a French translation, and a list of various readings. The second volume contains a full commentary, medical and philological. This edition was reprinted at Paris in 1816. "In his threefold qualification of Greek, physician, and Hellenist," says Littré, "Coray was better fitted than any other to edit the Hippocratic treatise, and I have acted on the belief that I could not draw too largely on a source of learning so abundant and so sound." Coray, a Greek by birth, graduated at Montpellier.

Aspirans should consult our Students' Number, published in September last.

AN APPEAL.

To the Editors of THE LANCET.

SIRS,—I have for some years known the wife of a medical man. She has long been afflicted with an incurable internal complaint, and is at times thoroughly prostrate with pain. In addition to this, the breadwinner is himself a hopeless invalid, and an inmate of an incurable hospital. His wife is totally without means of support, and feels most keenly her needy and altered circumstances. Her friends are desirous, if possible, to raise funds to buy an annuity, or to put her in some way where she can, when her delicate state of health will admit, do something to assist in getting a livelihood. I can with the utmost confidence recommend this case, being so well acquainted with it, and will gladly acknowledge the receipt of any donations which may be sent to me, or answer any inquiries from those who are disposed to give help.

I am, Sirs, yours faithfully,

C. BRADSHAW FOY,

November, 1889. Vicar of St. Mary's, West Kensington, W.

P.S.—The following have kindly allowed their names to appear as references:—Mrs. Benyon, Englefield House, Reading; Lady Shelley, Shobrooke Park; A. E. Durham, Esq., 32, Brook-street, Grosvenor-square, W.; Miss Alexander, 128, Harley-street, Cavendish-square, W.

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TESTING EYESIGHT.

Mr. Clement E. Stretton, in endorsing our article on "Colour-blindness in Railway Officials," published in THE LANCET of the 9th inst., writes to explain that in his opinion a driver most certainly should be able to see an engine or train in front of him on a straight line at 1000 yards, or even a mile, or an object 6 ft. square at 1000 yards, but that to see a dot at 15 ft. is no proof that a man can see a target at 1000 yards. He adds that his society is glad that we consider its action "practical and fair."

B. is referred to our advertising columns for the information he seeks.

"COCAINE IN WHOOPING-COUGH."

To the Editors of THE LANCET.

SIRS,—I have used a 4-per-cent. solution of cocaine in a few of these cases, and having found the same objection that Dr. Carr spoke of—viz., dryness of the throat, I combined with it glycerine, and found that it entirely counteracted the disagreeable sensation. By using one part of glycerine to a stronger solution, so as to make it the desirable strength, I venture to say that the advantage will be apparent. The nicest way to apply the cocaine is by spraying; but the same objection applies, and the glycerine prevents the proper atomising of the fluid.

I am, Sirs, yours faithfully,

Dublin, Nov. 19th, 1889. ALEXANDER DUKE, F.C.P.I.

ERRATA.—In the report of Dr. Ewart's paper on Pneumothorax last week, on page 1008, second column, thirty-first line, for "10½ cub. cent. of mercury" read 10½ cub. cent. of *water*.—In the last line of our brief report last week of the quarterly meeting of the Medico-Psychological Society, for "Leiter's cells" read *Deiter's* cells.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Ewart, London; Dr. B. W. Richardson, London; Dr. Arkle; Dr. A. Duke, Dublin; Mr. Marsh, Birmingham; Dr. Preston-King; Mr. Sample, Sunderland; Mr. H. J. Buck, London; Mr. W. H. Haw, Rustenburg; Dr. Tonge-Smith, Kettering; Mr. Rixon, London; Messrs. Baines and Sons, Leeds; Mr. Bond, Leyton; Dr. Ridge, Enfield; Mr. Adams Frost, London; Dr. Philipson, Newcastle-on-Tyne; Messrs. Harrison and Brass, Elgin; Mr. C H. Leet, Liverpool; Mr. Coote; Mr. Lawson Tait, Birmingham; Dr. Strahan, Northampton; Dr. J. L. Maxwell, London; Mr. G. Wherry, Cambridge; Dr. Wolfe, Glasgow; Dr. J. Adams, Malling; Dr. Auld, Glasgow; Mr. F. Little, London; Dr. T. Harris, Manchester; Mr. A. Cook, Cardiff; Mr. R. L. James, Birmingham; Dr. J. Coombs, Bedford; Mr. J. F. J. Sykes, London; Mr. J. H. Crocker, Eccles; Mr. F. A. Davis, London; Dr. Birdwood, Stockwell; Mr. Haslam, Birmingham; Dr. Reid, Stafford; Mr. Smith, Buenos Ayres; Mr. McLaren, London; Dr. Helm, Marazion; Messrs. Gibbs and Co., Wednesbury; Mr. Willoughby, London; Miss Pudney, Earl's Colne; Mr. Lediard, Carlisle; Mr. Mason, Sudbury; Messrs. Gibbons and Co., Leicester; Dr. Charteris, Glasgow; Mr. G. M. Evans, Bridport; Surgeon-Major Peacock, Karachi; Dr. Thursfield, Bridgnorth; Messrs. Grace, Bristol; Mr. Howe, London; M. Astier, Paris; Mr. H. Sell, London; Mr. Lewis, Worcester; Mrs. Levick, Paris; Mr. Davies, Detroit; Mr. Sankey, Baschurch; Mr. Phipson, London; Mr. Fuge, Taunton; Mr. Beasley, Huntingdon; Messrs. Mawson, Swan, and Weddell, Newcastle-on-Tyne; Mr. Bourchier, Brighton; Dr. Piercy Smith, London; Mr. Strapp, Baltimore; Dr. Gover; Messrs. Lee and Martin, Birmingham; Mr. C. E. Jennings, London; Messrs. Howgate and Chapman, Wakefield; Dr. Fairbank, Doncaster; Mr. Tennant, Tipperary; Mr. Barnes, Manchester; Mr. W. P. Peake; Dr. Milne, Accrington; Dr. S. M. Copeman, London; Mr. Stapleford; Dr. Byrne, co. Cork; Mr. Boxill, Westminster; Mr. Stone, Dublin; Mr. Thomas, Bagillt; Dr. Ralfe, London; Mr. West, Thirsk; Messrs. Maythorn and Son, Biggleswade; Mr. Williamson, Scarboro'; Mr. Corry, South Lambeth; Mr. Reed, Carmarthen; Mr. Outram; Dr. Slater, St. John's Wood; Mr. Davies, Maidstone; Mrs. Brabham, Plaistow; Mr. H. H. Ellis, Redhill; Mr. Alexander, Norwich; Banner, London; Grieved; Dry-rot; R. H.; J. B. E.; Medical Etiquette; Secretary, Grimsby District Hospital; Justice, Bombay; J. L., London; Secretary, Leys School, Cambridge; Bruxelles, London; S. S., London; Euonymised Cocoa Co., Birmingham; Medicus, Clapham; Secretary, Stafford Infirmary; Decency; Z. Y. X.; M.D., Maida-vale; A Young G.P.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Tully, Hastings; Mr. Macdonnell, Wigan; Miss Meason, Hants; Mr. Owen, Holyhead; Mr. Day, Staplehurst; Mr. Davy, Norwich; Mr. Tyte, Minchinhampton; Dr. Fitzpatrick, co. Donegal; Messrs. Maclehose and Son, Glasgow; Mr. Ernst, London; Dr. Bernstein, Lismore, New York; Mr. Eyre, Monmouth; Mrs. Deyns, Bucks; Mr. Smelt, South Devon; Mr. Flockton, Notts; Mr. Foulds, Edinburgh; Messrs. Slinger and Son, York; Mr. Jones, Manchester-square; Dr. Huband, Sutton Bonnington; Mr. Rennie, Cork; Mr. Evans, Radnor; Messrs. Easun and Son, Dublin; Miss Haslam, Manchester; Messrs. McKesson and Co., London; Mr. Emmerson, Rotherham; Messrs. Wyleys and Co., Coventry; Mr. Ungent, Colchester; Mr. Lindsey, Enniscorthy; Mr. Gavey, Ipswich; Mr. Cleveland, Hants; Rev. Master, Chelmsford; Mr. Palmer, Loughboro'; Mr. Simpson, London; Mr. Sargeant, Camberwell; Mr. Salmond, Derbyshire; Major Pead; Dr. Saunders, Ripley; Mrs. Brockbank, Settle; Mr. Mundy, London; Mrs. Meyer, Berks; Mr. May, Staffs; Dr. Tate, Vienna; Miss Mollett, Chelsea; Miss Jack, Sleaford; Dr. Sutherland, Northumberland; Messrs. Read and Co., Bristol; Mr. Heywood, Manchester; Messrs. Gibbons and Co., Leicester; Mr. Moss, Oldham; Mr. J. Carter; Messrs. Hunter and Gordon, Aberdeen; Miss Bramley, Lincoln; Messrs. Oliver and Boyd, Edinburgh; Mr. Pughe, Merioneth; Mr. Monks, Manchester; Dr. James, Glamorgan; Mr. Swan, Middlesbro'; Mr. Waller, Peterboro'; Mr. Usher, London; Mr. Coulton, Swaffham; Nomen, London; W. D., London; M.D., London; Lady Superintendent, Leeds Trained Nurses' Institute; M. X., London; Secretary, Smedley Hydropathic Establishment; A. D. S., London; Mater, London; Clerk, Salford Union; X., London; Bruxelles, London; Secretary, Royal College of Physicians, London; Medicus, Northumberland; Mabon, Bucks Infirmary; Orion, London; Alpha, Leeds; Secretary, University College, Dundee; Cyclops; W. L. W., London; Secretary, Yorkshire College, Leeds; Medicus, Leeds; Vienna, London; Kosmos; Lady Superintendent, Portland-place; W. B., London; Graduate; R., New Cross; Sanifera, London; Fairfield, London; Manager, Great Eastern Railway Co., London; Banner, London; Carabinier, London; North London, Islington; Z., Liverpool; Secretary, St. John Ambulance Association, London; M.R.C.S., Ilfracombe; Matron, Kidderminster Infirmary; Doctor, London; D. S. E., London; Secretary, Windsor Royal Infirmary; B. R., Adelphi; E. S., Walsall; A. R., London; The Hermitage, Crakehall; Branch, Bristol; K., Clevedon; Rhei, Monmouth; Medicus, Folkestone; W. M., London; Diploma, London; Grant, Yorks.

Birmingham Daily Gazette, Bridport News, Reading Mercury, Scotsman, Surrey Advertiser, Bournemouth Gazette, Whitby Gazette, Weekly Free Press and Aberdeen Herald, Liverpool Courier, Hertfordshire Mercury, Birmingham Daily Post, Mining Journal, Hants and Berks Gazette, Darlington and Stockton Times, British Architect, Lantern, Journal of the British and Foreign Health Resorts, &c., have been received.

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Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

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Clinical Lectures

Delivered to the Students of the

MANCHESTER ROYAL INFIRMARY

during the Summer Session, 1889,

BY THOMAS HARRIS, M.D. LOND., M.R.C.P.,

SENIOR ASSISTANT PHYSICIAN TO THE INFIRMARY, PHYSICIAN TO THE MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT, AND SENIOR DEMONSTRATOR OF PATHOLOGY IN THE OWENS COLLEGE.

LECTURE II.

THE DIAGNOSIS OF THE EARLY STAGE OF PULMONARY PHTHISIS.

GENTLEMEN,—The diagnosis of phthisis in its early stage is often most difficult, and you will find that you not unfrequently meet with cases which will cause you considerable anxiety, on account of the difficulty of coming to a conclusion as to whether you have to deal with phthisis or with a less serious ailment. It is scarcely necessary for me to point out to you the importance of being able to arrive at a correct diagnosis in such cases. A mistake in diagnosis may have many serious consequences. In the first place, if we err in saying that a patient has phthisis, when there is no such serious lesion present in the lung, we shall not only cause the patient and his or her friends unnecessary anxiety, but we shall probably be the cause of a serious interruption to the patient's education or to his professional or business career. If, on the other hand, we fail to diagnose a case of phthisis, when we have seen it in an early stage, we lose most valuable time. If cases of phthisis were recognised more frequently at an early date and proper treatment could be adopted, there would be probably even more cases of arrest or of complete recovery than at present ensues. Doubtful cases of phthisis are so common that the question of the points which are of most value in the diagnosis of the early stage of the disease is one of the first importance. The difficulties attending the diagnosis of phthisis in its early stage are often very great. In some cases, however careful and skilled the medical man is, a positive diagnosis cannot be made, and we are compelled to act upon probabilities. There are many cases where it is absolutely impossible to state definitely and with certainty whether a person is or is not suffering from the commencement of pulmonary consumption. There are many causes of this difficulty, but the most common one is produced by the great variability in the physical signs which cases of early phthisis present. Cases of acute phthisis, and of chronic phthisis beginning abruptly, present difficulties of a different nature from those presented by phthisis of gradual and insidious onset. In the former cases we usually have no difficulty in recognising the fact that we have to deal with a serious disease. Our difficulty is in recognising its exact nature—for instance, whether it is a case of acute pneumonia, enteric fever, or acute phthisis; whereas in the case of chronic phthisis which has commenced gradually and not abruptly, we more commonly have a difficulty in coming to a conclusion as to whether we really have to deal with a serious ailment. This latter class of cases are most commonly mistaken for the less serious affections, bronchitis or for simple anæmia.

The first point of value in the diagnosis of the early stage of phthisis to which I wish to direct your attention is the history of the case. You will often find that the history of the illness, of the previous health, and the family history, are of immense value to you. It is common for patients suffering from the early stage of subacute or chronic phthisis to tell us that they have had a cough for the past few weeks or months. This cough has been probably only especially troublesome at night or the first thing in the morning. The cough has been accompanied by the expectoration of a small amount of phlegm, which on one or more occasions has been noticed to be streaked or tinged with blood, or they may have had a more profuse hæmoptysis; that recently they have lost a considerable amount of flesh and have felt less able than formerly to perform their usual duties. Such a history differs from that usually met with in a case of bronchitis, which is the disease most commonly mistaken for phthisis. Bronchitis is more frequently met with in persons of advanced age than is the case with phthisis, and when chronic bronchitis is seen in young adults we most commonly find that it has been of very long duration, and that they have been subject to repeated attacks since childhood. So that the first points of importance bearing on our present subject are the age of the patient and the duration of the symptoms. A history of cough for a long time past with the absence of definite physical signs of phthisis speaks very much against phthisis.

Then the history of hæmoptysis is very important. A profuse hæmoptysis in the case of young adults is, in the majority of cases, the result of pulmonary phthisis. As regards smaller attacks of hæmoptysis, such as the appearance of streaks of blood in the expectoration or a diffuse tinging of the sputum, the case is somewhat different. You not uncommonly find patients with chronic bronchitis, especially when the cough has been very troublesome, tell you that they have on a few occasions expectorated a small quantity of blood. Nevertheless, streaks of blood in the phlegm, or blood diffused through the sputum, are of far more frequent occurrence in the case of phthisis. Where we have a history of cough which has only been present for a few months, and where the expectoration has contained blood on several occasions, the significance of the presence of the hæmorrhage can scarcely be overrated, and should make you especially careful in the examination of the chest.

Although a history of hæmoptysis is of great importance, it is frequently necessary to make very careful inquiries as to its frequency, its amount, and the duration of the attacks. These inquiries are necessary because, among the numerous causes of the expectoration of blood other than pulmonary phthisis, we occasionally meet with one which is especially liable to mislead and to give rise to trouble in diagnosis. I refer to the cases which have been described as "spurious hæmoptysis." Patients so affected are in the habit of periodically expectorating small quantities of blood, and, although the amount at one time is rarely large, they expectorate small quantities for long periods and at not infrequent intervals. It is not always possible to say whence the blood arises in these cases, but in many you will find that the teeth are much decayed and the gums soft and spongy, readily giving rise to hæmorrhage on pressure, and it is probable that in such instances the gums are the source of the expectorated blood. So that it is very necessary to examine the mouth in cases where you are in doubt as to the true nature of the hæmoptysis. By a fortunate coincidence, we have two patients attending the out-patient department at the present time who are suffering from this form of hæmoptysis, and who I am able to show you. The first case is that of a young female adult who came to the infirmary complaining of "spitting blood." The most noteworthy point in her history is that, although there has never been any profuse hæmoptysis, she has been expectorating a small quantity of blood a few days in nearly every week for the last twelve months. There could be no doubt about the accuracy of her statement that she did expectorate blood, because we saw her do so whilst in one of the dressing-rooms. Examination of the chest revealed no signs of phthisis, but, although the gums were not spongy, blood was found to be oozing from the gum at the side of one of the upper bicuspid teeth. As you see, she is a very nervous girl, a condition not uncommon in patients with this form of hæmoptysis. It is not at all probable, however, that the case is one of malingering. The other case is that of a man thirty-one years of age, who is, as you observe, a very delicate-looking person, and not at all unlike a man suffering from phthisis. He states that he has not much cough, but that he has been repeatedly expectorating small quantities of blood during the past eighteen months. The physical examination of the chest reveals no signs of phthisis—in fact, as is evident to you at a distance, the upper part of the chest expands exceptionally well. The teeth, however, are very much decayed and the gums spongy, and there can be little doubt that the gums are the source of the hæmorrhage.

Although I bring forward these two cases to illustrate a hæmorrhage not the result of phthisis, I hope that you will not be too ready to explain a hæmoptysis by saying it comes from the gums or from the throat. Persons are commonly told that the source of hæmorrhage is the throat, even when such a statement is not made in order to calm their

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fears, whilst in reality it arises from early mischief in the lungs. You will do well to regard all cases, where there is a history of even slight hæmoptysis, as serious until you can satisfactorily explain to yourselves the source whence the blood arises. A history of a profuse hæmoptysis or of the repeated presence of small quantities of blood in the expectoration is to be regarded as of great value in the diagnosis of the early stage of phthisis.

Another point in the history of cases of phthisis is the loss of flesh. The history of emaciation is very important, and very frequently, now that automatic weighing machines are so widespread, persons are able to tell you how much they are below their usual weight. The loss of weight in the majority of cases of phthisis is a most marked feature. It is true that persons affected with bronchitis often lose flesh considerably, but it is rarely such a marked feature of the case as in phthisis. It is also true that some persons affected with phthisis retain for a long time their usual weight, but such cases are exceptional and do not materially lessen the value of a history of marked loss of flesh.

There is one point in the history of phthisical cases which has not received the attention of observers which it probably deserves. This is the history of previous illness. Phthisis probably becomes arrested far more frequently than is usually believed to be the case, and careful inquiry into the history of the state of health of a patient suffering from phthisis will often elicit the fact that the present attack is not the only one from which they have suffered. Most commonly we find that phthisical patients will give a history of previous attacks of "bronchitis" or of "inflammation of lungs," and in many cases these illnesses have in reality been not bronchitis or simple inflammation of the lungs, but phthisis which has been temporarily arrested. In other cases we get a history of some illness which has been very obscure at the time and has been incorrectly diagnosed; but a careful inquiry into the symptoms renders it probable that the previous illness was phthisis, which became arrested. Lately several of such cases have come under my own observation, and I am able to show you one patient where the illness from which the man had previously suffered was at the time stated to be typhoid fever. The man is a delicate-looking person, thirty-one years of age. He states that his present illness began only six weeks ago. During this time he has been expectorating a considerable amount of phlegm, has had a very troublesome cough, and has lost flesh. The physical examination of the chest reveals definite signs of phthisis in an early stage. He stated that, with the exception of having had "typhoid fever" four years ago, he had enjoyed good health, and had had no other illness. Careful inquiry into the symptoms of the illness said to have been typhoid left no doubt in my own mind that what he had previously suffered from was not typhoid fever but probably phthisis, which subsequently became arrested. There had been no symptoms of typhoid, but he had been laid up in bed for several weeks with a cough, which had been present from quite the commencement of the illness, and he had repeated small attacks of hæmoptysis. The cough persisted after the acute period of the illness for several months, and he then became free from it and remained in good health until the onset of his present illness six weeks ago. It is not common for attacks of phthisis which have become arrested to be mistaken for typhoid fever. Very frequently the illness has been an obscure one, and not correctly diagnosed. But the most frequent history to get is that the person has had what was believed to be bronchitis or simple inflammation of the lungs. So that you will often find that the careful sifting of the previous history is of great value as a help in diagnosing the early stage of tubercular phthisis.

The family history is also sometimes of importance in enabling us to come to a conclusion in a doubtful case of phthisis. Where there is a marked history of tubercle in the family, slight physical signs and symptoms of phthisis have far greater significance than they would have if presented by a person with a good family history. A case at present under observation at the Manchester Consumption Hospital illustrates the value of the family history. It is that of a girl who came to the out-patient department about four months ago. At that time she was moderately well nourished. She presented signs of consolidation of the left apex, but her illness was an acute one. It had begun abruptly only two weeks previously, up to which time she had always enjoyed very good health. The physical signs were consistent with the case, being one of simple acute pneumonia; but the history of tuberculosis in the family was so marked that the diagnosis of phthisis was rendered more probable. Her mother and father had both died of phthisis; her brother was at that time attending the hospital, and was in the third stage of the disease; she had lost one sister of consumption, and her other sister was in a delicate state of health. The subsequent history of the case has proved that it was one not of simple pneumonia, but of phthisis. You will understand, therefore, that the history of the illness, the history of the previous health, and the family history are each of importance in the diagnosis of cases of phthisis. Often you will find great help by giving careful attention to the points in the history of the case, because, as we shall see, the physical signs in the early stage of phthisis are often very indefinite.

The physical signs at the commencement of phthisis vary considerably in different cases. The signs presented by the acute cases and by the chronic ones which have begun acutely differ from those met with in the chronic cases which have shown no acute onset, but which have begun insidiously. We will, however, consider the physical signs commonly present in the early stage of phthisis, irrespective of the differences met with in various types of the malady.

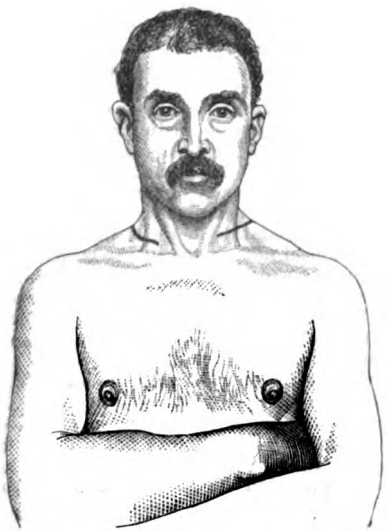
The importance of inspection as a method of physical diagnosis of diseases of the chest can hardly be overrated. By simply looking at a patient we often obtain most important information, and have our attention directed to facts which would otherwise escape recognition. It is a well-known fact that students and medical men make more mistakes through carelessness than from ignorance. Mistakes in the diagnosis of chest ailments are very commonly attributable to a neglect to employ inspection carefully. It is no unfrequent occurrence to see a student, who is given a chest case to examine, at once proceed, after he has made a few preliminary inquiries into the previous history of the illness, with percussion and auscultation, without ever first carefully looking at the patient generally, or at his chest in particular. If we all made it a rule to spend a few moments in simply looking at our patients, without proceeding with a more detailed examination, we should make fewer mistakes, and find the time so employed well spent. These remarks on the value of carefully employing inspection apply to all chest cases, and you will find that in the diagnosis of the early stage of phthisis a careful inspection will often give you valuable aid. I show you here a patient who illustrates the value of inspection in such cases, and specially the importance of getting a good and full view of the chest. With female patients this is often a difficulty; but it is impossible to make a careful and satisfactory examination of a female's chest if such a person only unfastens the dress and underbodice. This patient is a delicate-looking girl who has some symptoms of phthisis, but in whom the physical signs are very indefinite. You will notice, however, at the lower part of the neck and at the outer part of the right infra-clavicular region two large scars. These scars are in such a position that they might easily be overlooked if the chest had not been freely exposed to view. The presence of the scars, however, is of great importance from a diagnostic point of view. They indicate that this patient has some time ago had scrofulous disease of the lymphatic glands, and we know that such persons often at a later period of life suffer from pulmonary phthisis. The presence, consequently, of these scars makes us attach more importance to the symptoms from which she is suffering, and to the slight and indefinite physical signs of phthisis, than we should do in a healthy-looking person who presented no such indications of previous tuberculosis. Persons with phthisis are usually spare, anæmic, and the shape of the chest in many cases differs from that seen in healthy individuals. These signs are also often present in the early stage of the disease. The chest is often long and narrow, with a small antero-posterior measurement. On careful inspection we can frequently observe that the upper part of the chest on one or both sides shows imperfect movement, the expansile movement being most frequently deficient.

On percussion you can in the early stage of many cases detect no difference between the two sides. But in the majority of cases, and especially in cases where the onset has been a gradual one, we find that the patients do not come under our observation until the percussion note is altered. In many cases we can only detect impaired resonance over one apex, over the supra-clavicular, clavicular, or infra-clavicular regions, or behind over the extreme

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upper part of the interscapular region or supra-spinous fossa. There are not sufficient data for us to say which of these regions most frequently presents the abnormal signs in the early stage of phthisis. My own experience leads me to direct your attention to the examination, with special care, of the posterior parts of the apex of the lung, to the examination of the extreme upper part of the interscapular and the supra-spinous regions. I believe that the examination of the posterior parts of the lungs more commonly gives us definite results than the examination of the anterior portions. In other cases there is no impaired resonance over the diseased apex; but the volume of sound obtained on percussion may be actually greater than over the healthy apex. In many of these cases we find that, although the volume of sound is greater over the diseased apex, the pitch is raised and the quality altered, the latter often being hard or wooden. In other cases the percussion note is of a different type, being an approach to the tympanitic quality, and which has been described under the name of "sub-tympanitic." These cases, where the actual volume of sound is not diminished or is actually increased, are not unfrequently misleading. An inexperienced observer may readily mistake the healthy for the affected side. I show you here a case of undoubted early phthisis, where the percussion note over the upper part of the interscapular region of the right side is not dull, but of the sub-tympanitic quality. Another point which you can frequently detect even in an

FIG. 1.

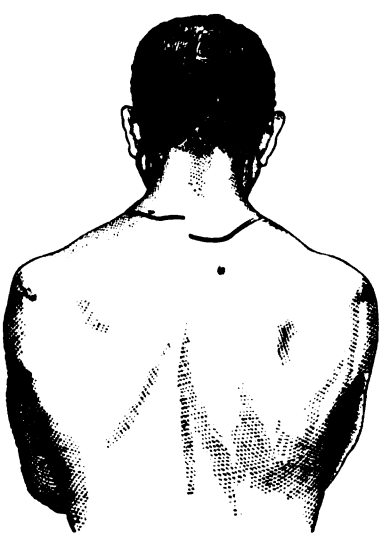


early case of phthisis is the increased resistance to the finger which is acting as the plexímeter. There is one sign of consolidation of the apex of a lung which has not received in this country the attention which it probably deserves. The effect of consolidation is to diminish the volume of the apex, and that diminished volume can often be demonstrated by percussion of the apex. If we percuss out the upper limit of the lungs in a healthy individual, it is found that the upper limit is the same on both sides, the upper limit as obtained by percussion not being higher on the right than the left side. In cases of early phthisis, however, the upper limit of the affected apex is lower than that of the healthy lung. The difference in these cases may be marked in front and behind, or in only one or other of those regions. In mapping out the upper limit of the lung, you will find it most convenient to stand behind the patient, even when percussing the upper limit of the anterior aspect of the apex. I show you here a patient affected with early phthisis where this difference in the height of the apex on the two sides is evident. (Figs. 1 and 2.) Figs. 1 and 2, taken from a photograph, show the difference in the upper limit of pulmonary resonance in front and behind in a case of consolidation of the right apex. In reference to this point of the diminution in the volume of the apex, you must be warned that you may be unable to recognise any difference between the two sides in consequence of the presence of emphysema round the consolidated portion of lung. It is a sign, however, which in some cases is of value in the diagnosis of early phthisis. I believe it will be found especially of value in those cases where we find impaired resonance over one apex, and where we are unable to say whether such impaired resonance really indicates any consolidation of the lung beneath, or whether it is only a difference which may be present in some persons who have no lung mischief. If we find that there is not only impaired resonance, but that the upper limit of the apex on that side is lower than on the other side, we then have evidence that the impaired resonance is probably due to actual change in the lung beneath.

Vocal fremitus gives us very little help in the diagnosis of early tubercular disease of the lungs. We might expect that the consolidation would cause an increase of the vocal fremitus; but the early changes in phthisis occurring most commonly in the apex, and being also of limited extent, we are as a rule not able to recognise any difference between the vocal fremitus of the two sides.

The auscultatory signs in the early stage of phthisis vary considerably. In some cases the most careful examination of the whole chest may fail to reveal any abnormal sounds. As a rule, however, we can by careful comparison of corresponding parts of the chest recognise either some alteration of the respiratory murmur, or the presence of some variety of adventitious sounds, such as crepitations, rhonchi, or friction sounds. As regards the alterations of the vesicular murmur which are met with in early phthisis,

FIG. 2.



we may find that simply weaker, without any alteration in its quality, over the anterior or the posterior aspect of one apex, as compared with the corresponding part of the other side. This weak vesicular murmur is certainly very commonly heard over an apex in early phthisis. It may be the only feature to be recognised, existing alone without any alteration in the quality of the inspiratory portion, and without any prolongation of the expiratory division.

In other cases the respiratory murmur is divided, and the expiratory portion is more or less prolonged. Great care is requisite in recognising this divided respiration and the prolongation of expiration. It is very easy to mistake the transmitted pharyngeal sound for prolonged expiration, and another frequent source of error arises from the artificial separation of the inspiratory from the expiratory, and the rendering of the expiratory portion more distinct than is usual by the manner of respiration. It is certain that we not unfrequently get divided respiration with the expiratory portion more distinct and prolonged, where the patient is told to take a deep breath, without there being any consolidation of the lung near the part of the chest auscultated. It is the fact of one or both these signs being audible at some point on one side, whilst the phenomenon is not audible at the corresponding point of the other side, which gives the sign its value. So that a most careful comparison of the two sides must be made. I think, however, that the value of the prolongation of expiration as a sign of early phthisis has been much exaggerated, and,

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as Dr. Walshe states, when unaccompanied by any alteration in quality, it must be received with great caution as a sign of that condition.

In some cases the inspiratory portion of the vesicular murmur is not smooth and uniform, but is irregular, wavy, or jerky. Here, again, it is necessary to warn you to be careful in your observation, because inspiration may become uneven and irregular in consequence of the manner in which the patient respires, apart from any changes in the lung; and also consolidation of the lung is not the only cause of true jerking inspiration. In other cases the inspiratory portion of the vesicular murmur is harsh, whilst the expiratory division is not altered. In still other cases the expiration is harsh and prolonged, and separated from inspiration by a short interval. In some cases the breath sound is more than harsh; it is quite bronchial in type. Bronchial breathing, however, is not commonly audible in the early stage of chronic phthisis, but it may be heard at a very early period in that variety of phthisis which in our pathological classification we termed the confluent or lobar variety of caseous pneumonia. In the early stage of chronic phthisis the breathing is more commonly harsh than truly bronchial.

(To be continued.)

Introductory Address
ON
THE ART OF OBSERVING.

Delivered at the opening of the Session of the Belfast Royal Hospital,

BY JAMES ALEXANDER LINDSAY, M.A., M.D.,
PHYSICIAN TO THE BELFAST ROYAL HOSPITAL, CONSULTING PHYSICIAN TO THE ULSTER HOSPITAL, &C.

LADIES AND GENTLEMEN,—My first words to you this morning must be those of welcome. Some of you are returning to the scene of former labours, others appear amongst us to-day for the first time; some of you are only on the threshold of the medical curriculum, others are approaching its goal; on behalf of the staff of this hospital I bid you all heartily welcome, and on their behalf also I express the earnest hope that the days spent by you within the walls of this institution may serve to lay for each of you the foundations of an honourable and prosperous career. Standing here to-day, my thoughts naturally revert to the morning when I sat for the first time as a student upon these benches and listened to an address from my esteemed friend and colleague, Dr. Ross. I remember very vividly the feelings of that day—feelings of doubt and apprehension regarding the future, and of helplessness and ignorance in view of the great world of disease just beginning to open before me. If feelings in any way analogous to these should affect you this morning, let me express my full sympathy with them—the sympathy which comes of practical experience. I speak to you to-day as one who is still near enough to his student days to recall all their hopes and fears, their difficulties and misgivings, and who will think his best efforts well spent if he can in any way lighten your labours and facilitate your progress.

I do not propose to stay this morning to offer you any exhortations to diligence and industry. I have had too many proofs both in my present and my late position in this institution of your zeal and capacity for work, to think that such exhortation is needful. Your zeal, I feel sure, needs guidance rather than stimulation. Some of you I may have found deficient in knowledge, in powers of observation, or in accuracy of reasoning. Idle or indifferent I have never found you, and I believe I never shall find you. Therefore I shall not stay to remind you, except in the briefest manner, that you are now entering upon the most critical period of your existence. You have only one life to live; only one period of preparation for that life; only one spring-time for the sowing of the seed, which your whole after life will be spent in reaping. This is true of all men; it is doubly true of you. You have chosen a career among the most responsible and difficult in the human lot. Now is your time for ensuring that that career will be one of benefit to others and honour to yourself, not a career of useless regrets, of ineffectual efforts to overtake the lost hours, and of ultimate failure. Now are open to you the opportunities and facilities for becoming masters of your art. They are offered once, and once only. Men of exceptional talent and uncommon energy may in after life recover the ground lost in youth, but in the great majority of cases the loss is final and irreparable. The converse is no less true. Good work done by you now cannot fail of its reward. This reward may not to all of you take the form of wealth or repute, but reward there will be in some shape. At the lowest, you will have the consciousness that you know your business in life, that your opinion and judgment are really worth something, that you are good workmen, not bunglers intermeddling with what others could do better. Fix your mind, then, to-day steadfastly upon this ideal of personal efficiency, of individual competency, and cherish the hope that if this be assured the future must bring you some share of happiness and satisfaction. Use the opportunities that are now open to you; dwell in the present, but endeavour that the present be such that you may never have to look back upon it with self-reproach. Take as your motto the words of the great German poet, Goethe,

> "Ernst ist das Leben, möchte ich es fühlen,"

or the still higher note of our own Milton,

> "Nor love thy life, nor hate; but what thou liv'st
> Live well; how long or short, permit to Heaven."

I propose to spend our time together to-day mainly in considering the faculty of observation, its mode of exercise, how it may be developed, and the errors and fallacies to which its exercise is liable. How to observe, what to observe, what errors to shun while observing, these are our topics, and I need not dwell upon their supreme importance. The entire science and art of medicine rest primarily upon the recognition of the indications of disease. All our treatment, all our forecast of the probable course and duration of disease, rest upon our power first to observe, and then to reason from, the signs by which we recognise its existence. Diagnosis is the foundation both of prognosis and therapeutics, and you need not wonder at the large place—almost the exclusive place—which diagnosis holds in clinical instruction. To diagnose correctly you must first observe correctly. The rest is then usually easy. When the medical student first enters the wards of a large general hospital he is confused, bewildered, perhaps discouraged, by the variety and complexity of the morbid phenomena which meet his eye. He seems to walk through a mighty maze, and for a time it appears without a plan. He is at a loss how to begin his examination; he knows not what questions are pertinent to put; he is uncertain which of the various instruments of precision he should first call to his aid. Obviously, what he needs is some method by which to proceed. Two rules seem to me at this stage to possess high value: (1) employ your own senses—sight, touch, hearing, &c.—in a certain definite and fixed order, and (2) observe a similar fixed order and routine in examining the various organs of the patient's body. Let the cutaneous, respiratory, circulatory, digestive, urinary, reproductive, and nervous systems pass successively under review. When you have acquired a considerable practical acquaintance with disease, you may afford to dispense with this routine, and may often reach your goal by a shorter road, but while your knowledge is limited and your experience small you cannot safely ignore any of these stages. Let us look at these two rules a little more closely.

In observing the phenomena of disease we employ mainly three of our senses—sight, touch, and hearing. Taste and smell, although occasionally useful, are only exceptionally required. Your business, then, in the main is to learn all you can by the use of the eye, the hand, and the ear. Look, feel, listen—this is what you have to do, and you had best take the stages in this order. This is the natural order, the order of passing from the simpler to the more complex, and its observance helps wonderfully to keep our ideas clear and systematic. No mistake is more common among students than reversing this order or hovering between two of these methods. Thus a student approaches a case which he has reason to suspect is one of cardiac disease. In nine cases out of ten he at once applies his stethoscope, hears a murmur, makes up his mind as to its nature, and forthwith gives his opinion. Now, how much surer his diagnosis

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if he proceeds by the more logical method. If he carefully scans his patient, notes the presence or absence of pulsation in the veins and arteries, the extent and apparent strength of the heart's impulse, the condition of the extremities, the presence or absence of dropsy, the amount of cyanosis; if he then calls touch to his aid, places his hand over the heart, notes the presence or absence of a thrill, forms a gauge of the extent of hypertrophy, if present, feels the pulse, and estimates the tension in the vessels,—by the time he has exhausted these methods his diagnosis is often practically made, and he applies his stethoscope only to confirm by the ear what he has already learnt by the eye and the hand. I do not wish to be misunderstood as exalting sight or touch above hearing, but merely emphasise the importance of the two former, because in medicine, as opposed to surgery, students are peculiarly apt to underestimate their value. First, then, use your eyes, use them constantly, form a high estimate of what they are capable of teaching you. You can hardly too carefully observe the physiognomy of disease. Learn to form pictures in your mind of the typical aspect which so many diseases present. Note the dusky skin, the laboured breathing, and the constrained posture of heart disease; the sunken cheeks, the hectic flush, the brilliant eye, and the flat chest of phthisis; the puffy eyes and the pallor of Bright's disease. Contrast the half-drunken stupor of typhus with the clear intelligence so often found in typhoid. Compare the reeling gait of cerebellar tumour with the peculiar stamp of the heels to be seen in locomotor ataxy. Be on the watch for the greenish hue of chlorosis, the yellow skin of jaundice, the bronzing of Addison's disease. The physiognomy of disease is important not for diagnosis only; it is almost more important for prognosis. The change for better or for worse is often apparent in the expression when no other sign is available, and the skilful nurse will often read the signs of impending death or find an augury of recovery in visible indications which are indefinable but of very real value. Not to enlarge unduly on this branch of the subject, allow me again to urge you to employ the eye, the hand, and the ear in the work of clinical observation—to employ them in this order and as a matter of fixed routine, admitting of but few and occasional deviations.

The second rule which I urged upon your attention was the adoption of some fixed order in the examination of the various organs of the body. This is indispensable. Begin as a rule with the surface of the body, note the general type of the organism, the character of the integument, the osseous and muscular development, the nature of any abnormalities that may be present. Proceed, then, to the examination of heart, lungs, digestive system, urinary organs, brain, and spinal cord. If you follow this method and carry it out with moderate watchfulness and efficiency, it is almost physically impossible that you should make many mistakes, or often overlook much that is of importance. The neglect of this rule is fruitful in the most ruinous and unpardonable blunders. A patient seeks advice for some dyspeptic symptoms. The unwary practitioner examines the tongue, asks a few questions about the appetite, the sensations produced by food, and the state of the bowels, and prescribes accordingly. The patient takes considerable quantities of soda, or bismuth, or rhubarb, and finding that he is nothing better but is rather growing worse, seeks advice from another practitioner, who adopts the systematic method of examination, and forthwith discovers that the patient has a mitral murmur, his dyspepsia being cardiac in origin, and prescribes accordingly with prompt relief. Or take another instance. A patient walks into your consulting-room and volunteers the information that he is suffering from asthma. You examine the chest, find only vague signs, and perhaps prescribe stramonium or some kindred remedy. The patient gets worse, seeks other advice, the urine is examined, and the discovery made that the case is one of Bright's disease and that the asthma is, as not unfrequently happens, renal in origin. I might go on indefinitely in illustration of my point, but it is needless to do so. Our time will have been well spent here this morning if I shall have succeeded in impressing upon you the great rule that you cannot safely neglect any of the principal organs of the body, and that unless your case be so clear and obvious as to leave no room for reasonable doubt, it is your bounden duty to explore all the organs and employ all the methods of precision at your command.

So much for the two chief rules which should guide our observation in clinical study. Let me now say a few words regarding the habit of mind upon which the capacity for correct observation depends. That habit of mind includes a love of truth for its own sake, a power of looking steadily at facts, of keeping the mind clear of all prepossession and prejudice, of freely admitting our ignorance, and of holding all our conclusions as provisional until the proof is final and complete. Form now, and ever practise, the inestimably valuable habit of looking steadily, resolutely, patiently at facts. Do not be in too great a hurry to get at explanations of facts. Many of our explanations of the facts of disease are provisional and temporary; some of them are almost certainly false; of some facts we can scarcely suggest any explanation at all. But if you have got hold of a fact—as apart from a theory, a conjecture, or a speculation—you have got hold of a grain of pure gold. Speculation changes, theories have their little day, and give place to others, which are displaced in their turn; but facts, if they be facts, are eternal. Therefore get hold of them. Grapple them with hooks of steel.

I invariably find students very anxious for an explanation of the facts of disease. That is natural and right. If a true and complete explanation can be given, it is a great accession to our knowledge. But I find students apt to be discouraged when told that the facts are such and such, but that we cannot explain them. That is not a right feeling, and should be restrained. As your mental horizon broadens in the course of your education, you will discover that the field of human knowledge is very limited—that it is, in fact, only a tiny oasis in the great desert of the unknown. The part of wise men is not to sit lamenting that the oasis is so small, but to endeavour to do something, however little, to extend its borders. Youth is willing to confess its own ignorance, but in its generous innocence it thinks its teachers should be omniscient and unerring. Alas, they make no such claim. They know a little more than you, that is all. It is enough, however, to warrant you in giving them your most careful attention. The study of disease is well calculated to discourage dogmatism and to promote intellectual modesty. There is so much that we do not know, so much about which we can hardly form even a probable conjecture. When you have thoroughly realised these facts you may feel a little temporary discouragement and be tempted to chafe against the limitations of human knowledge, but in time you will reach the mental attitude of Dr. Arnold of Rugby, of whom it was said that "before a confessed and unconquerable difficulty his mind reposed as quietly as in possession of a discovered truth." It is some consolation to reflect that the best minds have been the readiest to admit their ignorance. At Trinity College, Cambridge, there is the statue of Isaac Newton with Wordsworth's fine inscription:

> "The marble index of a mind for ever
> Voyaging through strange seas of thought alone."

Yet he who voyaged through strange seas of thought alone and pushed his barque so much farther than his fellows, was yet content to describe himself in a metaphor—well-worn, indeed, but never to become trite—as only gathering a few pebbles on the margin of the great ocean of truth.

Look, then, steadfastly at facts; store them up as something sure to prove precious and fruitful. If you cannot always explain them, that does not make them less valuable. Begin, even now, to form an inventory of what some of you, at least, have observed of the phenomena of disease. If you have observed one, two, or a dozen cases of, say, disease of the mitral valve, or pleurisy, or chorea, carefully store them up, recollect the age, sex, and occupation of the patient, the main features of the case, the treatment adopted, and the result. You will be astonished how useful this method will prove to you, and how soon your little stock of facts will grow and expand until you begin to feel how valuable it is.

Next, look at the whole fact. Do not be content with observing that the patient has a murmur over his cardiac area, or crepitus at the apex of one of his lungs, or albumen in his urine. Look at the case as a whole after you have carefully observed it in detail. Inquire how all the functions are performed, what amount of general health and vigour are enjoyed, what trouble the patient is most conscious of. Keep steadily in view both the individual symptoms and signs and their collective significance. Mr. Mill, in his work upon "Logic," says: "The observer is not he who merely sees the thing which is before his eyes, but he who sees what parts that thing is composed of." Let your observation, then, be as analytical as possible.

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When you have carefully observed the individual facts you can then piece them together into a harmonious and congruent whole.

Let us now pass on to consider what errors of observation we are most prone to commit. Those errors are usually grouped by logicians under two heads—viz. (1) Errors of Non-observation, and (2) Errors of Mal-observation. The first error is that of failing to see something that is present; the second error is that of thinking we see something which is not really present at all. In the first we overlook something; in the second we misread something. If you examine a patient and discover wasting, cachexia, or hæmorrhage, but overlook a cancerous tumour in the abdomen, that is an error of non-observation. If, on the other hand, you examine a patient's abdomen and diagnose as a tumour what is only a tense rectus muscle, that is an error of mal-observation. Instead of illustrating these errors at length, let us rather inquire why we so usually commit them. A common cause of error is where there is some motive for rememberinng one fact rather than another. The motive may be self-interest, or only a love of the marvellous. You have all seen Zadkiel's almanack. The predictions are wrong in ninety-nine cases out of a hundred, but occasionally by a happy hit the hundredth case is strikingly true. The vulgar mind, which loves the marvellous and delights in magic, just as it hates science, seizes on the single hit, overlooks the innumerable failures, and acclaims the weather prophet as a genuine seer. The fame of the bonesetter is of similar origin. He makes a score of failures for one success, but once in a while he gives a lucky wrench to a knee that has been stiffened by a little too much expectant surgery, the patient is cured of his lameness and goes forth to trumpet abroad the skill of the bonesetter and the incompetency of the regular practitioner.

A similar source of error is the presence of a preconceived opinion on the part of an observer. It has often been observed that travellers see in foreign countries just what they come prepared to see. Two travellers visit France. One finds the French cultured and civilised beyond any other nation, supreme in art, eminent in science, in many ways admirable. The other traveller is chiefly struck by the absence of salt-spoons, or the infrequency of soap, and in every savoury dish sees a gruesome vision of frog. And so, many an observer goes into the wards of a hospital, eager to discover evidence in support of some pet theory of his in therapeutics or pathology. He rarely fails to discover the evidence, but it is very commonly invisible to all eyes but his own. Perhaps, like some enthusiastic brethren of ours across the Channel, he regards biniodide of mercury as an infallible cure for scarlatina, or thinks a few whiffs of carbolic vapour will rout the bacillus of tubercle. With such prepossessions, even perfect honesty and more than average intelligence will not save the observer from the most fatal errors. Sometimes this snare of preconceived ideas takes another form. A practitioner of more than usual cleverness takes pride in the rapidity of his diagnosis. After a few brief questions or a rapid examination he forms and announces his opinion. His further inquiry into the case is very commonly devoted, not to finding out facts as they really are, but to twisting, colouring, or inventing facts to suit his hastily formed and incautiously announced opinion. I am sure that this is a frequent and dangerous error, and I would like to warn you against it with all earnestness. Do not form hasty opinions; if you have ill-advisedly formed a hasty opinion, and further inquiry shows its falseness, freely admit your error, and do not waste time putting forward ingenious paradoxes to defend the indefensible. Charles Darwin tells us in his "Life" that when he came across a fact or argument opposed to his opinions and results, he always made a careful note of it, as he found by experience that such facts and arguments were far more apt to escape the memory than favourable ones. I am afraid many act on exactly a contrary principle—remembering facts favourable to their preconceived ideas, and forgetting or ignoring facts that are adverse. This is intellectual dishonesty, and is as bad intellectually as a lie is bad morally.

Beware of confounding a fact observed with the conclusion which you draw from it. In writing out your notes of cases, or in giving answers at the bedside, make it a rule to give facts only, and not inferences—unless you are asked for them. What you observe is one thing; what you argue or infer from your observation is something totally different, and the two must always be kept distinct in thought. It often happens to me to say to a student, "Examine that heart, and tell me what you observe," and to receive the answer, "Mitral—or aortic—obstruction," or "Regurgitation," as the case may be. Now, these affections may be present, but you cannot directly observe their presence; you can only infer it. What you do observe is a certain position and character of cardiac impulse, a certain kind of sound or sounds, a certain quality of pulse, and so on. Your diagnosis, I repeat, is a matter of inference, not of direct observation. Or, to take another case, I say to a student, "Examine that patient's lungs, and tell me what you observe," and I get the reply, "Oh, it is phthisis." It may be, but what you have really observed is not phthisis—that is inferred,—but a certain type of organism, a certain shape of chest, some alteration in the movements of the chest walls, some alteration in percussion, some change in the breath sounds. Remember, then, this rule: Keep sharply distinguished the facts you observe and the inferences you draw from them. If your observation be correct, the facts are certain and unalterable. The conclusions you may draw from them are a different matter; they may or may not be true, and depend for their validity, not upon observation, but upon reasoning.

Time would fail me to day to enter upon the large subject of inductive reasoning. I would most strongly urge you to make yourselves acquainted with some manual upon logic, such as that of Fowler, or, better still, Mill's incomparable work. It has been said that men have reasoned correctly without having learnt the rules of logic, just as men have walked correctly without having been drilled, or talked correctly without having learnt elocution. True; but drill and elocution have their uses, and prevent or rectify many an awkward and embarrassing fault. It may seem a refinement of cruelty to suggest another addition to the labours of the already over-weighted medical student, who, in these days of multiplied tests and expanding curricula, reminds one of Matthew Arnold's picture of England overwhelmed with the cares and responsibilities of empire:—

> "The weary Titan ....
> Staggering on to her goal,
> Bearing, on shoulders immense,
> Atlantean, the load
> Well-nigh not to be borne
> Of the too vast orb of her fate."

If I could chip a few pieces off the too vast orb of your examination papers I should be glad to do it, but I think I see a means whereby my suggestion may come in harmlessly. If you cannot spare time for the study of logic—in other words, for the study of the processes which you will be performing rightly or wrongly almost every waking hour of your lives,—if you cannot spare the time now, when other subjects make imperious demands upon your attention, the opportunity may hereafter arise. Soon most of you will obtain your diplomas and enter upon your first year of medical practice. This is a time of varied experiences, but one thing may be safely predicted—you will find it a time of the most ample leisure. You will find that when you put up the visible sign—whether in brass or otherwise—that your professional services are at the disposal of the public, the public will for a considerable time pass by on the other side. This the public has a perfect right to do, perhaps is even, in most cases, wise in doing. When this time comes to you, do not waste the leisure which is for the moment superabundant, but which will some day be scanty. Do not worry yourselves with anxious fears for the future or be impatient for the success which will come quite as soon as you are ready for it. Spend that leisure time in sedulous self-improvement. Fill in the gaps in your knowledge. Devote yourselves to subjects which you were necessarily compelled to neglect during your student carreer, and amongst other things I would strongly advise you to do what Dr. Clifford Allbutt has recently told us he did at this epoch with so much advantage—viz., make yourselves familiar with the general principles of reasoning and learn when you are justified in drawing conclusions from the signs and symptoms which you will be constantly engaged in studying.

A word upon the motives which should inspire you in striving to make yourselves thoroughly efficient. First, there is your own personal advantage, which, within reasonable limits, it is perfectly right and laudable to seek to promote. That personal advantage you will best secure by professional efficiency. You have all heard the sneer that in medical practice what is chiefly required is "a good

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bedside manner." If there is any truth in this sneer, so much the worse for the intelligence and discernment of the public. By all means have a good bedside manner—tact and sympathy are potent forces,—but add to it a thoroughly practical knowledge of medicine and surgery, and you will not find the addition of trifling moment and value. Your next motive should be the public weal. It has been said with perfect truth that "good doctoring is better than no doctoring, and no doctoring is better than bad doctoring." If now and here you acquire a fair mastery of your life work, there is no reason why each of you should not become the friend and benefactor of humanity. If, on the other hand, you waste your time and fail to become moderately efficient and yet, through some lack of vigilance on the part of your examiners, succeed in obtaining a diploma, you will be a danger and a foe to humanity, like a pirate or a buccaneer hoisting the red cross of the hospital ship. Lastly, aim at high efficiency for the sake of science and for the credit of our common profession. What is the great reproach and weakness of the medical profession? It is that "doctors differ." It is that in a criminal trial half a dozen medical witnesses will swear that a man died of arsenic poisoning, and another half dozen medical witnesses will swear that he did not die of arsenic poisoning. The public looks on and scoffs. Can we wonder at them? Our opinions concern the most vital of things. They should be supremely important. Unhappily, they sometimes fail to inspire confidence. Medical science may never become perfectly exact, but it must strive to become more exact. When we have attained more precision and more agreement among ourselves—and these can only be obtained by earnest, patient, laborious effort and study,—our usefulness will be enormously increased, and our professional status will correspondingly rise; for, as Darwin says, "The public is wise enough always to follow scientific men when they agree on any subject."

And now it is time for me to conclude. There is a saying of the old Greek poet Hesiod that "He is a fool who does not know how much greater the half is than the whole." This saying is hardly of universal application, but it is, I think, worthy of the attention of all public speakers, including readers of introductory addresses. I shall, therefore, not detain you longer, but I should like to leave with you as my last word, the reflection that in a short time you will share the privileges and be called upon to support the reputation of the ancient and honourable art of healing. Whether in a large circle or a small, whether in the wide arena of a great city or in some quiet country village, you will be the representative of the profession of medicine, and men will in some measure form their estimate of that profession from your skill, your faithfulness, and your humanity. You must first be reasonably skilful, and here and now you have the time and opportunity for acquiring that skill. You must next exercise that skill with energy and uprightness, maintaining a high standard of duty, and placing your patients' interest and welfare before any selfish advantage. Lastly, you must not give any occasion for the frequent satirical comment that to medical men the most awful instance of suffering is only "an interesting case," only a curious anomaly to be scanned with keen but unsympathetic eyes. Remember that you will have to deal, not with casts and specimens, but with living, breathing, suffering, sorrow-laden men and women. Disease is always in some degree a misfortune; in some cases, and in its more serious forms, it is not seldom a great calamity. Patients look for more than advice from us; they expect sympathetic interest, and hope to find not only the physician but the friend.

It is not likely that the profession of medicine will ever cease to hold a high and necessary place in the public esteem. Preventive medicine, hygiene, and the general diffusion of knowledge may do much, but they will never wholly abolish disease, and where disease exists there must always coexist the art which undertakes its study and relief. The public will have their joke at us, they are welcome to it, but they seek our aid nevertheless. As Byron puts it,

> "This is the way physicians end or mend us,
> *Secundum artem*:—but although we sneer
> In health—when ill, we call them to attend us,
> Without the least propensity to jeer."

Learn your art, then, master it if you can. If you do so, you may face the future without apprehension, you may be assured that a fair share of usefulness and prosperity will be yours, and that the gratitude of your fellows will not fail to follow.

ABSTRACT OF

The Harveian Lectures

ON THE

SURGERY OF THE KIDNEYS.

Delivered before the Harveian Society of London,

BY J. KNOWSLEY THORNTON, M.C.,
SURGEON TO THE SAMARITAN FREE HOSPITAL.

LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—My first duty to-night is to thank the Council of the Society for the great honour they have conferred upon me in asking me to deliver the Harveian Lectures, and in doing so I can only express the hope that they and you, who kindly support their choice by your presence, may, when I have completed my pleasant task, not regret the appointment. I have selected the Surgery of the Kidneys as my subject, in preference to any of the others with which my work in London has made me specially familiar, because while the latter have all been largely written upon, both by myself and others with special experience in abdominal surgery, our subject to-night has been chiefly discussed by the general surgeon, and sometimes with an evident bias against the abdominal methods of dealing with renal disease. It is always well to hear both sides of a question, and as we are already in possession of several able expositions of the views of those who advocate the lumbar methods in dealing with most of the surgical diseases of the kidneys, I shall offer no apology for devoting much of the time at my disposal to an examination of the methods of treating these diseases by abdominal section.

Floating kidney is essentially a congenital condition, the kidney having a true mesentery, so that it becomes practically an intra-peritoneal organ. Its chief surgical importance lies in the fact that it may be altogether impossible to reach it by lumbar incision. Of movable kidney there are several varieties, and a deficiency in the adipose tissue is the chief predisposing cause. The kidney in both these conditions is usually abnormally sensitive, and hydronephrosis may be produced, or torsion of ureter or vessels may cause uræmia. For treatment I have found a truss which is made by Mr. Hawksley a great comfort in some cases, while others derive more benefit from a simple spiral elastic bandage, or from a half-moon-shaped pad worn inside an ordinary abdominal belt. Though nephrectomy for simple mobile or floating kidney is quite unjustifiable, yet I think that nephrorraphy in extreme cases is quite a proper proceeding. The operation may be well performed from the loin, and the kidney may be fixed, as recommended by Gould, by kangaroo tendon sutures, which may be left in permanently. I think it is a good plan to thoroughly stir up the areolar adipose tissue over a considerable surface, and put in several thick red rubber drainage-tubes, so as to obtain the maximum of aseptic irritation. The oblique incision usual in lumbar colotomy, only rather higher up, answers well for exposing the kidney in this operation. Some operators incise the capsule and stitch the two cut edges to different parts of the external wound, but I do not think this is either necessary or advisable. Hydronephrosis is a distension of the kidney with its own secretion from some obstruction to the escape of the urine, and is, as I have said, an occasional result of undue mobility of the organ. The obstruction may occur at any point between the renal opening of the ureter and the meatus urinarius. It is most commonly somewhere in the ureter. Many cases are congenital, the ureter being abnormal in structure or in anatomical relation to the kidney. In other cases it is an acquired condition, due to some congenital abnormality in neighbouring parts, which in time interferes with the passage of the urine. It may affect the whole kidney or only some portion of it, and the fluid in an advanced stage frequently contains neither urea nor uric acid, but is watery, with a little salt and a trace of albumen; later it may contain blood, or become pyoid, producing one variety of pyonephrosis. The most certain symptom is the presence of a tumour, which occasionally disappears, the disappearance being accompanied with increased flow of urine. The

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diagnosis is not always easy; retro-peritoneal, omental, and mesenteric cysts are especially difficult to differentiate from hydro-nephrosis, and it has been a common error to mistake an ovarian cyst for a hydronephrosis, or *vice versâ*. It is also in some cases difficult to distinguish between hydro- and pyo-nephrosis. Careful aseptic puncture far back in the loin and examination of the fluid removed are the only certain means of diagnosis, at any rate in many of the cases. Puncture may also be tried as a means of treatment, though I believe that there is no good evidence that cures are often effected by it. It should be performed with the aspirator, the needle being introduced far back in the loin, to avoid risk of puncturing the colon or peritoneum, or of allowing extravasation of urine into the latter cavity. The skin round the point of puncture, and the needle and trocar, should be carefully purified by a watery solution of corrosive sublimate or other powerful antiseptic, and great care should be taken to avoid the entrance of air as the trocar is withdrawn from the empty cyst. If relief follow, it may be repeated from time to time; but if the fluid rapidly reaccumulates, some more radical operation must be undertaken. I have completely failed in two cases with incision and drainage, and I believe that nephrectomy is the proper treatment in all cases which do not improve after one or two tappings. Pyonephrosis is a similar distension of the kidney, with purulent urine, or pus alone. It commonly results from suppuration in an old hydronephrosis. It may follow calculus and careless catheterism. It must not be forgotten, however, that the kidneys are the great excretors of septic organisms; hence suppuration may occur in them without direct external agency. The inflammation and suppuration may extend not only through the secreting structure, but into the surrounding adipose tissue, and add thus greatly to the difficulties to be encountered in giving surgical relief. The symptoms are those common to all suppurations together with the appearance of pus in the urine, and to these may be added at any moment the symptoms of septicæmia or of uræmia. The treatment will vary according to the cause and extent of the pyo-nephrosis. Simple pyonephrosis, resulting from injury, from the transformation of hydronephrosis, from the earlier stages of tubercle and scrofula, and from the presence of calculus, may all be successfully treated by incision and drainage, combined in the latter variety with the removal of the stone. Pyelitis may be best discussed under the calculous, the tubercular, and the scrofulous conditions which most frequently produce it. Pyelonephritis is an inflammatory suppuration involving the whole kidney, and is a result of some disease of the pelvic urinary organs, and commonly known as "surgical kidney." It nearly always involves both kidneys, and is not susceptible of surgical relief, so that it need not detain us. Renal abscess is a collection of matter in the tissue of the kidney arising from injury, calculus, spread of suppuration from neighbouring parts, or from the administration of some drug specially obnoxious to the kidney. It is usually unilateral, the symptoms being those of suppuration with renal pain and possibly tumour. If physical signs be obscure puncture may be employed, to be followed by free lumbar incision and drainage, when the exact situation of the abscess is made out. Perinephric abscess is a collection of matter in the tissues immediately surrounding the kidney. It is very often diffuse, spreading in the sub-peritoneal cellular tissue and the sheaths of abdominal and retro-peritoneal muscles. It most commonly follows extension of suppuration from within the kidney in advanced tubercle or old cases of calculus, and may follow the improper use of the exploring needle or trocar. The treatment is free incision and drainage.

Gravel and calculus are the most common cause of all the diseases we have been considering, but though they are usually the cause, they may be also in some instances the effect, being induced by the retention of the urine too long in the kidney, as in movable kidney and hydronephrosis, which results from some abnormality in the ureter. The possibility of removal of a stone from the kidney by lumbar incision has been known since the days of Hippocrates. In 1869 Mr. Thomas Smith read before the Medico-Chirurgical Society an admirable and suggestive paper on the method to be employed in removing a stone from the kidney. In 1878 I attempted to carry his suggestions into practice, but was mistaken in my diagnosis, and only gave exit to a quantity of tubercular pus, with great relief to the sufferings of the patient. Two years later Dr. Coupland recommended the operation to a patient under his care in the Middlesex Hospital, and his colleague, Mr. Henry Morris, successfully removed the stone, and established the lumbar method of operating. I have performed the operation thirteen times, with but one death—that of an elderly Frenchwoman, whose kidneys secreted no urine after the operation. Renal calculus is most common in the young and after fifty years of age, urate of ammonia and uric acid being, according to Taylor, the most common nuclei in the respective periods. The oxalate or mulberry calculus, though not so common, is undoubtedly the one which causes the most severe symptoms and sufferings. It is impossible to describe even briefly all the varieties and their special pathology, but fortunately they are all, if not left too long, susceptible of surgical cure by incision and removal.

The most common and important symptoms are pain in the loins and back, often shooting down the ureter into the testicle in the male and into the ovary in the female, and into the hips, thigh, and knee, aggravated by motion, especially if it be of a rough or jolting kind; hæmorrhage, which is especially liable to follow such rough movements, the urine when passed being either smoky, bright red, or coffee-coloured; and the presence in the urine of crystals, or of small fragments of the calculus. In more advanced cases the presence of pus in the urine, with irritability of the bladder, especially at its neck just after the act of micturition, are also common. To these local symptoms must be added a number of reflex phenomena, especially disturbances of the digestive organs, indigestion, nausea, retching, vomiting, and flatulence. The latter, being often markedly troublesome in the colon on the affected side, sometimes amounting to actual intestinal colic, is in my experience one of the most common and early symptoms in the majority of cases, and is one which is very apt to be overlooked or misunderstood. Intestinal colic frequently precedes and is apt to mask the true renal colic caused by the passage or attempted passage of a stone down the ureter. It must be borne in mind, however, that most of these symptoms may be present in a case in which no stone can be found, and they may be markedly and constantly referred to one side, whilst the stone is in the kidney on the opposite side—a sympathetic transference of pain from a diseased organ to its fellow, which I had frequently observed in the ovary, before I had any experience in renal surgery. Though the verification of the presence of a stone in the kidney by striking it with a fine strong needle introduced into the organ from the loin found favour with some surgeons, I have never employed it, for there is danger of wounding large vessels, of passing the needle into the bowel or peritoneum, and of exciting degenerative change in the secreting structure of the kidney. It is not uncommon for the stone to become fixed in the ureter, just at its entrance into the bladder wall. I have met with two such cases, and in one in which the kidney had become pyo-nephrotic and disorganised I removed it, and left the stone, with a perfectly successful result. In the other I removed the stone by dilating the urethra and cutting it out through the bladder; but a ureteral fistula resulted, and the urine was discharged into the pouch of Douglas. The patient, a woman of weak intellect, went out of her mind, became quite unmanageable, and died of exhaustion a fortnight after the operation.

Calculous suppression of urine can arise from the blocking of one ureter, the opposite kidney and ureter being quite healthy. It is therefore necessary in such a case, if we are to save the patient from impending death, to decide, and to decide quickly, whether both ureters are blocked or only one, and, if the latter, which of the two. If one ureter be blocked, and the kidney on that side enlarged, temporary relief may be obtained by puncture through the loin; but if there be any doubt as to which is affected, the only proper course is immediate abdominal section by Langenbüch's incision, through which both kidneys can be explored, and the further surgical procedure found necessary can be aided. The stone if found in this way should not be extracted through the peritoneum, but through a counter-opening in the loin; or if it be close above the bladder, suprapubic cystotomy should be done, and the stone extracted by that way. For the certain detection and removal of a renal calculus, I prefer to open the abdomen by Langenbüch's incision over the suspected kidney, examine carefully both kidneys and ureters, and, having found a stone, to employ

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one hand in the peritoneum to fix the kidney and stone and guard the colon, while with the other I can cut down upon the stone directly from the loin, merely making an opening through the loin tissues large enough to introduce the finger and the necessary forceps for the extraction of the stone. The opening of the peritoneum is primarily exploratory and diagnostic, and secondarily of great advantage in enabling the stone to be accurately and quickly reached and extracted. The loin incision does not interfere with the peritoneum, and no wound is made from the peritoneal surface of the kidney; it is much smaller and cleaner than the wound necessary in ordinary lumbar nephrotomy, requires no sutures, does not leave a weak place in the loin with the chance of hernia, a not uncommon result of the ordinary lumbar operation, and admits the necessary drainage-tube through a small channel, without risk of extravasation of urine into the tissues around the kidney, or of the troubles of secondary suppuration. I have now performed the combined operation ten times—twice in the male and eight times in the female. All but one fatal case have made rapid and satisfactory recoveries with one exception, and this patient had a persistent fistula, for which her kidney was successfully removed by Dr. Savage of Birmingham.

Let me recapitulate the advantages which I claim for the combined operation, as compared with the simple lumbar incision. We are certain that the patient has the usual allowance of kidneys. The chances of overlooking the stone, if there is one present in either kidney, are reduced to a minimum. I do not say that the abdominal handling is absolutely infallible, but in fourteen operations I have only once failed to find a stone, and the recovery and present health of this one patient, as already given in her own words, make it highly improbable that there was or is a stone in her kidney. This result compares very favourably with the large number of unsuccessful lumbar explorations already recorded. Greig Smith mentions twenty-five cases of unsuccessful lumbar exploration—i.e., no stone could be found. There is no fear of cutting into the healthy kidney while the stone is in the opposite one—a serious accident which my cases demonstrate as possible at any time by the lumbar method. There is no fear of accidental wound of either colon or peritoneum, because they are guarded by the hand in the peritoneum, while the kidney and stone are fixed, so that a small, clean cut upon the stone is all the damage inflicted upon the loin tissues. There is consequently infinitely less risk of extravasation of urine or of after-suppuration, and no risk of a loin hernia. There is the great advantage of ascertaining what is the condition of the other kidney, and that of both ureters.

What are the objections to be set against these advantages? Simply the making of two cuts instead of one. The increased risk, due to the opening of the peritoneum, is practically *nil*—i.e., if the surgeon will take the pains to perform a thoroughly aseptic operation. I quite admit that this is the key of the position. If there is to be risk of septic infection of the peritoneum, then the combined operation is not justifiable; but I maintain that with proper care the mere opening of the peritoneal cavity and the manipulations in it necessary to examine the state of the kidneys and ureters, and to aid the execution of the lumbar extraction, are practically free from risk—certainly as free from risk as a large wound made through the various loin tissues, by a surgeon who is not cleanly enough in his work, to avoid danger of infecting the peritoneum. The method of making the incision in the operation of lumbar nephro-lithotomy I will describe fully under the head of nephrotomy in my next lecture. In several cases the kidney could not be found by this method, and in a large number of others no stone could be found. If the latter were small and loose it could be easily extracted, but if large or fixed much careful and dexterous manipulation became necessary to loosen the grasp and extract the stone. In a fat or muscular subject counter-pressure lent no aid, the kidney slipping about and carrying the stone away from the extractor. When the operator is convinced that no stone remains, the interior of the kidney should be well flushed out with some warm antiseptic solution. I use 1 in 2000 corrosive sublimate lotion. One or more rubber drainage-tubes are then introduced up to the kidney, but not into its interior, and a few interrupted points of suture and a large absorbent antiseptic dressing complete the operation. If no stone is found in the pelvis, each of the calyces should be carefully explored with a No. 3 Duncan's uterine dilator, and the secreting tissue pressed between the fingers. In considering whether lumbar nephrectomy is practicable, the surgeon should always take into account the conformation of the individual, for in some cases the last rib almost touches the iliac crest, and in these the possible low insertion of the pleura into the twelfth rib, and the danger of wounding it, require to be especially kept in mind.

A CASE OF

INTUSSUSCEPTION SUCCESSFULLY TREATED BY INFLATION.

By DAVID W. FINLAY, M.D., F.R.C.P.,
PHYSICIAN TO THE MIDDLESEX HOSPITAL AND TO THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

THE following narrative adds one to the list of cases of intussusception successfully treated by inflation of air. Another under the care of Dr. Cheadle has been recently published,[1] and reference is made in connexion with it to cases previously occurring in the Hospital for Sick Children, Great Ormond-street.

Thomas R——, aged eight, was admitted into the Middlesex Hospital under my care about 1 P.M. on Oct. 4th, 1887, with the following history. At half-past eight the same morning he suddenly complained of pain in the abdomen, almost immediately after which he went to stool, straining much, but did not pass anything. He was able to take a little breakfast, but vomited it. Before noon he had been to stool two or three times, and on the last occasion it was noticed that he had passed blood. On admission he was found to be suffering from tenesmus, and his bowels were frequently moved, a small quantity of blood and mucus being voided on each occasion. He suffered pain only just before the bowels acted, and at the same time he was attacked by vomiting and retching. The abdomen was not distended, but the left side was slightly fuller than the right. On palpation the muscles of the left side were rigid, and there was some dulness on percussion from below the left hypochondrium to the iliac crest. A sausage-shaped swelling could be felt extending from about the level of the umbilicus in an oblique direction from without inwards down to the left iliac fossa. The diagnosis being perfectly clear, it was at once decided to try the effect of inflation, and at 2.30 P.M. chloroform was administered and the operation performed with a small pair of ordinary bellows, the nozzle being covered with an indiarubber tube, which was passed for two or three inches into the rectum. Previously to this the opportunity was taken of making a digital examination of the bowel, in which, however, nothing abnormal was discovered. Under the anæsthetic the tumour in the left iliac region was much more distinctly felt. The abdomen was somewhat, but not greatly, distended by the inflation, and after two or three minutes it was found that the swelling had disappeared. The tube was then withdrawn and the boy left at rest, a mixture containing three minims of tincture of opium and five minims of spirit of chloroform being ordered to be taken every three hours. During the following night he had several attacks of vomiting, and lay with his legs drawn up. As he had passed no urine since admission, it was drawn off by catheter; to the extent of only two ounces, however. It was very acid, sp. gr. 1045, and deposited an abundant sediment of white lithates, being otherwise normal. He had slept for about five hours and a half during the night, and the sickness referred to came on only after drinking. Next day (Oct. 5th) he was found to have no abdominal tenderness or swelling, and since the inflation he had passed no more blood, or indeed anything. He was fed with two teaspoonfuls only of liquid nourishment at a time, but vomited even that. He was accordingly ordered an effervescing mixture, with tincture of opium and hydrocyanic acid, a sinapism to the epigastrium, and half a teaspoonful of meat juice in cold water occasionally. After this there was no more sickness, and he was allowed to return gradually to ordinary diet. A note made on the seventh day after admission (Oct. 10th) was to the effect that he continued to improve; there was no swelling or

[1] THE LANCET, Jan. 26th, 1889, p. 170.

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tenderness in the abdomen, which was soft and normally resonant. The tongue was clean and moist, but the bowels had not yet been opened. Two days later he was allowed to get up. On the 17th he passed a few small masses of fæces almost black in colour, and by the end of the month the motions were normal and recovery complete. The temperature was practically normal throughout the whole progress of the case.

The lessons to be learnt from the foregoing case are tolerably obvious and simple, but it is only by systematically recording individual experiences that a sufficient body of material is to be obtained for general use. First in importance, as contributing to the favourable result, must be set down the early period at which the case came under treatment; for although cure has followed inflation in cases of several days' standing, a favourable result in these can hardly be expected. At the same time it may be said that there are few cases in which, whatever the length of time the intussusception has existed, the effect of inflation should not be tried before recourse is had to the serious step of abdominal section. Even where the latter may be reckoned to hold out the fairest promise of success the patient when anæsthetised should be given the chance of benefit from inflation, as this, if carefully carried out, need not increase the ultimate risk of the more serious operation which may follow. Most surgical authorities recommend early laparotomy, so-called; and it is just in the early cases that the necessity for this may be obviated by inflation. Another point is that the administration of some anæsthetic is to be strongly recommended. The advantages which it affords both in clinching the diagnosis and in the satisfactory carrying out of the treatment are so obvious as to require no argument. Finally, the simplicity of the apparatus required is worthy of consideration, a pair of bellows or an injection syringe, such as Higginson's, being all that is needed.

Lower Berkeley-street, W.

THE

ARREST OF GROWTH IN CANCER BY THE INTERRUPTED VOLTAIC CURRENT.[1]

BY J. INGLIS PARSONS, M.D.,
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THE method of treatment about to be described is based upon the following considerations: First, with regard to the nature of cancer. The earliest pathologists regarded it as a dyscrasia, or altered constitution of the blood; then followed the embryonic cell theory; finally, the microbe was made to bear the burden of further misdeeds. Virchow, with his dogma, "*Omnis cellula e cellulâ*," demolished the first. The second, propounded chiefly by Cohnheim, will not account for all tumours, even if it be admitted as possible that embryonic tissue can remain for a quarter to half a century in the human tissues without partaking in the changes undergone by other cells in the body. Thirdly, all attempts to find the microbe have failed. The hypothesis now brought forward is founded on the fact that all the cells of the body possess a latent capacity which enables them, under various stimuli, to proliferate and form new tissue. Under normal conditions, this capacity remains dormant, or is only exercised to the extent of keeping pre-existing structures in a living condition. But let an injury or irritation to some part of the body occur, and this latent capacity ceases to be dormant, and an active formation of cells takes place, until the injury is repaired or the irritation removed. Now this formation of new tissue is essentially a new growth, although not a tumour. The capacity for forming it is common to all the tissues of the body, and it ceases when the necessity for its continuance has disappeared. This appears to show some controlling influence, probably by the nervous system. Is it not, then, possible that all tumours are in the first instance composed of cells formed in the normal process of repair, but that, having escaped from the control of the nervous system, they take an independent life, and continue to proliferate and develop without check, just as all living cells are capable of doing *ad infinitum* under favourable conditions?

[1] Abstract of a paper read at the Surgical Section of the British Medical Association, August, 1889.

The frequent association of cancer with a depressed condition of the nervous system is explained by this hypothesis. In other words, a tumour consists of cells which have sprung from the pre-existing cells of the body, but have escaped from the control of the system at large. The close connexion between the two is shown by some statistics in a recent paper by Dr. Gross,[2] who found that out of some 907 cases of cancer of the breast there had been antecedent inflammation in 20 per cent., and a history of injury in 13 per cent. Dr. John Williams found microscopical evidence of the gradual transition from healthy tissue into cancer in a case described by him in the Harveian Lectures.[3] At the same time, although devoid of nerves, all tumours have some sort of vascular arrangement, and continue to receive nourishment from the circulation. In this respect they are on an equal footing with the rest of the body. There is one point, however, in which the normal cells of the body essentially differ from tumour cells. Most of the latter show a decided tendency to degenerate, while, in marked contrast to this, the healthy tissues possess wonderful recuperative powers, due probably to the presence of trophic nerves. It therefore seemed to me that if a cure were to be found for cancer it would be based upon this essential difference between healthy tissue and tumours, and that on account of this difference some agent might be found capable of inflicting an irreparable damage to a tumour, and yet stop short of destroying the normal cells of the body, on account of the higher recuperative powers possessed by the latter. And further that, although the normal cells of the body are unable to resist the invasion of the cancer cells, the latter are actually of lower vitality. If such be the case, it may be asked why should the cancer cells devour the healthy? The probability is that the difference in composition and structure between the malignant and healthy cells is not sufficient to stimulate the latter to resistance. Consequently, the proliferation of the cancer cells, resulting from their independent existence, enables them to overcome the healthy cells, since these, for want of sufficient stimulus, remain passive. In a paper read before the British Gynæcological Society in 1888, on "The Action of the Constant Current on Fibroid Tumours of the Uterus," I advanced the hypothesis: "that while the normal tissues of the body have the power of recuperating any effect produced on them by the transport of elements, the cells of tumours being of lower vitality might be checked in their growth, and perhaps in time destroyed."

The following experiments were tried in 1887 to ascertain whether, when a current is passed through a tumour, any decomposition takes place between the poles. Three glasses were connected together with a stout lamp wick. Into each of these a standard solution of iodide of potash was placed. A current was then passed through the solution with an intensity of 200 milliampères until the whole of the iodide of potash in the two outer glasses was decomposed. On testing the centre glass, it was found to contain as much iodide of potash as before, although in the two outer glasses it was all decomposed. The resistance of this apparatus was so great that I was obliged to go to the Electric Apparatus Company and do the experiment in the vaults of the Junior United Service Club, where an unlimited supply of volts could be obtained. A second experiment was then tried with water in the outer glasses and a solution of iodide of potash in the centre. The current was passed as before, but no decomposition took place in the centre glass. A third experiment was tried on the web of the frog's foot, and watched through the microscope. At the positive pole a coagulation took place, with exudation of blood from the capillaries. At the negative pole a collection of hydrogen bubbles could be seen. Between the poles no change could be observed, and the circulation went on as before. Finally, a strong current was passed through a fibroid tumour, soon after removal from the body, for a period of several hours. On making sections of the portion between the poles, no change could be detected. All these experiments demonstrated in a conclusive way that the passage of a constant current does not cause any decomposition between the poles, although there must of necessity be an exchange of atoms between the molecules. Recently I have had an opportunity of examining sections of a fibroid tumour that I had thoroughly treated with a constant current, and which was subsequently removed by Dr. Travers on account of its size. No change

[2] Inter. Jour. of Medical Science, March and April, 1888.
[3] Ibid., 1886; Case 15, p. 51.

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could be found between the poles, showing that the conclusions drawn from the previous experiments were correct. Subsequent experience has shown me that repeated applications of the constant current, with an intensity of 200 milliampères, are unable to control the increase of a quickly growing fibro-cystic tumour. But I noticed, in treating cases of fibro-myomata of the uterus by a constant current, that when, as occasionally happens through an imperfection of the circuit, the current was suddenly interrupted, marked signs of disturbance followed, such as rise of temperature, considerable pain, and malaise. Rightly or wrongly, I put this down to some destruction of tissue occurring in the tumour, and, if this conclusion be correct, the means required for the treatment of cancer on the hypothesis advanced have been found. The most probable explanation of this phenomenon is that the impact of a powerful current when suddenly flashed through causes death to those tumour cells which lie in the nearest path between the poles where the lines of force are most concentrated, or else they are sufficiently injured to lead to their gradual atrophy. The latter explanation is more probably the true one, as no rise of temperature or other symptom follows the applications when applied to cancer.

For the treatment of fibroid tumours, anything likely to cause their wholesale destruction is to be deprecated. For this reason interruptions of the constant current have been carefully avoided, and precautions taken to gradually increase it as smoothly as possible. Being surrounded by a capsule, and having but few vessels in their interior, a gangrene *en masse* might follow, with all its attendant consequences. But this argument would not apply to cancer. Those cells especially that most require to be destroyed are scattered through the healthy tissues, and each little islet or bird's nest is surrounded by this tissue, furnished with vessels and lymphatics capable of absorbing it so soon as loss of vitality and degeneration occur. I therefore felt no hesitation in trying the destructive effects of a powerful interrupted voltaic current in the first case of cancer that objected to be operated upon in the usual way. After waiting a year or more the case presented itself. There is one point that, for want of space, I have not entered upon: Is cancer a local or a general disease? So far the accumulation of evidence appears strongly in favour of its being, at any rate, a local disease at first.

The *modus operandi* is as follows: The patient is anæsthetised; the current is then passed through the tumour and all the tissues for some inches round it by means of fine insulated needles, so as not to injure the skin. A battery of seventy cells, with an electro-motive force of 105 volts, is used; the intensity of the current to commence with is ten milliampères, gradually increased to 600 milliampères, and flashed through the growth in every direction from fifty to 100 times, according to circumstances. The pulse and respiration are carefully watched. One out of the four cases treated (a woman aged sixty-three with extensive carcinoma of the left breast, a presystolic bruit, and weak intermittent pulse) was unable to stand more than 250 milliampères, and for this reason: when the current is applied to the left breast electrical stimulation of the heart occurs, and if this organ is healthy an increase in the strength of its contraction appears to take place after its passage; but with the patient who had cardiac disease the improvement only continued up to a certain point, and then the intermittency increased and great irregularity occurred.

These observations, made last year on the human subject, corroborate exactly those made in the laboratory on mammals by Dr. John McWilliam. He called the condition of the heart fibrillar contraction—that is to say, a widely incoördinated arhythmic contraction of the ventricular muscle, attended by a great and rapid fall of blood pressure. It is only, however, in the immediate neighbourhood of the heart, and when it is diseased, that this takes place. When the current was passed through a secondary growth in the axilla of the same patient, it could be increased to 600 milliampères with perfect safety.

The effects produced by the action of the electricity consist in a cessation of growth, gradual disappearance of pain, some shrinking and hardening of the tumour, and enlarged glands, followed by improved nutrition and a better state of the general health. The growth as a whole does not disappear, but remains as an inert mass, composed in all probability of fibrous tissue alone. Before treating these cases I felt almost sure that this would be the case, because I had found by a number of experiments, detailed in the paper before referred to, and also from treating a large pelvic fibroma by galvano-puncture in 1887, that neither could electricity decompose the fibrous tissue of new growths (whatever it might do with cicatricial tissue), nor could the system cause its absorption after it had been rendered inert. However, it will always be open to patients to have the remains removed with the knife if necessary.

The advantages claimed for this method of treatment are as follows: 1. There is no destruction to the normal tissues of the body, and if recurrence should at any time occur, its progress can be immediately stopped, and the treatment repeated as many times as necessary. Life would by this means be prolonged indefinitely, provided that metastatic deposits had not occurred before the commencement of the treatment. 2. Patients are not obliged to lie up for more than a day or two as a rule. They lose no blood, and are not generally any weaker. 3. The current can be passed through almost any part of the body, and thus arrest growths which could not by any possibility be otherwise treated.

NOTES ON A CASE OF WEIL'S DISEASE.

BY E. H. YOUNG, M.D. DURH., L.R.C.P., D.P.H., &c.

AT 7 A.M. on May 14th I was sent for to see T. H——, aged twenty, who was said to have had a "stroke." On reaching the house at 8.30 his friends gave me the following history. Patient has always enjoyed the best of health, and has had no serious illness. On the 10th he returned from his annual Yeomanry training at Barnstable, being then in the best of health. On Sunday (12th) he took his food with his usual good appetite, and in the evening he walked to chapel, four miles away. When returning home he suddenly became "shivered," had severe headache and an aching pain in the legs, the latter being so severe that he thought he should never reach home, and was obliged to take frequent rests on the way. He went straight to bed, forgetting, however, to remove his stockings. He slept well through the night. The next morning (13th) he got up somewhat later than usual, but no sooner was he downstairs than he sat in a chair and became drowsy and stupid. When aroused, he said that his head ached, that he felt sick and had pains in his legs. He would not take any food. He was at once helped back to bed, three aperient pills were given, and his head bathed with cold water. Throughout the day the drowsiness increased. When spoken to he replied very briefly, and said that headache, nausea, and pains in the legs continued. He refused food of all kinds. Towards evening he became more unconscious, was delirious, and answered questions incoherently. He had passed no urine since 6 P.M. on the previous day.

May 14th.—At 3 A.M. his bowels were opened. Motions rather pale, semi-liquid. His mother thinks a very little urine was passed at this time. At 8.30 A.M, when I first saw patient, his condition was as follows: Lying in bed on his back, eyes closed; took no notice of my entry. He is a tall, well made, muscular young man. Features a little blurred, cheeks rather dusky. His skin has a very slight yellow tinge, so slight that his friends had not noticed it. His mental condition is one of apathy; he replies in monosyllables, often incorrectly. Says he has no headache and does not feel sick, but feels pain in the stomach (region of liver), and his legs feel sore. Nothing abnormal was detected in the chest or abdomen, but there was tenderness on pressure over liver and spleen, especially the former. No alteration in hepatic or splenic dulness. Tongue covered with a thick, moist, yellow fur. Eyes injected; pupils equal, rather dilated, react sluggishly. No paralysis or œdema. Temperature 101·4°. Pulse regular, full, 104 per minute. Respiration 12 per minute. There is marked prostration of strength. I ordered complete abstention from food, hot poultices over the liver, and gave a powder of calomel and compound jalap powder, followed by a sulphate of soda mixture. At 2 P.M. I was again sent for, as the patient was said to be worse. On arriving at 3 P.M. I found that after I left this morning he had complained of severe abdominal pain, which was relieved on his passing a motion. The motion was liquid and of a tarry colour. His general condition remains the same, except that he is perspiring freely and the pulse is more relaxed. Ophthalmoscopic examination

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(for which the lids had to be held up) showed the discs were clear and healthy, but the veins rather full. Before leaving, the patient passed about an ounce of urine, which was slightly tinged with bile, clear when passed, but speedily became turbid; highly acid; contained no albumen. Microscopically it showed a large quantity of uric acid crystals, amorphous urates, and some oval colourless plates. No blood or casts.

15th.—11 A.M.: After I saw him yesterday afternoon he remained in much the same condition of stupor, becoming delirious at night. At 4 this morning he seemed to sleep quietly, and on awaking at 8 said he felt better. His aspect this morning is distinctly brighter, but tendency to stupor still marked. He is not so dusky about the cheeks, and the veins of the eyes are less full. His skin has a more distinct jaundiced hue. He still complains of pain over the liver, increased by pressure. Has no other pain, but says his head feels "funny." Appetite bad, declines taking any food. Pulse 72, regular, good strength. Temperature 102·4°. His bowels have been open twice since yesterday. Motions liquid, tarry. Has also passed six ounces of urine of the same character as before.

16th.—3 P.M.: The patient passed a good night, and had no delirium. This afternoon he is much brighter, and talks with his friends. Pupils widely dilated. Bowels open once, motion still tarry. Has passed nearly a pint of urine. He still has slight tenderness over the liver, but no other pain. Says he is not hungry, but very thirsty. Tongue cleaning; jaundice about the same as yesterday. Temperature 100·2°; pulse 48, regular, good.

18th.—3 P.M.: Patient has been going on well since last note. Tongue cleaner. Appetite still bad. Jaundice diminishing. Motions normal. No tenderness over liver. Temperature 98·4°; pulse 44, regular, good. The patient went on well after this. He sat up for an hour on the 19th, but felt very shaky. On the 24th he went out of doors and quickly regained appetite and strength.

Remarks.—I think the above notes on a case of Weil's disease worth publishing, as so few cases have thus far been recorded in this country. The points of interest in the case are: 1. The early onset of severe nervous symptoms, the patient becoming *drowsy* within an hour or two of the initial rigor, and delirious within twenty-four hours. 2. Although no albumen, blood, or casts were detected in the urine, there can be no doubt, from the fact that only one or two ounces of urine were secreted in forty-eight hours, that the kidneys were affected by the disease. 3. The rapid recovery of the patient, which was very probably *not* influenced by the treatment pursued. In all probability the symptoms were due to some toxic (perhaps specific) agent in the blood; but whether introduced by food, water, or air I am unable to say. It is very probable though that the poison was absorbed during his absence from home. I may add, however, that my patient is not aware that any of his camp comrades suffered in a similar way.

Okehampton, Devon.

HYDRONAPHTHOL AS A SPECIFIC IN THE TREATMENT OF TINEA TONSURANS.

BY MORGAN DOCKRELL, M.A., M.D. DUB.

NOTWITHSTANDING the strides made of late years in the treatment of skin affections as the result of the introduction of the medicated "Pflastermulle" and the jelly methods, there is still urgent need for the better treatment of tinea tonsurans. We require some remedy based, not on the over sanguine observation of the introducer, but on a sure pathological footing, which will answer practically in the hands of the many, and not, as at present with the various remedies, in those only of the few. Bearing this in view, I am prompted to bring forward a treatment that in my hands has proved successful, and which, I believe, will be the means of removing the opprobrium attaching to the prolonged attempts to cure the disease, baffling, as it often has hitherto, every medicament, till after years of isolation and other discomfort natural development in the patient has come to the rescue. And if other reason is necessary, it is in the following statement made by Mr. Jonathan Hutchinson,[1] that his present creed as to alopecia areata is that it is usually a sequela of ringworm.

[1] Archives of Surgery, vol. i., No. 2.

In hydronaphthol we have found a remedy the proper use of which will prove a power in combating the ravages of the trichophyton fungus. It is a secondary compound of beta naphthol, and was obtained from it by Justus Wolf of New York by a molecule of hydroxide having displaced an equivalent of hydrogen in the process. It has a slight aromatic taste, is almost odourless, sparingly soluble in water, but easily dissolved in alcohol, ether, chloroform, and glycerine; it is non-poisonous, non-irritant, non-corrosive, according to Mason precipitating albumen and gelatine in their neutral or acidulated solution, on which function is based its antiseptic action, and by it the contents of the protoplasm are caused to congeal, and in a super-saturated solution their destruction is complete; hence its germicidal and prophylactic properties. Fifteen grains in a single dose have been taken internally without bad effect. In the multiplicity of recommended treatments for tinea tonsurans we have no unanimity in many important particulars, which must materially influence the duration of the disease and the propagation of infection. We have in fact as much difference in opinion as to whether epilation should be employed, whether the head ought to be shaved or the hair cut short, as there was in the nomenclature after Willan first described it as "porrigo scutulata," and we do not seem to have got much farther than Willan had in 1810, when he stated that the disease "was hard to cure and very contagious."

Amid the chaos which exists as to what the trichophyton really is, we have a paper by Dr. Leslie Roberts,[2] in which, amongst other valuable matter, he draws attention to the development of organs of fructification, a fact that supports Duclaux's experiments, and finally settles one point strongly urged[3]—namely, that in all the experiments hitherto referred to, what was obtained was at most the germination of conidia, never their fructification. From the character of the fructification, and that the ampullæ may be of the nature of asci, it is possible that some further reason may develop to classify the trichophyton with the ascomycetes. And it is of interest to note that this order includes the fungus which sets up the muscardine disease in silkworms—namely, the botrytis bassiana, and also the cordyceps militaris fungus, which destroys the gastropacha pini.

In summing up his results Dr. Roberts explains the anomaly, the difference of the fungus in the skin, and in the hair and its follicle, by stating that "it is a fungus able to vary its form and activity according to the physical and chemical properties of the soil in which it grows; when this soil is solid, and of a nitrogenous composition, nothing more than a thallus or mycelial trichophyton is developed, incapable of growing in cutaneous tissues. When, however, a thin medium, especially one of a saccharine constitution, is selected, we cultivate the fungus into a fine septate thallus, with special organs of fructification, capable of growing both in human and animal skin. In the epithelium of the skin the fungus only vegetates, but does not develop, propagating itself by swelling, constriction, and finally division of the filaments; but in the hair and its follicle the life of the fungus is perpetuated, probably by a yeast-like division of these spores, formed primitively by the transverse division of the mycelial filaments." This difference in growth doubtless explains better why body ringworm is cured so very rapidly.

Hitherto the failure in the treatment of tinea tonsurans has been due, in the first place, to allowing oxygen too free access to the fungus, acting, in fact, as if we did not know that it is necessary, for a mould fungus to flourish, that it should be abundantly supplied with oxygen, and kept at a temperature below the normal state of the body; secondly, we have not adopted the best means of securing penetration of the remedies employed, and there has been gross neglect in preventing the spread of the disease by using applications which cast a slur on antiseptics; and, lastly, we want a potent germicide which does not set up extensive dermatitis. And in finding such a germicide, it is well to remember the fact, laid down, I think, by Koch, that many micro-organisms have two states of existence—an adult form, where the organism is growing rapidly and is very easily killed, and a spore form, which rests and provides for its future existence, being very difficult to kill. So that when a (1 in 20) preparation of carbolic oil is used with a view of perfectly carbolising the spores, and so preventing contamination of the atmosphere and further sowing on the patient's head, we find

[2] British Journal of Dermatology, No. 11, vol. i.: Observations on the Artificial Cultivation of Ringworm Fungus.

[3] Ziegler's Pathological Anatomy, Part I., p. 318

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that the spores of the bacillus anthracis, the admitted standard test of a germicide, after exposure for one hundred and ten days to such a strength of carbolic oil are not in the least affected; we can hardly wonder at the want of success of the many treatments, based, as most of them are, on similar fallacies. Thus it is necessary to have a germicide that will act in no uncertain way, that will destroy the spores of the test bacillus with more rapidity and certainty than any other preparation, without producing deleterious local or constitutional results. Then, and not till then, may we assume the self-satisfied lethargy which has surrounded and enveloped the profession all over the world as to the treatment of ringworm; easing its conscience, as it were, from time to time by sending forth some old remedy in new guise, heedless of which, however, the trichophyton still flourishes.

In a pamphlet recently published Dr. Edgington[4] gives the results of some experiments made to prove the value of carbolic acid, corrosive sublimate, and hydronaphthol as to the respective germicide and antiseptic properties of each. While strongly recommending the reading of the pamphlet, it will only be necessary for my purpose to cull those experiments immediately bearing on hydronaphthol and corrosive sublimate. And the first experiment I would quote is that made to test the relative action of each on the spores of the bacillus anthracis and bacillus subtilis. In each case the strength of the antiseptic solution used was 1 in 1000; and it was found that in the treatment of the spores of the bacillus subtilis the length of exposure necessary to destroy them was in corrosive sublimate thirty minutes, and in hydronaphthol only ten minutes; in the bacillus anthracis a ten-minutes' exposure was necessary for hydronaphthol, while corrosive sublimate required fifteen minutes to destroy the spores. From this we may fairly conclude that hydronaphthol as a germicide is superior to corrosive sublimate, and from being non-poisonous and non-irritant it affords an ideal medicament for tinea tonsurans. As to the best means of getting the remedy constantly applied, the plasters of hydronaphthol, 10 and 20 per cent.,[5] give excellent results, limiting the propagation of the disease and causing the more rapid penetration of the germicide than any other means we can employ. The plasters also help us in starving the fungus, and to perfect this we need to hermetically seal the plaster round in the way I am about to describe. The method of treatment I have found successful is as follows: Have the head completely shaved, leaving the usual fringe all round; then wash with a 5 per cent. soap of hydronaphthol, using water as hot as can be borne. After drying the scalp, apply over the affected area a 10 per cent. plaster of hydronaphthol in narrow strips, letting each strip overlap its fellow, taking care that the plaster extends quite half an inch beyond the margin of the diseased patch. Outside the margin of the plaster paint a layer of a 10 per cent. hydronaphthol jelly (when melted) so as to exclude all air. At the end of four days remove the plaster, when the diseased stumps will be found adhering to it. Repeat all the previous process, applying for one week a 20 per cent. plaster. Repeat the process, this time applying the 10 per cent. plaster for ten days, when on removal the disease will be found to be cured. During the plaster treatment, apply a 5 per cent. ointment to the unaffected portions of the head night and morning. Care should be taken that all articles brought in contact with the head before treatment be destroyed, otherwise reinfection will take place, and the treatment be brought into discredit.

Bruton-street, Berkeley-square, W.

ON INGUINAL COLOTOMY FOR MALIGNANT DISEASE OF THE RECTUM.

BY F. A. PURCELL, M.D., M.CH.

I HEREWITH beg to describe the operation of inguinal colotomy as now performed by me, and record a few cases. The line of incision through the skin in the left side is made in a semilunar crescentic form, taking the anterior superior spine of the ilium as the centre, and about an inch and a half to its inner side, or two fingers' breadth and about three inches long, the convex curve directed outwards and downwards. The fascia and muscles down to the peritoneum from the ends of the curve are divided in a straight line, resembling the string of a bow, all bleeding vessels being secured. The peritoneum is then opened. The descending colon is to be found immediately beneath, recognised by its flat longitudinal bands; it may be overlapped by other intestine, which must be pushed aside. The gut brought out is the lower part of the descending colon and upper end of the sigmoid flexure, as much as gentle traction and coaxing will admit, the transparent iliac mesocolon is examined, and, at a point as far down the gut as possible, is transfixed by a pair of forceps carrying a small-sized piece of solid round rubber ligature. This is tied around the gut in a single knot and clamped with a pair of torsion forceps, another rubber ligature is passed round the gut as high up as possible, and fastened. The gut is thus isolated, and packed around with wet hot pads of antiseptic cotton-wool. These are placed to protect the peritoneal cavity from blood or fæcal matter on cutting the gut. The gut is now cut right across, as also about from half an inch to an inch of the mesocolon near the upper angle of the wound. The operator lays hold of the distal end by the fingers of his left hand, and his assistant holds the proximal end; all fæcal discharge is cleansed, or washed away with a syringe if necessary, and wet wool pads applied. Free bleeding takes place; all points are secured, and tied with fine catgut ligatures. The parts being dry and clean, the distal end is invaginated as far as possible, the end closed by bringing the serous coats together by a fine silk continuous suture with a fine needle. The bowel is then cleansed, the rubber ligature removed, and it is returned into the pelvic cavity. Before dealing with the proximal end, I have found it more convenient to pass all my sutures ready to close up the wound. These for the time remain loose. Three silkworm gut sutures are sufficient to close the parietes below the gut, and one at each end of the gut is made to transfix the parietes, peritoneum, and serous coat of the bowel, the bowel being kept well up in the upper angle of the wound. A suture is passed at each side through one side of the parietes and the serous coat of the bowel. All is now nicely cleansed, and the second rubber ligature unfastened and removed; the sutures are made taut and tied, no fluid whatever is allowed to obtain entrance into the peritoneal cavity, and if it should happen, it must be swabbed out clean. A pad of salicylic wool is placed over the parts and confined by means of a many-tailed flannel bandage; this completes the operation, which proves not tedious or long, and most clean.

I may here remark that the semilunar incision through the skin and the cutting the muscles in a straight line form a valvular kind of flap downwards to somewhat cover the artificial anus, and form an artificial sphincter, which has proved satisfactory. A perfect artificial anus is formed, with no chance of a fæcal fistula taking place. No procidentia of the bowel or mucous membrane has happened in any of my cases; the lower rectum has generally emptied itself soon after the operation, and it is from time to time douched out and cleansed. Very little rise of temperature occurs, and the bowels are made to act about the fourth day by a castor-oil draught. All sutures are removed on the sixth day; some may possibly be found already to have ulcerated through one side. Perfect union is found to have taken place. Any pain may be relieved by passing per anum a morphia suppository when required.

CASE 1.—Martha M——, aged forty-five, a coloured woman, from Earl-street, Edgware-road, was admitted into the Cancer Hospital under my care on Dec. 17th, 1888, suffering from epithelioma of the rectum. There is no history of cancer in her family. She has been a married woman three years; has had no children, and no miscarriages. She was regular until a short time before marriage, but since then the menses have entirely ceased. She states that she has had to do a great deal of sitting for long periods at a time at her business. She has not previously suffered from constipation; she has been suffering about a year and eight months. She first noticed a discharge of blood and slime per rectum, and felt a certain amount of pain; she has been losing flesh, and the discharge from the rectum has continued. On examination, extensive disease was found in the rectum, extending too high for excision; no inguinal glands were felt. She was recommended inguinal colotomy, but would not consent, and left the hospital on Dec. 29th, 1888. She came back on March 1st, 1889, and

[4] The Practical Value of Antiseptic Agents.
[5] Prepared by Seabury and Johnson, 46, Jewin-street.

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was readmitted. She complained of severe pain in the rectum and lower abdomen on the left side, also pain down the left thigh. She says she loses much blood per rectum. On March 2nd left inguinal colotomy was performed, exactly as above described. On the evening of March 3rd the rectum emptied itself *per vias naturales;* there was also a motion through the artificial anus. The patient progressed favourably; an occasional morphia draught (¼ gr. and ½ gr.) was administered and morphia suppositories were introduced into the rectum to relieve the pain. She continued to improve and her pains were not so severe. On June 11th she was able to leave the hospital and was made an out-patient. The artificial anus looks quite healthy, and the mucous membrane visible could all be covered by a shilling. She gets about without any difficulty but is not entirely free from pain. She has increased wonderfully in flesh. She relieves the bowels by castor oil or enema. Has sufficient sensation and control over her artificial anus to be able to keep herself comfortable and clean. On Aug. 5th she presented herself, and looks better by far than before the operation.

CASE 2.—Charles C——, aged fifty, warehouseman from Hoxton, admitted to the Cancer Hospital under my care suffering from epithelioma of the rectum. He is a married man and has three children, all of whom are healthy; there is no history of malignant disease in his family. He states that he had syphilis twenty-two years ago. He first noticed pain in both groins and in the lower part of the back, also forcing pain in the rectum eight months ago. He has also been somewhat constipated in habit, and his bowels as a rule have not acted regularly. He has been in the habit of taking aperients. Three months ago after taking a dose of castor-oil he had his bowels well opened, but also passed some blood per rectum. This is the only time that there has been any hæmorrhage. On admission he appeared extremely wasted, and his face was much drawn with constant pain. He complained of pain and sleeplessness. On examination, the rectum was found extensively diseased, the disease extending higher than the finger could reach, consequently excision of the rectum was out of the question. There was no enlarged glands discovered in the groin. Left inguinal colotomy was performed eight days after his admission; the artificial anus was formed as described. Since the operation the patient has not suffered so much pain; there has been no discharge from the rectum. Flatus passed freely through the artificial anus. On the fifth day after operation half an ounce of castor-oil was administered, which acted on the bowels. He is now fairly comfortable, takes food well, has occasional pain, which is not so severe as the pain he suffered previously to the operation. All sutures were removed by the eighth day, when perfect union was found; the anus is perfectly flat; no mucous membrane whatever visible; the opening is in fact hidden by the valvular formation. He made a good recovery. The temperature never rose much above normal.

CASE 3.—Charles H——, aged forty-three, married, a bricklayer from Chislehurst, suffering from cylindroma of the rectum, with fistulous openings down the thigh, was admitted to the Cancer Hospital under my colleague Dr. Snow in the first instance, and came under my care subsequently. He is married, with a family; no history of cancer. He has suffered from a stricture of the rectum for thirteen years. There is no history of specific disease, or of any injury; his general health has been good; he has not suffered from hæmorrhoids, but has always been of a constipated habit. He was an out-patient at St. Mark's Hospital twelve years ago, and was there told he had stricture of the rectum; he was in the habit of having a rectal bougie passed once a month. He has lost blood by the rectum on and off during the last eighteen months or more, has lost flesh, and has been unable to follow his work; the pain has not been very severe at any time. On examination, about two inches from the anus is a tight annular stricture, through which the tip of the finger passes with difficulty. Apparently there is no ulceration about the stricture, but beyond is felt papillomatous induration, especially of the anterior rectal wall. He has a sinus in the perineum, through which fæcal matter sometimes passes. The left inguinal glands are slightly enlarged. There is an offensive discharge from the rectum. Inguinal colotomy was performed in the left groin; the operation was done by the same method as before described. The patient bore the operation well and has progressed favourably since. Bowels were first moved by means of a castor-oil draught on the fifth day. The sutures were all removed on the seventh day. The patient is much more comfortable in his feelings, and now does not dread eating, as he feels he can pass a motion with confidence.

These cases were shown, as also photographs of the openings, at the "clinical evening" of the Medical Society of London, on Monday last, when my colleague, Mr. Jessett, showed other cases. The operation was the outcome of deliberations between us, and I have to thank him for his suggestions, which I was enabled to carry out with the utmost success, and which we have styled "A Novel Method of Inguinal Colotomy."

Manchester-square, W.

RHINOSCOPIA POSTERIOR: A NEW METHOD RECOMMENDED FOR OPERATIONS IN THE NASO-PHARYNX.

BY DR. C. DORN.

THE patient is placed on a couch in a supine position, the head hanging over the edge, being strongly bent backwards on the spine, so that the plane of the face is almost vertical. The soft palate and uvula must be fixed by means of a suitable hook (one which keeps in its place without being held by the patient or surgeon). The patient, if sensible enough, may depress his tongue himself; in other cases a gag and automatic tongue depressor must be employed. The surgeon, armed with a reflector, sits on a low chair opposite the head of the patient, his chest being turned towards the patient's face and parallel to the same. The source of light is the same as in ordinary laryngoscopic examinations, but, of course, placed somewhat lower. A laryngoscopic mirror is now introduced along the tongue (the non-reflecting surface, of course, being kept against the tongue), until near the posterior pharyngeal wall the rhinoscopic image in the mirror is seen. As *point d'appui* for the mirror the upper or lower lip may be used. The rhinoscopic image can be seen with remarkable clearness, especially the roof of the naso-pharynx; the tonsil of Luschka and the posterior wall appear in plastic clearness and beauty. Even the smallest folds do not escape the eye, and comfortably one can examine in this manner all the minutest irregularities of the surface. By means of small movements any part of this space may be illuminated. With the greatest ease one can now sound and probe any part, introduce instruments (of course appropriately curved), practise cauterisation and the application of caustics, at the same time always seeing clearly what is being done.

For diagnostic purposes this method is not necessary, and not even recommended. I only advise it for operative purposes, and claim this as its advantage over the usual one, that its manipulation is extremely easy; the light is reflected downwards instead of upwards, and the operation is not done above the mirror, but below and in front of it. In short, the manipulations now become the same as in the case of endo-laryngeal procedures. But the most important factor is, that the eye of the surgeon can easily control and watch any movement of his instrument. This is my chief claim for this new method, as it makes the conditions for any radical operation much more favourable. A further advantage is that, the head being pendulous, saliva or blood or portions of tissues removed cannot fall into the larynx. So far I should recommend this method only to be employed in the case of adults for the treatment of naso-pharyngeal tumours, or where one wishes to apply caustics strictly locally. The parts being in full view, one can easily grasp a tumour at its base; with the ordinary method this could only be done with difficulty, having used fingers and instruments to grasp the tumour, and at the same time molested the patient considerably, or during narcosis run the risk of blood trickling into the larynx. Blindly to grasp a tumour and then extract it is, *per se*, contradictory and revolting to true surgical principles.

I prefer not to venture an opinion as to the applicability of this method in the case of adenoid growths in children. At some future time I hope to discuss more fully the indications for the use of this method. By means of this preliminary notice I only desire to rouse some interest for this method, which, excepting the somewhat

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awkward position of the patient, is certainly preferable to the older method. In this spirit I ask my colleagues to try this method of posterior rhinoscopy.

Berlin.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON SULPHONAL.

F. R. WALTERS, M.D., M.R.C.P.,
PHYSICIAN TO THE NORTH LONDON CONSUMPTION HOSPITAL.

THE following case of insomnia treated with sulphonal may be of interest. The patient was a single lady of seventy-two, who had five months previously suffered from cerebral hæmorrhage. She was the subject of severe lateral curvature, but up to the time of her seizure had enjoyed fairly good health. The attack left paralysis of the right arm and leg, with slight aphasia. During the first three months she improved in health, and the leg became decidedly stronger. Then, in consequence of a fall, there was a fracture of the eighth rib on the right side close to the spine, and the arm became contractured and the hand swollen, painful, and deformed. At the same time, the mental powers (which had never quite returned after the first seizure) began to fail more decidedly. The patient became drowsy during the day, restless at night, and less intelligent. Bromides had been from time to time given before this with or without chloral, and small doses had induced sleep, a mixture containing carbonate of ammonia being taken during the day. The bromide was now pushed, but, causing great drowsiness and depression in the daytime, had to be omitted. Sulphonal was then tried, at first in ten-grain doses, which did not answer, then in fifteen-grain doses, which were uncertain in their action. Twenty grains taken an hour before the ordinary bedtime answered well on several occasions, and appeared to cause less drowsiness in the day than the bromide; but the patient was apt to be very talkative and restless on the following day and night, even if the sulphonal were again taken. On one occasion twenty-five grains were taken, but not continued as the patient began to sink, and died six months after the first attack. She was bedridden the whole time, and suffered frequently from diarrhœa or constipation, which readily yielded to mild remedies. There was no albuminuria, but the urine was usually about sp. gr. 1010 and acid. Towards the end there was urinary incontinence.

Finsbury-circus, E.C.

OPIUM POISONING.

BY H. R. BRAMWELL, M.B., C.M. EDIN.

THE following notes of a case of opium poisoning in an infant are perhaps worth recording. On Nov. 9th I was called in to an infant, aged three months, and found it semi-comatose, with pin-point pupils. The mother had given it a teaspoonful of laudanum about an hour previously, in mistake for the child's medicine, and the characteristic symptoms had come on rapidly. Vomiting had occurred shortly after the dose was taken. I ordered strong coffee to be given immediately, both by mouth and per rectum, and injected subcutaneously two minims and a half of the liquor atropiæ sulph. (B.P.), equal to a fortieth of a grain of sulphate of atropia, and directed that all possible means should be used to keep the child awake all night. I failed to produce emesis after giving ipecacuanha, mustard-and-water, and tickling the throat. By the evening of the next day the infant had quite recovered from the effects of the drug. I may add that for several days previously the mother had been surreptitiously administering small doses of laudanum to keep the infant quiet, and possibly, therefore, the overdose was tolerated better than it would otherwise have been. Doubtless also the major part of the teaspoonful was vomited shortly after being taken.

Stapleford, Notts

ON THE SIGNIFICANCE OF PERFORATIONS THROUGH THE ANTERIOR PILLARS OF THE FAUCES.

BY WALTER FOWLER, M.A., M.B., F.R.C.S.,
PATHOLOGIST TO THE CENTRAL LONDON THROAT AND EAR HOSPITAL.

WHILE examining throats, more especially of those who seek relief from deafness and otorrhœa, one not infrequently observes perforations through the anterior pillars of the fauces. In the majority of cases these perforations are bilateral and symmetrical; less commonly they are bilateral and asymmetrical, occasionally unilateral; and always free from adhesions or contractions. Taken by themselves, it is admitted on all hands they afford no evidence of syphilis (congenital or acquired); they are generally considered as congenital deformities. This view I feel sure is erroneous; for if the margins of the perforations be carefully examined cicatricial tissue can be made out, thus showing them to be due to ulceration. Further, corresponding to the perforation there is always more or less loss of tonsil, and from the anatomical disposition of the parts it is easy to understand how a perforation through an anterior pillar of the fauces may be produced by an abscess or a slough in the corresponding tonsil. In one case that has recently come under my notice the perforations were unusually large, and the tonsils were reduced to mere stumps, from which grew right across the base of the tongue a broad and elevated ridge of tonsillar tissue (compensatory hypertrophy). In this case the information was volunteered of a severe "phlegmonous tonsillitis" (*sic*) during an attack of scarlet fever.

Since my attention has been drawn to the subject I have in all cases obtained a history of scarlet fever or recurrent attacks of quinsy. Hence I look upon these perforations as caused by suppurative or phlegmonous mischief in the tonsils; and considering the circumstances under which they are generally met with, the lesion is most probably a sign of antecedent scarlet fever.

Finsbury-pavement, E.C.

CHRONIC ECZEMA TREATED WITH OLEUM DEELINÆ.

BY THOMAS F. RAVEN, L.R.C.P.

WILLIAM B—— at the age of three began to suffer from eczema; it originated, without doubt, from injudicious feeding. The face was first affected, and subsequently the whole surface of the body. At different times the limbs, back, face, and neck would be most severely attacked. The disease proved intractable for a number of years, during which time he was twice in hospital, under the care of one of the most eminent dermatologists, and although much good was gained at the time, the improvement was not maintained for more than a few weeks.

In February of this year I commenced the use of oleum deelinæ. It was first applied to the left forearm, and in forty-eight hours the result was so good that I had it painted over the whole affected surface—nearly half of the body—night and morning. In six weeks the disease was practically cured, after thirteen years' duration, and although the patient has some occasional reminders of the old enemy, and the skin is still harsh and thickened, yet he is now, after eight months, capable of doing a fair share of daily work as an artisan, while his general health, which had considerably suffered, is proportionately improved.

Broadstairs.

TYNEMOUTH INFIRMARY.—The fourteenth annual meeting of the Victoria Jubilee Infirmary was held on Monday at the Town Hall, North Shields. Mr. R. S. Donkin, M.P., occupied the chair. The annual report, which was very satisfactory, stated that the income for the past year, was £516 5*s.* 11*d.*, being £126 8*s.* 1*d.* in excess of the previous year, and the largest on record. During the year 50 cases had been admitted to the infirmary, and there were 32 out-patients—total, 82; and about 600 sick requisites were gratuitously lent out. The financial statement showed a balance in hand of £524 1*s.* 4*d.*

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A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procœmium.

EVELINA HOSPITAL FOR CHILDREN.

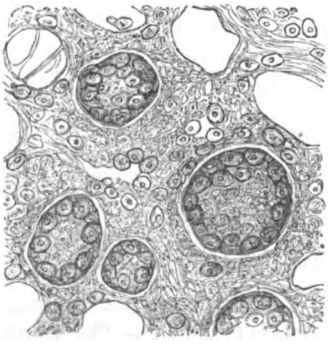
CASES FROM THE SURGICAL OUT-PATIENTS, WITH REMARKS—(*Concluded*).

(Under the care of Mr. FREDERIC S. EVE, Surgeon to out-patients, and Mr. LEONARD A. BIDWELL, Registrar.)

THIS case of localised tuberculosis of the cheek, which was noticed at the time of the birth of the child, is one of considerable importance, and Mr. Eve draws attention to its rarity in his remarks. In a leading article on heredity in tuberculosis[1] we have discussed the question as to the possibility of its occurrence; there was then hardly a well-authenticated case on record of the disease being present in the fœtus or the new-born, and the one or two instances of fœtal tuberculosis recorded were not beyond suspicion of being examples of syphilis with widespread visceral lesions. Since we drew attention to this subject much more information as to the development of tuberculosis in children has been accumulated, chiefly at the Congresses held in Paris, notably by Lannelongue,[2] Hervieux, Landouzy,[3] Queyrat, Fræbelius, Malvoz,[4] and Schwer. Hervieux states out of 996 post-mortem examinations on children under two years of age, only 18 were affected with tubercle, and of these eighteen two were not fifteen days old. Fræbelius of St. Petersburg gives a proportion of 0·4 per cent. in children aged from one to four months. Schwer in a long series found only one undoubted case under nine weeks old. Lannelongue, in 1005 examinations, found but four children under the age of one month with tuberculosis, and remarks, when discussing the question of heredity after a consideration of the evidence: "All these instances appear to us to carry strong support to the doctrine of intra-uterine infection of the fœtus, whatever be the mode of production." This view is opposed to many of the older theories, such as those of Virchow and Koch; we cannot, however, pursue the question further at present.

CASE 6. *Congenital tubercular tumour of face.*—S. B——, a male infant eight weeks old, was brought as an out-patient on Feb. 22nd. On the right side of the face, just

FIG. 3.



below and to the outer side of the angle of the mouth, there was a hard disc-shaped tumour the size of a shilling; it seemed about a quarter of an inch in thickness, and could be easily felt from the mouth, but the mucous membrane was not adherent to it. The skin over it was adherent, and of a yellow-ochre colour, and in the centre was a small scab. The tumour was noticed at birth; a fortnight later there was some bleeding from it, and since then it had increased in size. It was removed by an elliptical incision, without opening the buccal cavity; the wound, being easily closed, healed by first intention. Microscopically the tumour was made up of nodules in which were numerous giant cells surrounded by masses of leucocytes. These were embedded in much fibrous tissue mixed with the ordinary structures of the cheek. The tumour on section was of a yellowish colour. (See Fig. 3.)

Remarks.—This case is interesting from the standpoint of diagnosis and pathology. In general physical characters the tumour might well have been taken for a sarcoma, or even an adenoma of the skin, although its peculiar yellow tint was suggestive of caseation; yet there was no evidence of breaking down, and the tumour was of uniformly firm consistence. The microscopic appearances left no doubt as to its tubercular nature. Further, the fact that it was congenital, a statement insisted on by the parents, is pathologically of great importance. Until recently we believe only one undoubted case of congenital tuberculosis, and that in a calf, had been recorded.[5] Our patient exhibited no other evidence of tuberculosis, but few would be disposed to question the tubercular nature of the nodule on the ground that it was congenital. A mass of evidence, both clinical and experimental, has recently been accumulated, proving incontestably that tuberculosis may be directly transmitted from mother to fœtus. Experiments have demonstrated the existence of the tubercular virus in the lung and in the blood of apparently healthy fœtuses born of tuberculous mothers; and also in the placenta of the mother. Several cases of tuberculosis within the first month of life have been observed, and four cases in the first fifteen to twenty-one days. In two of them the infants died with well-developed tuberculosis at twenty to twenty-one days respectively—a period insufficient for the development of acquired tuberculosis, and rendering any explanation of the origin of the disease otherwise than by hereditary contagium impossible. Lannelongue observed a synovitis of the knee in an infant aged fifteen days, the joint having been swollen at birth; it subsequently developed into typical tuberculous disease.

Tumours of the spermatic cord are almost always connective tissue growths, and the majority of those recorded were of the nature of lipomata or myxo-lipomata. They are difficult to diagnose in the early stage, resemble omental hernia if they extend into the abdomen, and may also simulate hydrocele of the cord. In the cases described below hernia was present on the same side as the tumour.

CASE 7. *Left inguinal hernia with myxoma of the cord.*—Robert H——, eighteen months old, was seen in Jan., 1889. He had a congenital inguinal hernia on the left side. On reducing the hernia a distinct tumour was felt just above the testicle. This was soft and semi-fluctuating in consistence, and on puncturing it with a small trocar a little gelatinous fluid escaped. The tumour was not diminished in size. The child was admitted into hospital and an operation undertaken, with a double purpose of curing the hernia and removing the tumour. Dissection demonstrated that the lower end of the hernial sac terminated in a disc-shaped mass of soft mucous connective tissue, which was unconnected with the testicle. The tumour, with the hernial sac, was dissected out, and the neck closed in the usual way. Complete recovery followed. The tumour on section proved to be a myxoma.

CASE 8. *Left funicular hernia, with (?) myxoma of cord.*—A. B——, a healthy-looking boy aged three, was seen first on March 16th. He then had a small congenital funicular hernia on the left side. He was treated with an ordinary truss, and the hernia did not reappear. On May 10th he was brought again on account of a lump which had formed below the old hernia. This nodule was firm and apparently painless, about the size of a filbert, and was situated at the bottom of the hernial sac between this and the tunica vaginalis. It was attached to the spermatic cord. The mother was advised to leave the child as an in-patient; this she refused, and unfortunately she has not brought up the child again.

Remarks.—Cases 7 and 8 present great similarity, and from the experience gained by the first case we were led to consider the second to be of a like nature. In this region

[1] THE LANCET, vol. i. 1887, p. 1140.
[2] Études Experimentales et Cliniques sur la Tuberculose, Congénitale et Précoce.
[3] La Tuberculose dans la Première Enfance. Premier Fascicule du Congrès pour l'Étude de la Tuberculose, 1889.
[4] Sur l'Hérédité de la Tuberculose. Deuxième Fascicule 1889.
[5] THE LANCET, vol. i. 1886, p. 465.

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fatty and myxomatous tissues are occasionally combined; and we could refer to cases of apparent lipomata of the cord, which have been found on microscopic examination to be really myxolipomata. It would appear in such cases that hyperplasia of myxomatous tissue took place, and this subsequently underwent fatty degeneration. This may, in a measure, explain the occurrence of lipomata in a tissue—namely, the spermatic cord—usually devoid of fat.

ANCOATS HOSPITAL, MANCHESTER.

CHOLECYSTOTOMY; HYPOSTATIC PNEUMONIA; DEATH.

(Under the care of Mr. E. STANMORE BISHOP.)

THIS is a case in which the operation for the removal of stones from the gall-bladder was undertaken in a woman of advanced age who had suffered from symptoms of gall-stones for four months, but without jaundice. At the operation, several stones were found and removed, the gall-bladder, which was attached by numerous adhesions to the surrounding parts, was stitched to the parietal peritoneum after it had been emptied of its contents. The patient died four days later from hypostatic pneumonia, the condition of the parts operated on being, however, in a satisfactory state. Death was not directly due to the operation. Cholecystotomy has been performed with varying success by different surgeons during the last few years, chiefly for the relief of conditions depending upon the presence of gall-stones, and when it is considered what the consequences of the formation of such stones may be and the diminishing mortality of the operation, it is not surprising that the number of patients who submit to it at an early date is increasing. Moreover, it is now recognised that jaundice is a serious complication when relief by operation is sought. Greig-Smith[1] says: "Jaundice, therefore, in all cases coming up for operation must be regarded as a contraindication, and especially so if the jaundice be of long continuation"; and again, "cholæmia, not only as weakening and depressing the patient, but also as predisposing to bleeding, is an unfavourable element. In only seven of Mussa and Keen's series of thirty-five cases of cholecystotomy was jaundice present, and five of them died, half of the whole mortality." This condition was the ultimate cause of a fatal termination in a case of "unique biliary fistula," which we published in May of this year.[2] The description of the operation in this case is that of the modern operation of cholecystotomy, interrupted sutures of catgut being used to attach the gall-bladder to the parietes after it had been emptied, instead of the continuous suture of silk as recommended by Greig-Smith.[3] The important thing is to secure adhesion of the apposed peritoneal surfaces so as to prevent escape of fluid into the peritoneum, and recognition of the importance of this has induced many surgeons, from Richter[4] onwards, to recommend division of the operation into two stages, a method frequently adopted in operation on the gastro-intestinal canal. It has sometimes been found impossible to unite directly the gall-bladder to the abdominal wall. In a case presenting this difficulty Mr. Robson[5] has practised omentum-grafting with success; and others have resorted to sponge-packing. Immediate suture of the incision of the gall-bladder and its return into the peritoneal cavity, the external wound being closed, has not been very successful. Depage[6] gives six cases; of these, three died, one had recurrence and two recovered. The alteration of structure produced in the wall of the gall-bladder by inflammation, and the increased difficulty in completing the operation caused by surrounding adhesions, form additional reasons for early operation. We have published several cases of cholecystotomy during the last three years, by Messrs. Page,[7] Tait,[8] Nairne,[9] Torrance,[10] and Knowsley Thornton.[11] For the following notes we are indebted to Mr. Fletcher Boycott, senior house-surgeon.

M. A. S——, aged sixty-four, married, was admitted into the hospital on July 7th. She has had three children, the last seventeen years ago. The first two children were by her first husband, after which she was a widow for fifteen years. Until fourteen years ago her health was very good, but she then had a sharp attack of bronchitis, which recurred every winter, accompanied during the later years by asthma. During the last three years she has suffered constantly from both. She has never had any jaundice. Two years since she first began to complain of pain in her right side, just above the right hip. Nothing was to be seen or felt until the beginning of March, 1889, when she first discovered a lump, which became more and more painful. In May, 1889, she presented herself at the hospital as an out-patient. She complained of cough and dyspnœa, with pain on the right side of the abdomen, shooting downwards towards the groin; sputa nummular, with some pus; breathing short, but she said it was easier than usual. Auscultation showed loud bronchial râles over the whole chest; cardiac sounds normal; bowels usually costive. The abdominal muscles were firmer on the right than on the left side. There was an area of dulness in the right hypochondriac and lumbar regions, extending somewhat into the right iliac region. Behind, in the lumbar spaces, the percussion note was clear; above, below the liver dulness, there was a space of two fingers' breadth, in which the percussion note was doubtful, some of those examining believing it to be slightly resonant, others dull. The outline of the mass was irregularly rounded below, but its contour above could not well be made out. It was not movable from above downwards, or from side to side. There was no fremitus or thrill. The urine was scanty, but free from albumen, sugar, or casts. She had noticed that it was scantier when the pain was most severe. Hypodermic puncture showed entrance of the needle into a cavity, and some colourless fluid was removed which, under the microscope, showed no casts or crystals, but numerous fattily degenerated round cells, about the size of leucocytes. A second puncture, made some days later, entered apparently a perfectly solid mass, and no fluid came through the needle. When withdrawn the needle contained a little blood.

As she was in much pain and very anxious to have something done, an exploratory incision was decided upon, with permission to act as circumstances might direct. Accordingly on July 11th, 1889, assisted by Prof. Hare, Messrs. Boycott and Duckett, Mr. Bishop made a longitudinal incision in Langenbuch's line, and immediately over the tumour. After carefully dividing the abdominal wall down to the peritoneum and arresting all hæmorrhage, the membrane was sufficiently opened to permit of the entrance of two fingers. Immediately a distended and adherent gall-bladder was found filled with gall-stones. The bladder had been evidently dragged downwards and outwards by the old adhesions, which united it to skin, ascending colon, and to the posterior layer of the peritoneum. The union to the skin anteriorly was not sufficient to permit of being utilised as a vent, and the lateral and posterior adhesions absolutely prevented any drawing forward of the gall-bladder so as to make an opening outside the abdominal cavity; so sponges were carefully packed around and a small opening made in its wall. As soon as this was done, the edges of the cut were seized with forceps and drawn forwards, and the opening enlarged sufficiently to permit of the entrance of a pair of Tait's forceps. With this several stones, eleven in number, were removed, weighing in all 378 grains, the first, or those lodged nearest the fundus being small and irregularly triangular, the last two, which were polygonal and weighed respectively 124 grains and 111 grains, being lodged high up and encroaching on the cystic duct, the duct beyond allowed the passage of a probe, and seemed quite free. The edges of the cystic opening were now stitched firmly with catgut to the opening in the peritoneum, so that that membrane became opposed to the gall-bladder for about one-sixth of an inch all round, during which process the sponges were removed seriatim, and showed no stain of blood or bile. The skin wound was next united with horsehair sutures, except directly over the opening into the gall-bladder, where each skin edge was sewn down to the gall-bladder edge of the same side. The whole was dressed with boric acid and dry Gamgee tissue. The patient was not much exhausted, and was returned to bed in an isolation ward.

2 P.M. (half an hour afterwards): Temperature 96·8°; pulse 97. Cough very troublesome. 3.30 P.M.: Pulse 104. Dressings stained with bile; partially redressed. Cough still frequent. Cough mixture ordered. 4.10 P.M.: Enema

[1] Abdominal Operations, third edition.
[2] Unique case of Biliary Fistula. Copeman, THE LANCET, vol. i. 1889, pp. 1020, 1075.
[3] Op. cit.
[4] 1798 A.D.
[5] THE LANCET, vol. ii. 1889, p. 905.
[6] Ibid., vol. i. 1889.
[7] Ibid., vol. i. 1887, Mirror of Hospital Practice; vol. ii. 1889, p. 212.
[8] Ibid., vol. i. 1888, p. 716; vol. i. 1889, p. 1299.
[9] Ibid., vol. i. 1888, p. 616.
[10] Ibid., vol. ii., p. 1123.
[11] Ibid., vol. i. 1887, p. 1068.

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of half an ounce of brandy and one ounce of beef-tea given. 4.30 P.M.: Sick the first time after operation. 5.15 P.M.: Pulse 110. Three ounces of urine drawn off. 6.15 P.M.: Has slept nearly one hour. Enema repeated. Temperature 98·8°. 8.15 P.M.: Has slept half an hour. Sick. 8.30 P.M.: Dressing again stained with bile; dusted over with boracic acid, and covered by more Gamgee tissue. Complains of pain in the back, and slightly at the wound. 9 P.M.: Has slept twenty minutes. 9.30 P.M.: Dressed. Glass tube attached to drainage-tube, and connected with another passing into a bottle beneath the bed. Very sick during last quarter of an hour. Cough troublesome. 10 P.M.: Temperature 98·4°. A fourth of a grain of morphia given, in the form of a suppository, to relieve pain. 10.35 P.M.: Vomited again. 10.50 P.M.: Nutrient enema repeated. The patient was fed at first entirely per rectum, with enemata consisting of one ounce of beef-tea and half an ounce of brandy every four hours, with the exception of some brandy by the mouth after July 12th. This on the evening of the 14th was changed for champagne, of which she took pretty freely, until near her death. Besides, she was given food in a concentrated form every two hours alternately after mid-day, July 13th. Sickness was constant after its commencement. Nothing appeared to do more than relieve it. Ice, hot water, and mustard to the epigastrium; brandy and soda, and champagne, had little or no effect, and it continued with more or less intensity until death. Considerable bronchial irritation was also present. Sleep was obtained for periods of from ten to twenty minutes; in the twenty-four hours on an average about four hours. From the time of operation until death a fairly continuous flow of bile escaped from the opening in the gall-bladder. The dressings were soon soaked through, so a drainage-tube was placed in the bladder, with its free extremity pointing upwards, and the other attached to a glass (V) from the opposite limb of which a rubber tube passed into a bottle attached to the side of the bed. This for the first few hours drained well; but as the fluid ceased to pass, owing, it seems probable, to its glutinous character, this had to be removed and small pieces of sponge were kept constantly replaced over the wound. In the first twelve hours nine drachms of bile were received by the bottle. At 9.15 A.M., on the 14th, she began to experience some difficulty in swallowing, which gradually increased. The nutrient enemata were returned first at 10 A.M. on the 13th. Twenty minims of tincture of opium were added to the next enema, but after this time the bowel became more and more irritable, and the injections were generally rejected within a few minutes. At 3.45 P.M. on the 14th the patient showed signs of collapse, and pulmonic hypostatic congestion was evidently present. Champagne and other diffusible stimulants were given freely, but there was no reaction, although death did not occur until 1.40 P.M. on the 15th.

Post-mortem examination (limited to the abdomen).—The skin wound was united, but separable with very slight force. The deeper tissues were also lightly glued together with lymph. The peritoneum was united, but not firmly. There was no pus anywhere about the wound. At the line of union of the gall-bladder to the peritoneum and skin the process of healing was not very advanced. The sutures were all secure, however, and there had been no escape of bile into the peritoneal cavity. The gall-bladder was much contracted, and would now hold about one drachm and a half of fluid. The mucous membrane was perfectly healthy. The gall-duct was pervious, normal in size and calibre, and healthy in appearance. There was no trace of peritonitis. As permission was not given for opening the thorax, the cause of death could not be demonstrated; but judging from symptoms during life, there could be no doubt that it was due to hypostatic pneumonia.

THE WEST SUSSEX (CHICHESTER) INFIRMARY.—The sixty-third annual report, just circulated, sets forth that the average daily number of patients in the house was about the same as last year—viz., forty-three. The expenditure for the year had increased by £224 3*s.* 9*d.*, but, notwithstanding, the debit balance had been reduced from £421 19*s.* 9*d.* to £26 11*s.* 5*d.*, due to more legacies than usual being received during the year. The income from other sources amounted to £2079 4*s.* 9*d.* only, while the disbursements were £3057 16*s.* 5*d.*

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Cholecystenterostomy.

AN ordinary meeting of this Society was held on Nov. 26th, the President, Sir Edward Sieveking, being in the chair.

Mr. MAYO ROBSON of Leeds read a paper on a case of Cholecystenterostomy. The patient, a married woman, had had abdominal section performed in April, 1887, for pelvic distress, on account of which she had been a confirmed invalid for several years. After the operation, in which a right pyo-salpinx was removed, she had been able to resume her work and had enjoyed excellent health. On Jan. 9th, 1888, she was readmitted to the infirmary, suffering from acute peritonitis, with a tumour in the region of the gall-bladder. On Jan. 14th laparotomy was performed through the upper part of the right linea semilunaris, and eight ounces of fœtid pus removed from the gall-bladder. Exploration of the ducts by finger and probe failed to discover any gall-stones. The gall-bladder was stitched to the abdominal wound and drained, and the patient made a good recovery, with the exception of having a biliary fistula. Although she retained good health during the fifteen months when the fistula was open and discharging the whole of the bile, her condition was a very miserable one, since no apparatus could be satisfactorily made to catch the overflowing fluid when she was walking about, and her dressings and clothes soon became saturated. On March 2nd, 1889, cholecystenterostomy was performed by reopening the abdomen through the old cicatrix in the right linea similunaris. The viscera in the neighbourhood were found to be so matted together that it seemed to be impossible to fix the gall-bladder to the duodenum, and as the hepatic flexure of the colon was conveniently near, the gall-bladder was fixed to it by a double row of chromicised catgut sutures, a free communication being made between the two viscera, and the outer opening (the old fistula) of the gall-bladder was stitched up. In order to guard against accident a glass drainage-tube was placed in the right kidney pouch, and brought out of the lower end of the wound. The outer surface of the gall-bladder evidently gave way to some extent, for bile appeared through the drainage-tube within a few days of the operation, followed shortly by a fæcal discharge. The wound granulated, and after a few weeks completely healed, the motions towards the end becoming more and more bile-stained, until they became quite normal. The author believed the operation was first proposed by Nussbaum, who suggested its use in cases of irremediable obstruction in the common duct. He believed that the operation has only been done once successfully before the present case, and that by Kappeler on a woman aged fifty-one. He thought that it had never been previously performed for the cure of a biliary fistula. Since writing his paper the author had had a communication from M. Terrier of Paris, saying that he had performed the operation successfully in a case of irremediable obstruction of the duct, and another case had also been reported from America.

Dr. G. HARLEY desired to discuss the case from a medical point of view. It might suggest itself to some that it would not matter where the biliary fistula was made into the bowel, but that was a gross error. Though the fæces had assumed their biliary tint, that did not prove that the bile had performed its proper functions. The bile rendered the food fit for absorption and assimilation, but this could not occur if the fluid did not enter the intestine above the ilio-cæcal valve. He had found that dogs in which he had made a biliary fistula lost flesh, though they were able to make this up if they were given extra food. The priority in performance of this operation belonged to Weinwater, who did it in 1882, and a *résumé* of this and other experiments was to be found in the *British Medical Journal* for Feb. 1887.

Mr. KNOWSLEY THORNTON was the more ready to congratulate Mr. Robson on the success of his case as he had always been an opponent of the operation. The case related was certainly an exceptional one, and he thought it would be wiser to wait a longer period before judging fully of its value; perhaps the opening between the gall-bladder and the intestine might close up. It had been proposed to

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substitute cholecystenterostomy for cholecystotomy and cholecystectomy, but the two latter operations had given, so far, brilliant results, and he thought nothing better could be wanted so long as there was a patent common duct. In such a case as that related might it not have been possible to have opened and dilated the cystic duct? The question of treatment of a single diseased appendage had been raised; he held that only one should be removed, and not both; the patient then made a far better recovery and became a healthy woman in every sense of the term, capable even of bearing children. The question of operation during acute peritonitis he had recently discussed when consulting with Dr. Keith over a case of ruptured tubal gestation, and they both agreed that in that instance it would be better to avoid operation in the acute stage if possible; for the patients, if they did not die, recovered with extreme difficulty; it was better to operate in the subacute or chronic stage. As regarded the relative value of cholecystotomy and cholecystectomy, he confessed that the impression was gaining ground with him, that cholecystectomy was the better operation. He agreed that any soft elastic ligature round the colon was better than complicated and elaborate clamps.

Dr. F. LITTLE asked if cases such as these could not be relieved by manipulation.

Mr. BARKER inquired as to the manner in which the elastic ligature was applied, and if there was any bleediug when the clamp was removed.

Mr. GODLEE thought it would be better to maintain the opening externally till the communication with the gut was firmly established. He had had two cases, one of hepatic abscess and one of hydatid, in which there was profuse discharge of bile accompanied by great emaciation.

Dr. BARNES referred to a case of an American physician from whose gall-bladder Mr. Lawson Tait removed a large mass of stones, with a successful result. He thought the surgeon was rapidly taking these cases from the hands of the physician.

Mr. ROBSON, in reply, said that he tried to dilate the cystic duct; he passed a solid bougie, and used as much force as he dared, without result. He would certainly not do the operation in preference to cholecystotomy. Kappeler had proposed cholecystenterostomy for cases of bile-stone lodged in the common duct, but these should be either dislodged or crushed. He felt that, in cases of single disease, we ought not to remove the healthy uterine appendages, though in his own experience he had met with two cases in which recurrence in the remaining organs took place, so that they had to be removed by a second operation. Acute peritonitis was nearly always a secondary disease, and he thought it much more serious to leave the patient than to operate at once. All cases of peritonitis should be looked on with a surgical eye. The elastic ligature was simply a piece of drainage-tube passed round the coil of bowel which was drawn out; the tube was held tightly round by being pinched with pressure-forceps. There was no bleeding when it was removed. Massage, as proposed by Dr. Little, would be an eminently dangerous procedure when applied to a distended gall-bladder. He preferred to close the opening in the gall-bladder at once rather than perform later a second operation. He felt sure that it could not have been the amount of bile lost that made Mr. Godlee's patients emaciate. His observations led him to conclude that bile was simply an excretion.

CLINICAL SOCIETY OF LONDON.

Pyloric Gastric Ulcer.—Rheumatic Periostitis.—Ptomaine Poisoning.—Tumour of Supra-orbital Nerve.

AN ordinary meeting of the Clinical Society was held on Nov. 22nd, Mr. Warrington Haward, Vice-President, being in the chair.

Dr. SIDNEY MARTIN related a case of Pyloric Gastric Ulcer with systolic epigastric thrill, causing death by hæmatemesis. The patient, aged forty-two, a tall, well-built man, had suffered for eleven months from gastric symptoms, pain after food, constipation, great wasting, and occasional vomiting. On admission into Victoria Park Hospital he had the same symptoms. There was epigastric pulsation over a large area, with a very fine systolic thrill over an area just below the ensiform cartilage. This thrill was constantly present. There was some fulness in the epigastrium, but no expansile pulsation; the stomach was dilated. After two attacks of hæmatemesis, one of fourteen ounces eleven days before death, and the other of eighteen ounces eight days before death, the patient became collapsed and died. Besides slight chronic aortic and mitral valvular disease, and some fibroid degeneration of the kidney, the necropsy revealed a pyloric gastric and duodenal ulcer, causing puckering of the pylorus and obstruction of the outlet. The stomach was full of liquid. The epigastric pulsation and the epigastric systolic thrill Dr. Martin explained by the aorta pulsating against the stomach full of liquid, which found a difficult exit through the pylorus. The thrill was compared as to character to the hydrated thrill or fremitus, the pulsations of the aorta in the case under consideration rendering the thrill systolic.—Dr. HADDEN recently made a post-mortem examination on a man between twenty and thirty years of age, who had a large ulcer of the stomach. The parts about the pylorus were much cicatrised, and there were hypertrophy and dilatation of the gastric walls, but he knew nothing of the clinical history of the case. His opinion was that gastric ulcer very rarely extended to the duodenum. — Mr. WARRINGTON HAWARD asked what was the relation between gastric ulcer and pulsation. Cases often came under the care of surgeons with marked pulsation of the abdominal aorta. He related one case in which there was a curious set of gastric symptoms. There was gradually progressive emaciation, accompanied by vomiting, epigastric pain, dry mouth, myosis, and melancholy. The patient did not vomit blood, and there was no sign of ulcer except pain, which was increased on pressure; being dissatisfied with the treatment, he went home and got quite well. He had seen two other cases of well-marked abdominal pulsation, and Dr. Sidney Phillips had published a series of them. He had heard of no really satisfactory explanation of the cause of the pulsation; in his cases it was certainly not transmitted through fluid.—Dr. SIDNEY PHILLIPS said that these cases had long been recognised; they had been described, indeed, by Albus in the last century. The latter writer related several cases of abdominal pulsation associated with the vomiting of blood. He himself had collected a great number of cases, but Albus's description of their main features left nothing to be desired. A necropsy in many cases had shown a healthy stomach. Laennec had pointed out that the cause in some instances was a contraction and matting together of the intestines around the aorta, so as to form a sort of tumour. The bruit often developed suddenly. It was certainly curious that there could be so much pulsation, accompanied by a bruit, a thrill, and severe hæmatemesis and yet that there should be no ulcer of the stomach.—Dr. BENHAM asked if there were marked contraction of the pylorus, and whether the malignant nature of the growth had been proved microscopically.—Dr. FRANCIS TAYLOR had seen more than one case in which there was violent pulsation of the aorta associated with acute symptoms, both after a time entirely subsiding.—Dr. MACLAGAN had found this class of case chiefly in persons of neurotic habit. He did not think that a distended stomach alone would explain the thrill, for he had examined many full stomachs which did not show it.—Dr. MARTIN, in reply, thought the mechanical explanation of the thrill the better one. He did not see the necessity of appealing for explanation to the vaso-motor or central nervous system.

Dr. COUTTS and Dr. A. E. GARROD described three cases in which Periosteal Nodes were developed in the course of attacks of Articular Rheumatism. The first case was that of a boy aged eleven, who suffered from arthritis, had a mitral regurgitant murmur, and developed successive crops of subcutaneous nodules. He also developed a diffused swelling upon the subcutaneous surface of the right ulna, oblong in shape, with the long diameter in the long axis of the limb. The skin covering the swelling was natural. The swelling measured about one inch by half an inch. The boy was discharged with the swelling still present, some two months after its first appearance. The second patient was a girl aged eleven, who developed a similar swelling in the same situation in association with arthritis, chorea, subcutaneous nodules, and a mitral murmur. The third patient was a young man aged twenty-four, who developed a swelling of the same character in the same situation, in the course of an attack of subacute articular rheumatism with arthritis, a nodule upon the right olecranon process, and a mitral systolic murmur. In each of the last two cases the node upon the

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subcutaneous surface of the ulna disappeared in about three weeks, leaving only perceptible thickenings in the situations in which they had been. In none of the cases was there any history of syphilis, congenital or acquired, nor was there any evidence of that disease. Erythema nodosum could be excluded in all of them, the skin covering the nodes being natural. There was little pain, amounting merely to tenderness at first. The literature of rheumatic periostitis was briefly referred to, and the authors stated that they had been unable to find any records of the development of such nodes in the course of unequivocal attacks of rheumatism, although rheumatism was usually mentioned among the causes of periostitis, which was supposed to depend not infrequently upon the rheumatic diathesis. Attention was called to the similar position of the nodes in all three cases, and to the presence in all of subcutaneous nodules and signs of cardiac disease.—Dr. MACLAGAN said that rheumatic inflammation of the periosteum appeared to be extremely rare. He thought it very rare to see rheumatic inflammation in structures which were not the seat of strain. If inflammation developed in the periosteum, it was chiefly where ligaments and tendons were inserted.—Dr. A. MONEY related the case of a woman who had mitral disease, and on whose left shin a patch was developed like those described by the authors. It came and went in a fortnight, and thus resembled a rheumatic manifestation. He did not think there was any traumatism in the case. The cases that he described in August last were more of the nature of exostosis.—Dr. BARLOW had observed a case which corresponded with one of those described. A node developed on the ulna, which lasted for three weeks, and then was slowly absorbed. A fortnight ago he saw another child, who came to the Children's Hospital with a distinct thickening on the tibia. It lasted for ten days, and then passed away. He was inclined to think that these lesions began in the fascia above the periosteum, rather than in the latter tissue itself. Some years ago he examined the scalp of a child who died of rheumatism; there were subcutaneous nodules of all sizes beneath the skin, and where the scalp was bound down tightly the pressure of the nodules had caused an excavation in the bone.—Mr. BUTLIN had seen a localised tibial periostitis on more than one occasion at a point over the tibia where there was no deep fascia, and he certainly thought that the lesion was in the periosteum itself.—Dr. RANKING had seen rheumatic periosteal nodes on the head in cases where syphilis could be excluded.—Mr. WARRINGTON HAWARD had seen many cases of periostitis in rheumatic people, but had not watched them develop during an attack of acute rheumatism.—Dr. GARROD said that the point of the paper was to draw attention to the rare association of periostitis with undoubted rheumatic manifestations. There was not much strain on the fibrous structures over the skull, where the nodules frequently occurred.

Dr. S. WATSON brought forward the case of a patient, a strong, florid man, aged fifty-six, who developed severe symptoms of Ptomaine Poisoning the day following the ingestion of a meal comprising mackerel and salt beef. He had headache, giddiness, anorexia, and staggering gait, and was markedly somnolent. When seen on the second day after the meal, his face was flushed, and the pupils notably, but not extremely, dilated and fixed; no ptosis or squint; tongue dry; pulse 116; temperature 97·6° F.; no sickness. He was ordered a dose of calomel and a placebo. The following day he became acutely delirious, and the breathing became stertorous. Tongue and mouth very dry, but no rash on the skin. The bowels were not moved, and no urine was passed. On the fourth day he was given another dose of calomel, and later on two drops of croton oil and a hypodermic injection of pilocarpine, without effect. Some hours later he passed a small quantity of urine, not containing sugar or albumen. Late on the fourth day the bowels were moved, but he was still unconscious. The motion was very offensive, frothy, and of a green colour. He slowly recovered, and was convalescent by the seventh day. On the sixth day an attack of gout declared itself in the left foot, and lasted a month. The symptoms were those of poisoning by atropine.—Dr. MARTIN objected to call those cases poisoning by ptomaines in which the poison had not been isolated. All those ptomaines which had been isolated had an action directly opposite to atropine, and no ptomaine was known which acted like that drug.—Mr. ADDINSELL gave details of another case of poisoning due to the eating of fresh mackerel. A man, after he had eaten the anterior part of a mackerel for breakfast had great pain in the epigastrium, followed by diarrhœa. He was constipated, vomited, and had contracted pupils, a dry skin, and much feverishness. A rectal abscess formed, which ran a severe course, being attended by delirium and retention of urine. The patient recovered slowly in five months; but later he developed general paralysis of the insane. Another case, of sardine poisoning, produced similar symptoms.—Dr. MACLAGAN objected to the title of the paper. The patient was gouty and a gross feeder, and the symptoms clearly resembled uræmia, being relieved by calomel and a free purge.

Mr. BLAND SUTTON related the details of a case in which a woman was supposed to be suffering from neuralgia due to bad teeth. Subsequently a slight displacement of the eyeball was detected, and a critical examination of the patient led to the diagnosis of a tumour entangling the infra-orbital nerve; the skin supplied by the palpebral, nasal, and labial branches of this nerve was anæsthetic. She suffered agonising pain. On May 15th the anterior wall of the maxilla was removed, and the antrum found occupied by a tumour. The whole of the maxilla was then removed, and Meckel's ganglion exposed and destroyed by the cautery. An admirable recovery resulted. On subsequent dissection the tumour was found to be a myxoma springing from the infra-orbital nerve, and invading the orbit and antrum.—Mr. WARRINGTON HAWARD said the case showed the advantage of searching for the cause of neuralgic pain.—Dr. WILBERFORCE SMITH asked if the teeth which had been extracted had been put back?—Mr. BUTLIN suggested that the growth should be referred to a committee.—Mr. SUTTON concurred in this, and said that the teeth had been removed to give relief to pain; but as the jaw was likewise ablated, they could not be replaced.

MEDICAL SOCIETY OF LONDON.

Myxœdema in a Male.—Ataxic Bladder treated by Semi-suspension.—Congenital Pemphigus.—Tuberculosis of Palate.—Congenital Deformity of Extremities.—Feigned Skin Eruption.—Functional Paraplegia.—Disseminated Sclerosis.—Pulmonary Stenosis.—Inguinal Colotomy.—Laryngeal Paralysis.

A "CLINICAL EVENING" of this Society took place on Nov. 25th, the President, Dr. Theodore Williams, being in the chair.

Dr. SAVILL exhibited a case of Myxœdema in a Male. The patient, aged forty-five, was admitted into the Paddington Infirmary under his care on Nov. 1st, 1888. His symptoms commenced about eight years before with weakness, puffiness of the skin, first in the forehead and eyes, then in the feet, and a tendency to feel the cold very much. The family history showed great longevity in his ancestors, and there was nothing of importance in the previous history except that he used to drink beer and spirits heavily. His condition when admitted was very typical of the disease. The following note was made. He was a finely formed man, with a chest measurement of 40 in.; the face looked swollen, especially round the eyes, nose, and cheeks, and the lips were thickened; the skin was very dry and somewhat wrinkled; the hair on the scalp and face was scanty, wiry, and brittle. The expression of his countenance was dull and placid, and there was a pink flush on the nose and on each cheek. The skin of the extremities was very dry and scurfy, while the hands were flat and "spade-like." In both supra-clavicular regions there was a distinct fulness. The thyroid could not be felt. During the period of four months and a half that he was under observation the following points were noted:—His temperature was subnormal (average between 97° and 98°), and he seemed to feel the cold very much; he complained of sensations "like water trickling down his back," and was never happy unless in bed or near the fire. There was no impairment of sensation, but the superficial and deep reflexes were both much diminished. There was general loss of muscular power and very decided slowness of movement. With regard to his intellectual processes, the characteristic slowness of speech was most marked, but his intelligence was fair, and he had no delusions or abnormal persistence of thought. Memory

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was impaired, and he was often irritable, resenting any interference. His eyesight was very good, but he suffered from lacrymation, and the pupils reacted sluggishly to light and accommodation; his hearing had been impaired for twelve years. Other special senses were normal. The urine never contained any albumen. The amount of urea excreted during twenty-four hours was estimated on two occasions and found to be 373 gr. and 260 gr. respectively; the average specific gravity was 1012. His other organs were perfectly normal. The patient remained in the infirmary till March 23rd, 1889. No special treatment beyond the administration of tonics and the regulation of the digestive system was carried out, and his condition was not materially altered when he was discharged.

Mr. HURRY FENWICK showed a case of Atony of the Bladder of Spinal Origin, treated by Semi-suspension; that is, the patient had been suspended by the arms instead of the head. The patient was first seen in October, 1888; he was then suffering from marked muscular incoördination, staggering gait, incontinence of urine at night, and a complete loss of sexual power. The patient's age was thirty-two; he had had syphilis ten years previously; he was married and had had three healthy children. The bladder was found distended well above the pubes, and the residual urine, which on one occasion measured more than eighteen ounces, was withdrawn week by week in increasing quantities. The patient was taught self-catherisation in January, 1889, and in February, 1889, he commenced semi-suspension. He improved greatly, and in a few weeks had regained complete control over his bladder, his sexual power and desire had returned, his gait had become almost normal, he suffered no pain, but had increased in weight and health. Whether this good result was due to the mechanical treatment, or to the well-known spontaneous arrest and repair of spinal cord disease was of course uncertain; but a continuous chart recording the amount of residual urine night and morning for three months was shown, so as to mark the effect of semi-suspension. The case was brought forward to introduce the question of the value of this modified Motchütkowsky-Charcot treatment. Mr. Fenwick had watched the movements of pins thrust into the cord exposed through a window cut in the spinal column of a suspended cadaver. No difference in the gross movements were observable whether the body was suspended by the head or the arms, but there were many fallacies in the experiment, notably that depending on the escape of the spinal fluid.—Mr. REGINALD HARRISON mentioned a case of atony of the bladder in which Charcot had advised a trial of treatment by complete suspension. The patient was suspended fourteen times in two months, from sixty to ninety seconds at a time, with the result that the bladder symptoms entirely subsided.—Mr. DAWSON asked as to how long and in what manner the patient was suspended.—Mr. FENWICK replied that the man caught hold of the top of the door and suspended himself for a minute morning and evening.

Dr. BEEVOR showed a case of Congenital Pemphigus in a girl aged twenty-five; when two weeks old she was taken to Great Ormond-street for a blister; after this she had an eruption, from which she had suffered ever since. She had been under treatment at various hospitals, and lately under Dr. Colcott Fox, who reported considerable improvement.—Dr. COLCOTT FOX referred to the difficulty in diagnosing these cases in infancy. Bullous syphilide was usually limited to the palms and soles, but ordinary pemphigus was more extensive.—Dr. R. CROCKER said that bullous syphilide, especially when not purulent, developed in other parts than the palms and soles. In cases of pemphigus the slightest local irritation would often cause a bulla.

Mr. BATTLE showed a case of Tubercular Ulceration of the Palate in a married woman aged thirty-four. There was no family history of phthisis. She had had seven children, the youngest being eleven months old. She said that she caught cold when the third child was born, and was ill for a long time with asthma and bronchitis. She had suffered from symptoms of phthisis since. She suffered from sore throat and mouth eighteen months ago, and she had yellow pimples on the tongue a month or so later. She had them burnt several times, and used gargles, but it got steadily worse. Four months ago she had caseous matter let out of an enlarged gland in front of the right sterno-mastoid. She was losing flesh. On the hard palate, situated in the middle line, commencing about an inch behind the teeth and extending backwards for two inches, was an irregularly raised patch of nodulated character, measuring at the widest part about an inch; the majority of the nodules were ulcerated, some deeply, and some of them were yellowish in parts. It was tender, and the patient complained of pain in it, especially on swallowing, but it was soft to the touch. Her breath was offensive. The right tonsil and uvula were a good deal swollen. Much of the epiglottis had disappeared, the remainder looking like a stump, in which could be seen whitish nodules. There was a good deal of thickening about the cords, which appeared white. The scrapings from the surface of some of the ulcers showed the presence of scattered tubercle bacilli. There were marked physical signs of phthisis at both apices, and a tubercular gland in front of the right sterno-mastoid. She was pregnant (about six months). There was a slight discharge from both nostrils, making it probable that the disease had extended through into the nose. He scraped the disease away from the palate as much as possible with a sharp spoon, and then applied a strong solution of chloride of zinc to the part. Before the scraping, a bullet-probe passed easily through the hard palate into the nose on either side of the septum, and the sharp spoon readily passed through when the disease had been scraped away. The hæmorrhage was free at first, but soon stopped. He had been unable to find records of many cases of tubercular disease of the palate. Sir J. R. Bennett gave a clinical lecture on a probable case in 1862, that of a girl with ulceration of the palate. Mr. Fairlie Clarke described a case of tubercular lupus of the tongue, palate, and gums, in the twenty-seventh volume of the Transactions of the Pathological Society: a youth aged eighteen, without history of phthisis, syphilis, or cancer in the family. The soft palate had completely perished, there was a deep ulcer on the left side of the tongue, and the epiglottis was thickened but not ulcerated. He died from exhaustion, without physical signs of phthisis. There was no evidence of tubercle elsewhere at the post-mortem examination. He quoted Mr. Clutton's well-known case in the Transactions of the Clinical Society for 1886. A girl of fifteen years of age had extensive ulceration of two years' duration, destroying the soft and hard palates. She was deaf, and had scattered scaly pimples on the cheeks. No bacilli of tubercle were found. In the discussion on this case, Mr. Bryant mentioned two instances of the spread of lupus from the face to the palate, one of which died from phthisis. Dr. Glover at the same meeting related the case of a young man with painful ulcerations of the soft palate, who died afterwards from phthisis.—The PRESIDENT had seen many cases which were accompanied by advanced phthisical lesions. When the larynx was affected but little benefit seemed to follow the application of lactic acid.—Dr. SEMON looked upon the disease as comparatively rare both here and abroad. The characteristic point about the lesions was usually their pallor. It was necessary to scrape before applying the lactic acid.—Dr. CAMPBELL thought there was a difference between lupus and tubercle, for there was marked pain on deglutition in cases of tuberculosis, but not so in lupus.—Mr. CLUTTON had shown at the Clinical Society two cases, one of ulceration of the palate followed by lupus of the face, the other lupus of the nose followed by tubercular ulceration of the palate. In both cases the palate disease preceded pulmonary affection. Conditions of injection and pallor were both observed, but the latter appeared to be due to a partial cicatrisation.—Dr. SAINSBURY had recently treated with success a case of superficial tubercular ulceration of the palate by means of the application of a solution of perchloride of mercury (1 in 1000).—Mr. BATTLE replied that the lungs were only slightly affected with phthisis, and there was no history of syphilis.

Mr. PYE showed a girl aged five years and a half, the subject of a symmetrical malformation of both hands and both feet, similar to that described by Mr. Holmes ("Children's Diseases," p. 214). The first and middle digits were absent, and the third and fourth were webbed and fused together, the hand thumbs were fairly well developed, and could be opposed to the fingers, so that the hands were by no means useless. The deformity of the feet was similar to that of the hands, but the great toes were really thumbs in all their characters; they were separated from the rest of the foot by deep clefts, and they could be opposed to the remaining digits as the hand thumbs could. The mother believed the condition was caused by seeing a crab about

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the twelfth week of gestation, which frightened her.—Mr. LOCKWOOD remarked that the digit on the radial side of the foot had three phalanges, and therefore was not a thumb.—Mr. PYE, in reply, regarded it as a thumb because of its remarkable power of apposition.

Mr. HERBERT ALLINGHAM showed a case of Cutaneous Eruption for diagnosis. The rash was limited to the right lower extremity of an adult woman, was of an inflammatory character, and the patient would not allow anyone else to dress it.—Dr. CROCKER considered it an artificial eruption; the "squareness" of the rash made it resemble lesions produced by liquid caustics. He thought the brown staining might indicate crude carbolic acid.—Dr. COLCOTT FOX said the shape of the eruption and its localisation to one limb marked it as a feigned disease.—Dr. CAMPBELL thought it might be produced by mustard leaves cut square, and aggravated by the finger nails of the patient.—Mr. ALLINGHAM affirmed his intention of putting the patient's leg in plaster-of-Paris, and would report the result later.

Dr. R. RUSSELL introduced a boy aged fourteen years, recovering from an attack of Paraplegia, supposed to be functional. He was admitted into the Hospital for the Paralysed and Epileptic nine months ago, under Dr. Bastian's care. Four months before admission he was attacked with headache, and appeared to be unable to answer questions, though he seemed to understand what was said to him. There was no loss of consciousness. He remained in bed ten days, at the end of which time he was found to be paralysed on the right side, though he was then able to speak quite well. The face was not drawn. Three weeks later a rash appeared all over, and when it had faded he was found to be unable to walk or stand. There was no affection of the sphincters, no pain in the back, and no sore-throat at the commencement of the illness. There was no family history of nervous disease. Five other children in the family were healthy. On admission, there was no power of dorsiflexion at the ankle; all other movements were present to a slight degree as he lay in bed, and carried out with very exaggerated show of effort. There were "sock" anæsthesia and analgesia, and considerable rigidity on attempts at passive movement. The muscles all responded well to faradism. The reflexes were as follows: the plantars were absent, the knee-jerks exaggerated, and there was pseudo-clonus of both ankles. The spinal column was normal, and the sphincters unaffected. The left grasp was double that of the right, the tongue protruded mesially, and there was no difference of the superficial trunk reflexes on the two sides. He could now walk, though there was still next to no power of dorsiflexion at the ankle. The muscles responded tardily to faradism, the galvanic reactions were KCC>ACC. The "sock" anæsthesia was still present, though not nearly so absolute. The pseudo-clonus had varied from time to time; it was never a true clonus. The legs were wasted as a whole, no special groups being affected. The left grasp was still slightly greater than the right, but both were much more powerful.

Dr. RUSSELL likewise showed a little girl, aged twelve years, the subject of Disseminated Sclerosis. She was said to have had a fall three years ago, followed by unconsciousness for three weeks. After this she remained weak, and two years ago movements commenced and speech became affected. In addition she used to have "hysterical attacks" at that time. There was no history of heredity. She had had measles and scarlet fever in infancy, but never rheumatism. She was admitted under Dr. Bastian's care at the Hospital for the Paralysed and Epileptic, Queen-square, three weeks ago, being unable to stand or walk without assistance. There were well-marked irregular movements of the head and extremities. There were nystagmoid movements of the eyes, which ceased during sleep, and often when at rest, associated with blinking movements of the lids. The discs and fundi were normal. The tongue twitched, and there was "syllabic" utterance. The sphincters were unaffected. The deep reflexes of the arms were not increased, the knee-jerks were active, and there was no foot-clonus.

Dr. DE HAVILLAND HALL exhibited a girl aged sixteen with a Rough Systolic Murmur, loudest over the second costal cartilage and conducted towards the left sterno-clavicular articulation. There was a systolic thrill in the second left interspace. The area of cardiac dulness was increased, the apex beat being outside and below the nipple. The patient was anæmic, but there was no other sign of congenital heart disease.—Dr. SIDNEY PHILLIPS thought that the murmur was hæmic, and originated in the aorta or one of its branches. The increased cardiac dulness, he suggested, was due to retraction of the lung.—Dr. SEYMOUR TAYLOR heard the bruit in the vessels of the neck, and regarded it as hæmic.—Dr. HALL, in reply, said that the presence of the thrill made him exhibit the case. She was being treated for anæmia.

Mr. BOWREMAN JESSETT showed two cases of Inguinal Colotomy operated on by a novel method. The intestine was divided at the time of the operation, and the two ends were invaginated; the lower segment was then dropped into the abdominal cavity, while the upper end was drawn well out of the wound and removed a few days later. The cases were under the the care of Dr. Purcell, who in operating carried out Mr. Jessett's proposals. The patients were fed on liquid diet for four days prior to the operation, the bowels were kept open daily by means of castor oil, and the rectum washed out with warm water several times. The method of operating was described in detail. The advantages claimed for the procedure were:—1. The diseased portion of the bowel situated in the rectum was completely shut off from the upper segment, therefore there could be no leakage of fæcal matter over the ulcerated surface. 2. The lower portion of bowel being invaginated and returned into the abdominal cavity, there could be no prolapse of the mucous membrane from it. 3. The upper portion of intestine being divided so closely to its origin, there was not so much fear of procidentia or prolapse. In none of the six cases operated on had there been any.—Dr. PURCELL said he exhibited three cases operated on by this method, together with photographs of the openings in the groin, showing absence of prolapse of mucous membrane. A perfect artificial anus was the result in each case, and it was easily attended to by the patient.—Mr. HERBERT ALLINGHAM said that in six of the thirty cases he had operated on the gut was twisted, and fæces came from the lower end; this must be a great objection to dividing the gut and dropping one portion back. It would be likewise difficult to get rid of fæcal matter retained above the cancerous stricture.—Mr. JESSETT, in reply, said he made sure of finding the upper end of the gut by following the descending colon downwards with the finger. He avoided difficulty from impacted fæces by washing out the lower gut beforehand.

Dr. FELIX SEMON then brought forward an instance of Bilateral Paralysis of the Glottis-openers. The patient was a married woman, aged forty-nine, who eighteen months ago lost her voice. It remained stationary for six months, and then gradually recovered. But *pari passu* with the improvement dyspnœa set in, exclusively inspiratory, which gradually increased to a degree threatening suffocation. On examination bilateral paralysis of the glottis-openers was found. Iodide of potassium failed to produce any improvement, and tracheotomy had to be performed. Protracted observation failed to throw any light upon the etiology of the process. Dr. Semon's theory was that the case was one of complete (?) rheumatic bilateral paralysis of the recurrent laryngeal nerves, and that the adductors had recovered more quickly than the abductors; the latter being, during convalescence, thrown into a state of paralytic contracture, in which they had remained.

Reviews and Notices of Books.

Dermoids, or Tumours containing Skin, Hair, Teeth, &c. By J. BLAND SUTTON, F.R.C.S. London: Baillière, Tindall, and Cox. 1889.

THE interpretation of the genesis of the singular class of new growths known as dermoid tumours requires not only an extensive acquaintance with their characteristics and situations, but also the capability of taking a wide grasp of embryological data and of the general conclusions which flow from them. Mr. Bland Sutton has already proved his capacity to deal with such matters, and he speaks upon them with the conviction of one who has assured himself of the truth of his speculations. For it must be admitted that there are some lacunæ in the study of this complex subject which can only be filled by generalised hypotheses.

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"Dermoids" he defines as being "cysts or tumours, furnished with skin or mucous membrane (which may or may not be accompanied with the appendages peculiar to these structures), occurring in situations where skin and mucous membrane are not normally found." The general types of structure met with are clearly described, and amongst the most interesting facts are the statements that the hairs in such cysts turn grey with the age of the subject, and that horny formations analogous to epidermic horns are occasionally to be met with mingled with their sebaceous contents. But undoubtedly the greatest service rendered by Mr. Sutton consists in his orderly classification of these curious formations accordingly as they occur along the lines of coalescence of the opposite halves of the body wall and the embryonic clefts, with the result that he explains in a satisfactory manner the occurrence of intracranial dermoids by showing that the cranial bones are superadditions to the primitive cranium (which is represented by the dura mater), and he also dispels the old notion of the testicle being a common seat for dermoids, which in this situation mostly arise in connexion with the scrotum. Dermoids on the limbs or iris are shown to be due to "implantation" from injury driving in portions of epidermis—an ingenious and suggestive hypothesis. In order to strengthen his argument, he also finds it necessary to show that mucous membrane and skin, although differing in their origin from hypoblast and epiblast respectively, are yet identical in many points, an argument supported by facts showing the conversion of mucous membrane into skin in prolapsed organs; and also to demonstrate from embryological data the derivation of the pleuro-peritoneal cavity from the primitive intestine and the continuity of the central canal of the spinal cord with the latter tube. Many will turn to the last chapter with especial interest, since it deals with the peculiarly difficult question of ovarian dermoids. Mr. Sutton has succeeded in showing that there is no sharp line of demarcation between these and the other forms of true ovarian (oöphoritic) cyst, tracing their origin to the ovarian "follicle," which he claims to be analogous to a mucous crypt. We would commend the perusal of this book to all interested in the elucidation of pathological problems. It is clearly and concisely written, and abounds in a wealth of facts, upon which its author relies for the correctness of his generalisations. Dealing with a comparatively limited and hitherto obscure corner of pathology, it yet suggests far wider applications to the general subject of tumour formation, in reducing to order the members of an aberrant class of growth, and shedding much light upon their nature and genesis. The monograph is, moreover, lavishly illustrated with excellent engravings, which greatly facilitate its study. We have little doubt that it will frequently be consulted as authoritative upon the subject of which it treats.

Watts' Dictionary of Chemistry. Revised and entirely Rewritten by MM. PATTISON MUIR, M.A., Fellow and Prælector in Chemistry in Gonville and Caius College, Cambridge; and H. FOSTER MORLEY, M.A., D.Sc., Fellow of University College, London, &c. Assisted by eminent contributors. In four volumes. Vol. II. London: Longmans and Co. 1889.

THE untimely death of Mr. Watts, to whom English science was indebted for such an enormous mass of chemical literature, left to new hands the herculean task of preparing a second edition of his well-known dictionary. The publishers have been remarkably fortunate in their selection; and although little but the name of Watts survives in the text of the dictionary his plan and method are preserved. The editors were right in rejecting the temptation to patch the whole work and undertaking boldly the labour of rewriting. Rewriting did not involve rejection of the old, and free use has evidently been made of the material which in the original five volumes and the succeeding supplements had been collected. But the progress of science is so rapid that rewriting, and not mere revision, was necessary. Curtailed by unavoidable limits, every form of condensation consistent with intelligibility became essential; and in the new book, for a new book it is in many senses, condensation is accordingly carried at least as far as is possible, and many readers will probably think it has been carried too far. Certainly, a little practice is necessary before the book can be used with any freedom; but the student is assisted by a card book-marker, on which the abbreviations employed are explained, and he is well compensated for the small trouble entailed upon him by the vast mass of facts and figures which are presented. The book is a dictionary and not a treatise, and the editors have wisely sacrificed elegance of style to profuseness of detail. It is not meant for beginners or for those whose sole object is to "pass" in some examination, but to real students of science, whether in chemistry, physiology, therapeutics, or technology, it will be not only useful but essential.

The mass of the work in the present volume has of course fallen upon the editors, Mr. Muir contributing the greater number of the theoretical and inorganic and Dr. Morley of the organic articles. But they have been ably assisted by about a score of coadjutors, whose separate contributions are indicated in the introduction. Detailed criticism of the articles is of course impossible, but, as examples of the style of the edition, we may mention Mr. Muir's admirable essay on Chemical Classification, and Dr. Morley's account of Glycerin. Amongst the articles most likely to be interesting to our readers, the following are fairly illustrative: Cinchona Bark, by Mr. David Howard, whose authority none can gainsay; Hæmoglobin, by Dr. Halliburton, an admirable essay; Fermentation, by Dr. Rideal; and Cholesterin, by Mr. McGowan.

The publication of the work is proceeding with commendable speed, and will at the present rate be complete in two more years. For this, as for the general excellence of the work, all who are interested in science will be grateful.

New Inventions.

THE LEICESTER VAPORISER AND ODORATOR.

THIS is an arrangement by means of which a large surface of linen is exposed to the air within a comparatively small space. A band of linen about three inches and a half wide is stretched by a series of frames radiating from a central hinge, along the extremities of which it is passed, forming a half circle, and the surface is again increased by the passage of thin linen strips along the frames which support it to the central hinge, so that the surface exposed equals twenty times the size of the closed apparatus. The whole framework, with the linen stretched over it, can be enclosed within the japanned tin covers, which, fastened by a catch, make a case easily transported from place to place. It is used for disinfecting sick-rooms, wards, or any vitiated atmosphere, or for charging the air of an apartment with the vapour of essential oils, &c. Any liquid disinfectant may be employed with it. This should be poured on the linen, and will then offer a very large surface for evaporation. It is almost automatic; if the deeper half of the opened cover be filled with the fluid employed, that on the linen corresponding to this half of the cover will be replaced by this fluid as it evaporates, but it is necessary to keep the linen damp on the other side by occasionally moistening it. The patentee is Mr. De St. Dalmas, Leicester.

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THE LANCET.

LONDON: SATURDAY, NOVEMBER 30, 1889.

THE General Medical Council appears likely to have an important session, even if, under the present notions of economy, it is also to be brief. The subjects which were to be discussed were indicated last week, and apart from some of the usual regrettable questions of removal from the Medical Register, it will have been seen that they deal with some very practical questions connected with the education and examination of students. The address of the President (Professor MARSHALL) always furnishes a foreshadowing of the coming events, and it is always worthy of attention from its lucidity; still, it is like a well-ordered *menu*, it stimulates expectation, which, after all, some of the results may scarcely satisfy. The head has arranged the programme of the feast, but the best laid plans may go "a-gley" when so many have opportunities of turning the course of events. This year the session commenced with the formal notification of appointment and introduction of Dr. CHURCH and Dr. DONALD MACALISTER, the two new representatives to succeed the late Dr. KING CHAMBERS and Dr. HUMPHRY. The President then delivered his address, and in his opening phrases referred to the loss sustained by the death of Dr. KING CHAMBERS, whose hostility to "covering" and to the improper employment of unqualified assistants had so greatly directed the work of the Council. Tribute having also been paid to the steady and helpful service of Dr. HUMPHRY, several pithy sentences showed the work performed by the President in his official capacity since the last meeting. The note upon the grievances of holders of British medical qualifications endeavouring to practise in Switzerland is judicial in its gravity, but at present stands for little more than a good-natured protest. With frequent references to the charge upon the funds of the Council involved by any extraordinary expenditure of time in its deliberations, the immediate business of the session was introduced in commendably terse terms, and the President, by the modesty with which he spoke of the "indirect influence" of the resolutions of the Council concerning medical education and examinations, indicated, to those who read between the lines, his belief that although they sometimes led the way, they not infrequently followed the spontaneous suggestions of the qualifying bodies and teaching schools. The five years' curriculum which was recently advocated by the College of Surgeons seems likely to meet with a favourable reception from at least the President of the General Medical Council.

The communication from the Director-General of the Army Medical Department possesses only a passing interest in showing the qualifications of those who have competed for commissions in the Medical Departments of the Army and Navy, but it emphasises the great competition for the few vacancies, and otherwise simply shows that one candidate was found deficient in chemistry and another in surgery. More interesting was the question of expenditure raised by the report of the Executive Committee, which indicated, as we pointed out when last dealing with the Council, that the best way of saving time was by delegating a large share of the work to various committees. That this would not be an infallible remedy was immediately demonstrated by a discussion upon this report, in which eight members of the Council took part; and when the amendment suggested had been negatived, the names and numbers of those who voted for and against the amendment, and of those who did not vote, were formally recorded. Whether inspection is really sacrificed to the expenses of the meetings of the Council can scarcely be determined by the remarks made at this meeting. Dr. QUAIN said money had always been found for inspection whenever the Council had ordered it, but this may not mean more than that the Council refrain from giving any instructions when in financial straits. Of the communications relating to the recognition of diplomas in Sanitary Science we hope to speak later, when the Education Committee has reported upon them. Meanwhile, however, the Council has carried a resolution for which they deserve commendation; they have requested the Committee of Management of the Conjoint Board to define by whom and where instruction is to be given in the subjects of chemistry, materia medica, pharmacy, practical pharmacy, and practical chemistry. The story of the coachman having written a certificate, which was duly forwarded and recognised, may be apocryphal, but it is certain that the scope of the examination in these subjects is wider than can be met satisfactorily except by systematic teaching. Several of the London schools advise students to postpone presenting themselves in materia medica until they have passed in anatomy and physiology. Although there is much to be said as to the heavy burden of the medical student when he is registered, and although there are many arguments in favour of the system of pupilage which this "laxity" is intended to encourage, the relatively high percentage of rejections in these subjects can scarcely be deemed a proof of the wisdom of the present regulations. That the question bristles with difficulties is sufficiently shown by the small majority which carried the motion; still we hope for a better result than the polite answer anticipated by the President. The memorial from certain Licentiates of the Apothecaries' Society of London, introduced by Mr. BRUDENELL CARTER, was favourably received, and no difficulty was experienced in agreeing to his motion for appending a note to the certificate of registration to the effect that it denotes a triple qualification in Medicine, Surgery, and Midwifery. So much being granted, it remains to be seen how long the Licentiates will be satisfied with the old title of L.S.A. even with the new note. The indiscriminate distribution of death certificate books was called in question by Dr. GLOVER, who suggested that the Treasury be memorialised to issue annually to every registrar of births and deaths a copy of the Medical Register, to enable him to say whether a person signing a death certificate was or was not qualified. This useful suggestion was adopted, as was also a further suggestion for memorialising the Registrar-General to have the forms of certificates of death numbered so that they could easily be

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traced. These very practical improvements brought the work of the first day of the session to a close with a sense of satisfaction. If they are carried into effect by the Treasury and the Registrar-General, they will largely increase the utility of the Medical Register. So far the Council has fairly grappled with the problems brought under consideration, and reference to the report will show the amount of valuable aid it has received from the direct representatives. There remains, however, a great deal to be done, so it is perhaps premature to congratulate the Council upon its celerity.

FOREMOST amongst the unsolved problems of pathology, and in importance transcending all others, is the subject which is annually dealt with at the Royal College of Surgeons in the Morton Lecture. The office of lecturer is assigned to surgeons of mature experience, with whom the natural history of cancer is familiar, and in their utterances we look for those glimpses of the truth, those fruitful suggestions or ideas which they have gained or formulated out of their experience. Mr. JOHN MARSHALL follows worthily in the steps of his predecessors in the chair; for no one can have read the lecture we published last week without a sense of its suggestiveness, and of the freshness of view with which the subject was dealt with. Many questions were raised in the course of the lecture which can only be decided by a renewed and patient investigation of the pathology of malignant disease, and which, if determined, would constitute a very material advance in our knowledge of its nature, and bring us perhaps one step nearer the means of its cure or its prevention. It is quite true, as Mr. MARSHALL stated, that nearly all our knowledge of cancer is founded upon the study of its structural characters; but what we want to know is the reason why it has such peculiarities, in what relation it stands to the normal organism, and how it is that it runs its peculiarly destructive course. The history of pathology, especially since the labours of VIRCHOW shed so great a light upon the intimate structure of neoplasms and evolved order out of chaos, abounds in attempts to answer such questions, which, indeed, lie at the root of the matter. The notion of special cancer cells, distinguishable by morphological characters alone, has had to yield before the discoveries of a profounder histology; and yet, as Mr. MARSHALL showed, the cells of cancer must possess inherent properties wholly different from those whence they are primarily derived. The further idea of a constitutional diathesis to account for perversions in tissue formation which constitute the atypical structure of cancer is also in large measure abandoned; and facts all seem to point in one direction—namely, that of a localised aberration in cell growth. Whether, as COHNHEIM believed, this be due to errors in the embryonic organism, the misplacement of embryonic cells, which may constitute the starting point of tumour growth in later life; or whether the perversion of growth from the regular course be determined by, or in the course of, the normal nutritional changes at various periods of life; or whether indeed the stimulus to the aberrant growth be introduced from without,—these and other problems, at present wholly speculative, may well be suffered to wait until we know more about the nature of the cancer growth itself.

Mr. MARSHALL properly laid great stress upon a striking feature of the cell development in true cancers—viz., its disorderly, or as he phrased it, *anarchic* growth. Not, of course, that it is really governed by no law, but that, as compared with the systematised and ordinary disposition of the normal epithelia, the distribution of cancer elements seems to us lawless and irregular. The cells multiply profusely, so that they accumulate and perish from mutual compression; but why they so multiply, why they are so atypical, is quite unknown. No doubt it is, as Mr. MARSHALL suggests, due to nuclear changes, and it may possibly happen that in the determination of such changes we shall be able to discriminate more exactly the epithelioid cell of cancer from the epithelial cell of the healthy organism; but, after all, that would only confirm what we already feel to be true, that these aberrant cells have properties different from the normal, whence they are derived. A fruitful hint was given by the lecturer as to the direction in which they may so differ. He pointed to the metabolic processes of cell life, and suggested that the cells of cancer may produce material which by its action on the surrounding healthy tissues may be a prime factor in the local infiltration of the cancerous growth and in lymphatic and more distal infection. He recalled an interesting observation he made some years ago upon the presence of free lactic acid in growing cancer, and urged that chemical analysis might still have much to teach in this matter. Another subject in the structure of cancer to which Mr. MARSHALL drew especial attention was that of the stroma, which is peculiar to carcinoma, and peculiar also in its histological characters. It is quite true that beyond serving as a diagnostic basis this stroma has received but little attention at the hands of histologists. It has not even been definitely determined whether it is an essential part of the cancer or not. We only know that it varies from the most delicate framework in the medullary cancers to the dense compact bundles of tissue of almost cartilaginous hardness that characterise scirrhus. *A priori* it seems improbable that an element so variable in extent, and apparently so passive in nature, can play any important *rôle* in the nature of the disease, except that in proportion as the cell elements dwindle in amount so does the stroma increase, and the more "atrophic" the cancer and slower its growth, the denser its tissue and more contracted its alveoli. Certainly the stroma should not be neglected, even if it be of minor importance.

Perhaps the most suggestive portion of the lecture was that in which the idea was promulgated that the reason for the anarchy of cancer growth lies in the dissociation of the cells from the controlling influence of the nervous system. This suggestion is not so baseless or *bizarre* as at first blush it might seem; and now that the humoralistic theory of cancer bound up with the "constitutional" view cannot be sustained, it is perhaps natural that we should revert to the "solidistic" notion of the all-pervading influence of the nervous system. But in fact it is more than a theoretical surmise. It is, at any rate, supported by the histological discoveries of later years, which have traced the direct connexion of nerve filaments with cells, and the physiological facts of the intimate connexion between the nervous system and processes of cell nutrition. In all

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compound organisms, all parts, all organs and tissues, are connected and controlled by the all-pervading nervous tissues. To their influence we look for the orderly performance of function, the regulation of secretion, even in some degree of the governing of growth. It may be, as Mr. MARSHALL suggests, that in their severance from this control we have the key not only to the "anarchy" of the cancer cells, but to their perverted metabolic processes, which explain their malignancy and their essential nature. At any rate, the theory is not one to be discarded without a thought; it is based on surer ground than the fanciful notions of the old neuralist school, which never gained much acceptance, and it is well worthy the study claimed for it.

Finally, as regards the local recurrence of cancer after removal, and the necessity for the widest and freest extirpation which Mr. MARSHALL advocated, there can, we think, be no two opinions amongst surgeons. It is one of the chief gains due to histology that the cancerous elements may be demonstrated, spreading far and wide beyond the limits assigned to the disease by the unaided eye. The only hope (and that, alas! is too often falsified) for the cure of cancer lies in the most complete eradication of the growth and the infected tissues and glands in its vicinity. That, however, is not the aim with which we can be content. We may look forward hopefully to the time when with fuller knowledge of the origin and nature of the processes that lead to the formation of these cancerous growths, it may be possible to deal with these diseases as has been so successfully done with others—viz., by prevention. Before that time arrives, many of the problems raised in this Morton lecture, and others more far-reaching still, will have to be solved. The task is a great one, but surely not insuperable, though many generations may pass before it is fulfilled. There are some who, in this matter, are impatient of the slow progress of science—who formulate theories and endeavour to fit facts into them. That is not the temper with which to grapple with great problems like this of cancer. Such theories only serve to retard true progress, which can be made only by earnest, patient, and prolonged investigation of nature.

VIGILANT LADIES, who think it their mission to expose the carelessness of other people, will find out that they have not quite such a monopoly of vigilance as they had supposed. The answer of Mr. GALSWORTHY, chairman of the Metropolitan Asylums Board, to the charges against the authorities of fever hospitals, will probably rather surprise Miss COBBE. The precautions are so proper and particular that we give the clauses describing them:—

"VISITING OF PATIENTS.

"35. The visiting of patients is limited to the nearest relatives and intimate friends of patients dangerously ill. One visitor only will be allowed daily to each patient. Visits are, as a rule, to be limited in duration to a quarter of an hour. In urgent and special cases, however, the medical superintendent is empowered to increase the number of visitors to two, and to extend the duration of the visit.

"36. Visitors are warned that they run great risk in entering the hospitals. They are advised not to go into the wards of the small-pox hospitals without having been properly revaccinated; and, if they reside where the case visited occurred, are earnestly requested to urge the remainder of the occupiers of such house to call at once on the public vaccinator (whose address can be obtained from any of the parish officers) for the purpose of being vaccinated.

"37. Visitors are further advised not to enter the wards in any of the hospitals when in a weak state of health or in an exhausted condition, but to partake of a good meal before entering the hospitals. They will be required when in the wards to carefully avoid touching the patient or exposing themselves to his breath, or to the emanations from his skin; and will not be permitted to sit on the bed or handle the bedclothes, but will be allowed to sit on a chair by the bedside at some little distance from the patient.

"38. Visitors will also be required to wear a wrapper (to be provided by the Board) covering their dress when in the wards, and to wash their hands and faces with carbolic soap and water before leaving the hospital, or to use such other mode of disinfection as may be directed by the medical superintendent.

"39. Visitors are strongly urged not to enter any omnibus, tramcar, or other public conveyance immediately after leaving the hospital."

If there are any benighted hospitals in existence where such precautions are not taken, they will feel themselves rebuked by reading what is done elsewhere. But there is no reason to think that the provinces are behind London in this matter. We have not hesitated to admit the force of Miss COBBE'S personal experience in this question, which led her to write as she has done. Nevertheless, we must remember that things have advanced greatly in the last twenty years as regards our notions of infection and the ways in which it is spread. Miss COBBE does not give us the date of her experience, further than that it was "years ago." What should we think of the fairness of judging the work and ways of a surgeon "years ago" by the latest precautions of Sir JOSEPH LISTER? The comparison would be manifestly ungenerous. Many old and experienced practitioners have much reason to believe that, by dint of personal care and cleanliness—which, after all, are a great part of the science of disinfection,—they have never been the means of conveying disease. In cases of scarlet fever and small-pox some kind of surplice should be worn, such as that described by Mrs. PRIESTLEY. It is waterproof, and dries quickly after being washed with a disinfecting fluid. The face and hands should be washed, and the mouth rinsed with a weak solution of permanganate of potash or other disinfectant. Possibly these precautions are in most cases excessive and superfluous. But, even so, they should be practised. It is right to go to an excess of precaution to avoid so great an evil, and such care in medical men has an excellent educational effect on a household, and teaches all subordinate authorities care. As we have already said, a most capable committee of the College of Physicians has been appointed, jointly with one of the Metropolitan Asylums Board, to prevent the evil feared by Miss COBBE, in the case of students studying at the infectious hospitals. No harm will be done by her warnings, but it would only be fair on her part to admit that she has underrated the carefulness of the authorities that are responsible for the management of our great infectious hospitals. And this discovery may well incline her to believe that private practitioners who object to discuss such questions in the public newspapers are much more careful than she had given them credit for.

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Annotations.

"Ne quid nimis."

THE UNIVERSITY OF LONDON.

AT a special meeting of the Senate on the 20th inst., a scheme for the reconstitution of the University, on the general lines laid down by the Royal Commissioners, was approved after a long discussion, and it has been forwarded to University and King's Colleges, the Royal Colleges of Physicians and Surgeons, the Council of Legal Education, and the Incorporated Law Society, as a basis for conference with these bodies. It is evidently considered that it would be unwise for Convocation to see and discuss the proposed scheme until the institutions interested therein, who are external to the University, have expressed their assent or dissent to the proposals of the Senate. So far as we can learn, the great problem of how to grant degrees to London medical students on terms comparable with those on which they are given in the Scotch and provincial universities finds no solution in the new scheme, although a possibility of two standards for the M.D. degree is foreshadowed. The pivot of the proposed reform is the constitution of a constituent college, and the definition is sufficiently vague to take in any one-faculty institution in London and the neighbourhood, whilst similar bodies in the provinces are to have certain privileges in being excused the Matriculation Examination. The Senate also proposes to accept examinations at the Colleges of Physicians and Surgeons in preliminary scientific subjects instead of their own. Physics and Chemistry are the only scientific branches tested by these Colleges. Are the Physics and Chemistry of the Conjoint Board quite satisfactory to the Senate of the University? And where is the Biology? It is obvious that the Senate has not seriously taken into consideration the full extent of the medical difficulty in London; and in proposing to accept lower standards in the earlier, without modifying their later, examinations, the authorities of the University will be likely to mislead the student as to his ability and power to obtain their degree. We can scarcely believe the rumour that has reached us, that the University of London has practically come to a conclusion that two M.D. degrees of different standards may be given by the same University. Would not this create more confusion than the formation under different names of two degree-conferring bodies in London?

REPORT OF THE HEALTH OFFICER TO THE STAFFORDSHIRE COUNTY COUNCIL.

ALTHOUGH the need of reports from medical officers of health of County Councils hardly comes into effect until next year, after the receipt by such officers of the annual reports on the current year, which will then have been transmitted to the Councils, Dr. Reid, health officer to the Staffordshire County Council, has prepared a report which gives an excellent idea of some of the work that such officers may be expected to perform. It is true that the material on which it is based is incomplete, for only ten annual and fourteen special reports have reached Dr. Reid from the fifty-two sanitary districts coming within the jurisdiction of the Council; besides which the Local Government Act imposes but few sanitary duties on County Councils. But for all this the report gives a good idea of the different ways in which a county health officer may be most useful. Thus, statistics are compiled comparing district with district within the county area; sanitary defects to which attention has at different intervals been called are prominently referred to; the imperfect manner in which vaccination is performed in two sanitary areas of the county as compared with others is adverted to; and failure to comply with the provisions of certain Acts or to make proper arrangements for controlling the spread of infectious disease in certain districts are specified. In the end, Dr. Reid advises the County Council to take action in a number of directions. He suggests, amongst other things, that the attention of the Stourbridge rural authority should be called to the fact that their medical officer of health still remains without information as to the number of births in his district; and that the West Bromwich rural authority should be reminded of their duty under the Dairies, Cowsheds, and Milkshops Order. But he goes further than this. He proposes that some of the sanitary authorities who may be regarded as making default in these and similar matters should be requested to supply to the County Council information as to their intended action; he urges that as regards Quarry Bank and Brierley Hill the Council should institute a special inquiry as to the sanitary circumstances prevailing in those places; and he proposes that answers to a number of queries as to sanitary administration should be sought from all the sanitary authorities. The object thus held in view is a most laudable one, and the report may possibly embody a forecast of the future position of a county health officer—a position which should be filled by an expert ready to advise the County Council and to undertake local inquiries with a view of aiding the various local sanitary authorities. But we are by no means sure how these local bodies will, in the present state of the law, be inclined to submit to a position with regard to the County Councils in matters relating to the general sanitary administration of their districts, which is not required of them under the existing law; for it must be remembered that one of the greatest difficulties with which the Government had to deal when they brought in the Local Government Act, 1888, related to the transfer to the County Councils of certain powers of sanitary administration, supervision, and control which the central government have hitherto alone exercised; and the objection which local bodies exhibited to being in any such sense placed under the control of the County Councils was so strong that in the end the Government dropped the clauses and schedules dealing with this subject out of their Bill, and the County Councils have in consequence been constituted with hardly any sanitary functions at all. For these reasons we imagine that action in the direction of superintending local sanitary administration by County Councils will have to be of a very tentative character; and that it should, in the main, be by way of offer of assistance than in any other way. The co-operation of Dr. Reid with a local health officer on such lines, whether for the purpose of assistance or of acquiring information, will certainly be of value to the local authority concerned; and it is essentially in this sense that we interpret the proposals of the report before us.

INFLUENCE OF THE SPLEEN ON THE BACILLI IN THE BLOOD.

DR. VON KARLOW, wishing to find out whether the spleen has the destructive influence upon bacilli introduced into the circulation that has been assigned to it by many, performed a number of experiments with the object of setting this question at rest. For each experiment he took two rabbits as nearly alike in size and weight as possible, and extirpated the spleen in one of them. Two or three months afterwards he injected an equal quantity of some particular bacillus culture into the auricular vein of each, and examined the blood after the lapse of half an hour and an hour and a half, killing the animals after two hours. No perceptible difference could be detected in the distribution of the bacilli in the two animals. Similar results were obtained

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when attenuated cultures were employed. The bacilli experimented with included those of anthrax, chicken cholera, diphtheria, and porcine erysipelas, staphylococcus pyogenes aureus, and the cocci of erysipelas. It may be mentioned that in one case, where Emmerich's bacilli were used, the animal without the spleen lived, while the one that had not been operated upon died.

LEPROSY.

AT the recent meeting of Livonian practitioners held at Wolmar, two of the Professors of the Dorpat Medical Faculty read important papers on the subject of leprosy. Professor E. von Wahl dealt mainly with the historical, etiological, and practical side of the question, Professor Dehio treating the affection from a histological standpoint. Professor von Wahl stated that the cases had become much more numerous during the last twenty years, and gave it as his opinion that there could be little doubt about the transmission of leprosy from person to person. It is found that individuals of all ages are attacked whose parents are, as a rule, perfectly free from the disease, so that the idea of its being hereditary has not much to support it. Again, as the peripheral parts are usually the first to be attacked, and especially those which are uncovered, or which are, like the mucous membrane of the throat, peculiarly liable to external influences, it would seem probable that the disease is communicated from the outside rather than that it is generated within the body. A very important point, too, is that in a comparatively early age of the disease the reproductive power, and even the capacity for the act of coition, is lost. As to the direct proofs of contagion, Professor von Wahl referred to the works of Leloir, Bergmann, Paulson, Hellat, and Münch, and to the cases of Fathers Damien and Conrady. Professor Dehio described pretty fully the anatomical changes observed in leprosy. In these, as has been known for a considerable time, a very important part is played by the peripheral nerves. The morbid changes which commence at the peripheral extremity appear to creep centripetally along the smaller twigs towards the larger nerve trunks. Microscopical examination of nerve sections reveal, even when little or no morbid appearances are visible to the naked eye, a small-celled growth invading the tissue surrounding the nutrient vessels. The fasciculi of the larger trunks become separated from one another, the nerves appearing to be thickened. The neurilemma will be found in some places to have become granular, and in others to have disappeared, leaving the axis cylinder alone, which itself ultimately disappears, its place being taken by a thick cord composed of leprous tissue, together with the perineurium and the connective tissue previously existing in the healthy nerve. The degenerative atrophy of the peripheral nerves has only been studied during the last twenty years. Very variable clinical types may be assumed by the disease according to the original seat and cause of the affection. It is a matter of some importance to determine how far the clinical symptoms of the anæsthetic variety are referable to the morbid changes in the peripheral nerves above mentioned. A case was related where there was pure anæsthetic leprosy with maculæ distributed over the surface of the trunk and limbs. Here an electrical examination showed the existence of an atrophic paralysis of the interossei of the hand and of the abductors of the little fingers. In the paralysed muscles there were great differences both in the nature and degree of the partial "reaction of degeneration." In some of the muscles there were also fibrillar tremors. There was also a lowering of sensation, which seemed to affect all the different kinds of sensation about equally, and which was especially marked in the localities supplied by the two ulnar nerves. At the same time there were also observed distinct evidences of irritation, as formication, slight shooting pains, and tenderness on deep pressure. There could, therefore, be no doubt that there was degenerative atrophy of the nervous conducting media supplying the skin and the muscles of the hands. The general description of the disease from a pathological point of view may be summarised in the expression "multiple, chronic, degenerative, ascending leprous neuritis."

"NOBLESSE OBLIGE."

IT is certainly most natural, and perhaps not altogether unreasonable, that the general public should extend to a man who has attained to distinction in any one of the recognised walks of life a very large confidence, and be prepared to take him very much at his own valuation when he departs from his accustomed path to tread in others with which he may or may not be less familiar. The ordinary man thinks Mr. So-and-so is a great man in his way, and that he is not likely to imperil his assured reputation by committing himself to the success of an undertaking as to which he is no better qualified to judge than another man. Unhappily the men of mark do not always exhibit quite so much caution as they are thus credited with. Our attention has recently been drawn to a prospectus in which the names of several persons justly distinguished for scientific and other attainments are paraded as vouchers for a patent medicine. Of the patent medicine itself it is not necessary, and therefore it is not desirable, that we should speak on this occasion; but it would certainly be very unfair to the gentlemen in question to hold them personally responsible for the utterances of their advertising agents. Yet it is hard to see how they can escape responsibility if they allow their names to be used to authenticate the undertaking. No doubt if they could be put in the witness-box and cross-examined they would be only too ready to avow that the most complete mastery of the laws of electricity or chemistry, or of some other branch of physical service, as the case may be, affords no criterion at all by which a man can judge of the value of a nostrum, and that in reference to such a matter one man without medical training is pretty much like another, and can rely on nothing but his common sense. But while we give them full credit for holding this view as a pious opinion, we cannot but feel that it is a little unfair to their less instructed and somewhat undiscriminating neighbours, who pay to them the tribute of that respect which is due to eminence, that they should allow less scrupulous persons to use their reputation and prestige to advance statements which they would shrink from personally making.

AMMONIA IN COCAINE POISONING.

A CASE of poisoning by a very moderate quantity of cocaine is reported by Dr. Golovkoff, in the Proceedings of the Caucasian Medical Society, where ammonia was used with good effect to restore the patient. The patient was a somewhat delicate woman, who was suffering severely from toothache. The pain becoming unbearable, Dr. Golovkoff injected fifteen minims of a two per cent. solution of the hydrochlorate of cocaine under the skin of the left cheek, which gave relief for three or four hours, when the pain returned as acutely as ever. A second fifteen minims were injected, and in about five minutes' time the patient became restless, her pupils dilated, the surface o the skin became pale, the pulse and likewise the respiration became rapid, and shivering came on; the respiration soon ran up to 200 per minute, and was laboured. A curious effect, too, was produced on the sounds of the heart, causing them to be audible at the distance of two paces from the patient. There was great pain over the cardiac region and back,

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together with a dread of death and convulsive movements of the limbs. There was some liquor ammoniæ at hand, and this the patient was given to smell and a few drops were given internally every five or ten minutes. Amyl nitrite was also employed, but the latter seemed to do more harm than good, while the ammonia soon brought the pulse and respiration, and indeed the general condition of the patient, into something more like their natural condition, so that in about a couple of hours she had quite recovered. Dr. Golovkoff remarks that the only case he has been able to find in medical literature where ammonia was used as an antidote in cocaine poisoning was one by Dr. Gooding of Barbadoes, reported in THE LANCET of 1888, vol. i., p. 394, and copied into the *Meditsinskoë Obozrênie*. (This was a case of a negress who had developed alarming symptoms after less than half a grain had been injected into the gum; she was treated by hypodermic injections of ether and ammonia.)

OVER-INSURANCE OF INFANTS AND CHILDREN.

WHILE public opinion is moving slowly in the direction of further restrictions of infant insurance, no doubt exists of the necessity for those legislative enactments which were embodied in the Friendly Societies Act of 1875, with a view to keep the amount of infant insurance within reasonable limits, and to check a dangerous abuse of this system. By Sec. 28 of this Act the payment of any sum of money by any industrial or other insurance company on the death of a child under the age of ten years, without the production of a registrar's certificate of the entry in the Death Register, was created an offence. It is further enacted that no insurance society can legally pay any sum of money which, added to any amount payable by any other society on the same death, exceeds £6 in the case of a child under five years of age and £10 in the case of a child between five and ten years. In order to ensure, as far as possible, that these enactments are not evaded, these registrars' certificates for the payment of insurance money must be written on a prescribed form supplied by the Registrar-General, together with counterfoils, on which the necessary particulars are filled up for reference in case a second certificate is applied for relating to the death of the same child. It seems to follow, therefore, that if registrars rigidly adhere to their instructions on the subject, and if societies on their part strictly carry out the enactment that no money shall be paid without the due production of the registrar's certificate, the object of the Act in definitely limiting the amount of child insurance would be satisfactorily effected. In face of the evidence recently given before the Commission appointed to inquire into this subject, there is, however, too much ground for believing that the working of these enactments is far from satisfactory. It was pointed out by the Chief Clerk of the Registrar-General's Office that no efficient means have at present been taken for the enforcement of these provisions. The Act provides that penalties incurred for infringements of these provisions are recoverable (*a*) at the suit of the Chief Registrar of Friendly Societies, or any officer acting under him, and (*b*) at the suit of "any person aggrieved." In fact, however, no prosecutions in this class of cases are instituted by the Chief Registrar of Friendly Societies, even when clear cases of offence under the Act are reported to him, on the ground that prosecution should be undertaken by the Registrar of Deaths as an "aggrieved person." Now a registrar may technically be an aggrieved person if a society illegally pays insurance money without the production of the registrar's certificate, for which the registrar's legal fee is one shilling; but to expect that a registrar should incur the expense and risk of a prosecution on such a ground is entirely unreasonable. The Chief Registrar of Friendly Societies, when a case of payment of insurance money without the legal certificate is reported to him by a registrar, invariably, it is said, replies to the effect that as the provision exists for the benefit of the registrar (!) no official prosecution will be instituted, but that he, the registrar, can proceed against the offending society as an "aggrieved person." Thus no prosecution follows the commission of this legal offence, and the provisions of the Act for restricting the insurance of children are evaded and defeated. Surely, now that light has thus been thrown upon this evasion of responsibility imposed upon those who are appointed to carry out the provisions of the Friendly Societies Acts, some way will be found by the Home Office or by fresh legislation to ensure prosecutions when the insurance provisions of this important Act are known to have been infringed.

THE HOME SECRETARY ON SCOTCH UNIVERSITY DEGREES.

AT a meeting of the Board of Governors of Queen's College, Birmingham, held on Oct. 19th, the Home Secretary referred in somewhat disparaging terms to the degrees given at the Universities of Aberdeen and Glasgow, and has consequently been called to task by Principal Geddes, of Aberdeen. It is certainly most unfortunate that he should be reported as having said "he thought they should think seriously before those who set store by higher education in this country proceeded to multiply establishments in which degrees were scattered broadcast, as they were at Aberdeen and Glasgow, to persons whose distinction, from a scientific point of view, was not of the very first order," unless he were prepared to justify his statement; for we cannot agree with Mr. Matthews that a speech made at this critical period in the history of the University of London by one in his position, both in the Government and at the University of London, at a meeting of the governors of one of the most important Colleges which sends students to the University of London, "ought not to have appeared in the public press at all." If Mr. Matthews did not intend to cast any "reflection upon the manner in which, at the present time, degrees are conferred by the University of Aberdeen, it would have been wiser to have avoided making the remarks above quoted, or to have specified the degrees and the period to which he referred.

HOSPITAL ABUSE AT BIRMINGHAM.

A LARGE MEETING of the profession in Birmingham and in the surrounding neighbourhood was held on the 20th inst., to consider a report on hospital abuse presented by a subcommittee, to which we have already referred. Dr. Wade presided. It was proposed by Mr. Priestley Smith, seconded by Dr. Malet, and supported by Councillor Oliver Pemberton, "That the statements contained in the report are deserving of the serious attention of the public, the administrators of medical charities." The second principal resolution was moved by Dr. Rickards and seconded by Mr. Ross Jordan, to the following effect:—"That in the opinion of this meeting the proposed inquiry would be most usefully conducted by means of a conference between representatives of the general and special hospitals, of the Hospital Saturday Committee, of the Board of Guardians, of the existing provident dispensaries, of the Charity Organisation Society, and of the general body of the medical profession." The general dispensary was properly included on the motion of Dr. Saundby. A strong committee was then appointed, and a further motion requesting the mayor to arrange a conference was agreed to. Many wise things were said at this meeting, showing the harm

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done all round by the present overgrown system. There was a strong disposition to blame the Hospital Saturday Fund for generating a notion that the contributions of the working men entitled them to attendance. Mr. Suffield said he had known case after case in which men who refused to subscribe to hospitals on the ground that they were in clubs were told they must leave their work that night. We cannot doubt that working men will perceive as well as other men the difference between a charitable gift and a provident one, though they may want a little more time to do so. We should deprecate any discouragement of their steady contributions to hospitals, while at the same time we would impress on them the essentially charitable character of them. The subject of hospital abuse has only been broached. But all parties are interested in its being now thoroughly discussed. If some sound checks to the existing evils are not devised undoubtedly the hospitals will suffer. We shall look with interest to the result of the conference. There should be no delay in the work, while there should be no undue haste. One thing is clear, that there must be something wrong when, with the increase of wages and of wealth in Birmingham, the demands on medical charities grow out of all proportion to the growth of the population.

MEDICINE AND THE ARTS.

EVERY now and again comes a cheerful reminder that the pursuit of medicine does not destroy artistic perceptions, even though it is currently held that devotion to any science tends to develop the "scientific frame of mind" until it is all-absorbing. Those who have had no scientific training never seem to weary in denouncing the avidity for facts and the scepticism for theories with which they credit those whose habit of thought differs in many respects from their own. The medical profession in particular is selected for cheap satire. The interest of the dissecting-room and physiological laboratory and the watchful anxiety bestowed upon hospital patients are alike misunderstood by many who have never penetrated the inner life of the medical man. To those who know, however, there is a deal of human nature in the medical profession, and it seeks expression and distraction in many unsuspected directions. Painters, etchers, and photographers abound in our ranks, while music not only claims many instrumentalists, but even the publication devoted to Wagner and all things Wagnerian is edited by a member of our profession. In such meditations upon harmony does Mr. W. Ashton Ellis find repose in the midst of the turmoil of conflict on behalf of the Members of the Royal College of Surgeons in their endeavour to obtain a restitution of their corporate rights. The current number of the *Meister*, with its article upon the Bayreuth Hush, seems pervaded by a sense of peace in striking contrast to the correspondence so ably conducted at the beginning of the year.

NEW ITALIAN REVIEW ON HYGIENE.

A FURTHER indication of the progress which is being made in matters relating to public health and sanitary science in the kingdom of Italy is afforded by the promise of the issue next month of the first number of a Review on Hygiene, which will be compiled under the direction of Dr. Eugenio Fazio. The subjects to be dealt with are as follows:—Biology, bacteriology, infection and sanitary police, the natural sciences as applied to public health, demography, statistics, and sanitary engineering. We are glad to find that the Review will emanate from Naples; for the southern portion of the Italian peninsula stands, we fear, much in need of an educational movement in the direction of hygiene. For this reason, too, the Review has our good wishes.

ALLEGED POISONOUS EFFECTS OF TOBACCO SMOKE ON MEAT.

CASES of poisoning due to meat which seemed thoroughly wholesome have sometimes occurred and have remained unexplained. In the *Revue d'Hygiène* of this month M. Bourrier, inspector of meat for the town of Paris, makes a valuable suggestion. He describes his experiments with meat impregnated with tobacco smoke. Some thin slices of beef were exposed for a considerable time to the fumes of tobacco, and afterwards offered to a dog which had been deprived of food for twelve hours. The dog, after smelling the meat, refused to eat it. Some of the meat was then cut into small pieces and concealed within bread. This the dog ate with avidity, but in twenty minutes commenced to display the most distressing symptoms, and soon died in great agony. All sorts of meat, both raw and cooked, some grilled, roasted, and boiled, were exposed to tobacco smoke and then given to animals, and in all cases produced symptoms of acute poisoning. Even the process of boiling could not extract from the meat the nicotine poison. Grease and similar substances have facilities of absorption in proportion with their fineness and fluidity. Thus the fats most readily influenced by tobacco smoke are, in their respective order, the fat of horseflesh, of pork, of veal, of beef, and finally of mutton. Hashed meat is, of course, more readily affected than large pieces; thus, a few puffs of smoke directly projected on to sausage meat will give it a characteristic and unpleasant taste. The juices of meat are equally dangerous. The juice squeezed out of some veal perfectly saturated with tobacco smoke was injected into a rabbit, and death resulted in a few moments. Fresh-killed meat is more readily impregnated, and stands in order of susceptibility as follows—pork, veal, rabbit, poultry, beef, mutton, horse. The effect also varies considerably according to the quality of the tobacco, and the end of a cigar or a pipe has the most injurious effect on any meat that may be exposed close to the smoker. A few jets of smoke from Belgium tobacco on a dish of raspberries will suffice to entirely destroy the delicate flavour of the fruit and to render it uneatable. All these experiments would seem to denote that great care should be taken not to allow smoking where foods, especially moist foods, such as meats, fats, and certain fruits, are exposed.

THE ARRAN MURDER.

THE author of this peculiarly atrocious crime has been found guilty by a majority of the jurymen who tried the charge against him. The justice of this verdict will be acknowledged generally by those who have read the evidence tendered in the High Court of Justiciary at Edinburgh. The motive for the crime may seem at first sight quite inadequate, but then it must be remembered that such is frequently the case, whether a murder is committed of malice aforethought or in the heat of passion. The annals of our criminal courts vouch for the accuracy of our present contention. Of course where there is no direct evidence the circumstantial testimony requires to be all the stronger in order to warrant a conviction on the capital charge. Contradictory medical evidence was given as to the method of infliction of the wounds on the head. In our opinion the medical witnesses for the prosecution decidedly failed to show beyond reasonable doubt that Laurie despatched his victim by a series of blows. The injuries as detailed at the trial might have been received from impact of the head against boulders or crags in a headlong descent down the precipice. The fact of the liver not being ruptured is, to our minds, of little value as an aid in determining the mode in which the cranial fractures were inflicted, because laceration of the abdominal viscera would probably be accomplished almost as easily in a body recently

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dead as in the living. If the body alighted on the head, this at once would account for the fractures and give a trustworthy explanation of the abdominal viscera escaping serious mischief—the rebound of the liver, e.g., would be against the diaphragm, and not from it; moreover, it would be considerably checked by the buffer action of the lungs. We trust that the jury were convinced of the crime rather by its concomitant circumstances than by the opinions of the medical men who gave evidence as to the particular way in which the deceased lost his life. As pointed out by a contemporary, the fact that Laurie, whilst confessing himself guilty of robbing Mr. Rose, disclaimed any participation in his death, is not consistent with the fact that the body was discovered carefully concealed. Had the trial taken place in England there would have been a greater chance of justice being thwarted, since it is a *sine qud non* that the verdict shall be that of all the jurymen. In Scotland, on the other hand, the finding of a majority of fifteen is accepted and acted upon. Since the above was written it has been announced that the convict Laurie has been respited.

PROFESSOR NUSSBAUM ON RECOVERY AFTER WOUNDS AND OPERATIONS.

PROFESSOR NUSSBAUM has found that a very good prognosis of the healing of surgical wounds can be obtained by examining the secretion from the surface during the first two or three days. If this be sanguinolent, prognosis is more or less bad. Care must be taken not to confound any slight after-bleeding with true sanguinolent secretion. The prognosis is only bad where the secretion from the whole surface of the wound is tinged with blood. Thus, when a day after a litholapaxy has been performed the urine is quite free from a reddish tinge the prognosis is good, or if two or three days after the amputation of a breast when the dressing is changed there is no general sanguinolent stain on the latter, but only, may be, a few little blood-clots here and there, it is most likely that the wound will heal satisfactorily. Again, if the secretion becomes free from blood on the fourth or fifth day, the prognosis, though not quite so satisfactory as if there had been none at all after a few hours, is still decidedly better than if it continues bloody up till the sixth or eighth day. In such a case the patient is sure, if he recovers at all, to be very slow about it. In phthisical persons and hard drinkers there is nearly always a great tendency to a prolonged secretion of sanguinolent matter after wounds, and sometimes the tinge remains throughout the healing process, which is in these cases very tedious. When the secretion on the first day is free from blood, it shows that the capillaries are closed, and therefore that the intracapillary pressure is normal. Again, it is evident that when the intracapillary pressure is low the endosmose and the exosmose between the vessels and the tissues cannot be taking place properly, and thus that the due healing of the wound cannot be expected to proceed as it ought.

THE SUPPLY OF SUBJECTS FOR DISSECTION.

ON the 21st inst., at a meeting of the Paddington Board of Guardians, a resolution was carried permitting the corpses of friendless or unknown paupers dying in the Paddington Workhouse Infirmary to be used for purposes of dissection at the anatomical schools. The number of subjects at present in the dissecting-rooms is less than the supply for many past years, and we are glad to see that another source of supply has become available. The recent regulation of the Conjoint Examining Board requiring every student to have performed operations on the dead subject has undoubtedly very seriously affected the supply for anatomical teaching.

THE SURGEON OF THE EMIN RELIEF EXPEDITION.

MR. STANLEY, in his thrilling letters descriptive of the circumstances attending the relief of Emin Pasha, passes a glowing eulogy upon the services rendered by Mr. Thomas Heazle Parke, L.K.Q.C.P., L.R.C.S.I., of the army medical staff. Whilst the followers of Emin Pasha, together with their families and *impedimenta*, were being slowly and laboriously collected at Stanley's camp near Wadelai prior to the march to the coast, the interval was utilised by Surgeon Parke ("our doctor," Mr. Stanley calls him) in "healing the sick and assiduously dressing and trimming up the ulcerous ready for the march to Zanzibar." What those services were may best be given in Stanley's own words, which are as follows:—

"At this time the hardest-worked man in the expedition was our surgeon. Ever since leaving Fort Bodo in December Surgeon Parke attended over a hundred sick daily. There were all kinds of complaints; but the most numerous, and those who gave the most trouble, were those who suffered from ulcers. So largely had these drained our medicine-chests that the surgeon had nothing left for their disease but pure carbolic acid and permanganate of potash. Nevertheless there were some wonderful recoveries during the halt of Stairs' column on the Ituri river in January. The surgeon's 'devotion'—there is not a fitter word for it,—his regular attention to all the minor details of his duties, and his undoubted skill enabled me to turn out 280 able-bodied men by April 1st, sound in vital organs and limbs, and free from all blemish; whereas on Feb. 1st it would have been difficult to have mustered 200 men in the ranks fit for service. I do not think I ever met a doctor who so loved his 'cases.' To him they were all 'interesting,' despite the odours emitted and the painfully qualmish scenes. I consider this expedition in nothing happier than in the possession of an unrivalled physician and surgeon, Dr. T. H. Parke, of the A.M.D."

That Surgeon Parke had no sinecure may be judged from the following passage describing the sufferings on the march:

"Nothing happened during the long journey from the Albert Lake to cause us any regret that we had taken this straight course, but we have suffered from an unprecedented number of fevers. We have had as many as 150 cases in one day. Aukori is so beswept with cold winds that the expedition wilted under them. Seasoned veterans like the Pasha and Captain Casati were prostrated time after time, and both were reduced to excessive weakness like ourselves. Our blacks, regardless of their tribes, tumbled headlong into the long grass to sleep their fever fits off. Some after a short illness died; the daily fatigues of the march, an ulcer, a fit of fever, a touch of bowel complaint, caused the Egyptians to hide in any cover along the route, and, being unperceived by the rearguard of the expedition, were left to the doubtful treatment of natives with whose language they were utterly ignorant. In the month of July we lost 141 of their number in this manner."

We conclude with an extract from the latest communication received from Mr. Stanley, written at the Missionary Station, Victoria Nyanza, and bearing date Sept. 3rd. Speaking of the period at which the final arrangements were being concluded for the bringing away of Emin Pasha, Captain Casati, and the others, Mr. Stanley says:—

"Since that time of anxiety and unhappy outlook I have been at the point of death from a dreadful illness. The strain had been too much, and for twenty-eight days I lay helpless, attended by the kindly and skilful hand of Surgeon Parke. Then little by little I gathered strength and ordered the march for home."

We heartily congratulate Mr. Parke upon his safe deliverance from the perils and fatigues of this marvellous expedition—an expedition which will for ever live in history.

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THE INDIAN MEDICAL SERVICE.

WE learn that the Indian Medical Service is somewhat agitated at the present time about a recent order affecting the position of those officers who are in civil medical employ. The condition of affairs, so far as we have ascertained, is as follows. The Indian Medical Service, although it is nominally and primarily a military service, includes a civil medical service, officers being lent to the local governments by the Military Department for that purpose, with a tacit understanding that they can be recalled for military duty when required. The civil section of the service is not only the most lucrative, but it holds out the greatest opportunities of professional distinction—in connexion, for example, with professorships at the medical schools and colleges and appointments as civil surgeons at large stations. It seems that it has hitherto been the usual practice in India not to remove men from such civil posts to military ones, and members of the Indian Medical Service engaged in civil duties had the privilege of declining military promotion in order to pursue a career which suited their tastes; and, it must in justice be added, the custom appears to have worked well for the State and the medical service: for the former, in that excellent professional work was performed by individual medical officers in their several spheres, and medical education and training were, through the instrumentality of the colleges, introduced and carried on among the civil population; and for the latter, in that it served to keep up a high standard of professional attainments among members of the medical service. A recent order requires, however, that a medical officer in civil employ must accept his promotion when it comes to his turn, and take up, or go back to, military medical or administrative work, or, we presume, as the only alternative, resign the service altogether. It is easy to see that the incidence of such a ruling, if suddenly and arbitrarily introduced, might inflict grave injury on individuals, while it might not be productive of any good to the State; inasmuch as it probably would be taking away a medical officer from duties which he liked, and discharged efficiently, to perform others of which he was ignorant, and which he disliked. Looking at it, however, from an unbiased stand point, it seems clear that individual hardship must give way to public service requirements; and the question which arises is whether the subject had been thoroughly weighed and considered, not by any local government, but by the Viceroy in Council, before a decision was finally arrived at. The case is one, in our opinion, which should be considered on its merits, and settled entirely on public service grounds. The Government clearly has the first claim on the services of its servants; and if this theory has been in practice departed from in the past, a reversion to it in the present should be effected after due consideration on the one hand and fair notice on the other; but of the power and right of the State in the matter we apprehend there cannot be much doubt.

A TAX ON REVOLVERS.

MOST of us will cordially agree with Mr. Justice Wills that some legislative measure is called for in order to control the now too common habit of carrying revolvers. Whatever may be said in favour of this practice as employed in unsettled communities, it is certain that in our own and many other civilised countries its palpable disadvantages cannot be counterbalanced by any sufficient argument founded on personal necessity. In our usual condition of regular and busy life under the ægis of laws justly and firmly administered the risk of personal assault is reduced to a minimum. Fortunately, too, such danger when it does happen to be encountered still retains for the most part a relatively safe if clumsy alliance with muscular energy pure and simple, which had best be met, if it must be met, with a like manly simplicity in the choice of methods. Among ourselves, therefore, we repeat that self-defence hardly ever needs or justifies the use of the revolver. It is a remarkable fact that in the great majority of instances in which this weapon has of late found occupation it has figured as an instrument of offence. It has not been used on the persons of depredators; nor, indeed, has it hitherto been much employed by such in their attacks on the person or on property, although instances are unfortunately by no means wanting, but it has often been too near at hand when passion or malice sought active expression. It has come to be in our national experience no safeguard of already protected lives, but a mere mischievous luxury of evildoers. To control its too common use by a legal check is therefore a clear duty, and one which, in our opinion, would be best discharged by the imposition of a heavy tax.

THE PATENT MEDICINE ACTS.

THE chemists of Northumberland and Durham have addressed themselves to the discussion of the administration of these statutes from the point of view of the chemist, with, as it seems to us, very good effect. In February last they held a trade meeting, and authorised their chairman to enter into communication with the Board of Inland Revenue for the purpose of arranging, if possible, to have some uniform and easily intelligible rule laid down by which the department and the trade might both abide in reference to the incidence of the tax. The result has now been published in the form of a *brochure*, and serves to show that the department is but little disposed and no better able, perhaps, to minimise the inconvenience of the peculiarly harsh impost which it is employed to collect. The tone in which the revenue officer writes is calculated, whether intentionally or not, to produce the impression that no yearning desire existed in the official breast to meet the reasonable demands of the trade; but we judge that the ineptitude of the following remark must be ascribed to faults of the head rather than of the heart: "The use of the possessive case in the title or description—'Dale's Plaisters'—clearly puts the article forwards as proprietary." This mistake on the part of the authorities was the more inexcusable because in the letter to which this was a reply the representatives of the chemists had explained, what no doubt is perfectly well known at Somerset House, that "Dale's Plaister" is an article largely sold in the north of England in penny rolls, whose composition is well known, and the labels of which claim no secret art in making and no exclusive right to make. The broad proposition that the use of the possessive case imparts a proprietary claim is absolutely childish. Who is there that has not heard of Bright's disease or Newton's rings or Van Diemen's Land, or hundreds of similar phrases in which the possessive case is used to convey a reference to some discovery or description, and without the smallest allusion to proprietary rights? It is not surprising that, applying such very loose principles, the department should have lapsed into some curious inconsistencies. Several striking instances of such inconsistencies are given in the pamphlet. Labels which have been tendered to the Commissioners for their opinion have been pronounced on one date to be liable, and on another date—perhaps a few days or weeks later—to be not liable to duty. Such a state of the law or of its administration, for it matters not which is to blame, is plainly indefensible. The committee has done excellent work in collecting the materials for their manifesto and putting them together in the very telling form in which they now appear; and, if they are adequately supported in the undertaking which they have so efficiently put in hand

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by those who are interested in their success, there can be no doubt that the result, at no distant date, will be such an amendment of the Medicine Stamp Act as will remove the most irritating grievances under which chemists suffer at the present time, even if it be not the total repeal of this most mischievous impost.

VIEWS OF THE BELGIAN MEDICAL FEDERATION.

THE Belgian Medical Federation, which has just been in session, has been discussing several questions relating to medical legislation, a good deal of time being spent upon the apparently interminable disputes between the medical and pharmaceutical professions. A series of propositions were made by M. Martin in a vigorous speech, which was received with universal satisfaction, the propositions being unanimously carried when put to the vote. Of course the chief cause of complaint was the overcrowding of the profession, the speaker remarking that a large number of young men of no particular ability, and belonging to the artisan and lower middle classes, were crowding into its ranks just because they had an idea that the study and the practice of medicine was a nice, light sort of work. The only way to stop this influx was to insist, as preliminary to medical study, upon a very complete classical education, with a good knowledge of modern languages, so that there should be at the very outset a "barrier impassable to mediocrity." Not only would M. Martin and the Federation have the preliminary and professional studies of medical students very materially increased in difficulty, but also those of the pharmacists. They, too, suffer as much from overcrowding as the doctors, and it is because of that that there is always such a tendency to trench on the ground of the latter by doing more or less of a prescribing business. Referring to the usual excuse made by pharmacists when charged with prescribing—viz., that this is only a reprisal for the way in which certain doctors trench upon the pharmacists' domain by dispensing their own medicines, M. Martin pointed out that the dispensing doctors, at all events, were acting within their legal rights, which the prescribing chemists were not doing, also that most of those doctors who have the privilege of dispensing prefer to forego it when it is possible for them to exist without it, those that still exercise the *cumul* or privilege of making up their own medicines being nearly always in practice in very poor places, where, moreover, the country people are so ignorant that they could not be got to understand that anything except a bottle of physic was worth paying for at all. Another very important matter is to forbid chemists repeating prescriptions containing poisons except on the authority of a doctor. M. Martin remarked that, in order to show how differently such matters are conducted in Germany, he might mention that he had just been shown a prescription containing bismuth and one-fourteenth of a grain of morphia which a patient had tried in vain to get made up in four chemists' shops in Aix-la-Chapelle.

A JURY OF MATRONS.

AT the Lancashire Assize Mr. Justice Grantham sentenced to death a young woman named Jane Jones, aged twenty-five, a domestic servant, for the wilful murder of her child by drowning it at Fleetwood. After sentence of death was passed a jury of matrons was empanelled, and found that the woman was *enceinte*. It is, in our opinion, high time that an alteration was made in the law, which is simply a barbarous survival. What would be said if a jury of lay*men* were to be asked to decide whether a prisoner were suffering from pneumonia or from granular kidney? And yet the diagnosis of pregnancy often presents even greater difficulties. We are not aware whether on this occasion a medical man was smuggled in as a "young gentleman not objected to"; but in any case the jury of matrons is a farce, and we think that in these days none but the ignorant and uneducated would fail to recognise this. Fortunately, in our experience matrons generally believe in pregnancy in doubtful cases, and the result probably is that non-pregnant women get respited on false pretences rather than that pregnant women get hanged; but that is not to the credit of the law.

THE HAMPDEN CLUB.

LAST WEEK the enlargement of this club was celebrated by a *réunion*, at which a number of persons, including the local member of Parliament, the founder, Mr. Alderman Gibb, and others were present. The club has so fully met the requirements of medical and legal students that a reference to it finds an appropriate place in our columns. Situated in close proximity to the St. Pancras Railway station, it is within easy reach of University College and other medical schools. It provides an excellent home for those who need accommodation of a better kind than that which is to be found in lodgings, and, what is not less important, at a much lower cost. Members pay a subscription fee of one guinea per annum, and a good bedroom is to be had for from 7*s.* to 10*s.* 6*d.* per week; an excellent table is kept, and, including everything except the charge for washing personal linen, the total charge is £1 6*s.* 8*d.* per week. The residents for this small sum have the use of the bedroom, dining-room, a reading-room well supplied with newspapers and periodicals, lavatories, and bath-room; and the wants of students with special tastes are met by the provision of a studio, gymnasium, and tennis court. Opportunities are given to the residents for joining different societies in which the members take part; thus there is a society which devotes itself to physical exercise, another to the cultivation and practice of music and the drama, a third is a debating and lecturing society, while a fourth has for its object the study of mind, morals, and religion; so again, there are societies for the sciences, for literature, for commerce, for medicine, and for law. There is therefore everything within the four walls of the club which gives the resident opportunity for following the bent of his own mind, and for enjoying at the smallest cost every comfort of home life. This club, which has been established for several years, is only just beginning to be more widely known, and is well deserving the attention of students coming to the metropolis for their studies.

A CHEMIST'S VIEW OF ANTIPYRIN.

WHILE medical men are cautiously feeling their way to the safe use of antipyrin, chemists seem to be going ahead with it. At least, this seems to have been the case with the chemist's assistant at Southport, lately censured for giving four powders of twelve grains each to a servant who went for something for the headache. She took away in all forty-eight grains, and was told to take one powder every hour and a half. There is something very simple in his account of the case, which we must reproduce from the report in the *County News and Chronicle:* "He remembered the deceased going to the shop on a Saturday night. She said she had a headache, and she asked for some powders to cure it. Witness gave her antipyrin, and told her she must take it every hour and a half whilst the pain was so bad." The manufacturers' label was produced, warning the dispenser or retailer against large doses, and saying, "It should be borne in mind that antipyrin is to be taken upon prescription and under medical care." It was also said by the manufacturers that "in cases with weak

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heart it should be given with watchful care." But the chemist's assistant said "he knew the effect of the powder. He had had eighteen months' experience. It was a very light dose indeed." The deputy coroner dissented from this view, and said "twelve grains was a large dose to be administered when you knew nothing of the constitution." The girl, as our readers may have seen in the papers, took one or two powders at ten o'clock at night. About six next morning she got up to vomit, and went to bed again. At nine she was found unconscious, and expired very soon. Dr. Gordon found a tumour in the brain, to which absolutely he attributed death, and not to the antipyrin. For the dispenser's sake we are glad that he should be so far relieved of responsibility in this case. But we acquiesce in the censure administered to him by the jury and the coroner, and in their view that he had no business to prescribe antipyrin in this way without written instructions and without any prescription from a medical man. We are sorry to see letters in the local papers justifying chemists in such doses and uses of the drug. All we can say is that coroners and juries will very much fail in their duties if they do not condemn such random practice by those whose business it is to dispense and not to prescribe such medicines.

THE BELGIAN MEDICAL BILL.

THE Belgian Medical Federation which, as we have previously mentioned, has been engaged in discussing the Bill which is to be submitted to Parliament dealing with medical matters, has now issued a short statement including the motions agreed to by the members, together with a few remarks. The Federation wishes medical students to be obliged, before commencing their professional studies, to take a university degree in Arts, or, at all events, to have passed an examination corresponding to the "little-go," or to an intermediate examination of English universities. The Bill as it stands provides that candidates shall either produce evidence of having attended satisfactorily a five years' course of "Humanities," including rhetoric, or pass an examination before a jury nominated by the Crown. The Federation thinks it would be far better that all should pass the examination, whether they have been to a classical school or not. As to the professional examinations for the licence to practise the Federation wish that the old system which was in vogue before 1876 of having a central jury composed of professors from the four universities should be returned to. The present plan of allowing a professor to examine his own students alone at any hour suitable to himself—midnight being occasionally, it is said, selected,—is, according to the Federation, very unsatisfactory. The fact that a larger number of candidates are rejected now than formerly is accounted for in the preamble to the Bill by the supposition that the examinations are more severe than they used to be; but the Federation thinks that the failures are to a considerable extent due to the incapacity of the students for assimilating the instruction given, owing to their want of preliminary education. The question of giving foreigners a licence to practise is of course a serious one for the Federation, which does not hesitate to declare that foreigners ought to be obliged to pass the same examination before the central jury as Belgian students. Dentists are looked upon by the Federation in the light of specialists—much as ophthalmologists, aurists, &c.—and ought, they think, to be obliged to pass the examinations for the doctorate in medicine like everyone else. At present it seems that the dentists have to pass their examinations before the provincial medical boards, which are composed of medical men who are not dentists, and who, of course, are by no means specially fitted to judge of the knowledge of dental science possessed by the candidates. The Federation is at one with most of the authorities in this country on the subject of the necessity for a more practical training for medical men about to enter on practice than that which is obtained for the purpose of passing examinations. The system of keeping assistants is probably but little known in Belgium, and so there seems to be no question of obliging students to pass through any kind of apprenticeship to general practitioners. Instead of this, the Federation suggests that after a student has passed all his examinations he should be required to go through a year's extra work in some home or foreign hospital.

SECONDARY HÆMORRHAGE AFTER EXTRACTION OF TEETH.

MR. PILLIN, in a recent issue of the Journal of the British Dental Association, relates five cases occurring in his practice of secondary hæmorrhage following tooth extraction. Three of the patients were members of the same family, but it is not mentioned whether there was any history of hæmorrhagic diathesis. The cases are interesting on account of the length of time elapsing between the operation and the hæmorrhage. The first, a man aged twenty-eight, had profuse bleeding commencing on the fifth day; a brother, aged thirty-one, notwithstanding the sockets were plugged immediately after the extraction, on the eighth; and a sister, twenty-five years of age, also on the eighth day. Of the two other cases hæmorrhage occurred on the third and fifth days respectively. The treatment adopted successfully was plugging the sockets with cotton-wool saturated with tincture of perchloride of iron, and adapting over this a plate made of Stent's composition, lined with a mixture of tannin and gum tragacanth. Stent's composition is a preparation used by dentists for taking models of the mouth. It is harder than wax at the temperature of the body, and not so flexible as gutta-percha, and therefore makes an accurately fitting and easily applied plug, and can be readily retained in position by keeping the jaws in contact by an ordinary four-tailed bandage.

THE TOUCH OF NATURE IN RELIGION.

MANY persons who cannot clearly discern the spiritual aspect of a creed, however true, or mark its function as a mould of conduct, can fairly gauge its practical result. Its nearest human interest consists in what it can do for the individual. Does it help, relieve, or cheer him; does it, in a word, exert a kindly influence upon him, or the reverse? According to its humanity it evokes that quality of mercy or sympathy which somewhere lives in every human mind, and is its essential means of intercourse with other minds, even without the aid of articulate language. It is this quality which forms the very soul and character of true religion, which constitutes at once its brightest attraction, its wisest resource, and its most powerful aid in times of perplexity and of danger. It was therefore a shrewd as well as a benign intention which first associated with missionary enterprise the sensible blessing of medical skill. There can be no doubt that the influence which has been exercised in later times by the former agency has been greatly aided by this beneficent connexion, and there is evidence also to show that it has gained from the same union a means of appeal which has availed it in times of popular passion. We need not go back to the Pauline era for illustrations. Such recent experience as that of a Chinese mission will suffice for our present purpose. It is reported that during the late disturbances in Southern China consequent upon the French expedition to Tonquin, a small Wesleyan mission station at Fatshan was at the mercy of a riotous mob. The chapel was wrecked. The hospital

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for days was menaced and was hourly expected to fall, but here for the first time the rioters appeared to hesitate. Some of the sick were removed before their eyes, others they knew could not leave the building. They constantly threatened the assault, yet the blow never came, and amid their angry menaces the doctor was allowed to pass freely to and from the hospital. A finer touch than that which compelled a kindred feeling between this rabble and its foreign benefactors does not exist in nature. The Chinese mob probably did not include many acute controversialists in theology, but it did as a whole recognise the presence of that charity which is rightly regarded as the essence of religion.

THE FRENCH ARMY MEDICAL SERVICE.

WE have received a copy of the Report of the Commission charged with the duty of examining the Bill having for its object the giving a complete autonomy to the Military Medical Service, and of the proceedings of the Chamber of Deputies and the Senate which ended in its adoption. The object of the Bill was to remove from the Intendance the duty of providing supplies of all kinds for the military hospital and the authority over the staff, including the purveyors, quartermasters, and orderlies, and to give "the Medical Service the entire disposal of the members of its staff, and of the means necessary for the performance of their duty; to endow them, in a word, under the military authority, with an autonomy as complete as that of the artillery and engineers." This appears to be the final settlement of the struggle which has for years gone on between the Intendance Militaire and the medical officers, and we sincerely congratulate the latter on the result. The Medical Department appears now to be put on the same footing as in our service as regards the supplies for the hospitals and the command of the hospital staff and attendants, as well as the transport and the soldiers temporarily attached to it for duty. The subordination of the medical officers to the Intendance Militaire has long been a subject of complaint and great dissatisfaction in the French army. It is now removed, never again, we trust, to be adopted.

SMALL-POX AND THE EMIN RELIEF EXPEDITION.

"AFTER moving from this place ten days passed before we reached another plantation, during which time we lost more men than we had lost between Banalya and Ugarrowwa's. The small-pox broke out among the Manyema and their followers, and the mortality was terrible. Our Zanzibaris escaped this pest, however, owing to the vaccination they had undergone on board the *Madura*." The foregoing is an extract from the interesting letter of Mr. Stanley published this week, and we commend it to the notice of the anti-vaccinationists.

THE MUZZLING OF DOGS.

THE opponents of the muzzling order lately enforced in the metropolis assembled at a meeting convened by the Dog Owners' Protection Association, at the Westminster Palace Hotel, last Tuesday. The Bishop of Ely occupied the chair, and it was proposed to consider the advisability of asking the Minister of Agriculture to receive a deputation on the subject. The chairman denied the imputation that had been circulated that the meeting was one of anti-vivisectionists. Mr. Candy moved a resolution advocating the withdrawal of the muzzling order, which was seconded by Mr. Haughton; but Professor Horsley, who was present on behalf of the Society for the Prevention of Hydrophobia, succeeded in carrying an amendment approving of the regulations. Professor Horsley's remarks were based upon the good effects resulting from muzzling in other countries, notably Germany, where hydrophobia had been practically extinguished. Nevertheless, to be effectual such regulations ought to be made applicable to the whole country. The meeting in question proved too turbulent for the calm discussion of the question, although it is satisfactory to find that common sense prevailed in the end.

THE NEW ANTISEPTIC.

IN a letter published in the *Pharmaceutical Journal*, Mr. D. B. Dott of Edinburgh casts some doubts upon the composition of the "so-called double cyanide of mercury and zinc," which recently formed the subject of a communication from Sir Joseph Lister. He remarks that it is an almost invariable rule that when a soluble and an insoluble cyanide or iodide unite to form a double salt the product is soluble. He thinks, therefore, that it is not surprising to find that the new antiseptic salt, which has been prepared in presence of, and been washed with water, consists essentially of zinc cyanide. He says: "The product is not indeed a double salt at all. We know that oxide of copper which has been precipitated by caustic soda retains a certain amount of alkali which cannot be washed out; so in like manner the cyanide of zinc may retain a small proportion of mercuric cyanide. If the double cyanide is really formed in the first instance, it is certainly almost completely decomposed by the subsequent treatment with water. It is just possible that the mercury is not present as cyanide but as oxysalt or oxide, especially if an alkaline double cyanide is used at the outset."

A HOUSEHOLD MAN-TRAP.

IT would be somewhat difficult to design a simpler or more perfect means of inflicting most serious injury on the casual passer-by than the ordinary unfastened coal-plate, with which we are all familiar. Laid over an opening sufficiently wide to admit the foot, placed in the very middle of the pavement at our doors, too often not properly secured, and liable to be moved by any chance of accident or childish mischief, its mere description is enough to picture the miseries of aggravated fracture. Happy the man who, stepping in fog or darkness within its treacherous edge, escapes with less than this degree of hurt. It is needless to rely on householders to prevent the occurrence of accidents due to this cause. In spite of all ordinary care they are themselves as liable as any to suffer on the very threshold of their homes. The fault is not theirs alone or even chiefly. It is in the primary thoughtlessness which allowed the use of so dangerous a convenience, and it is a matter as much for municipal as for private inspection and amendment.

THE HOT-AIR TREATMENT OF PHTHISIS IN ST. PETERSBURG.

DR. KORKUNOFF communicates to the *Vrach* on account of some trials he has made in Professor Koshlakoff's clinic with the inhalation of hot air as a treatment for phthisis, as recommended by Dr. Weigert of Berlin. The cases selected were chiefly those where the tuberculosis had affected the upper parts of the lungs or the laryngeal tissues, the author thinking that, whatever might be the temperature of the hot air, by the time it had penetrated to the more remote parts of the pulmonary substance it must at least reach the larynx without much cooling, so that if the inhalation of heated air is capable of exerting any influence on the tubercle bacilli a throat case presents the most favourable opportunity for testing its power. Unfortunately, however, though the treatment was tried with every precaution, and though it was persevered in for many weeks, it wa

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impossible to see that any good effect had resulted, several of the patients succumbing to the disease, and the others showing no signs of any real improvement.

CAROTID ANEURYSM.

ON Saturday last, Mr. Rose, in the theatre of King's College Hospital, tied the right common carotid artery for an aneurysm at its bifurcation in a man aged twenty-five. The vessel was exposed just at the crossing of the omo-hyoid, and one of the features of the operation consisted in placing two ligatures with an interval of half an inch and dividing the artery between them. The ligature used was three strands of fine sulpho-chromic gut, kindly provided by Sir Joseph Lister. The latest accounts of the patient's condition is most satisfactory; the sutures were removed on Wednesday, the fourth day, the wound was healed and covered with a collodion dressing. It was interesting to observe on cutting through the artery that the confined blood had already firmly coagulated. We hope in a short time to furnish full particulars of this interesting case.

INFLUENZA IN ST. PETERSBURG.

AN epidemic of influenza of considerable intensity is at present prevailing at St. Petersburg, causing much inconvenience to business, the stoppage of work in factories, and the disablement of the garrison. It is calculated that between 20 and 30 per cent. of the entire population are affected, and comparisons are being made with other epidemics recorded in history. As the tendency of this disease is to become pandemic, it is possible that we may soon hear of its extension to other parts of the Continent. The last time it appeared in any marked degree in England was in 1847, when in London alone it was computed that 250,000 persons suffered. This epidemic was fully described by the late Dr. T. B. Peacock.

CHOLERA IN PERSIA.

THE cholera which has for some time past prevailed in the valley of the Euphrates and Tigris and in many parts of Mesopotamia is stated to be still spreading in Kermanshah. It is also prevalent in Khorremabad and Hamadan, and is extending in an easterly direction over the frontiers of Persia.

FOREIGN UNIVERSITY INTELLIGENCE.

Bonn.—Professor R. Anschütz has been made one of the directors of the Chemical Institute. Dr. H. Klinger has been raised to the rank of Extraordinary Professor, and is to lecture on pharmaceutical chemistry, toxicology, and the chemistry of food.

Greifswald.—Dr. Bramann of Berlin was offered the Professorship of Surgery, but declined it. The names now mentioned as selected are Dr. Witzel of Bonn, Dr. Landerer of Leipsic, and Dr. Hoffer of Nürnberg.

Marburg.—An invitation to teach aural surgery has been addressed to Dr. Walb of Bonn, but has just been declined by him.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. H. Quiqueretz of Vienna, prosector of the Wieden Hospital. Professor Bonnemaison of Toulouse. Dr. Tytus Chalubinski, Professor of Medicine in the University of Warsaw.

DR. HANS VIRCHOW, son of the well-known professor, has been appointed Extraordinary Professor in the Berlin University, in recognition of his eminence as an anatomist.

WE regret to announce the death, which took place recently at Ramsgate, of Mr. Henry James Wolfenden Johnstone, F.R.C.S.Eng., in his eighty-second year. The deceased was educated at Westminster School and at St. George's Hospital, where he subsequently became house surgeon and teacher of anatomy. He had at one time a large practice, and was a frequent contributor to the medical press, and was joint editor with his father of the *Medico-Chirurgical Review*. At the early age of forty, however, his health broke down from frequent attacks of suppressed gout, and he retired from practice. In recent years Mr. Johnstone resided at Ramsgate, and took part only in local affairs.

PROFESSOR MANTEGAZZA of Florence has, with the sanction of the Minister of Public Instruction, projected a museum of all the documents, the chemical or artistic contrivances, and relics which serve to illustrate the passions of mankind — superstition, idolatry, patriotism, luxury, vanity, being among these latter. Contributions, including autograph letters, and personal articles of famous and notorious characters, already form the nucleus of a collection which cannot fail to interest the student of mental pathology. The museum will be opened next midsummer.

THE second annual conversazione of the British Nurses' Association will be held on Friday, Dec. 6th, at 9 P.M., at the Princes' Hall, and in the galleries of the Institute of Painters in Water Colours, Piccadilly, the concert taking place in the Princes' Hall at 10 P.M. As only a limited number of tickets are available, early application should be made to the Secretary, 8, Oxford-circus Avenue, Oxford-street, London, W.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

TUESDAY, NOV. 26TH.

MR. MARSHALL, PRESIDENT, IN THE CHAIR.

THE new members of the Council, Dr. W. S. Church (University of Oxford) and Dr. D. MacAlister (University of Cambridge), were introduced, and the official notifications of their appointment read.

The PRESIDENT then delivered his opening address as follows:—The inevitable law of change which affects all human institutions has found expression in our recent losses by the death of Dr. Chambers and the resignation of Dr. Humphry. Dr. Chambers leaves behind him many kindly memories, and a reputation for zealous persistency in any cause in which he was interested. I may chronicle here his uncompromising hostility to the acknowledged evils of unregulated "covering" and the "improper employment of unqualified assistants." It was his vigorous exposure of those blots in the practice of a few members of our profession which contributed so largely to the decision of the Council, not only to condemn them, but to endeavour to wipe them out. It would be difficult to name any department of the work of this Council in which Dr. Humphry has not rendered his steady and helpful service. During twenty years of continuous attendance at our meetings, he has shown a constant energy and sagacity which have contributed much to the deliberations and decisions of the Council and its Executive Committee, of which, as well as of other committees, he was an indefatigable member. We rely upon the newly appointed representatives of the Universities of Oxford and Cambridge to maintain on their part the reputation of their esteemed predecessors. I am pleased to report that THE LANCET Relief Fund, of which, with your sanction, I am an Almoner,

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has done and is doing good work in the opportune relief of distress occurring in the ranks of our profession. The two questions referred to in my last address, relating to the President as your official representative—viz., that of his relative precedence on public occasions, and that of his nomination on the Government Grant Committee—remain for the present undecided. The Secretary of State for War has admitted the claim of the recently made Licentiates of the Society of Apothecaries of London, supported by me as your representative, to compete for service in the army and navy on the same terms as other registered practitioners. During a visit to the Engadine this autumn I was called on to listen to accounts of the well-known grievance complained of by the holders of British medical qualifications engaged in practice amongst their own countrymen and countrywomen in Switzerland. For from this natural and sometimes imperative duty when difference of language exists they are prohibited, unless they have passed examinations suited admirably no doubt for native requirements, but not adapted to the purposes of an English-speaking physician or surgeon practising solely amongst English-speaking invalids. I was informed that even the renewal of special local licences, already granted temporarily, with an understanding of annual renewal, had been delayed so long as almost to imply a refusal. But a decision on this question rests entirely with the Swiss medical authorities; and it is to be hoped that sooner or later the undesirableness of their action, in the interests of their own country, will lead them to redress this grievance as regards English-speaking visitors and their medical attendants. It is obvious that the principle of reciprocity imported into the Medical Act of 1886 meets at present with no response in foreign countries; but it is hard to have to admit that foreign members of our profession, who are responsible for this matter in their capacity of local sanitary authorities, should oppose obstacles, as I am informed they do, to the granting of a limited number of special licences, and this contrary to the wishes, not only of their numerous and profitable visitors, but, as I understand, of the hotel-keepers and tradespeople, and likewise of the central and communal authorities. From recent information, it would appear that in France also permission for English or other foreigners to practise amongst their respective compatriots will be made the subject of special vigilance. The Registrar, in accordance with my wishes, has availed himself of a special means of detecting and correcting inaccuracies in the addresses of medical practitioners and dentists on our several Registers. The result has been the issuing of about 9000 letters of inquiry, in the respective forms prescribed by the Medical and Dental Acts, to 4000 medical and 5000 dental practitioners, followed by 600 supplementary inquiries. It is to be regretted that so many persons neglect an obvious duty to themselves by leaving uncorrected a change of their address on an authorised public register. The omission to do this may render them liable to inconvenience or actual loss, from want of legal proof of their identity and rights. Besides the above-named exceptional effort to attain registrational accuracy, the usual autumnal advertisements on this subject have appeared in the medical journals. In the immediately forthcoming work of the session, the Council will be called upon to discharge such of its disciplinary duties as can now be brought into action in connexion with the restoration or the erasure of certain names and qualifications from its registration lists. There are three important cases in which qualified practitioners plead for the restoration of those privileges which are conferred by the fact of legal registration. These cases demand careful consideration. All have been brought forward as a natural sequence of the remarks I was instructed to make in delivering certain judgments of the Council. A fourth case will further illustrate another important point of procedure in reference to the act of restoration to our Register, regarded as a consequence of the restoration of a forfeited diploma by a qualifying body. Nevertheless, this case may be speedily decided, without occupying much of the time of the Council and inflicting a serious charge upon its funds. We have, unfortunately, occasion to regret the necessity of having to conduct two fresh inquiries: one, summarily, as a consequence of a conviction in a court of law; and the other necessitating special investigation before the Council itself. It is earnestly to be hoped that these two cases may be considered, investigated, and adjudicated upon without an extraordinary expenditure of time. But as they have to be heard before the whole Council, they may involve considerable cost. There will, in connexion with this subject of discipline, be presented to you by the Executive Committee a report proposing certain improvements of method in the conduct of our penal proceedings, instead of endeavouring to obtain a clearer definition of our powers by an Act of Parliament. The Council will receive in due order a report from the Executive Committee concerning the best means of limiting the expenditure connected with the sessions of the Council; and it is to be hoped that there will not, even in face of increasing work, be any further anxiety in regard to its resources. The Council will probably desire to consider the opinions of the qualifying bodies on the resolutions passed at the last session on the subject of its requirements in relation to the sanitary qualifications instituted by the Act of 1886. These resolutions have, on the whole, met with the assent of the several qualifying bodies; but, as might be expected, local conditions, opinions, and suggestions have found expression in the replies received from those medical authorities. It will be for the Council to determine whether any modifications of their resolutions are desirable or not. The College of Physicians of London and the College of Surgeons of England, whilst admitting the value of the resolutions of the Council, and fully acquiescing in them, have agreed to take legal opinions as to the power of the Council to enforce its regulations in regard to sanitary diplomas. Two separate applications concerning the examination and registration of midwives and nurses will be brought under your notice. It would appear to be desirable to assist the applicants in their respective aims. But perhaps the Council itself should now define the limits of its co-operation, having due regard to its own constantly increasing duties and responsibilities. The several important questions to which I have directed your attention having been disposed of without unnecessary delay, there will, I trust, also be, through careful economy of time, sufficient opportunity for clearing off some portion of our responsibilities connected with the consideration of certain practical questions relating to education and examinations. But feeling strongly, as I have always done, the need of a twofold separation of our important work, as usefully assignable to our autumn and spring sessions respectively, I should hope that on this occasion especially urgent points only may be brought before us for discussion and decision. It is not yet certain whether, and if so to what extent, the London County Council will be able to grant opportunities for the clinical study of the subject of insanity within the asylums under their control; nor can we yet foresee the acquisition of the abundant means which will one day be at the disposal of the various schools of medicine, in special hospitals, and in public infirmaries and dispensaries, for practical teaching of other special or common diseases. But movements of this kind are in the air; and although the general powers of the Medical Council are practically, and perhaps wisely, limited to those of visitation, inspection, report, and the issuing of recommendations, or in case of need the duty of making representations to the Privy Council, yet the indirect influence of the resolutions of the Council regarding medical education and examinations is being more and more widely acknowledged. We must not, however, shut our eyes to the fact that the qualifying bodies, and also the teaching schools, are, at the present day, active in the spontaneous suggestion and adoption of attainable improvements, checked frequently, and often solely, by considerations as to their practicability, or the possibility of their general adoption. The Council of the Royal College of Surgeons of England, as one of the co-authorities in the Conjoint Examining Board in this division of the kingdom, has expressed an opinion in favour of a five years' curriculum of study, which would give an opportunity for introducing a most important extension of the time to be devoted to the clinical study of all classes of disease. The Royal College of Physicians of London has submitted this subject to a special committee. The proposal involves many important considerations, and certain objections have already been made in regard to it; but the movement in its favour has begun, and it is not difficult to foresee its ultimate adoption in the future in some shape or other. Lastly, I must not omit to remind you that the duty of this Council, in regard to their visitations and the inspections particularly indicated in the Medical Act of 1886, may not be silently passed by. It is, perhaps, beyond my province to say much on this subject, but I would venture to suggest that it

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might be carefully considered whether, for the moment, a single inspector might not be appointed to make such occasional visits as, after a perusal of the last reports and after consultation with the President and the Chairman of the Examination Committee, he might consider useful, and to report to the Council his results and opinions in time for our next session. In relation to this subject, it is desirable to bear in mind that an inspector, under the Act, is required essentially to report whether any specific examination is, in his opinion, "sufficient" or "insufficient"; and it may reasonably be submitted that as no case of positive insufficiency has been brought to the notice of the Council, an elaborate and minute inquiry is, at the present time, unnecessary and inexpedient.

Dr. QUAIN proposed a cordial vote of thanks to the President for the admirable address to which they had just listened—clear, comprehensive, practical, and eminently suggestive. In doing so, Dr. Quain ventured to add, as treasurer, some information which he felt would be interesting to the Council. It was to the effect that, by the action of the Medical Defence Association, Clause 40 of the Medical Act of 1858 had been brought into operation at Birmingham, and penalties had been inflicted on unqualified persons for using titles implying that they were registered. The penalties inflicted amounted to £120, and, as authorised by precedent, there had been refunded to the prosecuting party the cost out of pocket, amounting to £87 17*s.* 7*d.*

The usual tables were received, showing the results of competition for commissions in the Medical Department of the Royal Navy and in the Medical Staff of the Army.

A report was received from the Executive Committee in regard to a resolution passed by the Council in May last as to a limitation of expenditure connected with the sittings of the Council. The report stated "that, as a large share of the work of the Council has now been delegated to committees for preparation and report, and as a less demand will therefore be made on the time of the whole Council, it is reasonable to hope that the sittings of the Council may be materially shortened, and that a limitation of expenditure consistent with the means at the disposal of the Council may thereby be secured."

Sir W. TURNER, in moving the adoption of the report, said that the resolution of the Council had arisen out of a desire that had been expressed to stop discursive talk, shorten the time of the meetings, and diminish their cost. It was satisfactory to know that that process was going on, the two meetings in 1888 having lasted only eleven days, and the May meeting in the present year only five days. As the meetings were thus being curtailed there was of course a considerable saving in the fees of the Council. He hoped also that the Council would shortly receive from its legal advisers some recommendations for diminishing the time occupied in dealing with cases of discipline. There was, therefore, every prospect of the sittings being brought within a reasonable limit.

Mr. MACNAMARA seconded the motion.

Dr. LEISHMAN said he could not share the rosy anticipations that had been expressed in regard to the sittings of the Council. It was difficult to answer the statement by their critics that the sittings of the Council had been prolonged at the cost of funds which ought to be otherwise employed. When they were told that their inspection duties could not be performed because of the want of funds, it was a question whether they ought not to adopt some means of reducing the amount required for the remuneration of the Council. There ought to be no great difficulty in formulating a scheme for such an object. He did not approve of a diminution of the amount of the daily fee of five guineas; he would rather not receive a fee at all. There was another method that might be adopted. It might be determined approximately what amount could be afforded to remunerate the members of the Council, and that sum could be divided (as in the case of the directors of certain companies) according to the attendances, so that any discursiveness would be indulged in at their own expense. If the business could not be done in four ordinary sittings, evening sittings could be held; and if they extended over more than a week, there should be no remuneration for the succeeding days. He moved as an amendment: "That the report be remitted to the Executive Committee for further consideration, with a view of fixing a sum which shall be divided in respect of each session of the Council for the remuneration of the members present."

Dr. BATTY TUKE, in seconding the amendment, said the real issue was that the Council had important statutory duties to perform and could not perform them because there was not sufficient money, the reason for the deficiency being that too large a sum was placed in their own pockets.

Sir W. TURNER said he was not aware of any evidence to support the assertion made by Dr. Batty Tuke. He would ask Dr. Quain whether the statement was true.

Dr. QUAIN said the statement had never been tested. Money had always been found for inspection whenever the Council had ordered it.

After some remarks from Dr. Atthill, Dr. Heron Watson, Dr. Bruce, and Mr. Teale, the amendment was put and rejected (the numbers being 19 to 6), and the original motion for the adoption of the report was carried.

A report was received, and adopted, from the Executive Committee respecting the penal powers of the Council, recommending "that no further legislation be sought at present, but that the Council's legal advisers be requested to frame certain regulations, suggested by them, with a view to facilitate the Council's proceedings in penal cases."

Certain communications in regard to the recognition of diplomas in Sanitary Science were referred to the Education Committee to report during the present session. A similar course was adopted with reference to communications received from the bodies which grant diplomas in State Medicine, in reply to inquiries made by the Council.

An application for restoration to the Medical Register was received from Wm. Edward Robson (registered as Lic. Midwif. 1869, K.Q. Coll. Phys. Irel., Lic. R. Coll. Surg. Irel. 1869), whose name and qualifications were erased on Feb. 22nd, 1887, in consequence of his name having been removed from the lists of Licentiates of the King and Queen's College of Physicians in Ireland, and of the Royal College of Surgeons in Ireland.

The application was considered *in camera*. After some deliberation, it was resolved to defer the consideration of the case, and some others of the same kind, until the Council had received a report from Mr. Muir Mackenzie as to the procedure to be adopted in penal cases where restoration to the Medical Register has been applied for.

Dr. KIDD moved, in reference to Clause 3, Section 2, of the Regulations of the Committee of Management of the Conjoint Board of England: "That the Committee of Management of Examinations conducted by the Colleges of Physicians and Surgeons of London be requested to define by whom and where 'instruction' is to be given in the following subjects: chemistry, materia medica, pharmacy, practical pharmacy, practical chemistry." He complained that the Committee was indifferent as to how and whence the certificates in the subjects mentioned were obtained. If it was desired to abolish certificates and rely wholly upon examination, well and good; but if they were required, care should be taken as to the manner in which they were given. The Secretary of the Conjoint Board, in a correspondence on the subject, had admitted that if one student instructed another that was held to be sufficient; and he had been credibly informed that, in order to test the matter, a teacher in Dublin got his coachman to write a certificate of instruction, which was duly forwarded and recognised. Such certificates were mere shams, and utterly valueless. No one could doubt that materia medica and pharmacy were parts of medical education, and yet the Board allowed them to be taken any length of time before registration, in direct violation of the rules of the Council.

Mr. MACNAMARA seconded the motion.

Mr. MITCHELL BANKS said that the matter was one of great importance to medical schools that had gone to considerable expense in providing chemical laboratories and endowing professorships of materia medica and chemistry. Such schools felt injured by the extreme laxity of the Board on the subject. The certificates received by the Board would not be believed by any other body.

Dr. WILKS thought that the question was outside the Medical Council. The subjects in question could be taught elsewhere than in medical schools, and he did not see how the Council could act in the matter in the way suggested.

Sir J. SIMON suggested that the whole question in its larger relations be referred to the Education Committee.

Sir DYCE DUCKWORTH defended the action of the Conjoint Board, which he said was in good company, since the University of Oxford required no special certificate of instruction in chemistry and materia medica so long as the candidate passed a good examination. The examination of the Conjoint Board in chemistry was a thoroughly good

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one, the examiners being men of the highest eminence. He believed that the great majority of the candidates had been trained in good laboratories, and the few who had not been so trained were thoroughly tested.

After some further discussion, the PRESIDENT, in putting the motion, said that the subjects referred to were taught outside medical schools. The object of bringing in the subjects before medical education began was to lighten the heavy burden of the medical student when he was registered. That was the reason of the comparative laxity complained of. Of course if there were cases of imperfect and deceptive certificates being given, the Board would be glad to be informed of them. But he thought the resolution, if passed, would only receive a polite answer to the effect that the bodies concerned were at liberty to follow their own course.

The motion was then put and carried by a small majority, several of the members not voting either way.

Communications in regard to the registration of midwives comprising a correspondence between the President and Mr. Pease, M.P., and a memorandum addressed to the Council by the British Nurses' Association, were received and entered upon the minutes.

The consideration of a notice of motion on this subject by Sir Walter Foster, urging upon the Home Secretary and the Government the importance of passing into law some measure for the education and registration of midwives, was deferred, Sir J. SIMON remarking that it was very desirable that the Council, before addressing the Government on the subject, should have very clear notions as to what it would be prepared to undertake in the matter, and also what they meant by registration. He thought that some scheme of local registration was feasible, but did not think that it should originate in that Council.

Mr. BRUDENELL CARTER presented a memorial, signed by 148 Licentiates of the Apothecaries' Society of London who had qualified in medicine, midwifery, and surgery since July 1st, 1887, praying the Council to give them such title or titles as would convey the increased scientific status to which they were entitled. At present, although trebly qualified, their only title was L.S.A., this being the same as that which was granted when there was no examination in surgery. He said the question would mostly arise with reference to young men very recently qualified whose names might not be for some months to come on the Register, and whose sole means of proving the registration would be by the production of the certificate of registration. He therefore moved, "That to the foot of every certificate of registration issued after this date there be appended a note to the effect that all persons whose registration, under whatever diploma or diplomas, is dated on or after June 30th, 1887, are persons legally qualified for the practice of medicine, surgery, and midwifery." If the Council would consent to adopt that, it would be doing as much as was possible at present on behalf of the memorialists.

Sir WALTER FOSTER seconded the motion, which was agreed to.

Dr. GLOVER moved—"That the Treasury be memorialised to issue annually to every registrar of births and deaths a copy of the Medical Register, in order that the registrar may be able to ascertain whether the person certifying the cause of death is a registered medical practitioner." He said registrars of births and deaths not possessing a copy of the Medical Register were unable to say by reference to the local register whether the person signing was on the Register or not. He read a letter from Mr. A. G. Bateman, M.B., the secretary of the Medical Defence Union, stating that certificate books were only supposed to be supplied to registered practitioners, but the registrars had no means of judging whether an applicant was registered. Anyone having a card with "Dr." upon it was supplied without further difficulty. It would be greatly to the advantage of the law if death certificate books were paged and numbered, so that a record could be kept and certificates traced back and any fraudulent use prevented. In a case that Mr. Bateman had lately watched, a death certificate book was in the possession of an unqualified man, and no trace of how it got into his possession could be found. It was also perfectly possible for an unqualified man to use the name of a qualified man practising in the same neighbourhood without detection. It might be asked what the Medical Council had to do with such cases. He thought they had a great deal to do in such a case to see that a proper use was made of the Register, and one very proper use was that registrars should by its means be enabled to say whether a person signing a death certificate was or was not qualified.

Mr. BRUDENELL CARTER seconded the resolution, which was also supported by Mr. Teale.

Sir WILLIAM TURNER asked how many copies would be required.

Sir JOHN SIMON said there were about 2500 registrars in England.

Sir WALTER FOSTER said he would do his best as a member of the House of Commons to induce the Government to take up this matter.

Dr. QUAIN said he well remembered the trouble the Council had to get the Register circulated amongst the magistrates and county courts. He was heartily in favour of the resolution.

The resolution was adopted, and it was also resolved, on the motion of Dr. GLOVER, seconded by Sir WALTER FOSTER, "That the Registrar-General be memorialised by this Council to have the forms of certificates of cause of death numbered, and to instruct registrars in issuing them to ascertain that the applicants are on the Medical Register, and to keep a memorandum of the numbers of the certificates given to each applicant respectively."

It was further agreed that the President, together with Dr. Glover and Sir Walter Foster, be entrusted with the carrying out of these resolutions.

The Council then adjourned.

WEDNESDAY, NOVEMBER 27TH.

MR. MARSHALL, PRESIDENT, IN THE CHAIR.

The first business was the consideration of the case of James Camac Smyth, L.R.C.P. Edin., L.R.C.S. Edin., who had been summoned to answer the following charges: That he was on Oct. 15th, 1888, convicted at the Wicklow Summer Assize for having on Nov. 1st, 1887, unlawfully conspired by false pretences to obtain large sums of money from the Equitable Life Assurance Society of the United States, and also from the Marine and General Life Assurance Society; and that thereupon judgment was given, and he was sentenced to be kept in prison for six calendar months.

Mr. FARRER, the solicitor to the Medical Council, having read the charges, said that the Council could not, of course, enter into the propriety of the conviction and sentence which had been passed upon Mr. Smyth by a court of competent jurisdiction, or attempt to review it, but the Council could hear whatever Mr. Smyth might have to say in his defence, and could say whether the punishment that he had already suffered was under the circumstances sufficient or not.

Mr. E. S. Finnigan of Belfast, who appeared with Mr. Smyth as his solicitor, then read a statement, from which it appeared that Mr. Smyth, being one of the local referees of the New York Equitable Assurance Company, was charged, in conjunction with his brother, who was the local secretary, and others, with conspiracy to defraud the company. The case on the part of the Crown showed that a man named Wilson, a mulatto, who lived in Belfast, was in 1887 in failing health, and was attended by a Dr. Taylor for organic heart disease and dropsy. He got better subsequently; but in October, 1888, his health again failing, a Mr. Robert Dunlop took preliminary steps to insure Wilson's life for £2000, it being a feature of this company that one person could insure another person's life for his own benefit. Mr. Dunlop made the necessary proposal, and Mr. Smyth was directed to examine him. He did so on Nov. 2nd, and certified the life to be one of the first class, and in the result the policy was issued. On Nov. 6th Wilson was so ill that on that day a Dr. Johnston was called in, and found him suffering from heart disease and dropsy, of which he died on Dec. 20th. The contention of the Crown was that if Smyth had made a *bonâ-fide* examination of Wilson, he must have discovered the existence of mitral disease of the heart, which had been shown to have existed previously.

Dr. Johnston, in cross-examination at the trial, admitted that, though Wilson's medical attendant for many years, he had never been previously consulted with reference to his heart, and Wilson was a strong, healthy-looking man. Evidence was given for the defence in order to show that the heart murmur might differ in intensity, and might be detected

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by one doctor and overlooked by others. It was also stated that Dunlop and the brother Chesnutte Smyth, together with his clerk, were tried at the same assizes and convicted, and that Chesnutte Smyth ultimately confessed that he had forged the name of his brother, James Camac Smyth, to several documents, and even to the receipts for his medical fees which he was entitled to receive from time to time from the company. He said that he made his examination of Wilson honestly, and failed to detect valvular heart disease, and that Wilson told him that he was in good health and had never suffered from heart disease. The judge charged the jury in his favour, pointing out that he had no advantage to gain by assisting in this conspiracy. At the time he was tried no doubt the jury were biased by the previous disclosures. He was found guilty, and sentenced to six months' imprisonment. He was called upon by his colleges to show cause why his licence should not be withdrawn, but the leading physicians and surgeons of Belfast presented a memorial in his favour, and his licence was restored. He had suffered deeply for his mistake, and he now appealed to the Medical Council not to view his case with less favour than his medical brethren, his patients, fellow-citizens, and colleges had done.

The Council then proceeded to deliberate upon the case in private, and on the readmission of strangers

THE PRESIDENT announced that the Council had come to the conclusion not to erase Mr. Smyth's name from the Register.

Mr. J. CAMAC SMYTH thanked the Council for the kind and sympathetic view they had taken of his conduct, and expressed his hope that in the future he should never do anything to bring discredit on the great body to which he belonged.

The next subject for consideration was the case of Mr. Joseph Fredk. Leeson (registered as L.R.C.S. Edin. 1858, L.R.C.P. Lond. 1861), who had been summoned to appear before the Council: "For that he, being a registered medical practitioner, acts as cover of, or by his presence, advice, and assistance, enables one Cornelius Bennett Harness, an unqualified person, to carry on the business or profession of a medical electrician, and to practise as if he were duly qualified under the style of 'The Medical Battery Company, Limited,' and 'The Electropathic and Zander Institute,' at 52, Oxford-street, London, W., the said Cornelius Bennett Harness publicly advertising himself as 'The Medical Battery Company's Consulting Medical Electrician.'"

Mr. W. H. Martin appeared as solicitor for the Medical Defence Union, while Mr. Furber appeared on behalf of Mr. Leeson.

Mr. MARTIN, in supporting the charge, said that the evidence he had to offer was, first, the declaration of Mr. Wilson, a wine merchant of Oxford, who stated that his attention was called by an advertisement in the *Standard* newspaper, inviting those suffering, among other ailments, from sciatica, to apply to the Electropathic and Zander Institute, 52, Oxford-street, London. He went there, and said he thought he was suffering from sciatica, and would take one of the guinea belts. The person whom he spoke to said, "If you pay 25 guineas down, we will cure you in a month; but it will be necessary for you to come to London once a week to have the battery applied. Mr. Wilson then said he would pay 10 guineas for the month and a similar sum if he were cured. The assistant said he should like to introduce him to their physician, who proved to be Mr. Leeson. A battery was applied to him for fifteen minutes, and then a belt was put on him, for which he afterwards sent a cheque for five guineas. That was on Aug. 6th, 1887. In November following he received an account from the Medical Battery Company for 2 guineas for the use of the battery, and, as he refused to pay, he was summoned at the Bloomsbury County Court. The case was heard on Dec. 16th, and Mr. Leeson was called as a witness, describing himself as the medical officer of the Battery Company. The case was determined in Mr. Wilson's favour, and the plaintiffs had to pay the costs.

Mr. FURBER said he would admit that Mr. Leeson was the medical officer of the Medical Battery Company.

Mr. MARTIN said that a copy of Mr. Wilson's declaration was sent to Mr. Leeson, and in reply he wrote a letter in which he submitted that the Medical Act did not apply to his case. He also said this was not a *bonâ-fide* case because the events took place more than two years ago. As a matter of fact, he was in no way responsible for the claim made against Mr. Wilson. The Royal College of Physicians had considered the case, and had resolved that a Licentiate might be a member of a trading company. The Medical Battery Company was established about ten years ago by Mr. Harness for the purpose of providing treatment of diseases by means of galvanic and electric appliances. Mr. Leeson was selected from a large number of applicants as the head physician of the massage department, and was to be paid by salary. He had made electric therapeutics a special study. At the present time the chief consulting physician to the company was the illustrious Dr. Vigoroux, while the demonstrator was M. Loreau. Those names showed that everything done by the company was carried on in a thoroughly scientific manner, and they were now opening a post-graduate school for the instruction of the English faculty in electro science. Mr. Harness held degrees which he did not use. He was now simply the president of the company, which was a great and useful power in the medical world. Of course there was a prejudice against it because it advertised electropathic belts, but they were doing everything they possibly could to develop their science for the cure and relief of disease. Mr. Harness had also filed a statutory declaration, in which he stated that the claim on Mr. Wilson for 2 guineas as "physician's fees" was made out in error by the clerk; it should have been for electrical treatment. Mr. Martin then proceeded to put in several advertisements, which set forth the nature of the diseases for which the electrical treatment was applicable. Among other pamphlets, he produced one entitled "Electrisation as a Remedy for the Diseases of Women," at the end of which was a "private advice form," to be torn out and filled up by anyone who wished to consult Mr. Harness.

Mr. FURBER said that some of the books put in had been withdrawn from circulation for the last eighteen months, and it was therefore manifestly unfair to bring them against Mr. Leeson.

Mr. MARTIN said they had been issued and circulated during the period in which Mr. Leeson had been connected with the establishment. One of the advertisements referred to Dr. Steavenson as approving of the electric treatment and putting within quotation marks certain words to that effect, which would lead readers to infer that they had been used by that gentleman.

Sir DYCE DUCKWORTH said that Dr. Steavenson had been exceedingly annoyed at this use of his name, and had published a disclaimer in THE LANCET.

Mr. LEESON then offered himself for cross-examination by Mr. Martin. He said he was not responsible for the claim against Mr. Wilson. He, however, attended personally at the Bloomsbury County Court, though at the time he did not know that the claim was for physician's fees. Until a few days ago, when he wrote the letter, he had given no explanation of the circumstances under which the claim was put forward. Mr. Harness was an "M.D." of Philadelphia, and the diploma was hung up in the establishment.

Dr. GLOVER: Do you know that the University of Philadelphia does not exist?—No.

In answer to Mr. Muir Mackenzie, Mr. LEESON said he got his fee of 2 guineas for giving evidence at the County Court, and then left. Mr. Wilson produced the advertisement stating that consultation was free, and that finished the case, the judge saying, "It is no use going on." His connexion with the company was that he was their physician, and was paid by salary. He was not a member of the company. Applicants first saw Mr. Harness, and arranged about the fees. He himself had a consulting-room.

In answer to Dr. Quain, Mr. LEESON said Mr. Harness did not "practise"; he gave electrical treatment.

Dr. GLOVER asked if patients were led to understand that ruptures could be cured by electricity.

Mr. LEESON said they had cured several; others they had not cured. They did not pretend to cure all. Electrical trusses were supplied.

In reply to Mr. Furber, Mr. LEESON said that when a patient sent a diagnosis of his case it was forwarded to Dr. Vigoroux, who then communicated with Mr. Harness.

Dr. QUAIN: Is Dr. Vigoroux qualified?

Mr. LEESON: In France, but not in England.

Dr. QUAIN: Then he is not a "qualified man."

The standing orders were suspended, and the inquiry continued considerably after the usual time; and then, on the suggestion of Mr. Furber, who stated that he wished to

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call Mr. Harness in consequence of the statements that had been made concerning him, the further consideration of the charge was adjourned.

THURSDAY, NOVEMBER 28TH.

MR. MARSHALL, PRESIDENT, IN THE CHAIR.

The first business was the consideration of an appeal for restoration to the Medical Register from Dr. Alexander Lindsay, whose name and qualifications were erased on Nov. 28th, 1888, by order of the General Council for "infamous conduct in a professional respect" in respect of the act of "covering" one Edwin Middlebrook, who possessed no legal medical qualification. Dr. Lindsay appeared, accompanied by Mr. Waddy, Q.C., M.P., as his counsel.

Mr. WADDY said Dr. Lindsay was the assistant of Mr. Hales of Burslem. After Mr. Hales' death, Dr. Lindsay set up in business for himself, but became connected with Middlebrook. The error was no doubt a very serious one for Dr. Lindsay as it turned out. It appeared that he had put Middlebrook into a position which enabled him to practise himself, and the result was when the matter came before the Council they decided that it was right that his name should be removed from the Medical Register. Since then Dr. Lindsay had continued at Burslem in the hope that his name might be restored. His appeal was accompanied by a memorial from five registered practitioners resident at Burslem and the neighbourhood. Other memorials were presented from residents in Burslem and district, signed by the member for the borough, the mayor, the town clerk, three aldermen, two magistrates, six solicitors, eight clergymen, and 665 other inhabitants; also from Norton-in-the-Moors, signed by one clergyman and sixty-eight other inhabitants, and from residents at Milton with 117 signatures. Dr. Lindsay hoped that his punishment would now come to an end. The result of course had been to check his career. He had lost the practice which he had purchased, but was naturally in the hope that if his name were restored he might be able to get his business back again. That was a matter which must be for the future, and for the present all he could do was to throw himself entirely *ad misericordiam* upon the consideration of the Council.

Sir DYCE DUCKWORTH asked what proportion of the medical men residing at Burslem had signed the memorial.

The REGISTRAR said it was signed by five. There were two who had not signed.

Dr. LEISHMAN asked what Dr. Lindsay had been doing in the interim.

Mr. WADDY said the business had been sold to a Dr. Hunter, a qualified man, and Dr. Lindsay had acted as his bookkeeper and assistant.

Strangers were then directed to withdraw. After a short interval the Council room was opened, and

The PRESIDENT stated that the Council had resolved to restore Dr. Alexander Lindsay's name to the Medical Register.

Dr. GLOVER moved: "That Cap. 7, Clause 5 of the standing orders be amended as follows: "Should there occur during the recess any vacancy in the Executive Committee, they shall be empowered to fill up such vacancy, except in cases where a summons has been issued for a meeting of the General Council, when the Council itself shall elect." The Executive Committee, he thought, had on Monday made a strained use of its power of filling vacancies occurring during the recess, by electing Sir W. Foster (to whom, of course, there could be no personal objection) to fill the vacancy created by the resignation of Professor Humphry. As the Council was sitting the next day, he thought the power possessed by the Executive Committee ought not to have been exercised, but that the election ought to have been left with the Council itself. He did not wish to go back upon the election that had taken place, but he hoped that in future such an occurrence would not take place.

Mr. BRUDENELL CARTER, in seconding the motion, said he hoped the standing orders of the Council would not be allowed to cover what was practically a self-election.

Dr. HERON WATSON said that the Executive Committee must always come before the Council for re-election at the May meeting, and it was only in the case of a vacancy occurring between the winter and summer session that such an occurrence could take place.

Mr. TEALE said that the object of the Executive Committee in filling the vacancy was to save the time of the Council itself.

The PRESIDENT said that the question of the propriety of proceeding to election was duly considered and voted upon by the Executive Committee; but they had no objection to the motion of Dr. Glover if the Council saw fit to adopt it.

The motion was put and agreed to.

The Council then proceeded to the further consideration of the case of Joseph Frederick Leeson. Mr. Harness, of the Medical Battery Company, presented himself for cross-examination, and, interrogated by Mr. Martin, stated that the action brought against Mr. Wilson in the County Court was a mistake. He knew nothing of it till some weeks afterwards. He had written a letter to a medical journal with regard to a paragraph that had appeared in it commenting on his business, and threatened an action unless an apology was offered. There was no apology, but he had taken no proceedings, because he thought it was a very small matter. The statement made was a gross lie. Mr. Wilson's account of the 25 guineas was an absolute falsehood. Mr. Leeson had only been two days in charge.

In re-examination by Mr. Furber, he said Mr. Leeson had nothing to do with any of the advertisements or pamphlets issued by the Battery Company. Mr. Leeson was a salaried officer of the company, and his duty was to see whether applicants were fit subjects for electrical treatment. He had nothing to do with the control or works of the business.

Mr. FURBER: Does he act as cover for you in any way?

Mr. HARNESS: No, I require none. I have never held myself out as a qualified medical man, and have never made any charge for fees as a medical man.

In reply to Mr. Muir Mackenzie, he said he certainly suggested to people who were suffering from various diseases that they should apply to him for advice and treatment on electrical matters.

Dr. QUAIN: Should you treat a patient for disease yourself?

Mr. HARNESS: If I felt disposed I should, by electricity.

In reply to other members of the Council, he said he had never written a prescription or advised that medicines should be taken. He possessed several diplomas, but dispensed with them. He did not practise as a medical man. He objected to state what his diploma was, as it had nothing to do with the case. He could answer the question satisfactorily if he chose, but he was not called upon to do so. He understood the suggestion was that he acted as a medical man, but he repudiated any degrees obtained in America or elsewhere, because it would interfere with his reputation. Mr. Leeson's special duty was to see that everything was done in strict medical order. If a patient came to the company, he would be referred to Mr. Leeson to see if he was a fit and proper subject for battery treatment. They had on record cases which were decidedly not fit for such treatment. He did not mean that they had refused to sell batteries—that belonged to another department.

Mr. FURBER, in summing up the defence, said Mr. Leeson had been connected with the medical profession for thirty-five years. For twenty years he had the largest practice in Bradford, which he gave up on account of failing health. He then went to Ilkley, and was at the hydropathic establishment there for ten years. He became connected with the Battery Company in 1887. His connexion with that company was perfectly honourable and straightforward, and whatever the opinion of the Council might be as to the Medical Battery Company and Mr. Harness, that was hardly a question before them now. If Mr. Harness had committed himself by acting as a qualified person, being unqualified, the proper course to be adopted would have been that a summons should have been taken out before a magistrate under the fortieth section. The twenty-ninth section, under which the present proceedings were instituted, was one of the most penal clauses of the whole statute, and before acting upon it the Council ought to have the most unqualified evidence to support the contention that Mr. Leeson was acting as cover for Mr. Harness.

Mr. MARTIN, in replying, called attention to the fact that Mr. Leeson was present at the County Court as the principal witness in the action, that he heard the claim that was made, and had offered no repudiation or explanation. As to whether Mr. Harness had laid himself out as a duly qualified person, he would only refer to the publication of the company of which he claimed to be the president, and it was for the Council to draw its own inference.

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The Council then deliberated on the case in private.

On the readmission of the public,

The PRESIDENT (addressing Mr. Leeson) said: I have to inform you publicly that the Council after long deliberation has come to the conclusion (1) that you have committed the offence charged against you; (2) that the offence is, in the opinion of the Council, "infamous conduct in a professional respect"; and (3) that the Registrar has been directed to erase your name from the Medical Register.

The Council then considered an appeal for restoration to the Medical Register from Stephen Joseph Daly (registered as Member of the Royal College of Surgeons of England in 1886, Licentiate of the Royal College of Physicians of London in 1886), whose name and qualifications were erased on Nov. 30th, 1888, by order of the General Council for "infamous conduct in a professional respect" concerning the act of "covering." Mr. Daly's application was accompanied by fourteen testimonials in regard to hospital appointments given to Mr. Daly by six London and eight provincial medical practitioners. It was further stated that Mr Daly had been engaged in medical studies in Paris up to about six weeks since, and that he had returned to await the result of his application.

The PRESIDENT said he had received a letter from Mr. Daly's brother, enclosing a certificate stating that he was unable to attend the Council that day, as he was suffering from severe periostitis of the maxilla.

The REGISTRAR said the case came before the Council last November, when, after long inquiry, the name was erased from the Register, but Mr. Daly was informed that applicants had sometimes after an interval been restored to the Register. In consequence of that intimation he now applied, having been twelve months off the Register. He had immediately retired from Southport, where he was in practice, and had been reduced to dependence upon his brother for partial if not entire support.

Sir W. TURNER said there was in the minds of many members of the Council a feeling that Mr. Daly's offence was not of so serious a character but that after a year's punishment by removal he might, supposing his conduct was satisfactory in the meantime, apply for reinstatement. He thought this was a case in which the name might be properly restored.

Mr. MITCHELL BANKS said that the Society who were the prosecutors were not in the least degree animated by any feeling of exasperation against Mr. Daly, but it was against the principal who employed him. There was a very general feeling amongst even the members of that Society that this young man had been in a manner somewhat deceived as to the nature of the occupation which he was being led into. He could assure the Council that the fact of the prosecutions of the last year had in very great measure served to clear away a number of men who were acting as covers to unqualified men in the north of England.

Mr. BRUDENELL CARTER, Sir W. FOSTER, and other members suggested that before the application was granted some additional information ought to be forthcoming with regard to Mr. Daly's conduct since the erasure of his name from the Register.

The further consideration of the case was conducted *in camerâ*.

On the readmission of strangers,

The PRESIDENT said the Council had considered the case of Stephen Joseph Daly, and had resolved that the Registrar be directed to restore his name to the Register.

The case of the appeal for restoration to the Medical Register from James McCully, whose name and qualifications were erased on Nov. 22nd, 1887, in consequence of his having been convicted of misdemeanour, was referred to the Executive Committee for consideration and report.

Dr. HERON WATSON moved, "That it be referred to the Executive Committee to consider the question of providing for the inspection of the examinations for diplomas in Sanitary Science, the amount of the fee to be paid for the registration of such diplomas, the fund into which those fees should be paid, and the application of this fund to the payment of such inspections, and to report thereon to the present meeting of the Council."

Dr. STRUTHERS seconded the motion, which was agreed to.

The Council then adjourned.

BEQUEST.—Mr. J. R. Bemick has left £300 to the Stewart Institution for Imbeciles, Dublin.

REPORT OF THE LANCET
Special Sanitary Commission
ON
BAKERIES AND BREAD-MAKING.

THE bread-supply, especially of a large town, is fraught with so many complications and difficulties that sanitary precautions are apt to be neglected, and what we call the "staff of life" may become a cause of death. At present, especially in London, the problems involved by this vast question, though at all times of great importance, have assumed more than usual gravity. Three forces are at work and at conflict with one another, and this struggle seems now to have come to a head. First, the bread trade has been invaded by modern capitalism. Wealthy companies have introduced machinery, have built large model bread factories; they are competing severely with the small master bakers and the old-fashioned hand-made bread. Secondly, among the small master bakers there are what is termed the "cutting" shops—that is, tradesmen who have departed from the old, simple method of trading. Instead of producing a fairly good article, charging a heavy price, and securing a large profit, these "cutting" men make a more questionable article, "cut" a very fine line between the selling price and the cost of production, content themselves with very small profits, and trust to quick returns. The competition of these "cutters," on the one hand, and the big bread companies on the other, has naturally greatly disturbed the trade; and, as is usual in such cases, the workman—that is, the journeyman baker—has also been made to suffer. But in London the journeymen bakers are well organised, in any case better organised than the master bakers; hence the mere menace of a strike has compelled the majority of the latter to yield to the demands of the men. This action on the part of the workmen is the third force to which we allude. Evidently these different impulses will in time greatly alter the bread trade; and these changes, which may assume the character of a complete revolution in this important branch of industry, should be so directed as to benefit the health of the people at large. It is not of course necessary to demonstrate the close connexion between bread and health. The necessity of a cheap, clean, nutritious, and digestible bread-supply is obvious. Will the evolution through which the trade is now passing tend to secure such a supply for the community? This will depend in a great measure on the intelligence and activity of the leaders and teachers in the sciences of sanitation and of political economy.

The questions at issue are so vast and far reaching that each principal phase must be studied separately; and it is only natural we should first investigate that portion of the subject which, as causing the greatest danger to public health, is consequently the most urgent. We allude to the small underground bakeries, which, strange to say, are still tolerated in our midst. There is a vague feeling prevailing among the public that horrible things take place in these cellar workshops, and that if it were generally known how bread is made many persons would hesitate to eat it. A good deal of this is exaggerated and, in any case, there is a regrettable tendency to think too much of the bread and not enough of the baker. Very often we found the bread clean and wholesome, but the baker who had made it was far from healthy. If for no other reason than that it is impossible to preserve the health of the journeymen bakers underground bakeries should be condemned. That it is impossible to defend such bakeries is practically admitted by the text and character of such laws as bear on the subject. If cellar bakeries still exist it is because the Legislature has thought more of the vested interests of a few hundred tradesmen than the health of the million. Nevertheless, the thing is admittedly so bad in itself that the Bakehouse Regulation Act was passed to mitigate the evil. How far the stipulations of this Act are efficient in themselves and are properly enforced is the first question we have sought to answer.

We commenced our inquiry on the south side of the river, and having secured the services of a guide who is well

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acquainted with the trade, we succeeded in penetrating into several bakehouses which were considered most likely to be in an unhealthy condition. It was, however, at once evident that these places had been already inspected by the sanitary authority; that, whatever fault might be found with their condition, they were not transgressing the Act. Nevertheless, the results of our inspection were very far from satisfactory. The first bakery we visited, for a cellar, could not very well be improved. There were openings in front and behind to create a through draught. Consequently, these openings were carefully shut when the men were at work. There were no drains near, and everything was clean, excepting the walls, which were stained with the marks left by the thousands of beetles and cockroaches that disported themselves amid the loaves and flour. The ceiling was low, and of course the atmosphere stifling. What else could be expected in a cellar situated below the level of the street? The secretary of the Journeymen Bread and Biscuit Bakers' Pension Society informed us that at present there were eighteen men on the pension list, and that fourteen out of these men were tall—that is, above 5 ft. 8 in. in height. In fact, there were only two really small men on the pension list, and they were very aged. A short man working in a cellar bakery had a much better chance of preserving his health. His head was more constantly in the line of the draught of air going to the furnace or the oven. The tall man's head being nearer the ceiling, he breathed the sulphur and the vitiated air that stagnated against the rafters. Certainly, there is an extraordinary difference in the atmosphere of a cellar bakery at 5 ft. to 6 ft. from the ground and at 4 ft. to 5 ft. This is so perceptible that it is only necessary to stoop a little to experience a certain freshness and greater facility in breathing.

On leaving this bakery, a young man of weak constitution was pointed out to us, who, we were told, had worked on the previous Saturday for nineteen hours consecutively in an underground bakery, where the flue passed under the floor, and therefore greatly increased the heat of this unhealthy bakehouse. Here, and at several other places, the journeymen bakers arrive at nine or ten in the evening. There is no work to be done till midnight or one o'clock. But the master baker, who lives in the house above the shop, does not like to be awakened in the middle of the night to let his men in. He therefore makes them come before he goes to bed, and the men, having nothing to do, lie down on the flour troughs and sleep for some hours. Thus the boards, which subsequently receive the moist bread and dough, become temporary bedsteads. The Act stipulates that no place on the same level with a bakehouse, and forming part thereof, may be used as a sleeping place unless it is effectively separated from the bakehouse by a partition from the floor to the ceiling, and is provided with an external glazed window of at least nine superficial feet, the half at least of which can be opened for ventilation. To sleep within the bakery itself among the flour, on the very places where the dough is mixed, is obviously a gross infringement of the law. Yet this is a very general practice, and apparently no measures have been taken to prevent its continuance. We can understand that the master baker should desire to have a quiet and undisturbed night's rest. So would many members of the medical profession; but they are nevertheless, in answer to the night-bell, obliged to get up, and though weary from insufficient sleep, go out at all hours to see their patients. If a baker cannot get up at night to let his workmen in, he had better devote himself to some other trade, and should not be allowed to break the law with impunity by making his men sleep in the bakery.

In Lambeth, the first underground bakery we entered had narrow rickety stairs, but there were means of establishing a through draught and the place was clean. The second bakery was not so satisfactory. There was a sort of outhouse behind it, and, separating the bakery from this, a court about ten feet square and much below the level of the street. In this court we found a dirty closet and a broken dust-box or bin. The closet and the dusthole were on the same level and just at the door of the bakery. Dust and effluvia could, therefore, mix with the bread, particularly as the great heat of the bakery would draw the air in from the closet and the dust-bin. The closet, it is true, was trapped. It was not absolutely within the bakery. We cannot say whether a magistrate would recognise that there was anything legally and technically wrong in this place, but it was altogether nasty, and, if not contrary to the letter of the law, was certainly not in keeping with its spirit and object. The next bakery we visited was very small, very dark, but had three openings to let air down from above, which, if it were possible to keep them open, might suffice to ventilate the cellar.

We called on another bakery which was not in a cellar, but had been built in a back yard. It possessed, however, only one louvre window, and we cannot conceive how this could be opened without causing such a down draught as to render the bakery unfit for habitation. In the front cellar, facing the bakery, the flour and the coal are stored. There are rafters, rough corners, and dark places where all sorts of dust and dirt can accumulate, and it was confessed that when the coals were getting low the cellar smelt "fusty." The next bakehouse seemed badly ventilated, and there was a closet outside, but against the bakehouse wall. Such proximity cannot be approved. In another bakehouse, absolutely below the street, with a very small grating against the ceiling and giving on to the pavement of the street causeway, we noticed a very unpleasant, sour smell. An iron drain-pipe went through the centre of this cellar bakehouse. In it came the bath water and the soil from the closets of the house above. The drain must have passed under the bakehouse to the sewer. Several tiles were loose on the floor, which the men had pulled up in their efforts to get at the rats that came into the bakery. The ventilation, especially on the side of the street, seemed to us very insufficient, and the presence of rats indicates that probably the drain under the floor of the bakery is broken.

Such are the general characteristics of the bakeries we visited on the Surrey side. Considering the terrible things that have been said they were certainly better than we expected to find them; and, however unsuitable in position and construction, were on the whole fairly clean. Evidently the inspectors keep a good look out. We are tempted to believe that it is not the bakeries in the low-class quarters of London that are the worst; for certainly the most insanitary bakehouse we have as yet seen is that of one of the high-class bakers of the West-end. This shop has a business which has grown out of all proportion with the premises. Every inch of ground, or rather of cellarage, has to be utilised. There is not room even to build a staircase. To reach the bakehouse it is necessary to open a trap-door in the floor of the shop and descend a very small ladder which quivers and shakes in an altogether uncomfortable manner. The cellar is divided into various compartments, though from the sanitary point of view these may all be considered as one single room or cellar, as there are no doors to separate them, and the dust and effluvia can, without the slightest hindrance, pass from one part to the other of the bakery. In about the centre there is an old stone sink with a straight pipe under it. The pipe may be trapped underground or may communicate with a gully which is close by and almost under the sink. This gully is destined to receive water from the floor when the bakery is washed, but was at the time of our visit choked up with a thick, pasty mass of dust, flour, &c. Some of the nicest and most delicate-flavoured pastry is made close by this sink. When we inquired whether any smell came from the sink, we were assured that a vast quantity of water was thrown down every day. In any case, in so high-class an establishment, we had expected to find a modern improved sink, with a trap immediately beneath the opening, and not a rough stone contrivance that apparently dated back some forty or fifty years. This is, however, a trifle as compared with the abominable condition and position of the closet. In a corner, devoid of any window, with no opening whatsoever giving on to the outside, and yet on the same level and within the cellar, are placed the closet and the urinal. An attempt at ventilation had been made, for there was a gas jet burning at the aperture of a small tin shaft, measuring about 3 in. by 10 in., which was suspended to the roof; but this shaft did not reach farther than 3 ft., and then was broken right off, so that it only helped to draw the air from the closet towards that part of the cellar where the bread is made. The closet was provided with a good flush of water, yet the pan was very dirty. Opposite the seat there is a small iron urinal, so thoroughly out of order that the whole of the partition wall was saturated with water and urine. This had soaked through the wall, and yet on the outside of the wall were piled up a number of empty flour sacks, which naturally absorbed some of the

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humidity from the urinal previously to being sent to the miller to be refilled. That an unventilated closet should be placed in such close proximity with bread, flour, and pastry, that it should be in such a condition, and this in a bakery where a most prosperous trade is done, show that underground bakeries ought not to be sanctioned. In the house in question there is no back yard, and the cellar is absolutely under the level of the street. It would be difficult to say where a closet easily accessible to the men could be built. The baker who owns these premises is a man of progress. He has readily granted the increase of wages or the shorter hours demanded by his men, and he makes large distributions of bread among the poor of the neighbourhood. It is the system rather than the individual we would desire to denounce; and we maintain that it is impossible to build a really wholesome bakery underground, particularly in crowded thoroughfares, where the houses have no back yards.

We also visited another West-end bakery where the bread is in part made by machinery, though this is also done in a cellar. Below the level of the cellar there are trenches or shafts dug where the straps, cranks, &c., are laid to transmit the motive power. We were told that as these trenches are so very low down the drainage from the neighbouring subsoil gets into them. There it stagnates, ferments, and then, when stirred by the movement of the machinery, throws off noxious odours. We examined this carefully on the spot and found the trenches absolutely dry, and there was no nuisance whatsoever. Yet what we have just described may have occurred either here or elsewhere at some other time, particularly after wet weather. This is one of the risks inherent to underground bakeries. If the machinery seemed to be in order, the iron gully traps fitted into stone at the two sinks and pumps did not appear in such satisfactory condition. One of them emitted a very unpleasant odour; the other sink was next to the furnace, and this is scarcely a favourable position. The whole place was of course dark, being under the level of the street, and also could not be satisfactorily ventilated. It seems strange that some of the most expensive bread, eaten in the most fashionable quarters of London, should be baked in places that in respect to sanitation are sometimes much less satisfactory than the poorest cellar bakehouses of the New Cut.

(To be continued.)

THE METROPOLITAN HOSPITAL SUNDAY FUND.

THE Report of the Council of the Metropolitan Hospital Sunday Fund, of which we have been favoured with an advance proof, states that the seventeenth year of collecting this Fund has resulted, under the presidency of the Right Honourable Sir James Whitehead, Bart., ex-Lord Mayor, in a collection surpassing every former record by over £1100. The total amount collected in 1889 was £41,744 12*s.* 11*d.*, being £1137 5*s.* 3*d.* more than in any previous year. The Rev. Prebendary Forrest, D.D., vicar of St. Jude's, South Kensington, again headed the list of contributions with £1217 1*s.* 11*d.*, which is the largest sum ever received by the Council from any one congregation. The Rev. Canon Fleming, B.D., vicar of St. Michael's, Chester-square, was next in amount with £1007 12*s.* 4*d.*

The Council desire to record the exertions of Mr. Alfred L. Cohen and Messrs. Sydney Kennedy and Co., and to thank them for kindly organising a collection from members of the Stock Exchange, which produced £367 16*s.*; but they regret that the efforts to secure collections from the other London exchanges, and from the members of Lloyd's, were unsuccessful.

The Committee of Distribution, in their annual general report, recommend that £38,481 5*s.* be distributed between 111 hospitals and fifty dispensaries. Five per cent. of the total collected—viz., £2000—is set apart to purchase surgical appliances in monthly proportions during the ensuing year. A special meeting of the Council on July 29th approved the recommendations of the Committee of Distribution, and resolutions were unanimously passed tendering the cordial thanks of the Council to Sir Sydney H. Waterlow, Bart., and the other members of the Committee of Distribution; to Sir James Whitehead, Bart.; to Sir Andrew Clark, Bart., for his very able address delivered at the Mansion House meeting of June 19th, and to the other speakers upon that occasion; to the editors of newspapers who had pleaded the needs of hospitals and advocated the cause of this Fund, with a view to increasing this year's collection; and specially to Mr. Thomas Wakley, the Editor of THE LANCET, who had gratuitously prepared and issued to clergymen and ministers of religion Special Supplements giving valuable statistics and general information.

At a meeting of the Council convened for to-day (Friday, the 29th inst.) by the Lord Mayor, Sir Henry A. Isaacs, the following was to be the order of business: To determine the report of the Council for the year 1889, and to order its publication; to revise the list of the Council for 1890; to order the convening of the next annual general meeting of constituents; to consider what day of 1890 shall be recommended to the constituents for next Hospital Sunday; and to transact general business.

THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

A SPECIAL COURT of the Governors of the Royal Hospital for Diseases of the Chest, City-road, was held on Thursday afternoon at the Cannon-street Hotel, in compliance with a requisition signed by twenty-seven of the governors, to consider the action of the Council in dealing with certain disputes between their late Secretary (Mr. J. J. Austin), and the medical staff of the hospital, the details of which have already been discussed in our columns. Among those present were: The Earl of Derby, Sir James Whitehead, Dr. Meymott Tidy (chairman of the Council), Mr. Hope Morley, Lord Charles Bruce, and others. The room in which the meeting was held was completely filled, and demands were frequently made from the rear of the hall that the meeting should be adjourned until a larger room could be obtained.

On the motion of Lord Charles Bruce, Alderman Sir James Whitehead, who is one of the governors, was elected chairman, and the proceedings opened by the reading of letters from governors expressing regret at inability to be present, and upholding the action of the Council.

The Chairman said he hoped the meeting would be a peaceable one, and that the affairs of the hospital would be discussed in a businesslike manner. He had been selected as chairman because he had not entered into the dispute on any occasion. He had read the statement which had been issued, and he felt that it would be absolutely impossible to reinstate Mr. Austin. He was convinced that they must all feel that the continuance of the present state of things would be injurious to what they all knew was a splendid institution. If the Council were to resign, could anyone, he asked, suppose that the subscriptions would not suffer? In support of his contention that it would be ridiculous to foster such an idea, he quoted the various amounts which had been subscribed by the different districts. Should the medical staff have found it necessary to resign, he believed that an attempt to obtain men of equal standing in the profession would be futile. He thought he knew something of the medical profession, and he ventured to tell the meeting that the highest men in that honourable profession would have abstained from having anything to do with an institution in which their brethren had been treated so badly. He would suggest, as an amicable arrangement, that half-a-dozen of the "objectors" should meet the Council in conference and discuss the affairs of the hospital. He desired most earnestly that the institution should rest upon a firm foundation, and that there should be nothing connected with it that would not bear the light of day.

Mr. Berry (one of the signers of the requisition calling the meeting) consented to support a proposal on the lines suggested by the chairman.

On the suggestion of the Chairman, the Earl of Derby moved a resolution expressing confidence in the Council. He said charges of a grave character had been brought against the medical staff, and it was only right that they should be fully investigated and those gentlemen vindicated.

Mr. Jonathan Hutchinson (President of the Royal College of Surgeons) seconded the resolution, and flatly contradicted the statement which had been made that the patients in

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the two cases referred to by the late secretary had been made the subjects of experiments.

The resolution was adopted by a large majority.

Mr. Berry, looking to the future interests of the hospital, moved a resolution to the effect that the Council should be recommended to confer with the twenty-seven signatories calling the meeting. The motion was seconded by the Rev. N. J. Devereux and was carried.

On the motion of Mr. Hope Morley, a vote of thanks was accorded to the chairman for presiding, and the proceedings terminated.

THE PROPOSED PUBLIC MEDICAL SERVICE.

AT a special meeting of the medical men of Coventry, held on Friday, Nov. 22nd, to consider Dr. Rentoul's proposals for a Public Medical Service, the following resolutions were passed: 1. "That this meeting of medical practitioners in and around Coventry, while approving the main issues of the resolutions proposed by Dr. Rentoul, and about to be discussed by the Committee of Council of the British Medical Association on the 27th inst., consider that many of the details require further thought, and in some cases amendment." 2. "That while measures are being taken to purge the hospital out-patient departments of abuse, it is at the same time essential that all provident dispensaries should have a wage limit for their members, as there are at present large numbers admitted who should not receive medical aid for so small an annual subscription as *4s. 4d.*"

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5603 births and 3334 deaths were registered during the week ending Nov. 23rd. The annual rate of mortality in these towns, which had been 17·5, 18·1, and 18·3 per 1000 in the preceding three weeks, declined again last week to 18·2. During the first eight weeks of the current quarter the death-rate in these towns averaged 17·9 per 1000, and was 2·7 below the mean rate in the corresponding periods of the ten years 1879–88. The lowest rates in these towns last week were 8·6 in Brighton, 10·6 in Cardiff, 12·7 in Derby, and 15·4 in Oldham. The rates in the other towns ranged upwards to 24·7 in Manchester, 26·0 in Sunderland, 26·9 in Newcastle-upon-Tyne, and 30·7 in Plymouth. The deaths referred to the principal zymotic diseases, which had been 325 and 342 in the two preceding weeks, further rose last week to 353; they included 74 from measles, 72 from scarlet fever, 61 from whooping-cough, 55 from "fever" (principally enteric), 50 from diphtheria, 40 from diarrhœa, and only one from small-pox. No death from any of these zymotic diseases was registered during the week either in Brighton or in Derby; while they caused the highest death-rates in Blackburn, Sunderland, and Plymouth. Measles caused the greatest mortality in Nottingham, Blackburn, Wolverhampton, and Sunderland; scarlet fever in Liverpool, Salford, Sheffield, Blackburn, and Plymouth; whooping-cough in Newcastle-upon-Tyne, Hull, and Wolverhampton; and "fever" in Hull. The 50 deaths from diphtheria in the twenty-eight towns included 30 in London, 5 in Salford, 2 in Manchester, 2 in Plymouth, 2 in Halifax, 2 in Sheffield, and 2 in Newcastle-upon-Tyne. Small-pox caused 1 death in Liverpool, but not one in any of the twenty-seven other great towns. Only one small-pox patient was under treatment at the end of the week in the Metropolitan Asylum Hospitals, and not one in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and London Fever Hospitals at the end of the week was 1620, against numbers increasing in the twenty-one preceding weeks from 559 to 1597; 152 cases were admitted to these hospitals during the week, against 204 and 176 in the two previous weeks. The deaths referred to diseases of the respiratory organs, which had increased in the four preceding weeks from 281 to 321, further rose last week to 328, but were 141 below the corrected average. The causes of 64, or 1·9 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Newcastle-upon-Tyne, Nottingham, Portsmouth, and in seven other smaller towns; the largest proportions of uncertified deaths were registered in Hull, Blackburn, and Liverpool.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19 8 per 1000 in each of the preceding two weeks, rose to 20·6 in the week ending Nov. 23rd; this rate exceeded by 2·4 the rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 14·6 and 15·7 in Dundee and Leith to 21·0 in Aberdeen and 23·9 in Glasgow. The 527 deaths in the eight towns showed an increase of 18 upon the number in the previous week, and included 15 which were referred to diarrhœa, 8 to "fever" (typhus, enteric, or ill-defined), 8 to scarlet fever, 8 to diphtheria, 7 to whooping-cough, 7 to measles, and not one to small-pox; in all, 53 deaths resulted from these principal zymotic diseases, against 53 and 64 in the two preceding weeks. These 53 deaths were equal to an annual rate of 2·1 per 1000, which exceeded by 0 2 the mean rate last week from the same diseases in the twenty-eight English towns. The deaths attributed to diarrhœa, which had been 10 and 11 in the two previous weeks, rose last week to 15, of which 5 occurred in Glasgow and 5 in Edinburgh. The 8 deaths referred to "fever" exceeded the numbers in recent weeks, and included 3 in Glasgow and 2 in Greenock. The fatal cases of scarlet fever, which had been 10, 9, and 5 in the previous three weeks, rose again last week to 8, of which 4 were returned in Glasgow and 3 in Leith. The deaths from diphtheria, on the other hand, showed a decline from recent weekly numbers, and included 3 in Glasgow and 3 in Edinburgh. The 7 fatal cases of measles, including 4 in Glasgow and 2 in Aberdeen, were also fewer than in any recent week; as were the 7 deaths from whooping-cough, of which 5 occurred in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 127 and 149 in the previous two weeks, declined again last week to 135, but exceeded the number in the corresponding week of last year by 31. The causes of 46, or nearly 9 per cent., of the deaths registered in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 27 3, 24·5, and 26·3 per 1000 in the preceding three weeks, declined again to 24·2 in the week ending Nov. 23rd. During the first eight weeks of the current quarter the death-rate in the city averaged 24·9 per 1000, the mean rate during the same period being 16·3 in London and 18·0 in Edinburgh. The 164 deaths in Dublin showed a decline of 14 from the number in the previous week; they included 6 which were referred to "fever," 2 to whooping-cough, 1 to diarrhœa, and not one either to small-pox, measles, scarlet fever, or diphtheria. Thus the deaths from these principal zymotic diseases, which had been 19 and 14 in the two preceding weeks, further declined last week to 9; they were equal to an annual rate of 1·3 per 1000, the rate from the same diseases being 1·8 in London and 2·2 in Edinburgh. The deaths referred to "fever" (typhus, enteric, or ill-defined), which had been 13 and 7 in the preceding two weeks, further declined last week to 6; and the 2 fatal cases of whooping-cough corresponded with the number in each of the two previous weeks. The deaths of infants showed a further increase upon recent weekly numbers, while those of elderly persons were fewer by 9 than those in the previous week. Four deaths from violence, but only 1 inquest case, were registered; and 53, or nearly a third, of the deaths occurred in public institutions. The causes of 18, or 11 per cent., of the deaths in the city were not certified.

THE QUEENSLAND DEATH-RATE IN 1888.

The Registrar-General of Queensland has recently issued his report on the vital statistics of this colony in 1888. The report is as usual replete with carefully constructed tables and statistical deductions therefrom, which afford the means for satisfactorily estimating the sanitary condition of the Queensland population. There is one point, however, on which more information that would undoubtedly facilitate the object in view is desirable. This is the age-

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constitution of the population, and its effect upon the mortality of this colonial population. In estimating the true import of "death-rates" (meaning the proportion the deaths bear to the population) recorded among colonial populations it is essentially necessary to bear constantly in mind the abnormal age-constitution of such populations. Take, for instance, the recorded death-rates in the various Australasian colonies in 1888. These are stated in Mr. Blakeney's report to have ranged from 9·43 and 12·09 per 1000 in New Zealand and South Australia to 15·30 in Victoria and 16·00 in Western Australia. It is impossible to compare these rates with those prevailing in European countries with any useful result, unless account be taken of the widely different age distribution of the new and old populations. It is scarcely necessary to point out that the populations of our newer colonies necessarily include but a very small proportion of elderly persons, obviously causing a low death-rate, quite independently of the effect of what is generally known as sanitary condition. When, therefore, Mr. Blakeney tells us that the death-rate in Queensland in 1888 was 14·66 per 1000, it is really necessary to inquire what the rate would be if corrected for age distribution. What would the Queensland death-rate be if, for instance, the proportional age distribution in that colony were the same as it is in the mother country? Failing the means for making this correction, which is not given in the report, it is satisfactory to note that the death-rate in Queensland in 1888, although rather higher than in 1887, was 2·3 per 1000 below the mean rate in the ten years 1879–88. With regard to the mortality of the two sexes, it is stated that "the mortality of males was at the rate of 9·49 per cent. of the estimated mean population, and the rate of mortality of females 5·16 per cent. of the same." These figures give no true indication of the sex mortality, as it takes no account of the inequality of the numbers of males and of females in the population. The deaths of males were equal to 16·28 per 1000, and those of females to 12·39 per 1000 living of each sex. In other words, the mortality of males was 131 to 100 of females in equal numbers living of each sex. Thus the excess of male mortality was far greater than in England, where, in 1888, the proportions were 112 deaths of males to 100 of females. Probably, however, the age distribution of the two sexes differs widely in Queensland, and we know that the male mortality is there unduly raised by the exceptional death-rates of the Polynesian labourers, to which we may have to refer on another occasion.

THE SERVICES.

ARMY MEDICAL STAFF.—Deputy Surgeon-General Thos. Tarrant, M.D., to be Surgeon-General, ranking as Major-General, vice W. S. Murray, M.B., granted retired pay (dated Oct. 28th, 1889); Brigade Surgeon Thomas Walsh to be Deputy Surgeon-General, ranking as Colonel, vice T. Tarrant, M.D. (dated Oct. 28th, 1889); Surgeon-Major Wm. Deane Wilson, M.B., to be Brigade Surgeon, ranking as Lieutenant-Colonel, vice T. Walsh (dated Oct. 28th, 1889).

ADMIRALTY.—Mr. David Huey has been appointed Surgeon and Agent at Port Ballintree.

VOLUNTEER CORPS.—*Artillery:* 3rd Middlesex: Acting Surgeon R. S. F. Barnes, M.D., resigns his appointment (dated Nov. 23rd, 1889).—1st Haddington: Surgeon A. D. L. Napier resigns his commission (dated Nov. 23rd, 1889).—The Tynemouth (Western Division Royal Artillery): Surgeon W. P. Mears, M.D., resigns his commission (dated Nov. 23rd, 1889); Acting Surgeon F. C. Mears, M.B., resigns his appointment (dated Nov. 23rd, 1889).—1st London (City of London): David Thomas Key, Gent., to be Acting Surgeon (dated Nov. 27th, 1889).—1st Cheshire and Carnarvonshire: Surgeon W. Haining, M.D., to be Surgeon-Major, ranking as Major (dated Nov. 27th, 1889).—*Engineers* (Fortress and Railway Forces): 1st Lanarkshire: Surgeon J. R. Granger, M.B., resigns his commission (dated Nov. 23rd, 1889).—*Rifle:* 1st Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry): Acting Surgeon J. M. Harper, to be Surgeon (dated Nov. 23rd, 1889).—2nd Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry): Acting Surgeon W. A. Hunt resigns his appointment; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated Nov. 23rd, 1889).—2nd Volunteer Battalion, the Royal Welsh Fusiliers: Hugh Jones Roberts, Gent., to be Acting Surgeon (dated Nov. 23rd, 1889).—6th (Fifeshire) Volunteer Battalion, the Black Watch (Royal Highlanders): William Stuart Palm, M.B., to be Acting Surgeon (dated Nov. 23rd, 1889).—4th Volunteer Battalion, the Manchester Regiment: Surgeon-Major, ranking as Lieutenant-Colonel, T. N. Dean resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated Nov. 23rd, 1889).—20th Middlesex (Artists'): Arthur Reginald Field Evershed, Gent., to be Acting Surgeon (dated Nov. 23rd, 1889).—1st Bucks: Acting Surgeon W. H. Bull to be Surgeon (dated Nov. 27th, 1889); Humphry John Wheeler, M.B., to be Acting Surgeon (dated Nov. 27th, 1889).—6th Middlesex (St. George's): Surgeon E. M. Little resigns his commission (dated Nov. 27th, 1889).—1st (Inverness-shire Highland) Volunteer Battalion, the Queen's Own Cameron Highlanders: Surgeon O. Grant, M.B., from the 1st Inverness-shire Artillery Volunteers, to be Surgeon (dated Nov. 27th, 1889).—7th Middlesex (London Scottish): Surgeon F. Matheson, M.D., to be Surgeon-Major, ranking as Major (dated Nov. 27th, 1889).

VOLUNTEER MEDICAL STAFF CORPS.—The Maidstone Division: John Grant, M.B., to be Acting Surgeon (dated Nov. 23rd, 1889).—5th Division Volunteer Medical Staff Corps, Maidstone: John Grant, M.B., C.M. Edin., to be Acting Surgeon.

We understand that Surgeon-General Thomson, the Principal Medical Officer of the British troops in India, will not be placed on the Retired List in March next on attaining the age of sixty, but will have his appointment continued to him for two years. This would seem to indicate the intention of the War Minister to adopt the recommendation of Lord Camperdown's committee, to make sixty-two the age for compulsory retirement of Surgeons-General.

Correspondence.

"Audi alteram partem."

ENGLISH MEDICAL PRACTITIONERS IN FRANCE.

To the Editors of THE LANCET.

SIRS,—A communication has been received by this College from the Foreign Office which appears of so much importance, and so seriously concerns the medical profession and the welfare of a large number of English people who flock to the south of France for winter quarters, that I am desired by the President and Fellows to request that you will be so good as to give it that publicity among members of the profession which the columns of your journal are so well able to afford. The communication in substance is as follows:—

M. Fallières, the Minister of Public Instruction, has informed the English Ambassador in Paris, with respect to English medical men who may be seeking authority from the French Government to practise their profession in France, or to obtain certain facilities for taking a French degree which would confer the right to practise, that it will not be possible in future for his department to give the same favourable consideration to applications of this kind as has hitherto been accorded them, whether received directly by the Minister or through the British Embassy, and that the applications will be refused unless in instances presenting very exceptional claims. The principal reason for this departure from former usage the Minister states to be that the great majority of such applicants are desirous of settling in those winter health-resorts where English people most abound, and that he is informed by the local authorities that these places are already crowded with English practitioners, to an extent prejudicial alike to French and English interests. A further reason given is that, there being a draft law before the Chambers tending to modify the existing regulations with regard to the practice of medicine in France, the Government feel that great discretion is needed in granting fresh permissions to practise under old conditions.

I am, Sirs, faithfully yours,

EDWD. LIVEING, M.D., Registrar.

Royal College of Physicians, London, S.W., Nov. 23rd, 1889.

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THE PATHOLOGY OF CHOREA.

To the Editors of THE LANCET.

SIRS,—Your issue of the 23rd inst. contains an article on the above subject by Dr. Garrod, in which he suggests that chorea may be due "to a temporary overgrowth of connective tissue in the nerve centres." With all deference to the opinion of so careful an observer I cannot help dissenting from this view, which seems to me to be scarcely in keeping either with our clinical knowledge of morbid conditions associated with increased growth of connective tissue in nerve centres, or with what we know of the action of the rheumatic poison. The assumption that an increased growth of connective tissue may take place, and that rapidly, in such an important part of the brain as the motor centres, reach a certain point in its growth, remain stationary at that point for weeks or even months, and then pass off without leaving any injurious effects—and may do this again and again—is not in keeping with what we know of lesions of nerve centres characterised by increased growth of connective tissue; and yet all this is involved in Dr. Garrod's hypothesis. The cause of this assumed growth of connective tissue is the rheumatic poison. But what evidence is there that the rheumatic poison is capable of causing increased growth of connective tissue? In structure all white fibrous tissue is very much alike, but in function it varies much. Its chief functions are (1) to support entire organs; (2) to bind together and give support to their constituent parts; and (3) to control and regulate movement. It is on this last that the rheumatic poison acts; the structures affected by it are the fibrous textures of parts of the body associated with movement or strain—joints, muscles, heart, &c. So rarely does the rheumatic poison affect other fibrous textures that, in the vast literature of rheumatism, it is difficult to find cases in which it is quite certain that purely rheumatic disturbance originated in fibrous textures not connected more or less directly with movement or strain of some kind. The fibrous lining of the interior of the skull and spinal canal, the fibrous periosteum, the membranes which invest and give support to the liver, spleen, kidneys, and uterus, and the fibrous connective tissue which is diffused through all the organs of the body, far exceed in quantity the fibrous textures of the large joints and heart; and yet, for once that rheumatic inflammation attacks any of these structures, it affects those of the joints and heart hundreds of times. Again, if the rheumatic poison could cause increased growth of connective tissue in the motor centres, it would also be capable of causing it in liver, kidney, &c., and such a pathological change could not have escaped observation.

Dr. Garrod has been led to make his suggestion because he thinks that the formation of rheumatic nodules may be closely analogous in nature to the vegetations formed upon the valves of the heart, and that these two morbid processes may be merely two phases of a much more general process which may involve any of the fibrous structures of the body. Such a view of the pathogenesis of endocarditis is one which few pathologists are likely to endorse. How on this view of the matter can be explained the fact that the endocardial roughening is limited to the valves and to one side of them—the convex surface in the aortic, the auricular in the mitral—and to a limited portion of these surfaces?

Then, again, all cases of chorea are not of rheumatic origin. How are we to explain the occurrence of those in which no connexion with rheumatism is to be found? Are they, too, due to a temporary increase of the connective tissue of the motor centres? If they are, what becomes of Dr. Garrod's contention that this increase is essentially of rheumatic origin, like the nodules and the endocarditis? If they are not, why assume, on so slender a basis, the existence of such increase in rheumatic cases?

Functional disturbance of nerve centres is so common that in no given case is it necessary to assume physical change in that centre solely because there exists evidence of disturbance. There is no reason why motor centres may not be the seat of functional disturbance. Equally there is no reason why disturbance of a given centre may not be produced by different agencies. There is not evidence to show that in the majority of cases chorea is due to more than functional disturbance of the motor centres, though in some cases it may be. There *is* evidence to show that it is more common in people of rheumatic constitution than in any other class. Why is it so? There must be some reason; what is it? Rheumatism is essentially a disease of the motor apparatus (locomotor and vasculo-motor): Chorea is essentially a disease of the motor centres. In this broad pathological statement we have the clue to the explanation of the fact that chorea is most common in rheumatic subjects. The existence of the rheumatic diathesis implies a liability to disturbance of the motor apparatus. The motor ganglia are an essential part of this apparatus. Those subject to rheumatism are therefore more likely to have susceptible motor centres than those who are not. Thus the rheumatic diathesis predisposes to chorea. But the questions still remain, How is the attack brought about? and Why does chorea occur in only a small percentage of the total number of rheumatic subjects? Here constitutional predisposition (apart from the rheumatic diathesis) plays an important part. The motor centres, like all other parts of the nervous system, are more susceptible and more liable to disturbance in females than in males, and in young people than in those of more mature years. We accordingly find that it is in females and in young people that choreic symptoms are most apt to show themselves.

The rheumatic constitution is by no means necessary to the production of chorea. Youth and sex are more important predisposing agencies. A fright or nervous shock, gastric or uterine derangement, may give rise to chorea, and be the exciting cause of the disease in persons in whom there is neither personal nor family history of rheumatism. But many cases there are—so many that the connexion cannot be accidental—in which a present or prior rheumatic attack, with or without heart affection, is the only cause to which the chorea can be traced. Many cases there are, too, in which a rheumatic family history forms the only noteworthy feature. We thus have two different classes of cases to deal with—those in which chorea occurs in connexion with or subsequently to a rheumatic attack, and those in which there is only a family history of rheumatism. A rheumatic attack means inflammation of an essential and important part of the motor apparatus and general disturbance of the whole system. If nervous shock or derangement of digestive or uterine functions may induce chorea in one predisposed to it, rheumatic inflammation of a joint or of the heart may almost certainly do so too, for rheumatic disturbance of the motor periphery cannot but be regarded as a possible cause of disturbance of the motor centres. Thus the rheumatic diathesis may be the predisposing and the rheumatic attack the exciting cause of an attack of chorea. But the predisposing cause may exist without a rheumatic attack. There may be the family tendency to rheumatism without the occurrence of the disease in a given member of the family. Choreic symptoms may show themselves in such a one without any prior rheumatic attack, the exciting cause being some other disturbing agency. No matter what the exciting cause, the disease is fitly regarded as of rheumatic origin if we recognise that what predisposed and led to its production was the rheumatic constitution of the sufferer. In such a one it is an accident whether the chorea, when it does occur, comes on in connexion with a rheumatic attack subsequently to it, or prior to and independently of it.

I am, Sirs, your obedient servant,

Nov. 25th, 1889. T. J. MACLAGAN.

NOTIFICATION OF DISEASES ACT.

To the Editors of THE LANCET.

SIRS,—Will you have the goodness to give your opinion in reply to the following questions:—

1. Is the householder, or person in charge, legally bound to admit the medical officer of health, and to what extent? If so, has the medical officer of health a right to "inspect" the premises? 2. Is the householder, &c., bound to carry out, or submit to the carrying out of, the directions of the medical officer of health? 3. Is the medical officer of health justified in ignoring the disinfection operations already carried out by the medical attendant, and insisting on his own being executed in addition? (A case has just occurred in my practice where the medical officer of health would not inspect or listen to what I had had done, but insisted on his own directions being followed regardless thereof.) 4. If the "whole house" is fumigated with sulphur by order of the medical officer of health, who is to be responsible for the damage done to decorations, pictures, &c.? Could not compensation be demanded? 5. Can the Act be adopted

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on trial for a specified term, or if once adopted is it permanently binding? 6. In a town of 20,000 inhabitants, a public meeting has been convened by requisition by the mayor, and been presided over by him under the advice of the town clerk. A resolution has been passed that no fever hospital shall be erected or maintained. What course is open to the Corporation, as sanitary authority, in reference to the Notification Act? 7. If a shopkeeper is ruined by the publication of the fact of his having fever in his house by the visits of the medical officer of health, is the sanitary authority liable for damages through voluntarily adopting the Act?

Your kind consideration of the above questions will greatly oblige, Your obedient servant,

November, 1889. VERITAS.

*** 1. A medical officer of health has no legal right of entry into private premises merely because he believes or knows that infectious disease prevails there; but he can acquire the legal right under Section 102 of the Public Health Act, 1875, if he has reason to believe in the existence on the premises of a nuisance such as is contemplated under Section 91 of that Act. But, as a matter of actual practice, a medical officer of health is rarely refused entrance to premises. We may add that he has no right whatever to examine the sick; but he is often allowed to do so in conference with the medical practitioner in attendance. 2. The terms of Section 102, already referred to, coupled with the provisions of Section 120 of the same Act, show that it is not so much the directions of the medical officer of health as those which, on his advice, the sanitary authority or the justices require to be carried out, which must be followed. 3. Our answer, speaking generally, would certainly be—No. But we can conceive circumstances in which the duty of a medical officer of health towards the public and his authority might justify him in demanding further measures of disinfection than have already been taken. Such occurrences are, however, rare in the extreme. 4. We imagine that a claim would lie in the case of wilful and unnecessary damage. 5. We gather from the fact that revocation and variation of an Order under the Infectious Disease (Notification) Act, 1889, is limited to extensions in the definition of the term "infectious disease," that no such revocation is contemplated as regards the adoption of the Act generally. But the point is not specifically mentioned in the Act. 6. There is no compulsory power as to the erection of a hospital for infectious diseases either under the Public Health Act or the Infectious Disease (Notification) Act. The responsibility for the consequences of not taking action in this matter under Section 131 of the Public Health Act, 1875, must in such a case lie with the authority. 7. We cannot conceive that any liability for damages can lie against any authority "through voluntarily adopting" an Act the voluntary adoption of which has been approved by Parliament.—ED. L.

HOSPITAL OUT-PATIENT REFORM.

To the Editors of THE LANCET.

SIRS,—In reply to Dr. Harris, I wish to say that, for my part, I should be glad to accept his suggestion that, instead of having a "wage limit" of 20*s.* for single and 25*s.* for married wage-earners, we reduce this to 15*s.* and 21*s.*, and 2*s.* for each child—that is, supposing there be a man and wife and eight children, this man, wife, and family, although making up to 37*s.* per week, would all be eligible for out-door medical aid.

If men with such practical experience as Dr. T. Harris help in solving our difficulties our work will be rendered light. There are some hospital doctors who say to me, "We do not care about abuse, as we only wish to get a hold of the interesting cases." Such may rest assured that when the plan of "wage limits" and inspection come into force the interesting cases will not be taken from them, as such will always be eligible for treatment in the wards. I am sorry to see that petty trade jealousies tend to mar some of our discussions. Let me assure those men who keep "sixpenny dispensaries" and unqualified assistants that the proposed hospital reforms will not injure them.

Mr. Nelson Hardy, I trust, will understand that in the matter of *details* I am very anxious to agree to any practical changes in the proposed tariff of fees. I do not advocate any alliance with chemists, but merely have said that we might follow the plan pursued by hospitals and doctors holding club appointments. The former frequently contract with chemists for the supply of drugs all the year round, taking the price-list of a certain month, this price to remain good for twelve months. Doctors often contract with the chemist to dispense each prescription at 4½*d.* If we do not secure the aid of the chemists, they will only enter into fierce competition with us, and will have a number of doctors in their back parlours to prescribe for patients. If anyone supposes that the system of "free medical aid" is to be extended to the entire community, after the plan of the Poor-law Service, thereby throwing greater taxation on the already overtaxed middle classes, then I think such a millennium is very far off. Doctors have now been agitating for the last forty years for a reform of our medical charities. Is it not, therefore, time we adopted those practical efforts as made in Manchester, and ceased pursuing visionary proposals?

I am, Sirs, yours faithfully,

Liverpool, November, 1889. ROBERT R. RENTOUL.

DR. RENTOUL'S SCHEME: THE GENERAL PRACTITIONERS HOAXED.

To the Editors of THE LANCET.

SIRS,—A special meeting of the Metropolitan Branch of the British Medical Association was held in the board-room of Bethlem Hospital on the 13th inst., for the professed purpose of obtaining the opinion of the profession in South London upon the so-called "scheme of Dr. Rentoul," and an invitation was given to all practitioners to attend it. The meeting was tolerably large, and, from what I could observe of it, the non-members of the Association outnumbered the members. Mr. John Page Hentsch rose to move the following resolution: "That this meeting considers Dr. Rentoul's scheme impracticable, and that even if it were practicable it would be disadvantageous to the great bulk of the general practitioners"; but the chairman ruled that he could not put it, for the reason that he was not a member of the Association. Hereupon Mr. Campbell Boyd, a member, moved the resolution for Mr. Hentsch, and it was seconded by Mr. Oldfield, another member. When the resolution was put to the meeting it was ruled by the chairman that non-members could not vote; nevertheless, the members of the Association carried it with applause, and by a majority of nearly three to one. Non-members, as I have stated, were not allowed to move resolutions nor to record their opinion by voting. Therefore I say they were simply hoaxed by the invitation they received. But such are the ways of the officials of the British Medical Association, and I for one am in no way surprised.

I am, Sirs, faithfully yours,

Nov. 25th, 1889. R. H. S. CARPENTER.

THE DETECTION OF COLOUR-BLINDNESS.

To the Editors of THE LANCET.

SIRS,—Since the publication of my letter in THE LANCET, an example of the practical worthlessness of Holmgren's test has come to my knowledge. Mr. Clement Stretton informs me that when members of the Associated Society of Locomotive Engineers and Firemen fail in this test, they are privately instructed by girls in wool shops, and then pass with ease. Those who support Holmgren's method may doubt whether these were true cases of colour-blindness. I am inclined to think that they were. At any rate it is possible to instruct a red-green colour-blind so as to enable him to pass through Holmgren's test with ease. I have taught an uneducated red-green colour-blind (of course not an applicant for railway employment) to pass through Holmgren's test with less than five minutes' instruction. He picked out the correct colours with ease and certainty. Previously he had picked out the ordinary confusion colours. Holmgren has been the chief advocate for the method of matching colours as against that of naming them. But the method of matching colours should, to be properly carried out, be one of mentally

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naming them. For instance, if a man say to himself, "This test colour is green, therefore I must pick out all the colours having this hue of green in them," he will go through the test as it should be gone through; but if on looking at the wool he be influenced more by shade, he will put light blues, yellows, greys, and browns with the light green. This will be especially liable to happen in cases of the lesser degrees of colour-blindness in which the green is simply enlarged and encroaches on the yellow and blue.

The question then comes up for consideration, What are the differences between matching and naming colours? When a person is asked to name a colour, without being allowed to compare it with other colours, he has to compare the present impression of colour with those impressions already in his mind. In order, therefore, that he may be able to name colours he must at least have an elementary knowledge of colour names. A person who is required to match colours may be guided chiefly by colour or chiefly by shade—in fact, by similarity of any kind. A person who has been educated with regard to colour will be chiefly influenced by colour, but a man who has only an elementary knowledge of colours will be influenced considerably by shade. But if we compare the two methods with persons belonging to the educated classes we shall see how inferior the method of matching is to that of naming. Let us take 150 wools and examine two similarly colour-blind educated persons with them. The first is asked to classify the wools, putting all those of similar colour together; the second is asked to name the whole of the wools one by one. It will be found that the second person will make very much more numerous mistakes than the first. The reason of this is obvious; in the case of naming colours, the person has only the impression present in his mind to enable him to name a colour correctly; in the case of matching colours he has other colours present with which he can compare the test We all know what to do when we are doubtful what to call a colour—namely, compare it with some colour that there is no doubt about. Slight differences of colour become more marked on comparison. It will thus be seen that the method of matching colours is really very inferior to the method of naming them, if an equal number of colours be taken. Holmgren's comparison was hardly a fair one, as he compared his method with 150 colours and the method of naming with about six colours. The argument he uses about colour ignorance is a fallacious one, because a candidate ought to know the names and qualities of the four principal colours—red, yellow, green, and blue. He has to name a light without comparison, when at work. In my Classification Test I tried, by the introduction of different test colours and various materials, to get rid of the disadvantages of comparison, and partially succeeded. The test, however, is very inferior to that with a lantern and neutral glasses.

I am, Sirs, yours faithfully,

F. W. EDRIDGE-GREEN, M.D.

Finsbury-park, Nov. 23rd, 1889.

"MEAN DURATION OF LIFE."

To the Editors of THE LANCET.

SIRS,—Dr. Glover Lyon completely exposes the absurdity of treating the mean age at death as a test of health conditions, and he further shows that the "mean duration of life for the year" is a quantity of little or no practical value, but he appears to be unfamiliar with the technical meaning of the term "mean duration of life." As used by statisticians, this term is neither more nor less than a synonym for "expectation of life at birth." If we could find a population in which for a century or more the rates of mortality at the various ages had remained constant, while the births in each year had exactly equalled the deaths, and *the age-distribution had not been disturbed by migration*, the mean duration of life would be shown by the formula

$$\frac{\text{Number of persons living}}{\text{Deaths in a year.}} \text{ or } \frac{1000}{\text{General death-rate per 1000.}}$$

Had the births exceeded the deaths, the quotient $\frac{1000}{\text{Death-rate per 1000}}$ would be *greater*, and had the births fallen short of the deaths it would be *less* than the true mean duration of life. To meet these cases formulæ have been devised for estimating a "corrected" death-rate, somewhere intermediate between the crude death-rate and the birth-rate. Such formulæ are, however, of very limited application, and are apt to be altogether misleading when (1) the births differ much from the deaths, or (2) the age-distribution of the population is disturbed by migration. Under either of these circumstances the "mean duration of life" can only be ascertained by the laborious process of constructing a Life Table. Whenever the result of one of the formulæ of approximation mentioned above is much in excess of the "mean duration of life" as shown by Life Tables based upon selected healthy districts or classes, there is reason to believe that the age-distribution is so affected by migration as to render the method useless.

It may be worth while to point out what a mean duration of life of 73·60 years (attributed by Dr. Corfield to the population in part of his district) would really denote. For every child that died under one year of age *seven* must survive till eighty-four, or *ten* till eighty-one, or in some other such way the mean, 73·60, must be made up. It would be interesting to see the figures of a Life Table according to which the majority of the deaths occurred between seventy-three and a hundred years of age.

I remain, Sirs, yours faithfully,

Nov. 23rd, 1889. A. C. WATERS.

CIRCUMCISION.

To the Editors of THE LANCET.

SIRS,—The following chapter from Celsus (lib. vii., cap. xxv.) will explain to Mr. Lancelot Newton what the operation was which enabled men once circumcised to become uncircumcised a second time. "From diseases of the groin we must proceed to operations upon the penis itself. If the glans be bare and the person is desirous for the sake of appearance to have it covered it may be done, but more expeditiously in a boy than in an adult; and more easily in one to whom it is congenital than in him who, according to the custom of some nations, has been circumcised, and also where the glans is small and the prepuce about it more ample, the penis itself short, than in him where there is the reverse of these circumstances. The cure in those in whom it is congenital is thus performed. The skin about the glans is to be taken hold of and extended until it covers it, and tied there; then a circular incision is made near the pubes until the penis is laid bare, and great care will be necessary less the passage for the urine or the veins there be divided. This being done, the skin is drawn towards the ligature, so that a denuded circle appears near the pubes; over this lint must be applied that the flesh may grow and fill it up and the breadth of the wound may afford a sufficient covering to the glans. But the ligature must be continued till a cicatrix is formed, leaving in the middle a small space for the passage of urine. But in a person who has been circumcised an incision is to be made round the glans, detaching the skin from the body of the penis beneath, with a knife. This is not very painful, because the extremity being loosened it may be drawn backwards by the hand as far as the pubes, and no hæmorrhage ensues. The skin being freed is extended again over the glans; then it should be bathed with plenty of cold water, and a plaster applied round it sufficiently efficacious to repress inflammation. On the subsequent days the most rigid abstinence must be enjoined, lest by chance a full diet might excite an erection of that part. When the inflammation has terminated, it ought to be bound from the pubes to the corona glandis, a plaster being first put on; then the skin is brought over it, for it so happens that the lower part may be united and the upper heal without adhesion."

I am, Sirs, your obedient servant,

Plymouth, Nov. 6th, 1889. EDWARD E. MEERES, M.D.

CELLULITIS OF THE NECK FOLLOWING TYPHOID FEVER.

To the Editors of THE LANCET.

SIRS,—In the remarks which Surgeon-Major Harrison appends to the careful and interesting account of a case of cellulitis of the neck following typhoid fever which he has recently placed on record, he has not ventured upon any hypothesis to account for the supervention of this formidable complication. It is therefore, perhaps, a little presumptuous for one who did not see the patient to offer suggestions. However, on reading his account, I was reminded of a specimen, preserved in Guy's Museum, which was taken from a boy aged ten, who died of enterica, under the care of Dr. Addison in 1857. It is thus described:

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"A larynx showing a deep excavation at the posterior attachment of each vocal cord. The blue rod indicates the communication between the ulcer and the connective tissue outside the larynx. The boy became affected with general surgical emphysema in the second week of his illness, was unable to swallow, and died at the beginning of the third week." Similar deeply excavated ulcers are also seen in several other specimens of typhoid laryngitis, and in no instance was their existence suspected during life. It occurs to me that possibly the cellulitis of the neck which Dr. Harrison has described had its origin in a perforating ulcer resembling that found in Dr. Addison's patient.

I am, Sirs, yours truly,

St. Thomas's Chambers, S.E., Nov. 22nd, 1889. E. C. PERRY.

THE MORTON LECTURE ON CANCER.

To the Editors of THE LANCET.

SIRS,—Mr. John Marshall, in his masterly lecture on Cancer, courteously mentioned my method of treatment by electricity; but he spoke of the "requisite repeated application of electricity." My further experience teaches me that usually a repetition of the application is unnecessary, and that one operation will cause atrophy of the growth. My first patient was under treatment for a little over three weeks in August, 1888, but since then it has not been necessary to repeat the applications. The majority of my cases have been those in which the knife had failed or in which the disease had progressed too far for the knife. With most of these I have had to operate more than once, because there has been so much growth that it could not all be treated at one operation. The theory that cancer is probably due to an escape of healthy cells from the control of the nervous system was brought forward by me in my first paper published in the *Brit. Med. Jour.* of April 27th last, and my method of treatment was based on this hypothesis.

I am, Sirs, yours faithfully,

Collingham-place, S.W., Nov. 1889. J. INGLIS PARSONS.

THE ICE-BAG TREATMENT IN PNEUMONIA.

To the Editors of THE LANCET.

SIRS,—*Apropos* Dr. Lees' paper at the Harveian Society on the Treatment of Pneumonia by the Ice-bag, may I say that when I was in Vienna in the autumn of 1867, following Skoda's Klinik at the Allgemeine Krankenhaus, he was treating his pneumonias with poultices (bags) of pounded ice. Though doubtless this fact is well known to our chest authorities, nevertheless they and you will, I hope, pardon me this reference to it.

I am, Sirs, your obedient servant,

Worcester, Nov. 21st, 1889. TOM BATES.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle.

WITH reference to the prevalent high death-rate in Newcastle, the medical officer of health, Mr. H. E. Armstrong, has sent some tables and statements to the papers, which go to show that the principal cause of the increase of deaths has been constitutional diseases, especially those liable to be affected by change of weather, while thirteen deaths had been registered in the period referred to in which no proper certificate of death had been given and no inquest had been held. Mr. Armstrong states also that it must be borne in mind, as stated in the weekly reports of the Registrar-General, "that the population of Newcastle is under-estimated." I do not say that this is not so, but many people think here that the huge and expensive system of the corporation does little or nothing for the health of the city, and that scavenging and improved dwellings would do more than sanitary committees, statistics, or even compulsory notification of infectious diseases. I believe so far back as 1866 a sanitary committee recommended the abolition of the ashpit system, so far at least as new dwellings could be brought within its scope, and yet this old and expensive system goes on to this day, and of course it is extending at the same time with the growth of the city.——In an able lecture the other night, Dr. W. Murray was very severe on the School Board system of education, which he characterised as a tremendous engine of destruction to a host of the best people in our midst; to the scholar of sluggish brain and feeble constitution; to the pupil teacher; to the schoolmistress and to the schoolmaster, who endeavour to make ends meet by obtaining the Government grant. In speaking of the necessity for keeping the organism in correspondence with its environment Dr. Murray claimed to have anticipated Herbert Spencer in the application of this principle to the health as well as to the life of the organism. In evidence of this he quoted from a paper contributed to the *Journal of Anatomy and Physiology* nearly thirty years ago.

Darlington.

The Darlington papers are rejoicing in the possession of a lady who has just attained, they say, her 107th year of age. She was born at Gallow-hill, Yorkshire, a mile or two from Barnard Castle. She has yet a clear ringing voice. The good old dame, it is said, got her second sight some eighteen years ago, and can now see without glasses. Her eldest surviving son is eighty years of age, and lives at Distington Hall, Cumberland.——I regret to hear that the York County Hospital is sadly in debt; however, the York county ladies have taken the matter in hand, and as a first step have arranged for a grand and fancy ball, which is to take place in the Assembly Rooms at York on Jan. 2nd next.

Newcastle-on-Tyne, Nov. 26th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

EDINBURGH.

Edinburgh Health Lectures.

THE third lecture of the course on "Nerve Exhaustion" was delivered by Dr. Berry Hart on Saturday night. Dr. Hart considers that nerve exhaustion is much more common in this country than is supposed. In the case of women it was not sufficient to prove that they could do certain things as well as men. It must be seen too that in doing them the bodily constitution of women did not suffer. The best women were those who could enter into competition with men successfully, but these were the mothers who suffered from bodily and nervous exhaustion, and whose sufferings were handed on to their children. In addition to going over the subjects of schools, long hours, and play-grounds, the lecturer broke up new ground, part of it at any rate. There was no doubt, he said, that women in shops not only had long hours and continued strain, but they were denied even the simple matter of a seat during work hours. They were often, indeed, too tired for recreation after their work. The same held good with domestic servants. Much of the want of harmony between mistress and maid was due to the lowered nervous tone which comes on in women who had the long hours and little recreation of a servant. It was surely possible that servants might arrange among themselves so as to give each other a day's outing occasionally; their mistresses in turn would soon find the inconvenience to themselves amply compensated for by the smoother working of that great cause of health depression to women—housekeeping. After speaking of the necessity for rest, good food, and fresh air for the jaded mind, Dr. Hart spoke strongly against the use of sedatives and stimulants, by which so many valuable lives had been wrecked. How foolish, he said, to use that which merely goaded on a jaded mind to leave it more wearied or to establish a habit of narcotism. Any sacrifice, he pithily put it, should be made before mortgaging one's body and soul to such "Shylocks" as drink, chloral, or opium. Such a lecture must have an influence on the opinions of those who have the charge of young girls, and it was good sound common-sense treatment of a most difficult subject. The chairman, Dr. Peel Ritchie, said not one word too much in his eulogistic speech on his motion that a vote of thanks be accorded to the lecturer.

Infirmary Sunday.

Last Sunday collections were made in all the churches on behalf of the Royal Infirmary. Pulpit references were also made in most cases, but in none were the words more appreciative of the work done than those uttered by

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Dr. Walter Smith in the Free High Church, who, after contending that God was the God of health as well as of salvation, said that he had no sympathy with a cold and pitiless form of religion that could behold with indifference suffering and pain, and only point the sufferer to a better world where there should be no more pain. The work of the Royal Infirmary breathed the very spirit of Christian compassion. He spoke of the gratuitous labours of men of the highest skill there given, of the patience and gentleness of women highly cultured, who without fee or reward had consecrated themselves to the waiting on the sick, and of the watchful care of others to whom this task was a work that no wage could repay. Sad as it was to go through the wards, one could not help being struck by the comfort and cleanliness of the place, and how gratefully the services rendered by those in charge were regarded by one and all. In so far as people aided in healing the sick they were fellow-workers with the Lord.

Erroneous Reporting.

Last Friday a paragraph appeared in one of the lay papers to the effect that "a woman had died while under chloroform in one of the operating theatres of the infirmary." It went on to say: "Her history was that she had had a tumour in the middle line of the neck for the last nineteen years. Last year it began steadily to increase, and she therefore came to have it removed. How the death came about has not been explained. Artificial respiration was resorted to without success, and as a final resort tracheotomy was performed, but also without avail." On careful inquiry it is found that the patient never came completely under the influence of chloroform at all, and it is stated that the tumour spoken of above had almost obliterated the tracheal canal, and that death was actually from suffocation. It is a great pity that such misleading and half correct paragraphs should find their way into the papers. They shake the confidence of patients, and in some cases it is absolutely impossible to undo all the damage thus, often unthinkingly, done.

Pharmaceutical Society.

At the first meeting of the session of the North British Branch of the Pharmaceutical Society, Professor Fraser, in his inaugural address, suggested that a university diploma should be given to those who, having passed through a defined compulsory curriculum, were successful in passing certain examinations. Existing university regulations would cover part of the work, and the issue of a diploma by the university would be a valuable recognition of a higher education than was at present within their reach, and would enable them to engage in a higher species of work than at present, as, for example, that of public analysts. It would, he thought, be advisable to approach the New University Commission, who would most probably grant facilities for the carrying out of such a curriculum, if proper representations were made.

The Royal Medical Society.

The meeting for the election of office-bearers in the Royal Medical Society took place several weeks ago, but as yet no list has appeared in most of the journals. The Presidents for the year are—Mr. W. G. W. Sanders, M.B., C.M.; Mr. A. D. Turner, M.B., C.M.; Mr. James Ritchie, M.A., M.B., C.M.; Mr. R. O. Adamson, M.B., C.M. Secretaries: Mr. R. D. Rudolf, M.B., C.M., and Mr. James Middlemass, M.A., B.Sc., M.B., C.M. Chairman of Finance Committee: Mr. George C. Cathcart. Curator of Library Committee: Mr. C. D. Sutherland. Chairman of Museum Committee: Mr. H. G. Huie. Editor of Transactions: Mr. R. E. Horsley., M.B., C.M.

Legacies to Edinburgh and Leith Hospitals.

Amongst other legacies announced as made by the late Mr. Robert Tweedale of Madeira-street, Leith, are two of £500 each, one to the Edinburgh Royal Infirmary, and one to the Leith Hospital.

Edinburgh, Nov. 26th.

GLASGOW.

Opening of the Medical Schools.

The various medical schools of Glasgow, intra-mural and extra-mural, were opened a few weeks ago, and are now in the full swing of work. In opening the session at the University, Professor M'Call Anderson referred to the benefaction by which the University had profited during the past thirteen years, and mentioned specially the Students' Union. He advocated the cause of the Union Bazaar, which is to take place at Christmas. In speaking of changes made in the curriculum, he was not sure that the recent Arts course gave the best preliminary culture to the student of medicine, as in it Latin and Greek bulked too largely, to the exclusion of modern languages. He condemned cramming and the examination mania, and looked forward to the time when the student's inducement to work would be not simply his desire to pass an examination, but the cultivation of his mind and the amassing of knowledge. He objected strongly also to the dissociation of the examining from the teaching function, and finished by discussing some of the recent advances in practical medicine, with special reference to the relief and cure of medical ailments by surgical means. The new buildings of Anderson's College Medical School were formally opened by an address from the President of the board of governors, Mr. T. A. Mathieson, in the course of which was given a very interesting account of the rise and progress of the school. The Royal Infirmary School starts this session on a new career at St. Mungo's College, the floating of which gave rise to so much heart-burning a few weeks ago. At the opening Principal Blackie gave a sketch of the proposed arrangements in the various Faculties in the College, and followed this up with a historical account of education in Glasgow, with special reference to University education, beginning with the labours of St. Kentigern 1286 years ago, and ending with a criticism of University organisation at the present time.

Medical Education of Women in Glasgow.

The opening address at St. Margaret's College, delivered by Professor McKendrick, was marked by a long and important discussion of this question. Beginning with a statement of the interest he had in the movement, an interest which had originated years ago in Edinburgh when the whole question had been keenly debated, the lecturer gave his voice against the teaching of mixed classes of male and female students, and announced that the propriety of starting a medical course for women was under the consideration of the Council of the College. As regards clinical instruction, it would not be difficult to find clinical teachers and an adequate field of clinical material in the Victoria Infirmary.

Disturbance at the University Graduation Ceremony.

At the University graduation ceremony a few days ago a disgraceful and unprecedented scene occurred. It seems that the Senate had taken offence at the noisy and boisterous horseplay indulged in by the students at such ceremonies, a kind of licence which has hitherto been looked upon with a lenient eye, but which in April last was more pronounced than usual. To put an end to these demonstrations the somewhat commonplace remedy of a lock-out suggested itself to the Senate; the "capping," instead of being conducted in the large Bute Hall, took place on this occasion in the Randolph Hall, a small apartment which at most holds about 150, only graduates and their friends being admitted, by ticket, the students being thus forcibly excluded from a function in which they have "assisted" from time immemorial. The result, though it might have been expected, was deplorable. The hall was besieged, and a riot took place in which violence went far beyond anything on record in Glasgow. The professors in passing through the crowd were hissed, mobbed, and assaulted; Sir Geo. MacLeod had his gown torn off his back. Another professor, who had seized a student, was roughly handled, thrown down, and escaped to the Senate room with difficulty. When, after a severe struggle, the door of the hall had been shut, an assault was made upon it with an improvised battering-ram, by means of which several panels were driven in, and through the opening thus made bucketfuls of water were thrown on professors and spectators in the hall. The noise and disturbance were such that the whole ceremony was conducted pretty much in dumb-show, while the audience, especially the ladies present, were much alarmed. The violence used and the determination with which the students carried on the struggle are evidence of the keen feeling of resentment aroused by the action of the Senate. It was a very impolitic move on the part of the Senate to resort to such a drastic and unpalatable remedy as exclusion of the undergraduates from the ceremony; on the other hand, it is impossible to defend the violence of the students (however easily it may be accounted for), more particularly as they

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now have, in the Students' Representative Council, a constitutional and recognised channel through which they can approach the Senate for the statement and arrangement of any grievances. It is to be hoped for the good name of the University that the quarrel may be amicably adjusted, a matter which should not be impossible if a kindly feeling and a disposition to yield a little be displayed by both sides.

Glasgow, Nov. 27th.

ABERDEEN.

The Medico-Chirurgical Society.

At the annual meeting of the Aberdeen Medico-Chirurgical Society, held on the 21st inst, the following office-bearers were elected:—President, Dr. Smith Shand; vice-president, Dr. Garden; secretary, Dr. Edmond; recording secretary, Dr. MacGregor; treasurer, Dr. John Gordon; librarian, Dr. Gibson; members of Council—Dr. Angus Fraser, Dr. Rodger, Dr. McKenzie Booth, Dr. Gibson, Dr. W. H. Williamson. The Society completes its hundredth year next month, and in celebration of the centenary the members are to dine together in their own hall on Saturday, Dec. 14th. A number of prominent citizens and the members of Parliament are to be invited as guests, and each member may invite one guest.

The University Assessorships.

By the withdrawal of three candidates a contest in the election of representatives from the Council to the University Court has been avoided. Dr. Angus Fraser is the choice of the medical profession. At a meeting of the committee appointed to promote his candidature, held on the 21st inst., Dr. Fraser was present, and there was handed to him a requisition, signed by 620 medical graduates, requesting him to allow himself to be nominated as one of the assessors to the University Court under the new Act. The promised support from the local profession was practically unanimous, and among the other signatures occur the names of Sir Arthur Mitchell, K.C.B.; Sir Guyer Hunter, K.C.M.G.; Professor Ferrier, LL.D.; Dr. Mitchell Bruce, London; Professor Cossar Ewart, Edinburgh; Dr. James Ross, LL.D., Manchester; Dr. Bruce, Dingwall; Dr. James Anderson, London; Dr. Stephen Mackenzie, London &c. Dr. Fraser expressed his gratification at the hearty way in which his name had been received by his professional brethren, and at once agreed to place his services at their disposal.

Aberdeen, Nov. 27th.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

The Entries at the Dublin Medical Schools.

THE following is the official list of the anatomical entries for the session 1889-90:—Schools of Surgery, R.C.S., 285; School of Physics, Trinity College, 231; Catholic University, 119—total, 635. This return shows a falling off as compared with recent years.

Enteric Fever in Dublin.

During the nine weeks ending Nov. 16th the deaths recorded from enteric fever in Dublin amounted to 76, or an increase of 53 as contrasted with the previous nine weeks. In consequence of the prevalence of the disease in this city the War Office has countermanded all orders for reinforcing drafts to join battalions in Dublin from their regimental depôts in the sister countries. The drainage of the city, I believe, has a good deal to do with this outbreak, and until we possess a proper main drainage these outbreaks will necessarily occur. As, however, the cost of a system of intercepting sewers has been estimated at from half to three quarters of a million of money, the corporation have not seen their way to add additional taxes to the already over-burdened ratepayers, and the project has disappeared for a time. Sooner or later it must be dealt with, and a plan of Mr. Vaughan, an eminent Belfast civil engineer, has recently come under notice, while his estimate for the entire work has been fixed at £100,000. Mr. Vaughan's plan is designed to get rid of the sewage in its crude condition at the furthest possible point, and he proposes that a locality north of Baldoyle should be taken as the place of outfall. There, he says, it will be caught by the great ocean current, which passes along the eastern coast northwards at the rate of between three and four miles an hour, and be carried past Portmarnock Point, and thence outwards till it is lost in the ocean. From Cush Point he would carry an outfall sewer along the coast line to Ballybough Bridge, and by that route reach the city, taking in the townships. The scheme appears practicable, and no doubt will receive consideration when the subject is again under discussion.

St. Mark's Ophthalmic Hospital.

The governors are making a special appeal for funds to enlarge this institution by fifty beds. The hospital is overcrowded, and only a moiety of the applications for admission can be entertained. The demand for additional ward accommodation has become a matter of pressing necessity, which can only be met by an extension of the hospital boundaries and buildings, with the beds increased to 100.

Health of Cork During October.

The mortality, excluding 25 deaths which occurred in the workhouse, amounted to a rate of 15·90. Of these, 13 were due to zymotic affections. The dispensary medical officers report the occurrence of 43 cases of zymotic diseases during the month, two-thirds of which were cases of scarlatina, and only 2 cases of typhoid fever, being the lowest record for the month of October for the past five years.

Mr. G. F. Blake has been appointed Registrar of the College of Surgeons in the place of Mr. Brennan, deceased. Mr. Blake will also act as librarian.

The Royal Society of England has conferred on the Provost of Trinity College, Dublin, the Copley medal for distinguished writings and discoveries.

Dublin, Nov. 26th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Opening of the Medical Session.

THE various courses and cliniques are now in full swing. The anatomical, physiological, pathological, and bacteriological classes are installed this year in the lately constructed and extensive block of buildings forming the new school in the Rue de l'École de Médecine opposite to the old school. To the latter is being added a magnificent new library and examination rooms, so that whatever may be thought of the structures from a practical and architectural point of view—and here it appears that, as in the case of your own law courts, there is room for a second opinion—there is no doubt that they give an imposing appearance in passing, and would seem at first sight, provided one is not too critical as to details, to be a temple well worthy the science to which they will henceforth be devoted. The dissecting rooms are certainly the finest I have ever seen, and I doubt if they are equalled, much less surpassed, anywhere. There are no less than eight of them, each room containing about twenty-five tables, with prosectors' and demonstrators' rooms, and a complete set of lockers and lavatory attached, and entirely separated from the adjoining dissecting hall. Professor Farabœuf has a large and efficient staff of demonstrators under him, so that, in addition to the general systematic lecture on anatomy, at which attendance is not compulsory, demonstrations and individual instruction are given all day in the several dissecting halls, the students being classed in the various rooms according to seniority in study. Here constant attendance and work are insisted upon for at least two years. The systematic lectures on medicine, surgery, midwifery, &c., are still given in the old school, there being generally two lecturers for each subject, one of whom takes the first half and the other the second half of the session. Attendance on these lectures, although invited, is not compulsory, the student being free to ignore them altogether. At the cliniques at the several hospitals, however, the case is different. On these regular attendance is rigidly exacted. The student must be "signed up" for his hospital work by the physician or surgeon to whose clinique he is attached. The clinical courses also had their beginning last week. One of the largest of these is that on diseases of the nervous system by Professor Charcot. At this clinique the first thing that strikes an onlooker is the number of men well on in life who follow the course; another thing is the strange mixture of almost all nationalities of which the audience is composed. Although the attendance is very numerous, and at times

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even crowded, one can always see and hear all that passes, for the lecture room at the Salpêtrière is large, and constructed rather after the manner of a concert hall, with a stage at one end sufficiently elevated on which the professor has his patients. M. Charcot is a distinct and facile speaker, and soon rivets attention by the simplicity to which he seems to reduce the most difficult problems in this comparatively abstruse branch of medicine. He delivers two such clinical lectures in the week. On Tuesday it is a polyclinic—that is to say, he takes the out-patients with affections of the nervous system just as they may happen to present themselves for advice. On Friday he gives a more or less prepared lecture, the subject for which is selected from amongst the cases recently admitted. Last week he gave the first of these lectures, the subject being Syringomyélie. He showed on the platform two patients the subjects of this malady, one a male and the other a female. The descriptive details and clinical aspects of this singular disease are much too long to enter into fully here, and a mere *résumé* of the differential signs would profit little. The subject is a highly interesting one, however, and is fully described in Professor Charcot's "Leçons du Mardi," which are published in, I think, monthly parts during the session. These *leçons* are simply his clinical lectures taken down as he delivers them on the spot, without any notes, by a shorthand writer. They are to be highly commended to all students in neuropathology, and are extremely cheap. Another important item of the opening of the new session was the inaugural lecture by Professor Verneuil at the Surgical Clinic at the Hôtel Dieu. It is the custom for the Senior Professor of Clinical Surgery to be attached to this hospital. This post being vacated recently by the retirement of Professor Richet, Professor Verneuil, the next in the order of seniority, came over from the Hôpital de la Pitié, and will henceforth have charge of the surgical clinic at the Hôtel Dieu. He was greeted on his first appearance in the senior chair by a large audience, composed mostly of his old house surgeons and pupils, who, of course, greatly applauded their old teacher in his interesting and chatty discourse. M. Verneuil remarked that he at last found himself occupying what was considered the senior place in French surgical teaching, and seated in the chair which was held by such illustrious French surgeons as Dupuytren, Velpeau, and Nélaton. He next dwelt on the importance of his hearers cultivating that which was formerly one of the glories of French medicine and surgery—viz., the science of diagnosis,—and then passed in review the immense revolution which the new science of bacteriology had created in our surgical pathology, and how the almost autocratic precepts of our older masters were forced to bend before the new light daily thrown on the subject by the modest pupils of Pasteur and Lister. After having referred to his age, he concluded a very eloquent address—for M. Verneuil is a fluent speaker—by thanking so many of his old pupils for coming, as he said, to salute the last beams of a setting sun.

The Medical Staff of the Paris Hospitals.

At the present moment there is an agitation on foot to increase the visiting staff of the Parisian hospitals. Complaint is made that in some of the hospitals where the pressure is great some of the physicians and surgeons have charge of more beds than they can very well attend to. In addition, the medical officer of a Paris hospital has also to attend to the out-patient department, for the system of appointing assistant physicians and surgeons which works so well in the English hospitals does not obtain here. This probationary term is put in at the Central Bureau of the hospitals, appointment to which as physician or surgeon is obtained by open competition amongst Frenchmen or naturalised Frenchmen only. In consequence, however, of the slowness in promotion, a physician or surgeon finds he has generally reached the age of forty-five before he becomes attached to a hospital. It is proposed to remedy this state of things by limiting the number of beds in the charge of each of the staff to between thirty and fifty.

Paris, Nov. 26th.

HOSPITAL SATURDAY FUND.—The Lord Mayor has been elected President of the Hospital Saturday Fund, in succession to Sir James Whitehead, who during the year of his mayoralty took an active part in promoting the penny-a-week subscription and in developing the workshop collection.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Actinomycosis of the Tongue.

A CASE of actinomycosis of the tongue, interesting on account of the manner of infection, has recently been treated here by Dr. Maydl. The patient was himself a physician, acting as a veterinary inspector at a Polish town, where he had to watch over the importation of cattle from Russia. As he had to look sometimes through hundreds of papers containing the particulars of the consignments of cattle, he became accustomed to moisten his fingers on his tongue, in order the more easily to turn over the numerous sheets of paper presented to him by the cattle drivers. After indulging in this habit for some months he observed a swelling of his tongue, which he feared at first to be a cancer; but taking also into consideration the fact that several cases of actinomycosis had been observed among the cattle examined by him, he believed in the possibility of an infection by the disease. The microscopical examination of the pus discharged revealed the presence of actinomycosis. The actinomycotic abscess was scraped out, and the patient recovered soon after the operation.

Extirpation of a Seminal Vesicle.

Dr. Ullmann, assistant of Professor Albert, has recently extirpated the seminal vesicle and the vas deferens on the right side in a patient, aged nineteen, who some weeks ago had been castrated on account of tuberculosis of the right testicle. The operation was performed to prevent the infection of the genital organs on the left side, which seemed to be healthy. The incision was made through the perineum, and then the infiltrated right vesicle and the right vas deferens were removed, while the corresponding organs on the left side remained intact. After a few weeks the wound was healing perfectly and the patient is now in good health.

Post-graduate Courses in Vienna.

The number of American and English physicians attending courses in Vienna has again increased this year. Over eighty fresh students arrived here last month from America and England. More than sixty courses on various branches of medicine are conducted here during the whole session. They last from four to six weeks. The courses on Laryngoscopy, Ear Diseases, and Gynæcology are especially well attended. It is hoped that the proposed Anglo-American Medical Association will soon be formed, as its bye-laws will be approved by the Austrian Government within the next few days. Students can easily obtain information here as to the courses, a list of which is published every week by the *Vienna Weekly News*, and is posted on boards &c., at the Medical Inquiry Office, IX., Maximiliansplatz, 13, and at the English Library, I., Landesgerichtsstrasse, 12.

A New Hospital.

The wards for internal diseases at the new hospital (Franz-Josephs-Spital) have now been opened. The hospital, which is some distance outside the town, is built on the pavilion system, and when completed will afford accommodation for 600 patients.

Vienna, Nov. 25th.

Medical News.

UNIVERSITY OF LONDON: M.B. EXAMINATION.—The following candidates passed the examination for Honours in October, 1889:—

First Division.—Henry Moore Bowman, St. Bartholomew's Hospital; Rubert William Boyce, University College; Hubert C. Bristowe, St. Thomas's Hospital; Henry Johnstone Campbell, Guy's Hospital; Percy James Duncan, Charing-cross Hospital; Frank Fawssett, St. Thomas's Hospital; William Soltau Fenwick, London Hospital and Strasburg and Berlin; John Arthur Hayward, St. Bartholomew's Hospital; Charles Arthur Kent, B.Sc., University College; Charles MacGowan Kitching, Guy's Hospital; Joseph Johnston Macgregor, St. Bartholomew's Hospital; Robert Devereux Mothersole, Guy's Hospital; John Edward Platt and Charles Fredk. Seville, Owens College and Manchester Royal Infirmary; Edgar Olive Turner, University College.

Second Division.—Horatio Geo. Adamson and Launcelot Wm. Andrews, St. Bartholomew's Hospital; George Henry Barker, B.Sc., Bristol Medical School; George Black, Guy's Hospital; Richard Oxley

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Bowman, Owens College and Manchester Royal Infirmary; Walter Henry Brazil, Owens College; Jas. Joseph Buist, St. Bartholomew's Hospital; Frank Calder, Bristol Medical School; Frances May Dickinson, London School of Medicine for Women; Charles Duer, University College; Thomas Jas. Dyall, St. Bartholomew's Hospital; Alfred Downing Fripp, Guy's Hospital; Thos. Ashton Goodfellow, Owens College and Manchester Royal Infirmary; Albert Green, Guy's Hospital; William Griffiths, B.Sc., Middlesex Hospital; Julius Hamel and Alan Jasper Heath, University College; Phillip Henry Hensley, King's College; Ernest Wickham Hore, University College; Charles Rowe Killick, London Hospital; Henry Ernest Knight, St. Bartholomew's Hospital; Mary A. McCulloch Knight, London School of Medicine for Women; Milton Prentice Ledward, Owens College and Manchester Royal Infirmary; Charles Pardey Lukis, St. Bartholomew's Hospital; George John Padbury, Guy's Hospital; Edward Percy Paton, Ransom Pickard, and Geo. Henkell D. Robinson, St. Bartholomew's Hospital; Joseph Crofts Rossall, St. Mary's Hospital; Arnold Scott, Guy's Hospital; John Alexander Shaw-Mackenzie, University College; Ernest Hugh Snell, B.Sc., Queen's College, Birmingham; Frank Barber Wells, University College; John Price Williams, Owens College and Manchester Royal Infirmary; Robert Edwin Williams, Guy's Hospital.

UNIVERSITY OF CAMBRIDGE.—At a congregation, held on the 21st inst., the degree of M.B. was conferred on the following gentlemen:—

Bachelors of Medicine.—Francis Hodson Bromhead, Jesus; Basil de Beauvoir Carey, Emmanuel.

At the same meeting the following statute was made as regards the persons to be considered *in statu pupillari*—viz., undergraduates, Bachelors of Music, Law, Arts, and Surgery. The following shall be deemed not to be *in statu pupillari*—viz., Bachelors of Medicine, Doctors designate in Music, Inceptors in Arts, Law, or Surgery.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—FELLOWSHIP EXAMINATIONS.—The following gentlemen, having passed the necessary examination, were admitted by the President Fellows of the College:—

Robert de la Cour Corbett, Surgeon-Major, Medical Staff, M.D., Mast. Surg. 1867, Queen's Univ.; John Keatly, Surgeon, Medical Staff, L.R.C.S.I. 1885, L.K.Q.C.P.I. 1885; William Henry Steele, Surgeon-Major, Medical Staff, L.R.C.S.I. 1865, M.B. 1866, M.D. 1871, Univ. Dub.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates, having passed the qualifying examination in Medicine, Surgery, and Midwifery, have received certificates entitling them to practise in the same, and were admitted as Licentiates of the Society on Nov. 20th:—

Gilpin, Frank, Middlesex Hospital.
Heywood, Charles Christopher, St. Thomas's Hospital.
Jones, Evan, Middlesex Hospital.
Lowsley, Lionel Dewe, St. Bartholomew's Hospital.
Ramsden, Herbert, Owens College, Manchester.

THE Jubilee Memorial wing of the Dover Hospital was opened on the 21st inst. It has cost £3000.

THE DENTAL HOSPITAL.—Sir Richard Webster, Q.C., M.P., Attorney-General, has accepted the office of a vice-president to this hospital.

THE GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY, CARDIFF.—Generous donations continue to be made towards the building fund of this institution. The total now promised amounts to £2896 10*s.*

CEMETERY FOR BATTERSEA.—We understand the Home Secretary has granted a certificate for adapting part of the Hobuld's Farm, Morden estate, as a cemetery for the parish of Battersea.

CENTENARIANS.—During the September quarter the deaths of ten centenarians were registered in Ireland. One took place at 100 years, two at 102, two at 103, one at 104, one at 105, two at 107, and one at 111 years respectively.

ROYAL INSTITUTION. — The Christmas Lectures (adapted to a juvenile auditory) will this year be given by Professor A. W. Rücker, F.R.S. (Professor of Physics in the Normal School of Science and Royal School of Mines), on Electricity. They commence on Saturday, Dec. 28th.

THE SANITARY INSTITUTE. — At an examination held on Nov. 21st and 22nd, sixty-nine candidates presented themselves, of whom thirty-nine were certified to be competent, as regarded their sanitary knowledge, to discharge the duties of inspector of nuisances.

FIRE AT A LUNATIC ASYLUM.—A telegram from New York states that on the evening of the 25th inst. a fire broke out at a large asylum for the insane at Blackfoot, Idaho. Despite the most strenuous efforts to save the unfortunate inmates, eight perished before they could be brought to a place of safety. The building was burned out, and the loss is estimated at £60,000.

MEXBOROUGH MONTAGU COTTAGE HOSPITAL.—Mr. P. S. Macliver has offered to give a locker to each bed at this new hospital.

HABITUAL DRUNKARDS IN NORWAY AND SWEDEN are imprisoned and have to submit to a plan of treatment which is said to produce most satisfactory results. The delinquents are fed only with bread steeped in wine for an hour before the meal is served. Experience shows that a period of from eight to ten days of this regimen is generally sufficient to make a man evince the greatest aversion to anything in the shape of wine.

CARNARVONSHIRE AND ANGLESEY INFIRMARY AND DISPENSARY.—At the annual meeting of the governors of this institution held last week, the report and statement of accounts, which were adopted, showed that there had been an increase in the receipts of £95 2*s.* 4*d.*, and a diminution in the expenditure of £72 7*s.* 3*d.*, the latter being brought about by the excellent management of the institution.

OPEN SPACES.—ANOTHER GIFT TO LONDON.—On behalf of a committee, of which he is the chairman, the Duke of Westminster has asked the London County Council to accept the Royal Victoria Gardens (lately North Woolwich Gardens) as a recreation ground for the public use. The purchase money amounted to £19,000, and there has been a further outlay of £1500, towards which the Council are requested to contribute £1000.

THE CARDIFF INFIRMARY.—Lord Tredegar presided at a well attended meeting of the Governors of the Glamorganshire and Monmouthshire Infirmary, held at the Town Hall, Cardiff, on the 14th inst. The object of the meeting was to take into consideration a scheme for the proposed extension of the building. The report, which was adopted, recommended the erection of an entirely new pavilion block, to contain sixty beds, the estimated cost of which is about £6000.

GUY'S HOSPITAL SPECIAL FUND.—The object of this fund—viz., to raise £100,000—has practically been attained. In addition to upwards of £91,000 received in cash, £3000 has accrued by interest, and legacies and donations payable by annual instalments remain to be received. But the governors require further pecuniary help before they can open and utilise about 100 beds which they still have. In consequence of the agricultural depression, the income of the institution has been reduced by £15,000 a year.

QUEEN'S COLLEGE, BIRMINGHAM.—There are at the present time several entrance scholarships awarded by the College. These, however, are all confined to the sons of medical men. At a recent meeting the Council decided, in view of the present satisfactory growth of the school, to establish an open entrance scholarship of the value of £31 10*s.* The examination for the scholarship will be held each October, and the subjects will be—Latin, French or German, Mathematics, Chemistry of Non-metals, and Elementary Biology.

FOOTBALL CASUALTIES.—In a football match, played under the Rugby rules, at the Training College, Winchester, on the 22nd inst., a student named Cheesman was so violently kicked that his spine, it is feared, is injured.—While at practice at football on the Hungerford Downs last week, Mr. S. Hawkes, jun., was charged by another player, and his collar-bone was broken.—At Belfast, last week, a young man named McBain, of the Belfast Caledonians, whilst playing at football against the Black Watch Club had his leg broken; and another player, named Calvert, during a juniors' match at Belfast, sustained a fracture of the knee-cap.

NORTH LONSDALE HOSPITAL.—At the annual meeting of subscribers to the North Lonsdale Hospital, held last week, and at which a number of working men from some of the large local works were present, the report regretted the increase in the number of accidents during the past year, there having been an excess of fifty-six in-patients and 244 out-patients compared with the previous year. Unfortunately, in nine cases the injuries were so severe that the lives of the sufferers could not be saved. As regarded the financial position of the hospital, there was on June 30th last a balance due to the bank of £78 19*s.* 5*d.* That debt had been wiped out, and the hospital had now a balance at the bank of £37 16*s.* 5*d.* The report was adopted.

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MEDICAL MAGISTRATE.—The Lord Chancellor has added the name of Mr. B. A. Daniell, L.R.C.P., &c., Lond., to the Commission of the Peace for the Borough of Aberavon.

RABIES.—The number of dogs in England officially reported during the week ending Nov. 16th as affected with rabies was eight against four in the previous week. Of these, six were killed and two died. The distribution was as follows:—Surrey three, London two, and Hertford, Lancaster, and York (West Riding) one each.

INDECENT PAMPHLETS.—At the Marylebone Police Court this week a man was charged with distributing a quack doctor's handbills by depositing them in the letter-boxes of private houses in the Adelaide-road, South Hampstead. The magistrates, in discharging the prisoner, said that a new Act of Parliament would come into force on Jan. 1st next, which would make conduct of this kind a criminal offence, not only against the person distributing the bills, but especially against the person causing the bills to be distributed.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION. — A quarterly meeting of this Association was held in the hall of the Royal College of Physicians in Edinburgh on Thursday, Nov. 14th, Dr. Yellowlees in the chair. Dr. Campbell Clark showed the plans of the new Lanark District Asylum. Dr. Urquhart read notes on a case of Cerebral Tumour, with remarks by Dr. Byrom Bramwell. Dr. Mackenzie (Morpeth) read a paper on Sulphonal. There was a full attendance of members, and the discussion elicited by the papers read was exhaustive and interesting.

PRESENTATIONS.—On the 21st inst., the nurses and officers of the Lambeth Infirmary presented Dr. Grosvenor Shaw, the assistant medical officer, with a very handsome cut glass and plate sideboard piece. Handsome as the gift was, much more so were the kind and appreciative feelings which prompted the presentation.—Mr. D. S. Park, medical officer of health for Houghton-le-Spring and district, has been presented by the local sanitary authority with a cheque for £30, "as an acknowledgment of the satisfactory way in which he discharged his duties as medical officer of health during the recent trying epidemic of enteric fever at New Herrington."

PROVINCIAL SUNDAY AND SATURDAY HOSPITAL COLLECTIONS.—The workmen at Messrs. J. C. Johnson & Co.'s Cement Works, Gateshead, have appropriated as follows the amount collected for the Charity Fund:—Newcastle Infirmary, £30; Hospital Saturday Fund, £18; Gateshead Dispensary, £10; and the Gateshead Children's Hospital, £5. The recent Hospital Saturday collection at Torquay realised £52 2*s*. The Gainsborough Hospital Saturday collection for the Leeds Eye and Ear Infirmary and Lincoln County Hospital amounts to £147. The United Trades of Coventry Hospital Saturday Fund amounted to £564 5*s*. 1*d*.

ROYAL ALBERT HOSPITAL, DEVONPORT. — The twenty-sixth annual report states that the average number of patients under treatment during the past year had been 41·31, a considerable increase on the previous year. The average cost per bed was £44 9*s*. 5*d*. Three hundred and fifty-three operations had been performed. In the out-patients' department 1240 casualties were attended to, 64 being fractures and dislocations; 59 in-patients were received in the ophthalmic department, and 561 out-patients attended by the ophthalmic surgeon. Nine persons availed themselves of the Home Wards, and the amount paid was £88. The number of members on the Provident Dispensary was 2949. The balance-sheet shows a deficit of upwards of £60.

NORTH STAFFORDSHIRE INFIRMARY.—The annual report, issued last week, shows a very satisfactory financial position of the institution, which appears to have been always liberally supported by the public alike in subscriptions, donations, and legacies. The auditor's report states that the income was £11,268, an increase of £1509 on the previous year, and the expenditure (exclusive of £1000 invested in the Government funds) was £9418. The general committee report that during the year 11,018 patients had been treated. The report of the trustees of Sir Smith Child's North Staffordshire Convalescent Endowment Fund and Incurables' Fund states that these now amounted to £6210. During the year 133 patients had been sent to various convalescent institutions.

THE DANGER OF OVERHEAD WIRES.—One of the telegraph wires passing over Fleet-street diagonally from the corner of Chancery-lane to the south side snapped on Monday morning and fell into the street. Fortunately the wire was a light one, and, though in its descent several persons were struck, no one seemed to be seriously injured. One gentleman, however, received a bruise some four or five inches long on the side of the neck. This danger is obviously one of more pressing consideration at this season of the year, when snowstorms are rife.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ABBOTT, F. C., L.R.C.P., M.R.C.S., has been reappointed Resident House Physician to St. Thomas's Hospital.

ANSON, G. E., M.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S., has been appointed Resident Accoucheur to St. Thomas's Hospital.

BANKS, L. P., L.K.Q.C.P. Irel, has been appointed Medical Officer of the Sharnbrook District, Bedford Union.

BETTS, F. B., L.R.C.P. Lond., M.R.C.S., Resident Obstetric Assistant, has been appointed Junior House Surgeon to the Westminster Hospital.

BOYCOTT, A. N., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

CHAPLIN, ARNOLD, M.B., B.A., B.C. Cantab., has been appointed Resident Medical Officer to the City of London Hospital for Diseases of the Chest, Victoria-park, vice R. Courteen, M.B., resigned.

COWEN, T. P., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

DE JERSEY, W. B., L.R.C.P., M.R.C.S., has been reappointed Assistant House Physician to St. Thomas's Hospital.

DICKSON, T. H., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Throat to St. Thomas's Hospital.

EVANS, R. W. J., L.R.C.P., L.R.C.S.Edin., has been reappointed Medical Officer, Borough of Wrexham.

FEENY, J. A., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer to the Lahardane Dispensary, Public Vaccinator and Medical Officer of Health to the District, and Surgeon to the Police.

FORWARD, F. E., L.R.C.P., M.R.C.S., has been reappointed Resident House Physician to St. Thomas's Hospital.

GALLOWAY, JAMES, M.A., M.B., M.R.C.P., has been appointed Demonstrator of Materia Medica to the London Hospital Medical College.

HUGHES, A. E. P., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Eye to St. Thomas's Hospital.

HULBERT, H. H., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

IDDON, W. H., M.B. Lond., M.R.C.S., has been appointed Assistant Medical Officer to the Manchester Royal Infirmary.

JONES, H. S., F.R.C.S., L.S.A., has been appointed Clinical Assistant for Diseases of the Skin to St. Thomas's Hospital.

LAKE, R., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant for Diseases of the Ear to St. Thomas's Hospital.

LAMBERT, T. W., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant for Diseases of the Skin to St. Thomas's Hospital.

LAWS, W. G., M.B., C.M. Edin., has been reappointed Clinical Assistant for Diseases of the Eye to St. Thomas's Hospital.

LEA, ARNOLD W. W., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Manchester Royal Infirmary.

LEWIS, CHRISTOPHER J., M.D., late Assistant Surgeon, has been appointed Honorary Surgeon to the Ear and Throat Hospital, Birmingham.

MILTON, F. R. S., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

MUGFORD, S. A., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer of the Wix District, Tendring Union.

NEALE, J. HEADLEY, M.B. Edin., M.R.C.P. Lond., late Assistant Physician, has been appointed Honorary Physician to the Leicester Infirmary and Fever House, vice Dr. Blunt, deceased.

OSBURN, H. B., L.R.C.P., M.R.C.S., has been appointed Senior Obstetric Clerk to St. Thomas's Hospital.

PICKEN, JAMES, M.B., C.M. Glas., has been appointed Medical Officer to the Rawmarsh District, Rotherham Union.

PINKERTON, ROBT. LACHLAN, M.B., C.M. Glas., has been appointed House Physician to the City of London Hospital for Diseases of the Chest, Victoria-park.

PRATT, REGINALD, M.D. Lond., &c., late Honorary Assistant Surgeon, has been appointed Honorary Assistant Physician to the Leicester Infirmary and Fever House.

REES, JOHN MILSOM, M.R.C.S., L.R.C.P. St. Bart.'s, has been appointed Junior Resident Medical Officer to the North-West London Hospital, Kentish Town-road.

ROE, M. W., M.R.C.S., L.S.A., has been appointed Medical Officer of the Wincanton District and the Workhouse, Wincanton Union.

SPENCER, M. H., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been reappointed Non-resident House Physician to St. Thomas's Hospital.

SPICER, W. J. HOLMES, M.A., M.B., F.R.C.S., has been appointed Ophthalmic Surgeon to the Victoria Hospital for Sick Children, Chelsea, vice Wm. Adams Frost, F.R.C.S., resigned.

STABB, A. F., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

STEEL, A. R., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of the Sandal Magna District, Wakefield Union.

TAYLOR, J. W., F.R.C.S. Eng., has been appointed Honorary Consulting Surgeon, Wolverhampton and District Hospital for Women.

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TOLLER, S. G., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Throat to St. Thomas's Hospital.
TURNEY, H G., M.A., M.B., B.Ch.Oxon., L.R.C.P., M.R.C.S, has been reappointed House Surgeon to St. Thomas's Hospital.
WICKHAM, G. H., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Ear to St. Thomas's Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

CANCER HOSPITAL (FREE), Fulham-road, S.W.—Assistant Anæsthetist.
GREAT YARMOUTH HOSPITAL.—Surgeon. Terms, salary £80 and £10 for all liquors.
KING'S COLLEGE HOSPITAL, London.—Assistant Physician for Diseases of Women and Children, and Assistant Accoucheur. Also Assistant Surgeon.
LONDON HOSPITAL, Whitechapel-road, E. — Surgical Registrarship. Salary £100 a year.
LOUGHBOROUGH MEDICAL AID ASSOCIATION.—Senior Medical Officer. Salary £200 per annum, with house rent and rates free, £10 in lieu of coal and gas, and a fee of 10*s.* for each case of midwifery attended.
MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich-road, S.E.—Junior Resident Medical Officer. Salary £30 per annum, with board, attendance, and washing. The post is tenable for six months with prospect of re-election as senior.
OLDHAM INFIRMARY.—House Surgeon. Salary £80 per annum, with apartments and board.
ROYAL UNIVERSITY OF IRELAND, Dublin.—Examiners. Two in Midwifery, two in Medical Jurisprudence, and two in Materia Medica.
WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant for six months. Board, lodging, and washing provided.
YORK COUNTY HOSPITAL, York.—Assistant House Surgeon. Salary £40, with board and residence.

Births, Marriages, and Deaths.

BIRTHS.

CHAWNER.—On Nov. 15th, at Clay Cross, Derbyshire, the wife of Alfred Chawner, L.R.C.P.Lond., M.R.C.S., of a son.
CRESSWELL.—On Nov. 18th, at Dowlais, Glamorgan, the wife of Colonel Pearson R. Cresswell, F.R.C.S., of a daughter.
MORTIMER.—On Nov. 24th, at Harrowby House, Lennox-road, Southsea, the wife of Inspector-General E. T. Mortimer, R.N., of a daughter.
PLAYFAIR.—On Nov. 22nd, at Melville-crescent, Edinburgh, the wife of John Playfair, M.B., F.R.C.P.E., of a son.
POLLOCK.—On Nov. 25th, at Park-street, Grosvenor-square, W., the wife of Dr. W. Rivers Pollock, of a son.

MARRIAGES.

BARBOUR—BROWN.—On Nov. 27th, at St. Leonards, Edinburgh, by the Rev. Alex. Whyte, D.D., and the Rev. R. W. Barbour, M.A., Alexander Hugh Freeland Barbour, M.D., to Margaret Nelson, eldest daughter of the late Hon. George Brown, of Toronto, Canada.
BORROWMAN—MACKINTOSH.—On Nov. 25th, at St. Andrew's Church, Colombo, Ceylon, Philip Grierson Borrowman, M.B., C.M., to Elizabeth Gordon, fourth daughter of the late Rev. Charles Calder Mackintosh, D.D., of Tain and Dunoon.
KNIGHT—BARNES.—On Nov. 20th, at St. Mary's, Stanwell, Middlesex, Edward Knight, M.R.C.S., son of E. Knight, Esq., of Weston-super-Mare, to Mary Violett, eldest daughter of J. W. Barnes, F.R.C.S., of Stanwell Moor.
LARDER—SHERE.—On Nov. 19th, at St. Saviour's Church, Bath, by the Rev. J. A. Jacob, Vicar, Herbert Larder, M.R.C.S., L.S.A., Medical Superintendent, Whitechapel Infirmary, London, to Mary, eldest daughter of the late Thomas Shere, Esq., of Berwick St. John, Wilts.
MCNALLY—COKE.—On Nov. 5th, at St. George's Cathedral, Madras, by the Venble. Archdeacon Brown, Surgeon-Major Christopher J. McNally, M.D., son of the late C. McNally, Esq., solicitor, of Dublin, to Hester Marion, daughter of W. S. Coke, Esq., D.L., of Brookhill Hall, Derbyshire.
NORTHCOTE—WELLS.—On Nov. 21st, at Christchurch, Catshill, Bromsgrove, by the Rev. J. W. H. Carr, Vicar of St. Mary's, Hull, stepfather of the bridegroom, assisted by the Rev. J. Kidd, Vicar of the parish, Augustus Beauchamp Northcote, M.B. (Edin.), eldest son of the late Augustus Beauchamp Northcote, M.A. (Oxford), to Lilian Florence, eldest daughter of Thomas Wells, of Fockbury, Bromsgrove.
SPOWART—HERZ.—On Nov. 21st, at the British Legation, Darmstadt, William Ribton Spowart, B.A., M.B., &c., Norwich, to Amélie Wilhelmina, only daughter of Siegmund Herz, of Mayence, Germany.

DEATHS.

DEYNS.—On Nov. 10th, at North Walsham, Frederick Deyns, M.D. (New York), L.R.C.P. Lond., M.R.C.S., aged 60.
KERSEY.—On Nov. 22nd, at Raby, Bournemouth, Robert Cooper Kersey, M.D., aged 73.
ROTHWELL.—On Nov. 20th, at Bridge-street, Bolton, Charles Rothwell, M.R.C.S., aged 62.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, December 2.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.
SOCIETY OF ARTS.—8 P.M. Mr. William Jago: Modern Developments of Bread Making. (Cantor Lecture.)
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Bruce Clarke: Four Years' Experience of Electrolysis in Stricture of the Urethra.—Dr. Lewers: Some Points in the Diagnosis of certain Ovarian Tumours from Fibroid Tumours of the Uterus, with notes of an illustrative case.

Tuesday, December 3.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.
PATHOLOGICAL SOCIETY OF LONDON (at 20, Hanover-square).—8.30 P.M. Dr. Ormerod: Gummata of Pons Varolii.—Mr. Roger Williams: So-called Diffuse Lipoma.—Mr. Bland Sutton and Dr. Gordon Brodie: Adenomata (erosions) of Os Uteri in Macaque Monkeys.—Dr. Hale White: Ruptured Mitral Valve.—Mr. Golding Bird: Cases of Saccular Aneurysmal Dilatation of Veins.—Mr. Hurry Fenwick: Unusual Bladder Growths.—Dr. Hadden: (1) Small Cyst of Cerebellum; (2) Cast of Œsophagus expelled during life. Card Specimens:—Dr. Ormerod: Tubercular Disease of Pancreas.—Dr. Hawkins: (1) Malignant Endocarditis; (2) Aortic Stenosis of Twenty-four Years' Duration.—Dr. Hadden: Spontaneous Fracture of Gall-stones.

Wednesday, December 4.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.
OBSTETRICAL SOCIETY OF LONDON (the Society's Library, 54, Berners-street, W.).—8 P.M. Specimens will be shown by Mr. Bland Sutton and others. Dr. Braxton Hicks: Case of Inversion of the Uterus.—Mr. Alban Doran: On Closure of the Osteum in Inflammation and allied Diseases of the Fallopian Tubes.—Mr. H. C. Hodges: (1) Notes of a case of Hæmatemesis in a newly-born Child; (2) Note of a case of Monstrosity.
SOCIETY OF ARTS.—8 P.M. Mr. Armand Ruffer: Rabies and its Prevention.

Thursday, December 5.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK, E.—4.30 P.M. Dr. Vincent Harris: On the Treatment of Bronchitis.
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. Knowsley Thornton: The Surgery of the Kidney. (Harveian Lecture.)

Friday, December 6.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON MEDICO-CHIRURGICAL SOCIETY (Board-room, West London Hospital).—8 P.M. After the Exhibition of Pathological Specimens, the following Papers will be read:—Mr. Bruce Clarke: His Surgical Practice at the West London Hospital during the past Nine Years.—Mr. Hurry Fenwick: An unusual case of Bladder Growth.

Saturday, December 7.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, November 28th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Nov. 22	30·40	N.W.	46	45	..	52	37	..	Foggy
,, 23	30 30	S.W.	51	50	..	56	45	..	Overcast
,, 24	30 05	S.W.	52	51	57	53	49	·12	Raining
,, 25	29·49	N.W.	46	46	74	49	45	·40	Raining
,, 26	29·71	W.	35	34	62	46	34	..	Hazy
,, 27	29·67	N.W.	33	32	42	37	32	·04	Hazy
,, 28	30·17	N.W.	32	31	50	37	31	..	Bright

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE MOON DEFENCE FUND.

THE following further subscriptions have been received:—James F. Goodhart, M.D. (Weymouth-street), £2 2s.; Mr. Cock (Queen's-road), £1 1s.; Mr. R. Denison Pedley (Railway-approach, London-bridge), £1 1s.; Dr. Porter, £1 1s.

C. M. F.—Both sets of appointments are in the gift of the President of the Local Government Board for the time being. The appointment of a general inspector has hitherto been regarded as a matter of political patronage. As to the medical inspectors, it is evident from previous appointments that, if political and other allied interests avail, it is only as a secondary consideration, recognised fitness for the duties attaching to the office being essential. In either case applications, addressed direct to the President, should be endorsed by some testimonials and introductions.

Malta.—We are afraid that a local diploma is necessary. Application should be made to the Secretary of the Medical Board, Valetta.

A Student had better make known her wishes by means of an advertisement.

CHEST PIECES TO STETHOSCOPES.

To the Editors of THE LANCET.

SIRS,—I have had one of the small annular air-cushions devised by Dr. Murray as a chest-piece for binaural stethoscopes in constant use for about two years, and find that it adds greatly to the ease and comfort both of auscultator and patient. The slightest pressure only is requisite to isolate the columns of air in the stethoscope, and it may be applied to any part of the chest-wall—a matter of difficulty in emaciated patients under ordinary conditions. I do not, however, quite think with Dr. Murray that the ring intensifies the sounds heard, but only apparently does so by its close apposition to the part to which it may be applied. I certainly think the stethoscope, as figured in THE LANCET for Nov. 16th, is the most useful instrument for everyday use yet introduced.

I am, Sirs, yours faithfully,

College-green, Bristol, Nov. 26th, 1889. WM. J. SPOOR.

THE LATE DR. CHARLES BLAND RADCLIFFE.

To the Editors of THE LANCET.

SIRS,—It may be of interest to your readers to know that a committee has been formed for the purpose of founding a pension for the incurable in memory of the late Dr. Radcliffe, and in connexion with the National Hospital for the Paralysed and Epileptic in Queen-square, Bloomsbury, with which institution Dr. Radcliffe's name has been long and honourably associated. Donations will be received by Lady Taunton, honorary treasurer of the fund, and may be addressed to her at the hospital.

I am, Sirs, yours obediently,

Brunswick-gardens, Campden-hill, W. M. L. PARKER, Hon. Sec.

TOTAL ABSTINENCE IN RELATION TO HEALTH.

AT a meeting of the British Medical Temperance Association, held in the rooms of the Medical Society of London on Nov. 26th, Dr. B. W. Richardson, who presided, challenged the truth of the statistics recently published professing to show that total abstinence shortened life. A report was read on 279 returns of medical officers of workhouses as to the use or disuse of alcohol therein. Of 203 replies to the query, "How do you consider the health of those paupers to be affected to whom alcoholic liquors are not supplied?" 73 medical officers state that the health was better, 125 that it was unaffected, 2 that it was worse, and 3 that the sick were worse without alcohol. Again, of 223 replies to the question, "Is it your opinion that the lives of paupers have been shortened, even by a few months, by the withdrawal of alcoholic liquors?" 19 say life is prolonged, 160 say it is not shortened, the two together being over 80 per cent.; 29, or 13 per cent., say it is shortened; 15, or 7 per cent., say it is shortened in the case of sick persons. The balance of medical opinion and observation is therefore, says the report, overwhelmingly in favour of total abstinence as conducive to the health and longevity of paupers.

Mr. Montagu Palmer.—Such an occurrence without injury to the side is extremely improbable. Fracture of a rib may be due to muscular action, but is of rare occurrence, and unlikely in one suffering from illness. The possible softening of a bone by new growth must, however, be borne in mind. Our correspondent's suggestion as to a muscular affection as the cause of the pain is most probably the correct one.

Medical Etiquette.—Our correspondent seems to have acted courteously and quite within his rights. He will act magnanimously in making allowance for a neighbour less fortunate and successful than himself. We should not advise his carrying the war into his neighbour's village.

Mr. B. H. Mumby.—The book is published by Mr. Charles Stocker, Birmingham.

Dr. Bell Taylor.—We are unable at present to make a definite promise.

THE LATE MR. HAYNES WALTON.

To the Editors of THE LANCET.

SIRS,—In your obituary notice of the late Mr. Haynes Walton you say, "The article on 'Operative Surgery' in Druitt's book was from Mr. Haynes Walton's pen." I venture to think that that is a mistake. That Mr. Haynes Walton fully and carefully revised, more than once, the chapter in Druitt's "Vade-Mecum" on "The Operations of Surgery"—Druitt does not himself use the phrase "operative surgery"—is unquestionable; but in looking through the tenth and eleventh editions of the work I have found only one instance in which Druitt states that an article had been written for him—a short article from the pen of Dr. B. W. Richardson, on "Artificial Respiration." In the preface to the tenth edition of his book (1870) Druitt writes: "The chapters on the surgical operations were most carefully rewritten about fifteen years ago, and new engravings made from a series of operations on the dead body, under the superintendence of that dextrous surgeon, my staunch friend, Haynes Walton." But it is not said who rewrote the article, and Druitt was always most generous in his praise of those who had helped him. When the tenth and the eleventh editions of the "Vade-Mecum" were being prepared for the press Druitt was unable from illness to do much of the work, and in 1870 and in 1877 the labour and responsibility of revising the whole of the tenth and the later two-thirds of the last editions were undertaken by his old and tried friend, Prof. John Wood, of King's College Hospital.

I am, Sirs, yours faithfully,

Grosvenor-street, W., Nov. 26th, 1889. WM. CHOLMELEY.

REVIVAL OF AN OLD REMEDY FOR TOOTHACHE.

To the Editors of THE LANCET.

SIRS,—In THE LANCET for the 16th inst. I find it stated that a Russian practitioner recommends the use of hyoscyamus seeds for toothache. "His plan is to burn the seeds, and to convey the smoke through a little paper tube to the hole in the tooth." The method described was a favourite practice of Andrew Borde of Pevensy, in Sussex, who in 1542 obtained the M.D. degree at Montpelier in France, and afterwards at Oxford University. It is described in his "Breviarie of Health," published in London in 1547, and is included in the list of anæsthetics in my book, "Anæsthetics, Ancient and Modern." Borde was first physician to Henry VIII. He published seven books, one of which he dedicated "to the lady Mary," daughter of Henry VIII. He ultimately lost favour at Court, and died in the Fleet Prison in the year 1549.

I am, Sirs, yours truly,

Dublin, November, 1889. GEORGE FOY.

MEDICAL DEFENCE UNION.

To the Editors of THE LANCET.

SIRS,—We are requested by Dr. Bantock, the hon. treasurer of the Union, to ask you to allow us to acknowledge in THE LANCET the receipt of a cheque for ten guineas from Sir Andrew Clark towards the funds of the Union.—We are, Sirs, yours truly,

LESLIE PHILLIPS, A. BATEMAN, } Hon. Secs.

Nov. 27th, 1889.

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JUMBO'S SKELETON.

THOSE visitors to Mr. Barnum's Exhibition who take an interest in comparative anatomy will be pleased to see the able manner in which the skeleton of this unfortunate elephant has been mounted. The epiphysial extremities of the long bones are well preserved, and it is evident that he had by no means arrived at his maximum height when he was accidentally killed. Some of the epiphyses vary greatly from those which occur in the human skeleton.

Dr. John Easton.—The official who in Paris acts as general sanitary inspector is M. Louis Masson. His offices are at No. 6, Avenue Victoria, and immediately opposite the Hôtel de Ville. The articles describing the new police regulations on domestic drainage in Paris appeared in THE LANCET of April 20th, 27th, and May 4th.

Mr. Roger N. Goodman.—The book can no doubt be obtained by order of any bookseller.

Sanitas has not enclosed his card.

"HOSPITAL CONSTRUCTION AND ADMINISTRATION."

To the Editors of THE LANCET.

SIRS,—If "Hospital Surgeon," in your issue of the 9th inst., will refer to Dr. Oppert's book on Hospital Construction, he will find (p. 57) that "it is important that nurses should sleep as far from the wards as possible"; and (p. 13) that "there are certain reasons why we should avoid having more than two floors in a building intended for a hospital."

I am, Sirs, yours faithfully,

Nov. 26th, 1889. ANOTHER HOSPITAL SURGEON.

Dubious.—We have failed to confirm our correspondent's observation in the specimen sent to us. Still, its correctness need cause no great surprise; nor is the disinfectant action referred to in operation in the dried state of the leaf.

W. F. had better put his question to the Secretary of the College.

ERRATUM.—Our attention has been called to an error of transposition which occurred on page 817 in THE LANCET of Oct. 19th, in an article on the Paris Universal Exhibition. Speaking of the Eau Dentifrice du Docteur Pierre, our correspondent is made to say: "The advantage which Dr. Pierre claims for his dentifrice is absolute freedom from acids and aromatic and astringent qualities." Whereas the passage should have read—"The advantages which Dr. Pierre claims for his dentifrice are its aromatic and astringent qualities and its absolute freedom from acids."

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Savage, London; Dr. Boobbyer, Nottingham; Sir W. B. Dalby, London; Mr. F. Treves, London; Dr. Sutherland, London; Mr. R. H. S. Carpenter, London; Dr. Cholmeley, London; Mr. Rauschke, London; Dr. F. P. Atkinson, Surbiton; Mr. W. T. Thomas, Liverpool; Dr. Illingworth, Accrington; Mr. Margrave, Llanelly; Dr. Waugh, London; Mr. H. Finlay, London; Mr. Towers-Smith, London; Dr. Leslie Phillips, Birmingham; Dr. Martin, Philadelphia; Dr. Urquhart; Dr. Crooke, Birmingham; Dr. Murrell, London; Mr. Callard; Dr. Althaus, London; Dr. Xercavius, Barcelona; Mr. Stretton, Leicester; Messrs. Cox and Co., Brighton; Dr. S. J. Taylor, Norwich; Messrs. Wright and Co., Bristol; Dr. Sick, Dublin; Dr. Redfern, Croydon; Mr. Martin Fox, Coleshill; Mr. G. Foy, Dublin; Dr. Bronner, Bradford; Mr. M. Palmer, Newbury; Dr. Edridge-Green, London; Dr. Northrup, New York; Mr. Ellis, Gloucester; Dr. Overend, Heidelberg; Dr. Inglis Parsons, London; Professor Windle, Birmingham; Messrs. Green and Co., Birmingham; Mr. A. C. Waters, London; Messrs. Eason and Son, Dublin: Dr. Rentoul, Liverpool; Messrs. Foster, Brown, and Co., Montreal; Mr. Walter, Manchester; Mr. Wherry; Messrs. Squire and Sons, London; Mr. B. Walton, London; Dr. E. May, Hanwell; Mr. S. H. Morley, London; Dr. Powell, Toronto; Dr. H. C. Wood, Philadelphia; Staff Surgeon Corrie; Mr. Salter, Edinburgh; Mr. T. Bates, Worcester; Mr. Staveley, London; Mr. D. S. Park, Houghton-le-Spring; Mr. H. Vickers; Mr. Hornibrook; Mr. Nethersole, Farnborough; Mr. E. C. Perry, London; Dr. Walters, London; Mr. A. Clarke, Street; Dr. Janssens, Brussels; Mr. Wilkins, Coventry; Dr. D. Freire, Rio; Mr. Tyerman, Lewisham; Dr. Keith, London; Mr. A. D. Graham, London; Mr. T. W. Nunn, London; Dr. Maclagan, London; Mr. Williams, Oswestry; Dr. Vacher, Cardiff; Mr. Jeaffreson, Northumberland; Mr. Tulloch, Orkney; Mr. Lander, Batley; Mr. Salkeld, Runcorn; Mr. Pike, Edinburgh; Dr. Field, Clapham; Dr. Gangitano, Naples; Mr. Mather, Manchester; Mr. Cole, Exeter; Mr. Heaton, Birmingham; Mr. Deyns, Stratford; Dr. B. Rogers; Messrs. E. and S. Livingstone, Edinburgh; Dr. McMordie, Belfast; Messrs. Ridge and Sons, Wolverhampton; Dr. Easton, London; Mr. Cantlie, Hong Kong; Mr. Poland, London; Dr. F. W. E. Hare, Brisbane; Dr. Spoor, Bristol; Mr. Harding, Loughboro'; Mr. Frost, London; Mr. Gavey, Ipswich; Mr. Farnham, Whitton; Mr. Pouget, London; Messrs. Lee and Martin, Birmingham; Mr. Alexander, Norwich; Messrs. Parkin and Gotto; Mr. Davenport, London; Mr. Thomas, Bagillt; Mr. Penfold, York; B. D., London; T. G. H.; W. F.; Another Hospital Surgeon; C. M. F.; Clinique, London; Kosmos, London; Imperial Grano Co., New Haven, U.S.A.; Ogden, London; Union, London; Not a Doctor; Malta; A. R. T., Norwich; F. B., London; M.D., Maidavale; S., St. George's; Dubious.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Tully Hastings; Mr. Ungent, Ireland; Mr. Harrison, Yorks; Mr. Morgan Evans, Radnor; Mr. Tyte, Minchinhampton; Messrs. Russell and Co., Liverpool; Mr. Bond, Leicester; Dr. Ralfe, London; Mr. Irving Day, Staplehurst; Dr. Fleming, Tufnell-park; Messrs. Burgoyne and Co., London; Miss Mollett, Chelsea; Mr. Peterkin; Messrs. Brady and Martin, Newcastle-on-Tyne; Mr. Kennish, Herts; Messrs. Gale and Co., London; Dr. Stewart, Huddersfield; Mr. Broom, South Wales; Mr. Wilcox, Charlbury; Dr. Murray, Dublin; Messrs. Hedges and Butler, London; Mrs. Jagger, Yorks; Dr. Vernon, Yeovil; Dr. N. Davies, Bridgend; Mr. Eyre, Pontypool; Mr. Jolly, Birmingham; Mr. Devlin, Bromley; Mr. Cleveland, Hants; Mr. Sutcliffe, Chelmsford; Mr. Dingle, Bath; Miss Hunter, Manchester; Mr. Wilson, Melbourne; Mr. Leech, Clifton; Mr. Gomersall, Morley; Mr. Choppin, Colchester; Mr. Coward, Huddersfield; Messrs. Maclachlan and Co., Edinburgh; Mr. Phillips, Hednesford; Mr. Harrison, West Lexham; Mr. Skerritt, Bristol; Mr. Poole, Lancs.; Dr. Tomlin, Wood Green; Dr. Byrne, co. Cork; Dr. Latham, Ashton; Messrs. Farrant and Co., Exeter; Mr. Heywood, Manchester; Mr. Nicholls, Bury St. Edmunds; Messrs. Quibell Bros., Newark; Mr. Crasswellr, Highbury; Mr. Hubbersty, Stamford; Mr. Fuge, Taunton; Mr. Rowe, Cornwall; Mr. Hamilton, Lancs.; Dr. Stewart, Fulham; Rev. E. Lacon, Stockbridge; Mr. Hamilton, Staffs.; L. M., London; Nemo, London; Manager, General Apothecaries' Co., London; Secretary, Hospital for Women, Soho-square; C. F., London; M., London; Hon. Sec., Oldham Infirmary; Medicus, Warrington; P. S., Todmorden; Physician, Manchester; Peritus, London; L.S.A., York; Hospital, York; Sigma, Manchester; Alpha, London; Johannisberg, London; K., Bedford; Edina, London; X., London; Orion, London; Q. Z., London; Pax, London; Medicus, Walthamstow; Plasyndre, Newtown; P. L. M., London; M.D., London; Gorth, London; Medicus, Ilfracombe; X., Liverpool; M. O. S., London; Nomens, London; Secretary, Flintshire Dispensary; Gentian, London; Medicus, Clapham-road; Diploma.

Birmingham Daily Post, Reading Mercury, Mining Journal, Birmingham Daily Gazette, Surrey Advertiser, Echo, Weekly Free Press and Aberdeen Herald, Newcastle Daily Chronicle, Hertfordshire Mercury, Newcastle Daily Leader, North British Daily Mail, &c., have been received.

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Clinical Lectures

Delivered to the Students of the

MANCHESTER ROYAL INFIRMARY

during the Summer Session, 1889,

BY THOMAS HARRIS, M.D. LOND., M.R.C.P.,

SENIOR ASSISTANT PHYSICIAN TO THE INFIRMARY, PHYSICIAN TO THE MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT, AND SENIOR DEMONSTRATOR OF PATHOLOGY IN THE OWENS COLLEGE.

(*Concluded from page 1102.*)

CASES of early phthisis differ remarkably in regard to the presence and the character of the adventitious sounds. The number and character of the adventitious sounds vary not only in different cases, but in the same case at different times. One of the facts which has impressed me most in taking notes on the early stage of phthisis and in watching the progress of such cases, has been the great variation in the adventitious sounds from time to time. At one examination we may be unable to find any adventitious sounds, whilst a week or a fortnight later such signs may be very evident, and then they may again disappear for a variable period. This variation may in part depend upon the presence or absence of simple catarrhal (non-tubercular) pneumonia round the part which is actually the seat of some tubercular change. The amount of such simple catarrh not only varies in different cases, but varies also in the same case at different times. Probably many of the adventitious sounds in cases of phthisis depend more upon such simple catarrh than upon the true tubercular process.

Another point in reference to the adventitious sounds of the early stage of phthisis is the part over which they are audible. Most commonly they are audible over one or other apex, in front or behind, and the limitation of certain adventitious sounds to that part is of great significance. The presence of fine crepitations, creaking sounds, or of a sibilant or sonorous rhonchus at one apex only is very suggestive of early phthisis. But I would lay great stress upon the frequency with which adventitious sounds in the early stage of phthisis are met with over the lower part of the lungs. Adventitious sounds in such cases are often only audible over the lower part of the chest behind, whilst over the apex none are to be found. I show you here a case of a man with phthisis, but where the only adventitious sounds audible are heard over the left axillary and infra-axillary regions. Until I had examined those regions I was in considerable doubt as to the diagnosis of the case. I also well remember a case of phthisis where the only physical sign ever detected by repeated examinations by several physicians was a friction sound audible near the inferior angle of one scapula. That case was proved, however, to be one of phthisis by the detection of tubercle bacilli in the expectoration. These facts are of importance as showing you how necessary it is to make a careful examination of all parts of the chest in cases of suspected phthisis. We must never confine our attention to the apices alone, although the physical signs in phthisis are more frequently best marked there than elsewhere. In doubtful cases of phthisis a most complete examination of all parts of the chest must be made. Probably the most common variety of adventitious sound in the early stage of phthisis is fine crepitation, which is most frequently heard over the extreme apex of one side. This crepitation is not very unlike that heard in the early stage of acute croupous pneumonia, but to the experienced ear there is a difference between the sound as heard in these two conditions; it is a difference, however, which is difficult to define in words. The crepitation in the early stage of phthisis has been said to more closely resemble the crumpling of paper than is the case of that audible in acute pneumonia. It has, however, never appeared to me that the simile is a good one. You must hear and compare the two kinds of crepitation to be able to understand and appreciate the difference. These crepitations are sometimes best heard over the supra-clavicular region, in other cases over the upper part of the interscapular or over the supra-spinous region of one side. If there is one region more than another, which deserves your special attention when auscultating the chest in suspected cases of phthisis, I think it is the uppermost part of the interscapular region. Creaks are another variety of adventitious sound not uncommonly heard in early cases of phthisis. Such creaks are usually audible at the end of inspiration over the apex of one lung. In recognising these sounds you must be careful not to mistake some creaks which are not of pulmonary origin, and which are frequently heard over the supra-clavicular regions. Great care is always required when we auscultate those regions, since I think of all regions the supra-clavicular is the one where we hear signs that are not of pulmonary origin, and which are apt to mislead. A sibilant or sonorous rhonchus may be the only adventitious sound audible over a tubercular apex. Its importance and significance depend upon whether it is heard only over the apex or elsewhere over the lungs. In the former case it is of great significance, in the latter it is to be regarded as only indicative of bronchitis, which may or may not be associated with tuberculosis of some part of the lung.

The above different varieties of adventitious sounds, crepitations, creaks and rhonchi may be audible on quiet respiration, but they are usually most distinct with a deep inspiration, and often most marked when the patient coughs. Occasionally the adventitious sounds are only audible when the patient coughs. Such limitation is very rare, but I am able to show you here a case, which is one of undoubted early phthisis of the right apex, where the crepitations are very numerous on the patient coughing, but none at all are audible during quiet respiration.

This is a convenient time for me to refer to the adventitious sounds, which are only heard during the early period of an examination of the chest. You have been doubtless taught in the class on medical physical diagnosis that even in healthy individuals we may hear, during the first few deep inspirations, especially over the bases of the lungs behind, a few fine crepitations (termed pulmonary pseudo-rhonchi) which disappear after a few deep inspirations have been taken. And stress has been rightly laid on the insignificance and unimportance of such sounds. I would, however, call your attention to the fact that adventitious sounds may be heard over a tubercular apex only during the first few respirations, the sounds then disappearing and not being audible again until after the patient has rested awhile and resumed the more shallow manner of breathing. After such a rest they may become again audible when a deep inspiration is taken. I have occasionally been troubled when wishing to demonstrate to others the presence of fine crepitations in a case, by finding that the sounds were no longer present, and yet I had been perfectly certain of their presence a short time before. At the present time I have two patients in the Hospital for Consumption who illustrate this fact very clearly. In both cases, which are ones of early phthisis, we can hear fine crepitations over one apex during the first few deep inspirations which the patients are directed to make. The sounds, however, gradually become less marked, and finally disappear. Then if the patients are allowed to sit down for a few minutes and breathe in their usual manner the sounds are found to be again present when deep inspirations are taken, and they again disappear as before. Hence it appears probable that, even over diseased parts, the adventitious sounds may be audible only at the early period of a examination, for I am not aware that any sounds having the characters described in the above two cases have been recorded as being present in persons who show no other indications of pulmonary disease. If the alveoli around a patch of tuberculosis in the lung contain only a small amount of secretion, it is quite conceivable that adventitious sounds arising from the full expansion of those alveoli might be only audible at the commencement of an examination.

Another adventitious sound, occasionally heard in the early stage of phthisis, is pleuritic friction. Your attention has doubtless been directed in the pathological department to the usual occurrence of pleuritic adhesions in cases of phthisis. Such adhesions are almost invariably found on the post-mortem table in all cases of phthisis. They are most marked, as a rule, over the apex, where they are most extensive and of older date, but they are usually also found to a greater or less degree over the lower parts of the lung. These adhesions represent antecedent pleurisy. In

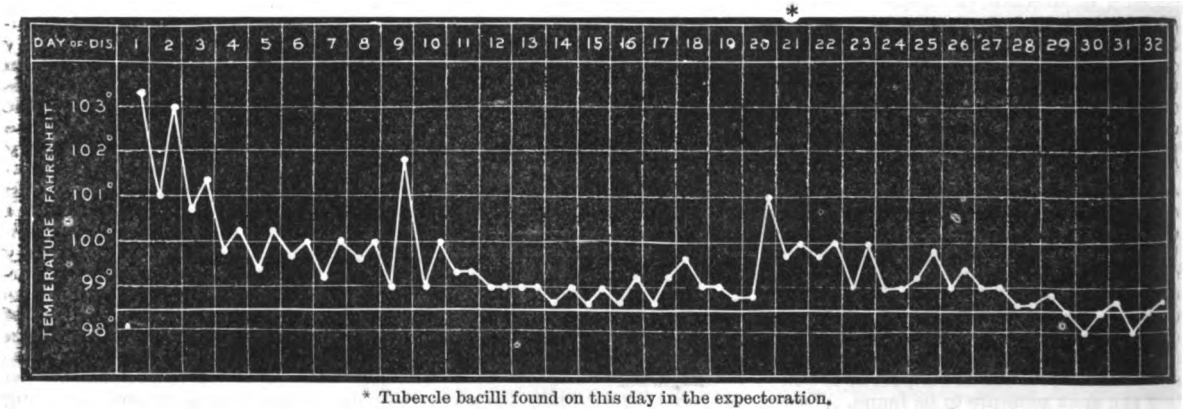
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some cases of early phthisis the signs of pleurisy are those which attract most attention, and the physical signs of the pleurisy may be the only ones present, no signs directly due to the primary disease, the tuberculosis of the lung, being evident. Consequently it is of the highest importance in all cases of pleurisy, and especially in those cases occurring in young adults, to satisfy ourselves that we have to do with a primary pleural affection, and not with a case of pleurisy, which is secondary to a more serious lesion of tuberculosis of some part of the lung. The pleurisy in cases of early phthisis may be attended by considerable liquid effusion, but that is not usual. Most frequently it is dry pleurisy which results in the formation of adhesions. The friction sounds of this dry pleurisy may be an important indication of early phthisis. They may be audible over the upper parts of the lung, or, even in an early case of phthisis, they may be limited to the base. The occurrence of signs of dry pleurisy over the lower part of the lungs is by no means unfrequent in early cases of phthisis. It is an interesting pathological question as to what is the exact cause of such a pleurisy. It is not probable that wherever we have signs of dry pleurisy that immediately beneath that part is a patch of tuberculosis in the lung; or, what amounts to the same thing, all the pleuritic adhesions found over the lower parts of the lungs in cases of phthisis are not due to tuberculosis in the lung immediately subjacent to them. Some such adhesions are doubtless caused by direct extension of the tuberculosis of the lung to the overlying pleura, exactly as takes place in the apex of the lung, and forms there the old tough adhesions. But probably the majority of the adhesions over the lower parts of phthisical lungs represent an antecedent pleurisy which has spread from some other part of the pleura beneath which a phthisical change has been in progress for some time before the pleurisy developed. It will be thus seen that because we get a friction sound over the base of the lung in a case of phthisis, it does not follow that we have to do with a case of primary basal phthisis, or even with a tuberculosis of the part immediately beneath the inflamed pleura. Pleuritic friction sound is, then, to be regarded as another adventitious sound which may be audible in an early case of phthisis.

Another auscultatory sign, which is sometimes of value to us, is the better conduction of the heart sounds towards the apex of the right lung than towards the left. The heart sounds may be much better heard over the right than the left apex in cases of consolidation of the uppermost part of the right lung.

Vocal resonance varies so much that is of very little practical value in the diagnosis of the early stage of phthisis.

The temperature in the early stage of phthisis varies considerably. In the acute cases and in the chronic ones which have begun acutely there is a considerable rise of temperature. The type of the temperature varies, but usually there is a marked evening rise and a morning remission. The temperature in the morning is in some cases normal or subnormal, whilst in other cases it is slightly raised even at that period of the day. It is, however, in the chronic cases which have begun insidiously, or where the acute stage has passed, that the greatest variation in the type of the temperature chart is seen. In some of these cases we have an irregular temperature, it being raised in the evening to a variable degree, whilst in the morning the temperature is often not above normal. The height to which the temperature attains in these chronic cases varies, but the rise is usually not nearly so marked as in the acute cases. In other chronic cases no rise of temperature is found to exist during a considerable period of the disease; and in other cases we meet with a rise of temperature in the evening during a few days or weeks, and afterwards the temperature may be found to be normal for a long period. It is certain that we meet with many cases of chronic phthisis where for long periods no rise of temperature, even in an evening, is noticed. In some of these cases it is probable that if the temperature had been taken at different periods in the afternoon and evening, it would have been found raised at some time. But in many of the cases it is probable that actually no rise of temperature does take place. It will be thus evident that as the temperature varies so much in different cases of early phthisis, it cannot be always of assistance to us in diagnosis. There are, however, some cases where the temperature is a very valuable indication. Such cases are those where an irregular temperature of the type mentioned above persists for several weeks, and where we have only doubtful signs of phthisis, and at the same time no other cause exists, which will account for the rise of temperature. The character of the temperature was valuable as an aid in diagnosis in a case which recently came under my observation. The case was for some time a very obscure one. It was an illness beginning acutely with a few symptoms pointing to the lungs as probably the cause of the illness.



* Tubercle bacilli found on this day in the expectoration.

During the first three weeks of the illness no abnormal physical signs could be detected, although the chest was repeatedly and carefully examined. The character and duration of the temperature, as seen on the accompanying chart, rendered it very improbable that we had to do with a simple non-tubercular pneumonia of the croupous or of the catarrhal variety. A study of the temperature made it difficult to escape from the conclusion that if it were a pulmonary lesion which was producing the symptoms, that the lesion was a tubercular one. Subsequent events proved conclusively that the case was one of early phthisis.

Since the discovery of the tubercle bacillus by Koch, the diagnosis of phthisis has been rendered far more certain in many cases than it could have been before that discovery was made. The discovery of tubercle bacilli in an expectoration which has come from the lungs is conclusive proof that a focus of tubercular disease exists at some part of one or both those organs, and that a communication has been established between such a focus and the interior of a bronchial tube. The bacilli may be found in cases of phthisis where, from the absence of definite physical signs, a positive diagnosis would have otherwise been impossible. It is the occurrence of tubercle bacilli in sputum, expectorated from a case where there are few or no physical signs pointing to phthisis, which makes the examination of the sputum for these organisms of such great value. It is to be remembered that whilst the finding of tubercle bacilli in the sputum is of such significance, the failure to find them is only of value if the sputum has been examined a large number of times by a competent observer. Before we are able to say that a pulmonary affection is not of a

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tubercular nature simply from the failure to discover the specific bacilli in the expectoration, the sputum must be repeatedly carefully examined. We have recently met with several cases which show the importance of repeated examinations of the sputum in doubtful cases. I show you here a man who presents all the signs of true fibroid phthisis so far as the physical examination of the chest is concerned. The expectoration was examined seven times for tubercle bacilli and none were found, but on the eighth specimen being examined a few undoubted bacilli were discovered. As there was no indication that the case had changed from a non-tubercular to one of the tubercular variety, it is probable that the man is suffering from very chronic tubercular phthisis and not from the true fibroid form of consumption. The case of a man who died a few weeks ago, under the care of Dr. Dreschfeld, also shows the importance of repeated examinations of the sputum, and how easy it is for them to escape detection in some instances. The man was apparently suffering from acute tubercular phthisis, but in his sputum no tubercle bacilli could be found even after repeated examinations. After the man's death it was found that the lungs were studded with miliary tubercles, which were exceptionally closely packed together; at one part of one lung were three very small cavities, the size of peas, and these cavities were the only representatives of softened tubercle. It is probable that a few tubercle bacilli, derived from these cavities, were present in the expectoration, but they were like a needle in a truss of hay, and escaped detection among the large quantity of secretion derived simply from the accompanying bronchitis. Hence we must examine an expectoration repeatedly and carefully before we are able to exclude phthisis from the diagnosis of a doubtful case.

Unfortunately it is not always possible to obtain sputum for examination from an early case of phthisis. In many cases of phthisis the expectoration ceases for a time, without there being other evidence that the disease has become perfectly quiescent.

ABSTRACT OF

The Harveian Lectures

ON THE

SURGERY OF THE KIDNEYS.

Delivered before the Harveian Society of London,

BY J. KNOWSLEY THORNTON, M.C.,

SURGEON TO THE SAMARITAN FREE HOSPITAL.

LECTURE II.

MR. PRESIDENT AND GENTLEMEN,—Simple cysts of the kidney usually grow from some part of the cortex, and arise from some obstruction causing dilatation of the tubules or Malpighian capsules; they contain a pale, non-urinous, but albuminous fluid, often loaded with cholesterin, and occasionally with blood; they are only harmful from the pressure and distorting influence they exert on the secreting structure, and from interference with the ureter. They occasionally open into one of the calyces. The differential diagnosis of simple cyst, from hydronephrosis, may be very difficult, but the persistence and gradual increase in size, without alternate increase and decrease, will generally be observed in the simple cyst, or if it does communicate with one of the calyces, and occasionally empty itself through the ureter, the sudden admixture of a quantity of albuminous fluid with the urine should excite suspicion as to the true nature of the cyst. The differentiation of simple cyst of the kidney from simple perinephric cysts is probably impossible without exploration, and it may even with exploration be very difficult to make out the exact relation of the cyst to the kidney in the living subject. Fortunately this is not of surgical consequence, as the treatment of all these simple cysts is identical.

The conglomerate form of simple cyst may cause great enlargement of the kidney; the cysts are separate from one another, very numerous, and lined with epithelium; they do not communicate with the secreting structure of the kidney, and only affect the pelvis and calyces by pressing and dragging them out of shape. Both kidneys are usually affected, and the disease is commonly congenital, but unilateral disease is occasionally met with, so that the surgeon cannot altogether ignore the disease. Similar conditions affect the liver, the spleen, and the thyroid. In diagnosis I should attach importance to the very peculiar vibration communicated to the hand on percussion, due, I imagine, to the partial and frequent check to the fluctuation wave, by the numerous thin septa separating the small cysts. If the other kidney can be made out to be similarly diseased, the diagnosis is pretty clear.

Hydatids of the kidney are not uncommon, but they are not nearly so common as those of the liver; they rarely attain a great size, because the daughter cysts usually escape down the ureter, causing in their passage colic, which may easily be mistaken for that of calculus. They also cause hæmorrhage and blocking of the ureter and urethra. Their diagnosis can only be difficult in the comparatively rare cases in which none are passed in the urine. I shall refer to their treatment when I describe nephrotomy and its uses.

Under the terms scrofulous and tubercular kidney we have to consider two conditions which, though both tubercular in origin, are in their clinical history and results, as seen by the surgeon and pathologist, very different. That form of miliary tuberculosis which is occasionally primary and unilateral appears to be a rare condition. Newman, in his excellent lectures, merely admits its possible occurrence, but I have seen the condition in three cases in the living subject, and in one I had a much later opportunity of examining the kidneys after the death of the patient. A consideration of these cases has led me to conclude that there is a primary renal tuberculosis, which may attack only one organ, and which does not necessarily pass on into the chronic or scrofulous variety, with which we are all so familiar. The presence of tubercle in a single organ presupposes a lowered vitality affecting especially this organ or a part of it, and Newman has noted that in acute tuberculosis the area supplied by a single branch of the renal artery may alone be affected. Is it not possible, then, that there are cases in which the lining membrane of the pelvis of the kidney, a part specially exposed to irritations likely to produce pathological change, may be primarily and for a time solely attacked? Bearing in mind the result of incision and drainage in some cases of peritoneal tubercle, a similar treatment may be able in this instance also to arrest the disease whilst still local. I have met with a case which shows that we may have a primary acute tuberculosis limited at the beginning to one kidney and going on to a fatal termination by extension to the other kidney and suppression of urine, without ulceration and caseous deposit—never becoming, in fact, the well-known scrofulous kidney. Early incision and drainage, though it may arrest the disease in its local form, will not bring about a cure in all cases, for in some the other kidney will become infected and death will result from uræmia, the disease not necessarily passing into the chronic or so-called scrofulous form.

In the scrofulous kidney the primary focus is in or near the papillæ, and from thence it spreads to the adjacent kidney substance, forming a caseous mass which breaks down and leaves an ulcer. Several centres, some in the papillæ and some in the renal parenchyma, following this course, coalesce to form a large cavity communicating with the renal pelvis and destroying most of the kidney substance, the ureter often becoming blocked, so that a pyonephrosis is formed. As to its etiology, the specific virus is probably in the system, and then some accident, such as exposure to cold and damp, determines the weakening of vitality in the part attacked. The symptoms are unfortunately not very marked in the early stages; kidney-ache, with albumen and traces of blood in the urine, are usually the earliest. Later the urine becomes alkaline, contains pus, then triple phosphates, and débris of the renal tissues, and is putrid. Later still, swelling of the affected kidney is discovered, colic alternates with discharges of pus through the bladder, and suppression of urine, with fatal uræmia, may supervene. The diagnosis is certain if tubercle bacilli can be detected in the urine. I regard catheterisation of the ureters with suspicion, as being very likely to damage the healthy ureter, and by so lowering its vitality encourage the disease to invade it. The endoscope may be a safer instrument, but it can only be useful to decide whether one or both kidneys are affected; it does not help

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us as to the pus being tubercular or calculous. The differential diagnosis of tubercle and calculus is in some cases very difficult. In favour of tubercle are the evening rise of temperature, more irregular and more constant hæmorrhage often coming on when the patient is at rest, and more constant discharge of pus. Micturition is frequent, and, when the bladder becomes infected, is often terribly painful. In cases in which it is advisable to employ puncture, never, under any circumstances, use for the purpose that surgical abomination, a grooved needle, for it will allow infiltration or infection of all the tissue through which it brings the fluid. Always use a thoroughly aseptic trocar and cannula, and a trustworthy aspirator, which will not admit air as the fluid is withdrawn; or use a simple trocar and cannula, with full Listerian precautions, not forgetting the now too often discarded spray. And whatever instrument you use, be careful, in withdrawing it, as in withdrawing a catheter from the bladder, to bring out with it all the fluid it contains, and not to leave a portion of this in the tissues through which the cannula passes after leaving the kidney. I would especially warn you also never to tap a suspected renal tumour through the anterior abdominal parietes—i.e., through the peritoneum.

I am one of the few who remain faithful to the spray, after even Lister himself has abandoned its use. I am prepared to give good reasons for my belief in its efficacy, and I can guard against any dangers that may result from it, so that they become practically inert and bear no comparison to the dangers of mere "cleanly surgery." The spray keeps a moist antiseptic atmosphere over everything, and thus renders the use of sponges much more efficient in thorough and rapid cleansing of the wound and its surroundings than is possible if the same parts are dry, and the germs of infection are delivered over to the tissues weakened by being soaked in a strong antiseptic, which, though perhaps not killing them, renders them a much easier prey to the active leucocytes.

In advocating any of the following surgical procedures for the relief or cure of renal disease, I do it only on the distinct understanding that they are to be performed with every protection that antiseptics can give Puncture of the kidney may be useful to clear up a doubtful diagnosis, as to an enlargement of the organ being solid or in part fluid; may be curative in simple serous cyst or in hydronephrosis; at any rate, it may be tried in some cases before performing any more serious operation. In renal and circumrenal abscess it may be a useful preliminary to free incision and drainage, but the latter procedure should follow immediately, when the exact situation of the pus is made certain by the result of puncture. I do not think it is ever justifiable to puncture in hydatid disease, but it is urgently indicated in calculous suppression of urine. Puncture, if performed in pyonephrosis, is almost certain to allow escape of pus into the adipose areolar capsule and into the other tissues around the kidney, and the perinephric suppuration thus started, whether simple or tubercular, adds greatly to the risk of any future curative operation. Careful percussion in each case is the only safe guide for the selection of the exact point of puncture. Aspiration may be used as a means of temporary relief when distension is causing great pain, and it is impossible to perform immediately a curative operation. It is also useful in the course of the operation for complete removal of the kidney, to avoid rupture and fouling of the wound during the subsequent enucleation; but the puncture is very difficult to close effectually, and in most cases it is far easier to enucleate the kidney when tense and full than when relaxed by withdrawal of its fluid contents. In introducing a needle or trocar, take care not to transfix the organ, to keep the point well away from the hilum, and on withdrawal cover the site of puncture with a small dry antiseptic dressing. When the kidney is to be incised for the evacuation of fluid or for digital exploration of its interior and for subsequent drainage, there can be no two opinions as to the lumbar incision being the only one at all justifiable. The semi-prone position over a pillow, though widening the interval between the last rib and the ileum, has obvious disadvantages in the future steps of the operation, and for simple exploratory incision I have always found that I could work quite well with the patient laid flat on his back, with the side to be operated upon projecting well over the edge of the table. I prefer an oblique three-inch incision through the skin and deeper tissues, and I like to open the kidney through the pelvic wall, because such an incision heals well, and hæmorrhage from the kidney substance may be troublesome. Incisions into the kidney must be more liable to damage the organ for future use, though it may sometimes be necessary in order to obtain a cure. The finger should then examine the interior, and this should be followed by flushing out with warm antiseptic solution, one or more rubber drainage-tubes being introduced into the loin tissues and up to the kidney, but not into its interior, and the wound closed around the tube or tubes with interrupted sutures, which should embrace all the divided loin tissues and the adipose areolar capsule. A large absorbent antiseptic dressing should be applied and changed at least once in every twelve hours. This is one of the cases in which the use of the spray is not necessary. Nephrotomy is safer and much more sure than puncture for the cure of simple cysts. It is, when aided by after-drainage, the only proper treatment for hydatids, for abscess, whether in the substance of the kidney or in the surrounding tissues, and it is often urgently indicated in calculous suppression of urine. It may be tried in hydronephrosis, and may be used for the extraction of a calculus. In pyonephrosis I would restrict it to the simple form resulting from injury, and to primary tubercular pyonephrosis when it can be diagnosed sufficiently early. I object to the lumbar incision and drainage in the more advanced cases of calculous and tubercular pyonephrosis, especially to this proceeding when used as a preliminary to nephrectomy, because, without offering any compensatory advantage, it leads to prolonged and exhausting suppuration, to infection of the loin tissues with the pus from the kidney, and to adhesions and fistulæ, which make a future nephrectomy much more difficult and dangerous. The suppuration which frequently follows a nephrotomy in these cases cannot but weaken and injure the patient, and tend to produce amyloid disease in the opposite kidney. The diminution of the size of the vessels, said to occur, is a matter of no consequence in these days of aseptic ligature and forci-pressure. The diminution in the size of the kidney is of equally little consequence, for this can be rapidly produced during nephrectomy by the use of the aspirator. The advantage of the less friability of the kidney and of the tolerance of surrounding parts is dearly bought by the presence of a permanent fistula, and by the replacing of soft and easily divided adhesions by dense cicatricial tissue, not to mention the extensive formation of adhesions in the track of the lumbar operation, which would have had no existence but for that operation. This fistulous track is certain to be putrid after prolonged external suppuration; for if putridity is not present, the sinus is pretty certain to heal; but this cannot happen in the presence of multiple or branched calculi, or of caseous masses in the deep recesses of the kidney. It is quite possible to enucleate a pyonephrosis entire, and without fouling of the wound, before there is a sinus, but quite impossible after there is one. I am glad to see that Morris has come over to my views on this subject, the only point now in dispute between us being the important one of lumbar or abdominal incision. The only cases in which we can, in my opinion, gain any advantage by preliminary incision are those in which the suppuration has already broken through the kidney wall and become diffused into the tissues around. This is not a preliminary nephrotomy, but the mere application of ordinary surgical rules, to a diffuse suppuration outside the kidney. I think I might have gained something in two of my fatal nephrectomies had I adopted this procedure. I doubt if it would have save the life of either, but I think it very probable that it would have demonstrated the unfitness of the other kidney to bear any extra strain in the last case, and would have thus saved abdominal nephrectomy from the reproach of one fatal case. The result of nephrectomy in one case where much ground had been lost by previous nephrotomy and drainage, and the results of immediate nephrectomy in seventeen other cases of chronic suppuration (calculous or tubercular pyonephrosis), the pus being confined to the interior of the kidney, prove absolutely the advantages that can be obtained by this method. Only two out of the seventeen died—one from injury to the vena cava, and one from hemiplegia (the result of the anæsthetic), the suppuration in the kidney having nothing to do with the death in either case.

Before leaving the operations of puncture and of lumbar nephrotomy let me briefly summarise the results of my experience. I would restrict the use of puncture as follows:—1. To decide in doubtful cases between solid and fluid tumours of the kidney. 2. To relieve painful distension when nephrotomy for some special reason is not at once.

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advisable or possible. 3. To remove urine, or serum, or pus from a very large tumour, to reduce its bulk during the performance of nephrectomy. 4. As a tentative attempt at cure in some cases of simple cyst or of hydronephrosis, though the chance of cure is, I think, very slight. 5. To localise the position of renal or circumrenal abscess, when the physical signs are not clear enough for free incision. In such cases to be immediately followed by free incision when the pus is found. 6. To gain time, and relieve the harmful tension in some cases of calculous suppression. I would restrict the use of nephrotomy—1. To cases of calculous suppression, in which incision seems preferable to mere puncture, with the chance of being also able to remove the stone—i.e., if further experience shows that this is a safer and better operation than my combined method. 2. For the cure, by subsequent drainage, of simple cysts, abscesses, and hydatids. The question of possible cure in some cases of hydronephrosis to be further tested. 3. For the cure, by subsequent drainage, of traumatic pyonephrosis or pyelitis, and in the early stages of tubercular suppuration. 4. For the possible cure of more advanced calculous or tubercular suppurations, when the patient will not submit to nephrectomy. 5. For the performance of nephrolithotomy in some cases, if extended experience shows that this procedure possesses any advantages over the combined method, or when those who have no experience in abdominal surgery are compelled to operate.

THE TREATMENT OF SOME FORMS OF CHRONIC SUPPURATING KIDNEYS BY PERINEAL PUNCTURE AND DRAINAGE.

BY REGINALD HARRISON, F.R.C.S.,
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IN connexion with cases of obstructive urethral disorders in adult and elderly males, instances frequently occur where the backward pressure of the urine leads not only to dilatation of the ureters and kidneys but to extensive suppurations of these parts. In a certain proportion of these the removal of the obstruction in the urethra by systematic dilatation or otherwise is followed by a gradual improvement in the condition of the parts above the constriction, and the complete disorganisation of the kidneys is thus averted. In others, on the other hand, the dilated and suppurative condition of the kidneys is so far advanced that, though the calibre of the urethra may be artificially restored to its normal size, pus continues to be poured into the urine tract from above in considerable quantities. It is now some years since my attention was first directed to this class of cases where death occurred in the course of time, not because surgery had failed to dilate the stricture, or to provide against the obstruction caused by a large prostate, but by reason of the kidneys being gradually converted into chronic abscesses, and the ureters into suppurating sinuses. It seemed to me that by a more dependent and continuous process of drainage than any form of catheterism could provide, it would be possible at very little risk to save what remained sound of the secreting structure of the kidney, and thus to prolong life and materially add to the comfort of patients so circumstanced. The misery that persons endure who are voiding several ounces of pus daily from their kidneys in getting rid of the dregs which thus accumulate in their bladders is often very great. The surgery of the kidneys has not done much to remedy those chronic forms of nephritis where the suppuration proceeds from both organs, as we see in advanced cases of prostatic obstruction, urethral stricture, and in certain varieties of suppuration associated with renal tuberculosis. In some unilateral suppurations of the kidney, nephrotomy has proved of great value, as I have illustrated in a previous communication,[1] but such a proceeding is clearly not applicable to those instances where both organs are similarly involved. A case that has been under my observation for some years was that of a gentleman thirty-four years of age, who came to me early in 1884 with a stricture of considerable standing, the result of gonorrhœa. His urine contained a large amount of pus. I regarded the case as one of suppuration from the parts above the stricture, and concluded that, by careful attention to the latter, with washing out the bladder, improvement would gradually follow. In the course of a few months' treatment, he so far improved as to be able to go abroad again, with the understanding that he was to continue the use of a full-sized bougie. In 1886 he returned to me with all his symptoms much aggravated. His stricture had been neglected, and consequent on this the urine became largely charged with pus. At times there was some hæmaturia, and the urine contained much mucus, and shreds of what proved to be broken-down kidney tissue. The specific gravity of the urine varied between 1010 and 1017; it was usually acid, and of average quantity. It was tolerably evident, therefore, that though the kidneys were the chief source of suppuration they were neither irrevocably nor completely damaged. Every care was paid to the urethra again, and the bladder was injected in various ways, but without any good so far as the pus, hæmaturia, or irritability was concerned. This determined me to drain the suppurating parts, and accordingly in 1888 I punctured the perineum and put a large drainage-tube into the bladder. He was drained in bed for six weeks with great advantage, the pus in the urine diminishing in quantity and the symptoms of hectic subsiding. Then he got up and learnt to draw off his urine and pus by the perineal opening, through which he also used to wash out the bladder. In the course of six months the urine became clear, and the perineal wound slowly closed. I should add that when I opened the perineum I explored the bladder with my finger and found it healthy, and there could be no doubt from our experience with the drainage-tubes in this instance, that the whole of the pus was derived from the kidneys. The patient has again gone abroad to a trying climate, and I have since heard that he is in excellent health.

I have now operated in about ten cases of what I take to be chronic suppurative pyelitis, involving both kidneys, cases where, had only one organ been involved, I might perhaps have reached it from the corresponding loin. I have also seen several others in the course of my practice where perineal cystotomy had been performed by other surgeons, presumably for exploration of the bladder or for chronic cystitis, where the perineal wound had failed to heal. These, I believe, were for the most part instances of suppurating kidneys. And I base this conclusion not only upon the general symptoms presented in each instance, but from an observation which I have frequently made in my own cases to the effect that when drainage has rendered the urine normal and free from pus, it is almost impossible to prevent a properly made perineal wound closing on the drainage-tube being withdrawn, whereas when the urine remains loaded with pus, as we have in suppurating kidneys, it is absolutely impossible to bring about repair, and a permanent fistula results. It is now some years since I opened the bladder from the perineum and put in a drainage-tube in a case where the urine was largely charged with pus; but I was not able to discover the source of the suppuration. The patient was much relieved, though many ounces of pus were daily evacuated in this manner. After passing from my observation the tube was removed, and attempts were made to close the perineal opening. These, I learnt, were not successful, and it was necessary to return to the use of the drainage-tube. Eventually the patient died of exhaustion, when it was found that a psoas abscess had opened into a ureter. Though this circumstance was not discovered until after death, the means that were adopted, by providing an easy mode of escape for the pus, not only prolonged the life of the patient, but added materially to his comfort.

It will not be necessary for me to bring forward in detail further illustrations of perineal drainage in the case of suppurating kidneys. There are, however, two or three points which I may thus summarise in reference to what I have observed.

1. That in the larger number of cases of simple suppurating pyelitis caused by obstruction below, the pus gradually and completely disappears as the resistance to the urine is removed. This is exemplified in the ordinary treatment of urethral stricture by dilatation or otherwise.

2. That some advanced forms of chronic double suppurative pyelitis from obstruction below, where the suppuration continues to be excessive after the obstruction has been

[1] Liverpool Medico-Chirurgical Journal, Jan. 1889.

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relieved or removed, are best treated by an opening in the perineum where the drainage is free and dependent, and irrigation can be conveniently employed.

3. That perineal puncture, as I have elsewhere described it,[2] best meets the requirements of these cases, and may be said to be free from risk.

Such an operation entails no prolonged confinement in bed. I have had patients upon whom perineal puncture has been practised for urine drainage up and about within ten days of the performance of the operation by the use of a very simple contrivance. It consists of a soft rubber drainage-tube for retention in the bladder by a T-bandage, to which is attached a continuation-tube fitted with a stopcock, the end being retained by a belt round the patient's waist. When the patient desires to empty the bladder, he has nothing to do but to turn the stopcock and let down the tubing either between his legs or into a suitable



receptacle. I first applied this method of draining the bladder, whilst the patient was allowed to go about, in a case I recorded,[3] where the bladder was punctured through the prostate. The tube was worn for six weeks, and the patient, although eighty-six years of age, made a complete recovery, the prostate so shrinking in size as to permit again of normal micturition. He lived for several years afterwards without any further necessity to use the catheter. Professor Annandale has since drawn my attention to a somewhat similar contrivance, which I understand he has found extremely useful, and which I am now using. If the perineal wound is made tolerably accurately, there need be no leakage by the side of the tube. Patients may in this way be going about for some weeks until the state of the bladder or the urine shows that drainage may be discontinued and the perineal wound allowed to close, which it usually does rapidly.

For use at the time of operation and whilst the patient remains in bed, I have been recently employing the ebonite drainage-tubes recommended by Dr. F. S. Watson of Boston, U.S.A.[4] They are provided with a movable collar by which they can be accurately adapted to the depth of the perineum, and are made in different sizes and lengths. They will be found very cleanly and unirritating.

The results of this method of treatment, so far as the kidneys are concerned, are almost entirely dependent upon the conditions present. Where the kidneys are little else than suppurating sacs with but a small amount of secreting tissue left, I have known persons go on for many months with great comfort, discharging their pus through a well-fitted drainage-tube instead of through the urethra. I have now a patient who is quite comfortable so long as he wears his tube arrangement, but as soon as it is withdrawn he gets uneasy, the urine becomes offensive and he has high temperature from imperfect drainage. Others, again, use the perineal opening as a convenient way for passing in their catheter tube at intervals to draw off urine and pus and for washing out the bladder, if this is necessary. I am occasionally seeing a patient upon whom I thus operated nine months ago for suppurating kidneys, resulting from an old stricture, who, though an invalid, draws off a residuum of one or two ounces of purulent urine daily with far greater comfort than he previously voided it through his penis. Lastly, we have the satisfaction of meeting with instances such as the one I have more fully recorded where the drainage process is attended with complete success. Evidence is here afforded that even suppurating kidneys when not too far advanced may be made amenable to the application of the well-recognised surgical principles in the treatment of chronic suppurations—namely, a dependent opening and thorough drainage.

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INVESTIGATIONS ON THE RELATION OF PUTREFACTIVE TO PARASITIC BACTERIA.

By FERDINAND HUEPPE,
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AND
G. E. CARTWRIGHT WOOD, M.D., B.Sc.

By the discovery of Buchner and Pasteur that disease germs could lose their pathogenic power, and by the application of such less virulent organisms as vaccines by Pasteur, the experimental investigation of a series of the most difficult problems in biology was at length made possible. Up to quite recently the conceptions of saprophyte and parasite were everywhere regarded as irreconcilably opposed. Panum, Koch, and others, however, had shown that the non-infectious organisms, which act only through their poisonous products, form a link between the infectious organisms and the exclusively saprophytic. In addition, the investigation of the number of organisms and the quantity of poison introduced has exhibited so many intermediate phases that the most important distinction between parasite and saprophyte must now be given up.

The fact that the non-infectious organisms owe their action to the soluble products, and indeed essentially to the organic bases resulting from the splitting of the albuminoids, directs our attention more and more to those physiologico-chemical studies, carried out specially from the chemical point of view by Brieger and Duclaux, and biologically by one of ourselves (Hueppe). It has been shown also that many infectious organisms, as well as the toxic, are able to split similar mostly basic poisons from the albumen; and this again indicates that the chief action of these organisms depends on the power of splitting the albuminoid molecule in a specific way. It is the faculty of *dissociating* the living albumen at the temperature of the body which characterises the pathogenic micro-organisms. But this power of splitting the living albumen does not separate the infectious from the simply toxic, nor yet these from the purely saprophytic organisms, since these are able from the dead albumen to produce similar or even the same poisons. That difference in nature which formerly obscured the conception—"pathogenic"—has already become for us in the case of many diseases a purely physiologico-chemical question of quantity.

The use as vaccines of the attenuated organisms against the virulent proves directly that the metabolic activities of the two are identical, and that the difference in their action depends on the relatively different quantities of a specific poison which they produce from the albumen. This is still more clearly shown in the immunity produced by chemical means, which must be regarded as an acquired tolerance of the specific poison. Thus the products of the microbe as occurring in the blood of an animal affected, or in cultures, can when previously introduced in the proper quantity, just as the vaccines, protect against the virulent organism. In addition, the completely attenuated cultures which appear to have lost all pathogenic power are able, as had been

[2] Lectures on the Surgical Disorders of the Urinary Organs, 3rd edit.
[3] Brit. Med. Jour., Dec. 24th, 1881, and April 8th, 1882.
[4] Operative Treatment of the Hypertrophied Prostate, 1888.

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already noted in 1887,[1] to afford a certain protection. The results on which this statement rested had been obtained from experiments with fowl cholera. Quite recently Chauveau[2] has communicated the same for anthrax, and has used this, as he appeared to think, new fact to the strengthening of the already fully developed view of Hueppe—that the division between pathogenic and saprophytic organisms is a conventional and not a real one.

As Flügge has asserted, most cultures used as vaccines are really weakened, degenerated, cultures. This is, at any rate, true of our anthrax up to the present time; and Chauveau specially notes that this was the case with the organisms with which he worked. In spite of this, we must recognise that "a certain faculty, developed during the putrefaction of albumen, in saprophytes which have perhaps now ceased to exist, represents the origin of the higher virulence of disease germs." The possibility of using as vaccines the apparently perfectly harmless cultures proves that the faculty of dissociating the albumen in a specific way with the production of toxines still remains—that is to say, is a specific characteristic, and, as such, absolutely unchangeable. But these organisms are as incapable of infecting or even rendering ill the most susceptible animals as the truest saprophytes. From this point of view it does not matter whether the attenuated organisms are really degenerated or have become better adapted to the saprophytic mode of existence. For it has been observed that less virulent varieties may originate spontaneously from the virulent organism, and that these grow much more vigorously on our artificial media. This directs our attention once more to the splitting of the albumen by true saprophytes, in which we must seek, not only the phytogenetic source of the intoxication and infection, but also the chemical reason for the immunity as an acquired tolerance of the specific poison.

It was still, however, most desirable that proof should be furnished of the relation subsisting between true saprophytes and true parasites—that is to say, between species which had been up to the present found growing outside and such as occurred only in the bodies of affected animals. These organisms must naturally agree in their form, growth characteristics, and method of spore formation, so that we ought to recognise the parasite and saprophyte without any knowledge of their physiological action as specifically related. The proof of the identity of action of these, depending on the same specific, and only quantitatively different, power of *dissociating* the albumen, must then be demonstrated by experiment on animals, the sensitiveness of which to the virulent microbe and its vaccines is well known and capable of being controlled with certainty. The animal experiments with saprophytes give naturally a negative result so long as we work with the quantities and by the methods we are accustomed to use with infectious organisms. Here, however, guided by the views just enunciated, the preventive inoculation of animals offered itself as a not yet considered method of experimentation. In a similar way Kitt and Hueppe had already succeeded by positive experiments in proving physiologically genetic relations between the organisms of fowl cholera, rabbit septicæmia, and *Wildseuche*, the microbes of which are morphologically indistinguishable.

The investigation was begun in July, 1888, and will when still further worked out be more fully communicated. We give at present here only a general view of the results of the first part of our investigation. We hope shortly in a second communication to report on experiments in which we have sought to render virulent our saprophytes by increasing their faculty of *dissociating* the albumen. Our investigations have, as we wish here specially to point out, nothing to do with the cultivation of one organism into another; on the contrary, they emphasise certain properties as specific and unchangeable.

We had repeatedly found in earth and water organisms which were apt to be taken for anthrax. It is probably to one of these microbes that Schutz[3] refers when he says "but we are indeed aware that even the perfect agreement in mode of growth is not sufficient to establish the identity of two organisms. I need only remind you that we know of a bacillus, which by its appearance is not distinguishable from anthrax, which grows in gelatine exactly as this bacillus, and which is only distinguishable from it by its physiological properties, since it exerts no action on white mice, which are, as is well known, extraordinarily susceptible to anthrax infection." Whether they are identical with the organism described by Flügge as "bacillus mycoides" or earth bacillus, we must leave undecided. His description of the appearance on potato makes it more probable that they are different. It may well, however, be the case that under the term "earth bacilli," as under "hay" and "potato" bacilli, we have a series of different organisms, which, while agreeing in most characters, are yet quite distinct. Our organisms are true endospore bacilli, which under similar conditions have almost the same form and size as anthrax, and under change in the conditions exhibit similar variations. The ends of the rods are, however, more sharply rounded off than we usually find with anthrax bacilli in the blood or tissues. But the former view that the shape of the bacillus is characteristic is true only for certain methods of preparation and staining. Under other conditions the anthrax bacillus appears also with its ends rounded off, as, for example, specially distinctly in its natural state in the "hanging drop."

In gelatine plates our organisms give colonies showing the woolly mass of interwoven threads so characteristic of anthrax. In gelatine tubes the liquefaction is precisely similar to that of the pathogenic organism. On potato they form the same dry white coat as anthrax, and not, as Flügge's earth bacillus, "a slowly extending, whitish, slimy outgrowth." In milk a rennet like separation of the caseine occurs, which afterwards passes again into solution by a process of peptonisation. In meat solution no membrane is formed on the surface of the fluid, but lower down a tangled mass of woolly threads is produced. All these characteristics are exhibited at the usual temperature and that of the blood more quickly than with true anthrax; nevertheless, the difference in favour of our saprophytes is more marked at the lower temperature. This is in sharp contrast to the attenuated cultures, where, indeed, all these growth characteristics are to be observed, but only in a much lower degree—that is to say, the Vaccine 1 (Pasteur) growing most slowly of all, the Vaccine 2 (Pasteur) occupying an intermediate place. Our organisms accordingly show all the characteristics of virulent anthrax as it occurs spontaneously, only they are much better adapted to vegetation outside the animal body. This is most clearly shown by the process of spore formation. Our organisms are able to form spores freely at the temperature of the room, while at blood temperature the process is interfered with, or may even entirely cease, although the organisms still grow rapidly.

If mice are inoculated with our earth and water bacilli in the usual way at the root of the tail, they remain apparently quite unaffected. We observed later that the infection with large quantities can sometimes, in the case of guinea-pigs, give rise to a local affection. Encouraged by a first and, as it later appeared, almost accidentally successful result, we proceeded systematically to inoculate our mice with the saprophytes and then infect with virulent anthrax. The results varied greatly according to the quantity of our saprophytes primarily introduced, and still more with the quantity of virulent material with which they were later infected. The action was also modified by the interval of time elapsing between the operations, the time being varied in our experiments from three to eighteen days. Some of the mice succumbed within the same time as our control animals,—twenty hours,—others in forty-eight hours. A certain number died after from eight to eleven days, and, as cultivations proved, from anthrax But the cultures obtained from these animals did not kill mice, as the original anthrax culture, within twenty hours, but only in three days. The previous introduction of our saprophyte, which exerted apparently no action, had accordingly caused a distinct attenuation of the virulent organism to take place in the body of a mouse. A number of the mice resisted the anthrax completely, even when repeatedly inoculated, one being infected no less than seven times with the most virulent material without effect. This is the first time that anyone has succeeded in rendering mice *immune*. Even if this result were without importance in relation to the protection of our domestic animals, it shows, at any rate, a quite new way by which a perfectly harmless inoculation against anthrax can be carried out. The rendering of mice *immune* is certainly a much greater physiological feat than that of rendering sheep or oxen *immune*, when we consider the extraordinary susceptibility of the former to the disease.

[1] Hueppe, Ueber Beziehungen der Fäulniss zu den Infectionskrankheiten. [2] Comptes Rendus, 1889, Nos. 7 and 8.
[3] Arbeiten aus dem Gesundheitsamte, 1886, p. 394.

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We hope accordingly shortly to extend our research also in this direction. On guinea-pigs, which, as far as we are aware, have not yet been able to be protected against virulent anthrax, our results were still more favourable. Not one died within the time of the control animals. Some died on the eighth day, and the cultures obtained from these were markedly attenuated. The others withstood not one but repeated infections with anthrax. Rabbits have only, up to the present, been able to acquire a certain degree of immunity by the method of Roux and Chamberland, which consists in the intravenous injection of Vaccine 1, and thereafter the subcutaneous use of Vaccine 2. Our method protected at once the greater number of rabbits. The death occurred in the less successful cases on the sixth day, and here also the cultures exhibited attenuation, so that in all cases a more or less successful result was to be recognised.

We have varied our procedure also in the following way: we have used Vaccine 1 and Vaccine 2 before infecting with the virulent organism. The results were not, however, sensibly improved, so that we have felt encouraged to apply our preventive inoculations with harmless saprophytes to our domestic animals, against wound, intestinal, and inhalation anthrax. If equally good results were obtained, the perfect freedom from risk and the limitation to a single inoculation would constitute a great practical advance. It suffices, however, to have proved that we can with specifically related saprophytes render even very susceptible animals *immune* against the most highly infectious organisms. This is, however, only possible when the way of dissociating the albumen is in both the same, which is, in other words, that the phytogenetic source of the infection lies in the saprophytismus, that the pathogenic organisms have developed from saprophytes, rising gradually from the toxic microbe to the facultative parasite, from the facultative parasite to the obligatory. We must at present allow the question to lie open, whether the virulent anthrax has really developed, and can still originate from our saprophytes, or both have arisen from a common yet unknown original form.

The facts which we have just related permit of our understanding biologically an epidemiological experience which has up to the present been either regarded far too much from one point of view or explained by meaningless phrases. We refer to the generally attested fact that in regions where endemic diseases prevail the inhabitants enjoy a certain protection against such diseases. Up to the present epidemiologists have spoken in a general way of "disposition" in relation to such cases, or regarded it as due to a more or less severe attack which has passed unnoticed. As the parasites of such diseases as cholera and yellow fever have without doubt developed from the local saprophytic flora of the regions in which they occur, and as the cholera microbe has not even yet advanced from the simple facultative parasitic stage, we have no reason to doubt that the original less virulent organisms still exist in these endemic regions, and that the influence which such places exert on their inhabitants depends on the presence of such harmless organisms, which, without causing the disease, can yet confer a certain protection. In consideration of the experiments just described this conception loses all unnaturalness, and explains better than all former views the fact that in endemic regions the inhabitants enjoy a certain freedom from the disease, but that this immunity is lost when the direct relations to such regions have been for some time interrupted. The place "disposition" of epidemiological experience is accordingly perhaps no idle fancy, and may even now be biologically explicable.

FURTHER NOTES OF CASES OF TROPICAL LIVER ABSCESS.

BY SURGEON-MAJOR W. F. STEVENSON, M.S.

SOME notes of mine on this complaint and on its treatment were published in THE LANCET of June 9th, 1888. Possibly a short record of further experience of a like kind may be deemed worthy of publication. All the cases were patients in the Kasauli Station Hospital during my tenure of office there in 1888.

CASE 1.—Private J. W——, East Surrey Regiment, age twenty-two years, service four years and a half, in India two years and a half, was admitted on Aug. 20th. He had just arrived from Allahabad, and had got thoroughly wet on the march into Kasauli. On admission, he was suffering from severe diarrhœa, and complained of pain and tenderness over the liver and of a distressing cough; he was feverish and had a very foul tongue. The liver was tender on percussion, and slightly enlarged in both directions; the lungs were resonant all over, but some coarse bronchial râles could he heard. The abdomen generally was tender to the touch, and the man lay in bed with his thighs flexed; the diarrhœa was bilious. Large poultices were applied over the right side of the chest and abdomen, and chalk and opium given for the diarrhœa. By the next day (third of disease) the diarrhœa had ceased, but there was otherwise no change. Temperature 102·2° F.; pulse 100. The breathing appeared difficult, but the lung sounds were normal; respiration 32. On the fourth day he had great pain over the right lobe of the liver, and a little blood was passed by the bowel. Temperature 100·4°. On the fifth day the liver pain continued, and was accompanied by an equally severe one in the right iliac fossa; diarrhœa had returned. Temperature 100·6°. The poultices were continued, and half a grain of opium with three grains of ipecacuanha were given every four hours. On the sixth day the chest and abdomen were visibly enlarged on the right side, but the pain was less. The temperature on the previous evening had been 106°; pulse 120. There had been five stools during the night; the tongue was foul and dry. The pain continued less during the day, but the diarrhœa did not lessen, the motions being for the most part composed of blood. A long hypodermic syringe needle was passed into the right lobe of the liver in two situations, below the ribs in front and in the tenth interspace in the mid-axillary line, but no abscess was reached. In the evening the pains in the liver and over the cæcum were very severe, and a large quantity of blood-coloured matter, evidently the contents of a liver abscess, was being passed by the bowel, each stool containing large clots of pure blood. On the seventh day his condition remained unchanged. Temperature 100·6° and 102·8. On the eighth day the blood and pus still passed from the bowel; the tongue was moist and the pain less. On the ninth day a very large quantity of blood was lost, and ergot was tried, but with no effect. During the day the pulse was very weak, and the man was somewhat collapsed, but this condition improved under the use of hot bottles and the administration of brandy. In the evening the temperature was 100°, and the pain was less. On the tenth day he was very weak, and all the symptoms continued. An attempt to reach the abscess with a small aspirating needle was made, but failed; he had eight motions during the previous day and night, in which there were large quantities of blood and pus. He was almost unconscious; pulse 124; temperature 100°. At 11 A.M. he seemed a little stronger, but the passage of blood and matter continued, and he died exhausted at 4.30 P.M. No jaundice was apparent at any time in the course of this case.—*Necropsy:* The lungs were healthy, except that there were some old pleural adhesions in both to the diaphragm as well as to the thoracic walls. The peritoneum was inflamed in the pelvic cavity. The omentum was much thickened and attached to the cæcum; both omentum and cæcum were gangrenous at the place of attachment, and a large perforation was found in the head of the cæcum, the contents of the intestine having escaped into the pelvic cavity. The mesenteric glands were much enlarged. The liver was enormously enlarged. An immense abscess cavity was found in the under surface of the posterior part of the right lobe, the contents of which were blood-clots, pus, and shreds of necrosed liver substance. This abscess communicated directly with the cæcum, and the contents of the large intestine were similar to that of the abscess. More matter from the liver had passed into the pelvic cavity through the perforation in the head of the cæcum above mentioned, and the matter passed at stool during life had been of a like nature. Besides the condition above referred to, there were several ulcers, varying in diameter from half an inch to an inch and a half in the ascending colon; the remainder of the large intestine was much congested, and there were several small ulcers along its course. Other organs healthy.

CASE 2.—Private T. M——, East Surrey Regiment, aged twenty-three years, five years' service, in India three years and a half, was admitted on June 4th for hepatitis. For some time previously he had suffered from pain over the liver and a general feeling of illness. On admission he was pale

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and anæmic-looking; he had fever (99°) and severe pain over the hepatic region. The right lobe of the liver was enlarged downwards, and tender on pressure or percussion; tongue furred; bowels constipated. He had had dysentery in 1886. On June 5th it was noted that "there seems to be a slight bulging forwards below the ribs and a little to the right of the middle line"; no redness or œdema of skin at this spot. Temperature 100·8° in the evening. On June 10th the symptoms remained unchanged; temperature 99·4° and 100·6°; bowels open. On the ground of the probability of the existence of an abscess of the liver under the prominent point a hypodermic syringe needle was passed in, but no pus withdrawn. On June 13th the fever was less (under 99° morning and evening), but the liver dulness had much increased and the bulging part was more prominent. The hypodermic needle was again used, but nothing withdrawn except a little dark blood. For the next ten days his condition improved a good deal; pain and fever lessened, his appetite improved, and he rested better at night. On the evening of June 23rd his temperature was 102·4°, and he had diarrhœa for the first time; the general pain in the liver had returned with increased severity, and the prominent spot was very tender, but the skin over it was not œdematous. On the 25th no improvement had taken place; the needle was again inserted into the right lobe and a syringeful of pus removed. The fine needle of an aspirator was then passed into the liver in a direction upwards and backwards, from a point half an inch below the ribs and about two inches to the right of the middle line, and eight ounces of pus withdrawn. The puncture was closed with a patch of carbolised wool soaked with collodion. During the next fortnight his condition varied a good deal; the prominence was no longer visible; he had usually diarrhœa, and often passed blood and pus in small quantities (later on the cause of this latter sign was found to be a patch of ulceration just inside the anus); the temperature went down to normal and remained at that. On July 3rd the aspirator was again used and two ounces of pus removed. On July 10th the liver was again prominent and painful, and on the 11th chloroform was administered and a transverse incision about three inches long was made below the ribs and down to the surface of the liver; a good deal of bleeding occurred, and one vessel was tied with carbolised silk. A large trocar and cannula were passed in for about two inches before pus flowed, and one ounce escaped. The cannula was left in, iodoform dusted on the wound, and large thick pads of absorbent carbolised wool were bandaged over it. On the next day the sinus was further dilated by dressing forceps, and a large drainage-tube put in instead of the cannula. No rise of temperature occurred in consequence of the operation. From this time the man progressed slowly towards recovery; he took his food fairly well. Occasionally diarrhœa occurred, and he sometimes passed blood and pus in small quantities. At first it was suspected that a communication existed between the abscess and the intestine, as the man did not draw attention to any symptoms referable to the rectum; but afterwards he did so, and it was then found that the pus and blood passed at stool came from an ulcer about the size of a shilling close above the anus; this got well under treatment. The abscess cavity, which was daily syringed out with warm iodised water (one drachm of the tincture to eight ounces of water), slowly filled up, the tube being shortened as occasion required. His appetite improved, and he gained weight and improved in health generally. The drain was finally removed on Aug. 18th, and carbolised oil on lint applied. He had pain in the right shoulder for many weeks after all pain in the liver had ceased. No jaundice occurred. He was invalided to England in February of this year for change of air, but at that time he was apparently in good health.

CASE 3.—Gunner C. H——, Royal Artillery, aged twenty-nine years, service six years (in India five years), was admitted on Oct. 3rd, 1888, for hepatitis. He had had a slight attack of dysentery in May, 1888, and his medical history sheet showed five entries for hepatitis and 132 days spent in hospital for that disease in the same year. On admission, the liver was found enlarged in both directions; it extended quite two inches below the ribs and liver, and dulness reached to about one inch below the nipple level. There was severe pain in the liver and right shoulder. Temperature 100°. Tongue furred; bowels not loose. By the tenth day no improvement had taken place. Temperature 102·4° in the evenings, and 99° in the mornings. On the twenty-second day the hepatic region was seen to be distinctly enlarged. Temperature 99·8°. Bowels fairly regular; pain severe. A hypodermic needle was passed into the right lobe below the ribs, but no pus was withdrawn. On the twenty-seventh day there was no improvement. Pain over the liver in the axillary line severe and continuous; no diarrhœa, jaundice, or night sweats. Between this and the thirty-fourth day attempts to reach the pus were made on two occasions, but without success. Temperature 98·8° to 99·8°. On the thirty-fourth day the hypodermic needle was inserted in the tenth interspace behind the mid-axillary line and the pus withdrawn. The smallest needle of an aspirator was then passed in at the same situation and 41 oz. of pus, not containing shreds, removed. On the thirty-fifth day he felt easier. Temperature 102°; it had been 98·8° on the previous evening. On the thirty-sixth day chloroform was administered by Surgeon-Major McWalters, and an incision three inches long was made in the tenth interspace, a little behind the mid-axillary line, through the skin and intercostal muscles; one vessel required twisting. The liver was found firmly adherent to the abdominal walls, and was incised to the same extent, giving exit to at least 60 oz. of creamy pus. Two large drainage-tubes were put in, iodoform dusted on the wound, and large pads of boric wool bandaged on. He was very low and weak after the operation. The temperature that evening was 98·2°, it having been 103° on the previous evening. On the morning of the thirty-seventh day the temperature was 97·2° and the pulse 120. The discharge was very free, necessitating frequent changes of the dressings. On the thirty-eighth day he was doing fairly well, and was taking nourishment. Temperature 98·2°; pulse 120. The abscess cavity was washed out daily with warm iodised water by a syphon arrangement of tube, about a quart of the lotion being used from a vessel held about four feet above the bed. For the first six days after the operation he was in a very critical condition; he was depressed and nervous, and the pulse was rapid and thready, running from 130 to 144 per minute. On the forty-fourth day the pulse was 112 and of good volume; temperature 98° morning and evening; appetite good; bowels moved; stools very light in colour; no diarrhœa or jaundice; the discharge was slight and sweet. As it was found that the ribs had a tendency to come together as the cavity contracted, and so to interfere with the necessary drainage, a quarter-inch silver tube was put into the outer end of one of the rubber tubes to keep them apart. Air passed in and out of the cavity with a whistling noise during respiration, just as is seen in a case of empyema which has been operated on in a like manner. By the forty-ninth day the improvement in the man's general health and in the local condition was very marked. Temperature normal; pulse 88; appetite good; tongue clean and moist; bowels regular, the motions being darker in colour. By the fifty-sixth day the depth of the cavity was two inches and a half less than it had been. On the seventieth day the case-book note states that "the sinus has of late shortened but very little, if at all; both ribs at the situation of the drainage-tubes are very much thickened and apparently bent outwards, caused no doubt by the pressure on the silver tube." The tubes were shortened on the seventy-seventh day, and on the eighty-sixth day one was removed altogether, leaving in only the one containing the silver tube at its outer end. The man had gained three pounds and a half during the previous week. By the ninetieth day the sinus had shortened a good deal, the discharge was very slight, the motions were natural in colour, he looked well and strong, and was steadily gaining weight. He was invalided to England in February, 1889, and went home still wearing the silver tube. Many attempts to leave it out had been made, but only resulted in the closing of the outer end of the sinus, and it had to be replaced. The periostitis of the ribs had quite disappeared some time before he left for England.

CASE 4.—G. P——, aged two years and a half, was admitted on Oct. 21st, 1888, with a history of chronic dysentery of about eighteen months' standing. He was then passing blood and mucus in small quantities, but frequently; his evening temperature was 101°; he was much emaciated, and coughed a good deal; both liver and spleen were enlarged. He was treated with small doses of compound ipecacuanha powder and fed on milk and beef-tea, and had much improved as regards the dysentery by the end of a week. On Sept. 2nd it was seen that the liver was prominent below the right ribs, and the liver

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dulness was found to extend to the umbilicus; the prominent area was neither red nor œdematous. A hypodermic needle was passed into the right lobe and a large abscess tapped. On Sept. 3rd a vertical incision about one inch and a half long was made, commencing at the lower edge of the last rib and over the right lobe, and a large quantity of pus evacuated. Two drainage-tubes were put in and the wound dressed in the manner already mentioned. After the operation the discharge was very slight, but the child was already so weak and reduced that no recuperative power remained in him, and he died exhausted on Sept. 5th, about fifty-six hours after the operation. During the last two days the temperature ranged between 99° and 100·6°. No post-mortem could be obtained.

Remarks.—The first case showed in a marked manner the rapidity with which extensive suppuration followed on a severe hepatitis caused by wet and cold. The post-mortem appearances were very peculiar; the cæcum having become attached to the under surface of the liver abscess, the latter ruptured into the large intestine; then, presumably on the ninth day, judging from the patient's state of collapse at that time, perforation of the wall of the cæcum took place and the contents of the intestine, both feculent and purulent, escaped into the pelvic cavity. Looking at the condition of things revealed at the post-mortem, regret can hardly be entertained that the attempts to reach the abscess failed, for operative interference could not be expected to have been successful. In the second case a good deal of bleeding occurred, and at least one inch thickness of liver substance had to be cut through before pus flowed; yet the two peritoneal surfaces were firmly adherent. Hitherto I have been so fortunate as never to have found them otherwise in these cases. The third case was that of the largest liver abscess in which I have seen recovery take place. The cavity contained at least sixty ounces; but accurate measurement was impossible, because a good deal of the pus was lost in the sheets beneath the patient. The posterior wall of the abscess was seven inches from the skin at the site of incision. The pressure of the ribs on the silver tube caused some periostitis, but this soon disappeared. The difficulty in getting the sinus to close in this case brought forcibly to my mind the question of the advisability of the excision of an inch or so of the lower rib in future similar cases where the operation has to be done in an interspace. The last case was peculiar on account of the age of the patient—viz., two years. The antiseptic precautions taken in these cases were very simple: the site of the incision and for some distance around was well sponged with a 1 in 20 carbolic lotion, and a piece of lint soaked in the same solution was laid on the part for half an hour before the operation; the instruments were cleaned with and laid in a 1 in 20 lotion; care was especially paid to ensure that the needles were clean, and they were put into a 1 in 20 lotion some hours before use.

SPLENIC ENLARGEMENT AND HEART DILATATION IN FEVER IN INFANCY AND CHILDHOOD.

BY ANGEL MONEY, M.D., F.R.C.P.

AN infant any time under the age of two years with fever above 100° F., signs of bronchitis and its intestinal equivalent, will often be found to have a palpable spleen. Problem: Since splenic enlargement is not a recorded sign of simple catarrh, either of the thorax or abdomen, on what is the swollen state of the spleen dependent? As the spleen passes away so do the other signs disappear, and the infant recovers its general health, and all its viscera bear no trace of disease. It cannot be said that rickets is the cause, or syphilis, or bad feeding; because, though these diseases or causes of disease may be silent and latent, and not reveal themselves, there is no sign or obtainable history of their ever having been in effective operation. What, then, is the cause of the splenic swelling? Of the facts I have no doubt, and I have no desire to make other people of my opinion. I simply assert positively, chiefly as the result of my experience at University College Hospital and the Hospital for Sick Children, that an infant not specially weak, and certainly not rachitic, syphilitic, or marasmic, may develop a splenic enlargement at the same time that signs of catarrh appear in its bronchi and intestines. I cannot even say that there is anything specific in the nature of its catarrh; it seems to be an ordinary catarrh, having no great propensity to prolong its stay or to shorten its visit.

That some of the cases are instances of catarrh incited by the presence of the typhoid poison would probably be agreed to by Dr. Goodhart, whose views on true infantile typhoid fever, as expressed in his thoughtful book, are in accord with my own. I am always impressed—I may say weighed down—with the truth expressed thus: that the number of ways in which function and structure, or one or both, can respond to any change in the environment, is very limited. The tissues seem to lack variety of response, and may be regarded as rather stupid. The liver protoplasm, for example, can resent a pathological cause of disease only by increasing, diminishing, or perverting itself—i.e., its function and structure, and it is not at all improbable that even perversion of structure or function is but a mixture in varying order and degree of acceleration and diminution. Sometimes a tissue or function reacts to a pathological cause of disease by remaining within the limits of health. In fact, ambulatory typhoid fever affords an illustration of this doctrine. Now, in infants the limits of health are much more irregular and variable than in adults (of non-neurotic type), and the limits of the spleen are even within the limits of health much more irregular and variable. The spleen is a soft semi-fluid, semi-solid organ not overstocked with hard connective tissue in infancy, and expanding and contracting with surprising facility in harmony with changes in its near or distant environment, and the principal change is a digestive gastro-hepatic one, as all physiology proves. Seated on the splenic artery (which is rapidly becoming more and more tortuous as life proceeds—a sure sign of repeated splenic vascular engorgement), and a branch of the portal circulation, the spleen suffers, or tends to suffer, changes in harmony with the states of the general and portal circulation. I teach, and believe, that the spleen is as subject to variations in size as is the penis, the turbinate submucosæ, and the choroid plexuses. There cannot be the smallest particle of doubt that this convenient expanding tendency of the spleen is of utility in the circulatory needs of the economy. The spleen is not only a cavernous erectile tissue, but is blessed with much plain muscular tissue of great mobility and capable of being paralysed for a shorter or longer time. The typhoid poison or, more safely speaking, the typhoid process is of all acute febrile processes the one which can dilate the spleen or enlarge its size to the greatest extent. The heart is not so frequently dilated by typhoid processes as by scarlatinal and diphtheritic processes. That the heart is liable to dilate synchronously with the spleen is not often stated, but often occurs. In ague the portal viscera become overfull (including spleen), and the heart, after having been overacting, fails somewhat, and with it the blood-pressure falls. Now the problem to be solved is this: when the spleen swells, with signs of a febrile catarrh, is typhoid at work, or may the influenza cause or any other catarrh-causing cause dilate the spleen? I believe that temporary splenic tumefaction is in infants (under two) about as useful in the differential diagnosis of disease as is a temperature of 101°.

Harley-street, W.

ON A CASE OF HYSTERICAL AMBLYOPIA.

BY JAMES MILNER, M.R.C.S.

THE above title given by Mr. C. S. Jeaffreson to his cases described in THE LANCET of April 13th seems a suitable one. The cases were interesting, as showing to what degree the remarkable imitativeness of hysterical patients will simulate actual disease of the organs concerned. The following case may perhaps be considered worthy of publication.

E. R——, aged sixteen, a domestic servant, came to me on April 16th, accompanied by her sister, complaining of loss of vision. She was led into my consulting-room, walking with her head bent down as though dreading the light, her hands folded in front of her, and not hesitating to go wherever she was led. The history of the case was that on April 12th she noticed some slight dimness of vision in one

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eye, and on the following day the other eye was similarly affected. On the morning of the 14th she woke up to find herself absolutely blind. Her mistress sent her home, and on the 16th, there being no improvement in her condition, her mother sent her to me. Upon my requesting her to open her eyes, she declared her inability to do so. As there was no photophobia, and the lids, although closed, were twitching spasmodically in a very suggestive manner, my suspicions as to the hysterical nature of the complaint were aroused, and were confirmed by my subsequent examination, which examination could only be effected by forcibly separating the eyelids, by means of a speculum. There was no lacrymation, otherwise, from the manner in which the lids were kept tenaciously closed, my first impression would have been that the case was one of corneal ulcer. I could find nothing whatever amiss with the eyes, and the pupils reacted readily to light, though the girl declared she saw nothing when a lighted wax vesta was suddenly brought within a couple of inches of her eyes, and she certainly did not flinch in the least. During the examination my patient's sister complained of feeling faint. I made her assume the recumbent posture at once, and straightway she had an epileptic seizure. Upon again turning my attention to A. R——, I found her face turned towards her sister, though her eyes were still closed. The case—like most hysterical ones—seemed difficult to deal with. However, my first idea was to temporarily impair vision, so as to raise some actual cause for anxiety in my patient's mind. This I did by the instillation of atropine. At the same time blistering fluid was applied to the temples. On the 20th she was brought to me by her mother. She was in exactly the same condition as on her previous visit, excepting that the pupils were still dilated from the atropine. I now decided to try what electricity could do, feeling convinced that bodily pain and intimidation were the only means likely to be of any avail. A fairly strong faradaic current was applied, and I told her mother (in the girl's hearing) that this treatment was certain to restore sight sooner or later, and that it would be necessary to increase the strength of the current at each application. On April 24th the girl again appeared, and her mother said that her daughter's sight had partially returned, but that it was still necessary for the lids to be forcibly separated to enable her to see. The faradaic current was again applied, with the effect of causing the girl to raise the lids sufficiently far to be able to name one or two things on the table before her. This I pronounced to be satisfactory, but expressed my determination not to discontinue the treatment until perfect vision was restored. On the next occasion, three days later, there was no further improvement. I now spoke to the girl on the foolishness of her conduct, telling her that I was perfectly sure she could see did she wish to do so, and that it was in her power to shorten the painful treatment she was undergoing. Words seemed useless; so again having recourse to the battery I increased the strength of the current, until my patient declared she could no longer bear it. I observed the eyelids separate more and more, until suddenly, with a shriek, the girl opened her eyes widely, at the same time bursting into tears, and the case was at an end.

In this case there was no menstrual irregularity. The girl was quite comfortable in her situation, and had no desire to leave it. Some of the children of her mistress's family had been suffering from some ocular disturbance, for which they had been obliged to wear glasses, and this was the only cause I could find to account for my patient's attack of "false amaurosis."

Shipdham, Norfolk.

REMARKS ON A CASE OF

PERIPHERAL NEURITIS, CAUSED BY THE INHALATION OF BISULPHIDE OF CARBON.

BY A. M. EDGE, M.D., B.Sc., M.R.C.P.,
PHYSICIAN TO THE SALFORD ROYAL HOSPITAL, AND TO THE MANCHESTER SOUTHERN HOSPITAL.

ALTHOUGH it has long been known that workmen exposed to the fumes of bisulphide of carbon are liable to present symptoms resembling those produced by alcohol, it is only comparatively recently that cases have been described in which inhalation of this substance has caused a form of paralysis corresponding to alcoholic paralysis. The case which I am about to narrate is a good example of this form of toxic paralysis.

The patient, a man thirty-two years of age, was admitted into the Salford Royal Hospital on March 3rd, 1888. For the greater part of his life he had worked in a coal mine; he had then been employed for three years in a foundry, and in April, 1887, he began to work in the "curing-room" of an indiarubber manufactory, where he was compelled to inhale fumes containing a large proportion of bisulphide of carbon, which is used in the vulcanising process. He had always enjoyed the best of health until the beginning of his present illness; he had been a total abstainer for sixteen years, and had never smoked or had syphilis. Soon after commencing work in the indiarubber factory he began to suffer from headache, giddiness, and drowsiness; the tongue was dry, and the taste of the bisulphide constantly present. He did not take much notice of this, as all the workmen were accustomed to suffer in the same way when first employed. These symptoms disappeared in the usual manner in the course of a few weeks. In the beginning of January, 1888, the headache returned and was accompanied by delirium and delusions of sight, and he was compelled by frequent attacks of giddiness to take to bed on the 10th. So-called "rheumatic" pains were then felt in the knees and ankles, and the face and hands became yellowish in colour. He was also subject to attacks of unconsciousness coming on suddenly and without cause while he was in bed. About the end of February the legs were noticed to be weak, and the lower halves of the legs felt numb. Sexual desire was abolished. On admission into the hospital the delirium and other cerebral symptoms had disappeared. The patient could neither walk nor stand without support, but on being well supported on each side, he was able with great effort to drag the toe of one foot about three inches in front of the other foot. As he lay in bed there was distinct drop-foot on both sides; he could barely move the toes, and could not perform dorsal flexion of the ankle. He was able to raise the heel from the bed slowly and with difficulty; the legs could be adducted forcibly, but abduction was weak. No wasting could be detected. The knee-jerks and the plantar and cremasteric reflexes could not be obtained, and there was no ankle clonus. Almost complete loss of sensation as regards touch, pain, and temperature existed below the middle of the leg. On squeezing the calf muscles some pain was complained of, not confined to the parts pressed on, but described as shooting upwards and downwards. The functions of the bladder and rectum were performed naturally. The upper extremities were perfectly normal in every respect. The faradaic contractility of the muscles of the legs was somewhat impaired; with the galvanic current the muscular contraction was normal, and contraction occurred with a weaker current on cathodal than on anodal closure. No vaso-motor or trophic disturbance was present. Taste and smell were normal, but the patient complained of weakness of vision, interfering somewhat with reading. His colour vision was unfortunately not tested until March 16th, when it was found perfect, and the range of vision (hand test) was found normal on both sides. (By this time, however, the defect of sight had almost disappeared.) The pupils reacted to light, and the discs were healthy. The only treatment adopted was rubbing and the internal administration of quinine. Improvement began to take place almost immediately. On the 16th it was noted that he could raise the heels from the bed with ease and could produce flexion of the ankles; abduction also was performed more easily. Some return of sensation was noticed in the left foot, where a smart prick was quickly felt, and the knee-jerks had returned to a slight extent. On the 23rd the anæsthesia had entirely disappeared on the left side. He was able to walk with the help of an arm on each side. On the 29th he could walk unsupported; the knee-jerks were active on both sides, but the right leg and foot were still slightly anæsthetic. He was discharged on April 18th, walking well, although the left leg was slightly the stronger. He continued to show himself occasionally without any change being noted. On June 15th he presented himself after a stay at the seaside. He was then walking perfectly, both legs being quite strong, and no anæsthesia could be detected anywhere. There was, however, no return of the cremasteric or plantar reflex. Sexual appetite had returned.

This patient was not seen again until Sept. 21st. He said that he had returned to the indiarubber factory, and

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had found employment not in the "curing-room," but in a different part of the building, where he was occupied in boiling the rubber. He said he was not at all exposed to the noxious bisulphide vapour, and felt quite well. On examining him, I was somewhat surprised to find a considerable amount of anæsthesia involving the right foot and lower third of the leg. The cremasteric reflexes were still absent, but the knee-jerks were unusually active. On cross-questioning him, I discovered that when the wind was in a certain direction the fumes generated in the "curing-room" were blown into the room in which he worked.

There can be no doubt that this case was one of peripheral neuritis, due to the toxic influence of bisulphide of carbon. Fortunately, owing to the fact of the patient being a total abstainer, alcohol was excluded as an etiological factor. Two similar cases have been recently described by Dr. Ross,[1] and three cases had been previously described by Dr. Alexander Bruce,[2] in all of which the disease had been contracted in indiarubber works. A remarkable feature in the instance just narrated is that, notwithstanding the severity of the symptoms, recovery took place with great rapidity, as one was enabled to prognosticate from the electrical reactions of the muscles. A reasonable explanation of this rapidity may be deduced from Dr. Buzzard's theory of the pathology of this form of neuritis.[3] He supposes that toxic multiple neuritis is due to an irritative influence produced by the poison upon the vaso-motor centres in the bulb and cord, causing a diminution in the supply of blood to the peripheral nerves, and leading, if long continued, to a degeneration of nerve fibres. On this hypothesis I think we must suppose that the irritation and consequent diminished supply of blood had lasted only long enough in this instance to produce a condition of lowered nutrition in the nerves without actual degeneration. Another noteworthy point is that the upper extremities were in no wise affected; in both of Dr. Ross's cases the extensors in the forearms were weak, and numbness and tingling of the hands were complained of; similar symptoms have been noticed in other instances.[4] Sensory disturbances are usually found to a greater or less extent in cases of peripheral neuritis, except in ordinary cases of lead palsy, but the degree of anæsthesia in the lower limbs in my case was somewhat unusual.

It may perhaps be inferred from the anæsthesia found in the right leg when the patient was last seen that a previous attack of this form of toxic neuritis may predispose to a second attack on renewed exposure to even a very small dose of the poison.

Manchester.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum allorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

TWO CASES OF SARCOMA OF THE LOWER JAW.

(Under the care of Mr. CHRISTOPHER HEATH.)

IN May of last year we published a case of sarcoma of the upper jaw, which had been under the care of Mr. Heath, in which he had performed five operations for the removal of a myxo-sarcomatous tumour and for recurrences. There had been no return of the disease at a period of four years after the last operation. It is seldom that such a satisfactory result can be recorded, rapid recurrence being regarded as a sign of the more malignant growths. Proof of this is afforded by the course of the disease in the second case which we publish, one of round- and oval-celled sarcoma. The disease was comparatively limited at first, but soon recurred, becoming of softer character and greater extent, until it had spread far beyond possibility of removal. It is interesting to note the family history, one of great susceptibility to malignant growths, in this second case where the disease so rapidly recurred. Microscopically, the tumour in each was similar, but special mention is made of the vascularity of the second, whereas the first showed a tendency to ossification. Another point of interest is the absence of any enlargement of the lymphatic glands in the neighbourhood of the growths. For the following notes we are indebted to Mr. Raymond Johnson, surgical registrar.

CASE 1. *Central sarcoma; patient well and free from recurrence seven months after operation.*—B. S——, aged twenty years, was admitted on March 19th, 1889. A small red swelling had been noticed on the lower gum three months previously. It slowly enlarged and displaced the two incisor teeth on the right side. On admission a flat, firm growth of a bright-red colour projected from the front of the lower alveolus below the two incisor teeth of the right side. In a corresponding position the posterior surface of the alveolus was expanded. The central incisor tooth was raised and loosened. The patient's general condition was very good, and no glandular enlargement could be detected in the neck. On the day after admission the prominent part of the growth was removed with an elevator, and after extracting both central and the right lateral incisor teeth, a mass of soft pink growth was gouged from a cavity in the expanded jaw. The bleeding was easily arrested with Paquelin's cautery and the cavity plugged with iodoform wool. The growth consisted of oval and round cells lying in a finely fibrillated stroma, which here and there contained bony spicules; no multi-nucleated cells were seen. The wool plug was removed on the second day. On March 29th—nine days after the operation—it was noticed that a small mass of growth still remained in the posterior part of the cavity. This was therefore removed with an elevator, the first bicuspid tooth being at the same time extracted. The cavity rapidly healed, and had very considerably contracted when the patient was discharged eighteen days after the first operation. A fortnight later, owing to sprouting of unhealthy granulations, Mr. Heath thought it well to apply chloride of zinc paste. This was followed by somewhat troublesome hæmorrhage, but eventually the patient made a good recovery. At the end of October, 1889, there were no signs of recurrence, and the patient's health was reported perfect.

CASE 2. *Subperiosteal sarcoma; primary growth and three recurrences successively removed; death seven months after first operation.*—E. B——, a girl, aged fifteen years, was admitted on March 1st, 1889. Her mother died of "cancer of the breast"; a brother, aged sixteen years, died from a tumour of the leg, which recurred after operation; a sister, aged eleven months, was said to have died from "cancer of the leg." Three months before admission the patient suffered from neuralgic pain in the left cheek, and a few weeks later noticed a lump on the gum of the left side of the lower jaw, which slowly increased in size. On admission the outer surface of the lower jaw between the first bicuspid and second molar teeth of the left side was occupied by a slightly lobulated tumour of a bright-pink colour. It projected above the level of the teeth and caused a distinct external prominence of the cheek. The inner surface of the corresponding part of the jaw appeared to be slightly expanded. The patient's general condition was excellent, and no glandular enlargement could be detected in the neck. On March 6th the prominent part of the tumour was removed with a scalpel, and the deeper part gouged from a cavity in the outer portion of the bone. The growth was soft and pale pink in colour; it consisted of closely packed large round and oval cells, separated by a scanty fibrillated matrix; bloodvessels abundant and thin-walled. On March 15th the growth, which had begun to sprout up over the surface of the bone, was freely removed with a gouge. On March 29th a mass of growth as large as a filbert-nut was removed from the inner surface of the jaw, and Paquelin's cautery freely applied. She was discharged on April 7th, but recurrence rapidly took place, and when readmitted on April 23rd a lobulated soft mass had sprung up on the outer surface of the alveolus, and there was an extensive mass of growth in the floor of the mouth. On April 24th an incision three inches long was made beneath the body of the jaw, and, after reflecting the soft parts from the bone, the latter was divided with a saw in front of and behind the growth. The piece removed

[1] Medical Chronicle, June, 1887. [2] Edin. Med. Journ., 1884.
[3] On some Forms of Paralysis from Peripheral Neuritis, 1886.
[4] Eloy, L'Union Médicale, Sept. 1886. Bruce, *loc. cit.*

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measured one inch and a half in length. The extension of the growth into the floor of the mouth was freely removed with scissors and cautery; two diseased glands lying beneath the jaw were dissected out. The patient was discharged on May 10th; the wound had healed, and no recurrence could be detected. Within a week of her discharge it was noticed that the tumour was recurring in the floor of the mouth, and when readmitted on May 28th there was an extensive fungating mass of growth filling the whole gap left by the last operation. On May 29th an incision was made along the posterior border of the ramus and the lower border of the body of the jaw. The bone was sawn through the socket of the left central incisor, and again through the ramus, and the loose pieces, together with the mass of growth between them, were removed. The external wound healed rapidly, and the patient was discharged on June 11th. For a month no signs of recurrence were detected, but a fortnight later extensive growth filled the floor of the mouth and spread forwards into the cheek and downwards into the neck. She died on Oct. 1st, seven months after the first operation. When last seen, three weeks before death, an enormous lobulated mass hung beneath the jaw on to the chest, and extended upwards into both cheeks.

Remarks by Mr. HEATH.—The foregoing are good examples of the endosteal and periosteal varieties of sarcoma as affecting the lower jaw. Being both in the early stage of the disease, there was no difficulty in differentiating them; but in advanced cases of large tumour it is often impossible to be sure of the original starting point. The endosteal case was diagnosed as probably myeloid, which is the common form of sarcoma in this position, but proved to be a small-celled sarcoma, with oval cells in large quantity and an abundant matrix undergoing slight ossification. In the subperiosteal case, on the contrary, the cells were large and mostly round and the matrix scanty, with no ossification. There was also a strong family history of new growth.

SAMARITAN HOSPITAL FOR WOMEN, BELFAST.

THREE CASES OF OPERATION FOR ABDOMINAL TUMOURS; REMARKS.

(Under the care of Dr. W. K. M'MORDIE.)

THE following is an interesting series of three cases of laparotomy for tumours of the ovary. In the first of these the case is interesting on account of the mental effect of the operation—that of insanity; an effect which is fortunately of rare occurrence after ovariotomy (though several instances are on record)[1] or in any other operation. Dr. Savage,[2] in his paper on Insanity following the Use of Anæsthetics in Operations, makes certain propositions. He says: "Any cause which will give rise to delirium may set up a more chronic form of mental disorder quite apart from any febrile disturbance. (*a*) The most common form of mental disorder is of the type of acute delirious mania; (*b*) though such a disorder is generally of a temporary character, it may pass into chronic weak-mindedness, or it may pass into (*c*) progressive dementia which cannot be distinguished from general paralysis of the insane." How far the administration of an anæsthetic predisposes to the occurrence of insanity it is difficult to say; severe mental disturbance has followed operations in which ether has been employed, as well as those in which chloroform was the agent used for the production of anæsthesia. Clevenger,[3] who wrote on the subject of traumatic insanity, looking upon the symptoms produced as of a distinctive type, comes to this conclusion, amongst others, "that traumatism may act both as a predisposing and exciting cause, producing traumatic insanity by itself, but hereditary or other taint causes greater liability." It is important, in the investigation of these cases, to have on record the nature of the anæsthetic, the mode of administration, the quantity used, and the duration of the anæsthesia; also the predisposition or otherwise of the patient.

CASE 1. *Insanity following ovariotomy.*—J. L——, married, aged fifty-three, was on Feb. 18th sent by Mr. Andrew M'Connell of Belfast to the Samaritan Hospital to have an ovarian tumour removed. At the time of her admission she measured forty-seven inches round the umbilicus. She had for a considerable time before her admission suffered from chronic bronchitis, and no doubt this was a predisposing cause of the congestion of the lungs which set in a few days after the operation.

A large cyst with small pedicle, no adhesions, and containing a dark treacle-like fluid, was removed, the operation being completed without the slightest trouble. The patient progressed without a bad symptom to the sixth day, when, the wound having healed, the sutures were removed. So far as the operation was concerned she seemed perfectly recovered. On the day following the removal of the sutures mental disturbance appeared, and she became so violent that it was necessary to physically restrain her. Dr. M'Mordie had the advantage of Mr. M'Connell's long experience of mental affections, who pronounced it a typical case of insanity following an operation. Symptoms of congestion of the lungs appeared, but these cleared off, and the woman was removed by her friends on March 8th, no improvement having taken place in the mental disturbance.

In the second case the cyst was very adherent, and Dr. M'Mordie found it necessary to drain it. The use of the glass drainage-tube was found satisfactory, and is generally in use. Pozzi[4] has strongly advocated Mikulicz's method of capillary drainage by means of iodoform gauze in cases similar to the one which we record, but this method has not met with general acceptance, most operators preferring the use of the glass or indiarubber drainage-tubes. Terrillon[5] has passed a long rubber tube, in cases similar to this, from the abdominal wound through the floor of the pelvis and out by the vagina, the lower end being left free in the vagina, with iodoform gauze packed loosely around it. This method is very dangerous, however, from the hæmorrhage which may be induced by wound of one of the pelvic vessels.

CASE 2. *Large adherent cyst of the broad ligament treated by drainage; recovery.*—Mrs. H——, aged forty, married, no family, was on May 29th sent by Mr. William Gordon, of Saintfield, county Down, as a private patient to the Samaritan Hospital to have an ovarian tumour removed. Assisted by Dr. Henry O'Neill and Dr. M'Kinney, Dr. M'Mordie made the usual incision, but could find no division between the abdominal wall and the cyst wall until he had cut into the cyst. A thin dark fluid flowed out. The opening into the cyst was enlarged sufficiently to admit the hand, and the cyst completely cleared out. The wall of the cyst was adherent to the abdominal wall on the right side and at the front. It was free towards the left. Inside the cyst towards the left side were three small cysts having very thick walls, and these were filled with a clear gelatinous fluid quite different from the fluid in the large cyst. The walls of these were freely cut away, care being taken not to open into the peritoneal cavity on the left side. The entire amount of fluid measured upwards of twenty quarts. The enormous cavity was freely washed out with a 1 per cent. solution of boracic acid. A glass tube was left in at the lower angle, and the cavity washed out twice daily. At the end of a week there was some sloughing from the smaller cysts and a very offensive smell with the discharge from the wound. This gradually disappeared, and the case made most satisfactory progress, the cavity gradually contracting until July 1st, when only fifteen ounces of fluid could be injected without returning by the side of the injecting pipe. The patient then returned home and placed herself under the care of her family physician, who continued the syringing until the cavity completely closed.

The third case, in which a tumour of the ovary developed, is of interest, as solid tumours of that organ are rare in proportion to the cystic growths. Small fibrous tumours are not, however, uncommon in the early stage of cystic disease.

CASE 3. *Rapidly growing fibro-cystic tumour of the right ovary; removal; recovery.*—L. G——, aged nineteen, single, a dressmaker, was sent by Mr. William Calwell Graham on Sept. 27th to the Samaritan Hospital. Her menstrual periods were regular up to the middle of April, and since then that function had entirely disappeared. About five weeks previously to her admission Mr. Graham was called to see her, the girl having suddenly complained of severe pain in the right ovarian region. She then for the first time

[1] Barwell, Transac. of Clin. Soc., vol. xviii.
[2] Brit. Med. Jour., vol. ii. 1887, p. 1199.
[3] Alienist and Neurologist, July, 1888; also Sajous, vol. ii., c. 21
[4] Revue de Chirurgie, April 10th, 1883; Sajous, vol. ii., f. 24.
[5] Annales de Gynécologie et Obstet., February, 1888

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discovered an enlargement. Mr. Graham stated that this had rapidly increased from the time he first saw her up to the time of her admission as a hospital patient. The temperature varied from 99·6° in the morning to 101° in the evening. Pulse 120, weak and intermittent. The tumour felt solid, and was about the size of a pregnant uterus at full time. The diagnosis made was suppurating ovarian tumour. It turned out to be a fibro-cystic tumour of the right ovary, with very extensive adhesions to the abdominal wall at the right side and front. The omentum was pushed up above the tumour, and so puckered together that it was impossible to bring it down over the intestines. There was free bleeding from the broken-down adhesions, and it was necessary to keep in a drainage-tube for fifty-seven hours. The pulse immediately improved, and the temperature fell, the patient making an excellent recovery.

Remarks by Dr. M'MORDIE.—The above cases all present some features of special interest. The first case because of the sequel to what was otherwise a very simple and satisfactory case. The second case shows how an enormous sac may contract and become completely obliterated when strict antiseptic conditions are observed. Adherent cysts of the broad ligament are frequently found not to be satisfactory in their termination. My experience has been rather fortunate, this being the third case I have had of this description of tumour, and all have had a satisfactory termination. The third case is of interest from the high temperature and disordered pulse causing a difficulty in the diagnosis, and from the peculiar way in which the omentum was puckered, preventing it being brought down over the intestines.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Gummata of Pons Varolii.—Diffuse Lipoma.—Adenomata of Os Uteri in Monkeys.—Ruptured Mitral Valve.—Saccular Aneurysmal Dilatation of Veins.—Unusual Bladder Growths.

AN ordinary meeting of the Pathological Society was held on Dec. 3rd, the President, Dr. W. H. Dickinson, being in the chair.

Dr. ORMEROD read a case of Gummata of the Pons Varolii. The pons was cut into transverse slices, which showed numerous patches of disease, irregularly scattered through its substance. One of these occupied the position of the right sixth nucleus and its neighbourhood; it showed in the floor of the fourth ventricle as a distinct tumour in the place of the eminentia teres on that side. There was also noticed post mortem some general enlargement of the pons. Microscopically the tumours appeared to be gummata. The patient, who was under Dr. Gee, had left-sided numbness and motor paresis, followed by paralysis of the conjugate movements of the eyes to the right. Subsequently there was loss of all lateral movements of the eyes, paralysis of the lower face and of the muscles of articulation (simulating glosso-labio-pharyngeal palsy), general paralysis of the limbs, and deafness. There was no optic neuritis. He died twelve months from the onset. The points of interest were—(1) The absence of optic neuritis; (2) the correspondence of the early ocular symptoms with the lesion of the sixth nucleus; (3) the occurrence of gummata deep in the nerve substance, and their fatal issue in spite of antisyphilitic treatment.—Dr. DICKINSON said it was unusual to find gummata imbedded so deeply in the substance of the brain.—Dr. S. WEST inquired what evidence of syphilis there was other than this lesion.—Dr. ORMEROD, in reply, said that there was no other evidence of syphilis, and the patient denied a specific history.—The specimen was referred to the Morbid Growths Committee.

Mr. ROGER WILLIAMS showed a case of so-called Diffuse Lipoma or Pseudo-lipoma. The disease was at least as old as the habit of drinking large quantities of malt liquors and spirits, but Sir Benjamin Brodie first described it in 1846. The later literature of the subject was then referred to, and four new cases were related. The first occurred in a man aged forty, a carman, who was exhibited to the Society. He had enormous diffuse fatty swellings surrounding the whole of the neck, presenting pendulous masses in front and behind. There were numerous pairs of fatty swellings down the whole length of the back on each side of the spine. Both loins, arms, elbows, forearms, and hands were similarly affected, as well as the lower part of the abdominal wall, both groins and the scrotum. The patient enjoyed good health, and the disease was of twelve years' duration. He had for many years indulged in beer and spirits. The other three cases were all adult males. In one the disease was similar, but of less extent, to that just described, and the patient was a barman, who was a great drinker of beer and spirits, and at his request the double chin was dissected away, with a good result. In the third case the swellings were at the back of the neck: and in the fourth at the lower part of the abdominal wall. He had collected and analysed thirty-one cases of this affection, and from these he concluded that prolonged indulgence in excessive quantities of alcohol was the chief factor in causing the disease in those predisposed to it, and that the condition was allied to excessive obesity rather than to any form of neoplasm. He then compared this affection with other diseases, remarking that undue accumulation of fat in the organism was either of hypertrophic or atrophic origin, and under the former he included obesity, diffuse lipoma, *pseudo-lipome sous-claviculaire* of Verneuil, sporadic cretinism, myxœdema, multiple lipomata, single acquired lipoma, and congenital lipoma. In the Bosjesmen enormous diffuse fatty masses were of normal occurrence in the gluteal and deltoid regions, especially in females; and other instances could be quoted showing that fat was normally distributed very unequally throughout the body, being collected in large masses in the physiological fat reservoirs. Analogous diseases were met with in the fibrous and osseous tissues—e.g., molluscum fibrosum and leontiasis ossea. In conclusion, he alluded to Broca's extraordinary cases of lipomatosis in which over 2000 fatty tumours were found.

Messrs. BLAND SUTTON and GORDON BRODIE made the following communication. For some time past they had been accumulating material for an investigation of cancer, especially in connexion with the uterus. It appeared that uterine cancer, though so very common in the human female, was rarely met with in other mammals, and was hardly known to veterinary surgeons. This induced them to commence the investigation by a study of the cervix uteri in monkeys, in order to ascertain if any anatomical conditions existed favouring the development of cancer in human females. A few years ago one of them exhibited before the Society a series of specimens demonstrating that monkeys (macaques and baboons) living in confinement in this country were liable to uterine flexions. Subsequently, evidence was given before the Gynæcological Society that macaques and baboons menstruated after the same fashion as women. The inquiry was followed up, and it was found that the menstrual period in these monkeys was very variable. In some it lasted a longer time than in others, whilst now and then a monkey appeared in an almost chronic state of menstruation. In many the menstrual period was followed by profuse leucorrhœa. Normally, the discharge of blood lasted from one to two days, but the redness of the less hairy parts persisted as long as a week. The average interval between each menstrual period was difficult to fix with accuracy, as it varied from a month to six weeks, or even longer; it was a safe inference, when a monkey menstruated two, three, or even four times a month, each attack lasting three or more days, followed by leucorrhœa, that the case was one of metrorrhagia. During the past summer a macaque was particularly watched; the metrorrhagia and leucorrhœa became so profuse as to render it unfit for exhibition, and, being of small money value, it was killed. The uterus was removed before the parts had lost their tissue life, and was found to be acutely retroflexed; the cervix enlarged, the os patulous, and a florid-looking mass projected from it, identical in appearance with what it was the fashion to call in gynæcology an erosion. After hardening the parts sections were prepared for the microscope in such a way as to include the os externum, the cervical canal, and portio vaginalis. Under a low power the mass protruding from the os, as well as a polypoid mass some distance up the canal, resembled a cervical adenoma, and in structure identical with the glandular tissue held to be characteristic of erosions in women, the acini being apparently lined by columnar epithelium. Many of the most typical acini were filled with a singular apparently homogeneous material. Under higher powers and careful illumi-

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nation the supposed columnar cells were seen to be club-shaped, and in favourable sections the supposed glandular crypts turned out to be rosettes fringed with the clubs so characteristic of actinomyces. The clubs varied somewhat in shape, many of them fringing the rosettes with the greatest regularity. In other places they occurred in "banana-like bunches," especially when stained with fuchsin. The clubs surrounding the rosettes stained with difficulty. In some places a cluster of clubs had been cut transversely; in such, a characteristic mosaic was produced. They could not detect the filaments, but this was probably due to their lack of skill in staining methods, but a number of granular bodies presented themselves in various parts of the section. Thus far the microscopic characters were consonant with actinomycosis. On examining the centre of the rosettes some distinctly rounded bodies caught the eye associated with clumps of epithelioid-looking cells; when these central bodies were critically examined they resolved into cysticerci, with the head and neck retracted. Whether their presence in the midst of the rosettes was accidental or otherwise would require further elucidation; as far as they had examined the sections, the cysticerci appeared to have some causative relation to the rosettes. Although they wished at first to limit this preliminary statement to facts connected with monkeys, they could not refrain from observing that they had detected so far as the rosettes and clubs were concerned exactly analogous conditions in erosions from the human cervix uteri, and in a case of cancer of the cervix. They further found that Dr. John Williams, in his Lectures on Cancer, had in Fig. 1, Plate xiv., depicted, as appearing under a high power, cancer cells, but they found these columnar cells identical with their clubs, and the peculiar clump of cells in the drawing was identical with those seen in the monkeys in association with the cysticerci. Again, in the beautiful plates in vol. xxxii. of the Transaction they found that Mr. Harrison Cripps had accurately delineated clubs and rosettes under the name of adenoid cancer of the rectum. Many of his exquisite drawings represented the microscopical characters of the lesions in their monkeys and in the erosions of women. They deemed it right to mention these things to show how wide a field was opened up, and thus incite the Society to help in their investigation by appointing a committee to carry it out.—Mr. BRODIE, in reply to Mr. D'Arcy Power, said the powers used were one-fourth and one-sixth inch objectives. In many places a layer of epithelioid cells insinuated itself between the adenomatous growth and the uterine wall. The appearances presented were found on the surface of the specimen, and might be parasitic, but no definite statement could yet be made as to their significance.—Mr. ROGER WILLIAMS inquired if the appearances were suggestive of cancer.—Mr. SUTTON, in reply, said the condition found was suggestive simply of erosion.—Dr. DICKINSON thanked the authors for their communication and referred to the council their proposal for a committee to investigate the subject.

Dr. HALE WHITE showed a specimen in which the Chordæ Tendineæ from the Aortic Cusp of the Mitral Valve had ruptured. The patient, a man aged nineteen, who had had rheumatic fever some years previously, was one day following his ordinary occupation when he was so suddenly taken with shortness of breath that he had to go home to bed. This dyspnœa increased until his admission to the hospital. He was then found to have an aortic to-and-fro murmur and a loud mitral systolic murmur. At the apex there was a well-marked systolic thrill, and the heart was considerably dilated. Digitalis always reduced the frequency of the pulse by a few beats for a quarter of an hour after administration, but it soon became as rapid as before the drug was given. The points of interest about the case were that the chordæ tendineæ ruptured suddenly in a man who was able to do his work, that there was a systolic thrill, and that digitalis was almost powerless.—Dr. DICKINSON quoted the case of a bricklayer, aged twenty-four, who, being apparently quite well, and while engaged in lifting bricks became suddenly collapsed, and was found on examination to have an extremely well-marked mitral murmur. The lesion was diagnosed as rupture of the chordæ tendineæ of both mitral valve cusps, and this opinion was confirmed at the necropsy.—Dr. S. WEST noticed a patch of erosion on the heart wall, due, he thought, to friction caused by the flapping of the loose valve segments.—Dr. HALE WHITE, in reply, said that the total duration of the case was nearly nine weeks.

Mr. GOLDING-BIRD showed a specimen of Aneurysmal Saccular Swelling from the external jugular vein of a man aged twenty-seven. He had had it all his life, and had till lately been able to distend it on making an expiratory effort; he could also empty it temporarily on compression. When removed by operation it was found to be a saccular dilatation of one spot of the outer wall of the vein, about three inches below the jaw, and it contained recent non-laminated blood-clot. It was fully the size of a hen's egg. Two other apparently similar cases were referred to. In one, a venous saccular swelling was removed from the palm of the hand; in the other, a tumour of the neck existed, as in the first case, and with almost an identical history, but the patient, an old woman, declined operation. The tumour submitted to the meeting was contrasted with those pseudo-sacculations common in varicose veins, and which more or less involved both walls of the affected vessel; and some remarks were offered upon swellings of the neck capable of dilatation by the patient's own effort.—Mr. BENNETT said the first case was interesting on account of the size of the tumour. In ordinary cases the condition gave rise to no discomfort, and the patients paid no attention to it. He had seen several cases which, though not so large, had every other characteristic in common. He had found a case in a girl aged four in which there was a sac communicating with the internal jugular vein; it had grown with the child, but during the nine years he had watched it it had caused no inconvenience. In another case occurring in a man there was a tumour of the size of a pigeon's egg beside the internal jugular vein and communicating with it. Both on deep inspiration and holding the breath could succeed in filling the sac. These cases usually occurred about the neck, were commonly congenital, and in most of them some other evidence of congenital venous eccentricity could be found. They were rare about the lower extremity. He then showed a photograph of a sacculated tumour attached to the internal saphenous vein. These cases were sometimes of traumatic origin, and he had seen three cases, all occurring in the palm of the hand, and two of the patients were carpenters. One was thought to be a malignant blood-cyst, was operated on and the clot turned out, but no recurrence had taken place after removal. Usually these swellings caused no inconvenience, but clotting might take place and the clot might suppurate. One case which he dissected in the neighbourhood of the knee was found to communicate with the long saphenous vein. The vein from which the saccule sprang was not usually varicose. He thought it advisable to omit the term "aneurysmal," because these swellings were usually congenital malformations, whereas "aneurysm" was applied to a gradually produced pathological process.—Mr. GOLDING-BIRD, in reply, said that he used the word to convey an idea of the shape of the swelling rather than the cause of it.

Mr. HURRY FENWICK brought forward three specimens of Cancer of the Bladder, to illustrate three very unusual phases of that disease. The first one demonstrated the frightful rapidity which was sometimes exhibited by vesical carcinoma. The growth, which occupied the entire middle zone of the bladder, had been proved by means of the electric cystoscope to have grown in four weeks. The patient had been previously operated upon by the suprapubic method, and a single pedunculated carcinomatous growth had been completely removed. The second specimen, which was obtained by Dr. H. Davies from a diabetic patient who had been cystoscoped, showed a superficial invasion of the trigone only, the greater mass of the growth being on the outside. It was suggested that the growth had commenced in the mucous membrane of the bladder, had penetrated the external wall, and crept along the right ureter until its volume equalled the size of a fist. This circum-ureteral cancer was most rare; a similar specimen was No. 486 in the Westminster Museum. The third specimen was a good example of multiplication of cancer in the bladder by inoculation ("contact" carcinoma). Two isolated masses of growth had been found; one springing from the anterior wall, and embracing a smaller knot which arose from the posterior. Mr. Fenwick had introduced the subject of "contact" carcinoma at the Society the session before last, and submitted the specimen as an additional example of this class.

The following card specimens were shown:—

Dr. ORMEROD: Tubercular Disease of Pancreas.

Dr. HAWKINS: (1) Malignant Endocarditis; (2) Aortic Stenosis of Twenty-four Years' Duration.

Dr. HADDEN: Spontaneous Fracture of Gall-stones.

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MEDICAL SOCIETY OF LONDON.

Electrolysis in Urethral Stricture.—Diagnosis of Ovarian Tumours from Uterine Fibroids.

AN ordinary meeting of this Society was held on Dec. 2nd, the President, Dr. Theodore Williams, being in the chair.

Mr. BRUCE CLARKE read a paper on Four Years' Experience of Electrolysis in Stricture of the Urethra. After stating that it was more than four years since he had first had his attention directed to this method of treatment, Mr. Bruce Clarke began by calling attention to the exact methods to be employed, and pointed out how extremely necessary it was that the surgeon should be master of his apparatus. Electricity was a dangerous remedy in unskilful hands. He went on to show that the process was not in reality a destructive one. It consisted in modifying and softening the cicatrices by which the strictures were produced, a fact which could be witnessed by anyone who would take the trouble to treat by this method a stricture of the urethral orifice. The necessity for employing a galvanometer and the variety of conditions to which electrolysis were applicable were next referred to as additional examples of the varied capacity of the electric current for good or evil. The instruments and method of using them were then explained, the instruments themselves being handed round for inspection. They were of three kinds—a stiff bougie, the same with a filiform bougie to screw at the end of it, and a third, tunnelled like a railroad catheter. He was in the habit of placing the patient on his back and putting under him a large pad connected with the positive pole of the battery; the negative pole was connected with the bougie, which was pressed against the stricture, and usually traversed it in from twenty to thirty minutes. He allowed three weeks to intervene between the sittings. If the urethra proved irritable the sittings were shortened. Some soreness followed, but this usually passed off after forty-eight hours. If at the first sitting the stricture took a No. 4, in a fortnight or three weeks a No. 8 or 9 would pass; in such a case treatment would begin again with a No. 10 bougie electrode. Mr. Bruce Clarke then pointed to the table of fifty cases, and proceeded to discuss certain other points in connexion with electrolysis. Some of the cases could not, he thought, be explained merely on the theory of absorption. He mentioned one case in which an ulcer was present where electrolysis produced a rapid cure. He cited instances to prove that just as it had been shown that a rectal stricture might begin by spasm of the muscular fibres, so urethral stricture could, and often did, begin in a similar fashion, an irritable ulcer being the starting point. The caustic alkali liberated by the negative pole of the battery cured the ulcer, and thus relieved the muscular spasm; whilst if it failed to cure the ulcer, it might in rare instances aggravate it, and so intensify the stricture. Some instances of this nature were related. Of the fifty cases twenty-three were known to be well after periods varying from one and a half to three years, and in two cases no relapse had taken place after four years, whilst only nine were known to have required subsequent treatment.—Mr. REGINALD HARRISON spoke with considerable hesitation, inasmuch as his experience of treatment by electrolysis had been small, and what he had seen of it had led him to form no high opinion of its merits. On the other hand, he had seen a large number of cases treated in this way, and in them the area of stricture tissue seemed to be considerably increased. There were thickening and condensation around the urethra, so that in many cases after one or two years there was much difficulty in the reintroduction of instruments. The patients, too, who had been treated in this way did not express unbounded confidence in the proceeding, and the results altogether had been such that to his mind it did not seem justifiable to extend the employment of this method. He himself preferred a gentle and easy process of dilatation, and had found a combination of this, with free irrigation of the urethra, to give very good results.—Mr. HURRY FENWICK said that four years ago he worked upon twenty picked cases of stricture of the urethra by electrolysis, and they were all worse for the treatment; two of them, indeed, developed troublesome traumatic strictures. He considered the method not without danger, for the electrode had been known to perforate into the rectum, to produce troublesome hæmorrhage, and at least to lead to a fatal issue in one case. Again, only certain classes of stricture would react to this method; those of deep stricture with spasm, and he did not think that the cure could be looked upon as radical.—Mr. LOCKWOOD asked if the strictures anterior to the bulb were first treated by electrolysis before the deeper-seated one was dealt with. He thought that if all urethræ were carefully examined by pathologists, the proportion of strictures at the bulb to the total number of cases would be found to be much smaller than was at present believed to be the case.—Dr. ROUTH asked if the positive or negative electrode was placed in the urethra. He had found that the negative electrode placed in the cavity of the uterus produced dilatation. So also a negative current would cause absorption of an inflammatory swelling. He was in the habit of ceasing after five minutes' application, and always diminished the current when he found that it caused pain.—Mr. BRUCE CLARKE, in reply, said that the treatment had not found favour in England. He thought that those cases which were worse after the application of electrolysis had been unskilfully operated on. Carelessness of itself was not a reason against the procedure. He thought that conclusions drawn from museum specimens were fallacious, for as a rule only the extreme instances were preserved, and these institutions always exhibited a deficiency of the minor degrees of disease. He thought it very important to determine how far ordinary urethral strictures commenced in spasm. He considered that many commenced as muscular contraction, the muscle later becoming converted into cicatricial tissue, as happened also in the rectum. Electrolysis, by diminishing muscular spasm, would kill such strictures in the early stage. He was in the habit of using a current of from five to ten milliampères, with the negative pole in the urethra.

Dr. LEWERS then read a paper on "Some Points in the Diagnosis of certain Ovarian Tumours from Fibroid Tumours of the Uterus." It was more particularly the diagnosis of solid, or semi-solid, ovarian tumours that was considered in the paper. Dr. Lewers read notes of a case of ovarian tumour of this kind, and showed the specimen (a large tumour, about the size of the pregnant uterus at the eighth month). Before the patient came under his observation the tumour had been regarded as a uterine fibroid, and treated by electricity according to Apostoli's method, fortunately without puncture. Careful examination, however, convinced Dr. Lewers that the case was one of ovarian tumour. He accordingly operated in the usual way, and found that it was so. The patient made a good recovery. The points which seemed to be most important in making the diagnosis were: First, as regards the history—the fact that symptoms had only been present for eight or nine months, whereas so large a tumour, had it been a fibroid of the uterus, would probably have caused trouble for a much longer time. Second, as regards the physical signs, the absence of any marked degree of anæmia, although the patient gave a history of menorrhagia; the losses could not, therefore, have been very great, as they would almost certainly have been if this large tumour had been a soft fibroid of the uterus. Again, on vaginal examination the vaginal portion of the cervix projected in the usual way, not being displaced or deformed, as it so often was in cases of uterine fibroid. Tilting the vaginal portion of the cervix gave the impression that the uterus was not enlarged, and that there was no such close connexion between the uterus and the tumour as there would have been if this had been a uterine fibroid. Further, with the sound, which only passed three inches in the uterus, no alteration in its position seemed to be produced by an assistant raising the abdominal tumour as much as possible from the pelvis. Although the general characters of the tumour were those of a solid tumour, it had nevertheless a distinct softness and elasticity in parts. There was therefore a strong probability against the tumour being a subperitoneal fibroid, which was almost invariably typically hard. Dr. Lewers said that it was only by careful consideration of all these points that a correct diagnosis could be made in difficult cases. An ovarian tumour was usually to be regarded as having a malignant tendency in direct proportion to the amount of solid tissue entering into its composition. If ovarian tumours with this tendency were mistaken for uterine fibroids, valuable time would be lost, and it might very likely be too late to remove the tumour completely when the progress of the case had at length made the diagnosis clear.—Dr. ROUTH inquired if a murmur were present.—Dr. WILLIAM DUNCAN said that a soft

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œdematous myoma might closely resemble an ovarian tumour. He had met with two cases in which the detection of a bruit by the stethoscope had enabled him to diagnose myoma. Recently he had removed a myoma of the broad ligament weighing fourteen pounds, and over it a loud uterine souffle was heard. He had never heard a uterine souffle over an ovarian tumour. He did not think it at all necessary that a uterine tumour should take a long time to grow.—Dr. BEDFORD FENWICK had seen a dozen cases during the last six months of large fibroid tumours without any symptoms being present, and in many instances the loss of blood from these cases was less than that proper to a normal menstruation.—Dr. LEWERS replied that he had heard a murmur like a uterine souffle over an ovarian tumour. Though the appearance of a large tumour in a short time did not exclude uterine growth, yet it favoured ovarian disease. There was no doubt also that the majority of fibroids, except the subperitoneal variety, were accompanied by a large loss of blood. Menorrhagia was certainly the usual thing with a large soft fibroid.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

THE annual general meeting of this Society was held on Wednesday, Nov. 27th, at 4.30 P.M., at the London Hospital, and was well attended.

The following gentlemen were elected to hold office during the ensuing year:—President: Dr. G. Murray Humphry. Vice-Presidents: Sir William Turner, Dr. Daniel John Cunningham, and Mr. George Dancer Thane. Treasurer: Mr. Charles Stewart. Secretaries: Drs. W. P. Herringham (England), H. St. John Brooks (Ireland), and John Yule Mackay (Scotland). Council: Drs. John T. Charles, John Curnow, John Cleland, David Hepburn, Alex. Macalister, A. M. Paterson, John Struthers, Johnson Symington, Bertram Windle, Arthur Thomson, and Alfred H. Young; Messrs. Wm. Anderson, J. N. C. Davies-Colley, Rickman J. Godlee, G. B. Howes, John Langton, Charles Barrett Lockwood, Thomas Pickering Pick, J. Bland Sutton, and Frederick Treves.

At the subsequent Council meeting the following were elected to form the Committee of Management:—Professor G. B. Howes, John Langton, William Anderson, Arthur Thomson, Bland Sutton, and C. B. Lockwood.

Dr. Shore and Dr. Lewis Jones showed a series of histological specimens in which the tubular structure of the vertebrate liver was traced up from the invertebrate tubular liver. These gentlemen maintained that the human liver was a tubular gland. Dr. Henry St. John Brooks showed models illustrating the Topography of the Abdomen, and Mr. J. J. Clarke a specimen in which the pulmonary artery had four valves. Professor Bertram Windle showed a large series which he maintained proved the three separated portions of the acromion, coracoid, and internal condyle were ununited epiphyses, and not fractures. The main evidence for this belief was that the separated parts were always symmetrical, and there was no callus but an intervening layer of cartilage. Mr. Poland spoke against this view, and maintained that the condition was due to fracture. Professor A. M. Paterson next showed a Cervical Spine which had been fractured through the neural arch of the axis by judicial suspension. Two papers upon the Brain were read, one by Dr. Beer of Vienna, and the other by Professor Cunningham. The last author dealt with the intra-parietal fissure and fissure of Rolando. The first-named was described as being usually a T-shaped furrow, the top of the T being parallel to the fissure of Rolando, and sometimes opening into it. By rearrangement of the three limbs of the T any of the varieties of the intra-parietal fissure could be formed. This paper gave rise to some discussion, and Mr. Lockwood showed a cast of a brain in which the fissure of Rolando was single above, and opened into the longitudinal fissure; further down it bifurcated and enclosed a convolution, and afterwards the two limbs opened separately into the fissure of Sylvius. This gentleman remarked that Professor Cunningham's paper only partially explained this strange anomaly, and said that it was becoming clearer that not only did the cerebral convolutions differ amongst themselves more than any structures in the body, but they also differed with regard to their relation to the skull. Professor Thane also made some remarks, and Mr. Maskins raised the question of the great anastomotic vein, but there was an evident disposition to treat that vessel with scepticism. A paper by Professor Struthers was deferred until next meeting.

CLINICAL SOCIETY OF MANCHESTER.

TUESDAY, NOV. 19TH.

DR. RAILTON, PRESIDENT, IN THE CHAIR.

DR. BUCKLEY showed a case of Thyroidectomy for Cystic Bronchocele.

Rickets with unusual Deformity.—Dr. RAILTON showed a girl aged seven years and a half who, in addition to many of the customary deformities, had a remarkable bilateral flattening of the upper two-thirds of the shaft of each humerus, the anterior bicipital ridge projecting almost like a knife-edge beneath the skin. The affected portions were also curved, with the convexity forwards from above downwards, the posterior aspects being correspondingly concave. The symptoms of rickets had apparently not shown themselves until after the end of first dentition. Dr. Railton suggested the possibility of the flattening and bending being caused by the arms being grasped at that part while the bones were in a softened state.

Radical Cure of Hernia.—Mr. E. STANMORE BISHOP read a paper on this subject. After some remarks as to trusses and the objections to their continuous use, he gave a short sketch of the various operations at present available, and described a modification of the latest, that of Dr. Macewen, which he had used and found satisfactory. It consisted essentially of a novel manipulation of the sac, and was based upon Macewen's principle of reduction of the sac into the interior of the abdomen.

Reviews and Notices of Books.

Annual of the Universal Medical Sciences. (A Yearly Report of the Progress of the General Sanitary Sciences throughout the World.) Edited by CHARLES E. SAJOUS, M.D., and seventy Associate Editors, assisted by over two hundred corresponding Editors, Collaborators, and Correspondents. Illustrated with Chromo-lithographs, Engravings, and Maps. Philadelphia and London: F. A. Davis.

WE have before us the second issue of this annual, and it is not speaking too strongly when we say that the series of five volumes of which it consists forms a most important and valuable addition to medical literature. In the preface to the first issue the object of the work was said to be to collate the progressive features of medical literature at large and clinical data from countries in which no literature exists, and to present the whole once a year in a continued form, prepared by writers of known ability. This not only shows the extent of the work, but indicates its usefulness. There are some changes in the plan of the second issue. For example, to each reference has been added the date, number, or volume of the journal quoted. Each periodical referred to directly or indirectly is represented by a number in the list at the end of the work, and this number is used in the text whenever the journal is quoted. By a system of double checking each reference has been verified. For the benefit of those unacquainted with the foreign weights, measures, and thermometric systems, grammes have been reduced to ounces, grains, &c., and centigrade and Réaumur thermometric measurements to that of Fahrenheit, both systems appearing side by side. There is a complete index to each volume, in addition to a full triple index of the entire work at the end of the last volume. The statement of the objects of the series gives an idea of the amount of labour and expense (which has not been spared) attending even a partial carrying out of the scheme, but its fulfilment means much more. Great discretion and knowledge of the subjects treated of are required at the

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hands of those who have taken charge of the various sections, and the manner in which the gentlemen who were chosen to fill the important posts of sub-editors have acquitted themselves fully justifies the choice made. All the more important papers published during the year are alluded to, and their chief points briefly placed before the reader with just comment; cases are recorded; advances in treatment or useful suggestions criticised in a liberal spirit; modifications of old operations, their revival under new conditions or the performance of new ones, are given, and often illustrated. We know of no branch of the profession to which this annual could fail to be useful. Anyone proposing to read a paper on a subject before one of the societies would do well to consult this work, in order to discover what has already been done in the same line by other members of the profession; while to the practitioner who wishes to keep abreast of the times the knowledge of the work of the year is presented not only in a readable form, but in a manner which makes the perusal of the vast amount of information contained a pleasant task. We cannot enter into detail with regard to the five volumes, or the sections of which they are composed; we are simply able in the space at our command to draw the attention of the profession to the work, and recommend it as one most satisfactory in every respect, and reflecting credit upon all concerned in its production. As it becomes more widely known and appreciated, the date of publication of this annual will doubtless be looked forward to with much interest, as one of the events in the year's literature on subjects of professional importance, whilst its circulation must, if it maintains its present standard of excellence, become as world-wide as the information which it contains. Dr. Sajous deserves the thanks of the whole profession for his successful attempt to facilitate the advance of medical literature and practice.

Diseases and Injuries of the Ear; their Prevention and Cure. By CHAS. HENRY BURNETT, M.D. Edinburgh and London: Young J. Pentland. 1889.

IN the preface the author states that he "has endeavoured to present the important subject of the diseases and injuries of the ear in a form free from technical terms, so that it may be understood by anyone." If by this statement he means that the book is intended for the general public, we doubt whether it will attain its object. The anatomy and physiology are too complex to be readily understood by the short description he has given. But for the general practitioner it would seem to us most excellent, as the epitome here given calls to mind forgotten knowledge. If the general public were to read through these pages (149), they might undoubtedly pick up some useful information of what to avoid in the way of treatment, for the ear, as a rule, receives too much attention from domestic remedies; but it is in every way better that instead of resorting to books sufferers should consult their medical attendants as to what to do and what to avoid. The work, however, seems to us most admirably suited for the busy general practitioner. The treatment for all the ordinary diseases of the ear is plainly and carefully described. It is still too common an event to find that fruitless efforts have been made at the extraction of a foreign body, that the ear has been syringed again and again for the extraction of wax when there was none to remove, and that astringent drops have been applied to the ear for a discharge in which an alkaline lotion would have been more suitable for the solution of old inspissated secretion in the tympanic cavity. All these mistakes are most carefully corrected and the right line of treatment impressively indicated. The busy practitioner finds it impossible with the limited time at his disposal to read all the special monographs of the present day; but for a subject like the one with which this little book deals, he will find here just the kind of information which will enable him in most ordinary cases to do justice to his patient.

Subjects of Social Welfare. By the Right Hon. Sir LYON PLAYFAIR, K.C.B., M.P., LL.D., Ph.D., F.R.S. Cassell and Co., Limited, London, Paris, New York, and Melbourne. 1889.

WE are glad to notice that Sir Lyon Playfair has put into a handy volume the many public addresses which he has delivered on questions which he divides into parts thus: Part 1, Public Health; Part 2, Industrial Wealth; and Part 3, National Education. There are few public men who have done more to enlighten opinion on such questions than Sir Lyon Playfair. In his statistics he certainly errs occasionally, and sometimes seriously, as on a memorable occasion when he raised the fears of Parliament of a failure of supply in the medical profession to meet a waste of fifteen or sixteen hundred, such waste being purely imaginary, and in excess by eight or ten hundred of the average waste by death, and the supply ever since has been several hundreds in excess of the waste. Similarly in this book we meet with a statement which we take to be seriously inaccurate: that in Glasgow nearly one half of the population (exactly 46 per cent.) live in one-roomed houses. We gather from the papers of Dr. James Russell, the able medical officer of health, that the proportion of the inhabitants of Glasgow living in one room is 24·7 per cent.; the proportion living in two rooms, 44·7. Glasgow is bad enough, but we must not make it worse than it is. But occasional statistical errors do not seriously affect the great value of these papers, which are important alike to medical men, statesmen, educationists, and philanthropists of all sorts. It would be difficult to overrate Sir L. Playfair's services in Parliament in connexion with such questions as vaccination, public health, teaching universities, and technical education. Working, generally, politically with a somewhat advanced and democratic party, his scientific knowledge and experience come constantly to the front to check prejudice and fanaticism, and to enforce the truth that if we are to maintain our position among the nations it must be by raising the quality of education alike in schools and universities. His powerful plea for teaching universities, as distinguished from mere examining bodies, and greater liberality to them on the part of the State, and for technical schools in which the taste and skill of workmen can be developed, is slowly bearing fruit. The volume before us contains his addresses on all these and many other subjects. The medical profession is under considerable obligation to Sir Lyon Playfair, as these pages will show. He exposes the folly of trying to direct local government in the country without due reference to medical men and medical science. We owe in large part to him the Medical Act of 1886 and the direct representation of the profession in the Medical Council. The profession will feel itself still more indebted to him after a perusal of these papers on matters of such great human and social importance as to be specially interesting to medical men.

SMALL-POX AT VENICE.—The British Representative at Copenhagen reports that owing to small-pox being at present epidemic in Venice the Danish Government has prohibited the importation from that place of used linen, worn apparel, used bed-linen, &c., excepting in the case of travellers' personal effects, when purification under official supervision is enjoined. In addition to Venice, similar provisions against the introduction of contagious disorders into Denmark are henceforward in force against Marseilles, all ports in Egypt, ports in Tonquin, Cochin China, the East Indies (including the Dutch East Indian Colonies), ports in the Red Sea, the Persian Gulf, Peru, and Japan.

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THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

FRIDAY, NOV. 29TH.

MR. MARSHALL, PRESIDENT, IN THE CHAIR.

THE following report from the Pharmacopœia Committee was received:—

The committee report that 29,000 copies of the Pharmacopœia of 1885 have been printed, of which 559 copies remain in stock. The committee recommend that 3000 copies be now ordered from the printer, this number being the same as ordered on the last occasion. The committee recommend that an addendum to the Pharmacopœia of 1885 be prepared and issued in the course of next year, as was done in the case of the Pharmacopœia of 1874. The committee recommend that this addendum be prepared by Dr. Attfield, under the direction of the Chairman of the Committee, Sir Dyce Duckworth, and Mr. Carter, with the understanding that no new remedies are to be introduced into it except such as have met with general approval. This addendum should be prepared in sufficient time to allow proofs of the same to be sent to the several members of the committee at least one month before the meeting of the Council in May, 1890, in order to its being submitted to the Council. The committee recommend that the chairman, Sir Dyce Duckworth, and Mr. Carter, together with the reporter on the Pharmacopœia, be authorised to determine on and to take such steps as may be necessary for obtaining information and assistance in the preparation of the addendum.

RICHARD QUAIN, M.D., Chairman of the Committee.

Dr. QUAIN, in moving the adoption of the report, said the committee hoped that the various bodies would be ready to reply to any applications that might be made to them for information with regard to the compilation of the addendum.

Mr. WHEELHOUSE seconded the motion, which was agreed to.

LICENSING AND REGISTRATION OF MIDWIVES.

Sir JOHN SIMON moved: "If the Local Government Board or any other department of Her Majesty's Government were constituted controlling authority in relation to the local arrangements which might be made under statute for the licensing and registration of midwives, the Medical Council would, if Government so wished, be willing to advise as to the general rules of education, examination, and discipline which ought to be established in the matter; but the Council would not be able to discharge, and would therefore not be prepared to undertake, any duties of detail as to the registration of midwives, or as to the local arrangements for licensing and controlling them." He said the great object in dealing with the matter was to maintain continuity with former proceedings of the Council. This subject was not a new one. As far back as 1877 certain regulations were passed by the Council in reference to the midwifery question, and those regulations were in the following year confirmed. In 1882 a committee, of which the President was chairman, further dealt with the matter, and in the main the recommendations of that committee were approved by the Council—viz., that there was great need of a good national system of dealing with midwives, and that the Council was ready to give its assistance in a particular way if required. The resolution of 1877 was: "The Council is of opinion that it would be desirable to provide by legislation concerning two objects—first, the means under legal sanction which would be provided for giving credentials to competent midwives; and, secondly, that the lives of women in labour should, so far as practicable, be protected from the incompetent." That resolution was communicated to the Lord President of the Council. In 1878 the opinion was expressed by the Council that it was not necessary that a central register of midwives should be kept, but that there should be local registers, and the duty of keeping them should devolve upon the local authorities in the centres where the examinations were conducted. In 1882 both those opinions were confirmed by the Council. That was their present position, and the resolution he brought forward was intended to define how far they were prepared to go. He was sure every member would agree that the additional work thrown upon them for the last few years made it even more open to question than it was in 1877–78 whether the Council should undertake local obligations in this matter.

Sir WALTER FOSTER seconded the motion. He said he had been induced to give notice of a resolution on this question by what he felt was the growing scandal to civilisation, that they should have incompetent persons taking charge of women under perilous conditions, and should have a considerable amount of disease brought about by their ignorance. The very last case of puerperal fever which he had seen was found to have arisen from the nurse having occasionally left her patient to go into another house to attend a child suffering from a malignant form of sore-throat. This showed how the ignorance of midwives was really a peril to the community, and that peril falling upon the poorest classes, it was a matter of public interest that some steps should be taken to prevent it. To that end it was essential that these women should be educated in some form, and that when educated they should be under some supervision and restraint. Some objection might be raised with reference to the authority that it was proposed to invoke. They did not propose any local authority, but would rather that it should be under the control of a central authority such as the Local Government Board. It would, however, be necessary that the Local Government Board should constitute some local authority to carry out this registration. Such a proceeding would have this advantage, that the public would then be able to find out at once whether a person acting as midwife had been properly registered and possessed the necessary qualifications to protect them from incompetence.

Dr. ATTHILL said that, owing to his position as master of the Rotunda Hospital, his experience in relation to midwives was necessarily very great. The Rotunda Hospital licensed annually a large number of women, and the greatest possible care was taken that those women were qualified. They had to remain at the hospital for six months, during which time they had an opportunity of seeing certainly not less than a thousand deliveries. They were lectured regularly by the assistants and sometimes by the master, and finally they passed an examination of very fair stringency. Notwithstanding all this, it was very hard to get a good midwife. The great majority of the applicants were servants, who, having been for perhaps twenty years in service, got tired of that occupation, and came up for training, the fees in some cases being paid by their former mistresses. Some turned out fairly well, but a great many were merely second-rate. In addition to that, there were women sent up from all parts of the country, some by the Poor-law guardians, to be educated for their particular districts. This was the worst class of all, many of them not being able either to read or write. If this was the experience in Ireland, what would it be in the country at large where there was no such system as had for years been in existence in Ireland? Some of those who came to the Rotunda were well-educated women who wished to make it a profession, and they turned out exceedingly competent. The great difficulty had always been to get competent midwives for the country districts, although the pay they received in Ireland was greater than it was in England. He was afraid that any attempt to carry out such a scheme as was proposed would be attended with great difficulty.

Mr. BRUDENELL CARTER said it was tolerably notorious that there were two agencies at work covering pretty much the same ground, with this marked distinction, that one was entirely under the control of medical practitioners and trained nurses, whereas the other was partially under the control of non-medical persons. Under those circumstances it was desirable that any resolution of the Council should be so framed as to leave an open door for some authoritative supervision of the education and registration of trained nurses, as well as of midwives, and not to tie itself down to some local arrangement which might or might not be desirable. No doubt if the whole matter were remitted to the Council by the authorities its inclination would be to support a purely medical association in connexion with these matters. He proposed as an amendment that the word "local" should be omitted from the resolution, and that it should include the registration of nurses as well as midwives. It would then afford somewhat greater scope for useful action in the future.

Sir JOHN SIMON thought the two subjects had better not be mixed up together. The subject of midwives was forced upon them by Parliament, and was ripe for legislation, but the other was not. He could not accept the amendment.

Dr. ATTHILL was in favour of the two words being used, so that everyone should be licensed as midwife and nurse. His reason was that they found in Ireland that if women were licensed as midwives only they immediately assumed

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the position of practitioners. The licence was now given as "midwife and nurse."

Dr. GLOVER expressed his extreme gratification that this subject had been raised by so eminent a medical statesman as Sir John Simon. He objected, however, to the authority being handed over to the Local Government Board, which was associated with all sorts of political considerations, so that there was no saying what elements might be introduced into the question if that particular department was approached. Another objection was that the County Council would be entirely guided in the first instance by the medical officer of health. He was a most important person, and destined to be more so in future, but he should not have so predominating an authority as Sir John Simon's resolution would give him. He hoped that the very prominent suggestion of the Local Government Board would not be pressed, as he was sure it would not be acceptable.

Sir JOHN SIMON said they must recognise the constitution of the country; and if the Local Government Board was the department which looked after matters of local administration, that fact must be recognised. He perhaps had as little reason as most people to have sympathy with the Local Government Board, but the state of the law was that that was the body superior to county authorities. He did not name the county authorities in the resolution, and in mentioning the Local Government Board he added "or any other department of Her Majesty's Government." With reference to the very valuable remarks made by Dr. Atthill, there could be no doubt what they meant by midwives, and it would be very easy in laying down rules for their examination to make such provision as was necessary for their relation to nursing. The introduction of the word "nursing" into this very general resolution would only embarrass it.

Mr. WHEELHOUSE seconded Dr. Glover's suggestion for the omission of the words "Local Government Board."

Dr. LEISHMAN said, though he could not claim the extensive experience of Dr. Atthill with regard to the training of midwives, he had some experience in that direction, and was glad to state that matters were very much better all through the country than they were not many years ago. A good deal was being done by the agencies at work for which their gratitude was due; but there was a paramount necessity for something more. He gave his entire support to the resolution, and at once recognised Sir John Simon's plea that if they bracketed the question with that of nurses an element of difficulty would be introduced. One great difficulty was as to the sources from which midwives and nurses were obtained. No one would for a moment doubt that a nurse educated at the Rotunda Hospital would be a person deserving of confidence; but many women called themselves "certified nurses" who had received certificates from persons who had not the slightest warrant to grant them. The term must be made to mean something definite; that a woman had had a sufficient amount of training, and also elementary education, which would enable her to approach the subject with ordinary intelligence and a certain amount of practical experience. Any legislation recognising this fact could not fail to be beneficial.

Mr. BRUDENELL CARTER submitted his amendment in the following form:—"That if the Local Government Board, or any other department of Her Majesty's Government, were constituted controlling authority in relation to any arrangements made under statute or charter for the licensing and registration of midwives, or of midwives and nurses, the Medical Council would, if the Government department so wished, be willing to advise as to the general rules of education, examination, and discipline which ought to be established in the matter; but the Council would not be able to discharge, and would therefore not be prepared to undertake, any duties of detail as to the registration of midwives and nurses, or as to the arrangements necessary for licensing and controlling them."

Dr. MACALISTER seconded the amendment. He said there were two associations which he might call rivals, each desiring to be placed in control of nursing education. The British Nurses' Association was controlled by medical men, but the other was wholly without control. He thought the Council should be extremely wary how it took up one of these and cast off the other; but that was what Sir John Simon's motion would do. Such a proceeding would be at once taken up for advertising purposes, and therefore he urged that any answer given by the Council should be in words which would be applicable to both.

Sir JOHN SIMON said he never had the slightest notion of any rivalry between the societies. He wished to give every possible assistance to the nursing movement; but it was entirely separate from the question of the education and registration of midwives.

Sir WM. TURNER thought that in going into the question of nurses the Council was exceeding its powers. It was a Council of Medical Education and Registration, not a nursing institution. He did not see why the Council should mix up in a squabble between these two bodies.

The amendment was then put to the Council and negatived.

Sir JOHN SIMON said, in reply to Dr. Glover, he had no objection to leave out the words "Local Government Board."

The resolution was then put, and agreed to in the following form: "That, if any department of Her Majesty's Government were constituted controlling authority in relation to local arrangements made under statute for the licensing and registration of midwives, the Medical Council would, if the Government department so wished, be willing to advise as to the general rules of education, examination, and discipline which ought to be established in the matter; but the Council would not be able to discharge, and would therefore not be prepared to undertake, any duties of detail as to the registration of midwives, or as to the local arrangements for licensing and controlling them."

It was moved by Sir JOHN SIMON, seconded by Sir WALTER FOSTER, and agreed to: "That, with reference to the communications which have passed between Mr. Pease and the President (pp. 144–147 of Minutes for Nov. 26th), the President be authorised to inform Mr. Pease that the Council regards with much regret the absence of proper public provision for the certification of competent midwives, and believes that the want of such provision is conducive to a large amount of suffering and danger to life among lying-in women of the poorer classes. That the President be requested to bring to Mr. Pease's knowledge the proceedings of the Council in the years 1877, 1878, and 1882 in relation to midwives, especially the following resolutions: Vol. xiv., p. 198, secs. 14 and 15; vol. xv., p. 65, sec. 13; vol. xix., p. 106, sec. 13, and p. 108, Hα; and further, to let Mr. Pease have a copy of the resolution this day passed by the Council on the part which the Council, if so desired by Her Majesty's Government, would be ready to take in a national system for the regulation of midwives."

It was also proposed by Sir WALTER FOSTER, seconded by Dr. GLOVER, and agreed to: "That this Council regards the absence of public provision for the education and supervision of midwives as productive of a large amount of grave suffering and fatal disease among the poorer classes, and urges upon the Government the importance of passing into law some measure for the education and registration of midwives."

REPORT BY THE EDUCATION COMMITTEE—DIPLOMAS IN STATE MEDICINE.

Dr. STRUTHERS moved: "That the report by the Education Committee in regard to diplomas in State Medicine be adopted to the end of the fourth paragraph in the following form:—

Report by the Education Committee in regard to Diplomas in State Medicine, on the Remit of the Council, Clauses 14 and 16 of the Minutes of November 26th, 1889.

UNDER CLAUSE 14.—1. In regard to the application by the registrar of the Victoria University, of September 23rd last, for recognition of the diploma in Sanitary Science of that University, the committee find that the conditions under which the diploma is asked for are not in conformity with the resolutions of the Council of June 1st, 1889. The committee recommend that the registrar be requested to call the attention of the registrar of the Victoria University to the resolutions of the Council of June 1st, 1889, in regard to diplomas in State Medicine. 2. In regard to the application from the Royal College of Surgeons of Edinburgh of November 15th, 1889, the committee find that the conditions under which the recognition of the diploma is asked for are in conformity with the resolutions of the Council of June 1st, 1889, and recommend the Council to consider the diploma as deserving of recognition in the Medical Register.

UNDER CLAUSE 16.—The committee find that the regulations of the following licensing bodies are in conformity with the resolutions of the Council of June 1st, 1889:—The University of Cambridge, the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow. The committee find that the regulations of the following licensing bodies are not yet in conformity with the resolutions of the Council of June 1st, 1889, and which will come into force on Jan. 1st, 1890:—The Conjoint Board of the Royal College of Physicians of London and

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the Royal College of Surgeons of England, the University of Oxford, the University of Durham, the University of London, the University of Edinburgh, the University of Glasgow, the University of Aberdeen, the King and Queen's College of Physicians in Ireland, the University of Dublin, the Royal University of Ireland, the Royal College of Surgeons in Ireland.

Mr. WHEELHOUSE seconded the motion.

Explanations having been given by the representatives of the various bodies as to the reasons why their regulations had not yet been placed in all cases in conformity with the resolutions of the Council, the motion was agreed to.

The fifth paragraph of the report was read—viz.: "A considerable number of the above licensing bodies have expressed their intention to bring their regulations and procedure into conformity with the resolutions of the Council, and it appears to the committee that the only course open to the Council is to instruct the registrar to register in the meantime no diploma in State Medicine conferred upon practitioners registered as such after Jan. 1st, 1890, unless the said diploma be granted under conditions in conformity with the resolutions of the Council."

Sir WILLIAM TURNER said this was really the only paragraph of the report containing any contentious matter. The point on which he differed from the resolutions of the Council was when the special laboratory instruction in Public Health was to be taken. The Council said that it should be taken after the medical studies ordinarily so called had been completed. He thought that no such hard-and-fast rule should be laid down, and that if a student found that his arrangements for study, both for his medical and science degree, could be facilitated by taking his special laboratory instruction during his period of medical study, he ought to be allowed to do so. It was not a question, as had been said, of bringing this special instruction into the four years' course, for in the communication from the University of Edinburgh on the subject it was added: "It is scarcely necessary to state that all students who work as undergraduates in the Public Health Laboratory have decided on taking a five years' course." What they said was that if a student wished to take a five years' course and to apply himself during that period to a six months' course of special laboratory instruction, he ought to be allowed to do so. He concluded by moving: "That the Council modify Rule C of the resolutions passed on June 1st, 1889, in regard to diplomas in State Medicine, so as to permit the six months' course of practical instruction in a laboratory to be taken either before or after obtaining a registrable qualification, provided that the student to whom the privilege of taking his laboratory instruction before registration is granted has spent an additional year in medical study, and passes the examination in Practical Chemistry for his medical qualification before he enters the Public Health Laboratory."

Dr. LEISHMAN seconded the motion.

Mr. MACNAMARA claimed that the Royal College of Surgeons of Ireland had been the pioneer in the matter of hygiene, they having forty-five years ago appointed a professor of that particular branch. He agreed that a course of practical chemistry should be included in a five years' course. The more time that the student spent in the laboratory the better for himself in after life.

Mr. WHEELHOUSE, as a member of the Education Committee, said that in considering this question they first came to the conclusion to ask that the curriculum should be extended to five years, their reason being that in the four years at present at the disposal of the student he had not sufficient time for the completion of those studies which were necessary to give him a sound education in medical matters. If, therefore, they were asking for an additional year to enable him to do that, would it be right, at the same time, to take away half that year for a qualification which was to be a special one hereafter? He was strongly of opinion that a man ought to spend the whole time requisite to obtain a thorough medical education and to place him upon the Register in the study of the subjects requisite for that purpose. If, after that, he desired to study sanitary science for the purpose of becoming a sanitary officer, then let him take a special course of instruction and a special diploma.

Sir JOHN SIMON said Sir William Turner's motion cut at the very principle of the resolutions of the Council. The position taken by the Council was that State Medicine qualifications must be considered as additional, and subsequent to ordinary medical education. To trench on that principle by saying that a part of the special work might be done during the general medical curriculum would be fatal to their main intention. If it did not do injustice to the specialty, it would do injustice to the general medical education; for it was not, to the best of his belief, possible for a man to complete his medical education and also to study a great specialty in five years.

Mr. MITCHELL BANKS said the object of the committee was that this diploma in State Medicine should not be a general one, but should be accorded to a practitioner who was going to undertake a general kind of work.

Mr. BRUDENELL CARTER said that those students who took five years to acquire their qualifications were not the best men. The Council should insist upon a perfect medical education before the special education of a medical officer of health was commenced, and if there was any man who was willing to devote five years to the attainment of medical knowledge including this diploma, surely his proper course would be to use that due diligence which, under existing regulations, would allow him to obtain his professional qualifications at the end of four years, and then he could have an additional year to devote to the special branch to which he intended to apply himself.

Dr. HERON WATSON thought the Council should not alter the regulations which it had already agreed to.

Sir WALTER FOSTER also thought it undesirable that the Council should proceed to rescind a series of regulations six months after they had been deliberately made. Those rules were made under special circumstances. They wanted the sanitary work of the country to be done under the new Act by men specially trained, and that they should have that special training after their ordinary period of study. Laboratory work required more consideration than ordinary student's work, and on that account they should come to it as a new work after completing their curriculum.

Dr. LEISHMAN thought the Council had proceeded with somewhat too much haste in the regulations it had drawn up. He had no objection to the future medical officers of health having a high sanitary diploma, but would prefer that the State should take the matter in hand itself.

Sir Wm. Turner's motion was then put to the Council, and negatived, ten voting for and sixteen against.

The Council then adjourned.

SATURDAY, NOV. 30TH.

MR. MARSHALL, PRESIDENT, IN THE CHAIR.

The Council having considered the report of the Executive Committee relative to the case of Mr. Wm. Edward Robson, on a motion put from the chair, it was resolved: "That the registrar be directed to restore the name of Mr. Wm. Edward Robson to the Medical Register."

It was agreed, on a motion by Mr. WHEELHOUSE, seconded by Dr. HERON WATSON, "That Clause *a* of Paragraph *f* of the Council's Regulations in Sanitary Science be amended, so as to read as follows: (*a*) 'To medical practitioners registered, or entitled to be registered, on or before Jan. 1st, 1890.'"

The Council then resumed the consideration of the report by the Education Committee in regard to diplomas in State Medicine.

Dr. STRUTHERS moved and Mr. WHEELHOUSE seconded the adoption of the two remaining paragraphs:—

A considerable number of the above licensing bodies have expressed their intention to bring their regulations and procedure into conformity with the resolutions of the Council, and it appears to the committee that the only course open to the Council is to instruct the registrar not to register any diploma in State Medicine conferred after January 1st, 1890, unless the said diploma be granted under conditions in conformity with the resolutions of the Council.

The committee further recommend that the registrar be instructed to request the various licensing bodies to transmit, before the first examination held by them in 1889, to the General Medical Council, their regulations for the diploma in State Medicine, with particular reference to any changes that may have been recently made in view of the resolutions of the General Medical Council of June 1st, 1889.

The resolution was agreed to.

Sir WILLIAM TURNER said the new regulations were framed on June 1st, and were intimated to the bodies on June 19th. Less than seven months was, therefore, to elapse between the intimation and the period when they were proposed to come into operation. He wished to direct the attention of the Council to what had been the action of Parliament in all cases connected with rules as regards registration coming into operation. The Act of 1858 contained a special clause allowing for certain exceptions from the general enactments of the Act, "so far as to the

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Council shall seem expedient in favour of medical students who shall have commenced their professional studies before the passing of this Act." These dispensing powers were acted up to very largely. In the Dentists Act, passed in 1878, the compulsory clause as regards registration did not come into operation for twelve months, and the Medical Act of 1886, though passed in June of that year, did not come into operation till a year had expired. That was the uniform practice of Parliament. The Medical Council had, by its own regulation—No. 15—with regard to the registration of medical and dental students, recognised that there were exceptional cases which had to be taken into consideration: "The several Branch Councils, and in England the Executive Committee, if its meeting be more convenient and the case be urgent, shall have power to admit special exceptions to the foregoing regulations as to registration for reasons which appear to them satisfactory." He asked the Council to say that Regulation 15, with regard to the registration of medical and dental students, shall apply also to the rules for the registration of diplomas in sanitary science.

Dr. QUAIN was sure that such power, if given to the Branch Councils, would save great distress and hardship. A year's grace ought to be given.

Sir JOHN SIMON was quite prepared to admit that there ought to be an exempting power, but it should be given to the Executive Committee only, and not to the Branch Councils.

Dr. MACALISTER thought the motion too wide. The Branch Councils could, in fact, under the terms of the proposal, annul the regulations of the Medical Council. He should strongly support a proposal to enable the Executive Committee to take into consideration any defect in promptitude, but not to give it a dispensing power for the whole regulations.

Dr. KIDD thought it would be better to say the regulations were not to be enforced on the students who had commenced their education before Jan. 1st.

Dr. STRUTHERS had entire sympathy with giving exemptions when they could be safely given, but this was a wholesale power that drove the bottom out of their regulations. He hoped this power would not be given to the Scotch Branch Council.

Sir WILLIAM TURNER moved: "That the Executive Committee shall have power to admit exceptions in special cases to the rules for the registration of diplomas in Sanitary Science, and report the same to the General Council."

Dr. QUAIN seconded the motion.

Mr. BRUDENELL CARTER said that in dealing with the original registration of medical practitioners and dentists they were dealing with two very large existing classes, among whom there might necessarily be many persons precluded by want of knowledge or other circumstances from complying in time with conditions which were purely formal. In the case of sanitary diplomas they were practically constituting a new branch of the profession, and a rigidity of rules seemed to be necessary to prevent persons from crowding in who had no real scientific or practical knowledge of the subject. He felt very strongly that as a question of principle they could not hold up too high a standard of efficiency, and that when any question arose they should give the benefit of the doubt, not to the possibly unqualified candidate, but to the public, whom he wished to be called upon to serve.

The PRESIDENT said it would be a most invidious duty cast upon the Executive Committee to have to decide a case which was not simply that of a student, but involved the principle of action of the examining bodies. They ought not to have that duty cast upon them, and he therefore hoped the motion would not be adopted.

The resolution was then put to the Council and carried, thirteen voting in its favour and eleven against.

Dr. ATTHILL then moved: "That the Council take into consideration the communication addressed to them by the representatives of the medical authorities of Ireland, as the result of the conference held on August 5th last, in reference to diplomas in State Medicine."

Dr. QUAIN seconded the motion.

Sir WALTER FOSTER said he was quite willing that these communications, which raised the whole question of diplomas in State Medicine, and the regulations of the Council, should be considered by the Executive Committee, but he protested against the time of the Council being taken up in such a discussion.

Mr. MACNAMARA said if this question were sent to a committee it would eventually have to come up and be discussed in the Council. The bodies would not content themselves with the decision of the committee.

Dr. ATTHILL thought it would have a damaging effect upon the Council if it should be said that important communications from the Irish bodies were to be excluded from its consideration.

After some further discussion, the motion was put and agreed to.

Dr. ATTHILL said the report of the conference, signed by the representatives of the University of Dublin, the Royal University of Ireland, the King and Queen's College of Physicians, and the Royal College of Surgeons in Ireland, stated that in the not distant future there would be a demand for two classes of qualification in State Medicine, one for medical officers of health in small districts, and the other which must ensure "the provision of a distinctively high proficiency, scientific and practical, in all the branches of study which concern the public health," for those having charge of large districts. The question which would arise would be whether they would leave the public health in the rural districts altogether in the hands of men who had no education on the subject—for instance, of an ignorant police constable; or whether they would put in the way of their licentiates the possibility of obtaining a diploma which would give them a fair knowledge of the subject. The conference reported that the regulation (*d*) of the Council, that "every candidate shall have produced evidence of having for six months practically studied the duties of out-door sanitary work under the medical officer of health of a county or large urban district," would be practically unworkable in Ireland, where no "county districts" and only a few "large urban districts" existed. Where were these candidates to be educated in State Medicine? If the regulation was complied with, it would be in a most perfunctory manner; in fact, it was impossible to carry it out. He moved, "That as the Council have not at present any means of knowing how far medical officers of health may be able or willing to undertake the education of pupils, the resolution of the Council referring to diplomas of State Medicine, and marked *d*, be not in the meantime insisted on, although it remains as a strong recommendation wherever found practicable."

Dr. CAMERON seconded the motion.

Sir WALTER FOSTER said the Executive Committee had ample power to deal with such cases.

Sir JOHN SIMON said the conference seemed to have overlooked the fact that the lower qualification in State Medicine was, in fact, included in the registered licence to practise medicine, surgery, and midwifery. By the recommendations of the Council relating to professional examination, it would be seen that no man was to be admitted to the medical profession who had not shown himself competent in hygiene, in pathology, in chemistry, and forensic medicine. So far as he understood State Medicine, the lower qualification was represented by that examination.

Dr. STRUTHERS said there was no hurry for this question to be settled in Ireland; there was no Local Government Act there at all.

Mr. TEALE said the question seemed to be not so much supplying Ireland with medical officers as being able to manufacture medical officers to come to England.

Sir JOHN BANKS said the University of Dublin wished to give but one qualification, and that the very highest. The appliances for teaching subjects connected with sanitary science in the two Universities were, he believed, equal to those of any other University—even that of Edinburgh.

Dr. KIDD said there were a great number of districts in which it would be impossible to obtain men with the highest qualifications, and the object was, without interfering with the Act of Parliament, to provide such a diploma as would give medical men a claim to the appointments in those poorer districts.

Dr. CAMERON said Dr. Atthill's motion contemplated giving a permissive character, at all events in the meantime, to Resolution *d* demanding a six months' attendance on the practice of a sanitary medical officer. He should not have voted for that resolution in May last if he had not had a distinct understanding and hope that, at all events for a time, it would have been left in a plastic condition and not made a hard-and-fast regulation.

Dr. WILKS said the London University wished in every way to conform to the regulations of the Council; but with

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regard to Clause *d* they had on their Senate the greatest authority in London, next to Sir John Simon, and he said it was perfectly impossible to carry it out.

The PRESIDENT thought the last few words of the motion had better be omitted.

Dr. ATTHILL consented to that course, and the resolution was put and carried as follows: "That, as the Council have not at present any means of knowing how far medical officers of health may be able or willing to undertake the education of pupils, the resolution of the Council referring to diplomas of State Medicine, and marked *d*, be not at present insisted on."

It having been referred to the Executive Committee to consider the question of providing for the inspection of the examinations for diplomas in Sanitary Science, the amount of the fee to be paid for the registration of such diplomas, the fund into which those fees should be paid, and the application of this fund to the payment of such inspections, the following report was presented to the Council:—

The Executive Committee recommend the adoption of the following resolutions:—(*a*) That the opinion of counsel be obtained as to whether the General Council possesses the power to inspect the examinations in Sanitary Science, so that the General Council may be satisfied that these diplomas deserve recognition in the Medical Register. (*b*) That, in case the opinion should be in the affirmative, the Executive Committee recommend that they should be empowered by the General Council to report to the Council how a system of inspection should be carried out. (*c*) That, subject to the institution of a system of inspection, the fee for the registration of sanitary diplomas be not less than £3. (*d*) That these fees be paid into the account of the General Council. (*e*) That the fund thus created be available for the expenses of any inspection of examinations for diplomas in Sanitary Science which the Council may hereafter institute.

Sir WILLIAM TURNER moved the adoption of the first and second paragraphs, which were agreed to. He then moved the adoption of Paragraph *c*. He said the Executive Committee had very carefully considered the question of the fee. It was found that the examination could not be conducted without very considerable expenditure, and that a registration fee of not less than £3 would be required in order to cover the expenses.

Dr. HERON WATSON seconded the motion.

Mr. MACNAMARA hoped that the fee of £3 would not apply to those who already had registrable qualifications, or might obtain them prior to Jan. 1st. At present they were entitled to register that qualification on payment of 5*s*.

Sir WILLIAM TURNER said the fee would not be exacted unless the Council was advised by counsel that it could institute inspection—*ergo*, it would not be exacted till after the Executive Committee met in February next.

Sir WALTER FOSTER thought the fee excessive. He questioned whether there would be value for the expenditure of £3 in registration.

After some further discussion it was agreed to take out the words "three pounds," and amend the paragraph as follows: "That, subject to the institution of a system of inspection, the fee for the registration of sanitary diplomas be such as the Council may hereafter determine."

The other clauses in the report were agreed to, and the report as amended was adopted.

The Education Committee presented a second interim report, which was received and entered on the minutes; but its discussion was deferred till the May meeting of the Council. The report is as follows:—

The Education Committee hope to be able to complete their report in regard to preliminary and professional education for the next meeting of the Council. Meantime, the committee report that they are unanimous in thinking it desirable that steps should be taken by the Council to fix the period of study required to obtain a registrable qualification at five years. The committee, while strongly of opinion that the number of systematic lectures in certain subjects of medical education should be reduced, are not prepared to recommend the method of effecting such reduction till the Medical Council has expressed its mind on the suggestion for an extension of the period of study to five years.

On the motion of Sir JOHN SIMON, seconded by Dr. MACALISTER, it was agreed: "That in the opinion of the Council it would be much to the advantage of the public, and particularly would be of much convenience to the practitioners of medicine and surgery, that facilities, usable under proper guarantees in all parts of the United Kingdom, should be given by Act of Parliament or otherwise for the authoritative certification of competent trained nurses, who, when certified, should be subject to common rules of discipline; but that it does not appear to be within the province of the Council to propose legislation or other action for the object referred to, nor has the Council had any occasion to consider in detail the means by which the object might best be attained; and that, under these circumstances, the Council cannot give any opinion on the particular questions asked of it in Paragraph 6 of the Memorandum of the British Nurses' Association."

An interim report was received from the Examination Committee, stating that they had held several prolonged meetings with reference to the subjects remitted to them, but found it impossible to make a final report till May next.

This concluded the business of the Council.

NOTE.—Mr. Leeson writes to say that the words "electrical trusses," appearing last week in the report of his cross-examination, should be "electrical treatment."

New Invention.

IMPROVEMENTS IN SURGICAL DRESSINGS.

WE have received from Messrs. C. E. Bennett and Co., of Manchester, samples of lint, absorbent cotton wool, sponge pads, &c., manufactured by them. These present some modifications from the ordinary material supplied; the lint, which they make by patent machinery, is soft and absorbent, and tears well in both directions. The absorbent wool is also very satisfactory, possessing greater power of absorption than those with which we have compared it; it is a very good wool. The bandages are absorbent to a considerable extent, and present advantages for use with evaporating lotions, or in the making of fixed apparatus, such as the plaster-of-Paris, gum, or starch splints. The sponge pads are well made, and will be found useful. These various articles are warranted to be thoroughly antiseptic, and are placed before the profession at a price which enables them to compete successfully with other makers.

THE DENTAL HOSPITAL OF LONDON.

THE annual dinner of the staff and past and present students of this hospital was held on Saturday, Nov. 30th, at the Holborn Restaurant, Mr. Christopher Heath, of University College, occupying the chair, and among the visitors we noticed Mr. Henry Morris, Mr. Sibley, Mr. MacKellar, the chief surgeon of the Metropolitan Police, Mr. Pearce Gould, Mr. Trimmer, of the Royal College of Surgeons, Mr. Bland Sutton, and others.

Mr. Smith Turner, in proposing the toast of "The Dental Hospital of London and Staff," gave, as an illustration of the immense amount of work done by the hospital, the figures for the number of extractions alone during the past year—namely, 13,000 cases, of which between 9000 and 10,000 were performed under an anæsthetic, and all gratuitous as far as the patient was concerned. He was glad to say that there was a considerably increased support from the public in the shape of subscriptions, and especially alluded to the munificence of Sir Edwin Saunders, whose name has been so long identified with this charity.

Mr. Woodhouse, in replying, said that after twelve years' experience as a member of the staff he was gratified to find that this year's entry of students was their largest. He considered the Dental Hospital of London had been the pioneer of dental surgery in the United Kingdom.

Mr. Henry Morris alluded to the excellence of the post-graduate classes of the hospital, which were not only attended by practitioners of dental surgery in this country, but also by foreigners.

Mr. Morton Smale, in a felicitous speech, alluded to so-called American dentistry as a bait to the British public. He stated that with just as much reason one might style surgery "German surgery" and medicine "French medicine." He appealed to the dental profession to avoid any semblance of advertising or quackery, and to keep themselves abreast of the progress of dental science.

ROYAL INSTITUTION OF GREAT BRITAIN.—Professor James Dewar, M.A., F.R.S., has been reappointed Fullerian Professor of Chemistry.

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THE LANCET.

LONDON: SATURDAY, DECEMBER 7, 1889.

OF all hindrances to the reform of hospital abuses perhaps the greatest have been vagueness of statement and the mechanical reproduction of old and doubtful statistics by one speaker after another in successive years, extending over successive decades. We seem to be approaching a period of more accuracy and precision of statement, and we venture to believe that with every improvement in this direction we shall approach more nearly to an adequate perception of the great evils which exist and a just estimate of their remedies. We have not felt able to agree, in detail, with many of Dr. RENTOUL'S suggestions, but it is due to him to say that his statistics bear the mark of accuracy and of trouble in acquisition, and that where they have been called in question he has been able to support them. We are not sorry that in a recent number we called pointed attention to the apparent discrepancy between Dr. RENTOUL'S statistics of hospital abuse and Sir ANDREW CLARK'S. The letters of Dr. RENTOUL and Dr. HARRIS respectively, in THE LANCET of Nov. 16th and 23rd, show the substantial accuracy of both gentlemen. The letter of Dr. HARRIS is a most interesting and important contribution to this momentous discussion, and shows that in one institution at least hospital abuse has been intelligently and humanely dealt with, and at last reduced almost to a minimum. We shall reproduce here two or three of the principal points in Dr. HARRIS'S account of the methods taken at the Manchester Royal Infirmary to prevent abuse, in the hope of exciting in other quarters a desire to take the same pains, and to secure the same good results which have been realised in this important infirmary, with its three hundred beds. Under this system every applicant in the out-patient department of the infirmary is subjected to a searching inquiry as to pecuniary means. This is undertaken in the first instance by the hospital clerk. If the result is to show that the out-patient is in receipt of more than a very modest wage, he or she is invited to make a small contribution to the hospital. If it shows that the applicant is able to pay a private medical practitioner, the fact is announced to the assistant physician or surgeon for the day, and medical relief is refused. Other applicants are admitted, but patients living in Manchester and Salford are immediately visited by an officer of the Manchester and Salford Provident Dispensary, who makes inquiries and is instructed, in the event of certain wage limits being exceeded, to withdraw their infirmary card and inform them that they are not eligible to receive relief at the infirmary. He advises them to join the neighbouring Provident Dispensary. But the rules of this dispensary require the lapse of a month before coming into benefit, and during this period patients are attended gratuitously at the infirmary on producing evidence that they have joined the Provident Dispensary. Moreover, such patients as have duly joined the provident dispensaries are somewhat favoured by the hospitals. If the dispensary medical officer thinks the case one for infirmary treatment, it is admitted as an in-patient, without being asked for a contribution to infirmary expenses, as all other in-patients are.

Now the results of this system in the Manchester hospitals which have adopted it are remarkable, and teach striking lessons. When it was first originated in 1875, no less than 42·32 per cent. of the patients were found to be capable of either joining a provident dispensary or employing a private medical attendant. In the very next year the number of such persons had fallen to 24·5 per cent. Last year the number had fallen to 6·53 per cent., and Dr. HARRIS says that though he has closely watched the medical side of the out-patient department of the Manchester Royal Infirmary he has not found a single undoubted case of a person, whom he considered unfit, coming from the area of Manchester and Salford. This is a success to be recorded and studied. So far no contradiction of it has reached us. We should consider ourselves negligent if we did not emphasise it and hold it up either for imitation or for criticism. It is interesting for the twofold illustration of the abuse that did exist, but which no longer exists. If similar means were used in other towns, why should not similar success be obtained? Why are they not used? That is the question. We agree with Dr. HARRIS that the wage limit in Manchester—12*s.* for single people and 18*s.* for married (with an allowance of 1*s.* 6*d.* for each child)—is too low. Certainly it would seem so for London. But this is a matter of detail. The one thing we press here is that in the Manchester Royal Infirmary the existence of hospital abuse has been demonstrated, and has been practically abolished.

FROM the details given in our last issue it will have been seen that the second and third days of the session of the General Medical Council were mainly taken up with painful matters, in which, however, the general issue was on the side of leniency. In one instance a name was directed to be removed from the Register, and the stages by which the Council were enabled to arrive at this decision furnish a very curious insight into the management of an institution to which frequent reference has been made in these columns. If the explanation given before the Council of the circumstances under which no proceedings were taken against a medical journal, although an action was threatened, refers to THE LANCET, not only is the statement incorrect, but it will probably amuse those who still remember the nature of our charges against the "Electropathic and Zander Institute." If THE LANCET is referred to, the facts are as under: Writ issued for damages for libel at the suit of the Medical Battery Company, Limited, against the Proprietors of THE LANCET, on April 5th, 1889. Plaintiffs' statement of claim delivered on June 26th, 1889. Statement of defence delivered on July 26th, 1889. Plaintiffs served notice of discontinuance of action on Sept. 27th, 1889. The dates speak for themselves. Practically, however, these personal questions and a resolution relating to the mode of filling vacancies in the Executive Committee exhausted the interest of the second and third days. The last two days of the session were occupied with questions of wider interest, the chief topics being the licensing and registration of midwives and

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the consideration of numerous matters connected with the diplomas in State Medicine. Upon both of these subjects considerable care was expended, but the conclusions arrived at showed that the members of the Council were by no means unanimous upon many essential points. Sir JOHN SIMON'S speech upon the advisability of some formal recognition of the training and examination of midwives was very moderate in its expressions, even though it showed that the Council had for the last twelve years been paving the way for measures by which legal sanction should be obtained for giving credentials to competent midwives, and for safeguarding the public from the misdirected energy of the incompetent. Dr. ATTHILL met these remarks with gloomy forebodings, drawn from long experience at the Rotunda Hospital; but it is evident that if, with all its facilities, a great many who are trained there are merely second-rate, something further must be done to improve the education and status of midwives. Sir JOHN SIMON had mentioned the Local Government Board, and had wished to pledge the Council to advise as to the general rules of education, examination, and discipline, without undertaking any duties of detail as to the registration or the local arrangements for licensing and controlling. Dr. GLOVER, however, urged reasons for not mentioning the Local Government Board, and in the end Sir JOHN SIMON'S resolution was carried in a modified form, and the Council passed to other business, after having once more very emphatically expressed an opinion that the "absence of public provision for the education and supervision of midwives is productive of a large amount of grave suffering and fatal disease among the poorer classes."

The report of the Education Committee upon diplomas in State Medicine gave rise to much animated discussion, as might perhaps have been expected, since it called attention to the relations between the regulations of many of the licensing bodies and the resolutions of the General Medical Council of last June. It was pointed out that a considerable number of the examining bodies had not yet placed themselves in conformity with these resolutions, and, by way of hastening their deliberations, it was moved to register "no diploma in State Medicine conferred upon practitioners registered as such after Jan. 1st, 1890, unless such diploma be granted under conditions in conformity with the resolutions of the Council." Certain of the examining bodies, while promising compliance with the resolutions of the General Medical Council, are already asking whether the latter possesses any legal power to impose the conditions under which these diplomas are to be granted; and a very strong protest was made at the meeting of the Council against making a hard-and-fast rule that the laboratory work for these diplomas should only be undertaken after the registration of a medical qualification. On the other hand, it was urged by Mr. WHEELHOUSE and others that it had already been decided to recommend that an additional year should be added to the ordinary medical curriculum, and that it was very undesirable to rescind a series of regulations six months after they had been deliberately made. After a lengthy discussion, an amendment which would have had the effect of unsettling the previous decision of the Council was finally rejected, and the next point which gave rise to debate was the date when the new regulations were to be enforced. It was maintained, principally by some Scottish members of the Council, that the Executive Committee should have power to admit exceptions in special cases to the rules for the registration of diplomas in Sanitary Science; and although the President protested against casting such an invidious duty upon the Executive Committee, the resolution was ultimately carried by thirteen votes against eleven. Unmindful of the general desire to facilitate and expedite business by reference to the Executive Committee, Dr. ATTHILL then moved that the Council should take into consideration certain communications from the medical authorities of Ireland in reference to State Medicine. Sir WALTER FOSTER protested in vain against the time of the Council being taken up in such discussions, for Mr. MACNAMARA announced his intention to discuss these matters in the Council, and Dr. ATTHILL spoke of the "damaging effect" of excluding from consideration important communications from the Irish bodies. The Council, however, agreed to Dr. ATTHILL'S motion. The notion of the Irish licensing bodies seems to be that in the future there would be a demand for two classes of qualification in State Medicine—one for medical officers of health in small districts, and the other for a distinctively high proficiency for those having charge of large districts. Further, these bodies felt that one rule would be practically unworkable in Ireland at present, since no "county districts" and only a few "large urban districts" exist, and, moreover, the Council have no means of knowing how far medical officers of health may be able or willing to undertake the education of pupils. The discussion which ensued so far consumed the time of the Council that other important matters were either postponed until the May meeting, or passed in an immature form which will necessitate future consideration. The principal question thus shelved was the fee for registration. It was suggested that this should be fixed at £3, if the Council could institute inspection of the examinations in Sanitary Science; while it was also indicated that at present those who had registrable qualifications were entitled to register an additional qualification on payment of five shillings. The chief fact elicited from a somewhat desultory discussion was that the Council determined to obtain the "opinion of counsel" upon their power of inspection. Meanwhile, as we have above indicated, the "opinion of counsel" is also being sought upon their power of imposing the conditions under which diplomas in Public Health are to be granted; so that at the next session of the General Medical Council some interesting communications of a legal nature may be expected, and it is to be hoped that these will tend towards harmony.

THE various places which claim the attention and patronage of the profession as winter resorts for invalids become each year more numerous. One relies upon its dry air, another upon its equability, a third upon the high average of sunshine; others, again, upon scenic attractions or botanical treasures or archæological remains. It is not always thoroughly realised that individual characteristics

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such as these are of very small consequence regarded separately. Dryness of the air would be of little avail to the invalid, if it should turn out to be associated with piercing winds and sudden perturbations of temperature. Equability, again, might be dearly purchased if we had to take it in conjunction with a damp sunless atmosphere. Botany or archæology may be useful distractions to the invalid, but they would hardly compensate him for the absence of such climatic conditions as his state of health might demand. In estimating the claims of any health resort, we must always look at the sum total of its characteristics rather than at any single peculiarity. If the air be very dry, we may expect without fail that the daily range of temperature will be considerable. If great equability be the subject of boast, we shall find that there is more than average humidity. It is only a philosophical balancing of the various meteorological characteristics of any resort, and a sound knowledge of how such characteristics bear upon the indications afforded by disease that can lead to any just and accurate conclusions on a subject which abounds in fallacies, and upon which nearly anyone feels competent to offer an opinion.

It must be freely allowed on behalf of many of our home resorts that there is a certain *a priori* claim to be put forward in their favour. They can be reached without the trouble, expense, and risks of a long journey. As regards food and sanitation, they are decidedly ahead of the average of foreign resorts, and recourse to them obviates distant separation from friends and any difficulties about language or national customs. On the other hand, our resorts labour under the disadvantage of having a long and comparatively sunless winter, much rain, and of lacking the attractions which lend so much charm to many of their foreign rivals. Recently we have been reminded from more than one source that the claims of Cornwall in this matter are of a somewhat remarkable character, and have been too much ignored. It is claimed for the climate of Cornwall that it is mild and equable during the winter to a degree that is extraordinary when the latitude is considered. If we take the three coldest months, December, January, and February, and compare the mean temperature of Falmouth and Penzance with that of Pau and Nice, we find the following rather unexpected results. The mean temperature of Falmouth for December is 44·3° F., and of Penzance 45·17°, while that of Pau is 42·8°, and of Nice 48·5°. In January the mean temperature of Penzance is 45·21°, that of Pau 41·2°, and of Nice 47·1°. February again shows Cornwall rather warmer than Pau, and only slightly colder than Nice. More important still is the equability of the Cornish climate. The difference between the means of the hottest and coldest months at Falmouth is only 16°, while at Montpellier it is 36° and at Pau 32°. The average difference of day and night temperature at Falmouth is only 6°—a remarkably low point. The flora of the neighbourhood bear witness to the great mildness and equability of the climate. Azaleas, acacias, aloes, agaves, myrtles, mesembryanthemums, asters, the sweet verbena, the Norfolk Island pine, bamboos, dracænas, eucalypti, hydrangeas, and a host of other such plants grow in the open air, and in many cases attain great perfection. There is said to be a total absence of cold winds and of severe frosts.

It need hardly be said that the explanation of these meteorological features is the proximity of the Gulf Stream, and that similar features characterise the climate and flora of the corresponding portion of Ireland—viz., the county of Kerry, where the beauty of the scenery and the balminess of the atmosphere have not hitherto been recognised as they deserve. It cannot be denied, on the other hand, that both these regions, meeting as they do the first brunt of the moisture-laden winds from the Atlantic, receive a heavy proportion of rain. Thus, the rainfall on the Cornish coast is forty or fifty inches annually, and much exceeds that amount in the mountainous region of the interior of the county and in the highlands of Kerry.

We have, then, in the Cornish climate the following characteristics: a very remarkable degree of winter mildness, very great equability, with a somewhat heavy rainfall. It would be a desirable addition to our knowledge if we had full and trustworthy data regarding the relative and absolute humidity of the Cornish climate, the proportion of dry days in winter, and the amount of sunshine. It will be found, we suspect, that the humidity is high, and that the amount of sunshine is less than the range of temperature might lead us to conjecture.

For what cases is such a climate suitable? Mainly, we should say, for certain cases of bronchitis and certain types of general debility. The former affection would undoubtedly be favourably influenced by the general mildness of the air, and the absence of sudden changes, while the humidity would be rather an advantage than otherwise to patients whose expectoration is scanty and viscid. Many cases of debility and impaired convalescence might also be expected to do well in Cornwall. Its suitability for phthisis is a more doubtful matter. With the evidence that we have of the tendency of a damp soil to promote the disease, we should hesitate to send consumptives to Cornwall, unless there were reasons that made a more distant journey impossible. On the other hand, as a temporary resort during the east wind season Cornwall would be worthy of a trial by patients who have determined to winter in the British islands. Rheumatic cases would be obviously unsuited for Cornwall.

We think any attempt to popularise our home resorts is worthy of all praise, and that greater efforts should be made to render them more attractive, and hence more appreciated. We cannot compete in every case with the long hours of sunshine and the brilliant air of many foreign countries, but our own land has advantages for certain cases which we should always be prepared to recognise and utilise.

THE meeting held at the rooms of the Society of Arts on the 28th ult., for the purpose of forming a Gilbert Club, was an event just as important in medical as in electrical science, notwithstanding that the founders of the movement were in most part electricians, and that the movement itself was intended to vindicate the claims of the British school of electricity rather than those of medical science and practice. Dr. B. W. RICHARDSON—whose memoir of GILBERT and whose lectures upon his works will be in the remembrance of many of our readers—in seconding the resolution

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to found the club, vindicated earnestly and warmly the position of GILBERT as one of the most distinguished of the physicians of the Elizabethan period. GILBERT, the contemporary of GALILEO, of HARVEY, of SHAKESPEARE, and of BACON, was by professon first and foremost a professor of physic. He was one of the physicians, in fact the favourite physician, of the Queen, was President of the Royal College of Physicians, a censor of the College, and in his day a busy practitioner of the highest class. In addition he did what a few other men of genius in our same profession have also done, he carried out during his leisure a purely scientific series of investigations in natural science, and in his great work "De Magnete" he laid the foundations of our modern knowledge not only of magnetism but of electricity. To him we are practically indebted for the use of the very word electricity, and to him we are indebted for the earliest experimental distinctions between the magnetic and the electrical forces. In this line of investigation he was ahead of FRANCIS BACON, and before BACON asserted the principles of the true inductive system he had tried and proved those principles by and through actual experimental research. Like HARVEY, whom he also preceded in this line of research, he based all he expounded on experiment; and it is only fair to say of him that much which has been considered very modern in regard to magnetism has long been buried in his immortal pages. His views on the earth as a great magnet anticipate the theories of the illustrious Sir ISAAC NEWTON himself, and another of his chapters on the relation of the magnetic force to the vital may, up to the present time, be studied by every physiologist and every practitioner with advantage as well as pleasure. There was also about GILBERT'S work,—as the seconder of the resolution to found the club was careful to explain,—more to admire than the absolute research which he accomplished, namely, the spirit in which the work was carried out. With GILBERT science was a true and even brilliant poetry. Some of the pages of his remarkable work on the magnet are charged with the most beautiful illustrations, as when he describes flies, ants, and other small creatures buried in amber, as creatures shining in eternal sepulchres ("*æternis sepulchris relucentes*)." Again, in the chapter in which he compares magnetic force to vital force, he breaks forth into a description of the life of the whole planet and of other planets and stars, with a quality of sublime poetry which his greatest contemporary of all might have envied, and the influence of which that contemporary probably appreciated and in various passages reflected in more rhythmical but not in more perfect form of expression. WILLIAM GILBERT was born at Colchester and died there. The house in which he was born, the "Tymperleys," still stands, and his remains are entombed in Trinity Church hard by. It was proposed a few years ago to erect a monument to him in his native town, and so add another trophy to one of the most richly trophied historical places in all these islands; and Mr. LAVER of Colchester, one of our medical brethren practising there, drew the attention of the new club to this project. The suggestion was timely, and was taken kindly, as something to be considered later on. But for the moment the intentions of the club are:—(1) To produce and issue an English translation of "De Magnete" in the manner of the folio edition of 1600; (2) to arrange hereafter for the tercentenary celebration of the publication of "De Magnete"; (3) to promote inquiries into the personal history, life, works, and writings of Dr. GILBERT; (4) to have power, after the completion of the English edition of "De Magnete," to undertake the reproduction of other early works on electricity and magnetism at such date as a majority of the members of the club desire.

Sir WILLIAM THOMSON, F.R.S., was unanimously elected the first President of the Club, with Mr. JONATHAN HUTCHINSON (President of the Royal College of Surgeons), Dr. B. W. RICHARDSON, Prof. HUGHES, Lord RAYLEIGH, Prof. REINHOLD (President of the Physical Society), and Mr. HENRY LAVER as Vice-Presidents; Mr. LATIMER CLARK as treasurer; Mr. LANT CARPENTER, Prof. FERGUSSON, Sir PHILIP MAGNUS, Prof. RUCKER, Prof. CAREY FOSTER, and Prof. FORBES as a Council; and Mr. CONRAD COOKE, Mr. RAPHAEL MELDOLA, and Prof. SILVANUS THOMPSON as honorary secretaries. For the present it is determined to limit the list of members of the club to two hundred, but the list will probably be extended as the work of a Society so happily and successfully organised becomes more widely known at home and abroad.

Annotations.

"Ne quid nimis."

THE LANCET AND THE HYDERABAD CHLOROFORM COMMISSION.

WE have just received from Dr. Lauder Brunton the following telegram, which we print *verbatim*:—"Four hundred and ninety dogs, horses, monkeys, goats, cats, and rabbits used. One hundred and twenty with manometer. All records photographed. Numerous observations on every individual animal. Results most instructive. Danger from chloroform is asphyxia or overdose; none whatever heart direct." These results apparently indicate such a complete reversal of the view held by Dr. Lauder Brunton at the time he left England—that one of the dangers resulting from chloroform is death by stoppage of the heart—that the details of the experiments made by Dr. Brunton, and the reasons for the conclusions he has evidently arrived at, will be awaited with the greatest interest by the profession.

THE NEW LUNACY ACT.

A VERY important decision has been given under this new statute in a case of Toogood against Wilkes, particulars of which have been courteously supplied us by the legal advisers of Mr. Wilkes, the defendant in the action. The action was brought to recover damages for the alleged wrongful giving of a certificate of insanity. The proceeding now under notice was taken under Section 12 of the Act, which provides that: "If any proceedings are taken against any person for signing or carrying out or doing any act with a view to sign or carry out any such order, report, or certificate, or presenting any such petition as in the last preceding subsection mentioned—i.e., petition for a reception order—or doing anything in pursuance of this Act, such proceedings may, upon summary application to the High Court of Justice, or a judge thereof, be stayed upon such terms as to costs and otherwise as the court or judge may think fit, if the court or judge is satisfied that there is no reasonable ground for

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alleging want of good faith or reasonable care." In support of an application for a stay of proceedings under this section, Mr. Wilkes put forward affidavits by himself and others setting out the circumstances upon which he based his conclusion as to the insanity of the patient and supporting the soundness of his diagnosis, and further showing that he had taken proper care and followed the lines marked out by law for his guidance in such a case. The plaintiff replied with affidavits setting out his views of the facts, and the judge before whom the summons came considered all the facts as so brought out, and formed his own opinion that there was no reasonable ground for alleging want of good faith or reasonable care. Acting upon this view, he ordered a stay of proceedings, an order which amounts in substance to a dismissal of the action. This probably is the first occasion upon which this very summary method of disposing of an action of the kind has been put in operation. Indeed the Act passed only in August last and its general provisions are not to take effect until next May. The particular section under which this summons was taken out has, however, come into operation at once, by virtue of an express provision to that effect, and Mr. Wilkes has thus had the advantage of a cheap and speedy determination of what under the old procedure would have necessarily been a long, anxious, and probably costly proceeding. It may seem a little ungracious on this occasion, when the profession has in the person of Mr. Wilkes received the full benefit which the Legislature intended to confer, to express any doubt as to the effectiveness of the method prescribed for its intended purpose. But at the same time we cannot help perceiving that in the hands of a judge less experienced or more timid than Mr. Justice Field, the result might have been much less satisfactory than it was. It is, for example, quite possible that another judge might take the view that his function at such a stage of the proceedings was not in effect to try the case, but only to ascertain that there was a *primâ-facie* case to be tried. In other words, he might say, "My function is not that of the petty jury which will have to determine the facts as between the parties, but rather that which a grand jury would exercise if it were usual to submit civil actions to that tribunal." Then, instead of looking at the defence, he would have looked only at the allegations which the plaintiff made, and if they showed a plausible case he would have refused to withdraw the question from the ordinary jurisdiction. The same thing would probably have happened in this instance if any serious conflict of testimony had arisen, and it is plain that a defendant might be seriously prejudiced in his defence by the fact that a preliminary judgment had been given against him on substantially the same evidence as that on which he would rely at the trial. Happily on the present occasion the difficulty does not arise; the relief intended has accrued; and we can say without reserve that we hope that on future occasions the Act will be found to be equally effective for its intended purpose.

INSANITARY HOUSES IN LONDON.

EVERY now and then the newspapers devote their attention to the insanitary houses, of which too many are to be found in the metropolitan area. Within the last week a number of applications have been made to the magistrates for orders to close houses which were stated to be unfit for human habitation. Some of these applications were made by private individuals, who elected to apply directly to the magistrate rather than the local authorities. Thus, a number of ladies and gentlemen asked Mr. Bros, at the Clerkenwell Police Court, to close a house in Greville-street, Leather-lane. The Mansion House Council appealed to Mr. Lushington, at the Thames Police Court, to close five houses in Frimley-street, Mile-end. No decision has yet been given in these cases, but Mr. Bros pointed out that the disadvantage of proceedings like those taken by private individuals was that the evidence was given in such a form that the Bench did not know what kind of order to make. The Nuisance Removal Act undoubtedly intended that the local authorities should undertake these duties, and the fact that private individuals could proceed is, we presume, a provision for cases in which the local authorities were in default. Mr. Bros obviously adopted the best course in requesting the medical officer of health of the district to inspect the house and report as to the work which was required to be done. The sanitary authorities are, however, to blame in making it possible for private persons to take the initiative. If their district were properly inspected, they would themselves be the first to know and to demand the remedy for unwholesome conditions. One of the most useful powers, that of regulating houses let in lodgings, is practically in abeyance in the greater part of London. The facilities which this system gives the vestries for obtaining penalties when such houses are faulty are well illustrated by a prosecution by the Bermondsey vestry of the owner of a house who had permitted overcrowding. In this case Mr. Fenwick fined the defendant 40*s.* and 2*s.* 6*d.* per day, or £7 4*s.* in all, with the alternative of one month's imprisonment. St. Pancras is sharing the publicity that has been given within the last few days to other parishes. The vestry have had under consideration a report to the London County Council on insanitary areas, and we gather from statements in the press that dilapidated houses are to be found in many streets in that district. The question of ownership has not unnaturally been investigated, with a result that the Ecclesiastical Commissioners have been accused of negligence, and, indeed, are to be subjected to prosecution. The leasehold system gives opportunities for freeholders to enforce repairs, or to remain in ignorance of the condition of their houses until the end of the leases, and the latter is usually the rule; but the moral obligation remains, and where the law can be put in motion against a negligent freeholder, the sentiment of the time will give him no sympathy.

DR. RICHARD VON VOLKMANN.

IT is with much great regret that we have to record the death of Dr. Von Volkmann, one of the greatest surgeons of the present century. For several years he has occupied the foremost place among German surgeons, and he has exerted an unequalled influence over the younger generations of German practitioners. His enthusiastic adoption of the aseptic treatment of wounds was the most powerful influence which led to its general adoption in Germany. Working for many years in a hospital which combined nearly all possible hygienic defects, it was not surprising that he met with disastrous results from erysipelas, pyæmia, and all septic diseases. With characteristic energy he strove to overcome his enemy, but in spite of the use of carbolic acid as a disinfectant, and of the open treatment of wounds, he was so discouraged by the high mortality that in 1871 he had determined to close his hospital for a time. Fortunately he decided first of all to give the new aseptic treatment a trial, and immediately an entire change in his results ensued. Volkmann found that by simply changing his system of wound treatment he was able literally to banish all the septic diseases which before had been so rife and had resisted all his earlier efforts. He at once became a most enthusiastic advocate of aseptic surgery, and many of the strongest statistical arguments in its favour have come from his wards at Halle. Many of our readers will remember the impassioned address on

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modern surgery which Volkmann delivered before the International Medical Congress in London, in which he drew attention to the enormous reduction in the mortality of all surgical procedures in Continental cities since the introduction of antiseptic surgery, and to the great enlargement of the legitimate field of surgery which had ensued. But, in addition to being a brilliant and successful operator, Volkmann has done great service by his literary efforts. His own writings, particularly some lectures and articles in Billroth's and Pitha's "Handbuch," are among medical classics. He also edited a *Centralblatt für Chirurgie* and a collection of clinical lectures of quite unrivalled value. He was an indefatigable worker, a learned surgeon, a bold and brilliant operator, and there is scarcely a department of surgery that does not owe some advance to his work and teaching. Physically he was not robust, and for some years he had not enjoyed good health, and so his friends were not altogether unprepared for his death. He had taken a patient to Jena, and was there attacked with acute pneumonia, which speedily proved fatal. His age was fifty-nine.

THE EDUCATION OF THE BLIND AND DEAF-MUTE.

IT cannot be said that in this country too much has been done to restore the maimed in sight or hearing, in so far as this can be accomplished by means of education, to the companionship of their more capable neighbours. For what progress has been made we are indebted chiefly to voluntary effort. The Legislature, content with the still recent achievement of a national school board establishment for the benefit of the healthy many, has till now passed over the case of the imperfect few. The time for a change of plan has, however, come, and of this we have an earnest in the recently published report of the Royal Commission on the Blind, Deaf, and Dumb. This laborious digest, which affords much useful information on the subject in question, was discussed at some length by the representatives of institutions for the blind who met in conference last week at the Society of Arts. A series of resolutions was then passed, the purport of which was to urge the Government, while duly observing the rights of existing endowments, to bring into practical shape as early as possible the decisions arrived at by the Commission. Briefly stated, these were to the effect that the education of blind or deaf and dumb persons must no longer be left in the exclusive charge of voluntary charity or of the Poor-law guardians as heretofore, but should in the case of children form a part of the regular School Board training; that for the adult blind technical training was necessary, and that as now carried out it was very defective. They suggested that it should in such cases be provided for out of the rates, and if possible supplemented by a system like the Saxon *Fürsorge*, designed to foster the skill thus acquired by the learner by finding him tools and other necessaries for a fresh start in life. The technical training of youths and children was to be assigned to the Education Department. One point which is particularly noticeable in this report is the prominence given to the teaching of the blind as compared with that of deaf-mutes. Several reasons may be assigned for this. According to census returns the former class is considerably the larger. It also includes a large number of persons deprived of sight by accident, and, but for this defect, capable of profitable work. Lastly and chiefly, it is to be noted that the blind, if possessed of the other senses, are even from infancy much more teachable than the speechless surd, and the difficulty interposed by the loss of language is in direct ratio to the lack of teachers fully qualified in the oral method, and the cost of their arduous and valuable services. Notwithstanding these opposing circumstances, however, it is encouraging to reflect that the education of deaf-mutes thus carried out has been abundantly successful—a fact which will warrant the formation, at all events, of certain teaching centres for their benefit. It must be remembered that the education of this class, as well as of the blind, tends ultimately towards economy, and will thus also justify any reasonable effort and expense devoted to an object otherwise most desirable.

THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

THE dispute between a small section of the governors of the Royal Hospital for Diseases of the Chest and the Council of that institution relative to the dismissal of the secretary, whose attitude towards the medical staff had jeopardised the existence of the hospital, ended in the most satisfactory manner. The meeting on the 26th ult. was presided over by the late Lord Mayor, and the action of the Council was supported, as we reported last week, in admirable speeches from Lord Derby and Mr. Jonathan Hutchinson, who moved and seconded a vote of confidence in the Council. Lord Derby dwelt upon the "unjust accusations' brought by the late secretary against the medical staff, and maintained that that gentleman had entirely failed to make his charges good, and that therefore the Council could not allow the staff to resign. Mr. Hutchinson considered it presumptuous on the part of the secretary to pronounce an opinion upon the medical treatment of the patients, and further added that if the resignation of the staff had been accepted, there would have been no one to replace them, for no self-respecting surgeon or physician would take office under such conditions. It is not surprising to learn that the vote of confidence was carried by an overwhelming majority, and the subsequent resolution inviting a conference with the Council of those who had requisitioned the meeting is calculated to further restore the harmony which has been so seriously imperilled. It is not, however, said, and it will, we suppose, remain always unexplained, how it was that the secretary should have gained cognisance of the particular instances he cited in support of his baseless charge. He was no judge of the manner in which patients were to be treated, and that he should have persevered in his allegations after their complete refutation in Dr. Hensley's memorandum is quite incomprehensible.

MYXOMA OF THE INFRA-ORBITAL NERVE.

AT the December meeting of the Odontological Society, Mr. E. Lloyd Williams showed a patient with the following history. A woman aged twenty-three applied at the Dental Hospital of London complaining of severe neuralgia of the right side of the face, affecting also the teeth from the bicuspids forwards. The removal of several teeth failing to give relief, and antral trouble being suspected, she was sent to the Middlesex Hospital to Mr. Bland Sutton. He found, upon examination, that there was no bulging of the walls of the antrum, but there was slight increased resistance to pressure upon the lower orbital plate. The pain, which was intense, was referred to the area of distribution of the infra-orbital nerve, and all the skin supplied by its branches were anæsthetic even when pricked with a needle so as to draw blood, but the temporal branch of the orbital nerve and the posterior dental nerve were not affected. Mr. Bland Sutton was of opinion that the antrum contained a tumour entangling the infra-orbital nerve. No drug except large doses of antipyrin gave any relief, and that only temporarily, so an operation was decided upon. The lip being divided and the cheek reflected, a small nodule of a growth was seen emerging from the infra-orbital canal; and believing this to be sarcomatous, Mr. Bland Sutton,

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with the acquiescence of his colleagues, proceeded to remove the superior maxilla, including the orbital plate, in the usual way. Subsequent examination showed the antrum to be filled with a mass about the size of a walnut, which was covered with mucous membrane bearing columnar epithelium, and was evidently a myxoma springing from the connective tissue of the infra-orbital nerve, spreading and expanding the nerve fibres among the tumour. Mr. Sutton believes this to be the first case reported of a myxoma affecting a branch of the fifth nerve and filling the antrum, and that there is a strong probability that they have often occurred but been either overlooked or mistaken for sarcomata. The importance of a correct diagnosis is obvious, as these tumours, being benign, might be enucleated, and excision of the whole bone obviated.

ST. JOHN AMBULANCE ASSOCIATION.

THE report of the Association for the year ending July 31st, just issued, affords evidence of continued satisfactory progress. The total number of certificates issued was 24,217, being an increase of 2036 on the numbers in the preceding year. They were classed as follows:—Male "first aid," 14,754; female, 6738; female nursing, 2725. During the year eleven new Centres were formed in England, and two abroad, one at Ceylon and the other at Formosa. Nursing corps are also stated to be on the increase, and many ladies holding certificates avail themselves of the opportunity of getting instruction in "sick cookery" and "district nursing," offered by St. John's House at Worcester. Measures have been taken to provide fixed ambulance stations, in full working order, at—(1) Ludgate-circus; (2) Burlington Hall, Savile-row; (3) Young Men's Christian Association, Aldersgate-street; (4) the People's Palace; (5) Little Britain; (6) St. Paul's Churchyard. The report gives details of some cases in which police and railway holders of certificates of proficiency have rendered valuable "first aid." A just tribute is paid to the services rendered by the late Colonel Duncan in connexion with the Association. A Duncan Memorial Fund is being raised, to which it is proposed to give grants from the general fund towards founding "Duncan Schools of Ambulance" in Woolwich and Sunderland, and a "Duncan Commissionership" to visit and assist existing centres, to organise new ones, and to promote ambulance work generally. These seem to be appropriate means of keeping in remembrance the important philanthropic work done by Colonel Duncan in connexion with the objects of the Association.

BURIAL BENEATH A CHURCH.

THE Rev. and Worshipful T. E. Espin, Chancellor of the Diocese of Chester, has in that capacity been called upon to decide a very important question. Underneath the parish church of Bebington (a pretty village on the Cheshire side of the Mersey, where many Liverpool merchants and others reside) are vaults wherein a certain number of bodies are buried. One of these vaults belongs to a Mr. Green, whose son died some time ago, and he has applied to Chancellor Espin for a faculty to open the vault, and to re-inter there the body of his son, which was temporarily interred at Claughton, Lancashire, a faculty having been granted by the ecclesiastical authority of Manchester for the removal of the body. This vault has not been opened for more than forty years, but in 1871 the church was restored and some of the other vaults were opened, the result being such a sickening stench as to drive the workmen away. It was at first proposed that the vault should be opened from within the church; but after the strongly expressed opinion of the Chancellor that he ought not to sanction this, it was then proposed to effect an opening from outside. Evidence was given by architects and medical witnesses on both sides to the effect, on Mr. Green's behalf, that the vault could be reached from outside with perfect safety to the building, and that the body could be interred there without any risk to the health of the members of the congregation. On the other hand, the rector, churchwardens, and majority of the parishioners strongly opposed the granting of the faculty, and tendered evidence to show that the breaking into the vault from outside must be attended with danger to the fabric, and that there must be a certain amount of risk to the congregation in reinterring any dead body in the vault in question. It is somewhat remarkable that no reference was made to the Home Secretary during the inquiry, especially as it will involve the exhumation of some bodies, and that so far it appears to be simply a question of ecclesiastical rights. The Chancellor has postponed his decision until the next sitting of the Consistory Court in January next. It would be improper to discuss the question, though in these days of burial reform it is both surprising and lamentable that such an application should ever have been made.

THE INFLUENZA EPIDEMIC IN RUSSIA.

REPORTS continue to be received of the extension of the remarkable epidemic of influenza in Russia, where the Imperial family have been amongst those attacked. We repeat our belief in the likelihood of its spreading over the Continent and even reaching our shores. It is stated that Professor Zchekaner, at a meeting of the Russian Association for the Preservation of Public Health, declared that the influenza was likely to be the forerunner of cholera, which might consequently be expected to appear in Russia next spring, basing this surmise on his experience of five cholera epidemics, each of which was preceded by an epidemic of influenza. He therefore urged the necessity for promptly taking suitable sanitary precautions. Cholera is now prevalent in Persia and the Caucasus, and there is no doubt that any zymotic disease would be likely to have a greater effect amongst people debilitated by influenza.

SWIMMING-BATHS FOR LONDON.

WE are glad to understand that a movement is on foot for bringing to the notice of the Corporation of London the very inadequate accommodation which the City affords in the way of swimming-baths, and of coupling this representation with the suggestion of a remedy which lies within the power of the Corporation to apply. The suggestion is that a site upon the Thames Embankment should be appropriated to the purpose of a swimming-bath, and it is thought, as doubtless is the case, that if the Corporation would provide a site the buildings might be erected and the bath conducted by private enterprise. In such a suggestion we most heartily concur. It is to us wholly inexplicable how at the present day the strange insufficiency of this particular kind of accommodation in London should be what it is. Nothing that we can compare with it affords a parallel or helps to an explanation. The exercise of swimming is most popular, and deservedly so. The demand for swimming-baths in the midst of this great capital is practically inexhaustible, is growing year by year, and might be stimulated by judicious catering to an indefinite extent. Yet no one has thought it worth while to undertake the provision of swimming-baths on a scale commensurate to the needs of London in the matter of number, space, and style. The work is one that should commend itself equally to the enterprising capitalist and to the enlightened philanthropist; and yet in this city, where capitalists and philanthropists most do con-

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gregate, neither the one nor the other can be induced to come forward and embark on what would *a priori* appear to be a most congenial task. We sincerely hope that the present movement will lead to some useful result, and that either the Corporation or some other body or individual with command of the necessary means will be persuaded to undertake the supply of this very pressing need.

INSANITARY SCHOOLS.

SOME weeks ago we drew attention to certain reported defects in the sanitary state of several metropolitan Board schools. If reliance may be placed on the statements of Mr. John Lobb with reference to this matter, the evil is even more widely spread than it then appeared to be. Several instances of apparently gross neglect are quoted by this authority. In the case of a school in Tottenham-road, Kingsland, the drainage system was recently shown to be in a markedly defective state, and probably accountable for a fatal outbreak of diphtheria among the children. At another school in Hoxton the old and most culpable blunder of imperfect pipe connexion resulted in a subterranean overflow of sewage. Another is described as built over a veritable bog of manure—a fact of which official notice was given by the clerk of works during the erection of the school, but without affecting the faulty plan pursued. The whole flooring had subsequently to be taken up at great cost. This and other examples of structural mismanagement are said to have occasioned a total expenditure of £10,000, which, as Mr. Lobb justly maintains, is far too large a sum to be squandered as a premium in the art of school construction. Economically considered, the margin thus absorbed in failure is a wide one enough. Associated as it is with sanitary defects of a most serious kind, it probably represents an amount of disease considerably greater than that with which its connexion can be actually traced. It clearly behoves the Board, therefore, unless these damaging accusations can be disproved (as we sincerely hope they may), to reorganise as early as possible their methods of procedure.

COMPULSORY VACCINATION.

IN our issue of Oct. 12th we commented on a statement made by Mr. Alfred Milnes, M.A., F.S.S., at a meeting held at Guildford during the preceding week, in condemnation of the Compulsory Vaccination Act. This statement was used as argument against the view that revaccination protected against small-pox, and was to the effect that during the last small-pox epidemic "eight cases, nurses and attendants in a hospital, who had all been revaccinated, occurred, and there were two deaths." We were led to believe by the report of Mr. Milnes' speech in a local journal that Sheffield was the town referred to, and we showed from Dr. Barry's recent report that so far as Sheffield was concerned there was no foundation for the statement. Mr. Milnes subsequently wrote to us denying that his statement referred to Sheffield, and enclosing another report of his speech, showing that the institution to which his observations related was the Perth Royal Infirmary. We accordingly made our apologies to Mr. Milnes, and expressed our willingness to give the facts as to this hospital on a future occasion. We are now, owing to the courtesy of Dr. Graham of Perth, able to carry out our intention, and our readers will be able to judge of the accuracy of Mr. Milnes' assertions. Eight persons, Dr. Graham says, nurses and patients, were attacked with small-pox in the Perth Royal Infirmary between Oct. 3rd and Oct. 12th, 1887. Regarding five of these no information could be obtained as to whether they had been revaccinated, and no evidence of revaccination was found by examination of the arms. Of the remaining three, two were attacked with small-pox on Oct. 5th, the date of the revaccination being Oct. 4th; the third, Dr. Graham informs us, had been revaccinated three times, the last occasion being on Oct. 4th. This last person's small-pox began on Oct. 12th, and the extent of the small-pox was the appearance of two spots. It is needless to say she recovered. Mr. Milnes is correct in his statement that two persons died, but one of these belonged to the group for which there could be obtained no information as to whether they had been revaccinated, the other was one of those who had been revaccinated only the day before their small-pox began.

BELGIAN PARLIAMENTARY DISCUSSION ON UNIVERSITY DEGREES.

OUR Belgian *confrères* are fortunate in having an eminent Brussels surgeon (Dr. Thiriar) to lay their views on medical education before Parliament. In the discussion on the Bill concerning university degrees, Dr. Thiriar enunciated the opinions unanimously expressed by the Medical Federation, which were mentioned in our last week's issue, and he was well supported by another member (M. Cartuyvels) in urging the need for a preliminary or entrance examination, "as required in France, Holland, England, and Germany, and even in Belgium itself for the military and some other special schools." Once upon a time there was a law compelling every man to follow his father's trade; now, however, it appears to be the ambition of most people to get out of the sphere which sufficed for their parents. M. Cartuyvels quoted a Chinese proverb: "If everybody is to ride in the palanquin, who will be left to carry it?" In Belgium, he remarked, everyone now wants to become either a barrister or a doctor. There are now about 6000 students in the Belgian universities. What is to become of them all? The chief opponent of the views of MM. Thiriar and Cartuyvels was M. Woeste, who denied that general education had suffered from the law of 1876 rendering the entry into professional studies free. He expressed himself as quite satisfied with the plan of merely requiring a certificate of having been a certain time at school. He does not object to the overcrowding of the professions, looking upon that as an indication of intellectual development and of a love of knowledge that ought to excite admiration rather than any sentiment of alarm.

AMBULANCE WORK.

ON Dec. 2nd Mr. Richard Davy undertook the conveyance of a man from Westminster Hospital to Chertsey Union. The patient, aged fifty-nine, was suffering from acute angular curvature of the spine and multiple aneurysms; his condition was very helpless and irremediable, yet the desire to get out of London to his own home was intense. Mr. Davy put him up first in a good plaster-of-Paris jacket, and then, with the assistance of a porter, placed the patient in a light hand ambulance. From the time of leaving the hospital until he reached his bed at Chertsey, the man never left the stretcher. He was slung to two hooks in the railway van between Waterloo and Chertsey. The journey occupied two hours and a half, the distance by road from Chertsey station being two miles, and gave the poor fellow much gratification. A full description of the ambulance has been already published, and its practical value has been proved on many occasions. The London and South-Western Railway Company acted very generously towards the patient, the general manager placing a guard's van at his disposal, a precedent worthy of imitation by other railway companies. The total cost of the transit amounted to twelve shillings only. It will be seen, therefore, that the

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safe and easy conveyance of patients can be carried out at the present time without either complicated machinery or the fear of incurring a prohibitive cost—no small boon to the poor, who naturally at the end of their days feel strongly the attraction of the love of home.

PROFESSOR HLAVA ON TYPHUS.

PROFESSOR HLAVA has published in a Bohemian medical journal an account of a severe typhus epidemic which raged in Prague last year. Altogether about 400 cases occurred, of which forty-five proved fatal. Professor Hlava was able to make observations on the blood of most of these. He found in many of them a special microbe, which he regards as a streptococcus, existing in the blood; and the same microbe was found in two instances in the blood of patients during life, but it was never detected in the intestines. When cultures of this micro-organism were injected into rabbits they became feverish, but the affection was evidently of a totally different character from typhus fever in the human subject. It is therefore not possible to say whether or not this streptococcus is the cause of typhus. Regarding the way in which infection is transmitted, Professor Hlava is disposed to think that it is not through the air or by means of water that the disease spreads, but rather by direct contact. A very sad case presented itself in support of this opinion. One of the pathological assistants who had a wound contracted the fever and died, probably through contact with morbid specimens of organs from the bodies of patients dead from typhus.

THE SANITARY STATE OF WINDSOR.

THE President of the Local Government Board, who last year instructed Dr. Airy and Mr. Arnold Taylor to report on the sanitary condition of Windsor, recently requested the inspectors to revisit the Royal borough, with a view of seeing how far the defects, to which attention was originally directed by THE LANCET Commissioners, and which were subsequently reported on to the Local Government Board, had been remedied. We understand that a fresh report as to the progress made will shortly be submitted to Mr. Ritchie; and that in the meantime the inspectors have recommended to the authority such modification of their arrangements for the isolation of the infectious sick as will secure the proper separation of small-pox cases from proximity to pavilions containing patients suffering from any of the other infectious fevers.

PREVENTION OF CRUELTY TO CHILDREN.

THE Leeds branch of the Society for the Prevention of Cruelty to Children has, during the short term of its existence, afforded evident proofs of its energy in the work to which it is devoted. At the first annual meeting, held on the 20th ult., it was stated that 144 cases of cruelty had been dealt with, including for the most part such offences as brutal beating, kicking &c., and starvation. The total number of children relieved was 249. One of the most satisfactory points brought out in the annual report was the fact that in a large majority of instances admonition alone was found to have exercised a salutary effect in checking the abuse of parental privileges, and legal compulsion, though applied when required with some severity, had been relatively infrequent. It had also been found that where prosecutions had been instituted the moral and deterrent effect of such proceedings in the neighbouring districts had been very great. Attention was particularly drawn to the evil of employing children as hawkers on the streets during the proscribed hours, and it was asserted that police supervision as regards this particular abuse was still far from efficient. A suggestion was made that this part of the work might advantageously employ the energies of a specially appointed inspector. Notwithstanding a moderate deficit in the funds required for current expenses, the influence of the Society is evidently growing, and the tone adopted by the various representative townsmen who spoke on this occasion leaves little room for doubt that the energy thus early exhibited will be maintained in further vigorous and useful action.

HOSPITAL REFORM IN BIRMINGHAM.

IN accordance with the decision arrived at by the meeting of medical practitioners resident in Birmingham and vicinity (reported in our issue of the 23rd ult.), a deputation, headed by Dr. Wade, accompanied by the hon. secretary, Mr. Marsh, waited upon the Mayor of Birmingham on the 4th inst. for the purpose of requesting his co-operation in arranging for the holding of a conference to make an impartial inquiry into the alleged abuses in hospital management, and to discover the proper remedies. Dr. Wade reviewed the steps which led up to the deputation, and suggested that such an inquiry, to be exhaustive and not unduly protracted, could only be conducted by a small number, and he thought a committee appointed by the conference would be satisfactorily constituted if it consisted of a chairman (perhaps the Mayor, if he would act), and one representative of each of the following bodies: The Hospital Saturday Fund, the Board of Guardians, a lay administrator of one of the large hospitals, a lay official of one of the special hospitals, an honorary officer from one each of these two classes of institutions, a medical man unconnected with the charities, and a layman selected by his worship. The Mayor expressed his willingness to call a conference to discuss the whole matter thoroughly, and it was agreed that the conference should be summoned for Wednesday, Jan. 15th, at 3 P.M.

UNIVERSITY COURT ELECTIONS IN GLASGOW.

A MEETING of the General Council of the University of Glasgow was held on Wednesday, Nov. 27th, for the purpose of electing three assessors to sit in the University Court, as provided for in the recently passed Universities (Scotland) Act. Six candidates were duly nominated and seconded, and, on a show of hands, the voting was found to be as follows:—Dr. Hector C. Cameron, 128; Sir John Neilson Cuthbertson, 122; Mr. David Hannay, 120; Sheriff Guthrie, 81; Mr. Vary Campbell, 78; Dr. McVail, 66. A poll was demanded, and voting papers will therefore be issued to all members of Council at once.

ZENANA MEDICAL WORK IN INDIA.

THE accounts which reach us from time to time of the medical missionary work among the native women of India continue to show satisfactory progress, the old barriers of prejudice, religion, and caste being gradually broken down before the steady, persistent, and devoted work of those who have left the comforts of their English homes, and all that the word "home" implies, to labour among their less fortunate sisters in India. A large field offers itself in India for female medical practitioners, and we can imagine no nobler task for those ladies who have taken up the study and practice of medicine than the attempt to alleviate the bodily sufferings of the helpless native women of India, who are not allowed to be attended to by medical men. That this veritable missionary work often claims its victims is unfortunately too true, and we are grieved to hear of the death at Srinagar, after a short illness, of Miss Fanny J. Butler, L.K.Q.C.P.I., at the early age of thirty-nine. Miss Butler left England for India in 1880, where, as medical

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missionary of the Church of England Zenana Missionary Society, she toiled for six years and a half at Bhagalpore, Bengal, and Calcutta. Latterly Miss Butler was stationed at Kashmir, doing good work; patients came to her for treatment in large numbers; and greatly owing to her energy a site had been procured and a Women's Hospital commenced at the time of her death.

THE DESTRUCTION OF REFUSE AT BRADFORD.

DESTRUCTORS for refuse have for some time past been in use at Bradford, but they have not sufficed for the destruction of all the house and other refuse which is produced in the town, and the proposal to erect additional furnaces has been opposed on account of some nuisance attending the use of the existing ones. In order to deal with this each furnace has now been fitted with "Jones's cremators" and "Horsfall's injectors," by means of which an increased blast has been obtained and the temperature raised from 500° to 900° F.; the "stuff" being continually burned at a white heat. The alteration has been mainly brought about by the efforts of Alderman Hardaker, chairman of the Sanitary Committee; and, on inspecting the results, it was found that all objectionable odour had been removed; there being, amongst other things, a complete cessation of the emission of noxious vapour by the chimney-shaft. Indeed, it was confidently felt that success had been attained, and that other towns were sure to follow in the wake of Bradford in this matter of the disposal of refuse, which is year by year becoming more and more pressing. Formerly all market refuse, including vegetables, putrid fish, and the like, was disposed of in the same way as the general refuse, but it caused nuisance; it is now taken to one of the destructor stations, passed through grinding mills, mixed with ashes, and converted into a manure, which farmers are allowed to take away without payment.

THE KNEE REFLEX.

DR. K. E. WAGNER contributes to the *Vrach* a lengthy paper containing an account of a number of observations he has made on the subject of the tendon reflex of the knee. He finds that in slight and moderate cases of fever the tendon reflex is as a rule diminished, but that as the fever passes off the reflex returns to normal, or, may be, becomes stronger than normal. In severe cases, however, where there is a good deal of excitement, the knee reflex is increased. Generally speaking, it may be said that the amount of knee reflex is a kind of index to the tone of the nervous system. Baths from 77° to 90° F. given to fever patients increase both the knee reflex and the muscular strength. Walking to such an extent as not to occasion fatigue also increases the reflex. Sleep and lying in bed, Dr. Wagner found, decrease the reflex and also the muscular strength.

THE POLLUTION OF THE AIRE.

A PRELIMINARY attempt has been made to deal with the serious and vexed question of the pollution of the river Aire, a conference having taking place at Leeds between the mayors and town clerks of Bradford and Leeds and the chairman of the Sanitary Committee of Leeds. The special object of the gathering was to see whether such friendly and concurrent action could not be undertaken by the two corporations as would avoid hostile controversy and litigation. In the end, it was decided that on the reconstitution of the sanitary committees of each borough the respective mayors should communicate to those bodies certain proposals which had been provisionally arrived at. If these should meet with general concurrence, a more formal meeting would be arranged with a view to secure the acquiescence of other local authorities whose districts border on or otherwise affect the river. We trust that this desirable attempt to rid the Aire of its grave state of pollution may meet with success.

ENGLISH PRACTITIONERS IN FRANCE.

NO reasoning will suffice to make the conduct of the French Government appear justifiable in requiring English medical practitioners, practising among their own countrymen in French territory, to pass French examinations—not even that of "M.D." in a letter recently published by a contemporary. There is no such narrowness in England, and we do not agree with "M.D." in thinking that English practitioners would start legal processes against French medical men practising in England under any circumstances analogous to those under which English practitioners practise in French resorts. English legislation is the first, as far as we know, to make honourable and generous international recognition of medical diplomas possible. The Republic, with its boast of liberty and brotherhood, should be before and not behind England in such a matter. What are liberty and brotherhood worth if they do not lead to the abolition of territorial and international jealousies among scientific and professional men of equal standing?

THE BRITISH PHARMACOPŒIA.

IT is satisfactory to note from the report of the Pharmacopœia Committee of the General Medical Council that, in spite of the shortcomings of the British Pharmacopœia of 1885, only 559 copies remain of the 29,000 which have been printed, and that in determining upon issuing a reprint, it has also been decided that an "addendum" should be prepared and issued in the course of next year. There will, undoubtedly, be much interest in this addendum, even though it has been recommended that "no new remedies are to be introduced into it except such as have met with general approval." This clearly expresses an earnest desire to restrict the addendum within reasonable limits, and it may be hoped that it will not lead to the resuscitation of remedies which have long been discarded. It is late in the day to criticise the Pharmacopœia of 1885, but still it may be remarked that it retained and reintroduced many substances which have long since passed from the realm of practical therapeutics.

THE HOUSING OF THE POOR.

AN important circular signed by Mr. Ritchie has been issued from the Local Government Board to the local authorities in the metropolis, and to urban as well as rural sanitary authorities, calling their special attention to the ample powers conferred upon local authorities by the Housing of the Working Classes Act (1885), the Nuisances Removal Acts, and other statutes, to remedy the evils caused by insanitary dwellings, to prevent houses being overcrowded in such a manner as to be prejudicial to the health of the inmates, and to secure the demolition of buildings which are either themselves unfit for human habitation or which, by reason of their situation, are the cause of other buildings being rendered insanitary. The word "nuisance" includes "any premises in such a state as to be a nuisance or injurious to health," and "any house or part of a house so overcrowded as to be dangerous or prejudicial to the health of the inmates." If, after due notice, a nuisance is not abated, the offender or offenders can be taken before justices, who are invested with large preventive and punitive powers. It is the duty of the medical officer of health to report in writing to the local authority any premises in his district offending against the Sanitary Acts.

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The report should then be referred by the local authority to a surveyor or engineer, for the necessary action to be taken. The circular concludes by warning the local authorities of the grave responsibility which they incur if they neglect the duty cast upon them by the Legislature of exercising their large powers for the protection of the poor, who are unable themselves for the most part to enforce the observance by their landlords of the laws relating to public health.

THE HOSPITAL SUNDAY FUND AND NURSING ASSOCIATIONS.

THE Council of the Hospital Sunday Fund did well to refer the proposal of Canon Clarke to alter Law IV. to the General Purposes Committee. Canon Clarke would add district nursing associations to hospitals and dispensaries for participation in the Hospital Sunday Fund. It sounds very plausible that nursing associations should receive grants from a fund raised essentially for the benefit of the sick poor. But to make such an alteration of the law will be to take a new departure altogether, not likely to contribute to the peace and prosperity of the Fund. Nursing associations, unlike hospitals, are largely sectarian and denominational in character, some of them aggressively so. Apart from this feature of these associations some of them are further characterised by much mutual rivalry. There are few men who have studied the working of the Hospital Sunday Fund more closely, or advised it more wisely, than Sir Sydney Waterlow, and he seldom allows himself to speak in such strong tones of warning as those he used at the last meeting of the Council on this subject, as we report elsewhere. We entirely agree with Sir Sydney Waterlow, and we trust that Canon Clarke will not persist in pressing his resolution on the general meeting of constituents. Nurses, as a part of the hospital system, benefit by the Hospital Sunday Fund; but to extend the fund to nursing associations as such is to invite an indefinite number of motley institutions to share the Fund and to diminish its strength for the great purposes for which it exists. The Fund will not bear the attenuating process which Canon Clarke proposes to initiate, and the very attempt to apply it would endanger that harmony which has hitherto been the glory of the Hospital Sunday Fund. We shall be greatly surprised if the General Purposes Committee does not report against this proposal.

TUBERCULOSIS OF THE OVARY.

DR. WAGNER gives in the *Vrach* notes of a number of post-mortem examinations on phthisical patients collected with a view to ascertain the frequency with which the tuberculous process extends to the ovaries. He puts this at 5 per cent., and remarks that when the ovary is attacked the only parts that are found to be abnormal are those which are actually invaded by the tubercle. He was able to obtain cultures of Koch's bacilli from tuberculous ovaries. Frequently when no tubercular foci could be detected by the naked eye they were discovered by the microscope.

VACCINATION BY THE VICAR.

AT Eaton Bray, a village in South Bedfordshire, a parishioner, who believed in vaccination, but feared the dangers which he thought accompanied it, procured a supply of lymph for himself, and got the vicar to operate. The public vaccinator, Mr. Sandell of Leighton Buzzard, expressed himself willing to see the case and certify if the Board approved of his doing so. The Board have agreed. We should have thought vicars had enough on their hands without undertaking the duties of the public vaccinator.

CLAIRVOYANT "PHYSICIANS."

THE monthly bulletin of the State Board of Health of Connecticut, U.S., reports that the Supreme Court of Wisconsin has held that a "clairvoyant physician" is liable for failure to exercise the ordinary skill and knowledge of a physician in good standing practising in the vicinity, and not merely the ordinary skill and knowledge of clairvoyants. The decision in question rules that any professing medical expert who "accepts employment as a healer of diseases, but relies for diagnosis and remedies upon some occult influence exerted upon him, or some mental intuition received by him when in an abnormal condition, takes the risk of the quality of accuracy of such influence or intuition." This legal decision affords a singular commentary upon the condition of so-called medical practice in some parts of the United States. The State in this country takes no such care to protect those who may choose to consult "clairvoyant physicians," if there be any such practitioners in these islands.

TYPHOID FEVER IN THE STOCK EXCHANGE.

A LARGE number of cases of enteric fever is reported to have occurred among members of the Stock Exchange, according to a statement in a contemporary not less than thirty members having been attacked. The medical officer of health has presented a report, in which he states that the cause was not to be explained by any faults in the general sanitation of the building, and that there was a very strong presumption in his mind that these cases of fever might have had their origin in the noxious exhalations arising from the sewer ventilating shaft. The circumstances of the outbreak are not before us, and we have not, therefore, the material which would enable us to discuss it. We are of course familiar with such occurrences in relation to polluted milk or water-supply, conditions which, we have no doubt, have been fully considered. An outbreak of fever due to sewer emanations raises questions of so much importance in relation to our system of sewer ventilation that the report of the Streets Committee, to which the subject has been referred, will be awaited with interest.

THE DETECTION OF IRON IN ORGANIC TISSUES.

PROFESSOR ZALÉSKI of Tomsk observes that in order to detect the presence of iron in organic tissues these should be immersed in a solution of yellow sulphide of ammonium—watery or alcoholic,—of the strength of from 1 to 3 per cent., for from two minutes to half an hour. A dark colouration will then be obtained if there is only a small quantity of iron present, and a black one if there is much.

INSECTS IN DRUGS.

AT a meeting of the Chemists' Assistants Association some rather disquieting specimens were lately exhibited, demonstrating the existence of "insects and germs" in sundry pharmaceutical preparations and drugs. The first was a fair-looking sample of crushed linseed recently obtained from a large wholesale firm, and kept in a wooden cask with a wooden cover. The exhibitor gravely asked what would be the effect of applying a poultice containing "thousands of insects" to an open wound, especially if the poultice be made with hot instead of boiling water. The other specimens, from aconite root, nux vomica, and cantharides, are perhaps of less importance, as these substances are not employed in the crude state. In the present anxiety to detect microscopic germs and to render them innocuous, it is worth considering whether we are not in

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danger of overlooking more obvious sources of infection. In the hunt for small deer a different lens is employed, and mental vision is thrown out of focus for larger game.

DESTRUCTION OF A FEVER HOSPITAL.

WE have learned with regret that the fever hospital which had been provided jointly by the Rochester and Chatham urban authorities has been destroyed by fire. The hospital was a comparatively new one, which had been erected on approved modern principles, and the loss must be a severe one. We trust, however, that it will be temporary only, and that the buildings were fully insured against fire. The removal of the sick was attended with difficulty, a number of them having to be lifted through windows broken for the purpose; but, with the aid of medical men from Chatham and Rochester, and of others who hurried to the spot on receiving news of the catastrophe, they were all safely housed a short time after the occurrence.

UNIVERSITY OF SYDNEY.

WE understand that Mr. W. Anderson, F.R.C.S., Dr. Johnson Symington, and Dr. H. St. John Brooks have been nominated by the British board of selection as candidates for the Challis Chair of Anatomy in Sydney University. The final selection, however, will be made by the University authorities, who will consider the claims also of any candidates who may apply to them directly from Australia or elsewhere.

THE GASTRIC JUICE IN SCURVY.

DR. BOTKIN, jun., writing in the *Ejenedělnaya Klinicheskaya Gazeta*, states that according to his observations the gastric juice is considerably altered in cases of scurvy—its general acidity, as well as the amount of hydrochloric acid, being lowered, and in severe cases there being sometimes a complete absence of free hydrochloric acid and also of pepsin. The quantity of ptyalin in the saliva appeared to be decreased. No abnormality could be detected in the movements of the stomach.

MEDICINE IN CHINA.

THE Medical College for Chinese at Hong Kong is evidently doing good work in instructing the native students in medicine. It is in charge of Mr. Cantlie, F.R.C.S., late of Charing-cross Hospital as Dean, and there is a full staff of English lecturers and about thirty students. We have recently seen the examination questions in anatomy and physiology, and they are quite up to the average standard of our examinations. Several candidates obtained 80 per cent. of the allotted marks.

ALLEGED DEATH FROM SULPHONAL.

THE *Medical Record* of New York (Nov. 23rd) reports a death after the use of two fifteen-grain doses of sulphonal, the doses being given an hour and a quarter apart. The fatal result, it is said, occurred, by apnœa, forty hours after the first dose.

FOREIGN UNIVERSITY INTELLIGENCE.

Beyrout.—Dr. Boyer of Lyons has been appointed to the chair of Therapeutics and Hygiene.

Florence.—Dr. F. Coppola of Messina has been appointed Extraordinary Professor of Materia Medica and Experimental Pharmacology.

Gratz.—A new and convenient building has long been wished for, but has hitherto been unattainable from lack of funds. Now, however, the sum of £80,000 has been voted for the purpose, and the new buildings will be commenced in the spring.

Greifswald.—In view of a recent order requiring all medical officers of the German Army to be able to ride, a riding school has just been opened in order that students may have facilities for obtaining the required instruction and practice.

Halle.—The Professorship of Surgery, vacant by the death of Professor Richard von Volkmann, is likely to be offered to Dr. Schede of Hamburg, who is a native of Halle.

Lisbon.—Dr. R. da Gama Pinto has been appointed to the newly created chair of Ophthalmic Surgery.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. Don Gabriel Pereda, Professor of Pathology in the University of Madrid; Dr. Julius Graetzer of Breslau; Dr. Richard von Volkmann, Professor of Surgery in the University of Halle, whose life and professional career are sketched in another column.

THE report on the composition and quality of the metropolitan water-supply during the month of October, by Messrs. Crookes, Odling, and Meymott Tidy, shows that of the 189 samples examined the whole were found to be clear, bright, and well filtered. Throughout October the supply of water to the metropolis continued to be of excellent and very uniform character. In respect also of its clearness, its degree of freedom from colour tint, and its minute proportion of matter oxidisable by permanganate, the October water-supply has well sustained the satisfactory character presented by the supply of the previous month. Dr. Frankland, in his analysis, states that taking the average amount of organic impurity contained in a given volume of the Kent Company's water during the nine years ending December, 1876, as unity, the proportional amount contained in an equal volume of water supplied by each of the metropolitan water companies and by the Tottenham Local Board of Health was: Kent, 1·1; Colne Valley, 1·6; Tottenham, 1·7; East London, 1·9; New River, 2·1; Chelsea, 2·8; West Middlesex, 3·0; Lambeth, 3·1; Grand Junction, 3·2; and Southwark, 3·7.

AT the last meeting of the Society of Antiquaries, on Nov. 28th, Dr. John Evans, F.R.S., President, in the chair, Henry Laver, Esq., M.R.C.S., F.L.S., of Colchester, was admitted as a Fellow of the Society, to which he was elected nearly two years ago. Amongst the many learned antiquarians of this country there are very few who have more worthily won the coveted and honourable title of F.S.A. than Mr. Laver, and we congratulate him on receiving so distinguished a recognition of his long and earnest labours in archæological research.

ENERGETIC MEASURES are being taken in Italy, under the new sanitary code, for the detection of unsound food and the punishment of its vendors. Within the month of November, in Rome alone, 58,839 chilogrammes of tainted edibles were seized, among them being 30,457 chilogrammes of rotten fruit, 9600 putrid portions of sheep, 5876 chilogrammes of other similarly decomposed mutton, and 1788 of beef, 3586 chilogrammes of vegetables, and 347 of mushrooms.

THE Royal Commission on Vaccination held a sitting on Wednesday, Lord Herschell in the chair. Dr. Cory, Director of the Animal Vaccine Station, Lamb's Conduit-street, and Dr. Charles Creighton were examined.

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THE Prefect of Rome has announced by circular to all the syndics of the provinces that the Istituto Antirabbico, or institution for the treatment and prevention of rabies on the Pasteur system, is now in full working order under the direction of Professor Angelo Celli.

HERBERT W. PAGE, M.C. Cantab., Surgeon to St. Mary's Hospital, has been appointed an additional examiner for this term for surgical degrees at the University of Cambridge.

DENGUE FEVER is reported to be spreading in Greece, and at Athens more than 2000 persons are laid up with it.

Pharmacology and Therapeutics.

RANKIN AND BORLAND'S SENNA PODS.

THIS preparation we have found to give very satisfactory results. It is readily taken, and appears to be very efficient and thoroughly free from griping properties. In several cases of chronic constipation it has afforded sufficient relief. No difficulty has been experienced in administering this preparation to children.

LANGAARD ON CHLORALAMIDE.

Dr. Langaard of Berlin reviews in the *Therapeutische Monatsschrift* the present state of our knowledge of the action of chloralamide—one of the latest of the various hypnotics that have from time to time been recommended to the notice of the profession. According to most observers, the new drug is a less powerful hypnotic, weight for weight, than hydrate of chloral. Kny considers that 3 grms. of the amide is only equivalent to 2 grms. of the hydrate. The ordinary dose for healthy adults may be put down as from 30 to 45 grains. Women and delicate patients should be given decidedly smaller doses than strong men. According to Lettow's observations in Professor Mosler's clinic, the best way to give it is as an enema. Sleep comes on in from half an hour to three hours after the drug has been taken. Lettow found the time required to induce sleep was in twenty-nine cases one hour; in twenty-three cases, two hours; and in three cases, three hours; the duration of the sleep being four to six hours in seventeen cases, two to four hours in two cases, and two hours only in two cases. Chloralamide shows itself to the best advantage where the sleeplessness is of a purely nervous origin, but it is by no means useless in numberless cases where there is some definite affection—that is to say, if it be not accompanied by pain of too severe a character. It will, however, act when the insomnia is due to the lightning pains of locomotor ataxy, also when there is a moderate amount of cough, and in a number of mental affections which are not accompanied by any very considerable degree of excitement. It has proved serviceable in delirium tremens; and in one case of cardiac asthma—myocarditis due to arterio-sclerosis—Hagen and Hüfler believed that it produced a real amelioration of the disease. There is very little to be said as to any undesirable by-effects; as a rule these are very slight, and are confined to a feeling of drowsiness and fatigue, with headache and giddiness of slight amount and short duration; but, notwithstanding the belief entertained by most writers on the subject that chloralamide is devoid of all action on the respiration and circulation, Dr. Langaard was able to demonstrate, by a number of careful experiments on animals, that it makes the respirations shallow and diminishes the arterial tension, though more slowly than chloral hydrate. He therefore cautions medical men to be very careful in prescribing it in cardiac affections. It is best ordered an hour or more before going to bed, and may be taken as a powder, washed down with milk, water, or coffee, or in solution with syrup, or it may be dissolved in wine or beer.

BROMOFORM IN WHOOPING-COUGH.

Dr. Stepp, who some time ago reported considerable success in the treatment of whooping-cough by means of bromoform combined with spirit and syrup, has lately written another paper in which he gives his experience of the use of bromoform in a fresh series of cases, bringing the total number in which he has used the drug up to 100. Although many of the patients were very young infants, the treatment did not fail in a single case, nor was there any instance in which any disagreeable effects followed its employment. He now finds that the best way of prescribing it is alone in a teaspoonful of water, with which it does not mix, but falls to the bottom in the form of a button. Care must be taken that this button is really swallowed, and not allowed to remain in the mouth. When given in this way children take it readily enough, though when ordered in the form of a mixture they sometimes greatly dislike it. As to the quantity to be ordered, Dr. Stepp states that to a child of three or four weeks old he gives one drop three or four times a day, to children of two or three years old four or five drops three or four times a day, and to children of seven years of age as much as six or seven drops three or four times a day. The vomiting very soon stopped, and recovery took place in from two to four weeks. In consequence of the volatile nature of the substance, and of its tendency to decompose, it is advisable only to order a small quantity from the chemist at a time—say, forty-five drops. It is also needful to see that the liquid has not any red tinge showing the presence of free bromine. The nurse must be cautioned to keep it from sunlight, and to put the stopper in the bottle immediately after use.

ACETATE OF LEAD IN PNEUMONIA.

Professor Crocq of Brussels has found that a remedy which was formerly a good deal employed in pneumonia, but which has long fallen into complete disuse—viz., acetate of lead—is in many cases of great value. This remedy was prescribed, combined with opium, by Ritscher, and afterwards by Strecht, Leudet, and others. Nothnagel and Rossbach mention it in their handbook, but consider that it is useless in ordinary cases, though they recommend it where there is œdema of the lung and in the hæmorrhagic form of the disease. Professor Crocq, having prescribed the lead salt in a large number of cases, is convinced that it frequently reduces the heart beats as much as ten or fifteen per minute in a single day, and that it exerts an equally marked effect upon the temperature, the sputum, too, becoming less in quantity and less deeply tinged. Instead of producing constipation, it is far more likely to open the bowels; but, notwithstanding this action, there is no objection to prescribing it with a little opium in cases where diarrhœa is present, or, if preferred, trisnitrate of bismuth may be added instead of opium. Small doses are of very little use, the minimum quantity that should be ordered for an adult per diem being six grains, and this may sometimes be increased with advantage to as much as fifteen grains. This treatment may be continued for a fortnight without any symptoms of lead poisoning presenting themselves. Professor Crocq remarks that it may be given at all stages of the disease, but at the beginning in strong subjects, and when the pain is severe, its action is but slight, and so antimonials are to be preferred at that time. Where, however, resolution is delayed, where there is but little fever, where the patient is very weak, where there is enteritis or diarrhœa, and especially where the digestive organs will not tolerate antimony, acetate of lead is very valuable. Again, when the pneumonia is secondary to some other serious disease, and when the heart is acting insufficiently so that the pulmonary circulation is interfered with, as in Bright's disease, in organic affections of the heart, in drunkards and in old people, acetate of lead will sometimes work wonders; indeed, he considers that it is most valuable in serious cases. Of course it must sometimes be combined with alcohol.

HÆMOGLOBIN IN CHLOROSIS.

In a recent number of *Merck's Bulletin* three formulæ are given for the employment of hæmoglobin in chlorosis and anæmia. It is stated that the chemical form and combination in which iron exists in hæmoglobin is thought to be such as to make the iron particularly easy of assimilation; hence, the use of hæmoglobin as a chalybeate or iron-bearing medicament has been attempted in cases of disease where an atonic condition of the digestive tract impedes the assimilation of medicines. A special virtue of hæmoglobin is said to be that it does not cause constipation. On the other hand, it is worth remembering that the proportion of iron in hæmoglobin is very small, and that it is currently held that, when the colouring matter is not enclosed in the corpuscles, it is speedily eliminated from the system.

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RECOLLECTIONS AND IMPRESSIONS
(MEDICAL, HYGIENIC, AND GENERAL)
OF THE
PARIS EXHIBITION OF 1889.

BY BENJAMIN WARD RICHARDSON, M.D., F.R.S.

(*Continued from p. 1078.*)

THE hygienic part of the Exhibition covered a large surface so to say, for practically it was to be seen in some detail everywhere. No fact was more remarkable than this proof of the advance of sanitation. The idea of health, with one or two conspicuous omissions, was omnipresent. The exhibitors of fabrics for clothing put health often before fashion, or combined the two, or made the fashion in some cases subservient to the health. The manufacturers of articles used in manual labours and in mechanical labours were charged with the same idea; and even amongst the ruder crafts—such as that of the blacksmith (a department of craftship which was well worth finding out, but which did not appear to be very much sought after)—there were some healthy improvements, especially in regard to furnaces and the construction of bellows, in both of which labour and time were saved and cleanliness secured.

Of necessity the model dwelling-house played its part in the show, several specimens of small model dwellings for the poorer folk having been built for inspection. To the industrious poor themselves these exhibits were, I think, not so fascinating as they once were, and as they are expected by the philanthropic world still to be. A change is coming over the minds of the masses in this respect, which is one of the most obvious signs of the democratic spirit of the age. The intelligent workman prefers now to look at the better-class house in which his more fortunate neighbour luxuriates rather than at the mere comfortable little cottage in which the bare necessities are ministered to and nothing more, and in which the sanitation, however perfect it may be in its way, is always staring the occupant of the dwelling in the face as if it were ever reminding him of the blessing of health which he is permitted to enjoy if he will only take advantage of it. So in these small model houses the work-a-day lookers-on did not express any exceeding content. They did not feast their sight on much beyond what they had got. They could afford to come to the Exhibition, many of them from long distances, and, as may be supposed, they found in these models nothing very novel, and often nothing better than that which, with many warm recollections, they had left behind them. It may be said that the visitors to the Exhibition were not exactly the class for whose benefit and instruction these buildings were erected, and that the models were rather intended to show to philanthropists generally how much sanitation could be concentrated on the smallest possible plot of ground in the smallest possible area enclosed in four walls, and with the fullest range of appliances for putting the largest family into the most limited cubic space compatible with healthy existence, and with some approach towards moral comfort. If this argument be admitted, it was not in the present case very successfully demonstrated. I certainly should not have allowed the models I saw an inch of ground in Hygeiopolis. I could discover no model that strictly deserved the name, or any improvement of architectural construction that deserved the credit of useful novelty. The rooms were small in all cases, were placed at awkward angles to each other, were not too well lighted, were bare of chaste decoration, were not specially well provided with the essential system of warming combined with ventilation so that the heat from the fires could be thoroughly utilised, and were not properly studied in respect to the roof so as to prevent the roof surface from absorbing any amount of heat during the summer and radiating any amount that may be artificially generated within the dwelling during the winter. In one cottage the whole of its surface in the upper floor was thrown into a large bedroom for the smaller members of the family, the long-pointed angular roof over their heads leaving nothing between the sleepers and the sky except a thin tile or slate lined with a case of wood not much thicker in substance; in fact, just the kind of roof which is most treacherous and most dangerous. There was, however, a good thing in the fitting of one, at least, of the so-called model dwellings, a fitting which would bear introduction into any house, large as well as small, and that was a fire-stove extremely simple of construction and economical in application. This stove, of rather elegant shape, was made of iron, and stood out some three feet from the chimney or flue with which it was connected by means of an iron pipe running from it at right angles into the flue. The stove was fed with fuel from the top, the fuel itself being coal in the form of dust, and above the stove passing along the upper surface of the iron pipe which extended into the flue there was a broad iron shelf on which plates and dishes could be put or any other kitchen utensils holding water or foods that required to be kept warm. Two bars on each side were convenient also for holding extra supports and for other purposes. This, described to me as a cottage stove, with a few more additions for an oven and a boiler—additions which could easily be adapted—would form a really excellent stove, applicable specially to small dwellings, and admitting of introduction into houses of large size.

I spoke in my last paper on the subject of the ambulance and the mode in which it was furnished with surgical appliances. It may be well to refer now to what may be called the hygiene of the ambulance system as represented in the latest great public exhibit in this department. I had the advantage of going through the department in company with my friend Dr. Danford Thomas, the able Coroner for Central Middlesex, who has paid great attention to the ambulance system in our country. We found a great many things here of practical moment, and much that was suggestive to the student and young practitioner of the Army Medical Service. There was one ambulance ward which was particularly suggestive as to the mode in which, under the emergencies of military service, beds could be improvised on which to lay the wounded. One bed or litter was exhibited made of trusses of straw with sheeting on the top and blankets and coverlet. Another framework for a bedstead was constructed out of rough wood-work — literally sticks — but so simply and firmly joined together as to become a really strong and convenient couch. In a third instance the frame was formed out of rough wood such as might be taken out of a timberyard or out of the railings of a common fence, and in this case a more workman-like structure was produced. In a fourth illustration the construction was carried out with materials of better quality, and in a manner much more like a frame-work from the hand of the carpenter or upholsterer. But in every instance the work was seen to be of a kind which any skilful hospital orderly could have carried out under the direction of the army surgeon, or by the surgeon himself if he had no assistance. The whole picture formed an excellent object lesson, which might with every advantage be introduced into our great medical schools and centres of medical learning. In another ambulance tent the different modes of placing the foods and medicines required by the sick or wounded were well displayed. In one the table holding these requirements was placed at the head of the bed, resting, in fact, on the framework at the head. In a second, the table was fixed at the foot of the bed, and a third at the side. It seemed to me that the position at the head of the bed was the most convenient and wholesome. The table was most out of the way in this position, the food was furthest removed from sources of impurity, and everything was within easy reach of the patient who was able to move and help himself, as well as of the nurse who might be in attendance.

In regard to the ambulance tent itself, there was little novelty. The material was of the ordinary quality of cloth stuff made as waterproof as possible, according to our present means of obtaining waterproof stuffs, but suggesting at the same time the necessity for considerable improvement in the manufacture of a lighter and easily portable material for temporary hospital purposes. In some of the ambulance tents (two of them, if my memory is correct) a ventilator was carried out ingeniously by the interposition of a kind of interspace curtained off in the angle of the roof. Into this space valvular openings permitted the air from the body of the tent to rise, and from the roof of the tent itself this air was permitted to escape by another and separate series of openings. The idea was to ventilate without creating draughts of air that would affect the patients. The admission of fresh air was mainly through the doors of the tent, but other openings

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were also provided. The lighting, artificially, was by means of the mineral oil lamp, suspended from the cross-bars of the roof or from a central pole support, and the arrangements for cooking or warming foods, carried out in one corner or side of the tent, were fairly complete. On the whole, the ambulance system here represented, although good, was not by any means ideal, to which criticism it will perhaps be said that it was as good as could be expected in a time of actual warfare when everything must needs be rough and ready. That, to my mind, is bad teaching, and bad provision for necessitous periods, a badness which has too often been acted upon, and always with results of the most disastrous nature when it has been put to proof. It seems common sense itself that, when emergencies are foreseen, the time has come, not for those emergencies to be left to answer for themselves in the rough-and-ready way in which they are too often left, but for making the most careful prevision and provision to meet all emergencies with all the modern appliances of the most advanced art. I mean by this that the greater the emergency the readier should have been the best means for meeting it and for relieving the difficulties that may spring from it.

METROPOLITAN HOSPITAL SUNDAY FUND.

A MEETING of the Council of the Metropolitan Hospital Sunday Fund was held in the "Long Parlour" at the Mansion House on Friday, Nov. 29th, at 3 P.M., some thirty or forty gentlemen being present, including Sir Sydney H. Waterlow, Bart. (vice-president), Canon Fleming, Canon Ingram, the Rev. Dr. Allon, the Rev. E. E. Jenkins, M.A. (ex-president of the Wesleyan Conference), Mr. Alfred Cohen, and Mr. R. B. Martin. Letters regretting inability to attend were read from the Bishop of London, Mr. Alfred Willett, F.R.C.S., the Rev. Septimus Hansard, M.A., Professor Marks, Captain Arthur Palliser, the Rev. Joseph Toulson, and others. A resolution adding the name of Sir James Whitehead, the late Lord Mayor, to the Council was carried unanimously and amid cheers. The annual general meeting of the constituents of the fund was fixed for Wednesday, the 11th inst., at 3 P.M. Sir Sydney Waterlow moved the adoption of the report, the main features of which were published in our issue of last week. It was, he said, very satisfactory to find that the sum raised this year was the largest ever received. For that they were greatly indebted to Sir James Whitehead, and he felt quite sure that the present Lord Mayor would be equally anxious to achieve an equal success during his mayoralty. Although no large legacies had been left to the fund, the increased collections were a satisfactory feature, and he trusted that they would continue steadily to progress to the £100,000, which sum represented the annual needs of the hospitals. He was glad to say that no serious complaints had been received as to the distribution of the fund, and all the recipients appeared satisfied. Some applicants, after due investigation of their claims, had been refused participation in the distribution for good and adequate reasons. The Rev Canon Fleming in seconding the motion, said that the growing results of the Hospital Sunday collections were largely due to the efforts of the clergy, and he felt sure that those efforts would not be relaxed. The report was unanimously adopted. The secretary, Mr. Henry N. Custance, read a long letter from the Rev. Canon Erskine Clarke, Vicar of Battersea, giving notice of his intention to move at the forthcoming meeting of constituents a resolution in favour of admitting district nursing associations to a participation in the distribution and benefits of the fund, and asking the Council to lend their support to his proposal. Law IV. of the constitution of the fund reads as follows:—"Those hospitals and dispensaries only which are managed by a committee duly constituted, and which produce their printed reports with balance sheets duly audited for the last three years, shall be allowed to participate in the Fund." The Rev. Canon Clarke will move to add after dispensaries the words "and district nurses' associations." The Rev. S. B. Burnaby, Rector of Hampstead, and several other reverend gentlemen having spoken in favour of the suggestion, Sir Sydney Waterlow rose and pointed out that the acceptance of the proposal would seriously alter the whole constitution of the fund and would extend its scope and open the door to such an extent that the Council would be unable to close it in the face of the many similar claims which might and probably would be urged. The Hospital Sunday Fund had prospered because it was undenominational, and everyone knew that the various nursing institutions stood on quite a different footing from the hospitals and other medical charities which now participated. He begged and warned the Council to be careful before they introduced what might become an element of discord and difficulty into their work. After some further discussion, it was resolved to refer the subject for consideration to the General Purposes Committee. It was decided to recommend to the constituents that the first Sunday after Trinity, June 8th, should be Hospital Sunday next year, Canon Fleming expressing the opinion that it was about the best Sunday they could choose. The meeting concluded with a vote of thanks to the Lord Mayor, who, in reply, stated that nothing should be left undone by him to make the fund a success during his year of office.

THE EPIDEMIC OF INFLUENZA IN ST. PETERSBURG.

DURING the last three or four weeks an epidemic of influenza, which has assumed serious proportions, has been raging in St. Petersburg and some of the suburbs and neighbouring towns—Peterhof, Gatchino, and Cronstadt amongst others suffering severely, while up to the date of the last information Tsarskoë Selo had escaped. In the schools of all grades from a quarter to a half of the pupils and teachers have been absent; the military hospitals, too, are so crowded that many of the men have to be treated in the barrack rooms, and the ordinary drill is seriously interfered with. Business is carried on but very partially, owing to the number of principals and *employés* who are laid up. The medical men—that is, those of them who are so fortunate as to have escaped—are "run off their legs," and the chemists are doing a thriving trade, chiefly in the sale of quinine to the public, who have largely come to understand the value of that drug in influenza. It is stated that one pharmacy of moderate size sold as much as a pound of quinine in two days. Dried raspberries, too, are reported to be so much in favour that it is now impossible to procure any. In order, apparently, to make up to the public for the difficulty of procuring medical attendance, the lay press has taken upon itself to instruct the uninitiated in the medical aspects of influenza. Thus, one of the first of the daily journals gravely states that influenza is liable to be complicated with pleurisy, eczema, bronchitis, pulmonary phthisis, nephritis, otitis, catarrhal pneumonia, vaginitis, scabies, lymphadenitis, and soft chancre!

It is impossible to say how far the affection has spread by actual contagion. In some families only one member has been attacked, while in others every member has succumbed one after another. The period of incubation appears to be two days, and that of invasion a few hours only. This is marked by lassitude, headache, and rigors, and is followed by great prostration, weakness, articular pains, headache, and sometimes by giddiness or various nervous phenomena, such as hyperæsthesia. The temperature rises rapidly; it may be almost as high as 105°, but generally falls quickly, seldom remaining high more than from one to three days. So far as appears at present, there is always some slight enlargement of the spleen to be detected. Three main types of the disease have been distinguished—the purely neurotic, the catarrhal, and the gastric. Cases corresponding to the purely neurotic type are marked by severe neuralgic pains, which might be supposed to betoken the commencement of an attack of pleurisy, while the mucous membrane of the respiratory and digestive tracts is quite unaffected. This form has been very common, and has been at the commencement mistaken for typhoid. In the catarrhal form there is bronchial catarrh, running at the nose, and conjunctivitis, which may either come on simultaneously with the fever or after this has gone down, and which usually last for several days after the temperature has become

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normal. In the gastric form there is sometimes severe vomiting, lasting for one or two days. With regard to complications which have been noted as occurring during the present epidemic, herpes of the lip and nose has been very frequent, and sometimes has been seen on the eyelids; erythema, roseola, and urticaria have also been seen; meningitic irritation and catarrhal pneumonia, too, are mentioned. The last-named complication has been the cause of the few deaths that have taken place. Many of the cases, on the other hand, have been very slight. Some relapses are reported as having occurred from five to seven days after convalescence; they were marked by a rise of temperature, rigors, and catarrh. The drugs most generally employed are quinine, acetanilide (of which 7½ gr. doses are ordered two or three times daily), antipyrin, salicylate of soda, and diaphoretics, which have proved very successful.

It may be remarked that owing to the frequency and severity of epidemics in Russia the disease has acquired the name of "Russian catarrh."

THE METROPOLITAN ASYLUMS BOARD.

AT the board meeting of Managers, held on Saturday, the 30th ult., a report of the Ambulance Committee to the General Purposes Committee, having reference to Section 6 of the Poor-law Act, 1889, was considered and its recommendations were adopted. As a result, the carriages belonging to the Asylum managers will be available for the conveyance of persons suffering from any dangerous infectious disorder to and from hospitals and other places, at a charge for each conveyance for the present of 5*s.*, a discretionary power being retained to remit the charge when deemed expedient in the interest of the public health. Any of the following diseases will be regarded as dangerous infectious disorders—viz.: "small-pox, cholera, diphtheria, membranous croup, erysipelas, the disease known as scarlatina or scarlet fever, and the fevers known by any of the following names: typhus, typhoid, enteric, relapsing, continued or puerperal;" also measles and such other "dangerous infectious disorders" as from time to time may require conveyance. It is laid down as desirable that a medical certificate setting forth the nature of the disease, and stating that the sufferer is fit to be removed, should be supplied to the Board's officers previously to the patients' removal. Persons may, under exceptional circumstances, be conveyed to or from places outside the metropolitan area, an extra charge being made for the same.

MEDICAL TRIALS.

MASON *v.* CHEVENS.

THIS was an action to recover damages for libel brought by Mr. W. Inglis Mason, a duly qualified surgeon practising at Sudbury, Suffolk, and also holding the office of parish doctor, against Mr. Chevens, the proprietor, publisher, and printer of a newspaper called the *South-West Suffolk Echo*, which circulates in the neighbourhood of Sudbury. The case was tried before Mr. Justice Cave and a special jury. The evidence showed that on Jan. 6th last a woman named Sharman told the plaintiff that her child was ill, and asked him to attend to it as parish doctor. The plaintiff told her that she must first obtain an order from the relieving officer, who could have been seen by walking a short distance occupying about three minutes. He also informed her that by subscribing 5*s.* she would be entitled to medical attendance by him for three months under a club system established in the place, which allowed subscribers for a very small sum to obtain medical relief for themselves or the whole family. The woman declined to pay the fee of 5*s.* and went away. The following day the child died, and the coroner's jury subsequently found that death was due to natural causes. The plaintiff was aware that Mrs. Sharman was living with a weaver, who was earning wages and was a pensioner and in a position to pay for medical advice, and that was his reason for refusing to see the child. The libel complained of was contained in an article published in the defendant's newspaper accusing the plaintiff of heartless conduct, and the defence was justification, and that the words complained of were fair and *bonâ-fide* comment. The jury found for the plaintiff, damages £20, and judgment was given accordingly.

THE CHARGE OF INTENT TO PROCURE ABORTION AT SELBY OAK.

THE secretary of the Medical Defence Union has favoured us with the subjoined account of this case.

At the last Worcestershire Assizes, a surgeon named Cuthbert was tried for having administered a noxious drug—to wit, ergot—with intention to procure abortion. Mr. Lawson Tait, the President of the Medical Defence Union, attended, with the intention of going into the witness-box as a witness for the defence, but after the prosecutrix had given her evidence, the case was stopped by the judge, it being obvious to everyone that her evidence was altogether fabricated and unreliable, and leaving little doubt that she had sent the ergot through the post to herself before accusing the surgeon. The prosecutrix had been a nurse at the Selby Oak Workhouse, and in that capacity she had had charge of the midwifery department, keeping the key of the surgery, and having the stock bottle of ergot in her possession. It was found that the label of the bottle which she alleged Mr. Cuthbert had sent to her was marked: "Ex. Ergot. Liq.," and it was pointed out that this is a very unusual abbreviation, and that doctors usually from habit write—"Ext." The stock bottle was produced, and the gold lettering on the bottle was found to be identical with the above, the abbreviation being the same in all the three words. The previous history of the woman was demonstrated to have been a very chequered one, and she has since become manifestly insane.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Lambeth.—Dr. Verdon, in the thirty-third annual report on the parish of Lambeth, discusses the question of the sufficiency of inspectors of nuisances in metropolitan districts, and he points out that whereas in one district a population of 9000 is deemed sufficient to demand the services of an inspector, one of no less than 105,000 is not considered too much in another district. Between these two extremes almost every conceivable arrangement is in force. It is notorious that in many London areas systematic and regular inspection is not performed as it should be, and it is quite clear that Lambeth, notwithstanding certain recent and trivial alterations, still lacks much in this respect. An able summary of the results of the Sheffield small-pox epidemic in its relation to vaccination is also submitted to the vestry, together with certain historical references to the subject. The mortality rate is calculated on an estimated population of 281,935, and this gives 18·1 deaths per 1000 living during 1888. The zymotic rate was 2·2 per 1000, the largest fatalities being due to diarrhœa, whooping-cough, measles, and diphtheria, the incidence of the several diseases on locality being indicated by plans, on which the occurrences of disease are indicated by dots. Diphtheria caused 103 deaths amongst Lambeth people, and the question of the origin of this disease is discussed in the report, with the result that Dr. Verdon feels convinced that defective drainage does contribute towards the prevalence of the disease. Half of the houses examined in cases of diphtheria exhibited obvious drain-defects, and we may hope that this proportion is in excess of that which obtains generally throughout the parish.

Holborn.—The general death-rate for this metropolitan district during 1888 was the lowest on record—namely, 16·1 per 1000, which represents a net gain in the year of 10,585 lives compared with the result which would have followed if the previous average rate had prevailed. Diphtheria shows a serious tendency to increase. This is an observation which applies to many urban, as opposed to

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rural, populations; and it cannot be altogether due to altered and improved nomenclature. Dr. Septimus Gibbon discusses the question of tubercular diseases and phthisis at some length, with the result that an opinion is expressed adverse to the view that phthisis is solely caused by that which the reporter holds to be its least potent factor or accompaniment—namely, the microbe. The report of the departmental committee on phthisis, appointed by the Veterinary Department of the Privy Council, is also adversely criticised. Current sanitary work would appear to be carried on with some energy in the district, and in a few instances action was taken during the year under Torrens' Act.

St. Luke.—This portion of the metropolis did not compare unfavourably as regards its death-rate last year with a number of the large towns and cities of England, the corrected rate per 1000 living having been 21·54. Diphtheria has somewhat increased, but, apart from this, the more preventable of the zymotic diseases have shown improvement. Attention is given to the slaughter-houses and the cowsheds, and they are described as being in a satisfactory condition. Amongst other improvements more or less affecting public health, Dr. Yarrow mentions the completion of the coroner's court, new mortuary, and disinfecting chamber; and it is noteworthy that since that change was effected none of the 43 inquests that have been held took place at public-houses. This is a piece of experience that some other metropolitan areas may well bear in mind.

Finchley.—This favoured metropolitan suburb had, according to Dr. Turle's report, a death-rate of 12·4 per 1000 last year, the extremes being 9·7 at Church End and 14·9 at North Finchley; whilst the general death-rate for London's outer ring was 15·3. All the more important of the causes of death are discussed in the report, and indications are given as to their prevention. A lengthened account is also given of the sanitary work carried out during the year, both as regards such as is systematic and that which was taken on the occurrence of cases of infectious diseases. Action in this latter respect has fortunately included a first instalment of an isolation hospital; but the inadequacy of the accommodation provided has been shown by the inability to take in diphtheria cases whilst scarlet fever was also under treatment. The slaughter-houses, dairies, and bakehouses are stated to have been subjected to regular inspection.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5167 births and 3477 deaths were registered during the week ending Nov. 30th. The annual rate of mortality in these towns, which had been 18·3 and 18·2 per 1000 in the preceding two weeks, rose last week to 19·0. During the first nine weeks of the current quarter the death-rate in these towns averaged 18·0 per 1000, and was 2·8 below the mean rate in the corresponding periods of the ten years 1879–88. The lowest rates in these towns last week were 11·6 in Norwich, 13·7 in Portsmouth, 14·1 in Huddersfield, and 14·6 in Leicester. The rates in the other towns ranged upwards to 25·1 in Hull, 27·4 in Manchester, 30·3 in Sunderland, and 32·0 in Plymouth. The deaths referred to the principal zymotic diseases, which had been 342 and 353 in the two preceding weeks, declined again last week to 343; they included 85 from whooping-cough, 63 from scarlet fever, 61 from measles, 51 from diphtheria, 46 from "fever" (principally enteric), 37 from diarrhœa, and not one from small-pox. No death from any of these zymotic diseases was registered during the week in Blackburn, Norwich, or Huddersfield; while they caused the highest death-rates in Bolton, Plymouth, and Sunderland. Whooping-cough caused the greatest mortality in Leeds and Hull; scarlet fever in Sheffield, Bolton, and Plymouth; measles in Nottingham and Sunderland; and "fever" in Leeds, Brighton, and Cardiff. The 51 deaths from diphtheria in the twenty-eight towns included 33 in London, 6 in Salford, 3 in Plymouth, 2 in Liverpool, and 2 in Newcastle-upon-Tyne. Small-pox caused no death in any of the twenty-eight great towns. Only one small-pox patient was under treatment at the end of the week in the Metropolitan Asylum Hospitals, and not one in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and London Fever Hospitals at the end of the week was 1650, against numbers increasing in the preceding twenty-two weeks from 559 to 1620; 132 cases were admitted to these hospitals during the week, against 204, 176, and 152 in the previous three weeks. The deaths referred to diseases of the respiratory organs, which had increased in the preceding five weeks from 281 to 328, further rose last week to 345, but were 118 below the corrected average. The causes of 71, or 2·2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Newcastle-upon-Tyne, Leicester, Blackburn, Bolton, and in seven other smaller towns; the largest proportions of uncertified deaths were registered in Halifax, Huddersfield, Sheffield, Hull, and Liverpool.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·8 and 20·6 per 1000 in the preceding two weeks, further rose to 21·0 in the week ending Nov. 30th; this rate exceeded by 2·0 the rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 15·0 and 17·4 in Dundee and Perth, to 22·5 in Glasgow and 23·1 in Aberdeen. The 536 deaths in the eight towns showed a further increase of 9 upon the numbers in recent weeks, and included 21 which were referred to whooping-cough, 18 to measles, 13 to scarlet fever, 11 to diarrhœa, 9 to diphtheria, 8 to "fever" (typhus, enteric, or ill-defined), and one to chicken-pox; in all, 81 deaths resulted from these principal zymotic diseases, against 64 and 53 in the preceding two weeks. These 81 deaths were equal to an annual rate of 3·2 per 1000, which exceeded by 1·3 the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 14 and 7 in the preceding two weeks, rose last week to 21, of which 4 occurred in Greenock and 3 in each of five other towns. The 18 deaths from measles showed a considerable increase upon recent weekly numbers, and included 13 in Edinburgh and 5 in Glasgow. The 13 fatal cases of scarlet fever, including 6 in Glasgow and 5 in Leith, also showed a marked increase upon the numbers in recent weeks. Five of the 11 deaths attributed to diarrhœa and 4 of the deaths from "fever" were returned in Edinburgh; and of the 9 fatal cases of diphtheria, 4 occurred in Glasgow and 2 in Leith. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 149 and 135 in the preceding two weeks, further declined last week to 121, but exceeded the number in the corresponding week of last year by 29. The causes of 56, or more than 10 per cent., of the deaths registered in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 26·3 and 24·2 per 1000 in the preceding two weeks, rose to 28·7 in the week ending Nov. 30th, and exceeded the rate in any week since the beginning of March last. During the first nine weeks of the current quarter the death-rate in the city averaged 25·3 per 1000, the mean rate during the same period being 17·4 in London and 22·1 in Edinburgh. The 194 deaths in Dublin showed an increase of 30 upon the number in the previous week; they included 11 which were referred to "fever" (typhus, enteric, or ill-defined), 5 to whooping-cough, 5 to diarrhœa, 4 to measles, 1 to diphtheria, and not one either to small-pox or scarlet fever. Thus the deaths from these principal zymotic diseases, which had been 19, 14, and 9 in the three preceding weeks, rose last week to 26; they were equal to an annual rate of 3·8 per 1000, the rate from the same diseases being 1·7 in London and 5·3 in Edinburgh. The deaths referred to "fever," which had been 13, 7, and 6 in the three previous weeks, rose again last week to 11; and the fatal cases of each of the other zymotic diseases exceeded the numbers returned in the previous week. The deaths of infants showed a marked decline, while those of elderly persons exceeded by 8 the number returned in the previous week. Six deaths from violence and 4 inquest cases were registered; and 59, or nearly a third, of the deaths occurred in public institutions. The causes of 18, or more than 9 per cent., of the deaths in the city were not certified.

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Correspondence.

"Audi alteram partem."

THE TREATMENT OF CANCER BY ELECTRICITY.

To the Editors of THE LANCET.

SIRS,—In a recent paper in THE LANCET by Dr. J. Inglis Parsons on the treatment of cancer by electricity, he advocates the employment of shocks given by the interruption and reversal of very strong galvanic currents. I cannot help thinking that this mode of treatment is founded on unproven and probably fallacious theories; and is not free from danger to the patients.

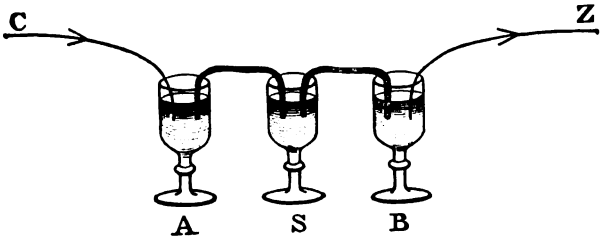
Dr. Parsons advocates this mode of treatment on the theory that the low vitality of the cancer cells is extinguished by the sudden reversal of the current, and likens it to the process by which human life is destroyed by electricity. I have before argued[1] that electricity probably does not kill by shocks when administered to lowly organised living material, but only by the effects of shock when administered to highly organised living beings, and then by the shocks acting on the inhibitory nerves and interfering with the rhythm of the heart It is probable that it is more difficult to extinguish lowly organised vitality by shocks than highly specialised vitality presided over by an elaborate and finely differentiated nervous system. The experiments also brought forward by Dr. Parsons to prove that no change takes place between the poles when a current of electricity is applied to animal tissue have been proved to be fallacious. The experiments referred to are as follows:—"Three glasses were connected together with a stout lamp-wick. Into each of these a standard solution of iodide of potash was placed. A current was then passed through the solution, with an intensity of 200 milliampères, until the whole of the iodide of potash in the two outer glasses was decomposed. On testing the centre glass it was found to contain as much iodide of potash as before, although in the two outer glasses it was all decomposed." "A second experiment was then tried with water in the outer glasses, and a solution of iodide of potash in the centre. The current was passed as before, but no decomposition took place in the centre glass." Dr. Parsons goes on to say: "these experiments demonstrate in a conclusive way that the passage of a constant current does not cause any decomposition between the poles, although there must of necessity be an exchange of atoms between the molecules."

In referring to these experiments before the Obstetrical Society of London on June 21st, 1888, I stated that I had repeated the experiments[2], substituting pieces of copper wire for the lamp-wick as the connecting media. The copper wire, while being a very good conductor, was also decomposed by electricity. In this case the iodide of potassium was split up in each jar, free iodine appearing at the positive ends of the pieces of connecting wire, and a large quantity of gas (hydrogen) being liberated at the negative ends.

Some interesting experiments are also detailed in Golding-Bird's "Natural Philosophy,"[3] to show that changes do take place at other points than at the surface of the electrodes when a current of electricity is passed through several electrolytes.

"The statement that, in cases of electro-chemical decomposition, the changes which take place in the electrolyte are continuous through a line of molecules, and not limited to those in contact with the electrodes, meets with an interesting illustration in the well-known experiment in which an alkali appears to traverse an acid without combining with it, and which has been erroneously regarded as a case of suspension of the laws of chemical affinity.

"Let three cups—A, S, B—be placed side by side and connected by means of pieces of lamp-cotton, moistened with a solution of sulphate of soda. Let A and B be filled with a solution of this salt, and the central cup, S, with dilute sulphuric acid. Let a platinum electrode, C, connected with the last copper cell of the battery, dip into A, and another, Z, from the last zinc plate, dip into B. The positive current will now enter the fluid in A, and escape from B through Z, traversing S in its course. Electrolysis of the sulphate of soda will take place, its acid with oxygen being set free in A, and the sodium will pass through the sulphuric acid in S and reach B, so that a quantity of free



soda will soon be found in B, the sodium being oxidised at the expense of the water. It is evident that this alkaline body must have traversed the acid in S, with which, indeed, it for an instant combined, and the resulting sulphate of soda being decomposed by the current, the soda ultimately appears in B.

"That in experiments of this kind the base really combines with the acid it is made to traverse is proved by using a salt with the base of which the acid forms an insoluble combination. Under these circumstances it is removed from the influence of the current and does not reach the third cup. Place in A, B solutions of chloride of barium, and in S dilute sulphuric acid. On the current passing, the contents of A are decomposed, chlorine is evolved, and barium set free. This is conveyed in the manner before described to the middle cup, and here it is arrested in its course by the acid which, in combining with it, forms an absolutely insoluble salt, the sulphate of barytes, which falls to the bottom of the vessel, and then neither barium nor its oxide reaches the cup B. Hence the salt chosen for experiment must be one whose base forms a soluble combination with the acid in the middle cup."

It is difficult, in the present state of our knowledge, to say how many secondary electrolyses take place in the passage of the current through the body. That it meets several elements presenting different states of polarity towards each other is certain; but whether chemical change takes place at the points of junction of each of these heterogeneous bodies it is at present impossible to determine. As a rule, electrolysis does take place between any two substances of different electro-chemical polarity at the point where they touch one another, if they are capable of conducting electricity. If, in the treatment of a uterine fibroid, we use an external potter's clay electrode, a water rheostat to regulate the current, and an intra-uterine electrode, we know that electrolysis takes place at four points: (1) In the cells of the battery; (2) in the water in the rheostat; (3) between the clay and the skin of the patient; and (4) at the point where the internal electrode touches the mucous membrane of the uterus. That electrolysis does take place in the tissues is probable from the fact that storage of electricity takes place in a patient subjected to electrolytic treatment. The patient becomes a secondary battery, and is capable of giving off a current in an opposite direction to the one used from the primary battery. This can be demonstrated by disconnecting the rheophores from the battery immediately after an application of electricity has ceased and uniting them to each other, still keeping them connected to the electrodes in contact with the patient; a reverse current will immediately be shown on the galvanometer, at first about twelve milliampères, but rapidly decreasing to eight and four. No storage of electricity could take place unless some decomposition of the fluids contained in the tissues electrolysed had taken place. The liquids bathing the cell elements of the tissues must become split up, and their constituents accumulated on the opposite surfaces of contiguous tissue cells. It is this only that could produce a polarising current. Becquerel and Faraday have shown that polarisation results from the decomposition caused by the passage of the current.

In the recent discussions on the electrolysis of fibroid tumours it has been asked: If the passage of an electric current has an effect upon the tumour, how is it that the normal structures, such as the bladder, muscles, skin, adipose tissue, &c., which are included between the two electrodes, are not also affected? It is quite possible that they are affected, that in them the normal tissue changes

[1] St. Bart.'s Hosp. Reports, vol. xix., p. 40.
[2] Vide Obstetrical Transactions, vol. xxx., p. 291.
[3] Pp. 292, 293.

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always in progress are accelerated, and that assimilation or "progressive metamorphosis" is encouraged. This from analogy would appear to be the case, for when a galvanic current is applied frequently to an atrophied and palsied muscle very often its nutrition is improved and its bulk increased; and there is no doubt that an increase takes place in the subcutaneous adipose tissue of the abdominal walls in patients subjected to the electrolytic treatment for fibroids.

The theory which Dr. Inglis Parsons first suggested, that the electric current may have a modifying influence on the cells of a tumour, which from their lower vitality could not recuperate themselves so well as the normal cells of the body, is not improbable. In fact, it may be that in the tumours subjected to a current of electricity a "retrograde metamorphosis" is set up.

Dr. Neftel, who is a great authority on the treatment of cancer by electricity,[4] "is inclined to believe that electrolysis produces remote constitutional effects by altering the condition of the protoplasm of the cells in which the poison of cancer is contained, and by the propagation of which the disease becoms constitutional. As soon as the protoplasm has, by the electrolytic process, lost its specific contagious qualities, the cancer is prevented from reproducing itself, and gradually disappears through the process of absorption."

Electrolysis is no doubt sometimes very useful in cancer, especially in cancer of the uterus, not only to destroy portions of the growth, and thus check the advance of the disease, but noticeably to diminish the pain and hæmorrhage so frequently attending it.—I am, Sirs, yours, &c.,

Dec. 3rd, 1889. W. E. STEAVENSON, M.D.

A CASE OF PTOMAINE POISONING.

To the Editors of THE LANCET.

SIRS,—Will you be good enough to allow me space to reply to the criticisms on a case of ptomaine poisoning which was kindly read for me in my absence by Dr. Barlow at the last meeting of the Clinical Society, more especially as some of the statements made were allowed to pass without protest? Dr. Sydney Martin is reported in THE LANCET to have said that "all those ptomaines which had been isolated had an action directly opposite to atropine, and no ptomaine was known which acted like that drug;" in other journals the report reads that "ptomaines, which were definite compounds, always gave rise to symptoms the opposite of atropine, and atropine was their antidote." Both statements seem to me to be open to criticism. Zuelzer and Sonnenschein[1] obtained from putrefying meat infusion an alkaloid which had the chemical reactions of atropine, and caused dilatation of the pupil with loss of light reflex, acceleration of the heart, and paralysis of the muscular coat of the intestines. Von Anrep obtained from salted sturgeon which had caused poisoning and from the bodies of those who died of the poison an alkaloid which produced the following symptoms: dilatation of the pupils, dryness of the mucous membranes, retention of urine and fæces, laboured breathing, feebleness of the heart's action, considerable pallor of skin and diminished temperature.[2] In man there were in addition paralysis of accommodation and difficulty in swallowing. I acknowledge that these are not in every respect the symptoms of atropine poisoning, but the resemblance is sufficiently striking to have caused one authority (Dr. Lauder Brunton) to insist on their mainly atropine-like character, and another (Professor Kobert)[3] to name the alkaloid "ptomato-atropine." Dr. Lauder Brunton[4] says: "Most of the alkaloids which have been obtained by the decomposition of albumen appear to belong to the muscarine type, and to have a tendency to cause diarrhœa, although some appear to belong rather to the atropine type, which to a certain extent counteracts the effects of muscarine,"—a statement repeated by Sir W. Aitken.[5] Moreover, Dr. Brunton[6] proposes to treat poisoning by a ptomaine having a purely atropine-like action with physostigma, and mentions a case in which this has been done. It is incorrect to say that "all those ptomaines that had been isolated had an action directly opposite to atropine," or that "atropine was their antidote." Leaving out of consideration the non-poisonous ptomaines, such as neuridine, cadaverine, putrescine, gadinine, and others, which Dr. Martin's statement does not cover, we find many well-defined ptomaines whose action is not directly opposite to atropine. Peptotoxine[7] causes in rabbits paralysis of the posterior extremities, somnolence, inability to stand, and death. Hydrocollidine[8] causes in birds tremors, violent convulsions, tetanic contractions, and death. Methyl-gadinine,[9] extracted from putrid horseflesh, produces symptoms like those of curare. Tetanine and tetanotoxine,[9] formed in the cultivation of the bacillus of tetanus, cause the symptoms of tetanus. The list might be much prolonged.

To return to my case, the symptoms closely resembled those of atropine and ptomato-atropine poisoning, and it was this resemblance, together with the almost sudden and practically complete recovery on evacuation from the bowel of two putrid-smelling motions, that induced me to describe it as a case of ptomaine poisoning. At the same time I am quite conscious of the gap that exists in the logical proof of this position—viz., absence of any demonstration of a ptomaine. The patient had no sign of kidney disease before his illness, and has had none since. Not only so, but the urine passed after thirty-four hours of suppression, and during the persistence of the symptoms, was free from either albumen or blood. To my mind these facts absolutely negative a diagnosis of uræmia.

I am, Sirs, yours obediently,

Dec. 2nd, 1889. C. SCOTT WATSON.

[4] Vide Medical Electricity, by Dr. Althaus, p. 650.
[1] Berliner Klinisch. Wochensch., 1869, p. 121.
[2] Brieger: Ueber Ptomaine, French translation by Roussy and Wurter, p. 63, note.
[3] Ueber Fischgift, Schmidt's Jahrbuch, 216 p. 144
[4] Disorders of Digestion, p. 291.
[5] Animal Alkaloids, second edition, p. 67.
[6] Op. cit., p. 287.
[7] Brieger: Ueber Ptomaine, French translation, p. 31.
[8] Roussy: Revue des Sciences Médicales, tom. xxxi., p. 307.
[9] Roussy, loc. cit.

"INGUINAL COLOTOMY": A NOVEL METHOD OF PERFORMING THE OPERATION.

To the Editors of THE LANCET.

SIRS,—Dr. Purcell, in his paper on "Inguinal Colotomy for Malignant Diseases of the Rectum," describes an operation as now performed by him, and in the last paragraph he says "this operation was the outcome of deliberations between us"—viz., himself and me, "and I have to thank him" (Mr. Jessett) "for his suggestions, which I was enabled to carry out with the utmost success, and which we have styled 'A novel method of inguinal colotomy.'" As the method I have suggested, and which I described to the Fellows of the Medical Society, differs in many important particulars from that described by Dr. Purcell, I will ask you kindly to insert a description of my operation, which I have called "A novel method of performing the operation." The points in which my operation differs from that described by Dr. Purcell are as follows: 1. I make the ordinary incision through the abdominal parietes, *not a curved incision.* 2. I only clamp the intestine in one place—viz., as high up as I can. 3. I use catgut sutures, not silk, for bringing together the serous coats of the invaginated ends of the divided intestine. 4. I bring the upper or proximal portion of the intestine out of the wound for some three inches, and invaginate the divided end. *I do not fasten the cut ends of the upper segment to the wound.* The three cases described by Dr. Purcell were the first that came into the hospital after I had determined to divide the sigmoid flexure at the time of operating, and *invaginate* the cut end of the lower segment into itself and return it into the abdominal cavity. In operating on these cases Dr. Purcell most kindly carried out my suggestion, which is the only novelty in the operation so far as I had then gone. It was obvious, however, that there were grave objections to leaving the upper end of the intestine open. I determined, therefore, in my next cases to draw as much of the sigmoid flexure out of the wound as I could, divide it about three inches from its origin, and invaginate the cut ends of *both* segments, dropping the lower segment into the abdominal cavity, and leaving the upper segment protruding from the wound to be removed later on. In this consists the novelty of the operation. I showed at the Society a portion of the intestine which I had removed three days after operation, the invaginated end of which was firmly united. I may say the idea of this operation was the outcome of experience gained in my experimental work on intestinal surgery.

The operation as described by me to the Fellows of the Medical Society was as follows:—The patient should have

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only liquid diet—strong beef-tea, eggs, milk &c.—for a week or ten days before the operation. The bowels should be kept well opened for some three or four days before by castor oil or some saline aperient, and the rectum washed out as far as possible once a day with warm water enemata.

Operation.—The abdomen being opened by a straight incision in the usual position, a small flat sponge with a long string attached to it is passed into the cavity to keep the small intestines and omentum from protruding; the index finger of the left hand is then passed backwards along the brim of the pelvis until it reaches the sacro-iliac synchondrosis, when the descending colon will usually be felt dipping into the pelvis; the finger is then passed over the colon, and a portion of the sigmoid flexure hooked up into the wound, and a loop some inches long withdrawn through the opening. A band of indiarubber is now to be passed through the mesocolon and fastened tolerably firmly round the intestine as high up as possible, to prevent the passage of its contents when the intestine is divided. The wound is next packed with small sponges, to each of which a long string should be attached, and the loop of intestine is surrounded with cotton-wool pads soaked in warm and carbolised water. The intestine is now cut across with scissors about three inches from its upper end, and the contents, if any, evacuated, in some cases it will be desirable to wash the gut out with warm carbolised water. All bleeding points being secured, the divided end of the lower segment is to be invaginated into itself and the end closed by a continuous catgut suture passing through its serous and muscular coats. The mesocolon may now be torn downwards for an inch or more if necessary, and the torn edges stitched over with fine catgut suture. This portion of the flexure is then allowed to drop back into the abdominal cavity. The divided end of the upper portion of intestine is next invaginated and secured in place by means of a continuous catgut suture and the indiarubber band removed. All sponges and wool-packing can now be removed and the parts thoroughly washed, and the parietal wound closed in the usual manner, care, however, being taken that the suture just above the intestine should pass through its serous and muscular coats, and the suture below is passed through the meso-colon. Two fine silk sutures are to be passed through the muscular and serous coats of the intestine and the abdominal parietes on each side, so as to thoroughly secure it from slipping. Finally, the spur of intestine, about three inches long, which is left protruding from the wound, is packed carefully round with thymol gauze, the whole covered with a thick pad of cotton-wool and a many-tailed flannel bandage lightly applied. The dressings should not be disturbed for three or four days unless symptoms occur necessitating their removal. On the fourth or fifth day the spur may be cut away on a level with the skin, all bleeding points secured, and the wound dressed with eucalyptus or boracic ointment. One great trouble to be feared in Allingham's operation, and the one I am describing, is the tendency of retraction of the stirrup of intestine when the loop or spur is cut off. I therefore in future shall content myself with opening the spur on the fourth or fifth day, and delay its total removal until some days later. This would have the further advantage of enabling the wound to be kept quite free from contamination from the escaping fæces.

I am, Sirs, yours faithfully,

FRED. BOWREMAN JESSETT.

Upper Wimpole-street, December, 1889.

DR. RENTOUL'S SCHEME.

To the Editors of THE LANCET.

SIRS,—As chairman of the meeting at Bethlem Hospital, referred to in Mr. R. H. S. Carpenter's letter in your last issue, I shall be glad if you will allow me to make some remarks in answer. Mr. Carpenter is mistaken on one or two points. The meeting was one of the South London District of the Metropolitan Counties Branch of the British Medical Association, and was summoned at the instance of the committee of that district for the purpose of obtaining the opinion of members of the district on the proposal of Dr. Rentoul, a course which was subsequently approved by a meeting of the council of the branch. On this occasion no general invitation was issued to the practitioners of the south of London.

The members of the Association were not outnumbered by visitors. There were seventeen members present, including the chairman and secretary, and only seven whose names are not on the list of the Branch. In reference to the proceedings, I can only say that, as chairman, I was bound by the rules of the district, one of which is to the effect that the chairman shall invite all visitors to express their opinions; but another prohibits voting by any but members of the Branch. It would clearly be against the spirit of that rule to allow any visitor to propose a resolution which he could not support by a vote. Such regulations do not seem to me peculiar to the British Medical Association. No Society or Association could allow its visitors—however free to speak—to vote, and thus control the action of that Society. But I can assure Mr. Carpenter that there was no attempt to hoax anyone, and I quite fail to see how the meeting can be so regarded. I am, Sirs, yours faithfully,

FREDERICK TAYLOR,
Vice-President of the South London District.

St. Thomas's-street, S.E., Nov. 30th, 1889.

To the Editors of THE LANCET.

SIRS,—The meeting at Bethlem Hospital on Nov. 13th to which Mr. Carpenter refers was a meeting of the South London District and not of the whole Metropolitan Branch, as might be inferred from Mr. Carpenter's letter. As mover of the amendment in favour of Dr. Rentoul's proposals, I wish to point out that it was by no means in the interests of our party that the voting was restricted to members of this Branch of the Association. The chairman and secretary, who both opposed Dr. Rentoul's proposals, were responsible for the enforcing of this bye-law of the Branch. For my own part, I thought that it would have been in better taste if the chairman had left this rule in abeyance in case no member insisted upon it. Mr. Carpenter must remember that a bye-law of the Metropolitan Branch, while allowing visitors to join in the discussions, forbids their voting.

As a special meeting of the whole Metropolitan Branch will shortly be held, and as the same rule is liable to be enforced, I would suggest that the above bye-law should be left in abeyance. I think I can say that there will be no objection to this on behalf of Dr. Rentoul's supporters. As a matter of fact, if anyone present at these meetings chooses to vote, there are never, so far as I know, any steps taken to test the right to do so. No doubt the proposer and seconder of a resolution run the risk of being challenged; and it is certainly irregular for anyone but a member to vote.

As to Mr. Carpenter's sneer at the officials of the British Medical Association, I beg to remind him that they have no power to set aside existing rules of the Association.

I am, Sirs, yours faithfully,

Highgate, N., Nov. 30th, 1889. HUGH WOODS, M.D.

THE PATHOLOGY OF CHOREA.

To the Editors of THE LANCET.

SIRS,—I trust that you will allow me to reply briefly to some of the criticisms of Dr. Maclagan upon the paper in which I suggested that the clinical associations of chorea point to the possibility of its origin in some temporary overgrowth of connective tissue in the nerve centres. Dr. Maclagan asks what evidence there is that rheumatism is capable of producing increased growth of connective tissue. Of its power of doing so I would quote the subcutaneous rheumatic nodules as standing examples, for they have been repeatedly shown to consist of connective tissue in a state of active growth. Dr. Maclagan adds that few pathologists are likely to endorse the view that the lesions of endocarditis are analogous with those which result in nodule formation; yet this view is supported by the results of microscopic research, and since it was first enunciated by Drs. Barlow and Warner in 1881 has gained wide acceptance. Nor can I see that it is in any way disproved by the so frequent limitation of the endocardial process to the valves, and to certain portions thereof; for although, with all respect to the opinion of Dr. Maclagan, I am not prepared to agree entirely with his views as to the influence of strain, I should be the last to deny that mechanical influences play a very important part in determining the distribution and seat of rheumatic lesions either in the joints or heart. If the clue to the association of chorea with rheumatism lies in the fact that one is a disease of the motor apparatus, the other of the motor centres, we might surely expect to

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trace a similar association of chorea with gout and rheumatoid arthritis, in spite of the rarity of these maladies in early life. Unquestionably the undoubted occurrence of non-rheumatic chorea offers a very serious objection to the hypothesis suggested in my paper, if it can be shown that temporary fibrous tissue overgrowth is pathognomonic of rheumatism; but I do not think that it is proved that similar changes are not produced in other diseases, even although they may not result in the formation of subcutaneous nodules in the characteristic situations. In conclusion, I may say that I would not for a moment deny that the hypothesis at present rests upon slender foundations, but I believe that the clinical considerations upon which it is based warrant the suggestion of a line of pathological research. I am, Sirs, yours faithfully,

Chandos-street, W., Dec. 2nd, 1889. ARCH. E. GARROD.

"MEAN DURATION OF LIFE."

To the Editors of THE LANCET.

SIRS,—Parkes gives the following formula for calculating the mean duration of life, and at the same time condemns this quantity as a test of the health of the population considered: ⅔ inverse of death-rate + ⅓ inverse of birth-rate. This, when the birth-rate equals the death-rate, coincides with the formula quoted by Mr. S. C. Waters—viz., the inverse of the death-rate. The figures in Dr. Corfield's report do not agree with either of these formulæ, so that, as he asserts that he gives the real average duration of life calculated from the death-rate of his district, and not, as you suggested, the average age at death, it would be interesting to know the method used by him. The expression "mean duration of life" is, I hear, avoided by actuaries, but much affected by political and social orators and writers. Nothing puts an audience into a better frame of mind than telling them the mean duration of life has been increased. If it is taken to mean, as Mr. Waters suggests, the expectation at birth, it is essentially yearless, and quite unfit to be employed as a test of health in any particular year. I think two things are necessary in the proper use of figures: that they should be correctly used, and also that no attempt should be made to claim for them a greater precision than the subject admits of. The death-rate itself is acknowledged to be simply a convenient expression for something that gives a rough indication of the health of a district, and any figures arrived at from this basis by means of an approximate formula must be very wide of the mark. The true statement of the case is this. The reciprocal of its death-rate is roughly proportional to the state of health of a district, and is therefore roughly proportional to the duration of life in that district, generally speaking. The expression "mean duration of life" applied to any particular year is scientifically meaningless and misleading to the public.

I am, Sirs, yours faithfully,

Dec. 1889. T. GLOVER LYON, M.A., M.D. Cantab.

"BLINDNESS BY DISABILITY."

To the Editors of THE LANCET.

SIRS,—You will doubtless be deluged with letters on the subject of Dr. Gowers' communication in your last edition. Dr. Gowers, who is a consummate master of that most difficult instrument, the ophthalmoscope, warmly mentions a case of optic neuritis in chlorosis which, unfortunately, was under the care of a medical man unable to use the ophthalmoscope, and terminated ultimately in blindness. It was a sad case, certainly, and it would appear that the medical attendant was greatly to blame, not in my opinion so much on account of his ignorance of the ophthalmoscope as because he failed to properly treat the chlorosis, the cause of the neuritis, with its suitable and well-known remedy—viz., iron. All physicians and surgeons who specially study the eye and its diseases must every now and then come across the unhappy results of ignorance and incompetence, and I wonder what Dr. Gowers would say to the case of a poor fellow, only forty-seven, who came to see me a few weeks back, totally blind in his left eye, and with the following history. About two years ago he was admitted into a hospital suffering from some form of ulceration of the leg, and whilst in this institution an attack of typical acute glaucoma came on in his left eye, with severe pain and vomiting, and rapid loss of vision; no operation, he tells me, was ever suggested to him, the eye was treated with "lotion, drops, and caustic," and seven weeks from the onset of his attack he left the hospital with the sight of that eye completely gone, and when I saw him it was in a state of glaucoma absolutum, with the typical glaucoma cup, and to make matters worse, he is suffering from an old injury to his other eye, the sight of which is letters of 20 Jaeger slowly. In my innocence I had thought that every medical man knew of the existence of acute glaucoma, and that iridectomy, done in time, is an absolute specific for it. But Dr. Gowers refers to a wider subject—the instruction in the use of the ophthalmoscope given at the schools, and the number of the men who avail themselves of it. And here I think there is good cause for congratulation. I can myself speak for two schools. Eleven years ago I finished my hospital career in London, having, amongst other prizes, taken the medal for Practical Medicine, and I can safely say I never saw the optic disc all the time: indeed, the student who even possessed such a thing as an ophthalmoscope was a *rara avis*. It was not considered the thing to go into the Eye Department, and I never felt welcome there myself; one always seemed to be intruding, at least so I thought. Later I studied at Edinburgh University, and graduated there, dividing with another the prize given to the most distinguished graduate, and yet, I believe, only on one occasion had I succeeded in catching a hurried glimpse of the optic disc. I mention these facts, not in personal aggrandisement, to show that only a few years ago it was possible to take the highest prizes at two large schools of medicine without being able to recognise an optic disc; yes, or the vocal cords or membrana tympani either. I have fortunately been able to rectify those defects, and, returning and working at both my former places of study under a new *régime*, I am surprised to find the number of men with a very competent knowledge of the ocular fundus, and it would be impossible, I believe, now to take a prize for medicine at either institution without a good knowledge of the ophthalmoscope, and doubtless, ere very long, men will be unable to graduate at any university in the United Kingdom without being able to diagnose the various common diseases of the fundus of the eye. I am, Sirs, yours obediently,

S. JOHNSON TAYLOR, M.B., M.R.C.S.

Norwich, Nov. 25th, 1889.

THE MORTON LECTURE ON CANCER.

To the Editors of THE LANCET.

SIRS,—I am pleased to find that Dr. Inglis Parsons has reason to think that his operation may be effective at fewer sittings than I supposed, or even at a single sitting. I am quite satisfied that he has been before me in *publishing* the opinion that cancer cells escape the control of the nervous system, for I have never *published* any of my views on cancer; but that these latter are entirely independent, and, more than that, may turn out to be incorrect, is what I am equally ready to maintain. I will explain my views, and the processes by which I arrived at them, in a note to the Morton Lecture, when this is published.

I am, Sirs, yours truly,

Savile-row, W., Dec. 2nd, 1889. JOHN MARSHALL.

OPERATIVE TREATMENT OF FLAT-FOOT.

To the Editors of THE LANCET.

SIRS,—It has been strongly urged upon me that, if I still hold osteotomies for flat-foot to be unwarranted, because unnecessary, I ought not to allow Mr. Hare's paper in THE LANCET of Nov. 16th to pass unnoticed. But I have felt, as I did on reading Mr. Davy's communication to the Medical Society in March last, that if the facts and considerations which, during the past six years, I have repeatedly laid before your readers have not convinced, neither would anything for which I could reasonably ask you to spare me space be likely to do so now. Moreover, I have recently stated at full length, in a published book, my views on the physiology of the feet. Therein I have attempted to prove, among other propositions, these, which I first propounded more than sixteen years ago:—1. The muscles that *by* their action move the foot and the body upon it, *in* their action support the arch, which, in early life, they develop. 2. Flat-foot is due to failure of this functional support; renewal of functions in specially active manner will restore the arch. As, however, in my book I

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have, as far as possible, avoided all surgical questions, and especially any which involve differences in opinion with eminent surgeons, I may ask permission to state here that I hold as strongly as ever the opinion that osteotomy for flat-foot is rarely, if ever, a justifiable operation, and certainly not in such a case as that described by Mr. Hare, which I do not regard as extreme.

I am, Sirs, yours faithfully,

Gloucester, Nov. 22nd, 1889. T. S. ELLIS.

AN EXPLANATION AND PROTEST.

To the Editors of THE LANCET.

SIRS,—As the editor of *Truth* has chosen to connect my name with what has been termed the "Clifton Scandal," I must ask you to allow me to state that my acquaintance with Mrs. Smith orginated in her bringing her daughter to me for a tumour of the jaw, upon which I operated last March in University College Hospital; that I allowed her to append my name to the perfectly unobjectionable prospectus of her school as a matter of charity, and only after making inquiry about her at Clifton; and that I entirely disapprove of her *modus operandi*, to which I never lent the least support, although my name, together with those of several highly respected clergy and doctors, was printed by *Truth* as if it had been appended to that disgusting document. I am, Sirs, yours obediently,

Cavendish-square, W., Dec. 3rd, 1889. CHRISTOPHER HEATH.

THE LATE GLASGOW UNIVERSITY GRADUATION CEREMONY.

To the Editors of THE LANCET.

SIRS,—In your last issue an account is given by a correspondent of a disturbance or riot which recently took place among our students, and I see that he repeats a fable current in the local prints that I had my gown torn off my back, while another medical journal adds that I was "roughly handled." Though there is not a shadow of foundation for these statements about myself, seeing I had no gown on and was subjected to no unbecoming treatment whatever, yet it is not to contradict such foolish assertions that I write, but because I feel that these accounts will be read with most painful surprise by our graduates, scattered all over the world, unless they are put at their true value. The whole affair has been most grossly and unfairly exaggerated in the local newspapers, and so far as I saw, the medical students, with a very few exceptions, had no hand or part in the business.—I am, Sirs, yours faithfully,

Glasgow, Dec. 3rd. GEO. H. B. MACLEOD.

COLOUR TESTS FOR RAILWAY SERVANTS.

To the Editors of THE LANCET.

SIRS,—The method illustrated in your issue of Nov. 23rd, p. 1056, in which Dr. Lediard employs coloured glass is undoubtedly very much better for railway purposes than the coloured wool test. However, an ordinary railway servant's hand-lamp, provided with red, green, yellow, blue, and purple glasses, would be far better than the appliance illustrated. Dr. Lediard appears to use his apparatus in a room; now that being so, the test is practically useless. A man may easily, for instance, see the red light in the doctor's room, but can he see the three or four red lights on the back of a train a mile in front of him?—that is the question. And, further, where there are extra lines of rails a man must be able to know how many red lights there are, and their positions.—I am, Sirs, yours truly,

CLEMENT E. STRETTON,
Consulting Engineer, Asso. Soc. Drivers and Firemen.

Saxe-Coburg-street, Leicester, Nov. 27th, 1889.

A DIET OF LEAN MEAT AND WATER.

To the Editors of THE LANCET.

SIRS,—I have been anxiously looking for some replies to the very interesting question raised by Dr. Herschell's paper in THE LANCET of Nov. 9th. I entirely agree with him that the time has arrived when our views as to animal diet should be reconsidered. For two years past I have been treating obese patients for limited periods on a diet mainly of lean meat and water, and I must emphatically say such a diet is well borne, and is greatly beneficial to the general health, especially in those cases previously suffering from dyspepsia, and the experience of over 200 cases leads me to think that the diet may be persisted in without any ill effects for long periods together. In most of my cases the average loss in weight was from 2 to 3 st. and 12 in. in abdominal girth. The stored carbon rapidly disappears. The Terra del Fuegans at Westminster, as Dr. Herschell urges, are good specimens of a diet almost entirely confined to lean horseflesh and water, and the all-important questions raised should be fully discussed. I agree with all Dr. Herschell puts forward, but wish to add my mite of experience gained in treating obesity by largely diluted animal food, in order to elicit from some of the well-known men who make dietetics a specialty their views on Dr. Herschell's carefully considered paper.

I am, Sirs, yours obediently,

Chancery-lane, W.C., Nov. 28th, 1889. W. TOWERS-SMITH.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

A Heavy Day at the Northern Hospital.

BETWEEN 7.39 A.M. and 5.9 P.M. on Monday, the 25th ult., the horse ambulance of the Northern Hospital was out twelve times. The following notes of the cases have been kindly forwarded by Mr. George M. Arkle, the ambulance surgeon. No. 1: W. C——, aged twenty-seven; fractured base of the skull; brought in dead. No. 2: E. F——, aged forty-two; concussion of the brain; admitted insensible. (Both these accidents were caused by falling down shipe' holds.) No. 3: J. W——, a male aged twenty; extensive scalp wound and slight concussion of brain, from a fall into a graving dock. No. 4: J. B——, aged fifty-one; two wounds of penis from being struck by a cart shaft, and shock. No. 5: S. S——, a boy aged fourteen; leg crushed between two bales of cotton; sprained ankle. No. 6: T. C——, male aged fifty-six; fracture of os calcis by fall from a scaffold. No. 7: B. M——, female aged sixty-six; bruised legs and side, sprained ankle, and shock, caused by being crushed beneath a falling bale of cotton. No. 8: B. S——, male aged thirty-two; immersion, cut on forehead, and bruised hip, caused by a fall into a dock while drunk. No. 9: J. H—— and W. T——, both males, aged thirty-eight and thirty; acute alcoholic poisoning. No. 10: R. D——, male aged twenty-three; compound fracture of arm, for which partial excision of the elbow-joint was subsequently performed. No. 11: E. S——, female aged twenty-four; extensive wound of forehead and nose, wound of hand, with much hæmorrhage. No. 12: W. S——, male aged twenty-eight; fractured ribs and severe shock from fall into a cellar. All the above were admitted as in-patients except No. 5 (made an out-patient) and No. 12, who went home against advice. On the evening of the same day an old man was admitted with strangulated inguinal hernia, and herniotomy was performed.

Bequests to Local Hospitals and Dispensaries.

The following bequests will be received from the executors of the late John Farnworth, a former mayor of Liverpool, who died in 1869, and whose widow has recently died:—£1000 each by the Lying-in Hospital and the Northern Hospital, and £500 each by the Royal Infirmary, and the North, South, and East Dispensaries.

Students' Dinner.

The annual dinner of the students of the Medical Faculty of University College took place at the Adelphi Hotel last Saturday. There were about ninety guests, the majority of whom were medical students. Professor Glynn presided, and Professor Rushton Parker responded for the professors.

Increased Prosperity and Intemperance.

In the annual report of the Head Constable for the year ending Sept. 29th last it is stated that "the number of cases of drunkenness has again risen—the usual, though lamentable, accompaniment of increased prosperity." This statement is abundantly confirmed by the number of cases brought before the magistrates on the last few Monday mornings, which has been increasingly more than for many years past. It is also clear that there are fewer unemployed labourers than there were some months ago. It is an unfortunate fact that drink appears to be obtainable

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here even in bad times, much more so when they are prosperous; this is probably the case in other large centres of population, and Liverpool, while being no better, is probably not worse than London, Glasgow, or Bristol in this respect.

Liverpool, Dec. 3rd.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle.

THE Newcastle Saturday and Sunday Fund collections for the year have every appearance of presenting a very satisfactory improvement over those of 1888. From the published statements of the committee it is shown that the Church collections have been augmented by nearly £100, and the workmen's gathering by over £500, so that even so far there is an increase of £600 over last year. Much of the workmen's increase is due to the exertions of the honorary secretary of the fund, Mr. R. H. Holmes, who first, and after much labour, induced the adoption of the plan of a systematic collection in the factories of small weekly sums, and this mode of collection has fully justified his sanguine anticipations.—A very successful entertainment and conversazione was held last week in aid of our newest medical charity, the Cripples' Home at Wallsend. I am told that over 1000 tickets had been disposed of, and that the use of the hall was given free by Mr. James Deuchar. A very substantial sum is likely to accrue as a result to the charity.

Sunderland.

A very characteristic lecture under the auspices of the Sunderland Students' Society was given last week by the Rev. H. R. Haweis on Cremation.—At Dr. Collie's ambulance class for ladies at Bishopwearmouth, the Duncan Memorial fund was referred to, and it was stated that subscriptions had been received from all classes, ranging from £25 each, from Lord Londonderry and the Earl of Durham, to the shilling of the railway porter.

Durham: Rashness of Miners.

An inquest was held at the Durham County Hospital last week on the body of a miner who died in the institution from the effects of burns. It was shown that the deceased had set himself on fire by placing his pipe in the pocket of his coat, which presently burst into flames, inflicting such severe burns that Dr. Binnie of Brandon ordered his removal to the hospital. The coroner stated that he had known of similar cases before of fatal burns from lighted pipes; notably one where a miner put a lighted pipe into his pocket beside his powder flask, when an explosion took place and inflicted fatal burns about the chest and arms.

Middlesbrough.

It would appear from the statement made at the Board of Guardians that the decrease in pauperism is almost phenomenal. As compared with the corresponding fortnight of last year there is a decrease of 530 in the number of persons receiving out-door relief, and of £58 in the cost, altogether presenting good evidence of prosperous times.—Many will be sorry to hear that the experiment of placing Loch Leven trout in the Park lake at Middlesbrough has failed. About two years ago some 1500 yearling trout were placed in the lake, and to all appearance were thriving, but the conservator reported last week that they had been poisoned, probably from some contamination of the water by chemical refuse. Licences were about to be issued to anglers.

Newcastle-on-Tyne, Dec. 4th.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

The Edinburgh Health Society.

MR. SMITH CLARK, one of the members of a deputation from the Edinburgh Health Society to the Edinburgh Trades Council, was singularly happy in his choice of arguments in favour of a closer union between the Council and the Society. To no one is a clear understanding of the laws of health of greater importance than to the man who depends upon his bodily strength and the clearness of his head for his own maintenance and that of his family. It is one of the main objects of the Society to promote the advancement and well-being of the working classes generally, by any means which, from time to time, may be deemed advisable; and this deputation was sent to the Trades Council to ask them to interest the working classes still more in carrying out the objects of the Health Society by inducing them, their wives and their families, the various unions and other societies that are influenced by the Council's opinion, to come to the lectures that are given week by week, and also to become members of the Society. Last week the lecture was on Home Sick Nursing, by Miss Musgrove, Superintendent of the School of Cookery and Domestic Economy. It was full of sound advice and common sense, and was highly appreciated. The points on which special stress was laid were: as little furniture in a sick room as possible, good ventilation, supervision of visitors, good organisation, great self-control, and consideration for the patient. In the management of children, warm water and soap; regular, sufficient, but not excessive feeding; confinement to bed, and such-like matters, were insisted on. Other most practical advice as to the kind of bed, the administration of medicines, and the substitutes for poultices, was listened to with the greatest interest by a very large audience.

Extraordinary Graduation Ceremony.

At a meeting of the Senatus of the Edinburgh University, held last Saturday, the degrees of Bachelor of Medicine and Master in Surgery were conferred on forty-five candidates who had been unable to graduate at the August ceremonial. At the same time the degree of Bachelor of Science in the department of Public Health was conferred, after special examination, on nine graduates in medicine. It will be remembered that at the final examinations held last July a certain number of the candidates, who had failed in one subject only, were referred for three months, and were alowed to appear for re-examination in October. Of those so permitted to reappear forty-five were at this time successful in satisfying the examiners, with the result that they have not to spend another year in Edinburgh or some other medical school. Those who were rejected altogether have to take out two qualifying classes before they can again present themselves for examination. This new arrangement is a great boon to those who are just on the border line of the pass. It is certainly a great concession on the part of the University, and as such is highly appreciated.

New University Court Assessors.

At the meeting of the General Council of the University of Edinburgh held last week, Dr. John Duncan, Mr. McKie (Advocate), and Lord Kingsburgh were elected to act, along with Dr. P. H. Watson, as representatives of the Council on the newly constituted University Court. Of these gentlemen, Dr. Duncan and Mr. McKie are spoken of as advanced university reformers, whilst Lord Kingsburgh's accurate knowledge of the New Universities Bill and of the meaning read into the various clauses by the framers of the measure will be of great value to the Court. On Saturday the Senatus Academicus elected, as their additional representatives, Professor Taylor from the Faculty of Divinity, and Professors Sir William Turner and Crum Brown, both from the Faculty of Medicine. Professor Campbell Fraser, of the Faculty of Arts, is the other representative.

The Royal Society

At a general statutory meeting of the Royal Society, held last week, the following members of Council were elected:—President: Sir William Thomson. Vice-presidents: Professor Sir Douglas Maclagan, Hon. Lord M'Laren, Rev. Professor Flint, Professor Chrystal, Dr. Thomas Muir, and Sir Arthur Mitchell, K.C.B. General Secretary: Professor Tait. Secretaries to Ordinary Meetings: Professor Sir W. Turner and Professor Crum Brown. Treasurer: Mr. Adam Gillies Smith, C.A. Curator of Library and Museum: Dr. Alexander Buchan. Ordinary Members of Council: Dr. J. Batty Tuke, Professor Bower, Dr. G. Sims Woodhead, Mr. Robert Cox of Gorgie, Professor Isaac B. Balfour, Professor Ewing, Professor Jack, Professor Jas. Geikie, Mr. W. H. Perkin, jun., Mr. A. Beatson Bell, the Right Hon. Lord Kingsburgh, C.B., and Dr. John Murray. By a resolution of the Society the following hon. vice-presidents, having filled the office of presidents, are also members of Council:—His Grace the Duke of Argyll, K.G., K.T.; the Right Hon. Lord Moncreiff of Tulliebole.

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Health Statistics.

In his return to the Public Health Committee for October, Dr. Littlejohn reports a death-rate of 16·36 per 1000 of population. Infectious diseases have been specially rife this year, as no fewer than 531 cases have been reported, and 34 deaths therefrom, of which 30 occurred in the Old Town. This number of intimations was twice as large as in any October for the last five years. Deaths from diseases of the chest numbered 99, from debility 34, measles 275, scarlatina 146, diphtheria 49, and typhoid fever 60. Dr. Russell, in presenting the report, pointed out that in the Old Town there were four times as many cases of infectious diseases as in the New Town, and, further, that the proportion of deaths was ten times as great in the Old Town as in the New—most important facts when taken in conjunction with the insanitary condition of the Old Town and St. Giles' Ward. During the month no less than 14,756 lb. of diseased or unsound meat have been confiscated—6839 lb. from the city and 7917 lb. from the country.

Edinburgh, Dec. 3rd.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

DUBLIN.

Sir William Stokes, M.D.

AT a meeting of Convocation of the University of Oxford held last week, Sir William Stokes was selected as Examiner in Surgery to the University. This compliment to an Irish surgeon is one which cannot fail to be very gratifying to the profession in Ireland. Sir William Stokes is Professor of Surgery and Examiner in Surgery in the Royal College of Surgeons in Ireland.

Royal Medical Benevolent Fund Society of Ireland.

A quarterly meeting of the Central Committee was held at the College of Surgeons last week. Surgeon-Major J. B. Gaffney resigned the posts of honorary secretary and treasurer for the Bombay Branch, and Mr. Thomson also resigned similar offices for Dublin. In the room of the latter gentleman, Deputy Surgeon-General Henry King was appointed. Grants having been made amounting to £72 10*s.* to a few urgent cases, the proceedings terminated.

Rathmines Water-supply.

Professor Tichborne, who has recently examined this water, states that the suspended matter which can be seen in every sample is very objectionable. This suspended matter varies in quantity and quality with the locality. It is not all peat, but largely consists of alluvial sediment—earthy matter carried down by the streams,—some rich in oxide of iron from the pipes and peat. The removal of this suspended matter means much more than making it sightly water. Filtering means the removal of the earthy and unpleasant odour, and also the reduction of the organic nitrogenous matter, a fertile source of danger in summer. It also implies the production of a water-supply which would be constant in quality. Professor Tichborne urges that the filtering beds should be constructed before the summer months set in; and although the winter floods may probably make the supply unpleasant in character, this would be of small importance as compared with the changes which the tepid waters of July may bring about.

Death of Dr. Wm. R. McNab of Dublin.

This gentleman died suddenly on Tuesday morning from heart disease, aged forty-five years. On Saturday last he appeared to be in good health, and occupied the vice-chair at the annual dinner of the Scottish Benevolent Society of St. Andrew. He was Professor of Botany in the Royal College of Science, and was the author of several works on botany. He had a considerable knowledge of fossil plants and delivered numerous lectures on this subject. The deceased was a native of Scotland, but had been settled in Dublin for the past eighteen years.

Queen's College, Galway.

Dr. Augustus Dixon has been appointed Professor of Chemistry to this institution. Dr. Dixon studied under Professor Hoffmann of Berlin, and was afterwards assistant lecturer in chemistry to Dr. Reynolds, Professor of Chemistry, Trinity College, Dublin. The appointment is one which has met with universal approval.

Cork Union Workhouse.

An inspector of the Local Government Board—Colonel Spaight—has recently investigated the condition of this workhouse, and his report will come before the Cork guardians next Thursday. To relieve the present overcrowded state of the workhouse in an efficient manner, and yet at slight expense to the ratepayers, was the problem to be solved, and the suggestions of Colonel Spaight, it is believed, if carried out, will terminate the unsatisfactory and discreditable crowding on the male side of the workhouse and also in the female lunatic division.

Mr. David Turner has been elected resident medical officer to the Royal Hospital for Incurables.

Dublin, Dec. 3rd.

BELFAST.

University Extension Scheme in Belfast.

It has, I understand, been resolved to establish in Belfast a Society for the Extension of University Teaching, similar in its basis to other kindred associations in England and Scotland, and it is hoped that lectures on scientific and literary subjects will begin early next year. These will probably be delivered in Queen's College. The Mayor of Belfast (Mr. Connor, M.A.) and the President of Queen's College are taking a very active part in the movement, and a scheme has been drawn up giving details as to the management of the proposed new society. The lectures will be delivered in the evenings, and it is expected that they will be largely attended by young men who are engaged during the day in business pursuits.

The Royal Hospital.

The quarterly meeting was held on Nov. 25th, and the report read stated that during the past three months there were treated in the hospital 579 in-patients, and 238 medical and 341 surgical cases. During the same period there were 5643 extern cases. At the close of the financial year (Aug. 31st) the debt of the hospital was £1147 10*s.* 7*d.* The expenditure for the two months since then has been £1366 18*s.* 3*d.*, making a total of £2514 8*s.* 10*d.* The receipts for the two months have only been £517 15*s.* 9*d.*, so that on Oct. 31st the debt of the hospital was £1996 13*s.* 1*d.*, which is a very serious deficiency. For the post of resident surgeon there were two candidates—Dr. W. A. Wheeler and Dr. Gorman. The former, who received 88 votes to 24 for the latter, was elected. There is a strong feeling that it would be much better in these elections to appoint a small subcommittee, selected from the Board of Management and the medical staff, to be the body to elect the medical officers. At present it is necessary even for the post of house surgeon to canvass an electorate of more than three hundred persons.

The Belfast Charitable Society.

From the annual report read at the meeting of the friends of this—the oldest—Belfast charity I learn that with officers and servants there is a total of 179 persons at present in the house. The numbers seeking admission are far in excess of the accommodation in the house. During the past year, Dr. Esler (on going to London) resigned the position of assistant medical officer which he had held for several years, and Dr. Richard Purdon was appointed in his place.

Belfast Medical Students' Association.

The inaugural meeting of this Association was held last week at Queen's College. After a hearty vote of thanks had been given to Dr. O'Neill (the retiring President), Dr. MacKisack was elected in his place. Mr. Fullerton was appointed treasurer, and Mr. H. T. Heron, B.A., secretary.

Lisburn Union Workhouse.

At a meeting of the Lisburn Board of Guardians, held on Nov. 26th, Dr. M. B. Mackenzie was elected medical officer of the Lisburn Union Workhouse, in place of Mr. Samuel Musgrave, resigned. There were seven candidates.

Belfast, Dec. 3rd.

SCARCITY OF MEDICAL MEN IN AUSTRIA.—In consequence of the scarcity of medical men in some parts of Austria, an order has been issued by the Minister of Education that men recently qualified who have come from these localities must return to their homes to practise for a certain number of years unless they are fortunate enough to obtain some Government post elsewhere.

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PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Paris Drinking-water.

THE defective supply of the drinking-water of Paris is still occupying the attention of the authorities. At a recent meeting of the Council of Hygiene, Drs. Chantemesse and Vidal observed that in the month of February, 1887, they had shown the intimate relation which existed between the increase of typhoid fever in Paris and the distribution of the water of the Seine. The researches and observations made since that period showed (1) that in 1889 the relations between these two factors were the same as those pointed out in 1887; (2) that the arrondissements provided with the Seine water had undergone a mortality from typhoid fever three or four times higher than that of the rest of the city, which was supplied with spring water. The practice here consists in distributing the water from the Seine successively to all the quarters, which proceeding is most favourable to the spread of typhoid fever.

Storing Food in Inhabited Rooms.

A writer in the *Gazette Médicale de l'Algérie* calls the attention of hygienists to the danger of eating butter impregnated with dangerous miasmata. Frequently the butter is prepared and kept in inhabited rooms, and sometimes even in rooms occupied by sick persons. Milk also is often kept in the same manner. The result is a contamination by morbific germs. Care should therefore be taken to obviate these grave risks to the public health.

Sugar in Urine.

Dr. Gaube, as the result of his observations, has arrived at the following conclusions, which he has published in the *Gazette Médicale de Paris*. The mean quantity of the normal sugar in the urine during infancy is 1 gramme per litre, 70 centigrammes in the adult, and 80 centigrammes at the age of maturity, per twenty-four hours. Every individual whose urine contains more than these quantities of sugar is, according to Dr. Gaube, in process of diabetic evolution, and the individual whose renal excretion contains less sugar is cachectic.

Myopia in French Schools.

Dr. Motais of Angers has made an interesting communication on the hygiene of vision amongst pupils in the schools and colleges of France. The author asserts that myopia in schools exists in France, as in Germany, in an alarming degree, and will increase if the authorities content themselves with simply formulating certain regulations without seeing that they are properly carried out. Dr. Motais has shown that myopia is not only a question of heredity or of race, but may be acquired, and it then often becomes hereditary. I need not here mention all the reforms advocated in his paper, as the greater part of them have already been pointed out by others who have studied this branch of hygiene. He, however, insists on the necessity of organising inspections in the schools. These inspections, besides being useful in preventing the development of ocular affections, would lead to the discovery of lesions which, taken in time, would be curable.

Pasteur Statistics.

According to the report published in the Annals of the Pasteur Institute, there have been treated at that institution from Nov. 1st, 1888, to Nov. 1st, 1889, 1830 persons bitten by rabid animals, of whom 11 have, in spite of the treatment, succumbed to hydrophobia. This gives a mortality of 0·60 per 100. Deducting, however, the number of persons (4) who died during the treatment or in the fifteen days which followed it, the mortality is reduced to 0·38 per cent., which figure is still inferior to that of the preceding years. It has been established that the number of deaths after treatment is becoming more and more reduced. For this year it is 1 per cent., whereas the mortality of cases not treated is less than equal to 15 per cent.

Paris, Dec. 3rd.

THE SANITARY INSTITUTE.—At the meeting on Dec. 11th, at 8 P.M., a paper will be read on "The Disposal of Sewage," by W. Santo Crimp, Assoc. M. Inst. C.E., F.G.S.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

"Antibakterikon."

A BERLIN chemical factory has produced a new kind of ozone water, which is said to be distinguished from other liquids of the kind by its freedom from lye of Javelle, and by its durability. It is to be patented under the name of "Antibakterikon," and is manufactured as follows:—Oxygen gas is made of chlorate of potassium and pyrolusite, and conducted into a pressure gasometer, whence it is sent through a series of so-called Siemens' tubes. With the help of a strong electric stream, produced by a machine similar to that which gives the electric light, a secondary stream is produced in these tubes, which discharges itself slowly but constantly, and converts the oxygen gas into an ozone solution of about 10 per cent. During this process various substances are added to the gas to prevent its evaporating. Dr. Otto Ringk of Berlin, the inventor of this new preparation, declares that it possesses extraordinary sanative virtues, not only producing a good effect in cases of tuberculosis, cholera nostras, typhus, diabetes mellitus, toothache, &c., but also destroying the virus of diphtheria and scarlet fever with absolute certainty. The future will show whether this news be not too good to be true.

The Tetanus Bacillus.

A Japanese physician named Kitasato has recently ascertained a series of important facts about traumatic tetanus in the Hygienic Institute of Berlin University, of which Robert Koch is the head. The first proof that traumatic tetanus is an infectious disease was given in 1884 by the Italian investigators Carle and Rattone, who inoculated rabbits with pus taken from a person suffering from this disease, and thereby produced fatal tetanus. A year later a student at Göttingen named Nicolaier, a pupil of Professor Flügge, made the highly important discovery that there are bacilli everywhere in the ground, which, if introduced under the skin of mice, guinea-pigs, and rabbits, invariably cause traumatic tetanus with fatal result. One year later the Göttingen surgeon Rosenbach showed that Nicolaier's tetanus bacilli are found, in persons attacked by traumatic tetanus, in the tissue where the infection began. It was therefore recognised that the bacillus discovered by Nicolaier is the cause of traumatic tetanus in human beings and animals. The exact study of these tetanus bacilli, however, was attended by many difficulties, chiefly because no one had succeeded in isolating them in pure cultivations, further cultivating them on an artificial nutritive basis, and finally producing tetanus experimentally with pure cultivations, all of which processes the rules of bacteriology require to be carried out with success before the theory of the tetanus bacilli can be regarded as proved even in its main points. Dr. Kitasato has now done this in a conclusive manner. He owes his success to the circumstance that he changed the usual method of cultivation. One of the chief difficulties was that, in order to thrive, the tetanus bacilli must be most rigorously guarded against the access of air. Dr. Kitasato's studies enable him to give a much more exact description of the tetanus bacilli and their way of life than has been given hitherto. In particular, he gives a precise account of the formation of spores. He also states that the destructive power of the tetanus bacillus is not in the least impaired by cultivation.

Professor Hans Virchow.

As already announced by us, Dr. Hans Virchow, a son of the famous pathologist, has been appointed Extraordinary Professor of Anatomy in the University of Berlin. He was born in 1852 at Würzburg, was educated in Berlin, and studied medicine, especially anatomy, in Berlin, Bonn, Strasburg, and Würzburg. His studies were interrupted by the French war, in which he fought for the fatherland as a lad of eighteen. He graduated in Berlin in 1875. His thesis for his degree was a report of a series of microscopic investigations of certain constituents of the ovum, and he chose microscopic anatomy as his special province. The narrower field of this wide province, to which he has devoted and still devotes special attention, is the finer structure of the eye. He has thoroughly studied its

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details—the ramification of its vessels, the structure of the humour, &c.—in human beings and in animals. He published the results of these investigations in two essays, entitled, "On the Vessels of the Choroid of the Rabbit," and "Contributions to the Comparative Anatomy of the Eye." Another group of Dr. Hans Virchow's publications belongs to physiology, and relates to the motion and bearing of human beings. They are founded on very laborious observations of persons in action and in sleep, of acrobats, athletes, so-called caoutchouc men, and armless persons. He has taught in Berlin University as private lecturer and as demonstrator since 1884. Before that he was for about seven years assistant to Professor Kölliker of Würzburg. Berlin University now has two ordinary professors of anatomy, Waldeyer and Hertwig, and two extraordinary professors, Hartmann and Hans Virchow. Another of Rudolph Virchow's sons is a chemist, and at present assistant to Professor Liebreich; a third is a botanist.

Case of Blood-poisoning.

A somewhat singular case of blood-poisoning has occurred in Berlin. A woman walked across her room without slippers, and a pin ran into one of her feet. It was pulled out at once, but the foot soon swelled, with most violent pain, and a doctor was called in. He declared it to be a case of blood-poisoning caused by the circumstance that some of the coloured wool of the stocking had got into the puncture. He ordered her to be taken at once to a hospital, where the foot was amputated without delay. The operation was successfully performed, but the patient is not yet out of danger.

Cholera in Western Asia.

A Berlin paper hears from St. Petersburg that cholera is dying out in the provinces of Persia. In Southern Mesopotamia, on the other hand, all over Irak and among the nomads of the Syrian desert, who resist all medical superintendence, the epidemic is raging with great violence. The Persian authorities are executing the quarantine regulations with considerable rigour.

The Dengue Fever.

The dengue fever, the reappearance of which in the Piræus was announced a few days ago, forms the subject of an essay by Professor Zuelzer of Berlin, intended for von Ziemssen's special "Handbook of Pathology and Therapeutics." The first symptoms of the disease resemble those of apoplexy. As a rule, it keeps pretty well within the tropics, and is confined in Europe to the Mediterranean coasts and a part of Southern Spain. It is endemic on the coasts of the Red Sea. According to Vauvray, it breaks out every year at Port Said at the time of the date harvest, and is known there as the date fever. In the height of summer isolated cases have occurred in New York and Philadelphia.

A History of the Prussian Institutions for the Training of Army Surgeons.

Dr. von Coler, physician-general to the Prussian Army, has recently published an essay entitled "The Berlin Institutions for the Education of Army Physicians and Surgeons, their Origin and their Development." The first token of special care for the training of army surgeons in Prussia was the founding of the Theatrum anatomicum in 1713 by "the great drill-sergeant of Prussia," King Frederick William I. The idea was suggested to the King by Surgeon-General Hotzendorf. The next step in the same direction was the erection in 1724 of the Collegium medico-chirurgicum, which was open to all students of medicine, but accorded certain privileges to those who intended to enter the army. The famous Pepinière, an institution intended simply and solely for the training of physicians and surgeons for the army, was founded in 1795; it was the good result of the very sad experience of the Prussian army in respect to the care of the sick and wounded in the wars of Frederick the Great.

Berlin, Nov. 26th.

THE CHURCH OF ENGLAND FUNERAL REFORM ASSOCIATION has lately, through its hon. sec., the Vicar of Westow, York, issued a manifesto in which it complains of lack of funds. The objects of the Society—namely, the minimising of the expense of funerals, and securing throughout the kingdom the use of coffins of a readily-perishable material—are such as ought to commend themselves to the public.

Obituary.

RICHARD VON VOLKMANN.

RICHARD VON VOLKMANN, one of the greatest of German surgeons, died at Jena on Nov. 28th. He was born at Leipsic on Aug. 17th, 1830. His father, Alfred Wilhelm Volkmann, was a famous physiologist, and held the chair of physiology in the University of Halle from 1843 till 1877. Richard Volkmann studied at Halle, Giessen, and Berlin. He established himself as a private lecturer in Halle University in 1857, and was appointed ordinary professor of surgery and head of the surgical hospital there in 1867. He was with the Prussian army in the wars of 1866 and 1870–71, in the latter of which he accompanied the fourth army corps as surgeon-general. He has always stood true to the University of Halle, which loses its brightest ornament in him. When Langenbeck retired to well-earned repose in 1882, the professorship of surgery in Berlin was offered to Volkmann and declined by him. He was a kind of king in Halle. One of his chief merits, probably the greatest of all, was that he was one of the first and most enthusiastic apostles of Lister's method in Germany. He simplified Lister's bandage, showed the application of crimped gauze, introduced chloride of zinc as an antiseptic, created the conception of "aseptic wound-fever," and did all that in him lay to get Lister's method introduced without delay in hospitals and in private practice all over Germany. But it was not only as the eloquent advocate and active propagator of Lister's great reform (which, owing to the less scrupulous cleanliness of German hospitals, was still more salutary in Germany than in Great Britain) that Volkmann gained an undying name; his treatment of diseases of the joints, especially in children, of wound-erysipelas, lupus, and synovitis, and his investigations of the growth, bending, and atrophy of bones and of tumours, especially cancer-tumours, among paraffin workers, entitle him to rank among the great benefactors of mankind. He was at the same time one of the best teachers of surgery, and his lectures on diseases of the joints are regarded as the best treatment of the subject in existence. His name also stands high in the imaginative literature of Germany, and he will long be remembered in non-scientific circles as the author of "Reveries at French Firesides." These poetical effusions were written in the intervals of his hard surgical work in the Franco-German war, and were originally intended for his own children, but have gone through fourteen editions and become the common property of the German nation. He had suffered for several years from a severe affection of the spinal cord. A long stay on the Lake of Constance and journeys in Italy so far restored him that he was able to resume his work in Halle last summer. His work, however, soon proved too much for him, and he had to give it up entirely. Severe neuralgic pains induced him to consult Professor Binswanger of Jena some weeks ago. He had invited the chief German surgeons to meet him in Halle on Nov. 17th to constitute the surgical section for the International Medical Congress that is to meet in Berlin next summer. Notwithstanding the delicate state of his health, he kept this appointment, and took part in the deliberations with his wonted vivacity. On his return to Jena he was prostrated by inflammation of the lungs, and paralysis of the heart suddenly ended his sufferings.

THE SERVICES.

ARMY MEDICAL STAFF.—Deputy Surgeon-General Wm. Cattell has been placed on retired pay (dated Nov. 23rd, 1889).—The undermentioned Surgeons-Major to be Brigade Surgeons, ranking as Lieutenant-Colonels:—Wm. Winslow Tomlinson, vice J. Robinson, retired (dated Nov. 4th, 1889); William Sparks Martin Price, vice W. Temple, V.C., M.B., retired (dated Nov. 7th, 1889).

Surgeon Justin F. Donovan, M.D., has been allowed to withdraw, with a gratuity, from the Service, which he entered in March, 1879. In 1882, while Surgeon of Jamaica Hospital, he received the expression of their lordships' great satisfaction at the display of zeal and devotion to duty manifested during the epidemic of yellow fever at

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Jamaica; and in 1888 a like expression for the manner in which his duties were performed during his three years' commission at Malta Hospital. Dr. Donovan has been appointed to an important position in the Colonial Medical Service at the West Indies.

ADMIRALTY. — The following appointments have been made:—Surgeon Robert H. Nicholson to the *Swallow*, and Surgeon William H. O'Meara to the *Hercules* (both dated Nov. 29th, 1889); Staff Surgeon Robert Bentham to the *Cordelia*, Staff Surgeon Charles James to the *Caroline*, Staff Surgeon John A. M'Adam to the *Neptune*, Surgeon William Hayes to the *Cordelia*, Surgeon Bassett C. E. F. Gunn to the *Alacrity*, and Surgeon Johnston H. Acheson to the *Rattlesnake* (all dated Dec. 6th, 1889).

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—In consequence of arrangements for alterations to the electric light apparatus, the library of the College will be closed on Tuesday next, the 10th inst., at 3 P.M.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—Mr. James Harry Poland, M.R.C.S. and L.S.A. Lond., Surgeon Superintendent, Queensland Emigration Service, having passed the necessary examination, has been granted the Diploma in Public Health of the College.

FOOTBALL CASUALTY.—During a football match on Saturday last, at Shipley, near Bradford, between Shipley and Manningham Rangers Club, George Flaxington, a Shipley forward, sustained a fracture of the leg below the knee.

NOTTS COUNTY ASYLUM.—At the last meeting of the County Lunatic Asylum Committee of the Notts County Council, an important report was received from the Commissioners in Lunacy, in which the County Council are recommended to build a new County Lunatic Asylum.

SANITATION OF CAIRO.—Mr. Latham, the sanitary engineer specially commissioned to report on the measures necessary to improve the sanitary condition of Cairo, is stated to have recommended 240 miles of sewers and a system costing about half a million sterling.

BEQUESTS.—Mrs. Margaret Baxter has left £100 to St. Joseph's Asylum and £100 to the Royal Hospital for Incurables.—Miss Harriet Saurin has bequeathed £600 to the Convalescent Home, Stillorgan, £250 to the Adelaide Hospital, and £250 to St. Patrick's Home for Nurses for the Sick Poor.

THE HONG-KONG SANITARY BOARD, only recently constituted, with the Colonial Surgeon and the Captain Superintendent of Police as president and vice-president respectively, does not appear to have been of much public utility. The office of coroner has been abolished, and the duties have been transferred to the police magistrates.

ROYAL HULL INFIRMARY.—ON Tuesday, Nov. 19th, a most enjoyable concert was organised by Staff Surgeon Alfred Corrie, R.N., for the amusement of the inmates of the Royal Hull Infirmary. A striking feature of the entertainment was that it was purely naval, all taking part in it belonging in some way or other to the navy. At the end of the entertainment the senior consulting surgeon of the institution, Dr. Lunn, proposed a hearty vote of thanks to Staff Surgeon Corrie and those taking part in the concert.

THE PINE TREATMENT OF DISEASE.—A number of representatives of the medical and scientific press assembled by invitation last Tuesday at the Hydro-Therapeutic Institution at Farnborough, on the occasion of the anniversary of the establishment being opened. It is claimed for this institution, the medical officer of which is Dr. Vaudrey, that the system of baths and massage can here be obtained in their entirety, and during the past year many patients have been sent there by their medical advisers. At the banquet in the evening, the chairman, Mr. Nethersole, gave an encouraging report of the progress made, and announced that a new wing would have to be erected for the reception and treatment of patients unable to pay the full fees. Congratulatory speeches followed, and after an enjoyable evening the guests returned to town in a special train courteously provided by the management.

LECTURES AND DEMONSTRATIONS ON OPHTHALMOLOGY.—A useful series of lectures and clinical demonstrations are now in progress in the Newcastle Infirmary for Diseases of the Eye, conducted by Mr. C. S. Jeaffreson. The first lecture, which was delivered on Nov. 9th, was on the Relation between Ophthalmology and General Medicine and Surgery. Dr. Benjamin Barkus occupied the chair, and numerous lantern slides of various diseases of the tendons were exhibited and explained, there being about fifty medical men and students present. The first clinical demonstration took place on Friday evening, Nov. 29th, when many interesting cases were exhibited and explained. The dates of the lectures and demonstrations are given in our advertising columns.

FATAL DISPENSING BY A GERMAN CHEMIST'S ASSISTANT.—A chemist's assistant in Magdeburg has been sentenced to a year's imprisonment for dispensing a morphia ointment instead of a calomel powder for a child, thereby causing its death. The assistant's principal was at the same time sentenced to three months' imprisonment.

A NEW EYE INSTITUTION FOR CHESHIRE.—At the final public meeting held at Altrincham, on Thursday, Nov. 28th, it was unanimously decided that an eye hospital, bearing the title of the Altrincham and District Eye Institution, be opened. The institution is intended to cover the wide area and large population known as Mid-Cheshire. At present no beds will be attached, there being an excellent small general hospital in the town available under certain restrictions. Dr. P. H. Mules, late surgeon to the Manchester Royal Eye Hospital, has been elected medical officer.

HOSPITAL SATURDAY COLLECTIONS, LINCOLNSHIRE.—On Saturday, a well-attended public meeting was held at Gainsborough, to hand over the amount of the Hospital Saturday collection to Canon Hutton, on behalf of the Hospital Board. Mr. James Marshall presided. The Gainsborough Committee had collected £148 14*s.* 7*d.*, which would be divided between the Lincoln County Hospital and the Leeds Eye and Ear Infirmary. The Sleaford total was £125, and Lincoln £320 18*s.* Since the commencement of this movement in 1879 the hospital authorities have received by it a total of £5504.

LITERARY INTELLIGENCE.—From a circular that has reached us, it would appear that von Ziemssen's "Handbook of General Therapeutics" is to be issued to the profession by an American firm at a discount of a little over 22½ per cent. from the English price. This edition is not a new translation, but, so far as can be judged from the circular, it is a reprint of the edition in seven volumes issued by Messrs. Smith, Elder, and Co.——We understand that an American edition of the *Nursing Record*, in addition to the ordinary issue, has been commenced, and will be published weekly in New York.

THE HOUSING OF THE POOR.—At the usual meeting of the London County Council this week, the Housing of the Working Classes Committee reported that they had before them the subject of the arrangements which should be made in any buildings which might be erected under the control of the Council for the housing of the poorer classes, particularly as regards the staircases, basement floors, bath-rooms and closets, and the size of the rooms. The committee had repeatedly considered these questions in conference with the medical officer and the architect, and they now submitted suggestions as to all these matters, which were approved and adopted by the Council.

GLASGOW WESTERN INFIRMARY.—At the fifteenth annual general meeting of qualified contributors to this institution held in Glasgow last week, the report, which was adopted, showed that the ordinary income amounted to £15,874 10*s.* 2*d.*, and the ordinary expenditure to £18,951 3*s.* 10*d.*, showing a deficit of £3076 13*s.* 8*d.*, against a deficit in the previous year of £3515 9*s.* 9*d.* It was gratifying to the managers to observe that there was an increase in almost every branch of the ordinary income during the past year. The managers still heartily commend to the working classes generally the systematic method of making their contributions now in force in most of the large public works and ship-yards in and around Glasgow. Several speakers urged the importance of a convalescent home being established in connexion with the infirmary, and attention was called to the value of the infirmary as a medical school.

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THE BRADFORD INFIRMARY.—On the 15th inst. a meeting of the Board and Visiting Committee was held in the Board-room, for the purpose of considering what further steps should be taken to secure a large addition to the annual subscription list, and also with a view of obtaining donations towards the liquidation of the debt of £2000, incurred by the opening of the new wing to the infirmary in 1885. The Mayor (Alderman S. Feather) presided. After considerable discussion it was resolved unanimously that further efforts should be made in continuance of the work initiated by the Board, and that the Finance Committee be requested to prepare a scheme for a thorough canvass of the town.

PRIZES OF THE SPANISH MEDICO-CHIRURGICAL ACADEMY.—The Spanish Medico-Chirurgical Academy has just announced the subjects for the prizes to be awarded next year. The competition is open to all nationalities, and the essays may be written in English. They must not be signed, but marked with a motto and accompanied by a sealed envelope containing the name and address of the writer, and bearing on the outside the same motto as the essay itself. They must be addressed to the President of the Academy, and must be forwarded to the Secretary, Montero, 22, bajo, Madrid, before Sept. 15th, 1890. The first prize, which is offered by the Academy itself, consists of 250 francs and the title of Corresponding Fellow. The subject is "Have the Modern Discoveries of Physics applied to Medicine advanced the Science of Diagnosis?" The second prize, that of Don Antonio Espina y Capa, consists also of 250 francs and the title of Corresponding Fellow. The subject is "The Limits of Expectancy and the Therapeutic Value of Hygiene in Chronic Diseases of the Stomach."

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BAILDON, FRANCIS J., M.B., C.M., has been appointed Honorary Medical Officer to the Southport Infirmary, vice Dr. A. Jones, resigned.

BEVAN, RICHARD, D.P.H. & L.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed Medical Officer of Health to the Borough of New Romney, Kent.

BOOTH, F., M.B., C.M. Aber., has been appointed Medical Officer of Health of St. Anns-on-the-Sea, Lanc.

CAREY, BASIL DE B., M.A., M.B.Cantab., M.R.C.S., L.S.A., has been appointed Surgeon to the Hospital and Parish of St. Peter Port, Guernsey.

CHEPMELL, CHARLES W. T., M.D. Brux., M.R.C.S., L.R.C.P. & S. Ed., L.F.P.S. Glas., has been appointed Surgeon to the London, Brighton, and South Coast Railway Provident Society.

GIRLING, CHARLES J., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant House Surgeon to the Halifax Infirmary and Dispensary, vice Andrew Robertson, M.A., M.B., C.M. Edin., resigned.

HARRISON, A. J., M.R.C.S., L.S.A., has been reappointed Physician to the Bristol General Hospital.

HAWKINS, W. R. T., M.R.C.S., L.S.A., has been reappointed Medical Officer, Second District, Barton Regis Union.

LOCKWOOD, W., M.B., C.M. Edin., has been appointed House Surgeon to the West Bromwich District Hospital.

LOWNDS, J. R., M.R.C.S., L.S.A., has been appointed Medical Officer of the Green Hammerton District, Great Ouseburn Union.

LYNCH, G. W A., B.A., M.B., B.C. Cantab., M.R.C.S., L.R.C.P. Lond., has been appointed a District Medical Officer in Fiji.

MACDONALD, J. A., M.D., M.Ch., B.A.O., Roy. Univ. Irel., has been appointed Honorary Physician to the Taunton and Somerset Hospital, vice Dr. Alford, resigned.

MACKENZIE, M. S., M.D. Irel., L.R.C.S. Edin., has been appointed Medical Officer, Lisburn Dispensary District.

POWERS, C. H., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant to the Metropolitan Asylums Board, South-Western Fever Hospital, Stockwell, S.W.

PRATT, A. A., M.B., C.M. Glas., has been appointed Assistant House Surgeon to the West Bromwich District Hospital.

PURVES, A. S., M.D. Edin., has been appointed Medical Officer of the Lesbury District, Alnwick Union.

SADLER, M. T., M.D. Lond., M.R.C.S., has been reappointed Medical Officer, Worsborough.

SHARPE, J. H., M.D. Irel., has been appointed Medical Officer of the Huntspill District, Bridgwater Union.

SHIVES, JOHN, M.D. Aber., L.R.C.S. Edin., has been reappointed Medical Officer, Liversedge Union District.

SMITH, TELFORD, B.A., M.D., B.Ch. Univ. Dub., has been appointed Assistant Resident Medical Officer to the Royal Albert Asylum for Idiots and Imbeciles of the Northern Counties, Lancaster, vice F. W. Nielsen, M.A. Cantab., M.R.C.S., &c., resigned.

WHEELER, T. K., M.D. Irel., has been appointed Resident Surgeon to the Belfast Royal Hospital.

WOODYATT, J. F., M.R.C.S., L.R.C.P. Lond., has been appointed Senior House Surgeon to the Halifax Infirmary and Dispensary, vice W. W. Chamberlain, M.B., C.M. Edin., resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BLACKBURN AND EAST LANCASHIRE INFIRMARY, Blackburn.—Junior House Surgeon. Salary £50 per annum, with board, washing, and lodging.

DISPENSARY, Worksop.—Resident Surgeon. Salary £120 per annum, with rooms, coals, gas, furniture, and housekeeper found.

DONCASTER GENERAL INFIRMARY AND DISPENSARY.—House Surgeon. Salary £100 per annum, with board and residence in the house.

GENERAL INFIRMARY, Northampton.—House Surgeon. Salary £125 per annum, with furnished apartments, board, attendance, and washing.

GORDON HOSPITAL FOR FISTULA &c., 278, Vauxhall-bridge-road, S.W.—An Anæsthetist.

GRANTHAM FRIENDLY AND TRADE SOCIETIES' MEDICAL INSTITUTION.—Resident Medical Officer. Salary £150 per annum and midwifery fees, with residence, coals, gas, and rates free.

LONDON THROAT HOSPITAL, 204, Great Portland-street, W.—House Surgeon.

LOUGHBOROUGH MEDICAL AID ASSOCIATION.—Senior Medical Officer. Salary £200 per annum, with house rent and rates free, £10 in lieu of coal and gas, and a fee of 10s. for each case of midwifery attended.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich-road, S.E.—Junior Resident Medical Officer. Salary £30 per annum, with board, attendance, and washing. The post is tenable for six months, with prospect of re-election as senior.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Assistant Physician.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston-road.—Resident Medical Officer. Salary £105, with residence and attendance.

UNIVERSITY OF EDINBURGH.—Additional Examiner in each of the subjects of Natural History and Clinical Surgery for the next period of office. The salary is £75 a year, with an allowance of £10 a year for travelling and other expenses in the case of examiners not resident in Edinburgh or the immediate neighbourhood.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's-road, Chelsea, S.W.—House Physician. Honorarium of £50 per annum, with board and lodging in the hospital. Also House Surgeon. Honorarium of £50 per annum, with board and lodging in the hospital.

YORK DISPENSARY.—Resident Medical Officer. Salary £130 a year, with furnished apartments, coals, and gas.

Births, Marriages, and Deaths.

BIRTHS.

DRUITT.—On Oct. 20th, at Wagga Wagga, New South Wales, the wife of Dr. Lionel Druitt, of a daughter.

SILK.—On Nov. 28th, at Pemberton-road, Upper Holloway, N., the wife of J. Fredk. W. Silk, M.D. Lond., of a son.

SNOW.—On Nov. 30th, at Gloucester-place, Portman-square, the wife of Herbert Snow, M.D. Lond., of a daughter.

THOMAS.—On Nov. 28th, at Weymouth-street, Portland-place, the wife of G. Harley Thomas, F.R.C.S.E., Army Medical Staff, of Sparkford Lodge, Winchester, of a son.

MARRIAGES.

DE MELLO—MACMILLAN.—On Oct. 29th, at the Mission Church, Poona, by the Rev. J. Small, Dr. Cabanis De Mello, to Annabel Macmillan, eldest daughter of Thomas Macmillan, Esq. Australian papers please copy.

MACLEAN—ERSKINE.—On Nov. 28th, at Bombay, Surg. Fitzroy Beresford Maclean, son of D.I.Gen. Andrew Maclean, M.D., of Church House, Kew, to Mary Norris, eldest daughter of the Rev. John Erskine, Rector of Wycliffe, Yorks.

MCNALLY—COKE.—On Nov. 5th, at St. George's Cathedral, Madras, by the Venble. Archdeacon Brown, Surgeon-Major Christopher J. McNally, M.D., son of the late C. McNally, Esq., solicitor, of Dublin, to Hester Marion, daughter of W. S. Coke, Esq., D.L., of Brookhill Hall, Derbyshire.

MOORE—MOORE.—On Oct. 11th, at St. Paul's Church, Rockhampton, Queensland, by the Rev. John Hunt, John Irwin Moore, L.R.C.S.I., L. & L.M., K. & Q.C.P.I., Springsure, to Susan, daughter of Thomas Charles Moore, Grosvenor-square, Dublin.

ORD—MERCER.—On Nov. 26th, at Holy Trinity, Bournemouth, by the Rev. Canon Eliot, William Theophilus Ord, M.R.C.S., L.R.C.P. Lond., of Halesowen, Worcestershire, to Elizabeth Louisa, daughter of Major A. H. H. Mercer, formerly of the 60th Rifles, of Lee, Blackheath.

DEATHS.

BARKER.—On Nov. 28th, at Wantage, Walter Rice Howell Barker, F.R.C.S. Eng., aged 79.

CASSON.—On Dec. 1st, at 10, Potter-street, Worksop, Harwood Casson, L.R.C.P. Lond., M.R.C.S.

GARTLEY.—On Nov. 26th, at his residence, South Mall, Cork, Joseph C R. Gartley, dental surgeon, after a few days' illness, deeply lamented.

GRAHAM.—On Dec. 1st, at his residence, The Albany, Piccadilly, Andrew Graham, M.D., Fleet Surgeon R.N., aged 72.

SHAW.—On Dec. 1st, at Thicket-road, Anerley, S.E., James Shaw, F.R.C.S., late Principal Inspector Madras Medical Service, in his 81st year.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths

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Medical Diary for the ensuing Week.

Monday, December 9.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
SOCIETY OF ARTS.—8 P.M. Mr. William Jago: Modern Developments of Bread Making. (Cantor Lecture.)
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Douglas Powell will open a Discussion on the Diagnosis and Treatment of Aneurysm of the Aorta.

Tuesday, December 10.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Arthur E. Nevins: On the Frequent Association of Heart Disease, especially Mitral Stenosis, with Diseases of the Pelvic Viscera, in Women.—Mr. Ed. Roughton: On Blood Tumours (angeiomata and angeiosarcomata) of Bone.

Wednesday, December 11.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.
HUNTERIAN SOCIETY.—8 P.M. Pathological Evening. Dr. Fowler: Papillomatous Growth of Uvula.—Mr. Rivington: (1) Sarcoma of Foot; (2) Exostosis.—Mr. Openshaw: Malformed Uterus.—Dr. Davies: (1) Sarcoma of Lung; (2) Sarcoma of Kidney.—Mr. Bidwell: (1) Acute Necrosis of the Atlas; (2) Abscess of Sternum and Liver from a case of Pyæmia.—Mr. Poland: Carcinoma of the Sigmoid Flexure.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. A. W. Bennett: On the Freshwater Algæ and Schizophyceæ of Hampshire and Devon.
SOCIETY OF ARTS.—8 P.M. Mr. H. Trueman Wood: The Paris Exhibiton.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Council Meeting at 8 P.M. Discussion on Mr. Lawson Tait's paper on "A Reply to some recent Observations on Ectopic Gestation."—Dr. Benington: A Case of Lunacy Cured by the Use of a Pessary.—Mr. Bowreman Jessett: The Surgical Treatment of Cancer of the Uterus. Specimens will be shown.

Thursday, December 12.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK, E.—4.30 P.M. Dr. Clifford Beale: On Laryngeal Affections in Phthisical Persons.
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Patients and Card Specimens at 8 P.M. Mr. Treacher Collins: Microscopical Sections of Lens with Epithelium on the Inner Surface of the Capsule, and showing other peculiar Structural Changes.—Mr. Jessop: (1) Aniridia, with Dislocation of Lens; (2) Punctate appearance of Anterior Capsule of Lens; (3) Vacuoles in Lens.—Mr. Tatham Thompson: Note on a case of Hereditary Tendency to Cataract in Early Childhood.—Mr. Tweedy: On the Operative Treatment (1) of Cicatricial Ectropion of the Lower Lid; (2) of Symblepharon.—Mr. Hill Griffith: A case of Primary Tuberculosis of the Iris.—Mr. C. Wray (introduced): On a form of Conjunctivitis.—Mr. Spencer Watson: Osteoma of the Infra-superciliary Region.

Friday, December 13.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON (at 20, Hanover-square).—Living Specimens at 8 P.M. Papers at 9 P.M.:—Mr. C. Symonds: Nine cases of Thyroid Cysts and Adenomata treated by Excision.—Mr. W. H. Battle: Case in which a Diffuse Aneurysm developed in the Calf of the Leg, simulating Abscess; recovery after removal of parts of the popliteal and tibial arteries.—Mr. W. G. Spencer: Case of Traumatic Aneurysm following a Fracture, dislocation of the spine in the dorso-lumbar region, and presumably connected with the lumbar arteries.

Saturday, December 14.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, December 5th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Nov. 29	30·23	W.	34	33	46	42	31	..	Foggy
,, 30	30·11	S.W.	41	39	47	44	34	..	Foggy
Dec. 1	30·80	S.E.	34	33	53	39	32	..	Foggy
,, 2	30·51	S.E.	31	..	46	34	29	..	Foggy
,, 3	30·47	S.E.	29	..	46	35	28	..	Cloudy
,, 4	30·49	S.E.	34	33	41	38	29	..	Overcast
,, 5	30·57	E.	38	36	..	39	33	..	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE ST. ANDREWS M.D.

Mr. G. L. Hill.—The degree of Doctor of Medicine of the University of St. Andrews has never been obtainable without examination during the last fifty years at least. In the old times, in company with other universities, St. Andrews did now and then confer the medical degree "on recommendation," as the Lambeth degree is still conferred; but as far back as the date when Dr. John Reid, who died about forty years ago, was Chandos Professor of Medicine in the University medical degrees have never been conferred except after examination—a change which Dr. Reid did not originate, but which he very greatly improved. Under Dr. George Day, who succeeded Dr. Reid in the Chandos Professorship, the examination became more stringent, was made both written and oral, extending over three days, and was in every particular brought up to the same character as that for membership of the London Royal College of Physicians.

C. O. H.—Our correspondent will see, by reference to our report of the proceedings of the General Medical Council, that in future there will be appended to the foot of every licence dated on or after June 30th, 1887, an intimation that the holder is legally qualified for the practice of medicine, surgery, and midwifery.

T. F. M.—The manufacturers are Messrs. Farrow and Jackson, 8, Haymarket, London, S.W. A description of the process will be found in THE LANCET of Nov. 2nd, 1889, page 925, in an article entitled "The Brewers' Exhibition."

Q. E. D. could hardly do better than consult Dr. McVail's work, "Vaccination Vindicated," published by Cassell and Co.

T. G. H.—Our remarks at the foot of a letter signed "Veritas," on p. 1146, will answer the queries of our correspondent.

THE PREVENTION OF EPIDEMIC DISEASE.

To the Editors of THE LANCET.

SIRS,—As milk has been incontestably shown to be the chief, if not the only, article of food capable of producing outbreaks of epidemic disease, I would suggest that every dairyman should be compelled to notify to the medical officer of health of the district the sources whence he obtains his supplies, and that every householder, or his representative, who notifies as to the existence of infectious disease in his dwelling should state the name and address of the dairyman whom the person affected has employed. By such means the medical officer of health would readily be able to see how far and what supply was likely to be the cause of any epidemic outbreak; and he could also at once, on suspicion, examine the sources from which the milk was originally drawn, as well as the dairy that retailed it.

I am, Sirs, your obedient servant,

Surbiton, November, 1889. F. P. ATKINSON, M.D.

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THE ABUSE OF HOSPITALS.

Mr. John Weaver (Southport).—We regret exceedingly to be unable to insert our correspondent's letter, but its length precludes the possibility. We give the pith of Mr. Weaver's views, based on an intimate and prolonged study of the working of two provincial hospitals. He thinks the abuse of hospitals by in-patients—in the provinces, at least—to be very slight. He is convinced on this point. In the out-patient department it is very different. Here there is extensive abuse. First, in the way of minor accidents—a source of abuse much overlooked, and of which he has seen hundreds of cases that could quite well have paid a practitioner for attendance. Secondly, by out-patients who can well afford to pay. This form of abuse is growing rapidly, on account of the increasing faith in hospitals. There are few men who, thinking they can benefit the health of their child, for instance, by getting gratuitous medical advice at a hospital, will hesitate as to whether or not they ought to do so. Thirdly, by patients who from their extreme poverty should be on the parish. The majority of these prefer to go to the hospital. The voluntary hospital and the parish medical department compete, and the charitable public pay twice over. Further, home visiting by hospital officials is doing the work of the Poor-law medical officers. As to remedies. The minor accident cases should be investigated after the Manchester Infirmary system, and payment insisted on where abuse is found. In the case of other patients who can afford to pay, they should be prevented from going to the hospitals. In one hospital known to our correspondent a subcommittee sits before the medical officers attend to examine into the fitness of cases. He thinks the working classes resent this mode of inquiry less than that by a paid agent. As to hospital attendance on the pauper classes, the only remedy Mr. Weaver suggests is that of greatly improving the attention they at present receive from the parish, and determining how far down in the social scale the voluntary hospital system should go.

Mr. W. Moore (Stourport) urges that the evil done to the profession by abuse of hospitals is not so great as that done by medical aid associations, which attract highly paid artisans, publicans, tradespeople, farmers, and other persons who hitherto have been in the habit of paying for the medical attendance of private practitioners. Our correspondent seems to have suddenly made this discovery, and not to be aware that it has been shown for years by ourselves and others as a most obvious evil. He points out that such associations generally appoint a young man, a stranger in the neighbourhood, and lower the conception of the value of medical service in the whole neighbourhood. Medical men themselves have to bow to the generally lowered estimate of their work, and cater accordingly. He thinks the only remedy is a combination of the whole profession. Dr. Rentoul should, he suggests, devote his attention more to this aspect of the question, and endeavour to organise the profession to a great combined protest against the evil. He promises soon to send a few *practical* suggestions. If they are really practical, and reach us in a succinct form, we shall try to give them insertion.

ETHER, CHLOROFORM, NITROUS OXIDE GAS AND ETHER.

To the Editors of THE LANCET.

SIRS,—It is not my intention to open up the vexed question of the comparative safety or otherwise of these drugs as anæsthetics, but merely to give my own personal experience of them. On six different occasions within the past ten years I have unfortunately required the administration of one or other of them. My initial experience was with ether, which was given me in a towel formed into a cone with a sponge at the top. After getting over the choking in the first, and on passing into the second, stage I became so violently delirious that it required the utmost efforts of three strong men to restrain me. I may say that I am a powerful man, and was at the time in training for boxing. The after effects—sickness, nausea, and general misery—I did not get over for quite forty-eight hours. My next experience was with chloroform, which I have had in all four times. It was administered on each occasion through a Junker's inhaler. I quickly went under, and as quickly came to; but the nausea, which lasted from thirty-six to forty-eight hours, was very trying, and exhausted me a good deal. Quite recently I have had to seek the services of a surgeon at another hospital; and, when informed in the theatre that it was intended to give me ether, I must say that I dreaded the anæsthetic much more than the surgeon's knife. I was first given nitrous oxide gas to produce insensibility, and then ether was substituted. Altogether I was twenty minutes inhaling the latter. Within a few minutes of removing the ether I was able to answer questions, although I did not fully recover consciousness until removed to my ward, and within an hour I was entirely free from all unpleasant effects of the anæsthetic, and able to partake freely of bread and milk. I may add that on each occasion I was prepared *secundum artem* for the reception of the drug, and the time of inhaling lasted about the same—viz., twenty minutes. Such, shortly, has been my experience, and I need hardly say that I much prefer Mr. Braine's combination of nitrous oxide and ether.—I am, Sirs, yours truly,

Nov. 30th, 1889. F.R.C.S.

THE MEDICAL WORK OF FRIENDLY SOCIETIES.

THE following account, from the *Bournemouth Gazette* of Nov. 9th, of his stewardship by the medical officer of the Poole Friendly Societies' Medical Association is a striking illustration of the way in which one man is made to do the work of three in this arrangement:—

"The Surgery, Mount-street, Poole, Oct. 10th, 1889.—To the Chairman and Members of the Committee of the P.F.S.M.A.—Gentlemen, I have great pleasure in presenting to you my third quarterly report. As I have never been absent from the surgery on a single day during the three months, but have always had the surgery open night and morning, the figures as under represent a correct index of work done:—Prescriptions dispensed, 3638; visits at patients' homes, 776; teeth extracted, 143; candidates examined for membership of various friendly societies, 58; midwifery cases attended, 31; deaths, 10; operations and appliances, 15; vaccinations, 11—total, 4682. The above gives a daily average of nearly 51. The hardest day's work was on the last day of the quarter (Sept. 30th), when 118 was the total. [In one day, 118 patients seen!] Excluding Sundays, the lightest day's work was on Aug. 5th, with a total of 29. During the last five weeks of the quarter the work was unusually heavy, one week alone having a daily average of nearly 72.—I have the honour to remain, yours obediently, W. T. GARDNER ROBINSON, M.D., Medical Officer."

The total receipts of the management account for the three quarters were £433 4*s.* 6*d.*, which included contributions from friendly societies, clubs, and public members, entrance fees, accouchement and vaccination fees, and surgical goods sold to members. The total expenditure was £376 15*s.* 11*d.*, which included salaries of *locum tenens*, drugs, preliminary expenses, working expenses, rates, interest, and insurance, the result being a balance—net profit—of £56 8*s.* 7*d.* on the three quarters. The Association has now 3136 members—1851 from various friendly societies and clubs, and 1285 public members. They have secured the services during the winter months of an M.D. to assist the medical officer, and they also employ a dispenser. Well might a vote of thanks be passed to the auditors and the hon. secretary. We do not read of a similar compliment to the medical officer. He was a *paid* servant.

Mr. Endean (Locarno).—The MS. has been received, and is receiving attention.

BRITISH MEDICAL BENEVOLENT FUND.

To the Editors of THE LANCET.

SIRS,—The advent of this spell of cold weather is bringing me numerous letters begging for warm clothing for women and children, and, alas! my chest is empty. I should be truly obliged if some readers of THE LANCET would send me, as soon as they can conveniently overhaul their stores, such articles of underclothing or warm jackets and cloaks, or wraps of any sort that they think would be useful. This does not mean that I do not want men's clothing; on the contrary, everything with any wear still in it is most welcome and useful.

Will you kindly give this room in your next issue, and oblige,

Yours very truly,

EDWARD EAST, Hon. Sec.

16, Upper Berkeley-street, Portman-square, W., Dec. 2nd, 1889.

AMMONIA IN COCAINE POISONING.

To the Editors of THE LANCET.

SIRS,—In last week's issue of THE LANCET Dr. Golovkoff is reported to have said that the only case in medical literature where ammonia was used as an antidote in cocaine poisoning was one by Dr. Goodlad, reported in THE LANCET of 1888, vol. i., p. 394. If he refers to the second volume of the same year, p. 715, he will find another case, in which the symptoms were similar to those described by him. In this case I freely administered the aromatic spirit of ammonia, and the patient quickly recovered and was able to go home in half an hour after the onset of the symptoms. Here seven minims of a 20 per cent. solution were injected. I am, Sirs, yours faithfully,

Stamford-hill, N. DANIEL MOWAT, M.D.Edin.

THE USE OF THE OPHTHALMOSCOPE.

To the Editors of THE LANCET.

SIRS,—In answer to Dr. W. R. Gowers' letter, published in your issue of Nov. 23rd, p. 1083, wherein he asks, "Has any student ever yet been definitely tested in the use of the ophthalmoscope in the pass examination for a diploma?" I should be glad for him to know that when "up" for my L.S.A.Lond. I was given more than ten minutes' *viva voce* examination on diseases of the eye, and was also given a subject (with an ophthalmoscopic lamp behind him) and an ophthalmoscope, and was asked to give my opinion as to the condition of the fundus.

I am, Sirs, obediently yours,

Nov. 28th, 1889. A. H. R.

"A HOUSEHOLD MAN-TRAP."

IN reference to our annotation last week with the above heading, Mr. G. Bird, of the Western Iron Works, Lancaster-road, Notting-hill, writes to say that his firm are manufacturing coal-plates to which a self-fastening arrangement is attached, which, unless loosened from beneath, prevents the removal or shifting of the plates.

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BACTERIA IN MINERAL WATERS.

DR. G. MÜRGES of Dubuque, Iowa, following the example of Dr. Reinl of Franzensbad, has examined bacteriologically nineteen different varietics of American mineral waters (*Journ. Amer. Med. Assoc.*, Nov. 16th, 1889). He thus sums up the results of his inquiry:—

"1. The bacteria in bottled mineral waters are probably not derived from the spring in the majority of cases, but are due to contamination from the bottles and corks, the cleansing methods now in vogue being insufficient to destroy them.—2. Carbonic acid in a bottled mineral water has a powerful inhibitory influence on the development of germs, whether the gas is natural to the water or has been artificially generated and added to it. When the proportion of CO_2 is 350 cubic inches or more to the gallon, the retarding influence of the gas is very great. It is much less when the proportion is only 250 cubic inches to the gallon. But among every dozen bottles of even the most highly carbonated waters there is at least one which contains more than 250 micro-organisms to every cubic centimetre, and ten even out of twelve bottles may be thus contaminated. When the water is charged artificially, some time may be given for contamination before such charging is accomplished.—3. Sulphuretted hydrogen gas, in the proportion contained in mineral waters, probably has some inhibitory influences on the development of germs, but not to the extent which might be *a priori* expected.—4. As regards freedom from bacterial contamination, most of our native carbonated mineral waters are superior at least to several of the most popular European waters of the same kind.—5. The non-aerated, so-called, table waters are probably very inferior to ordinary hydrant water.—6. The strongly saline non-carbonated mineral waters are so badly contaminated as to be wholly unfit for internal administration in the form in which they are at present put up, unless the germs are previously destroyed by heating (for two hours at 70°C.—Reinl).—7. In order to bottle at least a non-carbonated mineral water in such a way that it will remain bacteriologically pure for an indefinite period, the bottles should first be boiled or steamed, kept in an inverted position in a place free from dust until cool, then immediately filled and closed with boiled corks."

Surgeon.—An F.R.C.S.Ed. is entitled to wear the gown which is the recognised collegiate robe of the Fellowship. When or where is a question which must be left to individual taste.

S.—We have no recollection of a statement of the kind having appeared in our columns.

Mr. J. R. Wallace.—The University of Cambridge, amongst others.

Dr. J. Wilson (Liverpool).—The book is a valuable one.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Bryant, London; Professor Marshall, London; Dr. Steavenson; Sir G. H. B. Macleod, Glasgow; Mr. Macnamara, London; Dr. Cameron Gillies, Brockley; Dr. Maclagan, London; Dr. A. E. Garrod, London; Mr. W. Mathews, Clifton; Dr. Mowat, Stamford-hill; Mr. Stanmore Bishop, Manchester; Mr. Owey, London; Mr. T. L. Morgan, Clydach Vale; Dr. Wolfe, Glasgow; Dr. T. W. Jenkins, Whiffiet; Dr. Scott Watson, London; Mr. W. Philipson, Newcastle-on-Tyne; Dr. Hugh Woods, Highgate; Mr. E. A. Thompson, Kirkham; Messrs. Leveson and Sons, London; Mr. W. Moore, Stourport; Messrs. Breitkopf and Härtel, Leipsic; Dr. T. Robinson, London; Messrs. Lippincott and Co., Philadelphia; Mr. E. T. Gaitskell, Sydenham; Messrs. Griffin and Co., London; Dr. J. O. Sinclair, Edinburgh; Messrs. Kelly and Co., London; Mr. C. S. Jeaffreson, Newcastle-on-Tyne; Messrs. May and Co., Piccadilly; Mr. A. Whyte, Glasgow; Messrs. Wishart and Co., Edinburgh; Dr. Mules, Bowdon; Mr. R. Harrison, Liverpool; Mr. T. R. Endean, Locarno; Mr. Weaver, Southport; Mr. G. Smith, Salisbury; Dr. Cyril Jecks, London; Mr. Santi, London; Mr. D. H. Oxen, Heaton; Dr. J. E. C. Wood, Portobello; Mr. H. C. Quinby, Liverpool: Mr. Malcolm, London; Mr. Kingzett, London; Dr. Adam, Malling-place; Mr. Gerrard, London; Mr. Jessett, London; Mr. J. Morgan, London; Dr. Lediard, Carlisle; Mr. Scott, London; Mr. F. Taylor, London; Mr. G. Christopher; Mr. Renshaw, London; Mr. H. Cripps, London; Mr. Cartwright, Portobello; Messrs. G. Street and Co., London; Mr. Deas, Exeter; Mr. Crisp, Stafford; Messrs. Lee and Martin, Birmingham; Miss Pudney, Essex; Messrs. Butterfield and Son, Northampton; Mr. Abraham, Taunton; Messrs. Reicherter and Co., Algiers; Mr. Head, Surrey; Messrs. Burroughs, Wellcome, and Co., London; Mr. Fairland, Woolwich; Messrs. Macmillan and Co., London; Dr. Sainsbury, London; Mr. T. Cooke; Messrs. Blondeau et Cie., London; Dr. Wallace, Cardiff; Mr. H. Sell; Messrs. Allen and Hanbury, London; Mr. Johnson, Leicester; Messrs. Rodgers and Co., Sleaford; Mr. Fuge, Taunton; Dr. Woakes; Miss Roche, South Kensington; Mr. Smith, Edinburgh; Mr. Gurner; Messrs. Wyleys and Co., Coventry; Mr. Eastwood, Blackburn; Messrs. Davies and Co., London; Mr. Whall, Worksop; M. Gallois, Paris; Messrs. Hill and Son, London; Dr. Costello, Ireland; Mr. Sampson, York; Mr. Eadie, Yeovil; Mrs. Graham, London; Mr. Draper, Huddersfield; Mr. E. East, London; Mr. Silcock, London; Mr. Leeson; Mr. J. R. Wallace, Portsmouth; Dr. Coombs, Bedford; Mr. J. B. Curgenven, London; Dr. Blackman, Portsmouth; Mr. Marsh, Birmingham; Mr. G. Bird, London; Dr. C. W. Taylor, Derby; Mr. Lewis, London; Mr. Krause, Ventnor; Mr. Hornibrook, Bloomsbury; Mr. Armstrong, Newcastle-on-Tyne; Rev. Mr. Carey; Rev. Mr. Lacon; Dr. Domingoes Freire, Rio Janeiro; Mr. White, Kensington; Mr. A. L. Marshall, Clapton; Q. E. D.; Medicus; S.; Officier de Santé, Nice; J. G.; M.D.; W., London; X. Y. Z., Edgbaston; A Subscriber; X. Y. Z., London; F.R.C.S.; A. H. R.; T. F. M.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Day, Kent; Mr. Ryan, Marylebone; Mr. Tully, Hastings; Messrs. Price and Co., Barking; Mr. Eyre, Monmouth; Mr. Tinker, Hants; Mrs. De B. Carey, Guernsey; Dr. Williams, Pontypridd; Messrs. Fenwick and Chinery, London; Mr. Crofton, Leicestershire; Miss Currey, South Kensington; Mr. Lockhart, Southend-on-Sea; Mr. Popham, East Dulwich; Miss Hickman, Dudley; Dr. Wallis, Cardiff; Mr. Whiche, Manchester; Mr. Eccles, London; Mr. Hague, London; Dr. Lindsay, Belfast; Rev. D. James, Winslow; Mr. Twyford, Hanley; Mr. Mason, Manchester; Mr. Browning, Sheffield; Mrs. Levick, Paris; Mr. Tyte, Minchinhampton; Mr. Watkins, Derbyshire; Dr. Phillips, Surrey; Mr. Walt, London; Mr. Lee, Bath; Mr. Moore, Dublin; Dr. Walker, Pontrilas; Dr. Jagielski, London; Dr. Brooks, Salop; Mr. Fleming, Holloway; Mr. Rowley, Barnsley; Dr. Hamilton, Yorks; Dr. Hillyer, Huntingdon; Mr. Heywood, Manchester; Dr. Milligan, Huddersfield; Mr. Philpot, Birkenhead; L. L. J.; W. H., London; Secretary, North Staffs. Infirmary; W. P. B., London; M.D., London; Secretary, Victoria Infirmary, Glasgow; C. M.; Medicus, Portsmouth; Secretary, Bury Dispensary Hospital; Chirurgus, London; Secretary, Macclesfield General Infirmary; S. S., London; Secretary, Manchester Southern Hospital; A. B. C., London; B. D., London; Secretary, Manchester Royal Eye Hospital; Cerium, London; Medicus, Manchester; Lady Superintendent, London; Medicus, Bristol; Maltine Manufacturing Co., London; Beta, Reading; M.D., Maida-vale; Secretary, Bedford General Infirmary; N. M., London; Pax, London; Secretary, Queen's College, Belfast; H. G. A., Surrey; Obstetrics; Surgeon, Rhondda Valley; Secretary, Staffs. General Infirmary; Student, Notting-hill; S. W., London; Statim, Bristol; A. A., London; J. B. F., Thorpe Hamlet; L.S.A., Surrey.

The Nice Gazette, East End News, Surrey Advertiser, Weekly Free Press and Aberdeen Herald, Reading Mercury, Bexley Heath Local Guide and District Advertiser, Mining Journal, Carlisle Journal, Hertfordshire Mercury, &c., have been received.

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The Bradshaw Lecture

ON

COLOTOMY, LUMBAR AND ILIAC,

WITH SPECIAL REFERENCE TO

THE CHOICE OF OPERATION.

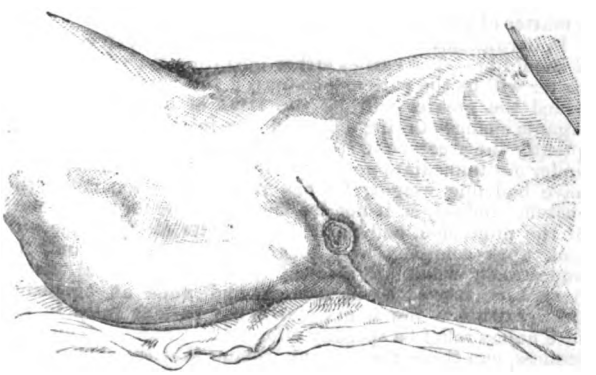
Delivered at the Royal College of Surgeons on December 5th, 1889,

BY THOMAS BRYANT, F.R.C.S., M.CH.,
VICE-PRESIDENT OF THE COLLEGE.

MR. PRESIDENT AND GENTLEMEN,—For the honour you have conferred upon me by nominating me your Bradshawe lecturer I offer you my best thanks; and I trust I shall be fulfilling the intentions of the founder of this lectureship by selecting a surgical question for consideration. The subject I have chosen may fairly be said to have come into notice during the lifetime of Dr. William Bradshaw of Reading (to whose memory this lecture was instituted in 1880), and to have grown rapidly into prominence since his death. The subject to which I wish to draw your attention is that of Colotomy, and I propose to consider it chiefly with reference to the form of operation which should be selected. It is not my intention to enter at any length into the history of the operation, for such would be wearisome; but I must remind you that while Littré in 1710 *suggested*, in the "Memoirs of the Academy of Sciences of Paris," the performance of the iliac (miscalled inguinal) or intra-peritoneal colotomy for the relief of infants born with imperforate bowel, the idea was not practically applied for eighty-seven years, when Pillore of Rouen in 1797 opened the cæcum in the right iliac fossa; and that while Callisen of Copenhagen *proposed* the extra-peritoneal operation of lumbar colotomy in 1798, it was not till 1839, when the operation was taken up and carried into effect by Amussat, that colotomy can in any sense be said to have found a place in the practice of surgery. The practical adoption of the operation was, however, very slow so far as London was concerned, for in October, 1859 (that is, twenty years after Amussat's success), or thirty years ago, when I undertook my first lumbar colotomy in a patient of the late Dr. Thomas Addison, the operation had been undertaken but once at Guy's Hospital, and that was by Mr. Hilton ten years previously;[1] and I am not aware that it had at that time been performed at any other hospital. Indeed, it may with all truth be said that the operation in both its varieties was then regarded with scant favour by the general body of the profession.

It may have been occasionally sanctioned as an operation for the relief of congenital rectal malformations when other measures had failed or were inapplicable; and to bring about this practice Mr. Curling's paper of 1860[2] had an undoubted influence; but as a means for giving relief to patients suffering from chronic intestinal organic ulceration or obstruction, from whatever cause, it was generally, and, indeed, I may say is still too much regarded, as a *dernier ressort*, and, as a consequence, it was as a rule only carried out when all other means had been tried and proved to be useless. This position of colotomy I, in common with some few other surgeons, have, however, never accepted. We have held a more favourable view of its capabilities both as a life-saving as well as a reliable palliative measure. We have regarded it as the best means the surgeon has at his disposal for the relief of rectal obstruction from cancerous and other disease which is not otherwise removable; and experience has proved that life may by it be saved when the disease is not cancerous, and prolonged even for years when it is so. Experience has likewise taught us that where these good results are not to be expected, what remains of life will be made more endurable; for the local disease which is the cause of the obstruction makes much slower progress and becomes a source of less distress as soon as the fæces are diverted from their normal course, and as a cause of irritation are removed. Within the last ten years there has consequently been a remarkable advance in the position of colotomy as an operation for the relief of rectal stricture, and at the present day the value of the operation is not only fully recognised by an increasing number of surgeons, but a warm discussion has arisen as to the operation which should be performed; indeed the casual reader of the journals and periodicals might be led to think that the lumbar or extra-peritoneal measure, which has hitherto found most favour, was becoming obsolete and doomed to give way to the iliac or intra-peritoneal method. For, at the present time—where in this branch of surgery, as in so many others, we see a measure of success follows modern practice, which by the old could never have been anticipated; when old landmarks are removed, and new ones are being laid down; it may appear to the skilful and ambitious as if "all things seem possible"—and under such circumstances it behoves us to take stock of facts and see whither we are tending, in order that the old paths be not blotted out by new without a good reason, and that change should not be mistaken for improvement; for caution must still be the surgeon's motto, and venturesomeness his rock of offence.

I propose in the present lecture, therefore, to compare the value of the lumbar or extra-peritoneal with the iliac or intra-peritoneal method of colotomy, and so utilise the experience I may have had of one or both operations, to help towards the solution of the important practical problem as it now presents itself. I would premise, however, in order to make clearer what I shall have to notice later on, that I have for many years always employed the oblique incision for lumbar colotomy (see engraving). For this line of incision not only follows the course of the nerves and vessels and allows room for all necessary manipulation, but falls



naturally into the fold of skin above the crest of the ilium, which is constant in all, and well marked in fat, people. This fold, I have reason to believe, acts beneficially in preventing the prolapse of the bowel which surgeons who employ other lines of incision are said to complain of, and at the same time tends to keep the artificial anus closed. When the bowel is exposed, I separate it carefully with the fingers from its upper and posterior attachments, and so allow it to bulge well out of the wound. When it is not over-distended, I, with a finger gently introduced at its posterior border, hook it well out of the wound, and rotate it inwards, in order to expose its posterior longitudinal band to view. I then and there fix it to the margins of the skin wound. Should the symptoms be urgent, I open the bowel at once, after having passed two sutures with a long straight needle through the integument and bowel, and given them into the hands of an assistant to hold and to keep tight. I open the bowel between these sutures, and as the contents of the bowel escape keep a stream of iodine water flowing over the part. With an aneurysm needle or finger inserted into the lumen of the opened bowel, I then draw the centre of one suture out, divide it, and with the divided suture fasten the opposite borders of the bowel to the skin wound, and deal with the second suture in a like way. A free opening is made into the bowel. The bowel is fixed subsequently with two or more sutures, and, as a rule, the inner border of the wound is left open for drainage purposes, particularly if the patient be very fat. When there is no need or urgency to open the bowel at the time of operation, I leave it *in situ* for three or more days. In some cases I stitch the projecting unopened bowel to the margin of the wound; in others I transfix it with long pins.

[1] Guy's Hospital Reports, 1849.
[2] Royal Medico-Chirurgical Transactions, vol. xliii

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The former practice seems preferable in fat subjects, where the wound is deep; the latter in thin subjects where the bowel can be well drawn out. I never fix the bowel to the muscle. In two or three cases in which I have transfixed the bowel with pins I have had some slight local inflammation and suppuration from the escape of fæcal air at one or other of the points of puncture; but this complication has never been the source of any serious detriment. The practice, indeed, is so simple and satisfactory that I do not regard this objection as one of any importance.

I do not propose to make much use of or to rely upon statistics in the question before us—for the value of an operation like colotomy is no more to be estimated by statistical results than is that of herniotomy, and yet the value of herniotomy is never questioned. The immediate success or failure of both operations turns but little upon the operation itself if well performed, but upon two main points—the first being the local condition of the bowel above the seat of obstruction in colotomy, and at the seat of strangulation in herniotomy, and the second upon the general condition and age of the patient when submitted to either ordeal. In both cases, if from procrastination, serious intestinal changes have taken place before relief is given, recovery is hardly to be expected. In both cases, if these changes are but slight, recovery may be looked for; and yet again in both cases, if from old age or organic visceral disease feebleness be present, success will not be obtained; for where patients have, from whatever cause, no reserve of power at the Bank of Health upon which to draw in an emergency, the repair of parts injured by disease or operation becomes impossible. It is clearly evident, therefore, that in colotomy, as in herniotomy, the period at which either operation is undertaken, with respect to the changes in the bowel involved in either the obstruction or strangulation, is a matter of primary importance.

In herniotomy this truth is fully recognised, in colotomy it should be. The earlier either operation is performed the better will be the patient's chances; the longer it is postponed the greater will be the risks of serious incurable organic changes taking place in the intestine, and consequently the greater the risk to life. In the operation now under our immediate notice can it be said that these truths have had due weight, for has it not been too much the custom—indeed, is it not too much so now for a large part of the profession, and particularly of its medical side,—to look upon colotomy as a measure which should only be undertaken when all medical and other surgical means have been proved to be useless, and when an agonising death within a few hours stares the patient fully in the face unless relief be speedily afforded? Under such circumstances, can there then be any wonder that the statistics of both the extra- and intra-peritoneal forms of operation appear at first sight to be so bad, and that those of Erckelen, carefully compiled up to 1884, are made by Treves to show that thirty-eight in every hundred cases of lumbar, and forty-six in every hundred cases of iliac colotomy died within twenty-one days of the operation, though probably, I may add, not from it. To my mind it is, however, a matter of wonder that the mortality of the operation was not higher, for considering the circumstances under which most, if not all, of these operations were undertaken—that is, as a last resource,—the prognosis in all must have been most unfavourable. I believe, therefore, that the statistics I have quoted should be read in another way, and that it should be recognised that 62 per cent. of the cases of lumbar and 54 per cent. of the cases of the iliac operation were rescued from the grave, since it is more than probable that all the cases which were operated upon would have been undoubtedly lost if colotomy in one of its forms had not been performed. In fact, it may with truth be asserted that in spite of the adverse circumstances in which the operation was undertaken, the large majority of the patients gained by it a considerable addition to their lives, whilst those that sank within the month found relief, and were saved from the intense miseries of a death from obstruction, and died peacefully.

Author's cases.—I should here say that I have performed lumbar colotomy in 170 cases, and that all but ten were on the left side. One hundred of these were urgent cases, and the operation was undertaken to ward off impending death; of these fifty-five were successful, and forty-five sank within the month. These last are the cases I have described as "too late cases," since it is fairly certain that if the operation had been considered and undertaken at an earlier period of obstruction, and before death stared the patient in the face, many months of life would have been given to each sufferer, and much severe distress would have been saved.

LUMBAR COLOTOMY CASES FOR CANCER.

One hundred urgent cases, of which fifty-five were successful.

45 died within the month (too late cases).
18 died within twelve months.
19 lived between one and two years.
12 lived between two and three years.
6 are now alive—3 between two-and-a-half and five years after operation; 1, six years.

Seventy not urgent cases.

Not one died within the month.
18, or 15 per cent., died within twelve months.
24, or 34 per cent., lived between one and two years.
16, or 22 per cent., lived between two and three years.
12, or 17 per cent., are now alive, and 8 of these from two to six years after the operation.
38 per cent. of the whole number have survived the operation from two to six years.

Of the fifty-five successful urgent cases, eighteen, or about one-third, survived the operation a variable number of months, but died within the year; another third lived between one and two years; twelve lived from two to three years; six are now alive, three, two and a half, and three years respectively after operation, and one, a lady aged seventy-one, upon whom I was persuaded to operate nearly six years ago with the sole view of giving relief to the agonising pain she was enduring. She was so feeble that I never thought it possible she could live many hours; by good nursing and the careful guidance of her medical attendant she, however, made an uninterrupted recovery, and is now apparently well and suffering but little from her rectal disease.

Seventy cases were operated upon before obstruction threatened life and with the object of giving relief to the constant effort to pass stools and to the pain which was associated with it. Not one of these cases sank from the operation; all convalesced and expressed themselves as grateful for the relief which the operation had afforded. When death came it was painless and from exhaustion—euthanasia. Eighteen of these cases, or about a fourth of the whole number, died within twelve months. Twenty-four, or about one-third, lived between one and two years. Sixteen lived two and three years. Twelve are now alive, eight having survived the operation from two to six years. Another ten or more cases which have been operated upon during the last twelve or eighteen months are alive and going along comfortably. These are not included in the above list.

I should say that in at least three-fourths of the patients who convalesced from the operation and experienced its benefits the artificial anus was a success—that is, that the whole of the fæces were discharged through it, and the local disease was left unirritated by the passage of fæcal matter. In the remaining fourth this desirable result was not secured, and fæces at times—particularly when they were liquid—passed downwards, and added to the local irritation of the obstructing disease. Relief was, however, afforded to all these patients by the use of cleansing enemata, injected sometimes from the rectum below, and sometimes from the artificial anus above, and the subsequent introduction of a sedative suppository through either anus.

With these observations upon my own experience, which I thought well to place before you at this period of my lecture, I will now pass on to consider the relative advantages of the iliac or intra-peritoneal, and the lumbar or extra-peritoneal operation, for within the last few years it has become what I fear I must call the "fashion" to advocate the former as being in the words of one of its supporters "greatly superior to the lumbar method;" and the credit of forcing this question upon the attention of the profession must be mainly given to Messrs. Reeves, Herbert Allingham, Harrison Cripps, and Chavasse.

The chief grounds upon which these surgeons advocate the operation are as follows:—(1) That the iliac operation is in itself easier than the lumbar; (2) that by means of the abdominal incision the diagnosis in obscure cases may be verified before the bowel is opened; (3) that by it there can be no possibility of the surgeon mistaking the small intestines,

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duodenum, or stomach for the large intestine, and that abnormalities of the colon do not mean failure of the operation, since the abdomen can by the inguinal wound be carefully searched; (4) that the bowel can readily be drawn out of the wound, and consequently firmly fixed to the skin without causing undue tension on the stitches; (5) that in lumbar colotomy there is frequently so much prolapse of the gut as to give rise to serious trouble; and (6) that the inguinal position of the wound is far more convenient to the patient for purposes of cleanliness as well as for the adjustment of pads, to guard against the escape of fæces and flatus.

I propose to examine these claims *seriatim*, and will do so in the light of clinical experience as supplied to us by the different classes of cases as they pass under our care, starting with the assumption that the diagnosis of rectal obstruction from cancer or other organic disease is clear. Now, cases of obstruction from rectal disease, cancerous or otherwise, as they come before the surgeon, may be divided into three great classes. The *first* includes cases which may be called *urgent*, since they are associated with acute general symptoms and severe abdominal distension. They are cases generally of annular stricture involving the upper part of the rectum. The *second* class includes cases of chronic obstruction, mostly of the lower half of the rectum without severe general symptoms, but with abdominal distension. The *third* class includes all cases of obstruction from stricture of the rectum, but not urgent, in which the symptoms are fairly well marked but without abdominal distension. To each of these three well-defined classes of cases the operation of colotomy has its own special relation.

Is, then, the iliac or inguinal operation easier than the lumbar? Let us inquire. When applied to the first two classes of cases in which great abdominal distension exists, whether with urgent symptoms or otherwise, the difficulties of an iliac operation cannot be trifling. The advocates of the operation may make light of them, but they exist, and the dangers associated with them cannot be ignored. The chances and risks of protrusion of the small intestine as soon as the peritoneum has been opened are real, and if the large intestine has to be searched for, or the abdomen explored for diagnostic purposes, these dangers must be much enhanced. Should the large bowel appear at once at the iliac wound, the operation, it is true, would be much simplified, but this, it is admitted by its advocates, does not always occur; and when it does, the free manipulation of the bowel which is recommended, and to which attention will be drawn later on, would be both difficult and dangerous. In the third class of cases in which the abdomen is undistended or flaccid, the difficulties of finding the bowel would be slight. On the other hand, a distended abdomen becomes in the operation of lumbar colotomy a condition of advantage, and the searching for the colon, under these conditions is, as a rule, by no means a serious matter. If the patient be fat, there is doubtless at times some trouble, but if the surgeon directs his search forwards towards the reflected peritoneum, and not backwards, into the lumbar fat, and at the same time rolls his patient over from the semi-prone position in which he may have been placed for operative purposes, into the semi-supine, so that the bowel may mechanically fall back towards the lumbar wound, this difficulty will be diminished or overcome. In cases in which the bowel is wholly or partially empty the same practice is also of use.

In the iliac operation, however, if the difficulties be really less than those that have to be encountered in the lumbar, the risks which necessarily appertain to the mere division of the parietal peritoneum must be taken into account, even by the surgeon who admits to the full the impunity with which the healthy peritoneum may be surgically treated. In lumbar colotomy it can only be in exceptional cases that the peritoneum is opened; and should it be so, there can be no more difficulty or danger in dealing with the wound in the lumbar operation than there is said to be in the iliac. In both the risks of peritonitis must, however, be run, whatever those risks may be.

I may say that in the 170 lumbar colotomies that I have performed, I have but twice, knowingly, opened the peritoneal cavity, and in those two cases no harm followed. I am compelled, therefore, to conclude that the iliac operation is not easier than the lumbar when abdominal distension is present, although when the abdomen is flaccid, such may possibly be the case. To open the abdominal cavity to search for and find the colon may be an easy measure; in the cadaver it certainly is so, and possibly it may be said to be more so than exposing the colon in the right or left loin. But from the patient's point of view—which is the only right one—can it be truly said that the division of the peritoneum and the searching with the finger in the peritoneal cavity for a bowel which is diseased or suffering from congestion, the secondary result of disease, involves no more risk to life than the simple exposure of the colon in the loin outside the peritoneal cavity in the lumbar operation? When the parietal incision has been made in the iliac operation, Mr. H. Allingham states that in about half of his cases, and Mr. Cripps writes that in about a third of his, the large intestine presented at once; hence the conclusion is evident that in the remaining half or two-thirds of the cases, the bowel had to be searched for by the finger in the peritoneal cavity. Mr. Allingham goes on to show us how this should be done. These are his words: "When the large intestine does not present itself, I pass my finger into the abdomen, sliding over the iliacus muscle until I arrive at the intestine, which I hook up to the opening with my finger and thumb. If this manœuvre fails to find the gut, I search towards the sacrum, feel for the rectum, and trace the gut up; should this not succeed, the finger must be passed upwards towards the kidney, and the descending colon felt and traced downwards." Mr. Cripps writes: "If any other viscera than the colon present, they must be pushed back and the colon sought for by the finger. Sometimes it can be detected by the hard scybalous masses within it, or it can be traced up after passing the finger into the pelvis and feeling for it as it crosses the brim. The colon being found, a loop of it is drawn into the wound." In the cadaver, and possibly in a patient with a flaccid abdomen and viscera undistended, uncongested, and uninflamed, the manipulations which I have just described may be simple to the surgeon, and they may possibly not prove dangerous to the patient; but with an abdomen distended, and viscera which are undergoing the secondary changes which so soon follow long-existing obstruction, this searching process, as quoted above, can neither be free from danger to the patient nor free from difficulty to the operator; whilst in lumbar colotomy this visceral searching process in the peritoneal cavity can never be required, except on very rare occasions; for on the completion of the parietal wound and the division of the deep fascia, in at least two-thirds of my own cases—and particularly when the bowel is distended, artificially or otherwise,—the colon presents at once, and under these circumstances, after the fat and connective tissue are gently separated from the bowel by means of the fingers, the bowel is readily made to protrude through the wound, to which it is secured. In fat subjects it is true that the exposure of the colon may not prove such a simple process as that described, and when the bowel is empty some difficulty may be experienced; but if the bowel be sought as already described forwards towards the lateral reflexion of the peritoneum from the bowel, and the empty bowel be inflated by Lund's inflator, this difficulty is lessened and overcome. But under no circumstances can the searching process in the lumbar operation be made to involve such important parts as are of necessity implicated in the iliac, although to the surgeon it may prove trying.

It is true, that if the iliac operations were always undertaken before obstruction had become a prominent symptom, and before abdominal distension had taken place, the searching process would doubtless be simplified and rendered less dangerous, although in lumbar colotomy the same conditions would be equally favourable. So far therefore as the searching for the bowel in the operation of colotomy is concerned, it must be concluded that the lumbar method in the majority, if not in every case, has the advantage.

The *second* argument which the advocates of iliac colotomy advance in its favour is that by the iliac incision the diagnosis in obscure cases may be verified before the bowel is opened. But may I ask, has this objection any real weight, and is there in the majority of cases much, nay, any, doubt as to the diagnosis of rectal or colic obstruction? In a large proportion of cases the disease is within finger-touch, and then where is the doubt? Where the hand fails to reach, have we not in the history of the case, in the general symptoms, and in the local symptoms, and particularly where ballooning of the rectum is present,[3] ample evidence to justify the formation of a working diagnosis upon which to base a definite line of treatment? and when the exact seat of the obstruction is not to be made out by the clinical phenomena, have we not

[3] THE LANCET, Jan. 5th, 1889.

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abundant pathological knowledge which tells us, in no uncertain way, that in four-fifths of the cases of obstruction the disease is situated below the splenic flexure, and consequently below that part of the colon which would be opened by a left lumbar colotomy, and that in the remaining fifth of the cases a right lumbar operation would almost to a certainty suffice to give relief? May I ask, therefore—should a rule of practice which has hitherto answered for the relief of chronic rectal obstruction be altered to suit the exceptional and not the average case, and should the general practice of surgery be moulded by exceptional cases?

The *third* reason which has been adduced as an argument in favour of iliac colotomy is that by it there can be no possibility of the surgeon mistaking the small intestine, duodenum, or stomach for the large intestine; and that abnormalities of the colon do not mean failure of the operation, since the abdomen can by the inguinal wound be carefully searched. The first half of this argument may have weight with some minds, but it does not recommend itself to my own. I do not regard it as a fair one, for the mistakes to which attention has been drawn are clearly due to errors of judgment or carelessness which belong more to the operator than the operation; and in estimating the value of an operation we are bound to assume that the surgeon is reliable. Errors of all kind must creep into all work, and particularly into surgical work, but they cannot be legislated for. May I ask, are mistakes in iliac colotomy quite unknown? Has the small intestine never been opened in error? With respect to the abnormalities of the colon, about which so much has been written and said, and upon which the advocates of the iliac operation base an argument against lumbar colotomy, I hardly know what to say. That such may occur, I, as an anatomist, must admit; but if so, I presume to suggest that this same chance of abnormality may occasion trouble in the iliac as in the lumbar method, although such may possibly be of a different form. But in a surgical point of view is the chance of an abnormality of the colon being present an argument which should tell more against lumbar than iliac colotomy? My own experience says no, with no uncertain sound, since out of my 170 cases of lumbar colotomy I have not met with any instance which gave rise to a serious trouble, or that rendered the operation in any way a failure. On one occasion I had to increase my oblique incision forward and pick up the colon at the brim of the pelvis, thus opening the peritoneum; but I subsequently restitched the edges of the peritoneum to the bowel and completed the operation as usual, and with a good result. With this experience, therefore, whilst we may admit the possibility, we may, I think, fearlessly dismiss the probability of the presence of any abnormality of the bowel from our minds, and regard it with no more fear than we do the risk of meeting with an anatomical irregularity in any operation upon an artery for aneurysm or other purpose. In a surgical point of view the risk need not influence practice, and certainly should not tell against the lumbar operation.

The *fourth* argument adduced in favour of the iliac operation, "that the bowel can readily be drawn out of the wound and consequently firmly fixed to the skin without causing undue tension on the stitches," is in a measure true; but it applies more to the condition of the large bowel when empty than it does to that of a patient the subject of obstruction, since a loaded bowel could hardly be thus manipulated. An empty sigmoid flexure can, however, when seized be readily drawn through the iliac wound to the extent of many inches, whereas an empty colon can at the most be drawn out through the lumbar wound to the extent of three or four inches. But is this free extrusion of the bowel at either the iliac or lumbar opening a matter of primary importance? is it essential for the formation of a spur deep enough to prevent the passage of fæces past the artificial opening into the bowel below, and so down the gut to the seat of disease, where it may become a source of local irritation and pain? Mr. Herbert Allingham and Mr. Harrison Cripps, the two most prolific writers upon this subject, say it is; but of this I think evidence is wanting, since my own experience tells me that this result can usually be brought about by much milder measures than those suggested and carried into practice by the advocates of iliac colotomy.

In my own practice of lumbar colotomy, in which an oblique parietal incision is its leading feature, I have been able to secure this result not only in the majority of cases in which I have been called upon to operate at a stage of the disease in which the symptoms were not urgent and the colon was not overloaded, but in a large proportion of the urgent cases undertaken for obstruction. This result has been secured by separating the colon from its posterior lumbar attachments by means of the finger; drawing it well out of the wound; and so rotating it forwards as to bring the posterior wall of the bowel with its longitudinal band to the surface, and there fixing it. In some instances this desirable result was secured rapidly after convalescence, in others it was not obtained for several months, and in three or four cases I have had to enlarge the wound backwards towards the kidney to bring it about. The strongest evidence I can bring forward to support this practice is, however, found in the fact that in three examples of recto-vesical fistula upon which I have operated and in which the passage of fæces and flatus into the bladder caused intense distress, neither fæces nor flatus passed downwards into the bladder within a few weeks of the operation, although in two of the cases urine occasionally passed at night from the bladder upwards, and escaped out of the lumbar wound. One of these patients lived eighteen months after the operation, a second lived seven years, and the third was known to have been alive and well fifteen years later. I have likewise many patients now going about the world enjoying life in comparative comfort who are never troubled by the passage of fæces downwards to the seat of disease. It is true that this desirable condition is not always to be secured, and more particularly when the operation has been undertaken with a bowel over distended, under circumstances of urgency, and when the surgeon is unable to bring about the required extrusion of the colon through the wound. But even in these cases there is not always any very serious distress, particularly if the rectum and the lower part of the bowel be kept empty by the use of cleansing enemata followed by the introduction of a sedative suppository; for with the artificial anus established above the seat of obstruction, the straining and forcing of the bowel, which previously may have caused much distress, are done away with, and as a consequence there is comparatively little pelvic pain. Indeed, even a foreign body may rest for months at the seat of obstruction without giving rise to any serious symptoms; for I have here [showing the specimen] a rubber plug which was, from carelessness on the part of a medical patient, allowed to pass from the colotomy wound downwards into the rectum to the seat of disease, and which remained in that position for twenty months without giving rise to any trouble, and was then expelled upwards by the action of the intestine and out of the colotomy wound, when the history of the lost plug was obtained. It may, therefore, be said that in the majority of cases of lumbar colotomy a sufficient spur is commonly obtained by the simple measures I have been in the habit of employing and which I have just described.

Before leaving this question of spur, I must allow the advocates of the iliac operation to explain their practice; and I shall do so by using their own words. Mr. Herbert Allingham, in the last edition of his father's work on Diseases of the Rectum, as well as in papers of his own published in the *British Medical Journal* for Oct. 22nd, 1887, and April 27th, 1889, goes fully into the way he believes this spur is to be obtained, and at the same time points out by what means the serious prolapse of the bowel which he admits frequently follows the iliac operation, can be best guarded against. Mr. Cripps also describes his method in the same journal for April 27th, 1889. "When the gut is found," writes Mr. Allingham, "and brought to the surface, I look for a piece with a sufficient mesentery, by passing the gut through the fingers; of course this can only be done if the disease is in the rectum, or lower part of the sigmoid flexure. Generally the part of the sigmoid first pulled up has quite sufficient mesentery. If it is fixed to the back of the abdomen, there being a very short mesentery, I pull up as much of the gut as possible, and stitch it to the wound, so that the intestine when opened (some days later) looks like the orifice of a double-barrelled gun. This appearance is obtained by introducing the suture in the following way:—A needle threaded with carbolised silk is passed through the mesentery, close to the intestine, then through the abdominal wall on both sides at the middle of the wound, and the sutures are tied up tight. If there is little or no sigmoid mesocolon, I am obliged to pass the sutures through the muscular and serous coats of the gut at its posterior part. Leaving a fair-sized knuckle of loose gut outside the wound, I next sew the gut all round to the skin, passing the thread only through the muscular

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and serous coats. This is done carefully, so as not to prick the mucous coat. Antiseptic dressings are then applied. The gut is not opened for two or three days, unless bad symptoms appear." Mr. Harrison Cripps writes: "The colon being found, a loop of it is drawn into the wound. In order to avoid *the prolapse which is likely to occur* if loose folds of the sigmoid flexure remain immediately above the opening, I gently draw out as much loose bowel as will readily come, passing it in again at the lower angle as it is drawn out from above. In this way, after passing through one's fingers an amount varying from one to several inches, no more will come. Two provisional ligatures of stout silk are passed through the longitudinal muscular band opposite the mesenteric attachment. These provisional ligatures help to steady the bowel during its subsequent stitching to the skin, and, moreover, are useful guides when the bowel is ultimately opened. They should be about two inches apart." I have quoted in full these two surgeons' remarks upon the methods they employ to bring about the required result, as my desire is to do them full justice; but I cannot fail to draw the conclusion that to carry out the practice as recommended, it is clearly intended, although it is not stated, that the operation of colotomy should be undertaken at an early period of disease, and before symptoms of obstruction have become marked, for the manipulations described could never be carried out with an inflated abdomen and distended and possibly injured colon, nor can they be said to be free from danger. The means these surgeons employ to obtain their object are far more serious, and in my view more dangerous, and, so far as evidence goes, not more successful than the simple measures I have already described as applicable to the lumbar operation.

The next or fifth objection that I have to consider which has been raised against lumbar colotomy has reference to the prolapse of the bowel, which is said by the advocates of the iliac method to occur after convalescence has taken place in the lumbar operation, and which is stated to give rise to serious trouble. I must assume that this objection is real and based upon facts, and is not theoretical; for my own experience does not allow me to support it in any way. Indeed, in only one out of my 170 cases has this complication arisen, and in it it was the distal end of the colon which was at fault. The prolapse was also readily controlled.

A certain amount of prolapse after lumbar colotomy must be looked upon as an advantage, and I never feel certain that my patients are safe from the occasional passage of fæces past the lumbar wound downwards into the rectum until it has formed. I like one equal in extent to that which normally takes place in the horse in the defecating act. Such a prolapse I have called the equine prolapse. To have the question of prolapse, therefore, raised as an objection to lumbar colotomy is somewhat comical, and more particularly when we read in the writings of the advocates of the iliac method of the very severe measures which are considered justifiable to guard against it. Upon this point Mr. Allingham writes: "Through the new opening in the groin the intestine protrudes, and is a source of constant trouble and discomfort. Some patients have told me that had they been aware of the possible sequela they would never have consented to undergo the operation. Their life is simply spoilt, and they are practically prevented from going about and mixing with the world at large in consequence of the constant protrusion of the mass." After this serious grievance has been noticed, he goes on to describe the measures he adopts to prevent this trouble from following the iliac operation, and these means are, first, the pulling out of the gut through the iliac wound by its lower end till no more can be made to protrude, and this is to be followed by the same treatment of the upper end. The mesentery is now quite taut, and a large bunch of intestine several inches in length has been drawn through the opening, and is allowed to rest upon the abdomen. This bunch is then at its neck carefully stitched through its mesentery and muscular and serous coats to the edges of the wound. Later on this mass is excised, and it is interesting to note that quantities ranging from three and a half to six ounces in weight of intestine can be removed, without, as Mr. Allingham adds, any apparent detriment to the patient." As a physiological experiment these facts are of interest, but surely from a purely surgical point of view these measures tend to magnify the dangers of the iliac operation. Mr. H. Allingham admits this to be the case, and "confesses that this supplementary procedure of cutting away so large a quantity of gut has materially increased the seriousness of the operation, although," he adds, "the exceeding discomfort occasioned by this possible procidentia necessitates a fair grappling with the circumstances."

Mr. Allingham fails, however, to point out what must be evident to his as to my mind, "that the pulling out of the gut through the iliac wound by its lower end till no more can be made to protrude, and this to be followed by the same treatment of the upper end," must, of necessity, bring the local disease for which the colotomy is made dangerously near the wound. For my own part, if the measures I have quoted be necessary to make iliac colotomy a success, I can hardly admit that the operation as a rule of practice should be chosen so long as we have at our disposal the old and approved lumbar method, the objections to which are very unreal, and which under no circumstances can be complicated with conditions which can require any such severe surgical measures as those I have described, and particularly if the case be treated early.

The last and sixth argument I have to notice which is raised against lumbar and in favour of iliac colotomy has reference to the position of the artificial anus; the advocates of the latter operation maintaining that the iliac anus is more convenient to the patient for purposes of cleanliness as well as for the adjustment of pads to guard against the escape of fæces and flatus. Now, is this wholly true? That it is so to a degree may be at once admitted, for with an anterior wound the necessary process of washing is more readily carried out than it can be with a lumbar opening, although with it the difficulties are not found to be serious. But can it be said that the escape of fæces and flatus from the iliac opening is more readily controlled by pads and instruments than it has been found to be from the lumbar? My own experience tells altogether the other way—for the loin is a fixed and firm position, and its condition is much the same so far as resistance is concerned at all times—a good pad and dressing can consequently be readily maintained *in situ* without trouble or inconvenience, and if the patient wear stays, this difficulty is lessened. With the iliac method these stable conditions of parts cannot be said to exist. A pad and bandage which is satisfactorily adjusted with the patient standing will require readjustment with the patient sitting; and the variable condition of the bowel itself must always keep up constant change. I have been consulted by several subjects of iliac colotomy upon this point, and found their grievance to be a real one, and more particularly since it is irremediable. In three cases of iliac artificial anus which I have had, the difficulty was insuperable. Upon this score therefore, as upon many others, I hold the lumbar operation to be the preferable.

There are also certain cases of rectal cancer in which iliac colotomy seems to be quite inapplicable—that is, when the disease is fairly high up and involves the bowel above the brim of the pelvis. In these cases iliac colotomy would be a failure, as the opening would be below the seat of the disease, or the colotomy wound would be too near the diseased structure to be a success, since the chances of the growth spreading to the wound would be great, and the complication most detrimental. In all cases of iliac colotomy for rectal cancer this fear is real; indeed, in the lumbar operation itself cases are not rare in which the lumbar wound has become involved from the extension of the rectal disease. On the other hand, there is a class of cases in which the iliac method may have the advantage, and that is when the diagnosis of the case is less clear than usual, and the position of the bowel uncertain. Of this I have had one example. The incision, as Mr. Cripps rightly states, acting at first as an exploratory procedure for diagnostic purposes, and later on as a remedial measure. But these cases are most exceptional, and, as I have already said, the practice of surgery must be based upon average cases and not upon rarities. By iliac colotomy also the surgeon may be more frequently able to turn the case into one of colectomy, or excision of the growth, than by the lumbar method. I have done this but once in all my lumbar operations, and that case is fully recorded in the Royal Medical and Chirurgical Transactions for 1882, vol. lxv. With these comments upon the objections which have been raised against lumbar colotomy, and the supposed advantages of the iliac method, I must now sum up my material; and to save time I have done so in the form of a series of propositions.

1. For the iliac operation to be a success, the large bowel should not be loaded with fæces, the abdomen be by no means

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tense, and the symptoms of obstruction far from urgent; since under opposite conditions (such as those too commonly met with) its supposed advantages would hardly be demonstrated. The searching for the bowel would, moreover, be a serious difficulty; the free manipulation, extrusion, or excision of the bowel which is advised would be unsafe even if practicable, and the necessity of having to open the bowel upon its exposure would, when called for, add to the dangers of the measure. The iliac operation consequently would appear to be applicable to only a small class of cases. If, then, it can be said that iliac colotomy is an easier operation than the lumbar, when the large bowel is empty, the abdomen flaccid, and the symptoms of obstruction unpronounced, it can without hesitation be asserted that with a distended abdomen and colon and urgent symptoms the lumbar operation is the simpler of the two.

2. To search for the colon in iliac colotomy performed upon a patient with an undistended abdomen and free from all urgent symptoms may neither be difficult nor dangerous; but with the opposite condition, in which the bowel is damaged above the immediate seat of disease from prolonged obstruction, danger must exist, and such a danger must be added to that which appertains to the peritoneal wound. In lumbar colotomy neither of these dangers has to be met; such searching for, extrusion, and dragging outwards of the colon as is considered to be essential in the iliac operation is never requisite, since the spur which is considered to be so essential to guard against the passage of fæces past the artificial opening in the iliac method can in the lumbar be obtained by far simpler means.

3. The prolapse of the bowel at the artificial opening which has been adduced as an objection against lumbar colotomy does not rightly or of necessity belong to it. To judge by my own experience, it is imaginary. In the iliac operation the objection is admitted, and sought to be remedied by an operative measure which is in itself of far greater magnitude than any lumbar colotomy I have ever done or seen.

4. The fear of an abnormality of the colon rendering the operation of lumbar colotomy a failure is practically groundless. I have known it to occur but once in my own practice, and in that case the patient suffered no harm. Such a fear, therefore, need in no way tell against the lumbar measure.

5. The greater convenience of the iliac over the lumbar wound for toilet purposes may at first sight seem plausible, but this apparent advantage is more than counterbalanced by the greater difficulty that exists in keeping any dressing or compress in position over the anterior opening to prevent the escape of the intestinal contents than is ever experienced over the lumbar.

6. The final conclusion is, therefore, clear that iliac colotomy is not yet proved to be superior to the lumbar operation. In doubtful cases, in which an exploratory incision is required for diagnostic purposes, it may be useful, but such cases are very few; in all others, lumbar colotomy has advantages which stamp it as the better measure. The single advantage that I can see in the adoption of the iliac method is that the question of operative interference will have to be taken into account at a far earlier period of the patient's trouble than it has been hitherto the custom to consider the propriety of the lumbar operation; if so, we may soon see the valuable operation of lumbar colotomy take its right place in the practice of surgery, and good may come out of a fashion which has certainly not been a universal success.

I regret to say that the notes of my cases are not sufficiently full to allow me by statistics to support a valuable remark by Mr. Jessop, in his instructive paper on the Treatment of Cancer of the Rectum at the Leeds meeting of the British Medical Association in August last, although I am convinced that upon the whole he is right, and "that in cancer of the lower half of the rectum we have not much fear of the occurrence of complete stoppage, and that that which occurs may in the majority of cases be got over for a time by injections, the introduction of the finger, or of bougies, the use of laxatives, and the like; but that where the upper portions of the rectum are involved, complete blockage is almost certain sooner or later to appear." Mr. Jessop's explanation of this fact is also doubtless correct, and it is found in the anatomical relations of the upper and lower portions, for whereas the rectum as it approaches the outlet becomes more closely applied to the sacrum and pelvic wall, in its superior portion it is comparatively free, and thus the contractile action of the colon above is exerted with effect in forcing the contents through a contracted ring where that ring is fixed and immovable; whereas, when the narrowed portion is free, movable, and not attached, as it is when seated in the upper portions of the rectum, the efforts of the bowel above succeed only in invaginating or otherwise displacing the growth, often so as to enable us to make a complete diagnosis by bringing the disease within reach of the finger, and fail altogether in effecting any onward movements of the contents.

In cancerous disease of the lower part of the rectum colotomy is, therefore, called for more for the purposes of relief of local distress than for pressing obstruction; whilst in the cases of cancer of the upper part of the bowel, the same treatment is called for, again using Mr. Jessop's words, "as soon at least as the first symptoms of impending blockage appear, and in time to anticipate those further changes upon which the mortality of colotomy so much depends."

ON THE

OCCURRENCE OF ACUTE HÆMORRHAGIC NEPHRITIS IN SUPPURATIVE MENINGITIS.

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THREE cases of this nature have recently come under our notice, and being struck by the fact that the nephritis in all three seemed to be rather a direct consequence of the meningitis than a mere coincidence, we have been led to study them carefully as being of considerable pathological interest. The results of our investigations show that the nephritis possesses certain special characteristics which we think are worthy of record, since we are unable to find that attention has previously been called to any relationship existing between these two conditions. These three cases seem to represent three stages of one and the same pathological process—namely, an early, a more or less intermediate, and an advanced stage; and we propose to describe the cases in this order, submitting first of all the clinical and pathological facts of each case, and afterwards discussing the various points of interest bearing upon the pathological relationship of this complication.

CASE I.[1]—Harry C——, aged seventeen, a brassworker, was admitted to the General Hospital, Birmingham, under the care of Dr. Simon (acting for Dr. Wade) on July 17th of this year. He was in an unconscious condition, so that the following history of his illness had to be obtained from his mother. On the morning of July 15th, having been previously to all appearances quite well, he complained of headache and vomited once or twice. There was a vague history of his having had a slight blow upon the head some short time before, but it seems doubtful if this were of any importance. There was no history of any rigor. He was sent to bed and remained there until he was brought to the hospital. During the 16th he was delirious and refused his food. On admission his temperature was 104° F., respiration 28, and pulse 100. Skin dry and burning, tongue foul. He lay on his right side, taking no notice of his surroundings, but was very irritable when disturbed. There was no squint, paralysis, or muscular twitching. Pupils were equal and reacted to light. Bowels had not been open for three days. Urine was passed involuntarily, so none could be collected for examination.—18th: Vomiting continued. Urine saved this morning and found to contain blood and albumen. One-twelfth of a grain of pilocarpine was given at 12 noon and 7 P.M., after which he sweated freely, and his general condition seemed a little better. Bowels open after castor-oil enema.—19th: Still very restless and wandering. Urine report was as follows: Twenty-eight ounces; specific gravity 1025; deep amber, smoky, acid; urea 3 per cent.; cloud of albumen, blood, granular and hyaline casts.

[1] For the notes from which this case was abstracted we are indebted to Dr. Short, resident medical officer of the hospital.

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One-twelfth of a grain of pilocarpine was repeated, and fifteen grains of bromide of potassium ordered.—20th: Boy extremely restless, necessitating special attendant.—21st: Tongue and teeth foul, dry, and covered with sordes. He is incessantly moving about in bed in an aimless way, groaning all the time. He passes his urine involuntarily; but all attempts to get the bowels (which had been confined since the 19th) open failed, though on one occasion two minims of croton oil were given. He did not sleep more than an hour last night. Pilocarpine repeated. Later on in the day the temperature began steadily to rise, reaching 105·8° at 10.30 P.M., and subsequently 107°. Muscular twitchings of both arms and legs, more marked on the right side, began with the rise in temperature. Temperature reduced to 104° by sponging.—22nd: Temperature still very high. Muscular twitchings continue. Death occurred at 6 P.M. At the post-mortem examination the meningeal vessels over the vertex were found engorged, but the dura mater was neither tense nor adherent to the calvaria. Lines of greenish-yellow lymph extended along the course of the vessels over the cerebral convolutions of both hemispheres, and the pia mater was adherent at places to the cortex. Diffuse patches of lymph were found on the dural arachnoid at the base of the skull in the middle and posterior fossæ, and extended some way down the spinal canal. These patches were not found over the base of the brain itself except in the two Sylvian fissures. The basal ganglia looked cloudy and hyperæmic, but the brain substance was fairly firm. Ventricles were dilated and contained an excess of clear serum. Microscopical examination of the meninges showed no evidence of tubercle. On the heart a few subendocardial ecchymoses were found, and there was slight hypertrophy of the left ventricle. The lower lobes of the lungs were congested; bronchial tubes full of muco-pus. The kidneys weighed 8¼ oz. Capsules a little sticky in places, but surface smooth. Venæ stellatæ engorged. On section, the organs looked hyperæmic, but cortex here and there a little more pallid than normal, with tendency to opacity. Punctiform and streaky hyperæmia, with some punctiform extravasations here and there on careful inspection. Otherwise no gross changes of extent or importance could be made out with the naked eye. The remaining organs presented nothing worthy of note. Histological examination of the kidney showed the following condition: General hyperæmia. The presence in the tubules, both of cortical and medullary portions of red blood-cells and occasionally hyaline and granular casts. Early cloudy swelling of the renal epithelium, more obvious in some than in other convoluted tubules; slight hyaline swelling of the walls of the glomerular capillaries, and the occasional presence of a granular and reticulated exudation within Bowman's capsule. In some glomeruli the capillaries looked abnormally dilated and were distended with red blood-cells, but no proliferative changes were noticeable in either the capsular or glomerular epithelium, at the most only slight swelling of it. The stroma appeared absolutely normal.

CASE 2.—George K——, aged twenty-four, was admitted into the London Hospital under the care of Dr. Sutton on Oct. 7th, 1886. He was then suffering from headache, pain in the abdomen, and general malaise. His temperature was 104°, face flushed, skin hot and dry, and he was delirious. For several days previously he had suffered from severe headache, and had vomited. There was no history of his having had any discharge from the ears, and his aunt, with whom he was living, stated that she had noticed that the urine was very dark on the day before admission, but not previously. The morning after admission he passed urine charged with blood, of which the following was the report. Specific gravity 1010, porter-coloured, acid, one-fifth albumen; blood casts, blood, and epithelial débris in large quantity. The following night, Oct. 9th, delirium was so excessive as to necessitate his being conveyed to a padded room. He had a distinct rigor that afternoon, his temperature rising to 105°. This was followed eight hours later by a second. These were repeated at intervals for the next two days, during which time the urine passed was similar in character to that voided the first day. There was no paralysis or muscular twitching, but restlessness and delirium were most marked, and produced a condition of extreme exhaustion, from which he sank on Oct. 13th. Post-mortem examination revealed a diffuse suppurative meningitis, involving the surface of the whole of the right hemisphere, and extending slightly on to the left. There was extensive disease of the middle ear on the right side, from which the suppuration had started. The right lateral sinus was thrombosed, and the thrombus breaking down. The kidneys were very large, dark, and intensely engorged, weighing eleven and ten ounces respectively. There were no pyæmic abscesses to be found in the kidneys or in any of the other organs, which, except that they were all more or less hyperæmic, presented no morbid appearances. On histological examination the most striking feature was the extensive hæmorrhage into the tubules, which in some instances seemed to have taken place directly through the basement membrane, from the engorged and probably ruptured intertubular capillary vessel; the epithelium was pushed away from the basement membrane by the interposition of red blood-cells. The glomeruli were uniformly swollen and mostly filled out their capsule; they showed nuclear proliferation and occasionally hyaline degeneration of the capillary tufts, but no exudation within the capsule. Parenchymatous changes were quite obvious, and consisted in proliferation and disintegration of the epithelium of the convoluted tubules as well as the presence within some of a granular or colloid exudation. The stroma was the seat here and there of small-celled infiltration.

CASE 3.—George M——, aged forty-one, was admitted into the General Hospital, Birmingham, under the care of Mr. Bartleet, on Nov. 24th, 1888, suffering from a small subdural abscess, the result of a punctured fracture of the skull, which he had sustained some months previously. The symptoms were purely local on admission. On Nov. 30th he was trephined, and a drainage-tube inserted.—Dec. 1st: Free purulent discharge from wound, slight twitchings in left arm and left side of face, accompanied by a sensation of numbness in these regions. Temperature 101°.—2nd: Temperature rose to 102°, but twitchings ceased. Patient complains of headache.—7th: Temperature has gradually fallen to normal, but there is great restlessness. A hernia cerebri has begun to appear.—10th: The urine, which had been carefully watched up till the day before and found natural, is this morning charged with blood. The following is the report: Specific gravity 1018, porter-coloured, dense cloud of albumen, chocolate-red deposit composed of large, coarse colloid and granular casts, small granular casts, epithelial casts, numerous red and white blood-cells, numerous hæmatocytes, and much yellowish-brown granular débris. Temperature has risen again to 101·4°.—12th: Cerebral symptoms, including muscular twitchings, headache, slow pulse (60), drowsiness, and marked wasting are steadily increasing. Urine voided only in small quantities; is similar in character to that passed on Dec. 10th.—14th: Headache very severe, and accompanied by pain in the back of the neck.—16th: Patient became quite unconscious yesterday, and died this morning. The urine up to the time of death still contained blood. The post-mortem examination showed that a hernia cerebri had protruded through an opening in the right parietal bone, a little in front of the lambdoidal suture, and around it an extensive purulent meningitis had developed, affecting both hemispheres, but especially the right, where the purulent exudation in the subdural space was fully $\frac{3}{16}$ in. thick. The pia mater was diffusely hyperæmic, and contained in its substance patches of lymph along the course of the cerebral vessels. There was only a very slight effusion of lymph found at the base of the brain. Except around the hernia cerebri, the brain substance on section appeared fairly normal, and contained no abscess cavity. Beads of pus were found in the choroid plexuses, and the ependyma was soft and infiltrated. The kidneys weighed 16 oz., and were typical examples of the large red-mottled kidney. The capsules separated easily. On section the glomeruli were more distinct than usual, appearing as minute glistening bodies. The heart weighed 10 oz. The lungs weighed 2 lb. 6 oz. The bases were œdematous and congested. The spleen weighed 4 oz.; it was soft and pulpy. The liver weighed 54 oz.; it revealed cloudy swelling, with slight fatty changes. Histological examination of the kidneys showed the nephritis to be an acute diffuse one of considerable intensity, in which the changes affected the glomeruli, parenchyma, and stroma almost equally. The glomerular changes consisted in general swelling and cellular infiltration of the capillary tufts, and in the formation within the capsule of a hyaline reticulum, enclosing in its meshes desquamated capsular epithelium, lymphoid, and a few red blood-cells. The exudation then appeared to undergo a rapid coagulative necrosis, and insinuated itself between the lobules of the tufts; it is not

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infrequently accompanied by hyaline degeneration of the capillaries themselves. The afferent arterioles were swollen and compressed, both without and within, by cell proliferation; hyaline swelling of the intima was sometimes met with. The efferent venules were dilated and lined by swollen endothelium. Parenchymatous changes were equally prominent, and the intratubular exudation was of a varied character. The epithelium of the convoluted tubules was uniformly swollen and proliferating, it was coarsely granular, and often undergoing colloid degeneration. A most conspicuous change was the presence within many of the convoluted tubules of true fibrinous casts—that is, casts composed of either fibrin alone or containing in its meshes leucocytes and red blood-corpuscles. In this respect it much resembled the intra-alveolar exudation in croupous pneumonia. These casts appeared to undergo coagulative necrosis, and to melt down into homogeneous and highly refractive colloid material. Other tubules, notably Henle's loops, contained blood, cellular (lymphoid) and delicate hyaline casts. The intertubular stroma was infiltrated with œdema, and with leucocytes which were sometimes found disposed around Bowman's capsules.

Remarks.—It is now an accepted fact in renal pathology that the acute specific febrile diseases are answerable for a great number of the examples of acute nephritis that come under observation; and pathologists have classed them in a group which they have designated "febrile" or "infective" nephritis. The nephritis develops in the course of the disease, and in some instances, notably in scarlatina and diphtheria, constitutes an important clinical feature in the case. It is attributable in most instances to the operation of the same specific virus supposed to be responsible for the disease itself. Among the list of acute febrile diseases in the course of which a nephritis may develop suppurative meningitis has not hitherto been included, for the reason that, if it were noticed to occur at all, it was probably regarded as but another manifestation of general septic mischief. The points of interest in the nephritis presented by these three cases are twofold. First, certain peculiarities observed in its anatomical characters; second, its nature and pathological relationship to the meningitis.

I. Certain peculiarities in its anatomical features. 1. The feature common to, and most conspicuous in, all three cases is its strikingly hæmorrhagic type, shown by hæmorrhage of varying extent into the tubules, an extreme degree of which was found in Case 2. 2. The diffuse character of the inflammatory changes, of varying intensity in the three cases, but present in all. 3. Its resemblance to croupous pneumonia in the following particulars: in the engorgement with swelling of the epithelium, then in the fibrinous exudation,[2] with proliferation of the epithelium, and lastly, in the commencement of degenerative changes in the inflammatory products. 4. The absence of necrotic foci as indicative of capillary embolism (pyæmia). 5. The absence of micro-organisms (septicæmia). 6. The absence of any evidence of previous renal disease.

II. In attempting to discuss the nature and pathological relationship of the nephritis to meningitis, we must first draw attention to the origin of the primary disease itself. In Cases 2 and 3 the meningitis was manifestly septic, being secondary to ear disease in the one and to traumatism in the other, while Case 1 appears to have been, as far as we can determine, idiopathic and of a simple purulent character. In view of exception being taken to our idea that the nephritis was consequent upon the meningitis, we think that a few observations on the clinical aspect of the cases bearing upon this point might be made. In Case 1 we have no proof as to the priority of the meningitis. The knowledge of the condition of the urine collected on the second day altered the clinical aspect of the case, and made the diagnosis between some anomalous form of uræmia and meningeal irritation more difficult; but, in the absence of urinary suppression, and with the presence of marked delirium, the balance remained in favour of the latter. In Case 2 the evidence with regard to the priority of the meningitis is much stronger, while in Case 3 it is conclusive, so that it seems highly probable that this relationship also obtained in the first case. It is to be regretted that the previous history in Cases 1 and 2 could only be obtained indirectly, as in neither was the patient able to give any information concerning his previous condition or subjective symptoms. With regard to the nephritis, we are inclined to attribute it to the combined effect of two independent causes—namely, septic absorption and vaso-motor disturbance common to the various forms of meningitis. Much importance has of late years been attached to the demonstration of micro-organisms in the kidney as evidence of the infective character of the nephritis; and in certain forms of embolic origin, such as occur in pyæmia, ulcerative endocarditis, &c., they have been found by various investigators to be pretty constant, and not difficult of detection. This, however, is not the case in some of the other acute febrile diseases, such as scarlatina, diphtheria, enteric fever, &c., where the evidence on this point is conflicting.[3] We might here quote a remarkable example of acute nephritis occurring in a case of cancrum oris which one of us had the opportunity of examining some time ago. In this the inflammation was exquisitely catarrhal in type, and consisted mainly in proliferative and degenerative changes in the renal epithelium, and in the exudation into the tubules of a number of colloid globules of all sizes. A few slight patches of blood extravasation were found in the stroma, but were quite insignificant compared with the nature and extent of the parenchymatous changes. Now in this case micro-organisms of different species were found in profusion at the local seat of the disease, and some few in the heart, while, after the most patient search according to modern technical methods, we failed to discover any in the kidneys, liver, or spleen. But the absence in such cases of micro-organisms by no means excludes the influence of some toxic agent circulating in the blood, upon the presence of which we are obliged to fall back for a possible causal explanation, not only of the nephritis, but also of the morbid changes found in the liver and spleen. We have introduced this last case for two reasons. First, because it represents an example of acute nephritis in a disease pre-eminently mycotic in character, and distinctly localised at its commencement, in which the subsequent changes become generalised by the diffusion into the circulation of some toxic agent, not particulate, but probably chemical in its form. Secondly, because certain differences in the finer changes are expressed in the exquisitely catarrhal type of the epithelial changes and in the absence of hæmorrhage into the tubules. Although, therefore, we have not been able to satisfy ourselves as to the presence of micro-organisms in the kidneys of our cases of nephritis, still we are inclined to support its septic character on similar grounds, even if we omitted to search for micro-organisms in the meninges. It seems highly probable that the presence within the kidneys during the process of excretion of certain subtle chemical poisons of the nature of ptomaines or leucomaines, manufactured at the local seat of the disease and absorbed from the meninges, constituted the exciting cause of the tissue change, while the vascular change not improbably owed its origin to some obscure nervous influence directly connected with the meningeal irritation. That disturbances of the vaso-motor system are more or less constant features of meningitis is a recognised clinical fact, and is expressed by the peculiar flushes of the face, and by the "tache cérébrale" so graphically described by Trousseau. The balance of power and reaction between the vaso-dilators and the vaso-constrictors is disturbed, and this may affect the renal blood-vessels equally with those in other parts. When to that influence are added the effects of some poisonous ferment circulating in the blood, and acting directly on the walls of the blood-vessels of organs so essentially eliminative and excretory as the kidneys, it is easy to conceive that the balance of power might be still further disturbed by the changes produced. What the intimate nature of these changes may be is beyond the power of the microscope alone to reveal; the problem is a physico-chemical one, involving grave alterations in nutrition; but certain effects of them we know from Cohnheim's researches—viz., dilatation of the blood-vessels from loss of contractile power in their walls (paresis), their increased permeability, and the ease with which under conditions of increased blood pressure they allow red blood-cells to escape. We think that in this way may be explained the peculiarly hæmorrhagic character of our cases. We have examined the hos-

[2] We may here remark that although one of us has examined now a very large number of examples of acute nephritis, we have never before seen so many fibrinous casts as presented by Case 3. In Case 1 the nephritis is almost in its earliest stage.

[3] See Lepine's Additions à la Traduction Française du Traité des Maladies des Reins de Bartels, Paris, 1884. Also German translation of this, Die Fortschritte der Nieren-pathologie, Berlin, 1884, where this question is discussed, and full references to the literature up to that date are given in the chapter on the infectious forms of nephritis.

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pital post-mortem registers for the last five years, and have perused the reports of twenty other cases of meningitis. Fifteen of these were tubercular and the remaining five purulent, but non-tubercular and consequent upon either ear disease or traumatism. In none did we find noted any gross changes of importance in the kidneys; in several instances they were described as somewhat hyperæmic and presenting evidence of cloudy swelling; these were chiefly the non-tubercular cases, in two of which the appearances were confirmed by the microscope, but no intra-tubular hæmorrhage was noticed. In the tubercular cases the kidneys were found of normal size, sometimes pallid and sometimes more or less congested, and in those cases where the tuberculosis was generalised the kidneys were preserved for histological purposes. On looking over some of the sections tubercles were seen, but no such changes approaching those we have just described. Accordingly, it would appear that our three cases are, to say the least, exceptional, and we could not pretend to formulate conclusions based on so limited a number. In our paper we have confined ourselves principally to the statement of facts, and in our attempt to discuss their significance have merely indicated our lines of thought; and should these be deemed worthy of such consideration as to arouse the attention of other observers in the same direction, we shall feel amply justified in their publication. In conclusion, we wish to express our obligations to Dr. Sutton of the London Hospital, and Drs. Wade and Simon and Mr. Bartleet of the General Hospital, Birmingham, for kind permission to use their cases.

Postscript.—Since sending our communication to the press we have met with the record of a case, similar in many particulars to our second, in the *Monatsschrift für Ohrenheilkunde*, 1888, No. 8, by A. Weichselbaum.[4] It is that of a woman aged fifty-two years, who was admitted into the hospital in Vienna in a comatose condition, and died two hours afterwards. The following conditions were found at the necropsy:—Acute rhinitis; purulent otitis media with perforation of the tympanum; ostitis and periostitis of the mastoid process, phlegmonous cellulitis and myositis of the sterno-mastoid on the same (left) side; myocarditis; acute swelling of the spleen; cloudy swelling of the liver; *acute parenchymatous nephritis*, and commencing pneumonia in the lower lobes of the lungs. Bacteriological investigations undertaken immediately after the necropsy showed Friedländer's bacillus pneumoniæ to be the only organism discoverable. It was pretty widely diffused, at least in the local lesions, to which there succeeded, in Weichselbaum's opinion, a general infection of the system, producing the changes noted in the viscera. Thus he believes the origin of the nephritis to be connected either directly or indirectly with the presence of the bacillus in the blood. It will be noticed that no meningitis developed in this case, neither is it mentioned that the nephritis bore a specially hæmorrhagic character.

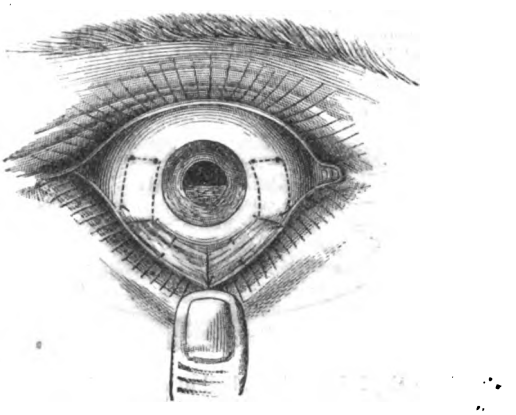
Birmingham.

ON TRANSPLANTATION OF RABBIT'S CONJUNCTIVA TO THE HUMAN EYE.

BY J. R. WOLFE, M.D., F.R.C.S.E.,
PROFESSOR OF OPHTHALMOLOGY IN ST. MUNGO'S COLLEGE; SENIOR SURGEON TO THE GLASGOW OPHTHALMIC INSTITUTION.

WHEN the conjunctiva of the eyeball and the corresponding palpebral conjunctiva are destroyed by gunpowder explosion, by a burn with hot metal, quicklime, or other chemical substance, adhesion or symblepharon is the result. Iron moulders, puddlers, and labourers in chemical works being most exposed to such accidents, cases of symblepharon are frequently met with in towns like Glasgow. Numerous expedients used to be resorted to for the cure of this affection. They all had for their object the mechanical separation of the lid and eyeball, until the raw surfaces cicatrised. This surgeons tried to effect by repeated dissection and by keeping the surfaces apart by the interposition of foreign bodies, such as sealing-wax, leather, or glass shields. After repeated trials such measures were found useless. They are based on the supposition that a delicate physiological action can be replaced by a coarse mechanical contrivance. Abhorring friction of surfaces, nature frustrates such expedients, for, whenever the surfaces rub upon each other, they adhere and the foreign body is squeezed out by gradual constriction. I first used to try the radical cure of symblepharon by plastic operation of the conjunctiva. The operation consisted in taking a portion of the neighbouring healthy conjunctiva of the eyeball, and with it replacing the palpebral conjunctiva which had been destroyed. For experience has taught me that loss of the ocular conjunctiva, even to a very large extent, is generally regenerated without prejudice to the neighbouring tissues, whilst loss of the conjunctiva of the eyelid is followed by pannus, ulcerated cornea, and other lesions. (Fig. 1.) Fig. 1 represents the case of Simon M'K——, aged twenty, moulder, who, three years before he came under treatment, had his eye burnt with molten lead, resulting in adhesion of the lower eyelid, which covered the lower half of the pupil. I dissected the eyelid from the eyeball, separating it as far as the cul-de-sac, liberating the eyeball completely. I then passed two fine silk threads through each side of the conjunctiva at the outer aspect, which ligatures marked the breadth of the conjunctival flap to be removed. These two I put on the stretch, and with a pair of scissors I first cut horizontally, and then on each side of the ligatures; then putting the scissors behind, I cut it from the eyeball. The same process was followed on the inner side, and these two flaps were brought together in the middle line and secured with stitches, as marked in the diagram. The operation

FIG. 1.



was performed in September, 1869, and the case was shown some months later as a successful one in every respect.

Mr. Teale of Leeds introduced an operation similar to my own, and yet different from it in this respect: from each side of the ocular conjunctiva he takes a flap; "the one is stitched across the raw surface of the eyelid, and the other is fixed across the raw surface of the eyeball, and the two flaps are thus dovetailed into the wound." It is evident that in this operation a large supply of conjunctiva is requisite to repair a comparatively slight injury, while in my operation the conjunctiva of the eyeball is entirely disregarded, and the palpebral conjunctiva alone repaired. The result is that while Mr. Teale interferes only with a case of symblepharon, "provided it be of moderate extent,"[1] my operation is applicable to extensive adhesions, provided only that there be sufficient transparent cornea to make an artificial pupil, as shown in Fig. 2, which represents the case of John M——, aged fifteen, tinsmith, who had burnt his right eye with strong hydrochloric acid two years before, with the result of extensive symblepharon. The lower eyelid was covering the upper margin of the pupil; vision was therefore impossible. The first step accordingly was to make an iridectomy upwards and inwards, and two months later we proceeded to the plastic operation of the conjunctiva. But it will be seen that the lateral flaps were in this case impossible, because the lower extended above the meridian. I therefore took a large flap from the upper hemisphere of the eyeball, and secured it upon the eyelid, as above described.

There is a limit, however, to the extent to which we can go in borrowing conjunctival substance from an eye which has been previously injured. If we surpass that limit the

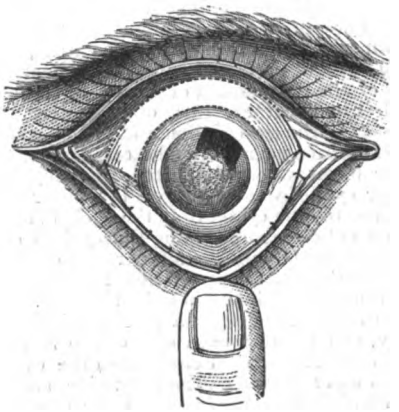
[4] Ueber eine von einer Otitis Media Suppurativa Ausgehende, und durch den Bacillus Pneumoniæ bedingte allgemeine Affection.

[1] Ophthalmic Hospital Reports.

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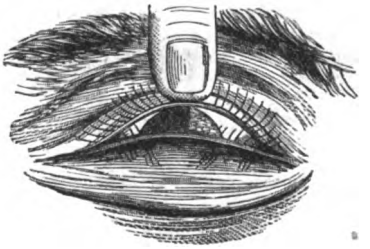
corneal opacity may extend still further and our last chance of saving vision is lost. Indeed, we sometimes meet with cases in which the infliction of a new wound amounts to further disorganisation of the eye. As the operation already described is inapplicable in such cases, I was at one time

FIG. 2.



about to give up all idea of surgical interference, when i occurred to me that I might give the patient some chance by supplying him with conjunctival substance from the rabbit. One such case is represented in Fig. 3. Edward M'K——, aged thirty-one, iron-smelter's labourer, was, on Sept. 17th, 1872,

FIG. 3.



struck on the left eye by a ball of red-hot iron which caused disorganisation of the lower conjunctiva over the greater part of the cornea. On lifting the upper eyelid with the finger the sclerotic was seen, as it were, receding, and no dragging upon the eyeball could turn the upper border of the cornea sufficiently forwards and downwards even for making an iridectomy. The attempt to take a conjunctival flap from the upper hemisphere of the eye, as done in the previous case, was altogether out of the question, for there was no room to manipulate either with scissors or bistoury. In the same year I showed to the Glasgow Medico-Chirurgical Society this case, as my first successful case of transplantation. In August, 1875, I exhibited the same case along with another at a demonstration which I gave to a large audience at the annual meeting of the British Medical Association in Edinburgh. The second case was that of Peter Campbell, which shall be described presently. This operation has been generally adopted by surgeons of various countries. It is, in fact, due to the favourable results of transferring conjunctiva from the rabbit to the human eye that surgeons have become familiarised with the idea of borrowing tissues from the lower animals, and the principle has been further developed by the transplantation of nerve tissue from the rabbit to the human subject.[2] I deem it therefore necessary that the details of conjunctival transplantation should be well understood, for upon attention to these details the success of the operation depends.

At the meeting of the British Medical Association in Glasgow in 1888, I had another opportunity of performing an operation in one case, and of showing another operated on five days previously, to enable those who were present to judge of the hopeless condition of an extensive symblepharon before and the results obtained after transplantation from the rabbit. This was the more necessary as, since first recommending it to the profession, I have considerably modified the procedure and rendered it more simple. From the account given in the journals of that date I extract the following:[3] "At the close of the meeting of the Ophthalmological Section on Aug. 10th, Dr. Wolfe gave a second demonstration at the Ophthalmic Institution, which was attended by London and foreign oculists. The subject was symblepharon; one operation was performed, and a patient operated on five days previously shown. In the case operated on, the lower lid was adherent to the eyeball, for the greater part of its extent the angle only being free. . . . The operation being successfully completed, the patient previously operated on by the same method was shown. One accident had completely destroyed the right eye, the left was also extensively damaged, only a small part of the cornea towards the lower and inner angle being transparent. An iridectomy had been performed there, and the extensive adhesions of both upper and lower eyelids rendered it nearly valueless. When the adhesions had been cut through, very extensive raw surfaces were found on both lids, on both of which the rabbit's conjunctiva had been implanted; and when the patient was shown, no doubt remained of the success of the operation. The eyeball was comparatively free and sight was good. In showing the patient, Dr. Wolfe commented on the fact that it was fifteen years since he introduced this operation, and in spite of the fact that the rabbit's conjunctiva gave perfect results, efforts to transplant mucous membrane from the human subject, from the mouth and even vagina, were being made."[4]

The operation is performed in the following manner:— 1. I first separate the adhesions by means of blunt-pointed scissors, so that the eyeball can move in every direction. The conjunctival sac and cornea are cleared of nodules, so as to obtain an even surface. 2. Two rabbits are then put under chloroform, one being kept in reserve in case of accident. 3. I take from the rabbit that portion of the conjunctiva, which lines the inner angle covering the "membrana nictitans," and extending as far as the cornea, on account of its vascularity and looseness. If the palpebral opening is too narrow, I enlarge it at the external angle, and introduce a ligature through the whole thickness of the free border of the lower lid, and by means of this ligature the lid is drawn open and kept steady, and the conjunctival cul-de-sac exposed. 4. Into the middle of the flap to be removed a black silk ligature is introduced, a knot is tied, and the ligature cut short. This knot is intended to mark the epithelial surface of the membrane, for without it the flap is apt to curl up, and leave us at a loss how to adjust it. 5. Next, I mark the boundary of the conjunctiva of the rabbit which I wish to transplant by inserting four black silk sutures, which I secure with a knot. The ligatures having been put on the stretch, I separate the conjunctiva to be removed with scissors, and, by means of a fine spatula, I spread it upon the back of my left hand. The four ligatures are then cut off, and the conjunctiva trimmed to the requisite size. It should be larger than the lost substance. 6. I now return to the patient, and see that the bleeding has subsided, and that the parts are in a fit condition to receive the transplanted flap, which has in the meantime become dry like a piece of parchment, and adherent to the dorsum of the hand. 7. It is then lifted by means of a spatula, and transferred to replace the lost conjunctiva of the patient. It is secured in its place by six or eight ligatures, or even more if necessary. This is a very difficult process, requiring delicate manipulation, and the assistant must keep the flap in its place by a spatula while it is being

[2] Nerve transplantation from animal to man. A novel operation is reported from Vienna as having been performed by Dr. Gersung on the person of Professor von Fleischel, who accidentally wounded himself sixteen years ago while performing a post-mortem examination. The result was severe inflammation of the right upper limb, which was followed by the formation of neuromata on various branches of the median nerve, to relieve the pain of which resection of the nerve at various sites was resorted to, causing anæsthesia of the parts supplied by it. Fresh neuromata, however, occurred, and finally the pain became so severe that a further operation became necessary. On March 4th the patient was anæsthetised, and the neuroma, which was situated behind the volar-carpal ligament, was excised. A piece of the sciatic nerve of a freshly killed rabbit was then obtained and sutured to the end of the cut nerve and to the connective tissue between. Healing took place by first intention; and as two months have now elapsed since the date of the operation and the pain has not returned, it is hoped that the so far favourable result will prove to be permanent. Sensation is gradually returning in the anæsthetic areas. [3] Medical Press, 1888.

[4] Prof. Snellen (Utrecht) has lately brought before the notice of the Ophthalmological Society a new operation—viz., dissecting a flap from the cheek, drawing it through a buttonhole made in the eyelid, and attaching it to the raw surface of the lid.—THE LANCET Nov. 23rd, 1889.

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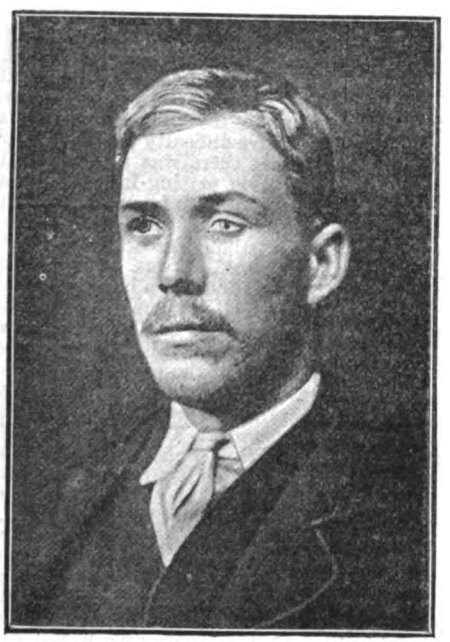
stitched in its new place. Both eyelids are closed with lint and a bandage, and kept so for four days. The ligatures are left in for six or eight days.

With regard to the patient, it must be borne in mind that it is a tedious operation, so that it is impracticable to administer chloroform. To young subjects I administer it only during the first stage—i.e., during the separation of the eyelid; for the remainder of the time moral suasion must be resorted to. In cases of grown-up people I generally perform the operation without anæsthetics.

The following case is very interesting, as it marks the transition from the old to the new method of procedure—symblepharon and anchyloblepharon (total) cured by transplantation from the rabbit (July, 1883).

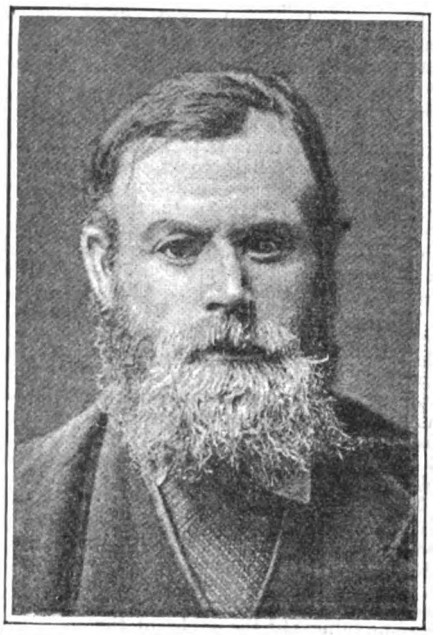
Jeremiah J——, steelworker, aged twenty-two, got his left eye burned by a flash of slag from the forge hammer nine years ago. He was under treatment at Workington for four months, after which he was sent to the Manchester Eye Infirmary. Here (he states) attempts were made to keep the eyelids apart by means of strings and lead and a ring round his nose. When he came to the Glasgow Ophthalmic Institution, on March 17th, 1883, the eyelids were completely closed, the free borders of the lids were obliterated, so that the dissection of the upper and lower lids from the globe

FIG. 4.



was effected with great difficulty. "Buried under the lids" is an exact description of the state of the eye in this case. When the lids had been dissected, we found that only the upper and outer quadrant of the cornea was transparent; the rest was quite opaque. By means of ligatures inserted into them the lids were kept separate, and an artificial pupil was formed in front of the transparent cornea. The symblepharon was subsequently remedied by transplanting conjunctiva from the rabbit. The conjunctival sac is now free through its whole extent. The eye is movable in every direction; vision is restored. Fig. 4 is the photograph taken of the patient after the operation. This method of conjunctival transplantation has been practised successfully by Professor Otto Becker (Heidelberg), Professor Albrech Graefe (Halle), Professor de Wecker (Paris), and Marc Defour (Lausanne). Among American surgeons, Dr. Noyes (whose cases amounted to about a dozen) first applied this operation to the formation of the conjunctival sac for the purpose of fitting in an artificial eye, when the natural cavity had become contracted; but Professor Cohn of Breslau had previously performed the operation for the same purpose. There is one question, and that a most essential one—namely, as to the durability of the operation. It is satisfactory to make a conjunctival sac, but how long will it last? Do the surfaces by constant friction tend to adhere? We frequently have an opportunity of examining patients long after the operation, and have always found them satisfactory. This photograph (Fig. 5) of Peter C——, whom I exhibited at the Edinburgh meeting in 1875, was taken eight years after the operation, and in his

FIG. 5.



P. C—— is a remarkable patient. The injuries which he had sustained to both eyes and eyelids were extensive, so that I had to practise in his case several operations before his eyes were rendered serviceable and his face presentable. Left eye: 1, Artificial pupil; 2, conjunctival transplantation from the rabbit. Right eye: 1, Paracentesis for supposed hypopion; 2, skin-grafting on upper eyelid; 3, plastic operation on lower eyelid.

case the conjunctival sac is still as perfect as it was then. Both eyes are good. He has been all the time working at the quarries.

TWO CASES OF DIPHTHERIA.

A SUGGESTION AS TO TREATMENT.

BY W. TONGE-SMITH, M.D.

CASE 1.—This case seems a curiosity, and as such is worth recording. Florence H——, aged sixteen years; father a watchmaker. She was first seen on the evening of June 25th, 1884. She became so ill and weak about noon that she was unable to stand in the shop, and had to go to bed. She did not feel quite herself the previous evening, suffering from chilliness, headache, and nausea. These continued. She experienced severe frontal headache; expression dull and heavy; lumbar pain, extending up the right side to the shoulder; tongue large, flabby, and thickly furred; bowels confined; pain over abdomen on pressure; dysuria; "regular"; physical examination of chest &c. reveals *nil*; urine acid, sp. gr. 108; albumen one-third; pulse 126, not hard; temperature 101·6°; respiration 30. The patient was ordered slops, hot bath, and castor oil.—26th (morning): Bowels acted after the oil; felt more comfortable after the bath. Lumbar pain better, but headache worse; other symptoms the same. Now complains of severe sore-throat; has had it slightly for a day or so. Examination shows a dirty white membrane over both tonsils, back of pharynx, and edge of velum, cleaning from right tonsil, and on this side the glands are swollen and tender under jaw. No rash. Urine still albuminous. Temperature 101·4°; pulse 112. Has been staying at Hackney with a sister, who and whose children have had

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sore-throats. Ordered lime-water spray, and internally sulpho-carbolate of lime. Evening: Pains gone; the throat the same. Temperature 102·6°; pulse 126.—27th (morning): Feels better; throat cleaning. Temperature 100·2°; pulse 100. Albumen one-sixth; no blood. Evening: Temperature 100·8°; pulse 100.—28th: Better, only weak; throat clean. Temperature 99·8°; pulse 98. A trace of albumen.—29th: Faint trace of albumen. Temperature 99°; pulse 91, not regular. Heart sounds normal.—30th: Stronger; no albumen. Temperature 98·4°; pulse 84, still slightly irregular. Tonics were prescribed. The patient now seemed convalescent, was recovering strength, and was placed at the window daily to inhale fresh air.—July 4th: Everything returned. Urine albuminous. Temperature 101·8°; pulse 100, irregularity more marked. Thick yellowish membrane, like an elongated half-crown, over both tonsils &c., terminating abruptly; tissues bordering it tumid and red. Spray &c. resumed. Evening: In the same condition. Temperature 102°; pulse 90.—5th (morning): Throat cleaning. Albumen present. Temperature 99°; pulse 70. Evening: Temperature 100·8°; pulse 70.—6th: Pieces of membrane at circumference only. Albumen gone. Temperature 99·8°; pulse 70.—7th: Better. No albumen. Throat clean. Temperature 99·4°; pulse 67, still irregular.—8th: Better in every way. No albumen. Temperature &c. normal; pulse the same. All went well, though strength was slowly gained. No sign of paralysis was ever noted, but the girl sometimes *thought* "food would return by the nose."

CASE 2.—J. H. A——, a short, slim lad of eight years and fair complexion, was admitted into the London Fever Hospital on Nov. 1st, 1882, having suffered from malaise and slight sore-throat for five or six days, and now complaining of increasing weakness. On the left tonsil was seen a white patch the size of a shilling, of fair consistence, quite adherent, and with a well-defined margin; surrounding tissues red and slightly swollen. There were pain, tenderness, and some fulness at the angles of the jaws, especially the left jaw. Tongue furred; bowels confined. Temperature only slightly raised. Pulse good, regular, and only slightly quickened; heart sounds normal. Respiration hurried, and accompanied by much hacking cough—both having well-marked laryngeal characters; air entering lungs very well. No cyanosis. He was ordered nourishing diet &c., and the chlorine spray.—4th: No membrane in throat; otherwise the same. Laryngeal symptoms still pronounced.—8th: Boy bright and cheerful, but stridor &c. worse. Has had three attacks of dyspnœa, a rather severe one last night at eleven o'clock, but it passed off and the lad slept peacefully. Albumen has appeared in the urine. Has been slightly sick. Ordered ten grains of ipecacuanha powder till sick.—9th: Sick after the first dose of ipecacuanha, but no membrane recognised in vomit. Passed a good night. 10 A.M.: Reported to have just "had a spasm; became blue, and almost choked." Found to be decidedly cyanotic and distressed; voice nearly gone; pulse rapid and feeble; boy mentally excited; air enters lungs badly—retraction; improved gradually. At about 10.30, another attack coming on, I immediately performed tracheotomy, a large quantity of membrane being coughed up. The boy improved at once, the pulse becoming slower, steady, and stronger. Flannels wrung out of hot water were laid over the tube, and lime-water was sprayed directly over the tube at short intervals.—10th: General state excellent. No cyanosis. No sign of heart failure. Lungs healthy; breathing easy; much membrane is coughed up; and a thick creamy discharge exudes constantly from the wound and is coughed up.—12th: After this no more membrane as such was brought up, but the creamy discharge was most copious.—16th: Discharge less and much thinner.—17th: Discharge little and watery. Some cough still and laryngeal voice. Tube removed; comfortable without it. Spray left off. Tonics ordered.—20th: No albumen; no sign of paralysis. Wound healthy. Got up. Towards the end of December the boy was discharged well, the wound being quite healed and represented by a scar three-quarters of an inch long by a quarter of an inch broad. This case is recorded to direct attention to what seems to me to be a solvent action of lime-water upon diphtheritic membrane. I now use the saccharated solution, and alternate it with an antiseptic. Out of twenty cases so treated I have only lost one, and that due clearly to heart failure. I would also draw attention to the simplicity and efficiency of covering the tube lightly with a layer of flannel wrung out of hot water and frequently changed, thus avoiding scalding, damp bed, and other evils of tents and kettles. Some antiseptic also may be dropped on the flannel.

Warkton, Kettering.

ON TWO RAPIDLY FATAL CASES OF DIPHTHERITIC PARALYSIS.

BY F. FOORD CAIGER, M.D.LOND., D.P.H. CAMB.

THE fact that the great majority of cases of diphtheritic paralysis end in complete recovery has an undoubted tendency to make one under-estimate the danger which may underlie even the most trivial instance of the disorder. The following two rapidly fatal cases have served to emphasise this fact in my mind.

C. R——, a gardener, aged twenty-five, was attacked on May 22nd with ordinary pharyngeal diphtheria. There was nothing noteworthy in the attack except that the membrane was somewhat unduly persistent, the tonsils not clearing till the thirteenth day. His temperature reached the normal on the ninth day. There was no albuminuria and but slight glandular implication, nor was the illness followed by undue prostration. After a few days in the country he resumed his employment.

On July 1st, having finished his day's work, he again presented himself, saying that he felt very unwell. The man was so obviously ill that he was at once readmitted to the hospital. According to his account he had never felt really strong or well since the illness. About six days previously he began to have difficulty in speaking plainly, and afterwards noticed that there was increasing difficulty in swallowing, the food often getting into the air passages or returning through the nose, with frequent fits of choking. Had felt numbness in the fingers and feet for the last two days, but was able to do his work, though greatly fatigued thereby. When admitted, at 6.30 P.M., it was extremely difficult to understand what he said, phonation being very imperfect and the voice hoarse and nasal. There was great difficulty in swallowing either liquids or solids, frequent shallow hoarse cough, with inability to clear his fauces. The vocal cords were seen to be lying in the cadaveric position, and moved but slightly towards the mid-line. The larynx was anæsthetic. Muscular power in arms weak, and tingling in feet. Patellar reflex *exaggerated*. Temperature 103 6°; respiration 40, shallow and jerky. Pulse 120.—2nd: Passed a restless night. Complete inability to swallow; fed with soft stomach-tube. Voice inaudible. Repiration 48, shallow and noisy. Diaphragm acting very feebly, if at all. Face dusky, sweating. Pulse 120, regular. Patellar reflex *absent*. Analgesia in legs, but can feel cutaneous pressure. During the afternoon the sweating continued; cyanosis became more marked. Pupils dilated. Respiration over 50, very shallow. Died quietly at 5.45 P.M. Twenty-four hours before his death the man was at work.

The second case occurred in a child aged five years. C. D——, admitted on Aug. 28th with faucial diphtheria, complained of sore-throat and vomited the day before. The case was a severe one, characterised by abundance of exudation on tonsils and pharynx, much glandular swelling, rhinorrhœa, and great prostration. On Sept. 6th he had a severe syncopic attack, but rallied under stimulants. The membrane in this case, too, was very persistent, the throat not becoming free until the sixteenth day. The temperature reached the normal on the eighth day, and afterwards was usually subnormal. There was slight albuminuria from the first, which remained as a nearly constant trace throughout the illness. With the exception of some paralysis and loss of reflex in the palate and a certain amount of glandular swelling, the ensuing convalescence presented nothing unusual. On the 17th it was noted that the voice had quite lost its nasal tone. On the 20th the patellar reflex disappeared; the palate was anæsthetic. No motor paralysis observed. On October 2nd food was noticed to return through the nose. Palate immovable; no reflex. Bilateral ophthalmoplegia externa especially affecting the right internal rectus, which was quite paralysed. Accommodation sluggish; irides react to light. Walk very "groggy"; patellar reflex absent.—14th: Double ptosis, most marked on the left side. Albuminuria slight; child sitting up in bed playing with its toys.—

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15th: Inability to swallow; voice indistinct; dyspnœa. Ocular paralysis complete. The legs and back appear very weak; cannot support himself in a sitting posture. No resistance to passing the stomach tube. Diaphragm not acting; thoracic respiration feeble (40 to the minute); inability to cough; restless and sweating; pulse 100, regular. Towards evening cyanosis became marked. Temperature 99·8°; respiration over 50, shallow and noisy. Died at 11 P.M., the pulse being perceptible for some time after respiration had ceased.

It is remarkable that in both instances, although paretic symptoms were present for about a week before death, yet it was only within the last thirty-six hours that the cases took on a serious aspect and proved fatal by respiratory paralysis. The symptoms pointing to an affection of the vital functions occurred during the late stage of convalescence—viz., in the fifth and sixth week,—a time when it is more usual to find a form of paralysis mainly characterised by an affection of the spinal nerves supplying the limbs. In both cases the faucial affection was severe, the membrane being very persistent. This is in accord with my own experience—viz., that it is the severe cases which are most frequently followed by subsequent paralysis, the mild ones usually escaping altogether. I believe that in a good many cases of paralysis which are diagnosed to be of diphtheritic origin the original attack of diphtheria is accepted on insufficient evidence; the statement elicited from the patient or his friends that he has had a sore-throat some weeks previously (in one case I remember it was three months) being taken as sufficiently conclusive evidence that it was an attack of diphtheria, whereas the case might with equal propriety be referred to the operation of some other cause of which we are ignorant. Cases of peripheral neuritis of alcoholic origin may be the type of a wider series, and they certainly bear a close clinical analogy to diphtheritic paralysis.

I have been repeatedly struck by the fact that those cases of diphtheria which during the acute stage present a large amount of mucoid secretion at the back of the pharynx, accompanied with rhinorrhœa, are of the most grave kind, and rapidly reach a fatal termination. The increased secretion, however, is probably only apparent, the accumulation being due to retention, and is a sign of the oncoming paralysis of deglutition, which quickly becomes associated with laryngeal affection and cardiac or respiratory failure. It is this paralysis of early onset, affecting as it does the vital functions, which is so frequently fatal, and tends, I think, to support the view, adopted by Hilton Fagge on the theory of a "neuritis migrans," that there is direct association between the local process and an affection of the nuclei of origin or of the nerve trunks emanating from the medulla and floor of the fourth ventricle, from some of the peripheral fibres of which the diseased surface derives its innervation.

Fever Hospital, Hampstead.

CASES OF LITHOLAPAXY IN CHILDREN.

By LEWIS W. MARSHALL, M.D.,
SURGEON TO THE CHILDREN'S HOSPITAL, NOTTINGHAM.

THE following list of cases occurring in my practice may prove of service as an addition to those already published by others. The cases are taken in the order of their occurrence. The earlier operations were done at a time when it was extremely difficult to obtain lithotrites of the size required, owing to the great demand for them. As a result, some operations were ultimately completed by lateral lithotomy.

CASE 1.—W. H. W——, aged three years, was admitted on Nov. 12th, 1887. The calculus was measured (?) by palpation, and believed to be about the size of the last phalanx of the index finger.—20th: Chloroform given. No. 5 lithotrite introduced, but considerable time was lost in endeavouring to catch the stone; twenty-seven grains only removed by one crushing. The boy being a good deal collapsed, it was deemed wiser to send him back to bed. Some bloody urine was passed, and the temperature rose for a day or two afterwards. Much more pain and straining.—28th: Chloroform again given. The same lithotrite introduced twice; also a No. 6 evacuator. Four ounces of warm boracic lotion were injected before the introduction of the lithotrite. The buttocks were much more raised. This operation took forty minutes. The patient was sounded afterwards, but no piece was felt.—30th: Got up, but had a slight rise in temperature afterwards.—Dec. 20th: Went home.—July 25th, 1888: Readmitted with stone symptoms.—Aug. 24th: Chloroform given, and a calculus was felt and crushed by a No. 5 lithotrite after two introductions. Operation lasted fifty minutes; sixty-four grains removed.—28th: Got up, having been quite free from pain or symptoms since the crushing.—Sept. 1st: Discharged cured.

CASE 2.—W. H——, ten years of age, was admitted on Dec. 17th, 1887, with a history of "stone" symptoms for three months. On Jan. 1st, 1888, a No. 6 lithotrite was passed, and the stone was readily caught. The calculus was then found to be larger than had been previously estimated. The lithotrite strained in attempting to "crush," and was withdrawn with some trouble. A No. 10 evacuator had previously been introduced after slitting the urethra. No further attempt was made on this occasion, because the only lithotrite in hand was rendered useless.—8th: A No. 10 lithotrite was lent by Messrs. Weiss, and attempts made to introduce it. This failed. Lateral lithotomy was therefore done. The stone was found in two halves; it weighed five drachms, and was very hard. This case did very well, and remains so.

CASE 3.—H. S——, aged two years and a half, was admitted on May 19th, 1888, with a history of symptoms for two months.—28th: Sounded under chloroform, and stone gauged by palpation to be round and about the size of a hazel-nut.—29th: Chloroform given. A No. 6 evacuator passed; two ounces and a half of warm boracic lotion were injected into the bladder after withdrawing the urine. A No. 5 lithotrite was introduced, and the stone easily caught; it was soft and easily crushed, and almost entirely removed by the first introduction of the evacuator. The lithotrite was passed a second time and a small piece pulverised and afterwards removed by the same evacuator.—31st: Got up and was quite well.

CASE 4.—G. A. G——, aged four years, was admitted on June 2nd, 1888, with a history of three months' pain.—17th: The stone measured by palpation and believed to be about the length of the last phalanx of the index finger.—21st: Chloroform. A No. 9 evacuator was passed the first time. A No. 5 lithotrite was passed, but the stone being found to be hard and larger than was expected, an old French lithotrite (the only one available) replaced it. A smaller evacuator had to be introduced on account of the swelling of the urethra. The boy became collapsed after the removal of 97 grains.—Aug. 24th: Lateral lithotomy done, and the remainder of the calculus removed; it weighed 226 grains, the sum total being 323 grains. The boy recovered quickly.

CASE 5.—E. C——, aged two years and ten months, was admitted on Oct. 27th, 1888. He had always had difficulty in passing his urine.—Oct. 28th: Meatus found to be very small; enlarged, therefore, under cocaine.—30th: The symptoms being unrelieved, a sound was passed. A calculus was found and described in the following words—viz., "Flat, ovoid, and about an inch in length." This opinion was formed by palpation.—Nov. 11th: Chloroform was administered. A No. 5 lithotrite could not be passed after slitting up the urethra still further. Lateral lithotomy was performed, and the boy did well. The calculus was found to be three-quarters of an inch long, ovoid, and with flattened surfaces.

CASE 6.—H. W——, aged eight years, was admitted on March 27th, 1889. Pain &c. for two years. The calculus was measured by palpation, and described as flat, ovoid, and about an inch in size.—April 8th: A No. 9 evacuator was passed, and a No. 8 lithotrite afterwards. Boracic lotion was injected. Two crushings only were performed. The time occupied was thirty-seven minutes. Weight sixty-seven grains.—Nov. 11th: The boy sat up in bed; he had passed a few pieces the day after the operation.—13th: Was riding a rocking-horse in the ward.

CASE 7.—G. W——, aged seven years, was admitted on Aug. 7th, 1889. Pain for one month only. The patient was sounded and stone felt to be "light and small."—14th: Chloroform was given and the urethra slit up. A No. 8 evacuator was introduced to inject boracic lotion. A No. 8 lithotrite was passed, and crushing completed in seven minutes. A No. 10 evacuator was introduced, and the whole stone removed; it weighed one scruple. The time occupied in performing the operation was twenty-seven minutes.—16th: Got out of bed.—17th: Discharged cured.

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CASE 8.—A. J——, aged seven years, was admitted on Aug. 14th, 1889, giving a history of an injury to the perineum two years before; painful micturition since then. Catheter passed and a calculus found; urethra sufficiently large to admit a No. 7 catheter.—18th: Chloroform. Stone gauged to be about the size of a hazel-nut. A No. 8 evacuator passed and the bladder injected. A No. 8 lithotrite introduced, and first crushing occupied twelve minutes. A No. 5 lithotrite afterwards used to complete the crushing. The whole operation occupied thirty minutes. The stone was hard and crushed at first with some difficulty; it weighed forty grains.—19th: Passed a small piece during the night.—20th: Discharged cured.

Remarks.—I have published this entire list of cases because they record fully my first attempts to do litholapaxy. They emphasise the rule laid down by those who have had much experience in this operation in children, that it is essential the surgeon should be well supplied with lithotrites. Happily now we need have no difficulty about this. It is also made clear that the measurement of the stone by palpation is not easy at first. Lithotomy, whether supra-pubic or lateral, is likely to be much less frequently done than in the past.

Nottingham.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CARBOLIC ACID IN TYPHOID FEVER.

BY E. ATHERDEN THOMPSON, L.R.C.P., M.R.C.S.

THE following case may be of interest as evidence of the abortive power which has been ascribed to carbolic acid in typhoid fever. The patient, a young man aged twenty-one, lived in a house at which I had, during the early part of the present year, attended two consecutive cases of this disease. On being summoned I elicited a history of well-marked premonitory symptoms, including pains in the back and limbs, severe headache, lassitude, anorexia, vomiting, and rigors. On physical examination I found tenderness on pressure in the right iliac region, accompanied by gurgling and tympanites. Temperature 103·4°, pulse 95, tongue furred, patient apathetic and drowsy. I ordered the usual strict dieting, and prescribed a mixture containing minim doses of carbolic acid and two grains of quinine to be taken every four hours. On the second day of attendance I found the patient much better. Temperature subnormal; bowels, which had been somewhat constipated, relieved by a single foul liquid motion; no aperient had been given. For the following three days the temperature continued to be subnormal, although I had discontinued the quinine; it then gradually approached the normal, and never again rose above it. Beyond the appearance, on the fourth day of attendance, of a few somewhat equivocal rose-coloured spots on the back and abdomen, the characteristic eruption was not developed. By the seventh day all symptoms had disappeared, with the exception of occasional pain and a little tenderness on pressure in the iliac region. Taking together the well-marked premonitory symptoms, the condition of the patient when first seen, and the fact of two cases having previously occurred in the same house, I think I was justified in diagnosing typhoid fever, and in attributing its arrest and cure to the administration of carbolic acid.

Kirkham, Lancashire.

EXTRA-PERITONEAL FAT SIMULATING HERNIA.

BY W. THELWALL THOMAS, L.R.C.P. ED., &c.

THE following condition was met with in the anatomy rooms a few days ago, and appears of interest surgically. A well-developed male body was noticed to have a small swelling above Poupart's ligament on the right side, which could not be diminished by pressure, and was apparently in the inguinal canal. On removing skin and fascia the bulging was more pronounced, and was now seen to be entirely in the inguinal canal; on opening which a rounded portion of fatty tissue was found lying on the spermatic cord, which was flattened to accommodate it. The mass was polypoid in shape, about two inches long and an inch and a half across its free extremity; the neck could only be seen on drawing it down from the abdomen; the fat was very soft, and on its posterior aspect a thin fibrous cord was formed, but no covering as of peritoneum existed. On examining the interior of the abdomen, a short omentum was found, and perfectly free. The peritoneum over the inguinal region was without pouching; therefore the fat was certainly not omental. In this region and on each side of the pelvis there were well-marked eminences, due to enlargement of portions of the extra-peritoneal fat; and on making a section into the inguinal canal, the mass of fat discovered here was continuous with, and part of, one of these enlargements. One can imagine how such a condition so marked as to give rise to a distinct swelling externally would undoubtedly have been "cut down upon" if any symptoms of intestinal obstruction had manifested themselves. In fact, the appearance was one of well-marked bubonocele.

Liverpool.

DEATH THROUGH IMPACTION OF A PEA IN THE BRONCHUS.

BY E. F. GRÜN, M.R.C.S., L.R.C.P.

ON Oct. 25th M. D——, a child aged two years, was playing with some peas, three of which she placed in her mouth. A fit of coughing took place, and one pea was missed. Whether the child had swallowed the pea or not was uncertain. Air entered freely into both lungs and there was no dyspnœa. For a period of four weeks the child continued in fair health, but died suddenly in her cot on Nov. 28th. At the post-mortem examination a pea, soft and swollen, was found in the trachea at its bifurcation. It had evidently been impacted at the commencement of the left bronchus. The left lung was solid and fibrous; there was a good deal of mucus in the tubes, but no breaking down of lung tissue. At the apex there was considerable emphysema, and at the base adhesions of the pleura to the diaphragm and chest wall. The right lung was perfectly healthy. Other organs all quite healthy. The question is, could anything have been done to save the child's life if it had been possible to diagnose the presence of the pea in the right bronchus? In this clinical experiment, accidentally brought about, it is interesting to note that the result of impaction and occlusion of the bronchus was to produce emphysema and also pleuritic adhesion, with a general increase of fibrous tissue throughout the lung, but with no inflammation or actual destruction of lung tissue. Death, I believe, was caused by the pea becoming dislodged and occluding the right bronchus, thus producing instant suffocation.

Putney, S.W.

A CASE OF OLD UNREDUCED DISLOCATION OF HIP.

BY G. MICHELMORE, M.R.C.S., &c.

THE following may be cited as showing the irreparable damage done by neglecting to obtain advice in surgical cases. A. B——, a fine healthy girl ten years of age, was brought by her mother to the out-patient department of the infirmary, on account of the right leg being very much shorter than the left, which was causing the child some inconvenience in walking. The history of the case was that the child had a fall from its cradle in infancy, and a short time after the accident the mother noticed that the right leg did not appear to be of the same length as its fellow, but took no further notice of it. On making an examination, I found a well-marked dislocation of the right hip backwards on to the dorsum ilii. The head of the femur had accommodated itself wonderfully well in its new position, and the movements of the limb were free and easy, especially flexion and extension; but on comparing measurements with the sound side, I found a shortening of two inches and a half. Considering the number of years that had elapsed since the accident, and the changes that must have taken place in the acetabular cavity, no attempt at reduction was made.

Tiverton.

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A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. THOMAS'S HOSPITAL.

A CASE OF POISONING BY FOUSEL OIL; RECOVERY; REMARKS.

(Under the care of Dr. ORD.)

LITTLE has hitherto been known of the poisonous effects of fousel oil or, as it is also called, oil of grain and potato spirit, and the following account is a most important contribution to toxicology, for no accurate record of an undoubted case is known. A child on two occasions became partially comatose, and had livid lips and a feeble pulse after eating some confectionery, which, it was calculated, contained one drop of the essence used to give the flavour of the Jargonelle pear to it.[1] Experiments on animals has led to the conclusion that fousel oil is a powerful poison, especially if breathed in the state of vapour.[2] Guy and Ferrier[3] state that it acts as an inebriant, whether swallowed or inhaled, causing headache, giddiness, and staggering gait. Its toxic effects on man are said to be more powerful when taken in the state of vapour than when taken into the stomach, and it is interesting to note the effect of the fumes exhaled from the patient on those in attendance. Another point of note is the penetrating odour of the fumes, which filled the large ward in which the patient was placed, making it smell of bad spirit for some days. A condition somewhat similar to that described below, and due to the action of naphtha, is to be found in our columns. A boy, twelve years of age, took about three ounces of naphtha, became insensible with a sallow and clammy skin, followed by complete muscular relaxation, with a fixed state of the eyes and progressive difficulty in breathing, ending in death within three hours, although vigorous treatment was employed.[4] For the following report we are indebted to Mr. T. P. Cowen, house-physician.

T. S——, aged sixty-four, a coal-porter, was admitted to George ward, St. Thomas's Hospital, on Oct. 31st, 1889, under the care of Dr. Ord. At 5.30 A.M. on Oct. 31st the patient entered a public-house and ordered some beer. While drinking this he noticed under a seat a small champagne bottle which was full of some spirituous liquor; liking the smell of this, he drank several times from the bottle, taking about half a quartern each time (amount as estimated afterwards quite half a pint). He felt no ill effects, and resumed work until 10 A.M., when he became unconscious. He was brought to the hospital at 12.30 P.M., being quite unconscious; lying on his back, the muscles of the arms and legs were somewhat rigidly fixed in an extended position; the muscles of the neck and back but slightly rigid; there was no arching of the back; the teeth were tightly clenched; his face bluish; breathing shallow and infrequent; the pulse could only just be detected at the wrist. The pupils were small, and acted feebly to light; the conjunctival reflex was absent. The surface of the body was cold. No knee-jerks could be obtained owing to the rigidity of the muscles. His breath had a peculiar odour, something like that of nitrite of amyl or that of pear-drops. A stomach-tube was passed, and the stomach washed out, a quantity of a clear liquid being removed by so doing; this was colourless, and had a peculiar strong alcoholic smell. The patient remained in the same comatose condition, breathing fairly well, until about half an hour after admission, when the breathing began to become more and more shallow and slow, and the face and the ears more cyanosed, and he ceased breathing within the next few minutes altogether, although the heart was beating fairly well. Artificial respiration was begun, and kept up for quite five minutes before the breathing by natural efforts was resumed. During this time his body became more limp and the pupils larger; this failure and finally stoppage of respiration occurred several times between 1.15 P.M. and 2 P.M., and artificial respiration was kept up during the greater part of this time. At 1.45 P.M. twenty minims of ether were injected hypodermically; one ounce of brandy by the rectum. Shortly after 2 P.M. the breathing became much deeper and more regular; while the face, although still bluish, had more of its natural colour; the pulse could be felt easily at the wrist, the pupils were still larger, but only acted very sluggishly to light. He was still quite unconscious. Temperature 97·2° in axilla. The patient remained quite unconscious until 9 P.M., when he seemed to wake up, recognised his friends, and answered rationally, although he seemed very dull and dazed. Breath still smelt strongly of some spirit (like bad whisky) and of nitrite of amyl or the essence of the Jargonelle pear. Between 5 P.M. and 6 P.M. he vomited several times, the vomit consisting chiefly of mucus, but still smelling strongly of the spirit and of the "pear" odour. The urine drawn off by catheter at 4 P.M. was high-coloured, and had the same peculiar odour as the breath. He slept well during the night and sweated profusely, the sweat having the same peculiar odour as the breath. He did not again become unconscious or vomit, but passed the evacuations into the bed. There was no diarrhœa. The temperature at midnight was 98·8°; pulse 76, small and easily compressible.

Nov. 1st.—He is quite conscious this morning, but is still dull and heavy; he complains of a burning pain in the throat and stomach and of frontal headache. The fauces are reddened and swollen; there is no epigastric tenderness; face still bluish. The same peculiar odour in breath, but it cannot now be detected in the urine. Pupils widely dilated, and act well to light. Tongue furred; he has slight difficulty and pain in swallowing. Temperature normal; pulse 76, feeble. Arteries thickened.

2nd.—He has now lost all pain, and says he feels quite well; he sleeps heavily, and seems drowsy in the day time.

3rd.—He was discharged. Face and ears have still a bluish tinge. (This was not so before, according to the man's statement.) Breath has still the same smell, although it is much fainter.

He was a well-built man, looking much younger and healthier than one would expect at his age (sixty-four); and, considering his habits (he had been a heavy drinker, especially of spirits, for many years), all the organs of the body were apparently healthy. Urine acid, sp. gr. 1024, scanty in amount. No albumen or sugar. Knee-jerks brisk; superficial reflexes normal. The small champagne bottle from which the patient had drunk was brought to the hospital later in the day. It contained five ounces of a clear, colourless liquid, having a strong odour of amylic alcohol, and giving the characteristic reactions of that alcohol. The contents of the stomach had the same odour, and gave the same reactions. The total capacity of the bottle was fifteen ounces, and as it was full when the patient began to drink from it, he must have swallowed about half a pint. Dr. Bernays examined the liquid remaining in the bottle, and found that it was about half fousel oil and half spirit; sp. gr. 0·8406. It begins to boil at 89°; some distils over again at 94° and 113°, and a very considerable residue at 130°, the boiling point of fousel oil. It gives reactions of amylic and ethylic alcohols. Dr. Bernays also examined two specimens of urine, one drawn off by catheter four hours after admission, the other on the following day. Both specimens contained a small amount of ethylic alcohol and a minute though quite appreciable quantity of amylic alcohol; in both urea was much increased.

Remarks.—Certain of the features of this case are peculiar and interesting: (*a*) The long interval, quite four hours, between the time of ingestion of the poison and the development of symptoms. The man went on with his work as usual during this time; he felt no ill effects, nor did anyone near notice anything wrong with him until he suddenly became unconscious. The probable explanation of this is the long-continued habit of taking ardent spirits indulged in by the patient. (*b*) The marked effect on respiration. The blueness of the face, which although best marked shortly after admission and was then due in great measure to failure of respiration, lasted to some extent during the whole of the time of his stay in the hospital, and was still present when the patient went out. The pupils at

[1] Taylor and Stevenson, p. 395; and Pharm. Journal, Nov. 1851.
[2] Blyth, p. 126. Experiments by Eulenburg, Cross, and Richardson.
[3] P. 503. [4] THE LANCET, vol. ii. 1856, p. 230.

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first contracted, and becoming larger as the patient recovered. (c) The peculiar odour in the breath (of nitrite of amyl or of the Jargonelle pear), which could hardly be detected in spirit itself, and which also lasted for days. Some chemical change must have occurred in the spirit after its absorption. The fumes of spirit exhaled from the patient caused in those attending him severe frontal headache, giddiness, and feelings of malaise, which lasted some hours.

LIVERPOOL NORTHERN HOSPITAL.

A CASE OF VARIX OF THE STOMACH; HÆMATEMESIS; DEATH; NECROPSY.

(Under the care of Dr. BARR.)

THE following case is one of an extremely rare condition of the stomach, of which we have been unable to find similar examples on record. Bristowe[1] remarks: "Dilated or varicose veins of internal organs no doubt occur, and aid in the production of functional disturbance; they may even rupture and cause death by hæmorrhage. We have witnessed this accident in the case of varicose veins of the œsophagus. But their presence can rarely, if ever, be recognised during life. The importance of the dilatation of certain groups of superficial veins in enabling us to judge of the seat and character of internal diseases involving the obstruction of deep-seated veins is obvious." Dilated veins in the mucous membrane of the stomach are sometimes met with as the result of portal obstruction. Passive congestion is of frequent occurrence, leading in many instances to hæmorrhage and as a result of that to hæmorrhagic erosions. The ulcers to which this term is applied are said to be most commonly placed at the lower curvature or near the pylorus. The clinical account of the case and the post-mortem description of the condition will be read with much interest. For the following account we are indebted to Mr. A. M. Barford, house physician.

P. H——, aged thirty, a dock labourer, was admitted into the hospital for the first time, under the care of Dr. Barr, on Nov. 21st, 1888. About five years previously the patient had an attack of acute nephritis, and since that time has been subject to mild attacks of the same, with slight dropsy. On admission he complained of shortness of breath and pain in the chest; he was pallid, and had a flabby appearance; there was slight œdema of the lower extremities, and the eyelids became swollen in the early morning; he complained of considerable frontal headache; the urine on some days contained albumen, on other days was free; specific gravity 1012, acid. These, shortly, were the symptoms on admission. He remained in the hospital for about a month, and, having considerably improved, was discharged.

He was readmitted on Jan. 2nd, 1889, complaining of great dyspnœa and pain in the chest. He was very anæmic, and remained in the hospital, improving considerably, until Jan. 28th, when he had an attack of hæmatemesis, which stopped after the administration of ergotine and ice. The next day he had a very severe attack, vomiting about forty-two ounces of blood; there was also considerable melæna. There were not, neither had there been at any time, any other symptoms of gastric ulcer, nor any other gastric or hepatic disease at any time. A day or two after this the patient seemed fairly well, and had no more hæmatemesis for about a month, when it began again, and continued at intervals of from two to three days until his death on March 7th, 1889.

Necropsy.—The kidneys showed signs of chronic parenchymatous nephritis; the cardiac end of the stomach was firmly adherent to the spleen by old inflammatory adhesions. On the mucous surface of the stomach over the adhesions there was a large vein which was ruptured, but plugged with a thrombus. (This was evidently the source of the hæmorrhage.) There was no ulcer of the stomach, but the adhesions seemed to prevent the return of venous blood. The spleen was normal in size and appearance, with the exception of being very anæmic; capsule thickened and very firmly adherent for about two square inches to the cardiac end of the stomach. The other organs were anæmic, but otherwise natural.

[1] The Theory and Practice of Medicine, p. 541.

Remarks.—The profuse hæmorrhage which took place from a large vein without any ulceration of the stomach appeared to be due to the adhesions to the spleen obstructing the vein and preventing the free return of blood. There were no means of determining the cause of the adhesions. The intermittent character of the hæmorrhage was due to the plugging of the vessel, and as a thrombus got detached a fresh hæmorrhage took place.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Association of Heart Disease with Diseases of the Pelvic Viscera in Women.—Blood Tumours of Bone.

AN ordinary meeting of this Society was held on Dec. 10th, Sir Edward Sieveking, President, being in the chair.

Mr. ARTHUR E. NEVINS read a paper on the Frequent Association of Heart Disease, especially Mitral Stenosis, with Diseases of the Pelvic Viscera in Women. In this paper the author called attention to: 1. The frequency of the association between heart disease and lesions of the pelvic viscera in women. 2. The great predominance of mitral stenosis over all other cardiac lesions in such cases, and the fact that the symptoms were easily overlooked unless a thorough and careful examination of the circulatory system was undertaken, the patients generally suffering from pelvic troubles for some considerable time before any symptoms obviously referable to the cardiac lesion developed. 3. An attempt to classify the lesions of the pelvic viscera in relation to the frequency of their coincidence with heart disease. 4. The diagnostic importance in many cases of disease of the pelvic viscera, of a knowledge of the soundness, or otherwise, of the heart. The observations recorded referred to 552 consecutive cases admitted into the Hospital for Diseases of Women, Soho-square. Out of these cases 133 had been omitted as having no bearing on the subject in hand, some of them being cases of cancer of the breast, others of renal disease, and so on. Among the 419 remaining cases, 111 patients (= 26½ per cent.) were found to have symptoms of organic disease of the heart, and, with only one exception, it was always the mitral orifice and valve that was affected. Of these 111 cases, 93 (=84 per cent.) were suffering from mitral stenosis, 29 (=26 per cent.) from mitral regurgitation, and of these 11 (=10 per cent.) from mitral stenosis and regurgitation combined. In the above

Table of Diseases of the Pelvic Viscera noted among 419 Patients, arranged according to the frequency with which Co-existent Heart Disease was discovered.

Disease.	No. of cases.	Cases of			Heart disease.	
		Pure mitral stenosis.	Pure mitral regurgitation.	Mitral stenosis and regurgitation combined.	Totals.	Percentages.
Granular erosion of cervix uteri	33	12	3	3	18	55
Prolapsed ovaries	7	3	0	0	3	43
Hæmorrhage	31	6	5	2	13	42
Versions	58	16	4	2	22	38
Laceration of cervix	46	10	6	1	17	37
Inflammation of uterus	71	21	2	1	24	34
Pelvic cellulitis and peritonitis	52	11	3	1	15	29
Cysts of broad ligament	11	3	0	0	3	27
Conical cervix and stenosis	26	5	0	1	6	23
Disease of uterine appendages	10	1	0	1	2	20
Prolapse of uterus	19	0	2	1	3	16
Fibroids of uterus	39	4	0	0	4	10
Caruncles, vaginal and urethral	54	5	0	0	5	9
Malignant disease of uterus	24	1	1	0	2	8
Uterine polypi	18	0	0	1	1	6
Ovarian cysts	29	1	0	0	1	3
Debility	14	12	1	1	14	

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table all the patients comprised in the series were classified according to the diseases from which they were suffering; the sequence of these groups of cases depended upon the percentage of heart disease discovered in each. In this table the same patient is often enumerated more than once, as, for instance, a patient suffering from chronic enlargement and inflammation of the womb, and also from granular erosion of the cervix, would appear under both these headings; the aggregate numbers, therefore, will be found to considerably exceed the total given above.—Dr. BARNES said that the paper was an illustration of the solidarity of the functions of the body, and of the absurdity of endeavouring to consider one organ apart from the rest. Referring to the cases mentioned by the author of the paper, he said it was often impossible to make out whether the pelvic or the cardiac disease were the primary, but he was inclined to think that in many cases he had seen the pelvic affection precede that of the heart.—Dr. POWELL observed that in cases of mitral disease one was accustomed to meet with congestion of various organs, and menorrhagia was a common symptom. Of the large number of cases quoted many probably had nothing to do with the mitral stenosis, but some might be attributed to the disordered circulation, such as granular erosion of the cervix, menorrhagia, and a certain proportion of the inflammatory affections. Of the total number of congestive uterine lesions referred to in the paper, nearly two out of three of them were found to be associated with heart lesion.—Dr. WILLIAM DUNCAN said that in many of the cases the occurrence of heart lesion could only have been mere coincidence; he did not believe that erosion of the cervix could be caused by mitral stenosis any more than laceration could, though he admitted that heart disease in women predisposed to hæmorrhage. He related an interesting case in which he had come to the conclusion that a diseased condition of the uterus had been brought about by serious aortic regurgitant disease. He was prepared to admit that in some cases of menorrhagia and inflammatory uterine affection the heart played an important part.—Dr. ROUTH said that it was important to note that the existence of a cardiac complication rendered these cases very difficult to cure, and that explained why gynæcologists found it necessary to keep some of their patients so long under treatment. Congestion was inevitable in some cases of heart disease, and a French observer had pointed out that whenever there was erosion of the cervix, the same condition obtained in the back of the pharynx.—Dr. HERMANN referred to the difficulty in diagnosing mitral stenosis with certainty; he regarded it as a rare affection. He suggested that in studying the question of the association between diseases of the heart and those of other parts, the subject should be approached on a broader basis. First, there should be found among women suffering from pelvic disorders what proportion of heart disease existed, and then in patients with cardiac mischief it should be ascertained what proportion of them suffered from pelvic complaints. He had observed in the majority of cases presenting venous congestion from any cause, that there was a diminution of the quantity and frequency of the menses; menorrhagia was present only in a few.—Dr. FREDERICK TAYLOR said that the diagnosis of mitral stenosis was extremely open to fallacy, and looking at the list of symptoms which had been detailed he failed to see on what grounds the evidence of stenosis rested. The lesion, however, was much commoner than Dr. Hermann seemed to believe. He wondered whether if one took a number of cases of mitral stenosis the proportion of patients suffering from pelvic trouble would be greater than in patients with any other disease.—Dr. SEYMOUR TAYLOR said he had been for some years studying the subject of the connexion between visceral disease and gross lesions of the heart. He mentioned a case in which a large prostate was associated with palpitation, and yet post mortem no sign of cardiac disease was found. Malignant disease of the uterus was often associated with gross lesions of the cardiac valves. He related an instance of violent cardiac palpitation which occurred in a woman who was the subject of ovarian tumour. It subsided after ovariotomy, and many years after was ascertained not to have returned. In another case violent palpitation was associated with floating kidney. He felt quite sure that there was some connexion between valvular and functional disease of the heart and disease of the viscera. He thought that with improved instruments of diagnosis the recognition of mitral stenosis was not so difficult now as it formerly was.—Mr. NEVINS, in reply, said that he had given his grounds for the diagnosis of mitral stenosis, but his main point was to emphasise the fact that these cases of uterine disease were associated with a certain group of cardiac symptoms; he had mentioned the symptoms which had occurred most frequently, and he left others to drawn their own inferences as to their signification. He, however, had carefully read Dr. Acland's paper on Mitral Stenosis, and the symptoms described there so exactly tallied with those he himself noticed that he felt justified in making a definite statement as to the cardiac condition. He thought there were evidences that the cardiac disease in many of the cases preceded the pelvic disorder. He did not wish to advance the view that in all these cases the heart disease caused the pelvic lesion, but he wanted to show that certain groups of these cases had a larger proportion of heart lesion than others. He pointed out the difficulty of deciding between early malignant disease and simple congestive inflammation, and said that in these cases it was a great assistance to know whether any heart lesion was present.

Mr. EDWARD ROUGHTON then read a paper on Blood Tumours (Angeiomata and Angeisarcomata) of Bone. His object was to elucidate the nature of those tumours, which were occasionally found in the interior of bones, and which on dissection were found to consist almost entirely of blood. These tumours had hitherto been considered to be always of a malignant nature. It was shown that, although some (perhaps most) of them were malignant, some were only semi-malignant, and others quite innocent in nature. This fact was illustrated by the following series of cases arranged in order of malignancy:—1. Max Oberst's case, a highly malignant endosteal sarcoma. 2. Dupuytren's case, arrested for seven years by tying the main artery of the limb. 3. Roux's case, permanently cured by tying the main artery. 4. Lagout's case, similar to the preceding. 5. The case of L. C—— (detailed in the paper), in which the growth was arrested by simple incision. 6. MacDonnell's case, cured by the pressure of an elastic stocking. It was argued that these tumours consisted essentially of blood-vessels which being imperfectly developed were unable to contain blood, and so burst and destroyed the tissue in which they were contained. The author thought that these blood-vessels were developed from the myeloid cells of red bone-marrow, and that the more embryonic they were the more malignant the tumour in which they were situated. In the innocent blood tumour of bone the vessels were more highly developed, but still too weak to contain blood. When the vessels attained sufficient maturity to admit of no extravasation, the tumour ceased to have the characters of a blood tumour, and was, in fact, a pure angeioma. Such tumours, although more common in other parts, had been several times met with in bones. With regard to the treatment of these tumours, it was suggested that they should be incised, and if found to contain little or no solid matter, allowed to granulate up. If after incision the tumour continued to grow, free removal of the diseased part should be practised.—Dr. MAGUIRE said that he had examined several cases of malignant tumour of bone, and three of these presented appearances of extreme vascularity and pulsation; so much so that they might be mistaken for aneurysm. He had been able to trace the development of sarcomatous tissue from the muscle fibre of the arterial wall. The more malignant the tumour the more rapidly would it become vascular, and the more likely were the vessels to give way. The fact that sarcomatous tissue was often found only at the edge of the blood tumour showed how difficult the diagnosis might be, and therefore it was unwise to trust to the information gained from a simple incision into these growths. The tumours were not confined to the endosteum, for one case he had observed was an extremely malignant instance of periosteal sarcoma which recurred later in the viscera.—Mr. HOLMES differed from the last speaker as to the value of incision, for he recommended cutting into the tumour, evacuating its contents, and then if no obviously sarcomatous tissue were found, giving the patient the benefit of the doubt. The cases originally described by French writers as aneurysm of bone were really, he thought, cases of endosteal and periosteal sarcoma, and he did not know of any safe means of distinguishing between the two.—Dr. MAPOTHER referred to a case of angioma of the centre of the tibia, which came under his notice thirty years ago, and which was still alive and well. He removed the growth by the actual cautery. There was a history of previous injury to the shin.—Mr. BARWELL said that two

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diseases entirely different were being mixed up together. Under the name pulsating tumour of bone were included two separate affections, malignant and angeiomatous growths, the one consisting entirely of bloodvessels and the other of vascular sarcoma tissue.—Mr. W. HAWARD referred to some excellent specimens of myeloid sarcoma in St. George's Hospital Museum; the bloodvessels were numerous and the tumours contained large cavities filled with clot. With regard to ordinary blood cysts, he imagined that they were the same in bone as elsewhere, the wall often being formed of sarcoma tissue, while a blood extravasation occupied the centre of the growth. Myeloid tumours differed greatly in their degree of malignancy.—Mr. ROUGHTON, in reply, said he had not been fortunate enough to watch the transformation of vessel wall into sarcoma tissue. The case of blood tumour of bone treated three years ago by incision was now in perfect health, and there had been no sign of recurrence. All the cases that he had been able to refer to were distinctly endosteal and not periosteal. Alluding to Mr. Barwell's contention that these cases were divisible into two distinct classes, the object of his paper was to show that there was every grade, from the most malignant to the perfectly innocent vascular bone tumour, just as there was in the case of fibroma, fibro-sarcoma, and sarcoma of the most malignant type.

MEDICAL SOCIETY OF LONDON.

Aneurysm of the Aorta.

A MEETING of this Society was held on Dec. 9th, the President, Dr. Theodore Williams, in the chair.

Dr. POWELL introduced a discussion on Aneurysm of the Aorta. He said that the object held in view was to elicit the experience of Fellows in the diagnosis and treatment of aneurysm. It was especially urged that the true clinical features of aneurysm were alone—with very rare exceptions—yielded by the sacculated form of the disease, and that both in regard to prognosis and treatment the so-called fusiform aneurysm was totally different. The aneurysmal sac was necessarily an enlarging tumour, producing—(1) pressure phenomena, (2) cardio-vascular phenomena. In enlargement of the vessel without sacculation pressure phenomena were insignificant or absent, the cardio-vascular phenomena very marked. Pressure signs were of the first importance in the diagnosis of aneurysm, and to imperfect recognition of this fact and the attachment of too great a value to circulatory phenomena were attributable most errors in diagnosis. He referred to the significance of bruit—systolic—diastolic; of thrill; of impulse perceptible to hand, to ear, and of diastolic impulse or jog. Cases of spurious thoracic and abdominal aneurysm were related, illustrative of some of the above propositions; also cases illustrating diagnosis of obscure sacculated aneurysm. The value of the laryngoscope as an aid in diagnosis, and of the sphygmograph as a recording instrument, were emphasised. The various methods were fully discussed. Dr. Powell's remarks will be published in full in a future number.

Dr. BROADBENT said that, with regard to the pressure signs and evidences of disturbances of the circulation, he agreed with the author that the former were more important for diagnostic purposes, with this qualification, that the pressure signs depended very much upon the situation of the aneurysm. In aneurysm of the ascending aorta the tumour might attain a considerable size and yet produce very little pressure upon neighbouring parts, owing to the natural mobility of the vessels; so much so that he was sometimes in the habit of speaking of this form as "the aneurysm of physical signs," while aneurysm of the arch proper or of the descending part was rather "an aneurysm of symptoms." He said that to hear a murmur was rather the exception than the rule. One of the most valuable signs independently of this was the "diastolic shock," either audible or perceptible to the hand. Passing on to the question of treatment, he agreed that fusiform aneurysm was not amenable to any treatment; the only thing was to lower the general intra-arterial pressure, enjoining rest if otherwise necessary, but not with the idea of promoting anything like a cure. He had nothing to add with respect to the Tufnell treatment, but his own experience with the iodide of potassium was that it very strikingly promoted consolidation within the sac. He mentioned an instance which came under his notice a long time ago when house physician to St. Mary's Hospital; in that case rest and dieting had been carried out very carefully for months without any result, but consolidation took place rapidly when iodide of potassium was administered. That was an experience which had been many times repeated under his observation. He observed that the health of the patient would not permit of large doses of iodide of potassium during the Tufnell treatment. His explanation of the action of iodide of potassium was that it virtually effected the same thing as the Tufnell treatment, running off the fluid by the kidneys, and so inspissating the blood. He mentioned the case of a woman who had remained in St. Mary's Hospital upwards of two years; iodide of potassium had been tried in the firs instance without effect, and they were reduced to watching the aneurysm gradually increase in size. Later on it occurred to him that the cases in which iodide of potassium did the greatest good were those in which there was a large sac with a small mouth, and he decided once more to give the iodide a trial, this time with complete success. He concurred in Dr. Powell's views as to the use of iron wire, but with regard to galvano-puncture he related an interesting case of left subclavian aneurysm in which consolidation had been twice effected by this means; but on both occasions the clot had subsequently broken down. The aneurysm was ultimately completely cured by pressure with a shot-bag. He only resorted to bleeding when there was pain, but the relief was then very striking. Alluding to Dr. Sibson's plan of treatment by use of ergot, it unquestionably diminished the size of the tumour, though this was certainly not due to any specific action on muscular fibre in the sac wall, since he had never been able to discover any there.

Dr. ORD mentioned that he had read a paper on this subject before the Society some years ago. He said that in a certain number of cases of aneurysm of the thoracic aorta the first indications were from the circulation. He insisted on the diagnostic value of local signs: pulsation, murmur, thrill, shock, dulness, undue pulsation, &c., relying on the pressure symptoms to complete the diagnosis. He pointed out the liability to error in cases where the lung was withdrawn from the front of the vessels, giving rise to pulsation and thrill; also in cases where tumour intervened between the aorta and the chest-wall. He mentioned cases in which the diagnosis had been rendered difficult in this way. He agreed with Dr. Powell in what he said in reference to the presence of murmur; as to the relative importance of sacculated and fusiform aneurysm; and as to the diagnostic value of the "diastolic shock," whatever its explanation might be; he contended, however, that it could be heard as well with a flexible as with a solid stethoscope. He agreed that the diagnosis of abdominal aneurysm was often very difficult, but he said that in most cases by careful palpation it was possible to determine whether the aorta was pulsating in its whole length, and, in the case of a localised tumour, whether or not it was expansile. With reference to treatment, he had found Tufnell's method very beneficial, but he generally associated it with iodide of potassium whether or not there was a history of syphilis. He mentioned the case of a patient of his who, seven years ago, had been treated for six months by means of the Tufnell treatment, and who had remained well ever since. He confirmed all that Dr. Broadbent had said with regard to the ergot treatment, and agreed in his explanation of the action of that drug. He especially called attention to the relief obtained in cases exhibiting pressure symptoms by the administration of ergot, of which he quoted several instances. The dose given by Dr. Sibson was twenty minims of the liquid extract with twenty drops of spirits of chloroform to cover the nauseating taste. His experience was that galvano-puncture did not necessarily give rise to central consolidation, and he referred to a case in which a post-mortem laminated collection of fibrinous matter half an inch thick was found on the walls of the sac; it was thickest where he had introduced the negative electrode.

Dr. BRISTOWE confined his remarks to treatment, as to which he said he was somewhat of a pessimist. He thought that drugs at most afforded a passing relief. His post-mortem experience seemed to point to the fact that the permanently cured cases—i.e., thoroughly filled up with clot—were cases in which aneurysm had not been suspected, and in which the patient had been bedridden and dying for weeks from something else. He admitted that that was rather in favour of the Tufnell treatment. He had no faith in treatment by wire or by galvano-puncture. In regard

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to the case mentioned in which galvano-puncture had apparently inaugurated a cure, he did not think that there was sufficient evidence post mortem that the aneurysm was in course of cure. He had no faith in the iodide of potassium treatment, and though the drug had been administered to his patients by his house physicians, he had never witnessed any decided benefit result from it. In the cases alluded to by Dr. Broadbent, in which consolidation was said to have taken place, he urged that, as no post-mortem had been made, there was no evidence as to the nature of the consolidation. He mentioned a case of large aneurysm of the ascending arch in which many methods of treatment, including that by iodide of potassium, had been tried, with the result of apparently causing consolidation; but when the patient died they found that the aneurysm did not contain any clot at all. He was unable to give any explanation of the diminution in size of the sac which had occurred. Patients with aneurysm were benefited by rest and diet, and generally by means which reduced the blood pressure. He suggested, however, that it was open to question as to how far it was worth while rendering these patients useless members of society for the sake of a problematical prolongation of life for a few weeks or months, and he thought, on the whole, that it was preferable to allow them to carry on their usual avocations, even if they died a little sooner. He alluded to the cases of Dr. Murchison and Dr. Hilton Fagge, both of whom, though they suspected they were suffering from aneurysm, continued to work to the last. Many persons went on with their work, and for many years retained their health in spite of the presence of an aneurysm. A man working at the Edinburgh Infirmary had been known to have aneurysm of the aorta for ten years, and a patient of his own had continued at work for three years, with occasional treatment with benefit when the symptoms were severe. He urged that these patients were happier than if they had remained in bed all that time. He observed that while in sacculated aneurysm the main object was to get a firm clot within the sac, in fusiform aneurysm it was quite otherwise, such a condition, if brought about, being distinctly prejudicial to the patient. The discussion was then adjourned till Monday next, Dec. 16th. The President explained that the meeting would be a "clinical evening," devoted to the exhibition of cases of aneurysm, many living examples of which had been promised.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Dec. 4th, A. L. Galabin, M.D., President, in the chair.

Specimens.—Dr. W. DUNCAN: (1) Abscess of Ovary; Hæmatosalpinx and Pyosalpinx; Subperitoneal Myomata; (2) Hydrosalpinx; (3) Myoma of Uterus; Abscess of Ovary. Dr. J. PHILLIPS: Distended Tubes; Hæmatoliths from Ovarian Cyst. Dr. AUST LAWRENCE: Sponge Tents. Mr. J. BLAND SUTTON: (1) Lock of Hair, thirty inches long, from a Dermoid Cyst; (2) Dermoid of Ovary, showing immunity of the Paroöphoron; (3) Ovarian Cyst, partly Adenoma and partly Dermoid; (4) Tubo-ovarian Cyst.

A Case of Inversio Uteri; Reduction; Recovery.—Dr. BRAXTON HICKS read notes of a case where a primipara aged twenty-six was delivered, as it seemed, at the time naturally. Free hæmorrhage followed, the placenta came away without assistance, and the patient did well till the third day, when, during an attempt at micturition, something came down and appeared externally. Efforts to reduce the mass, which proved to be an inverted uterus, by simple manual pressure proved unavailing, even under chloroform. The cervical portion was firmly contracted and resisted pressure. Dr. Hicks at length pressed a speculum with an obturator against the inverted fundus, which was thereby cupped. After steady gentle pressure the fundus could be felt gradually distending the cervical portion. The hand placed externally made counterpressure on the now enlarging ring of the cervix; at the end of ten minutes the greater part of the uterus was restored. The speculum was then withdrawn and the obturator from a larger speculum introduced, so as to give more room at the point of flexion. A minute later Dr. Hicks found the uterus in its normal condition. The first speculum and obturator were then introduced, and left for a few hours within the cavity, in order to prevent relapse. No bleeding occurred during or after reduction, and the patient made a good recovery. Dr. Hicks dwelt upon the opinions of Drs. M'Clintock, Aveling, Lusk, and Barnes. He gave full reasons why in this case fundal reposition, condemned by many authorities, proved successful when carried out in the manner indicated in his paper.—Dr. HORROCKS asked if the uterus was completely inverted, or whether a small portion of the cervix remained in place. If completely inverted, the "fundal method" of replacement might be better than the other, and there would not be the same objection to the method, because the thickness passing through the inverted os would not be greater than in the ordinary method of restoring the uterus.—Dr. W. S. A. GRIFFITH noticed that the case was reported as "spontaneous" inversion. He asked if any Fellow of the Society had himself actually witnessed inversion of the uterus, occurring in connexion with the third stage of labour, under circumstances which could be called absolutely "spontaneous."

On Closure of the Ostium in Inflammation and Allied Diseases of the Fallopian Tube.—The author, Mr. ALBAN DORAN, in this communication dwelt on the frequency of closure of the ostium in salpingitis; but the obstruction is often temporary. Obstruction of the uterine end is due to swelling of the mucous membrane or to the development of "Chiari's bodies" from that membrane. Permanent closure of the tube is almost synonymous with closure of the ostium. Salpingitis and perimetritis are the causes of closure of the ostium. Three essential factors in relation to the subject are considered at length. 1. The nature of the ostium and its fimbriæ. 2. The nature and varieties of salpingitis, and also of perimetritis as far as it affects the tube. 3. The precise manner in which the ostium is closed in perimetritis and salpingitis. In adhesive perimetritis the fimbriæ of the tube are bound down by bands, which thus obstruct the ostium. In salpingitis the ostium is obstructed, incompletely at first, by the swelling of the mucous membrane which involves the fimbriæ; but permanently in bad cases by great infiltration of the submucous tissue and middle coat, which swell over the ostium and cover in the fimbriæ. The perimetritic and salpingitic varieties of closure of the ostium, often blended, were demonstrated by specimens and diagrams. The question of timely conservative operations on obstructed non-suppurating tubes was discussed. Dr. Skutsch's "salpingostomy," where a small piece of the tube is excised, appears to be a promising step in that direction.—Dr. HORROCKS noted how often orifices in the body were the seat of disease, the ostium was no exception. He thought that it must be difficult to distinguish salpingitic from perimetritic closure of the tube.—Dr. RUTHERFOORD noted the relation between certain tubo-ovarian cysts and chronic tubal disease, which Mr. Doran had already indicated in other monographs.—Mr. DORAN replied that two specimens exhibited that evening were very pure examples of perimetritic and salpingitic closure of the ostium respectively. He maintained his theory that tubo-ovarian cysts were often the result of cystic degeneration of uterine appendages after long-standing inflammation. He admitted, however, that tubo-ovarian cysts might be congenital malformations, in rare instances, as Dr. Griffith and Mr. Sutton had endeavoured to prove.

Notes of a case of Monstrosity.—These notes were read by Dr. H. C. HODGES of Watton, Herts. The patient was a primipara aged twenty-seven. There was a large quantity of liquor amnii, and when the membranes were ruptured the presentation was hard to diagnose. The face appeared to present, and a soft pedunculated tumour appeared to lie behind the frontal bone. The forceps would not hold. On delivering the head the tumour, evidently a brain-sac, was ruptured. The fœtus proved to be an anencephalous monster. The vertebral column appeared to be malformed, the coccyx curved backwards, forming a short tail bearing hair on its tough integumental covering. There was ectopia of the viscera. The fœtus was a female.

Notes of a case of Hæmatemesis in a Newly-born Infant.—This paper was also read by Mr. HODGES. The child was born at 5 A.M. on April 23rd, 1888, after a natural and easy labour. At 11 A.M. the physician was summoned in haste as the child "had hæmorrhage." The child was found blanched, with a very faint pulse; all the surrounding clothes were saturated with blood which the child had vomited. The child was put to the breast without result, and was troubled with constant hiccough. It was kept quiet and ten minims of hazeline were given every two

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hours. At 5.30 P.M. a tablespoonful of blood-stained mucus was vomited, and later on a copious evacuation containing blood was passed. The case was complicated by serous discharge from the left ear, with subconjunctival hæmorrhage and internal strabismus of the left eye; but within a few days convalescence set in, and the child was perfectly free from all the described symptoms at the end of a month and has remained well ever since. Mr. Hodges dwelt on the recovery of the child after the loss of a large quantity of blood and on the value of hazeline. The discharge from the ear, strabismus, and also partial facial paralysis, which was noticed in the course of the case but which soon disappeared, all seemed to indicate injury to the base of the skull, perhaps actual fracture, involving laceration of blood-vessels. This, coupled with the bright colour of the blood, made it probable that hæmorrhage had arisen not in the stomach, but in the posterior part of the pharynx or its neighbourhood, the blood being swallowed and afterwards vomited. In a case described by West hæmorrhage occurred into the arachnoid, causing apoplexy. Other cases of hæmatemesis in the new-born child might have arisen from a similar cause.—Dr. W. S. A. GRIFFITH described a case where hæmorrhage from the vagina occurred in a new-born eight-months' child. Death occurred from an independent cause. The uterus and vagina were found full of blood. The opportunities for investigating the causes of hæmorrhages in infants were very scanty.—Dr. DAKIN believed that these hæmorrhages were an expression of a general condition which had been called "hæmophilia neonatorum." This condition, however, was not, strictly speaking, hæmophilia. It seldom or never set in before the fifth or sixth day; so that in Mr. Hodges' case, although the labour was easy, the cause of hæmorrhage was most likely traumatic.—Dr. DAKIN recalled a case of copious vomiting where the child was free from pallor. He discovered a fissure at the base of the mother's nipple. On attempting to draw the breast through a glass shield blood issued freely from the fissure. This possible source of blood should be borne in mind in similar cases.—Dr. HERBERT SPENCER believed in Mr. Hodges' theory, and had several times observed fractures of the base of the skull, causing hæmorrhage beneath the periosteum.—Dr. C. H. F. ROUTH, on the other hand, believed that the hæmorrhage was due to injury of the delicate buccal mucous membrane. He had seen bleeding from the mouth in two premature twins; the mother had encouraged them to suck. In cases of this kind the infant should be fed on raw beef juice or milk.

The PRESIDENT, in conclusion, notified that the next meeting would be held on Wednesday, January 8th, 1890.

HUNTERIAN SOCIETY.

Facial Hemiatrophy.—Atrophy of Tongue and Optic Discs, with Paralysis of Soft Palate and Larynx.—Multiple Exostoses.—Progressive Muscular Atrophy.—Idiopathic Tetanus.—Comminuted Fracture of Patella.—Xeroderma.—Pityriasis Pilaris.

THE meeting on Nov. 13th was a "clinical evening," Mr. Clement Lucas, F.R.C.S., President, being in the chair.

Dr. PORT showed a case of Facial Hemiatrophy in a girl aged seventeen years. The atrophy began at the age of eight, and was not entirely restricted to the face and head. A full and able description of the case (by Jessop and Browne) is to be found in the St. Bartholomew's Hospital Reports of 1882.

Dr. TURNER showed a girl aged five years with Atrophy of the Right Side of the Tongue, Paralysis of the Soft Palate and Larynx, causing difficulty in swallowing fluids and feebleness of cough, loss of power in the right arm, which was half an inch less in the girth of the forearm at the elbow than the left, and atrophy of both optic discs, advanced in the right eye, the sight of which was nearly lost. The symptoms dated from a series of right-sided epileptiform attacks, which commenced six weeks after an attack of scarlatina in February, 1888, and occurred daily for two months. At first there was general paralysis of all the limbs, which were all weak in August, 1888, when the child first came under observation at the North-Eastern Hospital for Children. Since then the legs and left arm had greatly improved, and the right arm also to some extent. The condition of the tongue was much the same in August, 1888, as at present. The knee-jerks were absent. There was no evidence of syphilitic inheritance in the family history, and it was thought that the symptoms were due to some specific meningeal lesion at the base of the brain involving the ninth and portion of the eighth cranial nerve on the right side. Reference was made to a case of hemiatrophy of the tongue shown at the Clinical Society by Dr. Thomas Barlow, and recorded in vol. xxii. of the Transactions.

Mr. POLLOCK showed (for the President) a child aged fourteen years, with Multiple Exostoses. They were over forty in number, mostly situated about the ends of the long bones, but not confined to them. Those in the lower extremities were noticed soon after birth, in the upper extremities about three months ago.

Mr. MACILWAINE read (for the President) notes of a similar case, with numerous exostoses on the long bones of the extremities. They occurred in a boy aged eighteen years, and had been growing for five years. About eight of them had been removed by operation. Well developed bursæ were found over each.

Dr. F. J. SMITH showed two cases. 1. A case of Progressive Muscular Atrophy in a man aged thirty-three. The disease had begun when he was eighteen, and he had been under observation almost continuously ever since. The symptoms were exceedingly well marked and perfectly typical, with the exception that pain in the abdomen had been a more or less prominent feature since the beginning. The record of the last fifteen years consisted simply in alternate conditions of improvement and relapse, the patient being admitted to hospital unable to feed himself from weakness of the arms; under good feeding and rest in bed he would recover sufficiently to be discharged until another relapse set in. A sister had died from the same disease. 2. A case of Idiopathic Tetanus in a man aged twenty-four. The symptoms had been gradual in onset, a fortnight elapsing before well-marked opisthotonos was present. The interest of the case chiefly lay in the powerlessness of chloral hydrate to affect the disease, when hypodermic injections of morphia immediately produced amelioration in the symptoms and a cure in the course of twelve or fourteen days. The patient was now quite well except for pains in the arms on waking in the morning.

Mr. JOHN POLAND showed a case of Comminuted Fracture of the Patella successfully treated by Wiring. The patient, a drayman aged twenty-nine, fell a distance of thirty feet, his left knee coming in contact with the stone pavement. His fall, however, was broken before he reached the ground. Considerable swelling about the joint obscured the precise condition of the fractured patella. At the time of the operation it seemed at first impossible to bring the fragments of the bone together, on account of the extensive comminution, the wide separation of the fragments, and the difficulty experienced in immediately recognising the proper position of the various pieces. The way in which this had been accomplished by means of sutures of pure silver wire (of small size) was indicated on a diagram. The patella then moved as a whole. The joint was syringed out with a strong solution of carbolic acid. The torn extensor tendon and capsule were finally united over and at the sides of the patella. The wound was dressed (antiseptically) on the second day, and subsequently at intervals of four and three days for four weeks, when it was almost healed. The temperature rose to 101° on the second day; after that it remained normal, with the exception of the sixth day, when it reached 100°. The patient was discharged from the hospital at the end of eight weeks with a plaster-of-Paris splint. Six weeks afterwards a small sinus formed, through which one of the wires was readily removed. The rest remained in position. The patient could now (at the end of twelve months) walk well, without the aid of a stick or support of any kind, and flex his knee to some extent.

Dr. A. T. DAVIES showed a case of Xeroderma. R. D——, aged fifty-five, general dealer. Subject to winter cough for four years. Has noticed since birth an almost universal dryness of the skin of his body. This condition is seen to be most marked on the extensor surfaces, approaching in character to ichthyosis, especially on the arms and back of the thighs; elsewhere, except the face and genitals, this condition of skin is more that of xeroderma.

Mr. COTMAN showed a case of Pityriasis Pilaris. The patient was a boy aged nine years, who had measles four months ago; following this, a roughness of the skin came on, which developed into pityriasis pilaris of a rather exaggerated form.

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SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, NOV. 7TH.

DR. GWYNNE, PRESIDENT, IN THE CHAIR.

Eye Injuries.—Mr. S. SNELL introduced two patients. In one there was a rupture of the globe of the eye with absence of the lens and entire absence of the iris. Vision was then $\frac{2}{60}$, and the patient read Jaeger with + glass. The tension and form of the eyeball were good. The accident took place last January and was caused by direct violence. At the time the eyeball was filled with blood, and in consequence of pain and other causes enucleation was considered on more than one occasion. The patient was a man aged forty-two. The second case was one of rupture of the choroid and optic nerve from direct violence. The accident happened eight weeks previously. There was no light perception.

Fibro-myoma of Uterus.—Mr. R. FAVELL showed two specimens. In one case an attempt to remove the tumour was made, as by mechanical pressure it was causing urgent symptoms. Abdominal section was performed, but the adhesions being so strong between the back of the tumour, and the pelvis and rectum being so intimately adherent, the attempt at removal was abandoned. The patient died fourteen days afterwards from peritonitis. At the post-mortem examination, the Fallopian tubes were found much thickened and enlarged, and the ovaries undergoing cystic degeneration and strongly adherent to the sides of the pelvis. In the other case the patient had died from sudden and profuse hæmorrhage. The tumour weighed about 7 lb.; the sinuses in the capsule of the tumour were very large near the cervix, and it appeared as if the hæmorrhage had taken place by the opening of one of them.

Temporo-maxillary Articulation.—Mr. FRANK HARRISON read a short paper on this subject. He contrasted the action of the joint in carnivora, ruminants, and in the human subject, showing that the various movements produced a modification in the shape of the teeth. In the human subject he showed the production and use of the cusps in action and repose. He also described the triangular construction of the jaw, being equilateral, having its base between the condyles (four inches) and its apex at the lower central incisors.

Laparotomy.—Mr. PYE-SMITH read the notes of a case of unsuccessful laparotomy. The patient, a boy aged thirteen, was seized with colicky pains in the abdomen after watching a football match on a cold day. He was seen by Dr. Sinclair White on the third day, and a milk diet was ordered, with small doses of morphine. Pain, with vomiting and constipation, continued for four days, when the vomiting ceased and the abdomen became distended. A saline aperient produced several liquid motions. For five days more the case seemed going on favourably, but on the twelfth day a tender lump was discovered two inches above the right internal abdominal ring. Next day tenesmus set in, and another lump was found to be pressing on the anterior wall of the rectum, just above the anus. On the fifteenth day of the illness Mr. Pye-Smith saw him in consultation with Dr. White. There was then general and moderate distension of the abdomen. The chief tenderness was over the iliac and hypogastric regions, and here an elongated tumour was somewhat indistinctly felt, lying transversely, and feeling to be continuous with the mass felt per rectum, which distended the recto-vesical pouch. No fluctuation could be made out. The rectum was empty. No peristalsis was visible. No rigors had occurred, but the temperature had ranged from 99° or 100° to 102° F., and the pulse from 90 to 132. Respiration 24, markedly thoracic; tongue furred; pain not markedly paroxysmal; no passage of blood or mucus. Intussusception seeming by no means improbable, inflation was tried before recommending an exploratory laparotomy. Neither air nor water injections effecting any change in the tumour, the abdomen was opened with antiseptic precautions. Several coils of small intestine were matted together by firm recent adhesions. At the spot where the lump had been first observed there was a small collection of pus between the parietes and the adherent bowel. This was drained, and the wound closed. After the operation the patient's father recollected that a fortnight before the commencement of his illness the lad had fallen, whilst running, with a hard green apple in his pocket, which had struck him just above the right groin, and been completely crushed. This, it was suggested, might have been the cause of the peritonitis. Thirty-six hours after the operation a quantity of offensive pus was discharged per anum, and the lump there was found to have disappeared. On the evening of the next day, however, the pulse began to fail, and the patient died on the following morning, three days after the operation. No necropsy was permitted. Mr. Pye-Smith expressed the opinion that, had the diagnosis and pathology been clearly recognised, the treatment should have been limited to rest, with light diet and opium, supplemented by the evacuation of local abscesses as detected.

Mr. PYE-SMITH also showed a specimen of Kyestine Urine.

THURSDAY, NOV. 21ST.

Muscular Atrophy.—Dr. BURGESS showed two cases. One, a female aged twenty-nine, had a severe attack of acvte atrophic paralysis at puberty. The deltoid, supra- and infra-spinatus, biceps, and brachialis anticus muscles were wasted and paralysed on both sides. On the right side there was palsy of the upper pectoralis major, hypertrophy of the upper trapezius, and great looseness of the shoulder-joint. Recent wasting of certain muscles of the left hand was doubtful. There was loss of power and bulk in the extensors of the right knee and hip. The second case was one of infantile paralysis, in which the triceps and upper pectoralis major were affected, in addition to the group of muscles constituting the "upper arm type of Erb."

Colotomy.—Dr. GWYNNE read the notes of a case where lumbar colotomy was performed for obstruction due to malignant disease of the upper part of the rectum. The patient, a woman aged forty-six, had suffered for some months from constipation, alternating with diarrhœa The operation was performed at her own house, on Dec. 3rd, 1886, in the left lumbar region. She was very much relieved, and her health so far improved that she was able to return to the duties of her shop. Two years after operation she passed blood from the bladder, and for some time this became a constant occurrence. She then began to lose flesh, and, after six months of extreme suffering, died on May 19th, 1889. On opening the abdomen post mortem, the bowels were pale and distended with gas, but apparently healthy. At the upper part of the rectum a large, apparently cancerous, mass was found, adherent to the spine behind and to the bladder in front, and completely surrounding the gut. A large fistulous communication was found between the rectum and bladder. Various nodules were discovered in the course of the bowel towards the anus, and a large ulcer about three inches from the anus, obviously malignant in character. Several large secondary tumours were found in the liver. Microscopic examination of the primary and secondary tumours showed their nature to be cylindrical epithelioma.

Ancient Surgery.—Mr. ARTHUR JACKSON read a paper on this subject. He alluded to Mr. Watson Cheyne's work on "Antiseptic Surgery" as showing how much the ancients did in the way of Listerism; but he did not agree with Mr. Cheyne's conclusion that the great surgeons of the sixteenth century obtained the success they did with their antiseptics "more as the result of chance than from any glimpse of the true principles which were at work." Mr. Cheyne had referred to Paré having ascribed atmospheric influence upon wounds not so much to the air itself as to miasms contained in it, which Mr. Jackson thought was getting pretty near the present theory of putrefaction. Mr. Teale, in his address on Surgery at the Leeds meeting of the British Medical Association, had alluded particularly to certain advances which had been made in surgical methods in recent times, such as the treatment of a wounded artery by double ligature and division of the vessel between, the substitution of Lister's sounds for older methods in the treatment of stricture, the emancipation from red-tape rules of drainage, peritoneal stitching, &c. Celsus, who lived about the commencement of the Christian era, recommended ligature of a wounded artery in two places and its division between. Galen, in the second century, advised digital compression, and, if that failed, to seize it with a hook and twist it moderately; in some cases to cut the artery across and let it retract; in others to ligature it or to apply the actual cautery. How all this practical knowledge came to be lost it was difficult to say; it was astonishing to read Paré's protest against the

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actual cautery for the arrest of hæmorrhage, and to think that as lately as 1830 it was used for that purpose after amputation at the Sheffield General Infirmary, and that even at Guy's Hospital it was not discarded till after the middle of the last century. Mr. Jackson instanced the suturing of divided tendons, and less frequently divided nerves, as practised by Galen and his contemporaries. In reference to drainage, he quoted the writings of Thomas Gale, surgeon to Henry VIII., describing the hollow "tentes" used, which were of soft linen, cotton wool, silver, and copper, bigger at one end than the other for fear they should slip into deep wounds. They were first dipped in precipitate of mercury mixed with oil of roses. Stitching the edges of the peritoneum together, the drainage of the peritoneal cavity, and the application of heat in the shape of hot wine to the bowels, were mentioned by Galen, Celsus, and Paré. Tapping for hydrocephalus, the radical cure of an enterocele by tying the sac and cutting off all below the ligature, the tapping of the chest for empyema and the use of injections, the use of catheters resembling Lister's sounds, artificial ears, noses, eyes, limbs, and a "platter" for the roof of the mouth after the effects of the "Spanish sicknesse," were among a numerous list, quoted by Mr. Jackson, of surgical methods known in the seventeenth century, and many of them as early as the tenth. He also quoted a long list of instruments which were as common then as now, of much the same character and founded on the same ideas as in the present day. In conclusion, he said that he did not wish to run down the surgery of the present day or to minimise the labours of those whom we knew and admired, but he thought that if we had an opportunity of realising the work done centuries ago we and our generation would benefit greatly.—Dr. Gwynne, Dr. Martin, Mr. James, Dr. Law, Dr. Porter, Mr. Knight, and Dr. Burgess took part in the discussion.

CLINICAL SOCIETY OF MANCHESTER.

TUESDAY, OCT. 15TH.

DR. LESLIE JONES, PRESIDENT, IN THE CHAIR.

Recent Advances in Dermatology.—Dr. BROOK gave an address on this subject. He said the main reasons which caused the study of skin diseases to be neglected by the great majority of medical men were the confusing polymorphy of the eruptions and their frequent change of nomenclature. The former were due to the intense complexity of the skin as an organ and to its great variation in structure in different sites. The latter was not capriciousness, but the natural result of the evolution of our knowledge. This was instanced by the history of the terms "lichen" and "pityriasis" from Willan's time to the present day. A scientific scheme of classification was as yet impossible, and had become more so than ever since the recent influx of bacteriological investigations. The active diseases fell mostly under the head of blood diseases, nerve diseases, and parasitic diseases. The former arose from the action of poisons (auto-inoculations, as in gout, rheumatism, &c., or from drugs or foods). They had so close a connexion with many purely nervous affections (e.g., urticaria) that it was necessary to suppose that the poisonous matter exercised a specific action on various nerve centres in the skin resembling the specific action of poisons in the various nerve centres. Amongst the nerve diseases a great advance had been made by the formation of the group of Hydroa, the dermatitis herpetiformis of Duhring, and the userythema (or scar erythemata) of Unna, comprising lupus erythematosus and the chronic atrophic form of non-parasitic sycosis. The group of parasitic diseases was continually growing in number, and would probably be found finally to institute the great bulk of all the dermatoses. Their development was often greatly influenced by the general health and external surroundings of the patient, and this had led, as formerly, in the case of tuberculosis, to the presumption that many of them were constitutional. One of the newest additions to the class was the group caused by a low form of animal organism—the psorosperm (Darier),—which had been found in a peculiar disease, *psorospumose folliculaire végétante*, characterised by a plugging of the pito-sebaceous orifices and the development of large tumours, chiefly about the groins. Similar bodies are found in Paget's disease of the nipple, where they appear to be the direct cause of the epitheliomatous growth (Wickham). In the degenerative affection known as pityriasis rubra, several distinct varieties have been singled out, of different origin, course, and prognosis. Apart from the introduction of various new drugs and modes of application, the recent tendency of dermatological therapeutics had been largely in the direction of antiparasitics.

Dr. JUDSON S. BURY showed a woman, aged twenty-four, who presented a combination of Scleroderma and Raynaud's Disease; and also exhibited water-colour drawings from (1) a case of Xanthoma Diabeticorum, and (2) a case of extensive "Port-wine Mark."

Dr. THOMAS HARRIS showed a case of Herpes Zoster, and other cases were shown by Dr. COLLINS.

Reviews and Notices of Books.

History and Pathology of Vaccination. By EDGAR M. CROOKSHANK, M.B. Two Vols. London: H. K. Lewis. 1889.

[PRELIMINARY NOTICE.]

THIS is the latest and, in many respects, a most important addition to the vast literature of vaccination. The work has, we understand, been already sent to the members of the Royal Commission. Whilst deferring for the present any critical notice of its argument, it may be of interest to note its scope and character, more especially as the conclusions arrived at are at variance with those commonly held concerning the nature and remedial value of vaccination. And in the first place, the author must be congratulated, not only upon his industry and research (which has led, amongst other things, to the discovery of some hitherto unpublished Jennerian manuscripts), but also upon the exceedingly handsome manner in which his volumes have been published, including the reproduction of numerous plates after Jenner, Ceely, Peuch, and others. The first volume is devoted to a historical and critical review of the subjects; the second consists of reprints of the most famous papers—viz., those of Jenner, Pearson, Woodville, Birch, Ceely, Badcock, and several more, memoirs dealing with all sides of the question, and with which the profession of to-day is mostly unacquainted. The first volume will, however, doubtless attract the most attention, and it certainly merits careful perusal. The subject has been dealt with temperately, and, so far as we can judge at present, without prejudice, whilst the text is free from the attacks upon Jenner's character which disfigured the book published by Dr. Creighton, with whose views Professor Crookshank in the main agrees. The work opens with chapters devoted to the practice of small-pox inoculation, from the earliest times and in all countries, and the methods of its performance. Of especial interest is the account given of the practice in Great Britain, and the description of the Saltarian method of mild inoculations. Then it is shown how this measure failed to exterminate small-pox, and how Haygarth propounded his system of registration and isolation as the only effective measure, anticipating thus the ideas of many in the present day. Then Professor Crookshank deals with cow-pox, and shows how the "tradition of the dairymaid" as to its being protective against small-pox was endorsed by others before the time of Jenner, and how Mr. Jesty (whose portrait forms the frontispiece to the work), the Dorsetshire farmer, proved his faith in its efficacy by inoculating (in 1774) his wife and sons with vaccine. The "Life and Letters of Edward Jenner" forms the title of a most interesting chapter, in which the steps of his investigations, his doubts, difficulties, and the opposition he had to contend with, are illustrated largely from his letters. One of these is reproduced in *facsimile*. In subsequent chapters the text of his first paper, rejected by the Royal Society, is minutely scrutinised and compared with the revised edition, published in the following year. It is shown how Jenner held that cow-pox, small-pox, and many other diseases had

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their origin in horse-grease; and how, as his experience grew, he attributed failures to protect from small-pox to vaccination from spurious cow-pox. His inoculations with horse-pox were made between the first (rejected) and second (published) "Inquiry," and incorporated in the latter. Professor Crookshank then shows, in a series of chapters, how "vaccine lymph" has been derived from various sources—e.g., from human small-pox, as by variolation of the cow (Ceely and Badcock), from cattle plague (considered by Moorhouse to closely resemble human small-pox), from sheep-pox, goat-pox, cow-pox (in which Ceely's classical descriptions are quoted and several of his drawings reproduced), and from horse-pox. This latter subject, after descriptions of the views and practice of Jenner and Loy, is enriched by the accounts of outbreaks at Toulouse and Alfort, especially one observed at Toulouse in 1880 by M. Peuch. There is a comparatively brief chapter upon the introduction of vaccination into foreign countries, in which it is maintained that the erroneous idea that cow-pox was small-pox of the cow was the main factor in the acceptance of the new method. Then follows a chapter on the progress of vaccination in England. Here, again, the phrase "variolæ vaccinæ" was misleading. Used by Jenner, it implied more than he intended, for he did not think that cow-pox was derived from small-pox, but rather that both had a common origin in horse-pox. The propagation of erroneous ideas as to the nature and efficacy of vaccination is attributed to Baron, the biographer of Jenner, and the theory of cow small-pox was established through the reports of Ceely and Badcock. Yet, as Professor Crookshank points out, neither cow-pox nor horse-pox is associated with outbreaks of small-pox; and he not only declares, with Chauveau, that cow-pox is absolutely distinct from small-pox, but holds, with Dr. Creighton, that both the bovine and equine affections have more analogies with syphilis than with variola. He concludes, therefore, that vaccination is futile, seeing there is nothing in common between variola and vaccinia, and that there is consequently no parallelism between vaccination and the Pasteurian methods of protective inoculation by attenuated virus. Nor has small-pox been exterminated. "The Jennerian method has for nearly a century struggled for existence with the support of the cow small-pox theory and the numerous and ingenious explanations of failures embodied in the assertions of spurious cow-pox, inefficiently performed vaccination, inferior quality of lymph, deficiency in the number and quality of marks, and the misinterpretation of statistics" (p. 484)—a statement of such sweeping character that it will surely be incumbent on the writer to add still further to the literature of the subject in support of it. Rejecting vaccination as futile, he sees no reason why inoculation should not be practised on the attendants on small-pox cases; but looks to compulsory notification and isolation, and not vaccination, as the real means for coping with the spread of small-pox. Such being the main lines of Professor Crookshank's contribution to this vexed question, he will not be surprised at learning that he has failed to carry conviction to our minds respecting the real point at issue—viz., the *efficacy of vaccination*.

A Text-book of Human Anatomy: Systematic and Topographical, including the Embryology, Histology, and Morphology of Man, with special reference to the requirements of Practical Surgery and Medicine. By ALEXANDER MACALISTER, M.A., M.D., F.R.S., F.S.A., Professor of Anatomy in the University of Cambridge, and Fellow of St. John's College. With 816 illustrations. London: Griffin and Company. 1889.

PROFESSOR MACALISTER'S text-book of human anatomy is by far the most important work on this subject that has appeared in recent years, and has the great advantages of not only fully dealing with descriptive and topographical anatomy, but of also being a complete treatise on human embryology, histology, and morphology. It therefore follows the lines of the best of its predecessors in treating its subject thoroughly and comprehensively, and in many respects it is not only equal, but even superior to them. The histology of the tissues is most ably and lucidly described in the first hundred pages of the volume, and in this part we also have clearly shown the embryonic characters and subsequent changes in development in the various systems which lead up to their adult conditions in man. The anatomy of the bones and joints is then taken seriatim, and the many modifications in the ordinary nomenclature, which are rendered imperative when man is studied from a morphological standpoint, are very striking, and will be at once perceived on reading Professor Macalister's account of the human skeleton. We may draw the especial attention of the teacher and student to the descriptions of the vertebral column and the skull as examples of such changes. The descriptions of the soft parts are not arranged under the various systems as usual, but topographically in the order in which they are dissected by the student—viz., back, upper extremity, thorax, abdomen, lower extremity, and lastly the head and neck. But although this is an excellent systematic arrangement, is it the most common for dissectors, and is not the lower extremity usually dissected by the student immediately after the upper extremity and before the trunk? The muscles, vessels, nerves, and viscera are described as they would consecutively come into view in methodical dissections, and directions as to the methods for displaying them are given as in an ordinary dissector's manual or guide. The author truly says it is the only order in which the student really learns them, or should learn them, for it is in the dissecting-room alone that a knowledge of anatomy can be acquired; but we question, although this one book may now be used instead of two, if, except among a very few students, it will displace such works as those of Ellis, Cunningham, and Cleland from their well-deserved position as guides for dissection. It will rather compete with Quain's Anatomy and other standard text-books in systematic anatomy, and be mainly studied by those students who have had a preliminary biological training, for without this it will be impossible for the student to understand and appreciate the chief excellences of the book. It must be clear to anyone who refers to any description, such as that of the branches of the external carotid artery, how great is the advantage of this early scientific education in the study of human anatomy, and how essential it has become, if one is to learn properly this groundwork on which all our knowledge of medical science and art ultimately depends when this science is dealt with from its just point of view by a thoroughly scientific teacher. There are many references to the bearing of anatomical facts on medicine, surgery, and physiology; but these are comparatively scanty, and are in the main insignificant in value and importance when placed by the side of the concise and accurate descriptions of the various structures and their bearing on morphology. It is unnecessary to specify the few details in which we should differ from an author who has written a work which is destined to be placed side by side with Professor M. Foster's Physiology and the late Professor F. M. Balfour's Comparative Embryology as examples of modern science-teaching at Cambridge. The illustrations vary in precision and clearness; a large number of them are new and of the highest excellence, and will be heartily welcomed by anatomists, but some of those which have seen former service have become deteriorated in the definition of their outlines, and are not so clear as might have been wished. Names of structures, some in Latin, others in English,

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in the same plate, exhibit an incongruity which should have been avoided. The work would have been more appreciated by the learner if some of the illustrations—such as those of the bones of the skull, hand, and foot—had been of larger size, even though the cost of the book would have been increased thereby. But every anatomical teacher, and every student who desires to study human anatomy in a scientific as well as a practical manner, will thank Professor Macalister for devoting so much time and trouble to the writing of this book. We shall look with interest for his catalogue of varieties and their statistics—for, as he says, the normal anatomy of man is only obtained by a study of averages,—and for the history of the progress of anatomical discovery, both of which he has promised us will appear in the future, and will prove of great value to the anatomist. The typography is very clear and distinct, and the publishers are entitled to credit for the way in which the work is got up.

Egypt as a Winter Resort. By F. M. SANDWITH, F.R.G.S. Pp. 153. London: Kegan Paul and Co. 1889.

This is an excellent work for those who purpose to winter in the dry climate of Egypt and avoid the cold, wet, and fog of our own country. The author states his object to be "not to try and prove that Egypt is the best health resort in the world, but to give reasonable information about its climate to those who have practically decided against the respective merits of sea and mountain, and are in search of pure dry desert air where rain is almost unknown, and where fog, strong winds, and cold are never felt." This he has succeeded in doing in a very readable form, and has given a great amount of information which must prove useful not only to invalids but to those in health, especially with regard to Cairo and its suburbs, and Luxor. The mean temperature, as shown by the records of five years, 1884–88, at the Khediveal Observatory, in the suburb of Cairo, was 70·2° F., and the rainfall only 1·22 inches; in 1887 rain fell only on fifteen days, and snow is unknown. The only drawback appears to be the *khamseen* wind, which, blowing from the south or south-east, is attended with clouded sky, grey atmosphere, and a very fine sand suspended in the air. It occurs about Easter; "it usually continues three days, but may in rare cases last as many as seven days," but may again appear. The number of days on which it prevails in any one year may range between four and twenty. It does not appear to affect invalids more than the rest of the Europeans. The death-rate at Cairo among European residents during the last seven years was only 21·8 per 1000; that of the native population is rather more than double, owing principally to the mortality of infants, of whom one-third die within the first twelve months. The climate of Luxor seems to be even more dry than that of Cairo. There are two good hotels there, affording accommodation for about 150 visitors. Both at Cairo and Luxor invalids must be very careful to be in the house before sunset, for the night air is very cold in comparison with that of the day. The climate seems well suited for cases of chronic phthisis, but in the advanced stages and in acute tuberculosis the patients would be better "at or near home." For though, in Egypt, "he gains sunlight and sunheat during the day, and runs a chance of his disease being arrested; against this he must balance draughts and irksome travelling, a paucity of fireplaces, food and habits to which he is unsuited, and exile from his home comforts and best friends." Cases of chronic bronchitis and asthma as a rule do well, and the climate seems particularly suited to cases of rheumatoid arthritis. The account given by the author of the sanitary condition of Alexandria and Ramleh, and especially of the conservancy arrangements, is not such as to induce anyone voluntarily to take up their abode in either of them. We have no hesitation in recommending this book to those who desire good information on the principal points involved in the selection of a bright, dry, and healthy winter resort.

New Inventions.

A PATENT SAFETY REIN.

WE have had an opportunity of seeing Sergeant's patent safety rein in use, and so far as we are entitled to form an opinion from a single inspection, think it a very decided improvement upon the existing system. The driving rein passes through the harness pad tirrets and the rings of the bit; it is then brought back through a ring attached to the saddle strap and secured by a spring hook to a ring on the crupper. It is stated to be an effectual means of stopping a runaway, to prevent rearing and falling back, after a few lessons to cure jibbing and kicking, to obviate the necessity for a Martingale or bearing-rein, and to greatly diminish the risk attending pulling up suddenly on asphalte and slippery roads. So far as we could judge it appears to fulfil many of these indications; as regards the others, such as curing jibbing and kicking, it would be absurd to offer an opinion without more opportunities of watching and testing its effects. It certainly seems to give a great command over a horse without requiring the use of a severe bit—one of the most cruel things ever invented,—and to obviate the risk of rearing. There has long been a controversy on the subject of bearing-reins, which undoubtedly, as too often used on carriage horses in London, are cruel instruments of torture. We believe, as a result of careful examination, that, except possibly in a very few instances, Sergeant's rein would give all the advantages of a bearing-rein without its drawbacks, and would put it out of the power of the coachman to inflict a great amount of suffering for the sake of what he considers a fashionable and high-bred appearance of his horses. If we had either a puller or a kicker, we should at once adopt the safety rein, and give it a fair trial. We are not disposed to agree with the inventor that the appliance is graceful, but there is nothing objectionable in its appearance. The rein can be seen and obtained at Brown's Harness Factory, Great Quebec-street, W.

AUSTIN'S SANITARY CYLINDER AND POROUS DISINFECTOR.

THIS is a porous cell with a copper wire handle. It is closed at the top, and contains alkaline permanganate. Suspended in a cistern, or water waste preventer, the permanganate slowly diffuses out in quantity sufficient to colour the water, and so promote the work of disinfection. The contrivance is simple and efficient, and although permanganate cannot be regarded as a very powerful disinfectant, it has real value, and is a good deodoriser. The Austin Sanitary Cylinder Co., Limited, Queen Victoria-street, E.C., are the patentees.

KING'S AUTOMATIC DISINFECTOR.

THIS disinfector consists of a brass box with two chambers, a cover which closes with a bayonet-joint, and a small conical aperture at the bottom. By means of a strip of metal it can be suspended in a cistern so that a regulated flow of the material in the box is ensured. The disinfectant used is permanganate of potash, which is placed in crystals in the upper part of the box. The apparatus and the material are alike cheap, and it is said that the amount of the latter consumed is so small that the expense

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of disinfecting a closet does not amount to more than a penny a week. The patentee is Geo. H. King, Ashmore-road, Paddington.

Analytical Records.

CADBURY'S COCOA.
(CADBURY BROS.)

MESSRS. CADBURY maintain the fame they have so long enjoyed. The cocoa examined by us was very soluble in water, contained no starch or other foreign ingredient, and only 20·5 per cent. of fat. In other words, it was of excellent quality, easily digestible, and not too rich.

SAINT MARCO LITHIA WATER.
(HEARON, SQUIRE, AND FRANCIS, 5, COLEMAN-STREET, LONDON.)

This natural water is recommended as useful in gout, rheumatism, stone, &c. It is drawn from springs on the Marucheto Estate, Tuscany, and is, we are informed, held in high estimation in Italy. The published analysis by Professor V. Amoroso shows in English figures 154 grains per gallon of mineral compounds, including 2·52 grains of carbonate of lithium. The rest consists mainly of the sulphates, chlorides, and carbonates of calcium, magnesium, sodium, potassium, iron, and manganese. We found 172 grains per gallon in the sample we examined, and verified the presence of lithium. Certainly the water is interesting, and deserves a careful trial in this country. It is slightly saline in taste, and is not too strong to be used at the table.

CARNABYN.
(HOOPER & CO., 55, GROSVENOR-STREET, LONDON.)

We can best describe this preparation by saying that it suggests port wine and the extracts of meat and malt, but we cannot profess to describe its exact composition. It is certainly a very powerful nutrient stimulant, and will in suitable cases be very valuable. It is perfectly clear and tastes somewhat like a very fruity and somewhat sweet port. Its alcoholic strength is high—namely, 16·46 per cent., by weight equal to 35·47 of proof spirit. It yielded 14·2 parts in 100 volumes of solid residue, and 0·5 of ash containing phosphates. Every physician will see the proper [illegible] avoid the improper uses to which such a wine may be put.

THE STRETTON HILLS MINERAL WATER COMPANY, SALOP.

We have received from this company samples of various aerated beverages made from the water of the Crom Dale Spring. This water is evidently very pure, for the so-called soda-water only contained eight grains per gallon of solid matter and no trace of organic matter. Of the seltzer, potash, and table waters there is not much to remark except that the seltzer contained 10·02 and the potash 2·7 grains of salt in the 10 oz. bottle. The ginger ale did not strike us as quite satisfactory, for the evaporated residue extracted with ether left an acrid, burning taste on the tongue. No lead or other heavy metal was found in any case.

A COMPLIMENTARY DINNER.—On Tuesday evening, at the Leeds Club, Albion-place, Mr. C. G. Wheelhouse, F.R.C.S., was, on the occasion of his leaving that city, entertained at dinner by the Board of the General Infirmary, the medical officers of the various local institutions, and other medical friends. Mr. R. Benson Jowitt, Chairman of the Infirmary Board, presided. The chairman, in proposing the toast of "The Guest of the Evening," referred to Mr. Wheelhouse's long connexion with the Infirmary, and to the valuable assistance he had rendered it, not only as a surgeon, but in its management. Mr. Wheelhouse, in returning thanks, expressed his appreciation of the compliment paid to him.

THE PATHOLOGY OF CHOREA.
To the Editors of THE LANCET.

SIRS,—Might I crave a little space in order to point out an error into which Dr. Garrod has fallen in his criticism of my letter on the above subject? In that letter I say: "Rheumatism is essentially a disease of the motor apparatus. Chorea is essentially a disease of the motor centres. In this broad pathological statement we have the clue to the explanation of the fact that chorea is common in rheumatic subjects." Referring to this, Dr. Garrod says that if this were so "we might surely expect a similar association of chorea with gout and rheumatoid arthritis in spite of the rarity of these maladies in early life." In this criticism Dr. Garrod ignores (no doubt unwittingly) a very important part of my letter, for in the latter part of the paragraph to which he refers it is stated in the most explicit manner that chorea is most common in females and in young people, and that "the rheumatic constitution is by no means necessary to the production of chorea. *Youth and sex are more important predisposing agencies.*" Chorea is essentially a disease of youth, the vast majority of cases occurring between the ages of seven and fourteen. Causes which excite it then do not excite it in adult life. Gout and rheumatoid arthritis are not possible causes, because they do not occur during the age of liability to chorea; rheumatism is a possible cause, because it does occur during that age.

In discussing the question of the relationship of rheumatism and chorea it must ever be borne in mind that the cases of chorea in which this relationship exists are, after all, only a minority. In the majority there is no such relationship, and the choreic symptoms have in them to be explained without reference to any of the changes associated with the rheumatic process. To advance one hypothesis for the explanation of the rheumatic cases, and another for the non-rheumatic, is to advance two hypotheses in explanation of one set of phenomena. In science that is scarcely admissible.

I am, Sirs, your obedient servant,
Cadogan-place, Dec. 7th, 1889. T. J. MACLAGAN.

OPERATIVE TREATMENT OF FLAT-FOOT.
To the Editors of THE LANCET.

SIRS,—In your issue of Dec. 7th, Mr. T. S. Ellis of Gloucester comments adversely upon osteoplastic operations for the cure of flat-foot, holding osteotomies for this condition "to be unwarranted, because unnecessary." I am well acquainted with Mr. Ellis's views—and I think them admirable—on the restoration of deformed regions by the energetic renewal of abeyant motor functions; and in the treatment of such conditions as lateral curvature of the spine I conceive no better principle of treatment can be enunciated. But when this principle is applied to the treatment of such deformities as extreme knock-knee and flat-foot, as Mr. Ellis urges it should be in his published writings, I can but fear that it will suffer in reputation by its extension to a group of conditions wholly different from those where its advantages have been indubitably proved. The group to which the principle is properly applicable includes all cases of deformity not dependent upon actual alteration in the shapes of bones. On the other hand, in that group of cases where bony surfaces are profoundly altered in their shape or direction, the principle in question must certainly give place to that of plastic renovation; for though I would not deny to the former method the possibility of effecting a cure after long and laborious use, yet such a result, as compared with the early and satisfactory outcome of a radical operation, cannot escape condemnation as an undue procrastination of recovery. In hospital practice this element of time cannot be left out of account; it is of the greatest importance to the disabled patient and to those dependent upon him that he should be restored to usefulness by the most rapid means compatible with safety. And on this last issue, with the statistics of aseptic osteotomy before me, I can but express surprise that Mr. Ellis should now feel any doubt as to the "justifiable" nature of such operations.

I am, Sirs, yours obediently,
Manchester, Dec. 10th, 1889. ARTHUR W. HARE.

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THE LANCET.

LONDON: SATURDAY, DECEMBER 14, 1889.

IT is evident from the discussions which took place at the recent meetings of the General Medical Council that considerable importance is attached by that body to the position which has been assigned by the Local Government Act to examinations for diplomas in Public Health and Sanitary Science. For the future the best and the most remunerative posts of medical officer of health are only to be held by those who either possess such diplomas or who have had other special opportunities which prove their competency for such office; and it is very natural that, since the State and the public will henceforth look to the various licensing bodies to grant these diplomas to none but those who are experts in that branch of medicine, anxiety should be expressed by the General Medical Council as to the fitness of the various examinations as a true test of competency.

Since none but fully qualified medical practitioners are now allowed to enter as candidates for the examinations, there is much to be said for the view of those who maintain that, provided the candidates exhibit the knowledge required of them, it is a matter of indifference how, when, and where that knowledge has been acquired. The General Medical Council, however, have thought otherwise, and in June last they resolved that, as a preliminary to entrance to any examination for a public health diploma, candidates should produce evidence to the effect that, since the date of their qualification in medicine, surgery, and midwifery, they had devoted a definite period of time both to chemical work in a laboratory and also to practical public health work under the holder of some public health office. These conditions have evidently not been readily assented to by some of the examining bodies; one intends to take legal opinion as to the competency of the Council to impose such restrictions, and others have through their representatives pressed strongly for some relaxation of the conditions.

The grounds of objection to them are several. In the first instance, it is held that they are, in some respects, quite unnecessary; and one body—namely, the University of London—has shown this as regards chemistry by eliminating practical chemistry from their list of subjects of examination for their new degree of Doctor in State Medicine. With this attitude we have much sympathy, in so far as the London University is concerned, because every candidate whom they admit has already passed an examination in practical chemistry, the stringency of which certainly exceeds that usually demanded by bodies granting diplomas in Public Health. But the London University probably stands alone as regards the character of its Preliminary Scientific Examination, and there are many bodies who could not properly take their stand beside that university in respect of any objection to a period of preparation in a chemical laboratory. Other bodies demand that the two periods of special preparation should, if the candidates desire it, be undertaken during the ordinary medical curriculum, and this especially if that curriculum is to be made to extend over five instead of four years. On the other hand, it is held that the time of a student is amply filled without taking up any special subjects, and the extension of the period for the ordinary curriculum has been proposed mainly on the ground that that period was admittedly too short. On this point we think that the two conditions which the General Medical Council have decided to impose might well stand on a different footing. Ordinary chemical work might properly be so taught during the ordinary curriculum as to render repetition of instruction in the subject, after qualification, unnecessary. Indeed, this is already done by certain bodies, of which the University of London is the type. And not only so, but it is generally understood that it is not the duty of a medical officer of health to undertake advanced chemical work. Inquiries as to this which have from time to time been made of the Local Government Board, who have statutory powers to define the duties of medical officers of health, have elicited the opinion that quantitative analyses and analyses of articles of food do not properly come within the province of a health officer, and this the more because, under a special statute, the work of such chemical analysis has been distinctly delegated to another set of officers—namely, the county and borough analysts. For reasons such as this, we could wish that no hard-and-fast line should be decided on in this matter; and, whilst we are convinced that the ordinary chemical training of the medical student needs supplementing for the duties of a health officer, we trust that the motion which was adopted by the General Medical Council, to the effect "that the Executive Committee shall have power to admit exceptions in special cases to the rules regulating the diplomas in sanitary science,..... " will be so interpreted as to cover the point as to the date of acquiring the needed chemical competency.

As regards the period of practical instruction with a health officer the matter is, in our opinion, different. Such work is not, in any sense, included in any ordinary medical curriculum, and hence the requirement ought not to be allowed to interfere with that curriculum. The work should certainly be undertaken subsequently to the obtaining of a registrable medical qualification. But here another difficulty has been raised. Medical officers of health are naturally those who are most competent to give the needed instruction. The best of them have, however, in most instances, undertaken to give their whole time to the duties of their office, and they would be unable to take pupils for such a purpose as is indicated without the assent of the body or, as it at times is, the multiple bodies who have appointed them. Others, again, may have neither time nor inclination for the task; indeed, one of the leading health officers in the United Kingdom, who holds office in a university town where a special diploma is granted, has already refused to undertake any such new duty. Such an attitude will necessarily tend to drive candidates to seek the needed tuition at the hands of less competent officers. For this and kindred reasons we feel we must concur with those who hold that this matter has been decided on somewhat prematurely.

But whilst we say this, our sympathy is entirely with the General Medical Council in their desire to secure that all

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who hold these diplomas shall be possessed of special and expert knowledge of the subject they have to deal with. Hitherto appointments to health offices have been offered at a remuneration so miserable and inadequate that those most competent for the duties have been deterred from even applying for the posts. And, since the possession of health diplomas will in the future give the holders a statutory right to those offices where the opportunities for public health work will be on the largest and most important scale, candidates seeking them must be prepared to submit to such conditions as to stringency of examination and evidence of previous training as are necessary to satisfy the public that they are really competent to act as official advisers in that branch of medicine in which they claim to be possessed of special knowledge.

M. PASTEUR, in the pages of the *New Review*, has contributed an account of his labours, which should carry conviction to the mind of any impartial reader; and at a recent meeting of the Society of Arts the subject of Hydrophobia was thoroughly treated by Dr. ARMAND RUFFER, in a lecture that was followed by an interesting discussion. It may be worth while to recall the salient points of these proceedings, so as once more to emphasise the fact, which cannot be too often impressed, that the control of this terrible malady lies entirely in the power of the State. Dr. RUFFER at the outset of his address, pointed out that rabies never occurs spontaneously, so that it is quite possible by restrictive measures to stamp it out. He showed that the disease is almost ubiquitous—that neither climate nor season has any special influence upon its prevalence; and he described how it may be propagated to man, chiefly by the dog, but also by other animals, notably by the wolf. He sketched briefly the symptoms of hydrophobia, showing how that term is a misnomer, since it is inability to swallow from spasm of the throat, and not dread of water as such, that is an essential feature of the affection. Dr. RUFFER showed how futile all attempts at the cure of hydrophobia by drugs, sweating, &c., had been, and proceeded to discuss the measures for its prevention. These were two in number—(1) the registration of all dogs and the wearing of a collar by each such dog, all others being at once destroyed; and (2) the destruction of all stray dogs, and the muzzling of all others, together with quarantine for all imported dogs. The first was shown to be inefficient, and in Belgium had been proved to be so. The second measure alone was of use, and its value has been amply proved by results. The rest of the lecture was devoted to the consideration of the efficacy of M. PASTEUR'S method, and facts and statistics were quoted from several places where inoculations have been practised. At the Paris Institute it was shown that, each year, as the methods of inoculation have improved, the mortality amongst the inoculated has diminished, so that it is probable that this year it may not amount to 0·5 per cent.; and the lecturer contrasted such a result with the mortality of 80 per cent. amongst the non-inoculated bitten on the face (of which kind 280 have been treated by PASTEUR), and 15 per cent., the lowest mortality amongst those bitten, in any part of body. As to the allegations that persons have died from PASTEUR'S treatment who have never been bitten by rabid animals at all, Dr. RUFFER said that there was absolutely no foundation for them. The evidence in favour of inoculation over cauterisation or any other plan of dealing with the disease is in fact overwhelming. The discussion elicited many interesting points. Mr. ADAMI related his personal experience of the inoculation at the Pasteur Institute, whither he had resorted after receiving a post-mortem wound in examining the body of a rabid deer. Professor RAY LANKESTER urged the point that in an island like ours it must be possible by general muzzling and quarantine to exterminate rabies as thoroughly as wolves were exterminated in the reign of EDWARD III. Mr. W. HAUGHTON, however, thought that muzzling could not be efficiently performed, and that rabid dogs would escape it, attributing the undoubted diminution of the disease in 1885-86 to the wholesale destruction of stray dogs. Dr. G. FLEMING alluded to the injury and loss inflicted by rabies upon domestic animals, and stated how he had come to abandon the view he formerly held that it arose spontaneously. Rabies had been stamped out of the Island of Bourbon for more than half a century, though it raged with great virulence in Mauritius. By quarantine New South Wales had prevented its introduction into that colony. Dr. FLEMING forcibly advocated muzzling, which must be universal and applied for a certain time. Dr. DRYSDALE endorsed these views, and said that Professor VIRCHOW had remarked that he thoroughly agreed with PASTEUR'S splendid discovery, but it was not required in Germany, where they muzzled the dogs. Professor VICTOR HORSLEY said there could be no practical difficulty in enforcing quarantine, and that nothing short of universal muzzling could extinguish the disease. Sir JOSEPH LISTER, who occupied the chair, dwelt upon the precautions taken in the Pasteurian method to prevent the introduction of putrid matter into the inoculation material, and quoted M. PASTEUR'S statement as to the ease with which England could, in a comparatively short time, get rid of rabies, by means of universal muzzling and a rigid quarantine.

The almost complete unanimity of opinion expressed at this meeting can hardly be matter of surprise; for the arguments upon which such opinion is based are incontrovertible. On the one side we have an infective disease chiefly affecting dogs, and capable of being transmitted to man and other animals,—a disease of the most virulent nature, which no known remedy, short of protective inoculation, has yet been able to cope with. On the other side, we have a country, separated from other lands by a sea barrier, and able, therefore, to prevent, with due diligence, the importation from without of diseased animals. So that once rabies is stamped out within the island, its recurrence could be absolutely and for ever prevented. But we are a slow, and yet, according to many, a practical people; and the majority, not realising the nature of this dread malady, and urged perhaps by a sentimental view of the muzzle in relation to the dog, think that scientists are making "too much ado" about such a matter, which does not touch our commercial interests (although Dr. FLEMING showed how considerable are the losses to trade &c. from rabies), and some, moreover, seem to think that restrictive legislation of any kind ought not to be tolerated. Such people would extend the doctrine of the liberty of the subject even to the rabid dog. We may hope for more



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reasonable counsels to prevail, and that, in spite of practical difficulties which are by no means insuperable, the Legislature will lose no time in following an example so long set by Germany, and with such satisfactory results. However, until we have succeeded in stamping out the disease, the treatment of hydrophobia must be that introduced by M. PASTEUR, which, as Dr. RUFFER amply showed, has been successful beyond expectation. It has stood the test of much opposition and criticism, and has established a firmer footing than any other line of treatment ever suggested for this most intractable of diseases. That there may be other means of eliminating the virus is, of course, possible; but as yet no such methods have been declared. It is surely a remarkable thing, and one not very creditable either to the intellect or the heart of our nation, that we seem to be unable to enforce either the only known method for preventing the disease in this country, or to establish means for its treatment. Universal muzzling and quarantine are regarded by many influential people with an aversion equal to that they feel to the foundation of a Pasteur institute. Meanwhile the dire malady claims its victims, whom we have to send to a foreign land for treatment. How long will it be, we wonder, before the folly and the shame of such ineptitude and impotence are brought home to the mind of the British nation!

THE Royal Statistical Society does well at intervals to elect for its President a distinguished member of the medical profession. Statistics have been nowhere more impressive or useful than in regard to health and mortality. In this region they have been invested with an interest for human beings in all conditions of life and climate that have gone far to rob them of that quality of dryness which deters so many from attempting to master them. It would be difficult to name two men who have done more to clothe the dry bones of statistics with flesh and blood than WILLIAM FARR, M.D., and WILLIAM A. GUY, M.B., Presidents, respectively, of the Society in 1871–73 and 1873–75. These are the medical names that figure honourably in the list of Presidents from 1834 onwards along with those of eminent statesmen and publicists. The name of the present occupant of the chair may be less known popularly than those, but only because his work has been more directed to the use of statistics in military questions affecting the health of our troops in the various parts of our vast empire. In this connexion, however, few names are better known or more honoured for sound and substantial work than that of Surgeon-General GRAHAM BALFOUR, F.R.S., who reviewed the various events of interest to statisticians in the past year, particularly the second meeting of the International Statistical Institute in Paris, where the English society was strongly represented. He acknowledged with much grace the kindness and hospitality of the French Government, and showed how many topics of interest to all countries had been discussed—questions of labour and wages, of the productive results under different agricultural tenures, of commercial crises, &c. He gave an exceedingly interesting account of the system adopted by the police in Paris for the quick and certain identification of prisoners previously convicted, based chiefly on photography and certain anthropometric measurements, including the height, the length of the body when seated, the length of the arms extended, the length of the head, the breadth of the head above the ears, the length of the forearm (*coudée*), the length of the middle finger and little finger, the length of the foot, the length and breadth of the external ear, &c. The unfortunate prisoner who tries lying as to his previous history quails when confronted with such details. They are not produced till after his trial and condemnation. As illustrating the value of private enterprise in statistical questions as distinguished from State-aided undertakings, Dr. BALFOUR selected for praise the volume of Mr. CHARLES BOOTH, one of the Vice-Presidents, entitled "Life and Labour in East London," and claimed for it that it had "narrowly localised" the poverty of London, discovered its extent, gauged and differentiated its intensities, and cleared the ground for the labours of other and less exact sciences.

We have not space to dwell on Dr. BALFOUR'S illustrations of the precautions to be observed in all statistical work, and especially of the error of endeavouring to obtain results from operating with ratios instead of the actual numbers. We must not, however, omit to notice his very spirited and effective vindication of the work of army medical officers in reply to an unfortunate remark of Sir EDWIN (then Mr.) CHADWICK at a meeting of the Sanitary Institute in 1883, that "there has been a continual neglect of sanitary experience in the army down to the present time." He reminds their critic that army medical officers have no power to carry out any of their own recommendations, *however urgent their need may be*, and it is too well known that the hard heart of the Treasury can only be moved by popular clamour and alarm, which too often only follow national disaster, such as the break-down in our commissariat and other arrangements in the Crimean War. Dr. BALFOUR shows that long prior to this period members of the Army Medical Department had been doing valuable work, beginning with that of Sir J. MCGRIGOR at the end of the Peninsular War, which consisted mainly in creating a system by which the health of troops, and particularly special outbreaks of disease among the troops, in various parts, were duly reported to him. This led the way in 1835 to an inquiry into the expense incurred in replacing soldiers who died or were invalided. The present Lord GREY, then Lord HOWICK, appointed Dr. HENRY MARSHALL, Deputy-Inspector of Hospitals, and Lieutenant TULLOCH to this work. In the following year, Dr. MARSHALL having to retire on the ground of ill health, Dr. BALFOUR was nominated by Sir JAMES MCGRIGOR to take his place, and in rapid succession they produced reports and recommendations of a more extensive and general character than those of the previous twenty years on the health of our troops in all parts of the Empire. Dr. BALFOUR passes hastily and modestly over these reports. But some of them at least were very valuable and have become historical. Dr. PARKES—himself a host to refute the charge of Sir EDWIN CHADWICK—says that the history of sanitary science affords no instance of the removal of disease to a more wonderful extent than in the case of the West Indies, where, fifty years ago, the usual time for the demolition of a regiment of 1000 strong was five years, and

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occasionally in a single year a regiment would lose 300 men. Now this dreaded service has lost its horrors, and he attributes the credit very largely to the reports in 1838 of TULLOCH and BALFOUR, which Dr. BALFOUR disposes of in this unostentatiously brief way:—"In 1838 we presented a report on the West Indies." Not only did they frame these various reports, but they prepared a form of sanitary report to be forwarded annually by the medical officer in each foreign station. Their work was interrupted by the Crimean War; but it never died, and has been productive of similar work in the navy and in the departments of other countries. We feel gratified that the Statistical Society should have paid its highest honour to one of our profession, as quick in his detection of bad work as he has been indefatigable in the promotion of sound knowledge in the department of vital and sanitary statistics, and we congratulate him on his spirited vindication of his department.

THE President of the Institute of Actuaries has been inaugurating a new session of his Society by an address, in which he treats of many things, and among them of the functions of the medical examiner. For some reason Mr. SUTTON has taken umbrage, and complains that the medical officer, "not content with his own duties, has been putting on the uniform of the actuary and rushing in where actuaries fear to tread." What may be the justification or reason of this complaint we do not know, and our complainant does not enlighten us. We must therefore be content to say that the case which he puts is certainly a very rare one and one respecting which we should be glad to have particulars. The medical man who is ambitious of distinction in the melancholy science of annuities must be something of an intellectual curiosity. But that by the way. Mr. SUTTON appears to favour a proposal to substitute a probationary period for medical examination. This is no new thing. It is largely adopted in industrial insurance business where the amount of the transactions is too small to bear the expense of medical fees. And in the beginnings of life assurance business it was not customary to obtain a medical report at all. There are many men still living who can remember the old days when an applicant was required to appear personally before the board of directors and answer questions put then and there as to his past and present health and mode of living. The medical certificate was an improvement upon this crude method of examination. But the old medical certificate worked badly and unsatisfactorily to all concerned, and it was left for the late Mr. THOMAS WAKLEY, the founder of THE LANCET, to suggest the scheme which in the end solved all the difficulties of the case. The great inconvenience of the old method arose from the fact that the proposer paid the medical fee and received the certificate for transmission to the office. Hence the medical examiner was compelled to submit his report to the proposer himself, and ran considerable risk of giving rise to disappointment or even ill will on the part of his patients, while at the same time he was prevented from entering upon any detailed or minute report. These difficulties were met by the simple expedient of sending the medical examiner's instructions and his fee from the office of the company. He thus became an officer of the society and his report a private document, which the proposer had no right to see. This scheme was embodied in the prospectus of a company, which was established early in the fifties, and of this prospectus, indeed, it became the distinctive feature. But its merit was generally recognised, and in a few years the practice so inaugurated was universally adopted. So it has continued to the present time; and if Mr. SUTTON shows some disposition to speak slightingly of the medical officer and of his office, we shall be quite content to appeal from him to the invariable practice of the companies and the constantly repeated testimony of the directors and managers of prosperous societies, who know and do not hesitate to say that the very favourable mortality, which well administered and progressive life offices are almost always able to show, is chiefly due to the care and skill exercised in regard to the medical selection of risks.

That the actuaries can give an equally good account of their stewardship we are not quite sure. For many years past there have been accumulating in their hands enormous masses of statistical materials calculated, one would suppose, to throw light on many important questions of prognosis. But we are not aware that this statistical matter has been worked up, and its results deduced on any commensurate or even on any considerable scale. No doubt it is easy to find fault, and we have no desire to demonstrate our prowess in that direction; but, since the discussion has been set on foot, it may be useful, and serve more than a temporary purpose, to remind our critics that they in turn owe something to society over and above the safe custody and eventual destruction of the medical reports which during the past forty years have been produced at a great expenditure of time and pains, and committed to their care.

Annotations.

"Ne quid nimis."

THE REGISTRAR-GENERAL'S FIFTY-FIRST ANNUAL REPORT.

THE Registrar-General has just issued his Fifty-first Annual Report dealing with the vital statistics of England and Wales in 1888. It is satisfactory to note that the date of its appearance is earlier by nearly a month than that of any previous report of this series, although three months later than the publication of the report of the Registrar-General for Ireland for last year. With regard to Scotland, the entire population of which is smaller than that of London, the last issued Detailed Annual Report relates to the year 1886. The English report just published shows that 1888, from a statistical point of view, was a year remarkable for low rates of marriages, births, and deaths. The marriage-rate was 14·2 per 1000, the lowest rate on record being 14·1 in 1886; the birth-rate was 30·6, the lowest rate recorded in this country since the first year of civil registration (1838), when the registration system was but imperfectly carried out, and the number of unregistered births was undoubtedly considerable; and the death-rate was 17·8, which was "by far the lowest rate as yet recorded." The marked reduction in the recorded rates of marriages, births, and deaths in recent years has been partly attributed by some to an over-estimate of the present population of England and Wales. It is

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obvious, and to be regretted, that more than eight years after the last census estimates of population must partake very much of the nature of mere guesses. The Registrar-General, however, after careful study of all available figures, again expresses his deliberate opinion that the estimates upon which the rates in recent years have been calculated, if at all overstating the actual population, are not sufficiently inaccurate to invalidate the calculated rates for comparison with those in previous years. We may, therefore, fairly assure ourselves that the marked reduction in the recorded death-rate in recent years represents a real reduction in the rate of mortality, implying improved health and increased longevity. We may further assume that, judged by the remarkably low death-rate, the health-condition of the country in 1888 was more favourable than in any previous year on record. The Registrar-General calls attention to the fact that the next lowest rate to that in 1888 was recorded in the preceding year, 1887. It is also pointed out that "in each of the eight years of the current decennium the death-rate has been under 20·0, whereas in no single previous year had it ever fallen so low." The mean annual rate in the last eight years was 19·05, while the mean rate in the last completed decennium, 1871–80, was 21·38; in other words, the mortality in the past eight years has been more than 11 per cent. lower than that in the preceding ten years. This remarkable decline in the national death-rate, which has been maintained, and at an increasing rate, since 1875, points conclusively to some powerful and persistent influence; and its coincidence with the full operation of the Public Health Acts of 1872 and 1875 seems fully to justify its attribution to the awakening of public interest in sanitary reform, of which awakening those Acts were the outcome. With regard to the unprecedentedly low rate of 1888, it was undoubtedly due in great measure to the exceptionally favourable meteorological conditions of the year. The coolness of the summer months and the mildness of the winter months favourably affected the mortality at all ages, but more especially the mortality of infants. The report points out that the rate of infant mortality, measured by the proportion of deaths under one year to registered births, was 136 per 1000, and lower than in any previous year on record, excepting 1879 and 1881, "each of which years was also distinguished by exceptionally low diarrhœa mortality." That the low rate in 1888 was, however, in great measure also due to causes more satisfactory to the sanitarian than mere fortuitous meteorological conditions, it is only necessary to refer to the mortality from the zymotic or specific febrile diseases; the deaths "ascribed to this class of specially preventable diseases" were in the proportion of 2097 per million persons living. This rate, the Registrar-General reports, "was far lower than that recorded in any previous year in the current decennium, and no less than 44 per cent. below the mean rate in the preceding decennium 1871–80." With the single exception of diphtheria, the death-rate from each disease in this group in 1888 was below the decennial average, and "in the majority of cases, if not actually at the minimum point yet attained, not far above it." The decline, compared with this average, was perhaps most marked in the death-rates from scarlet fever, enteric fever, and typhus, which last disease appears to be steadily dying out. On this occasion we have confined ourselves to a brief notice of the main features of the report as bearing upon the more important vital statistics of the year. We are glad, however, to note a valuable contribution to the statistics of epidemiology under the heading "Zymotic mortality in relation to sex and age." The broad basis of facts upon which these statistics are constructed give them undeniable value, and the subject is one of undoubted interest, both from a medical and public health point of view. We shall, as occasion offers, again refer to these instructive and suggestive figures, and in the meantime we may especially recommend them to the notice of medical officers of health, both on account of their inherent interest and of the statistical method adopted in the construction of the tables on which the conclusions are based.

EUTHANASIA FOR MURDERERS.

THE success of the lethal chamber for producing euthanasia in the inferior animals seems to be keeping alive a constant desire to introduce the same merciful process for murderers. Dr. Samuel Abbott, Secretary of the Massachusetts State Board of Health, is the latest advocate of this change in the mode of carrying out the extreme penalty of the law. If a change must be made, he argues, if the gallows must be superseded by some more humane method of taking a life forfeited to the State, let us take the most certain, the most humane, the most inexpensive, and the most easily managed of all the methods which science has supplied; let electricity with its risks and troublesome arrangements, involving necessity for skilled electricians as executioners, be set aside; and, let a simple apparatus, in which the criminal can sleep to death, be the new advancement in the art of taking life, *cito, tuto, et jucunde*. Dr. Abbott proposes a lethal chamber, and suggests that carbonic oxide should be the lethal agent. The culprit is to be placed in a small closed chamber, and, when all is ready, a free current of the lethal gas is to be introduced into the enclosed space, so that its occupant may be instantly rendered unconscious, and, by continuance of the process, narcotised to death. Two minutes is the time which is allowed from the beginning to the end of the proceeding. Without pledging ourselves to the statement that in every case human life could be extinguished painlessly in the space of two minutes, we fully admit that death by the lethal method could easily be carried out if the change were desirable. We may go a step further, and say that it would be possible to carry out euthanasia by a still better method than the one above referred to. There are, however, questions involved which have to be considered most carefully before any wise statesman would commit himself to the change proposed. First and foremost amongst these is the question whether it is advisable to give to murderers, and to them alone, the privilege of being deprived of life by absolute euthanasia. What have they, of all men, done that the pains of death shall not fall upon them? And why should they, of all men, go out of existence in a gentle sleep, knowing no more of their death than of their birth? The common theory is that by taking the lives of criminals, the law deters others, by the awful dread of the penalty, from committing the crime for the punishment of which the penalty is cast. Is euthanasia likely to be a deterrent? No man who has been in the practice of medicine for five years would admit anything of the kind. Practitioners of medicine learn very soon the history of those, by no means a limited class, who would willingly die at any hour were it not for the fear of the suffering that might attend the supreme event. If men never committed suicide, or if we could trust a man under sentence of death to his own devices in his cell, with appliances for suicide at his command, there would be some reason in the argument. But when we know that life is so little valued by a large class wearied of it, and that many would gladly seek death if the latter would only come without a pang, it is surely the perfection of folly to offer that class the very method of death which it does not fear. Such a proceeding is like offering a premium on murder. Why, then, alter the present state

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of things? In the present method of execution by hanging there is not one bit too much of the deterrent element; for, as it is well known physiologically, there is no infliction of special agony beyond that common to dying from any sudden and violent mode of death.

MEDICAL PRECAUTIONS AGAINST CARRYING INFECTION.

MISS COBBE must feel rather dissatisfied with the scanty success of her attack upon the medical profession. She may possibly have been visited with some slight compunction as to her right to accuse the profession and to call upon it to answer her accusations. But we are not sanguine upon this point, as ladies of the vigilant order think they have divine rights over all sorts and conditions of men, even over those whose boast and property it is to prevent as well as cure disease. The profession has other work to do than to rush into newspapers and make humble explanations of its methods of disinfection. It would, at least, have been but generous in Miss Cobbe had she, in her second letter to *The Times*, admitted that she had underrated the services of the profession in the matter of disinfection and prevention of disease. It will be strange, indeed, if she can still allow herself to think that precautions taken against other visitors are going to be all relaxed in favour of medical students, or that medical men take no more precautions against infection than were thought necessary in that hazy region of "years ago," to which she has to go for her case against them. We decline altogether to go into particulars with Miss Cobbe, and would as soon think of debating with her the remedies for scarlet fever as the methods by which its spread is to be prevented. These matters are not only the subject of inquiry just now by a committee of high authority appointed before Miss Cobbe took up this branch of special Providence, but are the constant care of every medical practitioner worthy of his profession.

THE BOWMAN LECTURE.

THIS lecture was delivered before the Ophthalmological Society on Nov. 15th by Professor Edmund Hansen Grut of Copenhagen, who took for his subject the Etiology of Squint. He commenced by assuming that the anatomical position of rest of the eyeballs in emmetropia is that of slight divergence, whilst the functional position, or that which the eyeballs assume in consequence of the desire for distinct distant vision, is one of parallelism. He then endeavoured to show that convergent squint originates in, and is maintained as the result of, an innervation which induces a contraction in the internal recti beyond what is necessary, so that when this is suspended the squint disappears. On the contrary, divergent squint is the expression of an innervation occasioning convergence, permitting the eye to assume its anatomical position of rest. In the absence of any paresis or abnormal attachment of the muscle divergent strabismus can only arise when the anatomical position of rest is a divergent one. Divergent squint, therefore, differs in its etiology from convergent squint. The normal movement and position of the eyes are materially affected by habit and exercise, and their influence in the production of squinting is certainly considerable. No better proof of this can be given than the complete concomitance of lateral movements and of the movements of convergence of an occluded eye, when the ordinary stimuli as the disposition to fusion of images are wanting. An explanation is afforded of persistent convergent strabismus by assuming a considerable displacement inwards of the functional position of rest in consequence of persistence in acts of convergence preventing complete relaxation of the internal stimuli. In periodic squint the anatomical position of rest is one of unusual divergence; the squint which accompanies efforts of accommodation moves the functional position of rest inward, so that it nearly coincides with a parallel position of the optic axis, and hence, except during strong accommodation, no squint is evident. A habit of convergence is developed whenever frequent or continuous convergence is necessary, and this is most common in hypermetropia. In divergent strabismus there is no shortening or contraction of the external recti, because there is no innervation leading to their excessive action. The condition arises from complete relaxation of the internal recti, as a consequence of which the functional gives way to the anatomical position of rest; but if this latter position is one of parallelism, no absolute divergence will occur. Absolute divergence is not caused by cessation of convergence any more than the normal condition of inability to diverge leads to convergent squint, and this is shown by the different effect of tenotomy in the two conditions of external and internal squint; for if the former were, like the latter, due to muscular contraction, tenotomy of the external rectus should be as effective as tenotomy of the internal rectus, which is not the case. The lecturer passed a warm eulogium on the merits of Sir William Bowman as a scientific worker, and ended his discourse with a review of the different theories that had been advanced in regard to the nature and etiology of strabismus.

BURIAL REFORM.

UNDER the ominous heading of "Overcrowded Cemeteries" the Duke of Westminster writes, urging the necessity of fresh legislation to correct the many abuses which exist in our present mode of burial. His Grace repeats what has been frequently noticed in these columns, that the large number of bodies interred in the metropolitan cemeteries—100,000 in twelve acres at the Brompton, a quarter of a million in the seventeen acres of the Tower Hamlets—would be no cause for alarm were they properly buried. An infinitely greater number could, he remarks, be buried with harm to none if the mode of burial were in accordance with sanitary law. How thoroughly true this is may be proved by the following simple calculation. In suitable soil 1000 graves can be made in an acre without any overcrowding. If each body is buried in a perishable coffin and in the earth, the resolution of the body is effected in a few years, and another burial can take place without in any way diminishing the capacity of the grave for more interments. In other words, graves and graveplots can be made capable of holding an almost unlimited number of bodies, while vaults, catacombs, and bricked graves can only hold a very limited number. If the metropolitan cemeteries had from the first been managed as burial-grounds in the strict sense of the word, they would now be in the same position as many of our older churchyards, holding the dust of ages past and still having room for more. Burial reform is not a thing of yesterday. More than two centuries ago Sir Christopher Wren strongly denounced the practice of burying bodies in the vaults of churches and advocated suburban burial grounds. And in the middle of last century the mortal remains of Bishop Wilson were, in accordance with his expressed wish, buried in the churchyard of Kirk Michael and not under the church, he wishing to set a good example, and not to sanction so dangerous a practice. And yet in THE LANCET of last week there was a notice of an application for power to bury a body in a vault beneath the parish church of Bebington, which has a large congregation at its Sunday services. And though the memory of good Bishop Wilson still remains in the island of which he was for more than fifty years bishop, his excellent example was


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not followed, several of the Manx churches having large numbers of dead in the vaults beneath them. Much has been done by individuals, collectively and individually, to set a good example in these days, and by no one more than the Duke of Westminster. It is well known that the burial of his late lamented son, Earl Grosvenor, was a model of simplicity in all its details, and he still holds the position of president of the Church of England Burial Reform Association, whose indefatigable secretary, the Rev. F. Lawrence, has done so much to make burial reform popular with all classes. But much remains to be done. Burial under churches ought to be absolutely forbidden, the soil of a public cemetery should be for the use of all the parishioners, and not partitioned off by walls into vaults or bricked graves. No coffins except those of a perishable kind should be allowed. These reforms will, it is to be feared, need legislation for their general adoption.

A NATIONAL LEPROSY FUND.

WE are glad to learn that important steps are being taken to carry on the work sketched out by the Father Damien Memorial Committee. A National Leprosy Fund is to be established, in aid of which a dinner will take place at the Hôtel Métropole on Jan. 13th, H.R.H. the Prince of Wales having kindly consented to preside. Amongst those who have intimated their intention to be present are the Duke of Norfolk, the Duke of Fife, the Archbishop of Canterbury, Cardinal Manning, the Lord Mayor, Lord Rothschild, Sir Andrew Clark (President of the Royal College of Physicians), Mr. Jonathan Hutchinson (President of the Royal College of Surgeons), Sir James Paget, Sir Henry Acland, Sir Prescott Hewett, Sir Joseph Fayrer, Sir Lyon Playfair, Sir Charles Russell, Sir Frederick Leighton, Sir George Paget, Sir Henry Thompson, Sir Edward Sieveking, and Sir E. Saunders. It may be hoped that under such auspicious circumstances the proposed fund will be well started, and that support will flow to it from all quarters. The subject is one of Imperial concern—in which the interests of England, and especially of India and the colonies, are largely bound up. It is proposed that the interest arising from such fund should be devoted to the medical treatment and care of indigent lepers in the British Empire, and that a sum of money be set apart and placed under the control of trustees for the endowment of two studentships, one student to make the United Kingdom and the remainder of Europe his field of investigation, and the other to go abroad and study the disease in India, China, the colonies, and elsewhere. Sir Somers Vine, Adam-street, Adelphi-terrace, is the hon. secretary to the Dinner Committee.

FEEDING TIME AT THE WORKHOUSE.

IN spite of some variation in the practice of different lands and ages as to methods observed in eating, we may take it that civilised custom throughout Europe has been wise in sanctioning the knife and fork as indispensable aids at the principal daily meal. Such, however, is not the universal opinion, and an opposite view has even been accepted by such qualified judges as the Chester Board of Guardians. These gentlemen, at a recent meeting, discussed the question whether, in the case of paupers' dinners, fingers and teeth were not sufficient, without the addition of instrumental help such as we have mentioned. After some conversation it was decided that on Christmas Day, and on that day only, knives and forks hired for the occasion should be issued to the workhouse inmates. The magnanimity of this concession will doubtless be duly appreciated by the ratepayers when the mere decency of taking dinner in the ordinary way is compared with the rule of Chester Workhouse—that the paupers' meat shall not be cut, but torn and devoured. A further advantage will accrue to some who are happy enough to enjoy a workhouse dinner on Christmas Day. Toothless inmates who have hitherto bolted unmasticated meat (with what results are best known to themselves and the union medical officers) will have an opportunity of mincing beforehand the indigestible morsels. We may imagine their comfort, and perhaps even picture the contentment of thoughtful guardians, that thus a small saving of expenditure on illness has been avoided. For all their guardian kindness and rare sense of ordinary decency let the poor and the country thank them, if even it be granted for one day only. Is there no other union yet more wisely liberal which will recognise in the pauper, though destitute, something more than a carnivorous animal, and will risk the extravagance of providing him daily with a plain knife and fork that he may eat like other men?

NEUTRALISATION OF THE BACILLUS TETANI.

IN June last Professor Sormani of Milan announced to the Lombard Institute of Sciences the results of his experiments on the neutralisation of the tetanigenous microbe—results which seemed to justify his conclusion that iodoform, iodol, and corrosive sublimate are absolutely destructive of the bacillus in question. To these disinfecting agents he has, as the result of further experiments, added three more—namely, chloroform, chloral hydrate, and camphorated chloral, the latter being, he alleges, in a marked degree efficacious; while camphor and camphorated alcohol he found inert. On a general review of the whole, however, he gives the preference to iodoform. Seven rabbits were inoculated with materials charged with the tetanigenous virus. From six of these, after an interval of twelve hours, the foreign body was removed during the period of incubation; from the seventh the substance was removed only when the first symptoms of local tetanic convulsions had declared themselves. In all these animals the wound was scraped and thereafter freely medicated with iodoform. The seventh rabbit died of tetanus. Of the first six, five were saved. From this Dr. Sormani concludes that medication of wounds with iodoform ought to be practised before the setting in of the first tetanic symptoms. Nevertheless, even during declared tetanus, the application of iodoform to the wound is capable of disinfecting it and of removing from it all trace of virulence. Wounds and sores treated with iodoform, especially wounds or sores contaminated with earth, yield results highly welcome to the surgeon—such medication preventing the access of that fatal tetanic symptom which, having once declared itself, leaves but little chance for skilled interference. Dr. Sormani gave confirmatory proof of his thesis by cases of tetanus in hospital, where iodoform opportunely applied saved the patients, and where, from its use having been unfortunately suspended, two lives were sacrificed.

AN INDUSTRIAL SCANDAL.

ADVOCATES of a system of labour free from State regulation may study with advantage the details of a recent instance of industrial over-pressure. At Dewsbury, a few days ago, a firm of woollen manufacturers were convicted in thirty-seven cases of employing for an excessive number of consecutive hours boys under eighteen years of age. Some of these youths had been at work for almost a whole day of twenty-four hours without intermission, except at meal times. A more scandalous example of neglect of the most obvious physical requirements could hardly be adduced. It is needless that we should enlarge upon its mischievous possibilities. At an age when the development of mind and body is proceeding actively, and absorbs in itself a large amount of vital energy, when growing organs—notably

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the lungs—almost invite the action of disease, a strain which would be severe at any age is thrown upon the body with almost certainly injurious effect. The work is done, perhaps, at no great pecuniary outlay; but the cost in health, if such a system were persisted in, could not but be, as regards the manhood of the country, most ruinous. On consideration of all the circumstances, a total fine of £52, with costs, must appear to many besides ourselves a very lenient sentence.

TESTS FOR MELANURIA.

R. VON JAKSCH (*Zeitsch. für Phys. Chem.*) has been endeavouring to obtain more satisfactory tests for the condition known as melanuria. As ordinarily described, this is characterised by the passage of urine which becomes black or very dark on the surface as soon as it is exposed to air. On standing, a black pigment is deposited, which is termed melanine, and is distinguished from other colouring matters in urine by its insolubility in water, alcohol, ether, and acids, with the exception of strong nitric acid, which decomposes it. R. von Jaksch finds that when perchloride of iron is added to thick and highly coloured urine a precipitate is formed. On the addition of a very dilute solution of perchloride of iron only a light blackish-brown cloud results. A tolerably concentrated solution gives a greyish-white precipitate. After filtration, fresh addition of perchloride of iron gives rise to a dark colour and a light precipitate. With an excess of perchloride of iron the grey precipitate is dissolved and the black precipitate remains, and is only dissolved with a very large quantity of the reagent. The colouring matter thus precipitated is a mixture of different substances. It is soluble in hot formic acid and in lactic acid. It is insoluble in acetic acid, chloroform, glycerine, &c. It contains nitrogen, iron, and sulphur. With ferrocyanide of sodium and carbonate of potassium the urine gives a rose-red colour if the solution is dilute, and a dark-red colour with concentrated solutions. Mineral and organic acids change this to a deep blue, and after a time a precipitate forms. This precipitate, separated by filtration, dissolved in carbonate of soda and treated with hydrochloric acid and perchloride of iron, gives a precipitate of prussian blue. This last reaction is not peculiar to melanine, and is only a confirmatory test after the presence of melanine has been proved by perchloride of iron. Melanuria, that is to say, the presence of melanine in urine, is an important element in the diagnosis of melanotic cancer.

DEATH UNDER CHLOROFORM.

WE have to record yet another fatality under chloroform. M. F——, a woman aged forty-one, was admitted into the Samaritan Hospital for Women, Marylebone-road, on Nov. 27th. On Monday, Dec. 2nd, it was decided to operate upon her, and, in accordance with the routine custom of the institution, chloroform was administered from a Junker's inhaler. When half-way through the operation, the patient showed signs of dangerous depression, the pupils became widely dilated, and the respiration and heart's action ceased. The medical evidence given at the inquest was to the effect that the patient died from syncope produced by the chloroform inhalation. The same authority stated that this was the only death which had occurred at the Samaritan Hospital, as a result of an anæsthetic, out of a total of 4000 administrations. According to Richardson, the mortality under chloroform is 1 per 2500 or 3000, while Coles of Virginia gives it at 52 deaths in 152,260 administrations, or about the same percentage. Authorities vary widely in their estimates, some placing the mortality far higher and others stating that these figures are too high. While a certain number of patients probably lose their lives through lack of care or experience upon the part of the chloroformist, others—as in the case of Mr. Clover, working with his dosimetric method, and the case under comment, when every care and the utmost skill failed to ward off a fatal result—appear to succumb to the depressing action of the drug. It is an incontestible fact, to which regard is sometimes not given, that in proportion to the length of time the patient is subjected to the action of chloroform is the danger of failure of the vital processes increased. Deaths under chloroform have occurred when almost every form of inhaler has been employed, so that, although many possess especial merit—and notably Clover's, which but for its cumbersomeness would have become more popular,—none can be said to do more than assist the efforts of the administrator to maintain the vapour within safe limits.

THE SUBCUTANEOUS ADMINISTRATION OF IRON.

PROFESSOR ROSENTHAL of Vienna, writing in a Pesth medical journal on the subcutaneous administration of iron, states that this method is advantageous in the cases of delicate neurasthenic persons who suffer, as such often do, from atonic dyspepsia. Here even small doses of iron taken by the mouth will sometimes produce disorder of the stomach. In severer forms of disease, such as pernicious anæmia, malarial cachexia, and the graver forms of leukæmia, there does not appear to be any advantage in the employment of the hypodermic method of administering iron. Two new preparations are recommended by Professor Rosenthal for hypodermic use—viz., the peptonate and the oleate of iron. He states that he has never seen any bad results follow subcutaneous injections of iron preparations, and he explains the fatal consequences that have occasionally been reported as following injections into vascular tumours of the head, by the fact that the vessels composing such tumours are generally closely connected with the veins of the dura mater. He has frequently seen venous enlargements in the legs undergo shrinking after being injected with dilute perchloride of iron, no dangerous symptoms ever ensuing.

THE NEW "POLIAMBULANCE" IN NAPLES.

FROM the report of the Poliambulance or Dispensary which was established in Naples some two years ago by a number of philanthropic medical men for the benefit of the very poor, it would appear that an excellent work, both from a charitable and from a scientific point of view, is being carried on. There are some thirty medical men connected with the institution, who divide amongst themselves the charge of the various departments, and who undertake to do duty at night in cases of emergency, and to visit patients requiring it at their homes, all gratuitously. During the twenty-six months with which the report deals, 9500 cases have been treated, about 1000 of whom were visited at their own homes, and 250 passed on into hospitals. The number of night attendances was 354. The surgeons performed several amputations, and other major operations at the patients' homes, and the physicians had a considerable number of infectious cases to visit. The members of the staff in charge of the various departments mention a few interesting matters. Thus, Dr. Alfredo Rubino, the well-known editor of *La Riforma Médica*, who is vice-director of the poliambulance, and who takes charge of the department for nervous diseases and electro-therapeutics, reports that locomotor ataxy and infantile spinal paralysis have been the most numerous of the diseases of the cord, and remarks that he has not been able to trace the first to a syphilitic origin nearly so often as some other

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authors, only 16 per cent. of his cases being referable to this cause; while Fournier ascribed a syphilitic origin to no less than 90 per cent. of his cases. The electrical treatment of infantile paralysis proved very successful. There were two cases of "hæmato-myelie" of traumatic origin, which were treated very successfully by rest and vaso-constrictor remedies during the early stage, and by the constant current and iodides later on. Dr. Masucci, who has charge of the department for diseases of the ear and throat, mentions that he was able to cure all the gummata he met with in and about the pharynx, which were mostly ulcerated, by the insufflation of subiodide of bismuth.

THE INFLUENZA EPIDEMIC.

THE influenza epidemic, as we anticipated, is rapidly spreading over the Continent, and as rapidly abating at St. Petersburg, thus following the course of many previous outbreaks of this remarkable and highly infective malady, notably that of 1847. In Vienna it has become very prevalent, and has also appeared in several towns in Poland, in some of which a large proportion of the population are affected. The *Daily News* Vienna correspondent writing on the 10th, states that the first ascertained case in that city was that of an assistant physician in the General Hospital. The illness began on the last day of November and lasted for five days. Prof. Nothnagel has given a clinical lecture on the subject, and urged the study of its etiology. Indeed, there is now a great opportunity offered to bacteriologists. In Berlin the disease has also broken out, and amongst the sufferers is reported to be Professor Bergmann (who, however, we regret to learn from another account, is said to be suffering from pneumonia arising from exposure at the funeral of Professor Volkmann). At Spandau and Dantzic the disease has also appeared, so that any day we may expect its appearance in this country. Indeed, in Paris, where "la grippe" almost always prevails during the winter, there are many cases occurring in large establishments. Influenza is not wholly free from grave results in the case of the aged and infirm, and several fatal cases resulting from supervening pneumonia are reported from St. Petersburg. In this city, however, the epidemic would appear to be beginning to decline. It is remarked that the mean daily temperature during the month ending Nov. 27th was this year 34·5° F., whereas the average of the last 126 years was only 29·5°. The barometer was somewhat higher than usual, and there was a south wind during nineteen days, which is very unusual at this time of year. There is a considerable increase in the number of cases of catarrhal pneumonia following attacks of influenza. Besides, there seems to be an unusually large number of cases of croupous pneumonia.

DEATHS IN THE INDIAN MEDICAL SERVICE.

VERY recently the Indian medical service has experienced the loss of several medical officers of distinction.

Surgeon-General Edward Green Balfour, who has died at the age of seventy-eight, was an eminent officer of the Madras Medical Establishment. He was in the public service of India from 1834 to 1876—forty-two years. After being in medical charge of the native and European troops of all branches, he served from 1862 to 1870 in the administrative grade of the Madras Medical Staff as deputy surgeon-general in Burmah and the Straits Settlements, and for four years with the Hyderabad Subsidiary Force and Hyderabad Contingent. From 1871 to 1876 inclusive he was, as surgeon-general, the head of the Madras Medical Department. For many years he held appointments at the Court of the Nawab of the Carnatic. In 1850 he founded the Government Central Museum at Madras, and subsequently collected animals, which formed the nucleus of the Madras Zoological Gardens, in the People's Park. In 1866 he instituted the Mysore Museum. He was secretary to respectively the Madras Central Committee for the Great Exhibition, 1851, the Paris Exhibitions, 1855 and 1868, the International Exhibition of London, 1862, and the Vienna Exhibition, 1873. His literary productions on Indian subjects are well known, but his chief work was his "Cyclopædia of India and Southern Asia."

James Shaw, F.R.C.S., Principal Inspector-General of Hospitals, has died in his eighty-first year. He belonged to the Madras Medical Department, and during Lord Elphinstone's Presidency of the Government was surgeon to the Governor and the Governor's body-guard. He was subsequently appointed Government oculist, with the charge of the Eye Infirmary, which he held many years, and acquired a large private practice in Madras. He was the first principal of the Madras Medical School, when that institution became a college. He finally retired from the Indian Government service in 1867.

Surgeon-General John Turner, late of the Bombay Medical Service, has died at Bath, aged seventy-five. He served as surgeon, in the *Nemesis*, in China in 1841-42, was present at several attacks and campaigns there, and was awarded the medal for his services. He also served in campaigns under Sir Charles Napier, in 1845–46, and in 1858, under Sir Hugh Rose. For more than twenty years he was surgeon with the Horse Artillery, and for eight years principal medical officer at Aden, and subsequently appointed Inspector of Hospitals of the Northern Division of Bombay.

PHTHISIS IN HIGH ALTITUDES IN SWITZERLAND.

FROM a report by Dr. L. Schrötter on the distribution of phthisis in Switzerland it would seem that the inhabitants even of high altitudes are by no means so free from phthisis as we are perhaps wont to suppose. The tables of deaths for the eleven years 1876–1886 show that phthisis is endemic in every part of Switzerland, not a single district (Bezirk) being free from it. On the whole, the deaths from this cause are fewer in the high than in the low-lying districts, but it cannot be said that the mortality from this cause is inversely proportionate to the altitude. Wherever there is a large industrial population the phthisis mortality is considerable. Industrial populations always suffer much more than agricultural populations where the altitude is the same.

VENESECTION IN LEAD POISONING.

DR. WILHELMI of Güstrow strongly recommends that in cases of lead poisoning a small quantity of blood should be taken from the arm. He has practised this treatment in twenty-five cases, and speaks warmly of the success he has met with, the patients in some cases expressing themselves as greatly relieved immediately after the operation and the affection taking a marked change for the better from that time.

INTERMITTENT FEVER.

DR. ALOIS FÉNYKÖVY communicates to a Vienna medical journal an account of some observations made on the treatment of intermittent fever by means of friction of the back along the spine. Many years ago, while at Nisch with his regiment, there occurred so many cases of intermittent fever that the stock of quinine was becoming exhausted, and in order that the patients might not be entirely without some sort of treatment, it was ordered that they should be rubbed twice a day along the spine with simple ointment. The day after this order had been given it appeared that the usual attack had not come on; accordingly, since that time

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Dr. Fénykövy has very frequently employed this treatment, and usually with marked success. Indeed, he says that three-fourths of his cases have done very well without any quinine at all.

THE HYDERABAD CHLOROFORM COMMISSION.

THE limited space available in a telegraphic message prevented Dr. Lauder Brunton from giving any details concerning his experiments upon chloroform, and it is altogether premature to argue a question still *sub judice*. We regret, therefore, that the lay press has, at least in one instance, jumped to a conclusion certainly unwarranted by the facts, as far they are at present before us. A sensational paragraph, telling the public that at length it is absolutely settled that chloroform kills by failure of respiration, and never through syncope, is certainly calculated to do harm. When a lay paper goes on glibly to observe that if the pulse is left alone and the respiration watched no danger can be incurred, we are reminded how perilous is "a little knowledge." It then becomes our duty to urge upon readers that the research which Dr. Lauder Brunton has undertaken is one not lightly dealt with, nor are conclusions to be formed until we have heard Dr. Brunton himself state to what results his experiments have led him. At present the whole question remains *in statu quo antea*. Nor must the issues be confused. There is another aspect of the question than that which up to the present time has engaged Dr. Brunton's attention—namely, the evidence arrived at by clinical observation. Bearing these facts in mind, it is evidently premature to offer any decided opinion as to the exact *modus operandi* of death under chloroform, and it would certainly be wholly unjustifiable to relax any of the precautions and care at present adopted by practical anæsthetists as necessary when dealing with chloroform.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. Klemperer has qualified as *privat-docent* in Medicine, and Dr. Nitze in Diseases of the Urinary Organs. Dr. Lassar has been appointed to give clinical instruction for Professor Lewin, who has not quite recovered from his illness.

Freiburg.—Dr. Sonntag has qualified as *privat-docent* in Midwifery and Gynæcology.

Leipsic.—Dr. Landerer has been promoted to the rank of Extraordinary Professor of Bandaging and the Use of Surgical Apparatus, and Dr. Tillmanns to be Extraordinary Professor of Surgery.

Moscow.—Dr. Kusmin has been placed on the staff as Extraordinary Professor of Surgery.

Padua.—Dr. Cervesato has been appointed Extraordinary Professor of Children's Diseases. Dr. P. Bonuzzi has qualified as *privat-docent* in Medical Pathology.

St. Petersburg (*Medico-Chirurgical Academy*).—The candidates for the chair of Clinical Surgery, rendered vacant by the death of Professor Bogdanovski, are Drs. Kruglevski, Multanovski, and Ratimoff.

AT the next meeting of the Neurological Society, to be held on Thursday, the 19th inst., at the National Hospital, Queen-square, Mr. James Sully, A.M., is, we see, announced to give an address on the Psycho-physical Process in Attention. The subject is one of much difficulty and interest, and also of much practical importance. We understand Mr. Sully will deal with the psychology of attention, and the psycho-physical experiments bearing on it. He will discuss the nervous process in attention, and its relation to motor innervation; and, lastly, he will deal with habitual directions of attention and interest, and the practical bearings of the subject.

PROFESSOR WESTPHAL of Berlin, who has been ill for some time, is, we are sorry to learn, worse, and it is thought unlikely that he will ever be able to resume the duties of his chair. The charge of his clinic is for the present being undertaken by Dr. Oppenheim.

AT an investiture of the Order of the Bath on the 5th inst. at Windsor, held by the Queen, Sir John Banks, Physician in Ordinary to the Queen, was invested with the Order of Knight Commander of the Bath.

THE publication of Sir Joseph Lister's paper, read at the Hunterian Society, has been deferred in consequence of some further investigations which have been found necessary.

MR. C. LEOPOLD HUDSON, F.R.C.S. Eng., has been appointed to the office of Surgical Registrar of the Middlesex Hospital, vacant by the resignation of Mr. W. Roger Williams.

THE cholera epidemic in and round Bagdad, which had a little abated about the middle of October, is stated to be now raging there more violently than ever.

THE LANCET AND THE HYDERABAD CHLOROFORM COMMISSION.

WE have received by mail a copy of the *Deccan Times* containing an interesting account of a banquet given in honour of the members of the Hyderabad Chloroform Commission by the Nawab Intesar Jung, on Tuesday, Nov. 12th. The dinner, to which 140 guests sat down, was given in the beautiful ball-room of the new Secunderabad Club, and left nothing to be desired as regarded the perfection of the arrangements and the quality of the viands. After the usual loyal toasts, the Nawab proposed the health of the Minister, Sir Asman Jah, who responded in the Urdu language, a translation of which was afterwards read by the Minister's secretary. The Minister, in proposing the health of the members of the Chloroform Commission, went into the history of the circumstances leading up to the appointment of the Commission with a view to settling once for all the vexed question of the attributes of chloroform. The Minister's concluding words were as follows:—"To enable Dr. Lawrie to bring about such an inquiry, his Highness was pleased to place a generous donation at his disposal, and the proposal being communicated to THE LANCET, perhaps the first medical journal of the world, the conductors of that periodical induced Dr. Lauder Brunton, whose name stands foremost in this branch of research, to go out as their representative. The Government of India has also been pleased to depute Surgeon-Major Bomford, a distinguished member of the Indian Medical Service, to assist at the conference. Experiments are performed daily at the Residency Medical School on dogs and monkeys, in which the effect of chloroform on the heart and on respiration is noted by means of instruments of marvellous delicacy, such as perhaps have never before been used in India. Now I venture to say that we Mohammedans are peculiarly entitled to sympathise with the objects of the Commission, for we were the first originators of that experimental research which in the hands of Europe has led to such magnificent results. The seed was sown by our ancestors, and nourished with the waters of the Euphrates and the Guadalquiver. Chloroform and ether, and some other wonderful agents, have been obtained from substances first discovered in the laboratories of a Razi, a Jubair, or an Ibu-i-Yunus. Mussulman surgeons were the first to make use of the actual cautery, and they invented instruments for midwifery and for ophthalmic surgery. Ibu-i-Haisum, known to Europe as Al Hazen, discovered the weight of the atmosphere, and fixed its height at fifty-two miles;

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enunciated the principle of aberration in optics; and almost reconstructed that science on mathematical principles upon the scant foundation laid by the Greeks."

Dr. Lauder Brunton, on rising to reply, was greeted with loud and continued applause. The following is an abstract of Dr. Brunton's remarks:—"I cannot readily find words to express my sense of the honour that you, our host, have done to me and to the members of the Hyderabad Chloroform Commission in inviting us here to-night. My enjoyment to-night is alloyed by pain that I am unable adequately to express my sense of the generosity of the Nizam's Government, and of all the kindness shown to a stranger like myself since my arrival in Hyderabad; yet this pain enhances the pleasure which the undeserved and generous kindness affords. But the saddest thought with which our pleasure is mixed is one which is nevertheless itself the cause of our pleasure to-night—viz., that all over the world men and women and children are suffering from pain and calling for relief which it is not always in the power of medical art to afford. In the speech which you have just heard from our host, all the essential points in regard to anæsthetics have been so clearly put that it is quite unnecessary for me to say more about them; I may merely repeat that the questions which the Hyderabad Chloroform Commission has to settle are: Why do deaths occur during the administration of anæsthetics? How are they to be prevented? Some men are inclined to think that some such deaths are inevitable; whereas others, like my friend Surgeon-Major Lawrie, consider that they are quite preventable, and that anæsthetics (and especially chloroform) may be always administered with safety provided proper care be taken. This is a question upon the solution of which so much depends that for the last forty years or more men have been trying all over the world to solve it. But all this time Governments which would spend millions upon appliances for destroying life have shown a singular apathy regarding means of saving both life and suffering. It has been reserved for the Nizam and his able Minister Sir Asman Jah to appoint a commission specially to investigate the action of chloroform and solve, if possible, the important questions which I have just mentioned. As our host has said, there is a peculiar appropriateness in this appointment being made by the Nizam's Government as a great Mohammedan power, for in the middle ages, when the arts and sciences were almost lost in Europe, they still flourished at Bagdad and Cordova, and to the Saracens and Moors we owe the preservation of much medical lore which would otherwise have been lost. Especially did they direct their attention to the great practical point of the treatment of disease and the use of remedies, and in my own studies on the action of medicines I have had occasion to consult the works of Avicenna. Nor has the Nizam in the appointment of this commission followed the tradition of the Mussulmans only in the nature of the subject selected, for in the liberality with which he has carried out the scheme he has rivalled the generosity of Haroun-al-Raschid at Bagdad, and Abdulrahman at Cordova. I may perhaps be permitted to say that, although I have worked in laboratories in London, Edinburgh, Leipsic, Vienna, Berlin, Amsterdam, and Paris, and although no words can express my obligations to the directors of these laboratories for all the benefits I received at their hands, yet in none of them have I found the same facilities for work as at Hyderabad. For here we have all the apparatus required. Whenever anything is asked for it is at once supplied; dogs and monkeys on which to test the action of chloroform are provided in abundance, and of the willingness and ability of our assistants it would be impossible to speak in too high terms. By an improved method of recording our experiments we shall be able to render the records as readily available for examination and criticism by scientific men at the Antipodes as they are here, and a hundred years hence as they are now. As experiments are self-recording, they are also free from any possibility of the result being modified by a bias in the minds of the Commission, and whatever men may say to our conclusions it is impossible for them to challenge our facts. It may be hard in the space of a few weeks to settle a question that has remained without a certain answer for more than forty years, but, nevertheless, we hope that we shall be able to produce an array of facts such as shall carry conviction to the minds of all unprejudiced persons, and which, we trust, will be of such practical utility in helping to prevent suffering and preserve life, as to justify the great liberality of the Nizam's Government and lead other Governments to follow the noble example so generously set by that of the Nizam."

Dr. Lawrie, in a brief speech, explained that the work of the Commission was being carried on with perfect harmony, and with only one object in view—namely, to arrive at the truth.

ANNUAL REPORT OF THE LOCAL GOVERNMENT BOARD.

THE eighteenth annual report of the Local Government Board embodies for the first time an account of local government as reconstituted by the Local Government Act, 1888, and the resulting election of County Councils; and a somewhat lengthened account of the Act, of its results on our system of local government, and on the duties of various officers appointed under or affected by the Act, is included in the volume. Several important financial considerations bearing upon the Act are also considered. The question of pauperism is next dealt with; this question coming in somewhat inconveniently to break the continuity of the story of local government, which has again to be resumed when the question of local administration and public health is taken up as a third topic. There has, fortunately, been a further decrease in the amount of total pauperism; the decrease on that for the preceding year being at the rate of 1·7 per cent. There still remains, however, the uncomfortable fact that there is one pauper to every thirty-five persons in the population of England and Wales; and in the year ending Lady Day, 1889, the number of vagrants was larger than the mean number relieved in any recent year, except 1869, 1880, and 1881. The cost per head for paupers, which was £10 10*s.* 10½*d.* in 1888, somewhat exceeded that for the previous year, although it was less than for a number of previous years. Amongst the improvements affecting metropolitan Poor-law infirmaries, it is stated that changes are either being effected or are in prospect for the Lewisham, Woolwich, Greenwich, Whitechapel, St. Giles, Camberwell, and the St. Mary Abbots, Kensington, Unions. The fever cases admitted into the Metropolitan Asylums Board Hospitals during 1888 were 5152, as against 6537 in 1887; 88 per cent. being scarlet fever cases. The total number of admissions from small-pox were 62, a number small beyond precedent, and this although five years have elapsed since the last epidemic. During the year the Elberfeld system of poor law was investigated for the Board by Mr. J. S. Davy, the essential features of this system being three in number. The investigation of the circumstances of applicants for relief is undertaken by large numbers of unpaid almoners; the service of the almoners is not voluntary but compulsory; and the Poor-law authority consists of a small body selected and controlled by the Town Council, and not elected by the taxpayers. But it is not considered that such a system would work well in this country.

Reverting to local administration, as this term is generally understood, we find that the amount of loans sanctioned for urban and rural sanitary authorities has once more a slight tendency upwards, over two millions and a quarter having been thus taken up during 1888. Of this sum more than two millions were granted to urban authorities. Of the medical officers of health now holding office in the country, there was repayment of a moiety of the salary in the case of 1211 districts; the corresponding number for inspectors of nuisances being 1120; the total number of districts in England and Wales being 1004 urban and 574 rural, or 1578 in all. Among the defaulting sanitary authorities, Cheshunt has often been referred to; but it is now stated that the works of sewerage there have been completed, and that the writ of *mandamus* against the authority has been discharged. In several other instances works of a similar sort are impending with a view to the same result. Oundle in Northamptonshire and Fleetwood are two fresh cases that have recently been inquired into, and it seems clear that remedial action will have to be undertaken. Certain compulsory orders as to the removal of refuse were also issued during the year; and inquiries were held as to the pollution of a number of rivers. Steady progress is being made with the inspection of canal boats, and the indecent herding together of men, unmarried

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women, and children in barge cabins has been much diminished, in some instances marriage settling the difficulty where the case was not complicated by some other condition, such as overcrowding.

Under the Sale of Food and Drugs Act there are now 52 analysts for counties and 184 for boroughs; and during 1888 the analyses, which were 26,344 in number, exceeded those for 1887 by about 1900. In London one sample was taken for every 551 persons; in the provinces there was one for every 1141. But there are great variations as to the amount of work carried out. Thus in Fulham the proportion was one sample to every 289 persons, whereas in Newington it was only one to every 7190. On the whole, substantial good is being effected. Thus in the five years 1878–82 the proportion of articles found to be adulterated was 15·5 per cent.; now it is 10·8. Unfortunately, the amount of fine imposed is insufficient to deal effectually with a traffic so remunerative as is, for example, that of watering milk, and though more care is taken in the fraudulent practice so as to avoid passing the wide variations in richness which milk in its natural state exhibits, yet the practice has by no means been put an end to. The average penalty was 27*s.*; the highest was £15. In one metropolitan district, where a sample of milk had been reported against, and where the chemists of the Inland Revenue Department had confirmed this verdict, the magistrates merely imposed a fine of 1*s.*, with 2*s.* costs. But the vestry, on the other hand, who had instituted the proceedings had to pay their costs, amounting to £3 9*s.* 2*d.*, they being in this way practically submitted to a heavy penalty for performing their duty towards the ratepayers. Another man who sold small quantities of milk-and-water to poor people as a food for their infants was also let off with a fine of 1*s.* Of the articles examined during 1888, the percentages of some of the principal adulterations detected were as follows: spirits, 17·9; lard, 16 8; coffee, 12·0; milk, 11·9; butter, 10·4; mustard, 9·5; pepper, 7 7; and drugs, 7·3. Fortunately, the adulteration of bread and flour grows less and less; and it is also stated that the sale of a mixture of fats as butter has received a decided check by the Margarine Act, 1887.

As to the report of Major-General A. de C. Scott, examiner under the Metropolis Water Act, it is stated that although the circumstances of the year were unfavourable to the filtration operations of the London Water Companies, yet a high standard of purity was maintained. The Kent Company stands alone in deriving all its supply from deep wells, and thus delivers its service unfiltered; indeed, the only drawback attaching to this water is a commercial one, for it is 50 per cent. harder than the rest of the London supplies, and as such it causes a needless waste of materials, such as soap. The number of houses receiving a constant supply increased during the past year by 41,006, and in this way many sources of pollution and a substantial risk to health are avoided.

A number of other matters are referred to in this report, which, as additional duties are cast upon the staff of the Local Government Board, tends to become more and more bulky. Some of these matters relate to the Board's medical administration for health purposes; but, as a separate report is soon expected to emanate from the Medical Officer of the Board on this subject, we postpone further reference to it for the present.

NEW MORTUARY AND POST-MORTEM ROOM AT THE MIDDLESEX HOSPITAL.

THE importance of having attached to every hospital a well-constructed mortuary and post-mortem room is generally recognised, but unfortunately in many instances the accommodation afforded leaves much to be desired. That pathologists and all who have to work in post-mortem rooms, frequently for hours together, should be able to discharge their duties with as little risk to their health as possible is of the first importance, and anyone who has had experience in hospital management will be able to appreciate the influence that a well-appointed mortuary exercises in smoothing over the difficulties that sentiment and prejudice too often place in the way of pathological research. The post-mortem room at the Middlesex has hitherto been in close proximity to the hospital, but the site being required for the erection of a chapel in memory of the late Mr. A. H. Ross an opportunity was afforded the authorities for carrying out a much-needed reform by providing the necessary accommodation detached from the hospital building.

Mr. Keith Young, the architect to the hospital, has designed and constructed a building, a short description of which may be of interest. Externally it is faced with red bricks and yellow terra cotta window mullions and dressings; the architecture is a simple form of classic, with round-headed arches to the doors and windows. The floors and the roof are constructed entirely of iron joists encased in concrete. The basement room is connected with the basement of the hospital by a subway, lined throughout with white glazed bricks, and ventilating into the open air. The floors of this subway, and of the room into which it leads are made of Portland cement and iron slag on a foundation of hard core. Above this room is the mortuary, standing on a level with the garden, and above the mortuary is the post-mortem room, to which access is gained by a separate stone staircase. The internal walls are lined throughout with glazed bricks, with the exception of the mortuary, where cream-coloured glazed tiles with a dark-green skirting are used. The floors of these rooms are marble mosaic. A hydraulic lift passes from the basement to the post-mortem room, and is worked direct from the main with a multiplying cylinder and piston arrangement instead of a ram. Accommodation has been provided in the basement for a destructor, in which it is proposed to destroy all the used dressings, together with anything else that it may be desirable to burn. The post-mortem room is so constructed that all the angles formed by the walls, and the floor and ceiling angles, are rounded so as to admit of being easily washed out. The tables are made of Belgian fossil marble, supported on cast-iron frames specially designed with a view to the avoidance of all angles. The drainage from the tables discharges into channel pipes in the floor, which are covered with open iron gratings. This channel, which leads into a lead pipe, properly trapped below and ventilating above the roof, can be flushed at pleasure by means of two six-gallon flushing cisterns, fixed to the walls. Hot and cold water are laid on to the sink and lavatory basins and over the centre of each table, and for the latter supply two mixing valves are provided by which the water can be regulated to any temperature desired. The ventilation of the mortuary is carried out partly by windows and two Tobin's tubes and partly by an exhaust shaft, which will, when the refuse cremator is erected, be heated by contact with iron plates forming the separation between the smoke flue of the cremator and the exhaust shaft. In the post-mortem room the large side windows and skylights, together with an open fireplace, afford efficient ventilation. Altogether the construction and general arrangement of this building are distinct advances, and will well repay a visit by anyone interested in such matters.

THE METROPOLITAN HOSPITAL SUNDAY FUND.

THE annual general meeting of the constituents of the Hospital Sunday Fund was held in the Egyptian Hall of the Mansion House on the 11th inst., at 3 P.M., and was well attended. The Lord Mayor, as president and treasurer, presided, and amongst those on the platform were the vice-president, Sir Sydney H. Waterlow, Bart., the Rev. Canon Fleming, the Chief Rabbi, Mr. A. L Cohen, Dr. Glover, and numerous other members of the Council. The secretary, Mr. Henry N. Custance, having read the notice convening the meeting, Sir Sydney Waterlow moved that the report of the Council for 1889 be received and approved. He congratulated them upon the growing success of the movement, the total receipts this year being over £1100 in excess of any previous year. He sincerely hoped that the subscriptions would continue to increase, and be worthy of the enormous population of this great metropolis. He was speaking the sentiments of the Council generally when he thanked those who made these collections for the suffering poor. Their thanks were specially due to Mr. Ernest A. Hankey for his noble contribution of £500, and he trusted that others would follow


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that example. They were also specially indebted to the Rev. Prebendary Forrest and to the Rev. Canon Fleming for the large collections made amongst their respective congregations. He referred to the sum of £2000, being 5 per cent. of the total collection, set aside for the purchase of surgical appliances, and went on to show how satisfactorily and beneficially the plan had worked. During the past year complaints had been made as to some of the hospitals, and it had been said that the Distribution Committee, in advising the Council, had not had the courage to refuse a grant when they knew the institution to be undeserving. They did not pretend to criticise the system and policy of every hospital and institution. To do so would be to raise a host of enemies. But when they found a hospital or dispensary carrying on its work in a form which they thought the constituents would not approve, they first lessened the award, and then, if the evils were not remedied, removed the institution from the list altogether. They would find from the report that two institutions had been so removed, while others had been compelled to accept the reduced grant. He thought that the public might accept the decision of the committee in a case where a grant had been refused as an indication that the institution ought not to be supported.—The Rev. E. E. Jenkins seconded the motion. He sincerely wished that the operations and funds of the Society would extend year by year, and that eventually there would be no hospital that would not share in the benefits of the fund.—The Rev. Mr. Hall asked for information regarding the working expenses, which he thought compared unfavourably with previous reports. It seemed to him that £1400 was a large sum to pay for collecting £43,000.—Sir Sidney Waterlow expressed his pleasure at being asked the question, for such questions showed that an interest was being taken in the work, and helped to elicit facts. The increase in the working expenses was accounted for by the fact that they had had to find a new home for themselves, the Mansion House being no longer available. A new office had accordingly been opened in Queen Victoria-street. He could assure Mr. Hall that the work was continuous day by day all the year round. There were at least fifty letters daily to answer, besides shoals of applications for surgical appliances &c. to be dealt with. He could furthermore say that the Fund had never lost a farthing by any robbery or any fault whatever. — The report was unanimously adopted. — Resolutions were then put and carried: 1. "That the laws of the constitution which have been in force during the past year be continued." 2. "That the Council for the year 1889, with the Rev. Henry Douthwaite in place of the Rev. W. G. Pascoe, who has left London, be re-elected for the year 1890, and that Sir James Whitehead, Bart., the late Lord Mayor, be elected to the seat he formerly occupied." 3. "That the 8th day of June be fixed for Hospital Sunday of 1890, and that the cordial co-operation of all ministers of religion within the metropolitan area be again invited in the usual way."

The proceedings concluded with a vote of thanks for presiding to the Lord Mayor, who promised to do all in his power to make Hospital Sunday in 1890 a success.

THE BRITISH NURSES' ASSOCIATION.

THE Princes' Hall and the Galleries of the Institute of Painters in Water Colours, Piccadilly, presented a brilliant spectacle on Friday evening (Dec. 6th), on the occasion of the second annual conversazione of the British Nurses' Association, which has now over 2000 members in active work as nurses throughout the United Kingdom, in addition to many of the leaders of the medical profession, at least half the matrons of English hospitals, and a large number of midwives. We may here recapitulate the objects of the Association, which are twofold—viz., to increase the usefulness of trained nurses to the public and the medical profession, by elevating the general standard of their knowledge and efficiency; and by union to enable these workers to help each other in times of need. The first part of this programme has now been commenced by the formation of a representative Council, to undertake at once the work of registration of trained nurses. The register published annually will enable the public to discover whether any given woman who terms herself a certificated nurse is actually so or not. Hitherto there has been no means of preventing large numbers of untrained women from pretending to act in this capacity, and by their ignorance causing incalculable danger and suffering to the sick. To carry out its second object, the Association hopes shortly to be able to provide nurses with a convalescent home, when they themselves, as frequently happens, are rendered ill by attendance on others; and, in future, with holiday houses at seaside or country resorts, to allow many who could not otherwise afford it, the change of air and scene their arduous work makes essential for them. It also desires to found a benevolent fund to assist nurses when out of employment or in need from other causes.

In the absence of the President of the Association, Princess Christian, who, we regret to say, has been compelled to remain for the present at Wiesbaden, to undergo treatment for an ophthalmic complaint, the guests, who could not have numbered less than 1100, and many of whom came from distant parts of the country to spend an evening with their metropolitan sisters, were received by the Vice-chairmen of the Executive Committee, Sir Dyce Duckworth, Treasurer of the Royal College of Physicians of London, Mr. Pickering Pick (Surgeon to St. George's Hospital), and Miss Thorold (matron of the Middlesex Hospital). A pleasant hour was spent in the galleries inspecting the pictures and in the exchange of greetings between those who had not met since the inaugural conversazione twelve months ago, the attractiveness of the scene being enhanced by the rendering, under the experienced direction of Mr. J. Pougher, of a selection of popular music by the "Bijou" orchestra. The company subsequently assembled in the Princes' Hall, where an excellent ballad concert was given by Mrs. Stanley Stubbs, Mrs. Hancock, Miss E. Nesbit, and Mr. J. Robertson. This was followed by a laughter-provoking musical sketch, kindly given by Mr. Corney Grain, who, to judge by the reception accorded him, is an old favourite of the nurses. The closely packed audience presented a striking and unique *coup d'œil*, the white caps of the nurses resembling nothing so much as a field of snow, relieved, however, by the dresses representative of the different institutions, the sober black gowns of the district nurses standing out in charming contrast to the pink (Great Ormond-street), grey (Victoria Hospital), blue (St. John's House), and other colours and shades too numerous to mention. It was long past midnight before the last farewells were exchanged and the nurses separated, all to meet again, it is to be hoped, and spend a similarly enjoyable evening next year. It is reported that by means of paying tickets, issued to members' friends, the large cost of the gathering has been more than covered—a fact which is most significant of the ability with which the affairs of the young Association are being conducted. Great praise is due to the members of the Executive Committee, especially to Dr. and Mrs. Bedford Fenwick, and to the well-known Secretary, Miss Catherine Jane Wood, to whose combined exertions the complete success of the conversazione was largely due.

HEALTH OF THE IMPERIAL NAVY OF JAPAN.

THE health of the Japanese Navy continues to maintain the favourable condition brought about by the sanitary improvements effected in 1884. The report of Mr. Takaki Kanehiro, the Director-General of the Medical Department, shows the average strength to have been 9148, the cases occurring during the year to have been 3452, the deaths from all causes 65, the numbers invalided 84, and the constantly non-effective from sickness 288·52. These give the proportion of 377 admissions, 7·1 deaths, 9·18 invalided, and 31·54 mean sick per 1000 of strength. The admissions and mean sick are lower, but the deaths and invaliding higher than in the preceding year, but the excess is not greater than might be reasonably expected to occur in limited numbers. Of the deaths, 21 were from violence and accidents, leaving 44 by disease, or only 4·81 per 1000 of strength. Of the violent deaths 12 were by drowning (8 of which occurred from the capsising of a boat in Yokosako Bay), 3 from accidents, and 5 by suicide. Of the deaths by disease, 20 were caused by pulmonary affections, including 10 of phthisis, and 7 by

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fevers, 5 of which were by enteric fever. There were 48 cases of this form of fever under treatment, so that the deaths amounted to nearly 1 in 10, which is a low proportion. It appears to have prevailed chiefly in two ships: the *Takachiho* in Taketayo harbour had 10 cases and 2 deaths, and the *Hiei* had 24 cases, of which 2 died. The *Takachiho* had also 3 cases of cholera with 1 death; the disease did not occur in any other ship. There was an epidemic of mumps, of which 129 cases were admitted on board five ships and in the barracks at Yokosuka and Uraya. The most prevalent diseases were syphilis and gonorrhœa; of the former there were 519 and of the latter 426 cases, together giving a ratio of 103 per 1000 of the strength, or 27 per cent. of the whole admissions. Eye diseases were also prevalent, there having been 178 cases of conjunctivitis, or 19·5 per 1000 of strength. No case of beri-beri occurred during the year, thus showing the continued immunity from it, which resulted from the improved feeding of the men introduced in 1884. This fact deserves the attention of the colonial medical staff at Hong Kong. There have been some unimportant alterations in the dietary during the year, chiefly a slight reduction in the amount of rice, barley, and pickles, and a corresponding increase in bread, vegetables, and milk.

Of 1338 applicants for admission to the navy as seamen, 1034 were rejected, or 773 per 1000. Of these, 539 were rejected for "badness of physical condition," but this term included 363 deficient in stature, and 495 were rejected on account of disease, 206 of these having skin diseases. In the appendix, the table showing the physical condition of the recruits has been reproduced, with additions, for the last two years, but does not include those of 1888. We would also point out that the strength in the table on page 8 does not correspond with that stated in the letter-press, and that the addition of the figures in the first column is incorrect.

IMPROVED FACILITIES FOR INVALID TRAVELLING BY RAIL AND SEA.

THE CLUB TRAIN.

(FROM OUR SPECIAL CORRESPONDENT.)

Improved Facilities for Patients Travelling to the Continent. —The Warming and Ventilation of Saloon Cars.—Special and Reserved Railway Accommodation.

AMONG the many permanent benefits resulting from the Paris Universal Exhibition, the notable improvement in the means of communication between England and France will be especially welcome to the ever-increasing crowd of travellers that yearly pass from one country to the other. Not many years ago the French ports could only be reached in very small steamers that seemed constructed for the purpose of producing the maximum amount of sea-sickness with the smoothest sea and in the shortest possible time. But now on all the three principal routes—the Calais, the Boulogne, and the Dieppe lines—there are fine ocean-going steamers that travel much more rapidly and steadily, and afford better cabin and deck accommodation to passengers. The most notable and most recent improvements have been accomplished on the Calais and Dover line. Here there are steamers that have succeeded in crossing the Channel in sixty-five minutes, with the accompaniment of the newest and most luxurious of all means of travel, the Club Train. Agreeable as this may be to the general public, it is of life-saving importance to the invalid. The principal drawbacks to wintering abroad have always been the fatigue, the exposure, and the hardships of the journey. But this danger and inconvenience have now been notably mitigated. It may safely be said that the great majority of travellers stand in "bodily fear" (to use a police-court term) of sea-sickness. The hale and hearty may face this contingency, and a little sea-sickness may prove a wholesome, though unpleasant, experience; but the weak, and patients suffering from organic disease, cannot brook the wear and fatigue of such drastic treatment. Consequently, the majority of patients, and even of the general public, select the shortest sea route. But the very shortness of the distance augments its terrors, for here the sea is most cramped by the land on either side, and it is precisely in the narrowest part of the Channel that the movement of the waters becomes so irregular and "choppy" as to readily produce sea-sickness. It is not so much the size as the peculiar formation of the waves that upsets even persons who have endured long journeys on the open ocean. Under these circumstances, the construction of larger and swifter vessels becomes a double blessing, for we have less motion and a quicker passage. Formerly, to cross from Dover to Calais it was necessary to travel by night, or to start at an inconveniently early hour in the morning; and in both cases the crossing was effected in a very small ship, which took a good hour and three-quarters to effect the passage. Now there are four trains both ways instead of two. The night passage is effected in the small steamers. The first train, at 8.40 A.M., corresponds with the *Invicta*, a ship which is particularly steady at sea, and can cross the Channel in an hour and twenty minutes. The arrival of this vessel at Calais is timed to meet the largest number of trains proceeding to all parts of Europe. The next departure from London is, however, more convenient, and is patronised by the largest number of passengers. The train starts at 11 A.M., connecting with the three magnificent new steamers, the *Empress*, the *Victoria*, and the *New Calais-Douvres*, which can cross in an hour and five minutes. These same ships serve for the Club Train, and it is only the night train, that leaves London at 8.15, which connects with the old and small boats.

Undoubtedly the invalid, for whom special precautions are necessary, will, if possible, take the Club Train. This will necessitate an extra outlay, over and above the first-class fare, of 16*s.*; or, if the place be booked beforehand, of 18*s.* 6*d.* The Club Train starts both from Charing-cross and Victoria Stations at 3.15 P.M., and consists of luxurious saloon carriages that communicate one with another, enabling the passenger to walk the whole length of the train. A very soft and springy carpet deadens the vibrations, and adds to the warmth and comfort of the saloons. Before the arm-chair seats there are tables, so that reading &c. may more easily be enjoyed. One of the cars is fitted up as a smoking saloon, and there are ladies' and gentlemen's lavatories attached to each car. The central car is divided into small compartments containing two or four places in each. Here the invalid may lie down unobserved by the rest of the passengers, and here also the medical attendant would be more at ease in administering to the wants of his patient. Further, it would be easier to maintain a given temperature in one of these separate compartments than in the general saloon. The heat is supplied by hot water coils fitted round the sides of all the carriages; and in a very small compartment, where the attendant sits, there is a small coke stove for this purpose. It must, however, be acknowledged that in respect of the warming and the corresponding problem of the ventilation of the carriages there is still much room for improvement. The service is quite new and evidently this question has not been taken thoroughly in hand. On questioning several of the attendants, it became quite clear that they had no distinct plan, no definite instructions. At Charing-cross one of the attendants said he kept his carriages warmed up to 70°F., and certainly, though it was freezing at the time, they were very hot. On investigating the matter more fully, I found, however, that the thermometer was suspended in the little compartment where the stove is placed, and there certainly the temperature was at 70°, and might have been much higher; but this did not represent the temperature of the saloons where the passengers sat.

However carefully the train may be warmed before the arrival of the passengers, the opening and shutting of the doors, the delay in handing in parcels and rugs, the eager opening of windows for a last word or a final shake of the hand with some friend on the platform, soon defeat the most careful precautions and entirely alter a previously prepared temperature. Thus, a day later, while it was still freezing, the temperature in the saloon of the Victoria Station Club Train had fallen, when the time of departure arrived, to 45°F. On the platform of the station Steward's thermometer recorded 34°, so that the inside of the train was only eleven degrees warmer than the platform. This is not surprising considering the long time the carriage doors were kept open, particularly as it was by this same train that the Hon. Mrs. Robert Bruce was starting for Monte Carlo when she was seized by a fatal syncope. Of course this catastrophe occasioned some confusion, and as the



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unfortunate lady had to be carried out of the carriage, the doors were probably kept open for a much longer time than usual. From one cause or another it must often happen that the carriages will become exceptionally cold, and this would not so much matter if the fact were known, watched, and corrected immediately. But in the train in question the attendants had no thermometer whatever, and, no complaints being made, were not aware that anything abnormal had occurred. With Immisch's pocket and clinical thermometer, after ascertaining that the temperature in the saloon had fallen to 45°, I proceeded to take the temperature of the smoking saloon, and found it to be 55°. Evidently there had been less cause of disturbance in this part of the train. Had the attendants been on the watch for such variations these defects might have easily been remedied. As it was, in the absence of thermometers and of proper instruction, the temperature of the saloon during the whole of the journey to Dover barely rose to 50°, while that of the smoking saloon never fell below 55°. Every carriage should have at least one thermometer, and these the attendants should watch and never allow to fall below a minimum, which might be varied according to the season of the year. With a little care, by watching both the doors and the thermometer the temperature within the saloon need not have fallen so low even on this freezing day, and might certainly have been promptly raised again to a degree more agreeable to the patients who were travelling in the train.

The matter of ventilation is not so easily arranged. The centre of the carriage roof is slightly raised, forming a sort of elongated lantern. On each side there are small windows that open inwards from the top, so that the air entering is thrown upwards, is broken up against the ceiling, and thence deflected into the carriage. Thus the direct draught is avoided. The objection to this very simple device is that its efficacy is at the mercy of the caprice or the neglect of the attendants and the passengers. The latter are rarely agreed on such points. The one desires to open a great number of ventilators, and glories in a plentiful supply of air; the other is in dread of draughts, and very liable to chills. Apart, then, from such means as are subject to the whims and fancies of the travellers, it would be desirable that fresh air should be automatically and regularly supplied to the carriages. This, of course, is done accidentally, though to an unknown and unreliable extent, by the cracks and chinks of the doors &c., and the possible porosity of some of the material with which the carriages are built. But such fortuitous ventilation is not worthy of this scientific age. Perhaps the little compartment where the stove stands might be utilised as a mixing room, where hot and cold air could be blended previously to admission into the saloon cars. In any case, something yet remains to be done in this direction. By such means travelling will be rendered much more agreeable to all, and much less dangerous to the weak and infirm. Yet these benefits, though of so extended a character, will involve little or no extra expense. More science in the methods employed, and more care and intelligence in their application, are undoubtedly necessary, but this does not necessitate any financial expenditure worth mentioning.

Apart from the saloons, the Club Train has a special compartment where on the return journey to London the luggage which has come from the Continent is examined as the train proceeds. This is a very material advantage. Not only is it a great saving of time, but the risk of sudden exposure to the draughts and changes of temperature between the train, the platform, and the Custom House Offices is avoided, as well as the hurry and worry of the examination. This being done in the train itself, there is plenty of time and no need for any anxiety. The same convenience is provided in the French train which meets the boat as it arrives at Calais. There the luggage is examined during the course of the journey to Paris. At Calais not a moment is lost. The train can be started about five minutes after the boat arrives. The passengers are not as a rule very numerous, so that the luggage is soon transferred from the boat to the train. The passengers have no cause to go into the railway station. There is a restaurant carriage in the train, and a *table d'hôte* dinner is served shortly after the departure from Calais—namely, at 7 P.M. The train reaches Paris at 11.15 P.M., where, the luggage having been examined in the car, the passenger has nothing to do but to drive to his home or hotel, and may hope to be comfortably in bed by midnight. Thus the traveller who has lunched in London, who has been in the Strand at three o'clock, and has crossed the Thames some few minutes later, will find himself, in seven hours and three-quarters, by the banks of the Seine and in full view of the Paris Boulevards.

Both with respect to the Club Train and the other trains, the Chatham and Dover Railway Company are very ready to give whatever assistance is within their power to invalids and others requiring special care. By communicating with the company, compartments can be reserved both on the English and the French side, and the agents of the company are ready to meet passengers at the landing stage and tender every sort of help needed. For instance, I saw a paralysed lady taken from the boat and laid down in a reserved compartment of the French train at Calais without any difficulty whatever. There is at Calais a body of porters called *les rouleurs*, who are admirably organised. They are kept under the strictest discipline by a self-elected captain, and form a very close society. To be admitted into this corporation it is necessary to possess exceptional strength and agility, and also to pay a deposit of £40. All sums of money received must be given over to the common fund. The receipts are divided among the members of the Association, and thus there is no unseemly squabbling or rivalry between the men to obtain the most remunerative jobs. It would be difficult to find anywhere a more reliable and a more steady set of men. With or without the invalid chair they easily carry patients in and out of the trains or the boats, and the fact that the services of such well-organised porters may always be counted upon greatly augments the facilities of the journey. As an illustration of the trouble the company will take to satisfy the desires of travellers, a lady patient wrote some time ago that she wished to proceed from London to the Riviera, but would only venture on the journey if a hammock was provided for her the whole way. Consequently a hammock was slung in a cabin specially fitted up for the purpose. A compartment of the French train had to be altered, and a hammock fixed in it in the same manner. But this was not all. The lady insisted that she would not travel in the train unless her hammock was fixed in the last carriage but one. The French Northern Railway Company has shown itself in all these circumstances most courteous and ready to meet the demands addressed to them by the agents of the Chatham and Dover Company. In this case, therefore, particular care was taken that the hammock and the carriage in which it was placed should occupy precisely the portion of the train desired by the passenger. What is perhaps a still greater strain on the obliging disposition of both the English and French companies is the fact that many intending passengers write and make all manner of arrangements, and then, at the last moment, alter all their plans or postpone their journey. The ordinary French trains that meet the two day boats have a small saloon with four places and a lavatory, which can be secured by paying 4 francs 40 centimes above the first-class fare for each place; and though this does not offer the luxuriousness and roominess of the Club Train, still this little saloon compartment contains what is essential to the proper comfort and care of a patient. In all these circumstances, however, considering that the accommodation must necessarily be limited, and that it is impossible to foresee precisely how many passengers may come by any one train, it is indispensable to write beforehand so as to make sure that the required seats &c. shall be reserved. Of course, in all this I only allude to invalids or delicate persons who cannot safely encounter the little hardships and accidental inconveniences which the young and robust often regard as adding to the charms of travelling. In a subsequent letter I will describe how the facilities of communication between London and the Continent have also been developed by the remarkable improvements of the Port of Calais, and will endeavour to show that the wonderful augmentation of English traffic and the increased number of English residents in that town must make us feel a growing interest in all that relates to its progress and prosperity.

Calais, December, 1889.

THE HEALTH OF CEYLON has not been satisfactory of late, fevers of a malarial type and cholera having prevailed in several parts of the island. One of the most serious outbreaks occurred among the pilgrims to the Roman Catholic shrine at St. Anna's, scaring the pilgrims, who quickly dispersed, carrying the infection with them.

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VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5354 births and 3040 deaths were registered during the week ending Dec. 7th. The annual rate of mortality in these towns, which had been 19·2 and 19·0 per 1000 in the preceding two weeks, further rose last week to 21·5. During the first ten weeks of the current quarter the death-rate in these towns averaged 18·4 per 1000, and was 2·6 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 14·2 in Birkenhead, 16·7 in Brighton, 17·5 in Nottingham, and 18·0 in Leicester. The rates in the other towns ranged upwards to 29·4 in Salford, 29·6 in Hull, 30·4 in Sunderland, 30·7 in Bolton, and 36·7 in Plymouth. The deaths referred to the principal zymotic diseases, which had been 339 and 243 in the preceding two weeks, rose last week to 363; they included 87 from measles, 87 from whooping-cough, 70 from scarlet fever, 67 from diphtheria, 39 from "fever" (principally enteric), and not one from small-pox. These zymotic diseases caused the lowest death-rates during the week in Leicester and Brighton; and the highest rates in Salford, Bolton, and Plymouth. The greatest mortality from measles occurred in Wolverhampton, Nottingham, Sunderland, and Norwich; from whooping-cough in Wolverhampton, Hull, and Bolton; from scarlet fever in Blackburn and Plymouth; and from "fever" in Preston, Birkenhead, and Halifax. The 67 deaths from diphtheria in the twenty-eight towns included 47 in London, 3 in Salford, 2 in Liverpool, 2 in Preston, 2 in Sheffield, and 2 of Newcastle-upon-Tyne. Small-pox caused no death in any of the twenty-eight great towns. Only one small-pox patient was under treatment in the Fever Hospitals of the Metropolitan Asylum Hospitals, and one in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and London Fever Hospitals at the end of the week was 1663, against numbers increasing in the preceding twenty-three weeks from 509 to 1650; 154 cases were admitted to these hospitals during the week, against 152 and 182 in the preceding two weeks. The deaths referred to diseases of the respiratory organs, which had increased in the previous six weeks from 261 to 345, further rose last week to 432, but were 33 below the corrected average. The cause of 23, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Sunderland, Portsmouth, and in five other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Norwich, Bristol, and Preston.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the preceding four weeks from 19·8 to 21·0 per 1000, further rose to 23·9 in the week ending Dec. 7th; this rate exceeded by 2·4 the rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 18·0 and 19·7 in Aberdeen and Dundee, to 26·5 in Leith and 26·6 in Paisley. The 612 deaths in the eight towns showed a further increase of 76 upon the numbers returned in recent weeks, and included 30 which were referred to whooping-cough, 13 to scarlet fever, 11 to measles, 4 to diphtheria, 4 to "fever" (typhus, enteric, or ill-defined), and not one to small-pox; in all, 67 deaths resulted from these principal zymotic diseases, against 53 and 81 in the preceding two weeks. These 67 deaths were equal to an annual rate of 2·6 per 1000, which exceeded by 0·6 the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 7 and 21 in the preceding two weeks, were last week 30, of which 9 occurred in Glasgow, 8 in Edinburgh, and 2 in Greenock. The 13 deaths from scarlet fever corresponding with the number in the previous week, and included 8 in Leith and 3 in Glasgow. The 11 fatal cases of measles showed a decline of 7 from the number in the previous week; 7 were returned in Edinburgh and 3 in Glasgow. The 10 deaths attributed to diarrhœa showed a further decline from recent weekly numbers. The 9 deaths from diphtheria corresponded with the number in the previous week, and included 3 in Glasgow, 2 in Greenock, and 2 in Paisley. Of the 4 deaths referred to "fever" 2 occurred in Greenock. The deaths from acute diseases of the respiratory organs in the eight towns, which had been 149, 135, and 121 in the preceding three weeks, rose last week to 166, and exceeded the number in the corresponding week of last year by 46. The causes of 80, or more than 13 per cent., of the deaths registered in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 24·2 and 28·7 per 1000 in the preceding two weeks, declined again to 27·6 in the week ending Dec. 7th. During the first ten weeks of the current quarter the death-rate in the city averaged 25·8 per 1000, the mean rate during the same period in 76 large English towns was 19·2, and in Edinburgh 20·1. The 188 deaths in Dublin showed a decline of 6 from the number in the previous week; they included 12 which were referred to "fever" (typhus, enteric, or ill-defined), 3 to whooping-cough, 2 to diarrhœa, 2 to measles, 1 to diphtheria, and not one either to small-pox or scarlet fever. Thus the deaths from these principal zymotic diseases, which had been 14, 9, and 26 in the previous three weeks, was last week 21; they were equal to an annual rate of 3·1 per 1000, the rate from the same diseases being 2·2 in London and 3·7 in Edinburgh. The deaths referred to "fever," which had been 6 and 11 in the previous two weeks, further rose last week to 12; whereas the fatal cases of whooping-cough, diarrhœa, and measles showed a decline from the numbers in the previous week. The deaths of infants showed a considerable increase, while those of elderly persons were fewer by 5 than the number in the previous week. Five inquest cases and 3 deaths from violence were registered; and 57, or more than a quarter, of the deaths occurred in public institutions. The causes of 30, or 16 per cent., of the deaths in the city were not certified.

THE SERVICES.

ARMY MEDICAL RESERVE OF OFFICERS.—Surgeon-Major Alexander Ramey Leith Napier, M.D., resigns his commission (dated Dec. 11th, 1889); Acting Surgeon John Joseph Ardaven Vincent Constantine Bayly, 1st City of London Artillery Volunteers, to be Surgeon, ranking as Captain (dated Dec. 11th, 1889).

INDIA OFFICE.—The Queen has approved of the following promotions made by the Governments in India:—Bengal Medical Establishment: Surgeon-Major George Thomson to be Deputy Surgeon General (dated Oct. 1st, 1889); Surgeons Hugh Thomson, Hem Chunder Chatterjee, and Ezekiel Salisbury Brander, Pakir Chundra Chatterjee, and George Augustus Evanson to be Surgeons-Major (all dated Oct. 1st, 1889).—Madras Medical Establishment: Surgeon Charles Henry Bennett, M.D., Surgeon William Henry Thornhill, M.D., and Surgeon Manockjee Eduljee Reporter to be Surgeons-Major (all dated Oct. 1st, 1889).—Bombay Medical Establishment: Surgeons Robert Manser, Henry Adey, Alfred William Frederick Street, D.S.O., Henry Prue Jervis, David Charles Davidson, James Charles Harding Peacock, Kaikhosro Sorabji Nariman, and Arthur Francis Sargent to be Surgeons-Major (all dated Oct. 1st, 1889).

YEOMANRY CAVALRY.—Hampshire (Carabineers): Geo. Fuller Ambridge England, M.B., to be Acting Surgeon (dated Dec. 7th, 1889).

ADMIRALTY.—The following appointments have been made:—Alexander Turnbull, M.D., Deputy Inspector of Hospitals, to Plymouth Hospital, and Henry F. Norbury, M.D., C.B., Deputy Inspector of Hospitals, to the Medical Department of the Admiralty (both dated Jan. 1st, 1890); Staff Surgeon James L. Sweetnam, M.D., to Nankin (dated Dec. 19th, 1889); Fleet Surgeon Robt. Hay to Haslar Hospital, temporarily (dated Dec. 21st, 1889); Fleet Surgeon Thomas Bolster to the *Camperdown*, Staff Surgeon Albert C. Queely to the *Esplendor*, Surgeon John Neil Tomkins to the *Camperdown* (all dated Dec. 19th, 1889); and Mr. Duncan Gunter Macdonald to be Surgeon and Agent at Holbeugh (dated Dec. 6th, 1889).

VOLUNTEER CORPS.—*Artillery*: 1st London (City of London): Acting Surgeon J. J. A. V. C. Bayo to be Surgeon



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(dated Dec. 7th, 1889).—*Royal Engineers* (Fortress and Railway Forces): 2nd Lanarkshire (the St. Helen's): Surgeon E. F. Hall, M.D., to be Surgeon-Major, ranking as Major (dated Dec. 7th, 1889).—*Rifle:* 7th (Clackmannan and Kinross) Volunteer Battalion, Princess Louise's (Argyll and Sutherland Highlanders): Thomas Milne, M.D., to be Acting Surgeon (dated Dec. 7th, 1889).

NURSING SISTERS IN THE ARMY.—A Royal Warrant has been issued by the Secretary for War directing that in future candidates must be over twenty-five and under thirty-five years of age, and have had at least three years' preliminary training and service in a civil hospital. They are not to continue in the service after reaching the age of sixty.

Correspondence.

"Audi alteram partem."

COLOUR TESTS FOR RAILWAY SERVANTS.

To the Editors of THE LANCET.

SIRS,—As it appears that this subject has recently caused and is still causing some discussion both in the lay and medical press, and that none of the tests hitherto proposed seem to satisfy all parties, I should feel obliged if you would kindly allow me to describe a simple piece of apparatus which I constructed some time ago, and with which I have tested several drivers and guards. The point to be ascertained really is, "Can drivers and guards readily distinguish red and green lights under varying conditions of the atmosphere at distances ranging roughly from fifty yards to a mile"? That a man can recognise a mass of red or a mass of green placed close to him goes for little. The area of illumination of a lamp, as it appears to us, is inversely proportionate to the square of its distance from us; and therefore by placing immediately in front of a coloured lamp fixed, say, six yards from us a screen perforated with different-sized apertures, we can mathematically reproduce the effect of a lamp of a given size at different distances; and this is the principle on which my test is based. A man examined by this method is placed under (practically) exactly the same conditions as if he were taken out on to the line and asked to look at different signal lights—some near, some far off, and some in groups. It should be borne in mind that heavy smokers—and I think I am not wrong in assuming that engine-drivers consume a good deal of tobacco—sometimes become the subjects of a central scotoma, with a corresponding amount of colour-blindness; so that central coloured rays (such as those emanating from a six-inch lamp at 800 yards), which would be focused at a point corresponding to the affected region of the fundus, would not be recognised, though the rays from the same lamp held only a few yards off would be judged quite correctly, as they would then impinge on more *peripheral* portions of the retina. My instrument consists essentially of a lamp contained in a light-tight lantern, having in it a circular aperture one inch in diameter. About two inches in front of this aperture is a metal screen six inches square, also pierced with a corresponding hole of the same size as that in the lantern. Between the screen and the lantern (and attached to the former) is a brass carrier holding a red and a green glass, and so arranged that either may at will be placed in the field by a slight movement of the finger of the operator. In front of the screen is a metal disc, with a number of holes of different sizes bored through it, and disposed at equal distances near its margin. On rotating the disc the holes are brought one after another opposite the illuminated area, and act like "stops" in a photographic lens. The result of this is to limit the "coloured light" seen by the examinee to the size of the apertures in the disc, and to represent to his eye a lamp of a given size at successively increasing or decreasing distances. The red and green glasses are changed about each time at the operator's pleasure. One segment of the disc is devoted to another phase of the test, and is perforated with groups of holes in various relations to each other. These are supposed to represent tail lights of distant trains. The examinee must be able to see not only their colour, but also their number and positions. Finally, a second disc is placed in front of the first, and is fitted with a series of neutral tint glasses of different intensities, to present the appearance of various degrees of fog. The whole apparatus stands in a dark room on a level with, and at a distance of six yards from, the examinee's eyes, which are each tested separately. I think if Mr. Stretton were to see my arrangement he would be satisfied that the test is a fair one.

I shall be happy to allow any gentleman interested in the subject an opportunity of inspecting the test if he will communicate with me. Meanwhile I shall be glad to receive any expression of opinion on the method I have so imperfectly described.

I am, Sirs, yours obediently,

Seymour-street, W., Dec. 10th, 1889. A. ST. CLAIR BUXTON.

To the Editors of THE LANCET.

SIRS,—I admit the advantage which would be gained by using lamps with coloured glasses in testing colour vision, but these are obviously not readily used in a consulting-room. If the railway companies were willing to appoint someone on purpose to test the vision of their *employés*, lamps, railway signals, high and low lights in various combinations and distances might be used. Until this or some similar method is adopted I am not without hope that my instrument, simple though it be, may prove of use to the railway surgeon as a practical test for colour-blindness in railway *employés*. From men working practically on railways I learn that the distance the lights can be distinguished so as to recognise what train is advancing or receding, and whether it is a mail, a slow, or goods train, varies from over a mile to twenty or thirty yards. These facts alone are, I think, sufficient to show that any system which involves the use of railway lamps as a test for colour vision, to be of real service for these varying distances for different combinations of lights, would absorb almost all the time of a person experienced in testing for errors in refraction, colour vision, or visual acuity.

I am, Sirs, yours faithfully,

Carlisle, Dec. 9th, 1889. H. A. LEDIARD.

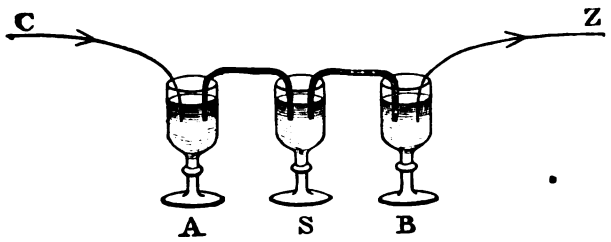
THE TREATMENT OF CANCER BY ELECTRICITY.

To the Editors of THE LANCET.

SIRS,—Dr. Steavenson appears, from his letter in your issue of Dec. 7th, to have misunderstood my paper. He has, I have no doubt unintentionally, misrepresented my deductions drawn from experimental evidence. He states in his letter that "the experiments brought forward by Dr. Parsons to prove that no change takes place between the poles, &c." Now, I have never said that *no change* takes place. I will quote my words as they were printed: "All these experiments demonstrated in a conclusive way that the passage of a constant current does not cause any *decomposition* between the poles, although there must of necessity be an exchange of atoms between the molecules." I actually state that there is a change in the interpolar region, but no decomposition. Dr. Steavenson's views appear to me to be fallacious, and his own experiments help to prove my deductions and to refute his own theories. I will endeavour to make this clear. When a constant current is passed through any given portion of the body, acids are found to appear at the positive pole and bases at the negative pole, and they are found at the poles only, and not in the space between them. Water furnishes the simplest example of this decomposition of molecules, when hydrogen appears at the negative and oxygen at the positive poles. Is this *decomposition* confined to the area in contact with the poles, or does it take place throughout the area between them? It was this very important question, from a practical point of view, that I tried to elucidate by experiment. To put it in a practical form: Supposing a tumour is buried in the liver, and one pole from a battery is placed on the right hypochondrium, while the other is placed in such a position on the back that the current between them passes through the liver. We find acids and bases at their respective poles on the skin resulting from the decomposition of molecules. Are these acids and bases derived from the tissues in contact with the poles only, or do the whole of the deeper parts traversed by the current participate in the decomposition? I devised the following experiment to try to ascertain what happened, using the same diagram. The three cups, A, S, B, were filled with a standard

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solution of iodide of potash, and connected together by a stout lamp-wick saturated in the solution. The two platinum electrodes from a battery were then brought, one into each of the end glasses, A and B. The experiment arranged in this way presents in one respect a similarity to the application of the current to the body. Because there are only two poles, and the acids and bases appear in their neighbourhood only in the two end glasses, the centre glass, S, contains no pole, and it can therefore be used to represent the deeper parts of the body away from the poles, and called the interpolar region. After passing a constant



current for some time, I found that the iodide of potash in the end glasses, A and B, was decomposed into iodine and potash, while in the centre glass no decomposition had taken place. It still contained as much iodide of potash as before. Dr. Steavenson does not say whether he has tried this experiment in the same way, or whether he obtained a similar result. But he alters the experiment and connects the glasses with copper wires, and of course a different result follows. If copper wires be used to connect the glasses, there are two poles in each glass instead of one pole in each of the end glasses. The centre glass, instead of containing no pole, actually contains two. It therefore ceases to represent the interpolar region. The experiment thus carried out by Dr. Steavenson is utterly useless for elucidating the point under discussion. His third experiment, as well as his second, prove in a remarkable way my contention that "there is no decomposition between the poles, although there must of necessity be an exchange of atoms between the molecules." To take his third experiment as the best example, he places dilute sulphuric acid in the centre glass, S, and a solution of chloride of barium in the two end glasses, A and B. Now what happens after the passage of the current? The dilute sulphuric acid, instead of decomposing, exchanges its atoms of hydrogen for atoms of barium, and forms sulphate of barium, which remains in the centre glass undecomposed. This proves the two very points that I contend for, that there is an exchange of atoms by the molecules, but no decomposition in the interpolar region. My clinical experience, when ether is given, is quite the reverse of Dr. Steavenson's theory that electrical shocks cause inhibition of the heart. I passed 600 milliampères across the pneumogastric in the neck in a case of Dr. Burton's, and the circulation, if anything, improved. By comparing the action of the constant current on cancer with that by the interrupted voltaic current, I find that the former produces a destruction of tissues, both healthy and morbid, close to the poles, while the cells in the interpolar region retain their vitality; that the interrupted voltaic current apparently causes atrophy of the morbid cells from pole to pole in the path of the current, if the details of the application are efficiently carried out.

I am, Sirs, yours faithfully,

Collingham-place, S.W., Dec. 9th, 1889. J. INGLIS PARSONS.

THE MORTON LECTURE ON CANCER.

To the Editors of THE LANCET.

SIRS,—In reference to the letter of Mr. Marshall in your issue of Saturday last, and also to that of Dr. Inglis Parsons of the preceding week, may I be permitted to call attention to a short paper of mine on the intimate nature of Cancer, which I published in THE LANCET of 1863, vol. ii., page 713, in which I expressed views on this point almost identical with those which these two able writers have so recently done, and which views were further commented on by me in 1868.[1] I am sure we have all read Mr. Marshall's closely reasoned lecture with the deepest interest, and also gladly welcome Dr. Parsons' suggestions; and further feel of how little real consequence it is who may have first taken a particular view of the subject so long as it is true, whilst I am quite aware that some other author or authors may have preceded myself in the thoughts I have there expressed. But whilst I feel sure that we all care little except for the true elucidation of this dire disease, yet as a question of precedence has been raised, it seems to be but justice to myself to point to the above paper of mine published so long ago as 1863. I am, Sirs, yours faithfully,

Norwich, Dec. 9th, 1889. PETER EADE, M.D., &c.

[1] THE LANCET, vol. i., page 603.

COMPULSORY VACCINATION.

To the Editors of THE LANCET.

SIRS,—You have now been good enough to honour me with a third paragraph in your journal under the above heading. In the first you were misled into attributing to me what I did not say. In the second you withdrew that error, and promised to comment on what I did say. In the third you do so comment, promising that your readers will be thus enabled "to judge of the accuracy" of my assertions. Your comment on my assertion, that in the Perth Infirmary in 1887 there were eight revaccinated cases of small-pox with two deaths, consists of a counter-assertion by Dr. Graham that of the eight cases information as to the revaccination was wanting in five, and that in two more the revaccination had only immediately preceded the attack; and that the two deaths were taken from these seven cases. I can only reply that this account of events now two years old differs materially from that given at the time by Mr. P. Campbell, one of the directors of the Perth Infirmary. The following extract from a letter of his, dated Perth, Nov. 15th, 1887, now lying before me, was the authority for my statement:—

"As you are desirous of knowing about the patients who had small-pox in the Perth Infirmary, I made inquiries of the house surgeon this morning. Of the eight patients, six recovered and two died; all had been at least twice vaccinated, and some of them three times. The two who died had been twice vaccinated, but the one was far gone with heart disease and the other had a complication of troubles as well as small-pox."

Your readers, whilst judging of my accuracy, will not fail to judge of the discrepancy of these two accounts. Clearly, on Nov. 15th, 1887, the house surgeon had no doubt as to the revaccination of all his eight cases. And the complications then alleged by the house surgeon as explanation of the two deaths are unknown now, or at least unmentioned, by Dr. Graham. I might therefore follow your example, and call on your readers to judge of the accuracy of Dr. Graham. But I prefer to avoid a phrase which might seem to reflect on the truthfulness of a gentleman quite unknown to me. Evidence, indisputable and undisputed, of the failure of revaccination to protect from small-pox lies so ready to my hand that I have no need and no desire to specially defend any particular disputed case. My object in asking the insertion of this letter is simply to defend my own "accuracy," and to show that I did not make the statement in question without good and sound authority.

I am, Sirs, yours obediently,

ALFRED MILNES, M.A., F.S.S.

Goldhurst-terrace, N.W., Dec. 8th, 1889.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Appointment of a Lecturer on Diseases of Children at Liverpool University College.

DR. PETER DAVIDSON has been elected Lecturer on Diseases of Children at the Medical Faculty, University College, Liverpool. He has had considerable practical experience in the department of medicine on which he will lecture, having been for some years past honorary physician to the Infirmary for Children, honorary medical officer to the Bluecoat Hospital, and medical officer to the Industrial Schools, Liverpool.

Cases of Longevity.

Some weeks ago there appeared in THE LANCET notes of extraordinary longevity in a man who resided in

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Liverpool, and had long passed his hundredth year. Two more instances of extreme old age in local residents have now to be recorded. The first is that of a female who died recently in a Home for the Aged, which she entered on attaining her 100th year, reaching at her death the advanced age of 108. The case appears to be well authenticated, the deceased having been born in 1781. Though a native of Ireland, she had lived in Liverpool many years, and her son, who is still employed here, is seventy-eight years of age. She was seventeen years old at the time of the Irish Rebellion. The second case is that of the Rev. John Jones, or, as he was most generally called, Archdeacon Jones, though he resigned that office some years ago. He was born in London on Oct. 6th, 1791, had completed his ninety-eighth year, and at the time of his death, on the 5th inst., was, it may be assumed, the oldest clergyman in the Church of England. His father was of Welsh descent, and a captain in the army. The deceased took his B.A. degree in January, 1815, in which year (seventy-four years ago) he became deacon, "minister designate," of St. Thomas's, Seaforth, near Liverpool, priest and first incumbent of St. Andrew's, Liverpool. Here he remained thirty-five years, having considerable reputation as an eloquent preacher and earnest worker. It is a curious coincidence that in the same year (1815) which was so eventful to him the watering-place of Waterloo was formed, being so named after the famous battle of that year. It subsequently became a large and important township, and here Mr. Jones came as incumbent of its then only church in 1850. He continued the duties of archdeacon, to which office he was appointed a few years later, till 1886, and was able to take some slight part in the service even more recently. He retained most of his faculties up to within a very few years, and his memory remained unimpaired almost up to the last, till which time he was conscious. As an example of his strength and vigour, it may be mentioned that six years ago he fractured his thigh, but made an excellent recovery, though with a false joint.

The proposed Criminal Appeal Court.

The assizes commenced on the 6th inst., and in his charge to the grand jury Justice Grantham alluded to the wish which had been so frequently expressed for a Court of Criminal Appeal, indicating, without naming, the Maybrick case as the one which had led to its demand. He pointed out that the *modus operandi* in civil and criminal cases was totally dissimilar, that adopted in criminal cases being all along fair and open towards the accused, from the moment of arrest by a police officer until the final determination of the case by the jury; in fact, that the wish appeared to be to get the prisoner off. He contended that the present system worked well, that the Home Secretary possessed powers which a Court of Criminal Appeal would not have, and that the effect of such a court would be to render common juries as careless and indifferent as they are now careful and painstaking.

Paraffin Lamp Fatality.

A woman died at Birkenhead last week, another victim to paraffin lamps. Notwithstanding the many warnings which have been given as to the dangers of such a practice, she attempted to put out a lamp by blowing down its chimney. A loud explosion followed, and the unfortunate woman died within a few days from the injuries received.

Liverpool, Dec. 10th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Assizes.

THE assize recently concluded here was a very heavy one. Amongst the cases tried were two in which members of the profession figured as prosecutors. A discharged attendant at the Prestwich Asylum was charged with violently assaulting Mr. Ley, the medical superintendent, the only grounds for this being that he had been discharged by Mr. Ley for misconduct. The judge characterised it as "a cowardly attack on an unsuspecting man," and sentenced the prisoner to nine months' imprisonment. The second case was illustrative of one of the perils and annoyances that beset the medical practitioner in his daily work. Jane Boston, a young woman, was indicted "for having written and published a false, scandalous, and defamatory libel" upon Mr. T. H. Pinder, surgeon, practising in one of the suburbs of this city. Mr. Pinder is well known in Manchester, as a man of high character and standing, holding honorary appointments at various of our charities. The prisoner had received the greatest kindness at his hands, and not only had he treated her for some time gratuitously, but had actually assisted her pecuniarily when she was in much distress from continued ill health. It was not in the least suggested that any improper relations had existed between them. The prisoner had got some delusion into her head at a time when she was under the influence of morphia, and she had written and circulated most damaging statements about Mr. Pinder. Counsel for the prisoner admitted that there was no real defence to the charge, except the fact that the woman's mental condition was such as to render her scarcely responsible for what she did. His lordship said that the prisoner "had made the gravest imputations on the character of Mr. Pinder. It was now made clear in the sight of all men that these were absolutely false. The language used appeared to be that of a person scarcely in her right senses. A stop must be put to such annoyance. Owing to her condition he would pass the lenient sentence of one month's imprisonment."

Hospital Sunday Fund.

At the annual meeting of the Hospital Saturday and Sunday Funds several interesting statements were made. The two collections this year yielded a total sum of £8210, being nearly £200 more than in the preceding year, this increase being chiefly due to a larger amount received from the Saturday collections, the workshops &c. where weekly contributions are raised steadily increasing in number. The committee complain of the small amount received from the surrounding towns, notwithstanding a large proportion of hospital patients come from these same districts, and they suggest that more stringency should be exercised in admitting and treating patients from towns which do not contribute. An unusual feature in the report was that one hospital (the Barnes House of Recovery) had voluntarily asked the committee not to give it any grant at present, as its income was so large they "did not want the help of this fund." Since Hospital Sunday was first inaugurated a sum of £146,438 has been raised thereby.

Owens College.

Old "Owens men" will hear with regret that Professor Greenwood, the principal, has, owing to declining health, been compelled to resign his office. For more than thirty years he has been one of the chief guiding and directing powers of the College through good report and evil report in its early struggles and during its later magnificently successful career. Dr. Greenwood has proved himself a capable and wise adviser and administrator. His place will not easily be filled. He retires with the respect and grateful good wishes of all old students of the College for a future of well-earned repose from work, the results of which must afford to Dr. Greenwood himself almost unalloyed satisfaction.—On Saturday evening next the College Union give their annual *soirée*, and unusual efforts are being made to render the meeting an enjoyable and interesting one; among other novelties it is rumoured that for the first time on record a dramatic representation is to be given within the College walls.

Health Matters in Salford.

Some stir has lately been made about the manner in which the Salford corporation treat their sewage at the sewage works. Salford, like many other large towns, finds that, after spending large sums of money, the so-called "chemical treatment" of sewage leaves much to be desired. Following the lead of Manchester, an attempt is to be made (not before it is wanted) to deal with some of the insanitary dwellings of the poor which exist in some of the slums of the borough. After much and prolonged delay, steps are now being taken in earnest to proceed with the erection of the new Fever Hospital. The old one in Cross-lane is still very full, owing to the continued prevalence of diphtheria and scarlet fever; the latter disease shows but little sign of abatement either in Manchester or Salford, more than 260 cases having occurred during the past month. The Fever Hospital at Monsall also is quite full, the last return showing nearly 300 patients in the wards, and since June 24th of this year there have been more than 1200 admissions into this hospital alone.

Dec. 11th.

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NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle.

AT the Royal Infirmary a resolution has been carried which can do the institution no good, while its propriety is very questionable. It is "that a monthly statement be placed on the table of the quantity of intoxicating liquor ordered, and by whom." Some time ago exception was taken to the quantity of soda water used, and aerated waters in general were objected to. I suppose some of the governors will not rest satisfied until "Whittle Dene" (as the pipe water is called in this district) is duly tabulated "how much" and "by whom." At a time when the governors are crying aloud for pecuniary support, this "cheeseparing" policy is scarcely to be commended, while I know it is offensive to some of the medical staff. If the patients get to think that anything ordered for their benefit by their medical attendant is given with a bad grace, it is certain to react in a way detrimental to the institution. — The Northumberland and Durham Miners' Permanent Relief Fund is probably one of the largest benefit societies in existence, and seems to be managed with much prudence. It was stated on the opening of their new premises in Newcastle on Saturday last that the membership now was just 100,000. They had distributed to widows and children £234,000, for permanent disablement £116,000, for minor accidents £117,000, and to aged miners for superannuation relief £213,000. Very large figures these, but there are still larger—viz., the total income since the beginning of the Society has been little short of £1,000,000. The management expenses were shown to be below 10 per cent. on the income of the Society—viz., £90,000 per annum.

"Pasteur's Life and Work."

This is the title of the last University free Saturday night lecture, and was delivered last Saturday in Newcastle to a large and appreciative audience by Mr. W. H. Hodgson, B.A. Mr. Hodgson's matter and delivery were excellent, and he did justice to the great French physiologist as a man of unrivalled ability, and one exhibiting the utmost devotion to science.

Newcastle-on-Tyne, Dec. 11th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

EDINBURGH.

Edinburgh University Court.

AT the meeting of the University Court held on Monday the following matters of interest were discussed and arranged. Consideration of the proposed alterations by the Aberdeen University Court on Ordinance No. 16, as to the arrangement of the professional examinations for graduation in medicine at Aberdeen University, was resumed; and the reply of the Aberdeen Court to the observations of the Glasgow and Edinburgh Courts and the remarks of the Glasgow Court and a minute of Senatus relative to the reply was considered. The minute of Senatus was in favour of the proposed alteration. The Court remained of opinion that some of the proposals required further experience at the University of Edinburgh, in which they had been carried out, before it would be prudent to carry them further, and that the appointment of an Executive Universities Commission made it inopportune to proceed with the proposed alterations before Her Majesty in Council under the Act of 1858. The usual arrangements made for the appointment of additional examiners in Natural History and Clinical Surgery at the meeting on Monday, Jan. 20th, 1890, were approved of. The appointment of Dr. John Playfair to be one of the lecturers on the Diseases of Children, in succession to Dr. Underhill, whose term of office had expired, was endorsed. On consideration of a minute of Senatus, the Court approved of the continuance of the salaries of the secretaries and of the deans of faculties for the current session.

Edinburgh Health Lectures.

On Saturday evening Dr. Noel Paton delivered the fifth of the series of lectures to the Health Society on "Vegetarianism and the Use of Vegetables in Diet." He pointed out the manner in which the waste of the body is repaired, and then went pretty fully into the consideration of what kinds of foods were necessary to replace the waste and to produce the necessary energy. A comparison of animal and vegetable food stuffs, with their relative proportions of proteids, fats, and starches, was given; and then Dr. Paton, summing up, said that vegetarianism was possible to those who had a good set of teeth, a sound digestion, plenty of out-door exercise, and a knowledge of dietetics. Hence, vegetable diet was more to be recommended to the outdoor labourer than to the dweller in towns. Pulses were the best forms to use, and these, along with butter, lard, or vegetable oils, formed an excellent diet. The object to be kept in view should be to combine the vegetables so as to give the necessary food ingredients in their proper proportions. In closing, Dr. Paton said that, while he was no champion of exclusively vegetable diets, he could not but feel that, among the poorer classes especially, the use of vegetables in diet was sadly ignored. Money was needlessly squandered on flesh food, from the idea that it was strength-giving, while many of the cheaper vegetable foods were of equal value with the more expensive animal food stuffs.

Edinburgh Medical Missionary Society.

At the annual meeting of this Society, Professor A. R. Simpson presiding, a most interesting account of the work of the past year was presented. Much valuable work has been done at the Livingstone Memorial Training Institution and Dispensary. Patients had been visited at their own homes, midwifery and other cases had been attended, and no fewer than 10,089 patients had been seen. Since 1880 forty-four students had left the institution for the foreign mission fields. Six young men were received as students last year, making in all twenty-eight in connexion with the Society at the present time. Eleven men finish their studies during the year, and will be prepared to go forth as fully qualified medical missionaries. Owing to the growing success of the work there is need of more room and more money, both of which, the managers hope, will soon be forthcoming.

Royal College of Physicians of Edinburgh.

At the annual meeting of the College, held on the 5th inst., the following office-bearers were elected for the ensuing year:—President: Dr. Thomas Grainger Stewart. Vice-President: Dr. Robert Peel Ritchie. Council: Drs. G. W. Balfour, R. Peel Ritchie, D. J. Brakenridge, Batty Tuke, James O. Affleck, John Sibbald. Treasurer: Dr. Peter A. Young. Secretary: Dr. George Alexander Gibson. Librarian: Dr. George W. Balfour. Curator of Museum: Dr. Thomas A. G. Balfour. Curator of Laboratory of Research: Dr. John Batty Tuke. Registrar of Applicants for the Licence: Dr. George A. Gibson. Superintendent of Laboratory: Dr. German Sims Woodhead. Representative of the College in the General Medical Council: Dr. John Batty Tuke.

Edinburgh, Dec. 10th.

GLASGOW.

Election of University Assessors.

Under the Universities (Scotland) Act the General Council of each University, which is understood to represent specially the views and feelings of the graduates, is entitled to send three representatives to the University Court as recently reconstituted. In the case of Edinburgh this has been done without the trouble and expense of a contest; but in Glasgow it is otherwise, six candidates being before the electors. The result of this election will determine to a considerable extent the amount and the kind of reform which may be looked for in the University for a considerable time, as the Court has, at first at any rate, very important duties to perform; the interest taken in the contest therefore is keen, and the voting will be close. Two sets of candidates for the three seats have been proposed. By the organisation known as the University Club the claims of Dr. H. C. Cameron, Sir J. N. Cuthbertson, and Mr. David Hannay are being pressed on the attention of the constituency; while by the University Council Association the candidates favoured are Mr. M'Vary Campbell, Sheriff Guthrie, and Dr. D. C. M'Vail. The Club advocates university reform of a measured and well-considered kind, more especially reform within, and upon the lines of the existing university

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organisation, and its candidates are pledged, though in a somewhat indefinite way, to support proposals for such changes. On the other hand, the Council Association, while it also advocates reform, does so "with a difference;" its views are more thorough-going, and its proposals more drastic, including such reforms as a fuller occupation of extra-mural teaching by affiliation of colleges and otherwise, the widening of the basis of the Arts curriculum and examination, the exclusion of teachers from any considerable share in the examination of their own students &c., and its candidates are distinctly pledged on these points. The show of hands at the meeting of Council called to elect the three assessors resulted as follows: the numbers were—for Dr. Cameron, 128; Sir J. N. Cuthbertson, 122; Mr. D. Hannay, 120; Sheriff Guthrie, 81; M'V. Campbell, 78; Dr. M'Vail, 66. Of course these figures give only a very rough indication of the probable result of the poll next week, as the meeting was comparatively a small one, while the constituency is large and widely scattered. Probably a majority of voters will refuse to be influenced entirely either by Club or by Association views, and will not vote for the candidates in sets, but will select from among the six those whom they think most worthy of honour. The Club was first in the field, and has in the main strong candidates; if it succeeds in carrying them, the senatorial party will have a powerful, perhaps even a preponderating voice in the decision of the Court. Negotiations, characterised by much astuteness on both sides, for a compromise and the avoidance of a contest, were engaged in between the two nominating bodies, but they came to nothing—fortunately perhaps, as the Council as a whole will now have an opportunity of giving its voice decisively on one side or the other on the reform question. The assessors appointed to the new University Court by the Senate of the University are Sheriff Berry, Professor Leishman, and Professor Stewart.

The Disturbance in Glasgow University.

Sir George Macleod is right in stating, in THE LANCET of last week, that this disturbance was greatly exaggerated and made the most of in the local newspapers. The paragraph which appeared in THE LANCET, however, was carefully prepared; the exact facts, so far as known to the writer, were stated, and sensational reports excluded. Your correspondent regrets that he should have fallen into any error in describing the treatment which Sir George Macleod experienced. The matter has been under the consideration of the Students' Representative Council, which has protested against the exclusion of students from graduation ceremonies, has expressed regret for the recent outbreak of violence, has offered to aid the Senate in future in maintaining order, and made the claim that complaints regarding disturbances among the students should be sent to it. The Senate sends to this a dignified and not unkind reply, acknowledging the above resolutions, expressing satisfaction on receiving the reports of the Council, and accepting cordially the proffered aid in keeping order on future occasions. The differences between students and Senate may now be said to be happily settled.

Glasgow, Dec. 12th.

ABERDEEN.

The University.

At a meeting of the Senatus held on Saturday, the 7th inst., Professors Hay, Pirie, and Stephenson were elected assessors to the University Court in addition to Professor Milligan, the present representative. An examination for the Public Health Diploma was held recently, when five candidates were successful. At the examination in July last there were eleven or thirteen candidates, but only three were successful in obtaining the diploma.

Should there be a Pay Hospital in Aberdeen?

In the *Free Press* of the 5th inst. there is a short article by Dr. Robert John Garden on the question of a pay hospital for Aberdeen. He divides those for whom a pay hospital is required into two classes—viz, first, those of limited means who could afford to pay but a moderate sum for their board and treatment, "poor paying patients," such as small farmers, clerks, shopmen, students, &c.; and secondly, those who have ample means, but who from various circumstances find it inconvenient to be treated at their places of residence; these could afford to pay well for hospital treatment. Dr. Garden shows that it is impossible to have pay wards in the new hospital being built, but has no hesitation in answering in the affirmative the question with which he heads his article, and he feels convinced that if a pay hospital were started on a broad footing, fair to all possible interests, it would not only prove a success, but be a boon both to the city of Aberdeen and to the north of Scotland.

Aberdeen, Dec. 10th.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Expenses of Medical Witnesses.

AT the Munster Assizes this week an application was made to Mr. Justice Murphy with reference to the expenses of medical men attending as witnesses—namely, that they should be allowed an amount beyond that granted by the Treasury, which was totally inadequate, on account of the long distances witnesses had to come, and the high prices charged for accommodation at Nenagh. Mr. Justice Murphy said he would be glad to make the order asked for in cases where it was manifest that medical gentlemen had been put to great inconvenience, but he could not interfere with the decision which the judges had arrived at. If, however, a representation were made to the Treasury, something satisfactory might be done. I understand that this matter was brought under the notice of the judges about a year since, when they decided that the rules laid down by the Treasury should be adhered to.

Death of Mr. Jameson Dwyer of Cork.

This gentleman, who held the responsible post of resident medical superintendent of the Cork District Lunatic Asylum, died last week. He had been ailing for the past two years from an affection of the stomach which ultimately proved to be of a malignant nature. Mr. Dwyer immediately after being qualified applied himself exclusively to the practice of lunacy, and was some time afterwards appointed assistant medical superintendent at the Castlebar, and afterwards at the Mullingar Asylums. He left the latter institution to take charge of the Cork Asylum when Dr. Eames died in 1886, having been appointed by Lord Aberdeen, who was then Lord-Lieutenant. Mr. Dwyer possessed considerable administrative abilities, and effected many important improvements in the Cork Asylum.

Notification of Infectious Diseases.

The Local Government Board have issued a notice to the several urban and rural sanitary authorities in Ireland to whose districts the Infectious Disease (Notification) Act, 1889, may extend. The Act provides that where an inmate of any building used for human habitation within a district to which the Act extends is suffering from an infectious disease to which the Act applies, then, if not a hospital, every medical practitioner in attendance shall send to the medical officer of health for the district a certificate stating the patient's name, age, the locality, and the nature of the disease, &c. In the case of a ship, tent, van, or shed, the name and description and the place situated must be given in the certificate prescribed for the purpose. The penalty for not forwarding the certificate is forty shillings. The Act applies to the following diseases—viz., small-pox, cholera, diphtheria, croup, erysipelas, scarlatina, and typhus, typhoid, continued, and relapsing fevers, also to puerperal fever, and any other infectious disease to which the Act has been applied by the sanitary authority.

The Right Hon. Viscount Monck has appointed Mr. Meldon, President of the College of Surgeons, to be a Deputy Lieutenant of the City of Dublin.

The many friends of Dr. Neville, who from delicate health was obliged to leave Dublin some time since, will be gratified to learn that he has now resumed practice.

Dublin, Dec. 10th.

PROPOSED INFECTIOUS DISEASES HOSPITAL AT TODMORDEN.—The late Mr. S. Fielden, of Centre Vale, Todmorden, had taken steps towards providing a hospital for infectious diseases at Sourhall for the whole of the Todmorden Union and the borough of Bacup. The plans are already in a forward condition.

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PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Pasteur Institute.

THE Council of Administration of this institution met recently for the purpose of hearing the report of M. Pasteur on the work accomplished by the institution during the past year. The department for the treatment of the disease for which the institution was mainly established—viz., hydrophobia,—and which is under the joint direction of MM. Grancher, Chantemesse, and Charrin, has treated during the period embraced between Nov. 1st, 1888, and Nov. 1st, 1889, altogether 1830 persons, of whom eleven succumbed notwithstanding treatment. This gives a mortality of 0·6 per cent. Of the eleven, however, four died during the treatment, and these being subtracted, as M. Pasteur thinks they should be, from the statistics, the mortality is reduced to 0·3 per cent., a better result even than that obtained last year. M. Pasteur observes that the mortality amongst the persons certified by veterinary surgeons to have been bitten by animals proved to be rabid amounts to 16 per cent., while of those actually bitten by animals whose hydrophobic condition was shown by subsequent inoculation experiments, and this, M. Pasteur adds, is satisfactory evidence that the certificates as to the condition of the animals are given after careful inquiry and diagnosis only. As of course your readers are aware, the treatment and cure of rabies are not the only objects pursued by the institution. The study of virulent and contagious maladies and the application to hygiene and the biological sciences of the discoveries made in regard to the microbe, are not less earnestly studied. During the past year to wit, several important contributions to these studies have been made by the staff, and by observers, such as MM. Duclaux, Roux, Chamberland and Metchnikoff. On a review of the work done, one sees the scientific activity prevailing in this celebrated institution—an institution which reflects such honour on French science and its illustrious founder, and of which every Frenchman may well be and is justly proud.

An Epidemic at the Louvre Warehouses.

A good deal of sensation and capital are being made by a certain portion of the daily press out of an epidemic the nature of which is not yet very clearly defined, but which appears to have spread with somewhat remarkable rapidity amongst the numerous staff of employés of the enormous—chiefly soft goods—warehouses situated opposite the Louvre Picture Gallery, and known as Les Grands Magasins du Louvre. The alarm, however, raised by the daily papers does not appear to be at all warranted so far, for although about 450 of the workers in the warehouse are reported to be ill, as a fact, there have been no fatal cases mentioned. The exact nature of the epidemic is, as I said, not yet made clearly out, but as far as I can learn it is not of a virulent character, and amongst the inmates there is no doubt. The symptoms as so far announced, would seem to lead to the conclusion that one had to do with an outbreak of epidemic influenza, but whether this will be confirmed by subsequent investigation, remains to be seen. An official inquiry was ordered by the Minister of the Interior, who appointed MM. Brouardel and Proust to carry it out. They visited the Louvre Warehouse to-day, and reported that the outbreak is one of mild influenza, for the maximum duration never appeared to exceed four days. The numbers absent from duty had increased daily from 120 (out of 3000 employés) on Nov. 26th to 670 on Dec. 10th. They could not arrive at a conclusion as to the origin of the epidemic, which they state is not of a kind to excite alarm. It must be remembered, in reading the popular accounts of this epidemic, that side by side with the epidemic itself there is another, which has spread with greater rapidity—viz., the epidemic of emotional alarm.

Paris, Dec. 10th.

PROPOSED SEWERAGE BOARD, CHERTSEY.—The necessary parliamentary notice has been published in reference to this new board. The scheme of sewerage proposed is on an extensive scale, and it is stated that the opinion has been expressed by those who have examined the plans prepared that it will be favourably received.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

The Influenza Epidemic.

LAST week some cases of influenza occurred at the General Hospital here. Physicians, nurses, and patients who were already under treatment in the hospital for a longer or shorter period on account of other maladies, were affected by this disease, which, although commencing with high fever, was not accompanied by any serious complications. The number of cases of influenza at the hospital reached nearly fifty, and some excitement ensued as it became difficult to keep the medical service at the hospital in order. According to communications made to me by some of the leading physicians practising in the town, single cases showing the character of influenza were also observed in private practice. As to the etiology of the disease, some physicians here have commenced to make bacteriological examinations, and within a short time the discovery of a bacillus or micrococcus to which the outbreak of the disease is due will, it is expected, be reported. The view that the disease is connected with electrical disturbance, as well as the difference between the temperature of the overheated rooms in the houses and the air outside, and the presence of sulphurous acid in the air, must be taken into consideration as etiological factors. Reports from Cracow and Lemberg (Galicia) on the outbreak of an influenza epidemic in those towns, especially among the soldiers, were received yesterday. It must be also noted that till now the epidemic has not made its appearance in small country villages, not even in Russia. The view of Professor Zdekauer of St. Petersburg, who is inclined to regard the Petersburg epidemic as a precursor to the spread of cholera, is contested by the Vienna authorities on epidemiology.

Actinomycosis in Vienna.

According to a communication made by Professor Albert no less than thirty-five cases of actinomycosis have been treated at his clinic since the year 1883; whilst this winter session, which commenced Oct. 1st, eight cases have already been under his treatment.

A New Micro-organism in Milk.

Dr. Adametz, assistant at the High School of Agriculture, has discovered a new micro-organism by whose action the milk becomes viscid; it is a micrococcus embedded in a mucilaginous substance.

Vienna, Dec. 8th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council of the above College, held on Thursday, the 12th inst., the minutes of the last meeting were read and confirmed.

A report from the General Purposes Committee on the fittings for the extension of the Examination Hall, and on the uses of the extension of that hall, was read and approved, subject to the approval of the Royal College of Physicians.

It was agreed that, as recommended by the Nomination Committee, the annual election of Examiners in Elementary Anatomy, Elementary Physiology, Anatomy, Physiology, and Midwifery for the diplomas of Fellow and Member respectively, do in future take place at the ordinary meeting of the Council in June on a report from this Committee to be presented at that meeting, and that the examiners in such subjects be appointed for *six* months, and be subject to re-election in June next.

Messrs. Langton and Pick were re-elected members of the Court of Examiners in Surgery, and Mr. Edmund Owen was elected to the vacancy caused by the resignation of Mr. Hulke. Mr. Langton was reappointed a member of the Court of Examiners in Dental Surgery, and Mr. Pick elected to the vacancy caused by the resignation of Mr. Hulke.

The best thanks of the Council were given to Mr. Marshall for his delivery of the Morton Lecture, and to Mr. Bryant for his delivery of the Bradshawe Lecture, and they were requested to publish the same.

The following gentlemen were elected examiners for the



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ensuing six months, namely:—*First Examination*—Elementary Anatomy: Messrs. C. A. Ballance, A. Hensman, W. Arbuthnot Lane, C. Lockwood, and C. Stonham. Elementary Physiology: J. R. Bradford and W. G. Spencer. *Second Examination* — Anatomy: Messrs. W. Anderson, J. N. C. Davies Colley, F. H. Marsh, and G. D. Thane. Physiology: C. H. Golding Bird, V. D. Harris, and B. T. Lowne. *Third Examination*—Midwifery: W. Duncan, M.D., W. S. A. Griffith, M.B., P. Horrocks, M.D., and J. B. Potter, M.D. *First Examination for the Fellowship*—Anatomy: W. H. Bennett, W. B. Clarke, A. P. Gould, G. H. Makins, and F. Treves. Physiology: C. H. Golding-Bird, B. T. Lowne, D'Arcy Power, and G. F. Yeo.

A letter was read from Mr. John Marshall, President of the General Medical Council, reporting, as representative of the College, the proceeding of that Council at their late Session, and thanks were voted to Mr. Marshall for his efficient services.

A letter of Nov. 26th, 1889, was read from Mr. Arthur Milman, Registrar, forwarding, by direction of the Senate of the University of London, copies of the scheme approved by the Senate for the reconstitution of that University on the general lines indicated by the report of the University for London Commission, inquiring if this College will concur in the proposal that its President should be an *ex officio* member of Senate, and inviting any observations and suggestions upon the details of the scheme which this College may think fit to make.

A committee of delegates of the College was appointed to consider the same and report to the Council. The members of this committee are the President and Vice-Presidents, Mr. Savory, Mr. Power, Mr. Hulke, Sir W. Mac Cormac, Mr. Sibley, and Mr. Pick. A letter was also read from Dr. R. Quain, Chairman of the Pharmacopœia Committee of the General Medical Council, stating that it is the intention of the General Medical Council to publish an addendum to the British Pharmacopœia, 1885, and requesting the Council to assist the committee appointed for the purpose by forwarding to them a list of such new remedies as they may think it desirable to introduce into the addendum. This was referred to a committee consisting of Messrs. Lund, Hill, Sibley, and Howse.

A letter of the 28th ult. from Mr. J. Sebag Montefiore, was read, soliciting a contribution from the College to the funds of the Royal Sea-bathing Hospital at Margate. The Council was unable to accede to this request, as there are no funds at the disposal of the Council for that purpose.

Obituary.

WILLIAM EYRE BLENNERHASSETT ATTHILL.

THIS gentleman, the eldest son of the late Mr. Porter Atthill, formerly Attorney-General and later Chief Justice of St. Lucia, a nephew of Dr. Lombe Atthill, who died in St. Mary's Hospital on Nov. 21st in his forty-first year, was formerly a student at St. George's Hospital. Notwithstanding his good family connexions, he was early obliged to depend on his own efforts and resources, and so it was that in after-life he was one of those men who seem able to turn their hands with success to anything. When the Franco-German war broke out he was amongst the first to offer his services, and was the life and soul of the party which went out with Dr. Mayo, and which founded and was for many months connected with the Alice Hospital at Darmstadt. There it was that the writer of this notice first met him and formed a friendship with him which he highly valued. A series of papers which Mr. Atthill wrote at this time in the *Medical Times and Gazette*, entitled "The Autumn Tour of a Dresser," attracted some attention. Back from the war, he qualified himself for the M.R.C.S. and L.R.C.P. Lond. as soon as he could, and maintained himself both before and afterwards by acting as *locum tenens* or assistant. He thus gained so wide a familiarity with the routine of private practice that he was well prepared when, in 1873, soon after his marriage, a practice was offered him at Waterbeck, near Ecclefechan, in Dumfriesshire. There he worked hard for two years in a wild, cheerless, mountainous district, living in a two-roomed cottage without comforts of any kind. But his natural energy and resources stood him in such good stead that when he moved to Faversham he had some means in hand from the practice which he had made at Waterbeck. He was at Faversham for eleven years, and since that time he had had a large city practice which entailed an enormous amount of very trying work. Throughout it, it was painfully manifest to his friends that his health was failing, and that he was looking prematurely aged. The seeds of the disease to which he succumbed had indeed long been sown. From early boyhood he had been subject to hæmaturia, which in recent years had become more frequent, and was complicated by occasional retention. Then followed the inevitable cystitis with all its distressing consequences, and the loss of sleep told heavily upon him. From time to time during the past few years he had consulted Mr. Buckston Browne, who on Jan. 15th, 1888, washed out his bladder and detached a portion of so-called papilloma, confirming thereby the suspicion which had been entertained as to the cause of his symptoms. Suprapubic cystotomy was discussed but not then urged, and as this examination was followed by a cessation of the bleeding, and Mr. Atthill could not leave his work, it was for the time abandoned. The spring and summer of this year, however, brought a return in much worse degree of all his former symptoms, and it became urgently necessary on July 20th to do something for his relief, for retention was absolute, the bleeding was profuse, and he was suffering great pain. A large portion of growth was removed on that day by Mr. Buckston Browne from the trigone region of the bladder, but a hardness and thickening which were felt between the fingers in the rectum and the bladder revealed the real nature of the malady and the impossibility of getting the tumour completely away. The relief which followed this operation did not last long, and when the writer saw him in October after the holidays, he found him in such a pitiable state that he at once gave him a bed in St. Mary's, so that he might be where help was always at hand; and there until his death the house-surgeon, Mr. G. C. Davis, attended to him with the utmost devotion and self-denial. The epithelioma had now appeared at the suprapubic wound, and increased with such rapidity that the whole cavity of the bladder was soon blocked up. His sufferings were agonising, and were only partially relieved by frequent injections of morphine, but he bore them all with the greatest bravery, and no word of complaint was ever heard to pass his lips. Thus ended a life of much usefulness, which had been encompassed by many hardships. With better surroundings and opportunities, the deceased might have made a greater mark in the world, for he had exceptional abilities and was a shrewd sensible man. His life was one long struggle, made more difficult by the disease which he carried with him. That he had no faults it would be wrong to say; he himself would have been the last to wish that that should be said of him; but he was a thoroughly good fellow, an honourable and high-minded man, and he had qualities which very much endeared him to many besides the widow and children whom he has left.

ROBERT IRVINE,

DEPUTY INSPECTOR-GENERAL R.N. (RETIRED).

DEPUTY INSPECTOR-GENERAL IRVINE died at his residence, St. Margaret's, Twickenham, on Nov. 3rd, aged sixty-five, after an illness of a year and a half. The deceased officer had seen much and distinguished service during the thirty-two years he held Her Majesty's commission. His first appointment, in 1848, was to H.M. brig *Pilot*, on the China station. In 1852 he was appointed to the *Cumberland* (West India squadron), being afterwards present in the same ship at the bombardment of Bomarsund, when he formed one of the first landing party (Baltic medal). During the Crimean war he was attached to Therapia Hospital (Crimean medal and clasp, and Turkish medal). After the conclusion of peace he served in H.M.S. *Esk* on the China station, being present at the capture of Canton (Chinese medal, Canton clasp). His last appointment was to the *Castor* drill-ship of Naval Reserves, North Shields, from which he finally retired in August, 1880. Of a handsome and commanding appearance, coupled with a genial, kindly, and amiable disposition, he was universally liked, and it can be truthfully stated that he never made an enemy, either in or out of the service, and, but for his innate modesty, which prevented him from pressing his claims, he would no doubt have been more officially honoured.

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Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the necessary examinations, were at a meeting of the Council on the 12th inst. admitted Fellows of the College:—

Perry, Francis F., L.R.C.P.Lond., Brookdale, Teddington; diploma dated Aug. 1st, 1876.
Morton, C. A., L.R.C.P.Lond., Zetland-road, Bristol; Nov. 17th, 1881.
Mortimer, J. D. E., L.S.A., Warwick-st., Earl's-court-rd.; Jan. 20th, 1882.
Swain, Jas., M.B.Lond, Royal Infirmary, Bristol; Nov. 14th, 1883.
Crowle, T. H. Rickard, Campden-hill-road; Jan. 24th, 1884.
Murray, R. W., L.R.C.P.Lond., Huskisson-st., L'pool; Ap. 26th, 1884.
M'Lachlan, John, M.B.Edin., Lothian-st., Edin.; July 24th, 1885.
Larkin, Fred. Chas., L.S.A., Bedford-st., Liverpool; Oct. 23rd, 1885.
Jones, A. M., M.B.Dur., Wellow Vicarage, Romsey; Oct. 30th, 1885.
Permewan, Wm., M.D.Lond., Vauxhall-rd., L'pool; July 22nd, 1886.
Pennell, G. H., L.R.C.P.Lond., Heavitree-pk., Exeter; Aug. 2nd, 1888.
Galloway, Jas., M.B.Aber., New-street, E. (Not a Member.)

Two candidates who have not yet attained the legal age (twenty-five years) will receive their diplomas at future meetings of the Council. Twenty-four candidates were referred.

The following gentleman having passed the necessary examination at a previous meeting of the Court of Examiners, and having attained the legal age (twenty-five years) was also admitted a Fellow of the College:—

Ashworth, Percy, L.R.C.P.Lond., Higher Crumpsall, Manchester; diploma dated Aug. 4th, 1887.

The following gentleman, having passed the necessary examination, was at the same meeting of the Council admitted a Member of the College:—

Gilpin, Frank, L.S.A., Charlton House, Pershore, near Worcester.

UNIVERSITY OF OXFORD.—At a congregation held on Dec. 5th the degree of M.D. was conferred on

Dan Astley Gresswell, Christ Church.

UNIVERSITY OF CAMBRIDGE.—At a congregation, held on Dec. 5th, the following degrees were conferred:—

Doctors of Medicine.—George Edward Anson, Trinity; Josias Ernest Viney, Downing.
Bachelor of Medicine.—Arthur Edward Kelsey, Trinity.
Bachelors of Surgery.—George Edward Anson, Arthur Edward Kelsey, Trinity.

UNIVERSITY OF DURHAM: FACULTY OF MEDICINE. At a Convocation held on Tuesday, Dec. 10th, the following were recommended for the degree of Doctor in Medicine for Practitioners of Fifteen Years' standing:—

Peter Gordon Bell, L.R.C.S., L.R.C.P. Edin.; Wm. Henry Causton, M.R.C.S., L.S.A.; Geo. William Joseph, M.R.C.S., L.S.A.; George Middlemiss, L.R.C.P. Edin., L.F.P.S. Glas.; Wm. Royston Pike, M.R.C.S., L.S.A.; George Grayson Stopford Taylor, M.R.C.S., L.K.Q.C.P. Irel.; Wesley Hayes Thompson, L.R.C.P., L.R.C.S. Ed.; Eugene John Tulk-Hart, M.R.C.S., L.S.A.

The following were recommended for the degree of M.D.:—

Howard Albert Bredin, M.B., M.R.C.S., L.S.A.; Andrew Seymour Brewis, M.B., B.S., M.R.C.S., L.S.A.; George Gautby, M.B., B.S.; Evan Lewis Hickey, M.B., M.R.C.S., L.S.A.; Thos. Edward Honey, M.B., M.R.C.S., L.R.C.P. Lond.; Samuel Lodge, M.B., B.S.; John Edward Nihill, M.B., M.R.C.S., L.R.C.P. Lond.; John Edward Panton, M.B., M.R.C.S.; Leonard Raby, M.B., M.R.C.S., L.S.A.; Alfred Ernest Richardson, M.B., M.R.C.S.; Leonard Wilde, M.B., M.R.C.S., L.R.C.P., L.S.A.

The following were recommended for the degree of Bachelor in Medicine (M.B.):—

Second Class Honours.—Thomas Wykes Gibbard, M.R.C.S., L.S.A., King's College Hospital, London; Raymond Henry Shaw and James Arnott, College of Medicine, Newcastle-on-Tyne.
Pass List.—Andrew Paige Arnold, College of Medicine, Newcastle-on-Tyne; Wm. John Burleigh-Robinson, London Hospital; Burdon Cox, College of Medicine, Newcastle-on-Tyne; George Blackford Silver Darter, St. Thomas's Hospital; Ebenezer William Diver, University College Hospital; Wm. Alfred Hatton, London Hospital; Robert Guthrie Poole Lansdown, Guy's Hospital; Albert Edward Martin, London Hospital; Wm. Edwin Peacock, College of Medicine, Newcastle-on-Tyne; Chas. Wm. Edward Toller, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; Avery Clough Waters, M.R.C.S., L.S.A., and Robert Jas. Williams, London Hospital.

The following were recommended for the degree of Bachelor in Surgery (B.S.):—

Andrew Paige Arnold and James Arnott, College of Medicine, Newcastle-on-Tyne; George Blackford Silver Darter, St. Thomas's Hospital; Norman Faichnie, M.B., University College Hospital; Chas. Maurice Hardy, M.B., College of Medicine, Newcastle-on-Tyne; Robert Guthrie Poole Lansdown, Guy's Hospital; William Edwin Peacock and Raymond Henry Shaw, College of Medicine, Newcastle-on-Tyne; Avery Clough Waters, M.R.C.S., L.S.A., London Hospital; Thomas Watts, M.B., Owens College, Manchester.

UNIVERSITY OF EDINBURGH.—The following gentlemen have received the degrees of M.B. and C.M.:—

Beilby, J. H., Edinburgh.
Coles, A. C., Bournemouth.
Crawford, W. T., M.A., Worksop.
Crossley, F. E., Harle Syke, near Burnley.
Davies, Rhys, Llanwrtyd Wells, Breconshire.
Dyer, E. E., Bath.
Edwards, A. S., Queenstown, Co. Cork.
Fitzgerald, Jas., Edinburgh.
Forsyth, Ebenezer, Edinburgh.
Frere, A. H., Wickham Market.
Gillespie, S. A. D., Castle Douglas.
Glaeser, E. B., Worcester, South Africa.
Hallen, A. E. H. C., Alloa, N.B.
Hallen, A. H., Stratfd.-on-Avon.
Harvey, James, Edinburgh.
Hewat, M. L., Cape Town, Cape Colony.
Howatson, C. W., Portobello.
Jameson, Hugh, Edinburgh.
Lanyon, G. E., Falmouth.
Lockhart, F. A. L., St. John, N. Brunswick.
Lyle, F. W., Edinburgh.
MacBean, D. F., Islay.
Macdonald, A. H. W., M.A., Edinburgh.
Mackay, Henry, Crouch End, London, N.
Macknight, C. C., Edinburgh.
McNidder, Jas., Crail, Fife.
Mill, G. S., Arbroath.
Murray, C. D., Kirbymoorside.
Munn, J. Gordon, Edinburgh.
Paterson, Walter, Edinburgh.
Penfold, E. A., Pembroke Dock.
Pike, Stewart, Edinburgh.
Platt, A. F. R., Henry VIII. Gate, Windsor.
Poole, T. D., Poulton-le-Fylde.
Robertson, J. H., Edinburgh.
Sakir, H. C. N., Mauritius.
Silver, L. M., Edinburgh.
Spencer, Jas., Burntisland.
Stansfield, T. E. K., Todmorden.
Sylva, J. F. de, Edinburgh.
Taylor, J. A., Edinburgh.
Taylor, Mowbray, Earl's Court-road, London.
Thyne, George, Edinburgh.
Underhill, T. H., West Bromwich.
Wilcox, A. W., Stockton-on-Tees.

THE VACCINATION COMMISSION.—The Royal Commission on the Vaccination Acts resumed its sittings on Wednesday, Lord Herschell presiding. Dr. Creighton was under examination throughout the day.

WIGAN INFIRMARY.—Mr. James Henry Johnson, of the Abram Coal Company, has generously offered to build a children's wing to this infirmary, at a cost of £2000. The offer has been accepted.

MEDICAL MAGISTRATE.—Matthew James Turnbull, M.D., F.R.C.S. Edin., of Tweed View, Coldstream, Berwickshire, has been put upon the Commission of the Peace for that county.

EQUINE LARYNGOSCOPY.—Professor Polansky and Dr. Schindelka, of the Vienna Veterinary School, have constructed a laryngoscope for horses, by means of which active treatment in cases of glanders can be carried out.

THE PUBLIC LIBRARY AT WANDSWORTH.—Dr. Longstaff, who gave a reading-room at a cost of £2000 to the Wandsworth Public Library, has now offered to subscribe £2000 towards the debt remaining upon the library buildings, provided a similar sum be raised by the public before the end of March.

RABIES.—The number of dogs in England officially reported during the week ending Nov. 23rd as affected with rabies was four against eight in the previous week. Of these three were killed and one died. The distribution was as follows;—Kent, London, Surrey, York (West Riding), one each. The number of dogs affected during the week ending Nov. 30th was three, all of which were killed. Of these two belonged to Lancaster and one to London.

ANOTHER DEATH BY ELECTRICITY.—Another workman is reported to have been killed at New York whilst examining overhead lighting wires. An unprotected wire came in contact with the unfortunate man's body, and he was instantly killed. His dead body hung suspended from the wires for some time in the sight of a crowd of people. The victim's forearm and neck were literally roasted, and a portion of his clothing was burned.

A ST. JOHN AMBULANCE ASSOCIATION FOR PARIS. At a meeting held last Sunday at 32, Avenue des Champs Elysées, the residence of Dr. Douglas Hogg, for the purpose of forming a centre for Paris in connexion with the St. John Ambulance Association, an influential local committee was formed, with the Earl of Lytton as president, Dr. Douglas Hogg chairman, and Dr. Barnard hon. secretary. The interest displayed in the classes held by Dr. Barnard this year for the first time in Paris augurs well for the success of this very useful movement, and it is confidently expected that all the English members of the medical profession practising in Paris will shortly be enrolled on the medical staff of the centre. A special feature of the scheme will be the formation of an ambulance corps, the services of which will be available in the event of an outbreak of war.

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A SANITARY ASSOCIATION AT CHICHESTER.—At a well-attended public meeting held in St. Martin's Hall last week, it was unanimously resolved to form a Sanitary Association for the purpose of spreading a knowledge of sanitation, and to take from time to time such steps as may seem necessary to promote the sanitary welfare of the city. The chairman, vice-presidents, and honorary secretaries were elected, and a committee of fourteen ratepayers chosen.

LITERARY INTELLIGENCE.—The Chilian Government, having resolved to undertake waterworks on a large scale, have commissioned Señores A. E. Salazar and Carlos Newman, of the Laboratory of the Naval School at Valparaiso, to investigate the water systems of Europe. Their report, together with a chapter on the bacteria of water, contributed by Dr. Rafael Blanchard, Secretary of the Zoological Society of France, is about to be issued by Messrs. Burns & Oates.—Professor Crookshank has presented a copy of his work on the "History and Pathology of Vaccination" to each of the Royal Commissioners.

SANITARY ASSURANCE ASSOCIATION, LONDON.—The President, Sir Joseph Fayrer, occupied the chair at the ordinary meeting of the Council held on Monday last. Arrangements were made for a series of lectures during January and February next, at the College of State Medicine, Great Russell-street. The series will include the following: Mr. H. Rutherford, on "House Sanitation from a Householder's Point of View;" Professor T. Rogers Smith, on "Household Warming and Ventilation;" and Mr. Mark H. Judge, on "The Sanitary Registration of Buildings Bill." Both men and women are invited to these lectures. Particulars can be had on application to the secretary, at the offices, 5, Argyll-place, W.

BEQUESTS AND DONATIONS TO HOSPITALS.—The Treasurer of the Royal Infirmary of Liverpool has received a donation of £500 from the late Mr. T. D. Hornby, given in accordance with his wishes by his executors.—The late Mr. C. Allcock, of Clapham Park, bequeathed by his will £1000 to the Birmingham General Hospital on the death of his wife.—The Duke of Westminster has given £500 to the Chester Infirmary, being part of the proceeds of the shilling tickets of admission sold during the past year for inspecting Eaton Hall.—Sir Benjamin Samuel Phillips, late of Grosvenor-street, London, left by his will £100 each to the London Hospital, the Royal Hospital for Incurables, Sussex County Hospital, the Farringdon Dispensary, and the Metropolitan Hospital.

BOOKS ETC. RECEIVED.

ALLEN, W. H., & Co., Waterloo-place, London, S.W.
"Why we Suffer," and other Essays. By Henry Hayman, D.D., 1890. pp. 464.

BLACK, ADAM & CHARLES, Edinburgh.
The Collected Writings of Thomas De Quincey. New and enlarged Edition. By David Masson. Vol. II. Autobiography and Literary Reminiscences. 1889. pp. 454.

BLACKIE & SONS, Old Bailey, London.
Laugh and Learn: the Easiest Book of Nursery Lessons and Nursery Games. By Jennett Humphreys. Illustrated. 1890. pp. 256.
Blackie's Modern Cyclopædia of Universal Information. With Illustrations and Maps. Edited by C. Annandale, M.A., L.L.D. Vol. IV. Fir—Ilo. 1890. pp. 512.

BLACKWOOD, W., & SONS, Edinburgh and London.
Master of his Fate. By J. Maclaren Cobban. 1890. pp. 247.

CLARKE, ROBT., & Co., Cincinnati.
Medicine in the Middle Ages. By Dr. Edmond Dupouy. Translated by T. C. Minor, M.D. 1889. pp. 99.
The Evil that has been said of Doctors: Extracts from Early Writers. By Dr. S. J. Witkoski. Translated, with Annotations, by T. C. Minor, M.D. 1889. pp. 136.

CHURCHILL, J. & A., New Burlington-street, London, W.
Student's Guide Series. Pathological Anatomy of Diseases, arranged according to the Nomenclature of Diseases of the Royal College of Physicians of London. By Norman Moore, M.D. 1889. pp. 416.
The Treatment of Internal Derangements of the Knee-joint by Operation. By H. W. Allingham, F.R.C.S. 1889. pp. 165.
Clinical Lectures on the Diseases of Women, delivered in St. Bartholomew's Hospital. By J. M. Duncan, A.M., M.D. Fourth Edition. 1889. pp. 539.
Clinical Lectures on some Obscure Diseases of the Abdomen, delivered at the London Hospital. By Samuel Fenwick, M.D. 1889. pp. 252.
A Practical Treatise on Disease in Children. By Eustace Smith, M.D. Second Edition. 1889. pp. 895.
A Manual of Nursing, Medical and Surgical. By C. J. Cullingworth, M.D. Third Edition, revised. 1889. pp. 190. Price 2s. 6d.

DAVIS, F. A., London and Philadelphia.
Essay on Medical Pneumatology: a Physiological, Clinical, and Therapeutic Investigation of the Gases. By J. N. Demarquay. Translated by S. S. Wallian, A.M., M.D. Illustrated. 1889. pp. 300.
A Treatise on Materia Medica, Pharmacology, and Therapeutics. By J. V. Shoemaker, M.D., and J. Aulde, M.D. In Two Volumes. Vol. I. Devoted to Pharmacy, General Pharmacology and Therapeutics, and Remedial Agents not properly classed with Drugs. 1889. pp. 353.

DOIN, OCTAVE, Paris; BAILLIÈRE, TINDALL, & COX, London.
Traité Pratique d'Accouchements. Par le Dr. A. Auvard. Avec 534 Figures dans le Texte. 1890. pp. 787.

KEGAN PAUL, TRENCH, & Co., Paternoster-square, London.
Physiology of Bodily Exercise. By Fernand Lagrange, M.D. 1889. pp. 395, price 5s.

LONGMANS, GREEN, & Co., Paternoster-row, London.
The Charities Register and Digest. With an Introduction by C. S. Loch, Secretary of the Charity Organisation Society, London. Third Edition. 1890. pp. 976.

LEWIS, H. K., Gower-street, London, W.C.
Chronic Bronchitis and its Treatment. A Clinical Study. By Wm. Murrell, M.D., F.R.C.P. 1889. pp. 176.
History and Pathology of Vaccination. Vol. I. A Critical Inquiry. By E. M. Crookshank, M.B. Vol. II.: Selected Essays. Edited by E. M. Crookshank. 1889. pp. 466 and 610.

MAY, E. H., Fleet-street, London, E.C.
Profitable Fruit-growing for Cottagers and Small Holders of Land. By John Wright, F.R.H.S. Written for the Worshipful Company of Fruiterers. 1889. pp. 120.

PUBLISHED BY THE LEWIS MEMORIAL COMMITTEE, London.
In Memoriam. Physiological and Pathological Researches; being a reprint of the principal Scientific Writings of the late T. R. Lewis, M.B., F.R.S. (Elect), Surgeon-Major Army Medical Staff, Assistant Professor of Pathology in the Army Medical School, &c. Arranged and edited by Sir W. Aitken, M.D., G. E. Dobson, and A. E. Brown, B.Sc. 1888. pp. 732.

PUTNAM'S (G. P.) SONS, New York and London.
An Experimental Study in the Domain of Hypnotism. By Dr. R. von Krafft ebing. Translated from the German by C. G Chaddock, M.D. 1889. pp. 129.

SIMPKIN & MARSHALL, Hamilton; KENT & Co., Limited, London.
Revived Guild Action; with a History of the Movement for the Registration of Plumbers. By Geo. Shaw. Second Edition. 1889. pp. 128.

RELFE BROTHERS, Charterhouse Buildings, Aldersgate-street, London.
Modern Thought and Modern Thinkers. Explanatory Sketches. By Jos. F. Charles. 1890. pp. 136.

SWAN SONNENSCHEIN & Co., Paternoster-square, London.
The Drink Question: its Social and Medical Aspects. By Dr. Kate Mitchell. pp. 254.

SCHOTTLAENDER, S., Breslau.
Atlas der Gerichtlichen Medicin. Von Dr. Adolf Leaser. Zweite Abtheilung. Erste Lieferung. Drei Colorirte Tafeln mit Erläutern dem Text. 1890. pp. 40.

THE HUB PUBLISHING COMPANY OF NEW YORK, Gold-st., New York.
Prize Essay on the Suspension of Carriages. By Wm. Philipson, Newcastle-on-Tyne. Revised Editton, with Plates. 1889. pp. 61.

THE NEW SYDENHAM SOCIETY, London.
The New Sydenham Society's Lexicon of Medicine and the Allied Sciences. (Based on Mayne's Lexicon.) By H. Power, M.B., and L. Sedgwick, M.D. Sixteenth Part. Lin—Mas. 1889.

Index-Medicus: Authors and Subjects, Vol. XI., No. 10, October, 1889 (Trübner & Co., and Lewis, London).—La Mission du Dr. Sternberg au Brésil: Réfutation du Rapport publié par ce Médecin sur la Fièvre Jaune dans le *Medical News*, de Philadelphie, le 28 Avril, 1887; par le Dr. Domingos Freire (Pinheiro & Co., Rio Janeiro, 1889).—Réfutation des Recherches sur la Fièvre Jaune faites par M. P. Gibier à la Havane: par le Dr. Domingos Freire (Pinheiro & Co., Rio Janeiro, 1888).—Sur la Toxicité des Eaux Météoriques (Note présentée à l'Académie des Sciences de Paris); par le Dr. Domingos Freire (Pinheiro & Co., Rio Janeiro, 1889).—A Handy Book on the Investment of Trust-Funds, under the new Law, with the Trust Investment Act, 1889; by R. Denny Urlin, Barrister-at-Law (E. Wilson & Co., London, 1889), price 1s.—Die Grundlagen der Bakteriologie; von A. P. Fokker (F. C. W. Vogel. Leipzig, 1889).—On the Pathology and Treatment of Diphtheria; by E. May, M.D. Heidelb., M.R.C.P. Lond. (J. & A. Churchill, London, 1889), price 1s.—Orkney, past and present; its Races, Relics, and Resources; by J. F. Palmer, L.R.C.P. Lond. (Cousins & Co., Strand, London, 1889), price 1s.—Arbeiten aus der ersten medicinischen klinik zu Berlin; von Dr. E. Leyden, 1 October, 1888, bis October, 1889 (August Hirschwald, Berlin, 1890).—Medical Communications of the Massachusetts Medical Society, Vol. XIV., No. 3, 1889 (D. Clapp & Son, Boston, 1889).—Madeira and the Canary Islands; a complete Guide for the use of Invalids and Tourists; by A. Samler Brown (Sampson Low, Marston, Searle, & Rivington, London, 1889), price 2s. 6d.—Neue Studien über Syphilide; von Dr. P. Tommasoli und Dr. P. G. Unna (Leopold Voss, Hamburg und Leipzig, 1890).—De la Chorée Chronique; par Dr. E. Huet (Bureau du *Progrès Médical*, Paris, 1888-1889).—Guide Médical à l'Exposition Universelle Internationale de 1889 à

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Paris; par Marcel Baudouin; Seconde Fascicule. Anatomie, Thérapeutique, Pharmacologie, Microbiologie, Hygiène, Assistance Publique; avec Figures dans le Texte (Bureau du *Progrès Médical*, Paris, 1889).—Index Bibliographicus Syphilidologiæ; beschaltet von Dr. K. Sandek; zweiter Jahrgang, die Litteratur des Jahres, 1888; zweiter Jahrgang, 1887; dritter Jahrgang, 1886 (Leopold Voss, Hamburg und Leipzig, 1888 and 1889).—Le Dragon Rouge, a short story, by Franck-Delorme (Paris: Librairie Illustrée, 1889).—Traité de Médecine Légale; prix 5*l.* 4*d.*—De l'Action des Climats Maritimes dans les Affections Tuberculeuses; par le Dr. G. Hanson (Octave Doin, Paris, 1889).—On the Ventilation of Schools; a Lecture delivered before the College of State Medicine, May, 1889; by Sir H. E. Roscoe, M.P., F.R.S. (Stanley and Co., Soho, London, 1889; price 1*s.* 6*d.*—Souvenir of the Dead Heart, by Walter Phillips, presented at the Lyceum Theatre by Henry Irving.—Contents of the Monthly Parts and Numbers: Cassell's Magazine for December; Wit and Wisdom, Good Words (with Christmas Number, "A Cure of Souls"), Sunday Magazine (Isbister), (with Christmas Number, "A Girl of the People," by T. L. Meade), Girl's Own Paper (with Christmas Number, "Christmas Charities"), Northcote's Magazine, The Publishers' Catalogue (Sampson Low & Co.) Sunday at Home, Gardener's Magazine, Scribner's, Blackwood's Edinburgh Magazine, Boy's Own Paper.

Appointments.

Successful applicants for Vacancies at Institutions for this column are desired to forward, to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

HAMMOND, A. M., M.R.C.S., L.R.C.P. Lond., Senior House Surgeon, Liverpool Northern Hospital, has been appointed Medical Officer to the Wavertree District of the Toxteth Park Union.

BROWN, PHILIP, M.D. Aber., L.S.A. Lond., has been reappointed Medical Officer to the Rhuddlan and Rhyl Union Districts.

CRAWFORD, ARTHUR E., M.R.C.S., L.R.C.P., has been appointed Medical Officer in the Woodstock Union Workhouse, and District Officer and Vaccinator to the No. 1 District of Woodstock Union, vice A. E. May, M.R.C.S., resigned.

EDWARDS, H. N., M.R.C.S., L.R.C.P., has been appointed Assistant Medical Officer to the Plymouth Borough Hospital, vice S. T. Williamson, M.B., C.M. Edin., resigned.

EVANS, OWEN, M.R.C.S., L.S.A., has been appointed Medical Officer to the Llanfyllin District of the Llanfyllin Union.

JONES, ROBERT, M.R.C.S., has been appointed Honorary Surgeon to the Royal Southern Hospital, Liverpool.

JOURDAIN, ARTHUR E., M.R.C.S., L.R.C.P. & L.S.A., has been appointed Assistant Surgeon to the Southend Eye Hospital.

MARSHALL, C. F., M.B., M.R.C.S., L.S.A., has been appointed Junior House Surgeon to the North-Eastern Hospital for Children, Hackney-road, vice J. H. Brett, B.S., M.R.C.S., resigned.

NEWMAN, ARTHUR, M.D. Lond., has been reappointed Assistant Medical Officer of Health to the Hoxton Rural Sanitary Authority. Also District Medical Officer and Public Vaccinator to the Pressing-road Workhouse Infirmary.

NEWTON, W. E., L.R.C.P. Ed., has been reappointed Medical Officer to the Eighth District of the Norwich Union.

NOYES, H. H., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer to the Fifth District of the Norwich Union.

WEBB, HELEN, M.B. Lond., L.S.A., late Clinical Assistant at the Eastern Hospital, Hoxton, has been appointed Assistant Medical Officer.

WOODHOUSE, WILLIAM, M.R.C.S., L.S.A., has been reappointed Medical Officer to the Five District of the Norwich Union.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BLACKBURN AND EAST LANCASHIRE INFIRMARY, Blackburn.—Junior House Surgeon. Salary £50 per annum, with board, washing, and lodging.

CHELMSFORD UNION, Chelmsford.—Medical Officer, including the office of Public Vaccinator, for the Eighth District of this Union. Salary £340 per annum (which includes all medicines and appliances), payable by the Guardians, and a further sum of £15 per annum by the Government Board, and a sum of 1*s.* 6*d.* for each Midwifery case. The Vaccination Fees are 2*s.* 6*d.* at the surgery or within a mile from the Vaccinator's residence; 3*s.* up to two miles; and 4*s.* over that distance.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Assistant Physician. The office is honorary.

CHELTENHAM GENERAL HOSPITAL.—House Surgeon. Salary £50 per annum, with board, lodging, and washing.

DORSETSHIRE INFIRMARY, Dorchester.—Resident Assistant House Surgeon, for six months. No salary, but a bonus of £20 is given.

DUDLEY AND MIDLAND EYE AND EAR INFIRMARY.—House Surgeon. Salary £100 per annum, with board and residence in the house.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House Physician. Salary £50 per annum, with board and lodging.

GENERAL HOSPITAL, Birmingham.—Two Assistant House Surgeons, for six months. No salaries, but residence, board, and washing will be provided.

GENERAL INFIRMARY, LEEDS.—Resident Ophthalmic Officer, for six months. Board &c. will be provided, and an honorarium of £50 given at the expiration of the six months, if the officer's conduct is satisfactory.

GENERAL INFIRMARY, Northampton.—House Surgeon. Salary £125 per annum, with furnished apartments, board, attendance, and washing.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—Surgeon to the Out-Patients of this hospital.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—Surgical Registrar for one year. Honorarium of £40 at the end of the year.

LIVERPOOL NORTHERN HOSPITAL.—House Surgeon and Assistant House Surgeon. Salaries £100 and £70 per annum respectively, with board, lodging, and washing in the house.

MANCHESTER ROYAL INFIRMARY (MONSALL FEVER HOSPITAL).—Assistant Medical Officer at Monsall Fever Hospital, for twelve months. Salary £100 per annum, with board and residence.

MIDDLESEX HOSPITAL, W.—Surgical Registrar. Clinical Assistant to the Museum.

MIDDLESEX HOSPITAL, W.—Demonstrator of Morbid Anatomy in the Museum.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, West Strand, London.—Clinical Assistant for six months.

UNIVERSITY OF EDINBURGH.—Lectureship in Clinical Surgery, at the subjects of Natural History and Clinical Surgery for the next period of office. The salary is £75 a year, with an Allowance of £10 a year for Examinations and other expenses. The appointment is not resident in Edinburgh and other expenses.

VICTORIA HOSPITAL, BURNLEY.—Resident Medical Officer. Salary £80 per annum.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's-road, Chelsea, S.W.—Assistant Physician. Honorarium of £50 per annum. Board and lodging in the hospital. Also House Surgeon. Honorarium of £50 per annum, with board and lodging in the hospital.

WEST LONDON HOSPITAL, Hammersmith.—Two House Physicians, and a House Surgeon, for six months. Board and lodging are provided.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Two Honorary Gynæcologists.

YORK DISPENSARY.—Resident Medical Officer. Salary £130 a year, with furnished apartments, coals, and gas.

Births, Marriages, and Deaths.

BIRTHS.

BODWELL.—On Dec. 2nd, at Faversham, Kent, the wife of J. Irvine-Bodwell, M.D., of a son.

EDGAR.—On the 8th inst., at Settle, the wife of James W. Edgar, M.B., C.M. Edin., of a daughter.

FINLAY.—On Dec. 5th, at Lower Berkeley-street, Portman-square, W., the wife of David W. Finlay, M.D., F.R.C.P., of a daughter.

JARDINE.—On Dec. 7th, at Litchfield gardens, Richmond, Surrey, the wife of James Jardine, M.B., of a daughter.

PATTERSON.—On Dec. 6th, at Fisherton, Salisbury, the wife of C. J. Padbury, M.B. Lond., of a daughter.

WALKER.—On Dec. 8th, at Ightham-place, Kent, the wife of Ernest G. A. Walker, M.R.C.S., of a son.

MARRIAGES.

BOWEN—TIBBUTT'S.—On Dec. 7th, at St. Jude's Church, Gray's-inn-road, by the Rev. Canon Bowen, M.A., Rector of Ilfracombe, assisted by the Rev. E. H. Kempson, M.A., Charles Kendall Bowen, M.B. Oxon, second son of John Bowen, of Horse Bay, to Alice Maud, youngest daughter of the late W. H. Thornbury, Assistant Surgeon, Royal Artillery, of Fort Thornbury, and of the late Dorothy Collins, Kinsdella, St. Ives.

CLAY—HAWKS.—On Dec. 7th, at St. Michael's, Wood-green, N., by the Rev. W. J. Clapp, Cowley of Stafford, Devon, brother of the bride, assisted by the Rev. Canon Bowen, M.A., Rector of Ilfracombe, the Rev. H. F. Kelly, Vicar of Christchurch, Hoxton, N., George Parker-Clapp, M.B. Cantab., of 14, West Southernhay, Exeter, second son of the late Rev. Canon Clapp, Rector of Ashton, Devon, to Ethel, second daughter of Charles Edward Hawkes, M.D., of Cleveland House, Wood-green.

GREENFIELD—BETTLE.—On Dec. 7th, at St. James's, Gunnersbury, by the Rev. Canon Whitehead, Henry Osborne Greenfield, surgeon, Northallerton, Yorks, to Florence Elizabeth, only daughter of the late William Bettle of

MCNALLY—COKE.—On Nov. 5th, at St. George's Cathedral, Madras, by the Rev. Father Bertrand, Edward Vincent, eldest son of Vincent McNally, M.D., son of the late C. McNally, Esq., solicitor of Dublin, to Honor Marion, daughter of W. S. Coke, Esq., D.L., of Brookhill Hall, Derbyshire.

DEATHS.

BALFOUR.—On Dec. 8th, at Gloucester-terrace, Hyde-park, Surveyor-General Edward Green Balfour, late of the Madras Medical Department, aged 70.

NICHOLSON.—On Dec. 6th, suddenly, at Lenton-road, Nottingham, W. James Marshall Shelton, M.A., M.D., of Trin. Coll., Dublin, aged 47.

SWETE.—On Dec. 1st, at Fort Royal, Worcester, from illness contracted on active service in Burmah, Henry Swete, M.D., Surgeon-Major (retired Medical Staff Corps), Wing Officer and Adjutant 2nd Infantry, Hyderabad Contingent), eldest son of Horace Swete, M.D., Torquay.

WYNNE.—On Dec. 5th, at West-green, Tottenham, Charles William Richard Wynne, M.D., aged 58.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.



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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, December 12th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Dec. 6	30·61	N.E.	38	37	..	40	37	·04	Overcast
,, 7	30·11	S.W.	34	33	..	38	33	·02	Snowing
,, 8	30·27	W.	35	35	..	47	34	·25	Overcast
,, 9	29·89	S.W.	47	46	55	52	35	·15	Overcast
,, 10	29·45	S.W.	47	46	53	50	46	..	Cloudy
,, 11	29·43	N.W.	34	34	51	42	33	·01	Hazy
,, 12	30·06	N.W.	30	..	50	40	29	..	Foggy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of ***local events*** *having a medical interest, or which it is desirable* ***to bring*** *under the notice of the profession, may be sent* ***direct to*** *this Office.*

All communications relating to the editorial ***business of the*** *journal must be addressed "To the Editors."*

Lectures, original articles, and reports should be ***written on*** *one side only of the paper.*

Letters, whether intended for insertion or for ***private in-***formation, *must be authenticated by the* ***names and*** *addresses of their writers, not necessarily for* ***publication.***

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs ***should*** *be marked and addressed to the Sub-Editor.*

Letters relating to the publication, sale, and ***advertising*** *departments of* THE LANCET *to be addressed* ***"to the*** *Publisher."*

We cannot undertake to return MSS. not used.

ATROPINE IN PARALYSIS AGITANS.

J. O'B.—According to Moretti of Rome atropine has succeeded in paralysis agitans when every other therapeutic agent has failed. In a memoir lately read before the Lancisi Society, Dr. Moretti, among other cases, cited that of the distinguished painter, Vertunni, who for years had to abandon his profession owing to the advances of the disease, which, after paralysing both legs and arms, threatened him with asphyxia, but who by the exhibition of atropine regained all his physical powers, and was able to produce pictures in his best manner.

C. R. A.—The disease is undoubtedly cysticercus cellulosæ. The carcase is not unfit for food; and even if the flesh contain the parasite, thorough cooking would surely destroy it.

THE letter of *Mr. Wilkes* (Salisbury) is unavoidably held over until next week, when it will receive attention.

J. G.—The best-known work is that by Dr. Maclachlan (1863), but it is hardly suitable for a lay reader.

M.D.—1. No.—2. The person calling in the medical attendant is liable for the fee.

UNQUALIFIED ASSISTANTS.

To the Editors of THE LANCET.

SIRS,—In a letter published in THE LANCET of Nov. 16th from a correspondent signing himself "An Apprentice of 1846," reference is made to a state of things which demands attention from the "powers that be" at least as much as does the question of the extension of the medical curriculum to five years. This is the excessively free employment of unqualified men as assistants, in- and out-door. Desirable as it undoubtedly is, to quote the words recently used by the President of the Royal College of Surgeons, to "protect the profession against the entrance of imperfectly educated men," it is surely at least equally desirable to afford to those who have at some cost succeeded in entering the profession some protection against excessive and lowering competition from men who have not proved themselves equal to the task. That this grievance is a real and urgent one must be evident to anyone who has had the opportunity of seeing anything of provincial practice. As prominently illustrating this there occurs to me just now the case of a leading practitioner in one of our country towns, of whose large and lucrative practice a very considerable part is worked by a middle-aged man, who is no more legally qualified to practise medicine than the coachman who drives his employer's carriage. The law does not allow to the chemist the free use of unqualified assistants. Why should the medical man claim such a right, to the public harm and his own pecuniary advantage? It seems to me that as the difficulty of entering the profession is increased, so should the difficulty of unqualified practice, whether under cover of assistantship or otherwise, be made to increase.

I am, Sirs, faithfully yours,

Nov. 19th, 1889. A YOUNG G.P.

"A MUNCHAUSEN TALE OF A CANNON BALL."

A GUERNSEY correspondent, referring to the strange inscription above the reading-desk in St. Sampson's Church, a description of which appeared in THE LANCET of Nov. 23rd, writes as follows:—"I may mention that there is a local tradition at St. Sampson's that the way in which the presence of this cannon ball was discovered was this: The soldiers who were carrying the unfortunate young lieutenant off the field on a litter noticed that one side of him was very much heavier than the other. This led to questionings and surmises, ending in further surgical investigation, and then the mass of metal was found. I, of course, merely give this tradition for what it is worth; but I have heard it narrated by old inhabitants of St. Sampson's parish, who thoroughly believed the circumstantial correctness of the whole affair."

Mr. R. H. S. Carpenter.—The letter of our correspondent is too long for insertion, but will have attention.

Mr. R. D. Pedley's paper will appear shortly.

THE INDIAN MEDICAL SERVICE.

To the Editors of THE LANCET.

SIRS,—In a late issue you drew attention to a new ruling, which requires that a medical officer in civil employ must accept promotion when it comes to his turn, the alternative being compulsory retirement. There are other details in this connexion about which Indian medical officers will be anxious to have early information. How, I would ask, does Government, under these circumstances, propose to deal with those officers to whom it has in its discretion refused promotion? Logically, it would seem that these latter should be treated similarly to those who decline promotion, and *vice versâ*. It may, of course, be argued that a man may be fit for executive, but not for administrative, work. This, I admit, may sometimes be the case; but is the officer who has been deemed efficient in all things to be placed at a disadvantage to his brother of a lesser degree of estimated suitability for promotion, each holding, let it be assumed, a lucrative civil appointment? If so, it would manifestly be to the interest of a thoroughly efficient medical officer, when favourably situated, to disqualify for promotion by conveying the impression that he was deficient in administrative capacity. At present an officer to whom promotion has been refused is still permitted to continue in his appointment. Unless, therefore, some provision is made to meet such cases, a grave injustice will be inflicted upon some of those who are officially deemed the most efficient, and the position I have indicated will be forced upon the service, though I do not believe there is a member of that distinguished body who would descend to adopt the alternative mentioned. Still, it will manifestly be impossible for Government to allow matters to remain in their present anomalous position. For instance, three of the most lucrative civil appointments in one of the Indian Presidencies are at present held—the first by an officer who has several times declined promotion, and whose enjoyment of his position has been augmented by an extension of four years beyond the retirement age of fifty-five; the second by an officer of reputation, but to whom promotion has been persistently refused; and the third by a distinguished colleague, who is close upon, but probably does not desire, his promotion. The first is to be congratulated upon having attained his wishes; the second is fortunate in having been retained upon the same footing as the first, while he has had over the third (who must either retire or accept promotion, and who reasonably anticipated consideration similar to that extended to the first) a prolonged advantage. Will the retirement of the third be insisted upon, while the services of the second are still retained? What is to be the rule for the future?

As pointed out by you, there can be no doubt as to the right and power of the State in the matter, and State considerations are obviously paramount; but I would urge the justice of a grace clause being introduced, which may obviate the sudden and arbitrary incidence of the ruling upon those who, so to speak, to the last moment anticipated no such change. Nor can the question of the disposal of those who have been passed over for promotion be separated from the present issue.

I am, Sirs, your obedient servant,

December, 1889. I.M.S.

*** With reference to the first question asked by our correspondent, it is obvious that as the officers referred to did not decline promotion the rule does not apply to them. With regard to the three cases he has specified, we presume that the first, if again offered promotion, will have the option of acceptance or retirement; the second has not declined, and probably if offered would not decline, promotion; if he did he would be obliged to retire; the third clearly comes under the rule, and we cannot suppose it will be suspended in his favour.—ED. L.

B DISPARAGING PUBLICLY A'S QUALIFICATIONS.

Hypatia.—It is surprising to us that a graduate of the University of Ireland should be so wanting in good taste as to make disparaging reflections on such qualifications as the membership of the two London Colleges and of the Society of Apothecaries. Has our correspondent not been misinformed? This is always the right assumption when an absurd statement is attributed to members of our profession.

Perplexed.—Glen's "Poor-law Orders," published by Knight and Co., will give the information required.

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THE EDUCATION OF THE DEAF AND DUMB.

THE Italian Tarra is credited by his compatriots with having initiated and carried a long way to perfection the true education of the deaf and dumb—that is, the substitution for mimicry and "dactylology" of the pure oral method (*metodo orale puro*). Tarra improved on the current Italian traditions in the training of the deaf and dumb, of which there is first authentic notice in the Italy of the sixteenth century. An interesting memoir of this meritorious educationist and man of letters, bearing especially on his services to deaf and dumb children, has recently been compiled by Signor Benedetto Prina.

Tertium quid will find little difficulty in getting British diplomas recognised in most of the States. In New York, however, a local degree must be taken.

THE LATE MR. HAYNES WALTON.

To the Editors of THE LANCET.

SIRS,—The following case occurred some twenty years ago, and may possibly be interesting in connexion with your *résumé* of the late Mr. Haynes Walton, whose skill as an operating "all-round" surgeon was remarkable.

A gentleman, aged about twenty, was driven a distance of three miles to my surgery, having met with the following curious accident. He was intending to start the next week on a shooting tour at the Cape, and, having purchased some new rifle cartridges, was desirous of ascertaining their exact composition, which he attempted to find out in the following manner. Placing one on the top of one of the spikes of an iron railing, he smashed it with a blow of a hammer. The result was an explosion, and he felt a sharp blow on the inside of the middle of the thigh. A small triangular cut in the trousers was noticed, and the skin of the thigh was cut through in the same manner. There was no hæmorrhage, but it was thought best for him to "see a doctor." I passed a probe into the small wound, which was not deep enough to admit the finger, but could not get it in any direction through the cellular tissue, and the patient felt no inconvenience in any way. I could not detect any foreign substance whatever by pressure, and therefore advised him to rest it for twenty-four hours, and wait results. The external wound had healed the next day, and he started for his own home at Durham (some 200 miles), taking Shrewsbury *en route* for the night. The next thing that I heard was that on arriving at Durham inflammation had set in, and a fortnight afterwards Mr. Haynes Walton, who was staying at Durham, was called in. I shortly afterwards received the following letter from him:—

"1, Brook-street, Hanover-square, March 10th.

"MY DEAR SIR,—I was called in on Monday last to see Mr. ——. I found diffuse suppuration extending up the thigh, and a very copious discharge from the wound. I enlarged the wound, and passed my finger upwards and laterally, but discovered nothing. As my finger could not reach to the limit of the suppuration upwards, I passed a probe, and I made an incision through the integuments opposite the end of it, and explored again, but nothing was found. I was able to reach within a couple of inches of the bend of the thigh. I now enlarged the wound a little downwards, and proceeded to search. I then discovered a hole in the fascia. I passed a steel probe and detected metal. I then enlarged the opening, and with a pair of forceps withdrew the entire copper case of the cartridge. It was partly embedded in the bone. In the first instance, I declined to make any examination except under chloroform, and I am sure that I should never have succeeded in removing the body except I had used it. I placed a long splint under the limb in order to prevent all motion. I hear that a very great deal of suppuration followed my operation, with some erysipelas, but that not the slightest constitutional symptoms have appeared. There is no doubt that death would have ensued had the copper not been removed.—Believe me, dear Sir, truly yours, "HAYNES WALTON."

The patient completely recovered, and never attempted again the exploration of a cartridge, except in a more legitimate manner.

I am, Sirs, yours faithfully,

Clapton-common, N.E., Nov. 20th, 1889. HENRY J. BUCK.

A PECULIAR SEQUELA TO GONORRHŒA.

To the Editors of THE LANCET.

SIRS,—Would any of your readers kindly throw light on the following case? A fortnight ago, a young man (aged twenty-eight) came to me complaining of a peculiar musty smell emanating from the testicles, together with scalding pain on micturition. He contracted gonorrhœa two years ago, from which he has never entirely recovered. The discharge ceased more than a year ago, and since then he has been troubled with the smell and pain on micturition. His urine is clear, pale, and abundant. The smell is evident several feet away, and is very pronounced in cold weather; in warm weather it scarcely exists at all. He is otherwise in excellent health and is married. He has one child. Mother and child are healthy. He has been treated with various remedies at different times, both internally and externally—iodide of potassium, outward applications of calomel powdered on the testicles, blackwash, and corrosive sublimate being among the number. He says he has received no benefit whatever from any of them. He has also had bougies passed. I am treating him with nitrate and bicarbonate of potash and attention to diet. I should be very glad of advice as to the treatment of this case.—Yours obediently,

Dec. 7th, 1889. L.R.C.P.

MASON *v.* CHEEVENS.

WE hope to notice the exhaustive report of this case in the *South-West Suffolk Echo* next week.

MEDICAL PRECAUTIONS AGAINST CARRYING INFECTION.

Dr. Turle (North Finchley).—We have read Dr. Turle's letter with much interest, and should be glad to publish one addressed directly to us—and shorter—setting forth the points he very forcibly makes. It will be seen that we do not recognise Miss Cobbe's right to drag the profession into a discussion of details on such a matter in lay newspapers. But it is a very suitable subject for discussion in a medical publication.

Mr. W. N. Walker.—Diphtheria is both contagious and infectious (in the limited sense of the terms)—i.e., the virus may be communicated by actual contact, and indirectly through the medium of air and ingesta.

NURSING IN HONG-KONG.

To the Editors of THE LANCET.

SIRS,—I recently called attention to the statement in the annual medical report on the colony of Hong-Kong that "five French sisters of mercy will shortly arrive as nurses at the hospital." I have since heard the terms on which these sisters have been engaged by the Hong-Kong Government, and they are as follows: The senior sister is to receive seventy dollars a month salary and ten dollars a month in lieu of rations, and each of the other four sisters is to receive forty dollars a month salary and ten dollars a month in lieu of rations. Furnished rooms, fuel, light, and attendance will also be found them, and a room for a private chapel. Of course their passage money to Hong-Kong must be paid by the Government, presumably from Marseilles or Paris, and I suppose they will also receive an allowance for clothing. The Hong-Kong dollar is now worth 3*s.* 3*d.*, so the salaries paid (with ration allowance) will be £156 per annum for the senior sister and £97 10*s.* per annum for each of the others. Now, these are terms on which hundreds of English nurses, trained for three years and upwards in the best English hospitals, would be glad to undertake the work of the Hong-Kong Government Hospital, and I think we have a right to know why the Government of Hong-Kong sends for French sisters of mercy and leaves our own countrywomen out in the cold.—Yours obediently,

Dec. 3rd, 1889. M.D.

AN APPEAL.

To the Editors of THE LANCET.

SIRS,—The professional brother on whose behalf we now appeal was, till October, 1888, making in the practice of his profession an income sufficient to enable him to educate and bring up his children in consonance with the instincts of an educated gentleman, when he was stricken with complete paralysis of the right side, totally unfitting him for any professional work till quite recently. Had it not been for the thrifty and economical habits of himself and his wife, their early removal to a small house, and the timely and generous intervention of some of his professional brethren in Liverpool, he would have been compelled long since to have abandoned his home, and probably his wife and children. Local help having been exhausted, we now appeal to the general body of the profession in the hope of obtaining sufficient funds to enable him to retain his household effects till he is able to follow his profession. His present condition and progress towards recovery justify the belief that he will be able to do so in six months, possibly less. As the British Medical Benevolent Fund has already subscribed £18, his only hope for the future rests with his professional brethren, any of whom desiring further particulars can have them by applying to the undersigned.—We are, Sirs, yours faithfully,

J. D. CRAWFORD (40, Rodney-street, Liverpool).

Dec. 9th, 1889. A. SAMUELS (53, Shaw-street, Liverpool).

ALOPECIA.

To the Editors of THE LANCET.

SIRS,—Can any of your readers having experience of the use of jaborandi for increasing the growth of the human hair give me any formulæ or directions as to the best method of using it in a case of alopecia?

I am, Sirs, yours faithfully,

Dec. 9th, 1889. A. BRENCHLEY, M.D.

ERRATUM.—In Mr. William Bennett's remarks, reported in our last number, upon Mr. Golding Bird's paper on "Sacculations of Veins" at the Pathological Society, for "internal" read throughout *external* jugular.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Page, London; Mr. W. H. Bennett, London; Mr. A. A. W. Johnstone, Brighton; Dr. B. O'Connor, London; Dr. Barnard, Paris; Dr. More Madden, Dublin; Mr. A. W. Hare, Manchester; Mr. Nixon, London; Mr. A. Milnes, London; Mr. A. Black, London; Mr. McDowall, Crouch End; Mr. Melhado, London; Mr. J. Gordon, Guildford; Mr. Grün Davies, Sherborne; Dr. J. E. Squire, London; Messrs. Bennett and Co., Manchester; Dr. W. Cousins, Southsea; Messrs. Merryweather and Sons, London; Dr. Harkin, Belfast; Dr. F. L. Benham, London; Dr. Maclagan, London; Sir W. J. Simpson; Messrs. Breitkopf and Co., Leipsic; Mr. Carden, London; Mr. Pedley, London; Mr. St. Clair Buxton, London; Rev. F. Lawrence, London; Messrs. Douglas and Mason, Glasgow; Dr. Lediard, Carlisle; Mr. R. H. Evans, London; Dr. Paterson, Cardiff; Sir P. Eade, Norwich; Messrs. G. Street and Co., London; Dr. Duke, Dublin; Mr. Middlemore; Lord Balfour of Burleigh; Mr. Jibb, London; Dr. Purcell, London; Mr. Erskine Hill; Mr. V. Ford, Portsmouth; Dr. N. D. Harris, London; Mr. E. du

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LETTERS, *each with enclosure*, are also acknowledged from—Mr. Caplow, Wilts; Dr. McMordie, Belfast; Mr. Clapp, Exeter; Mr. Cornish, Manchester; Mr. Sprake, Brighton; Mr. Cornish, Birmingham; Mr. Day, Staplehurst; Mr. Young, Edinburgh; Mr. Best, Hull; Mrs. Askwith, Ramsgate; Dr. Thomas, Florence; Mr. Wills, Bristol; Mr. Bonor, Bristol; Mr. Hammond, Dublin; Mr. Smart, Sydenham; Mr. Tully, Hastings; Mr. Cook, Reading; Mr. Purland, Woolwich; Dr. Sharpe, Sleaford; Dr. Williams, Tylorstown; Mr. Branthwaite, Rickmansworth; Mr. Eyre, Pontypool; Mr. Johnson, Leicester; Dr. Stables, Bucks; Dr. Evans, Ilfracombe; Dr. Ghose, Burmah; Mr. Hornibrook, Bloomsbury; Mr. Lee, Bath; Mr. Cripps, London; Mr. Seegenberg, Hackney; Dr. Miller, Yorks; Mr. White, Kensington; Mr. Storer, Notts; Mr. Whall, Worksop; Dr. Payne, London; Messrs. Widmers and Rogers, London; Mr. Priestley, Liverpool; Dr. Faulkner, New Zealand; Mr. Heeman, Cheshire; Mr. Tyte; Messrs. Maclachlan and Stewart, Edinburgh; Mr. Heywood, Manchester; Messrs. Bennion and Horne, Salop; Mrs. Heygate, Hants; Mr. Coombs, Bridgwater; Dr. Williams, London; Mrs. Cocking, Plymouth; Mr. Pierce, Liverpool; Mr. Harrison, Yorks; Mr. Warburton, Pontypridd; Tutor, Newcastle-on-Tyne; M.D., London; P. P., Ventnor; Secretary, University of Glasgow; T. G., London; M.D., Wood-green; Secretary, Stanley Hospital, Liverpool; P., Hull; Secretary, School of Medicine, Edinburgh; Alpha, London; Vindex, London; Sigma, Tamworth; Felix, Edinburgh; Liberator, London; S. L., London; K., London; M. M., London; Medical, London; Nucleus, London; Secretary, Royal Berks Hospital; Cantab., London; Chums, London; Secretary, Kent County Asylum; G. A. C., London; C. M., London; R. W., Liverpool; R. H., London; Medicus, Folkestone; J., Enfield; Riversl, London; Maga, London; Medicus, Birmingham; Plasyndre, Monmouth; P. A. M., Bognor; Alpha, Glamorganshire; M.D., Mincing-lane.

Sussex Daily News, Reading Mercury, Trade, Finance, and Recreation, Weekly Free Press and Aberdeen Herald, Suffolk and Essex Free Press, Standard, Hertfordshire Mercury, Scotsman, Mining Journal, Surrey Advertiser, Brighton Herald, Taranaki News (N.Z.), Child's Guardian, The Worker, &c., have been received.

Medical Diary for the ensuing Week.

Monday, December 16.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
SOCIETY OF ARTS.—8 P.M. Mr. William Jago: Modern Developments of Bread Making. (Cantor Lecture.)
MEDICAL SOCIETY OF LONDON.—8.30 P.M. The Discussion on Dr. Douglas Powell's paper will be continued, and cases of Aneurysm of the Aorta will be shown.

Tuesday, December 17.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.
PATHOLOGICAL SOCIETY OF LONDON (at 20, Hanover-square).—8.30 P.M. Dr. Hadden: Cyst of Cerebellum.—Dr. Gulliver: Simple Cyst of Cerebellum.—Mr. W. S. Colman: Cerebellar Tumour.—Mr. Barling: Cancer of Breast following Eczema.—Mr. Bland Sutton: Psorospermiæ in Ureter.—Mr. Silcock: Parasitism by Psorospermiæ.—Dr. Delepine: Psorospermiæ in Rabbit's Liver.—Dr. Hunter: Pathology of Duodenitis after Burns.—Dr. Hale White: Intussusception of Jejunum in Adult due to a Polyp. Card Specimens.

Wednesday, December 18.

MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.—4 P.M. Mr. Rickman J. Godlee: On Abscess of the Liver, and Notes on some Surgical Chest Cases.
SOCIETY OF ARTS.—8 P.M. Sir Robert Rawlinson: London Sewage.

Thursday, December 19.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
NEUROLOGICAL SOCIETY OF LONDON (National Hospital, Queen-sq.).—8.30 P.M. Mr. J. Sully: The Psycho-physical Process in Attention.

Friday, December 20.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, December 21.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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Clinical Lectures

Delivered to the Students of the

MANCHESTER ROYAL INFIRMARY

During the Summer Session, 1889,

BY THOMAS HARRIS, M.D. LOND., M.R.C.P.,

SENIOR ASSISTANT PHYSICIAN TO THE INFIRMARY, PHYSICIAN TO THE MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT, AND SENIOR DEMONSTRATOR OF PATHOLOGY IN THE OWENS COLLEGE.

LECTURE III.

THE DIAGNOSIS OF THE LATE STAGE OF PULMONARY PHTHISIS.

GENTLEMEN,—In our last lecture we were concerned with the diagnosis of the early stage of phthisis; to-day I wish to speak to you in reference to the diagnosis of advanced cases of that disease. Unfortunately, it is usual to consider three stages of phthisis—the first, or that of consolidation; the second, or that of softening; and the third, or that of excavation. You must however remember that, except in the early stage of the disease, it is very rare to meet with cases of phthisis where the lungs present only one of these changes. Usually all three stages are present in the same lung, one part of the organ presenting the condition of consolidation, in another portion softening has taken place, and in a third we have a cavity of greater or less size at the same time in existence. This fact of all three stages being present at the same time is a consequence of the tubercular process in the lungs not remaining limited for a long period to a single focus. The tuberculosis in an ordinary case of phthisis doubtless commences at one spot, but in a short time, the length of which varies with the acuteness or chronicity of the case, the primary focus gives rise to secondary ones in its immediate neighbourhood. As the tendency is for each of these foci to run through the stages of consolidation, softening, and excavation, you can readily understand how it is that, except in the early stage of phthisis, we find the different stages all present at the same time in one lung. In the acute cases of phthisis these secondary foci are present at an early stage of the disease, and softening and excavation ensue in them at an early period. In the chronic cases, on the other hand, the process remains for a longer time limited to the primary focus, and the secondary foci develop at a later period, whilst softening ensues also more slowly than in the acute cases.

From the above facts you will readily understand why the diagnosis of the last stage of phthisis is usually far more readily made than we have seen to be the case with the early stage of the disease. In the advanced stages we commonly find the symptoms and physical signs of phthisis well marked. But although this applies to the majority of cases, it does not apply to all. We are very frequently surprised to find on the post-mortem-room table much more extensive phthisical changes in the lungs than we had expected, from the result of our clinical examination, to discover. We frequently find that the physical signs do not correspond to the pathological changes in the lungs. We also occasionally meet with cases where the appearance of the patient leads us to expect marked evidences of phthisis, but where, on careful examination of the chest, the indications of phthisis are found to be very much less evident than we had expected simply from the appearance of the person and from the history of the case. And, again, we occasionally meet with cases where the physical signs of phthisis are far more marked over the lower part of one lung than over the apex, and where in consequence we are inclined to regard the case as one of basal phthisis—of phthisis commencing and being most marked at the lower part of the lung. But when we have an opportunity of examining such cases after death, we may be surprised to find that the disease is really much more advanced and of older date in the apex than in the lower part of the lung. We discover in the upper part of the lung cavities—may be of large size—which had given rise to no definite physical signs during life. So that although phthisis can usually be readily diagnosed in its advanced stage, we not unfrequently find advanced stages of the disease in parts of the lungs where they had not been suspected during life, although the chest had been carefully examined. It is a well-recognised fact that phthisical cavities frequently exist without giving rise to signs which allow of their recognition; and it is also true that cavities are very frequently diagnosed without there being sufficient data for such a diagnosis to be made.

We will consider the physical signs which may be present in the case of pulmonary cavities, and we shall find that the cases are rare where absolutely characteristic and pathognomonic signs of such cavities exist. There are especially four conditions which have a very marked influence on the signs which a pulmonary cavity may present. These are the *size* of the cavity, its *position*, the *condition of the surrounding lung*, and the presence or absence of a *free communication with the bronchi*. We will see how each of these conditions may influence the signs presented by a cavity.

The size of cavities varies considerably, and you can readily understand that a cavity the size of a pea is likely to give rise to signs which differ from that the size of a hen's egg. In the former case we have no signs really dependent upon the cavity; what signs are present are the result of the condition of the surrounding lung tissue; whereas in the case of the larger cavity the space would directly influence the physical signs, unless the other conditions (position, condition of surrounding lung, &c.) were unfavourable to the manifestation of those signs. It is not possible to say what size a cavity must be in order that we may recognise it, because the other conditions (position, &c.) may be favourable or unfavourable in any case.

The position of a cavity has a marked influence on the physical signs to which it may give rise. You can readily understand how different must be the physical signs presented by a cavity the size of a walnut, situated immediately beneath the pleura in the apex of a lung, and one of the same dimensions seated in the centre of the lower lobe. In the former case it is directly accessible to percussion and auscultation, in the latter case it is not. The condition of the surrounding lung tissue might likewise be expected, on *a priori* grounds, to have a like influence to the position of the cavity on the physical signs. In the case of a medium-sized cavity surrounded by an extensive area of consolidated lung we usually have the physical signs dependent upon the consolidation rather than upon the cavity. And, again, a cavity surrounded by a small zone of consolidated lung, which alone intervenes between the cavity and the chest wall, is more likely to transmit sounds to the physician's ear and to be affected by percussion than would be the case if the same sized cavity were surrounded by a zone of healthy not consolidated lung.

The influence which the presence or absence of a free communication with the bronchial tubes must exert on the physical signs which a cavity may present will be more clearly understood when we come to speak in detail of the signs of cavities. It will, however, suffice for the present purpose to say that, if a cavity exists in the lungs and is shut off from any communication with the bronchial tubes, there is not likely to be any transmission and modification by the cavity of sounds which originate in the bronchial tubes or higher respiratory passages, such as would be probable if a free communication with the bronchi existed. We will now consider more in detail the various signs which a cavity may present, and also how those signs may be modified according as the above indicated conditions vary.

The chest wall over a cavity is, as a rule, retracted. In some cases the retraction is but very slightly marked, and by carefully watching some cases of phthisis we may see that the retraction, previously existing, may become less marked where a cavity has formed. In some rare cases the chest wall has been noted[1] as more prominent over a large cavity, there being a very slight bulging as compared with the corresponding region of the healthy side. The most common feature, however, to observe on inspecting a chest where a cavity exists is retraction with diminished movement over the affected part.

The vocal fremitus over a cavity varies considerably, as a

[1] Walshe: Diseases of the Lungs, fourth edition, pp. 10 and 423.



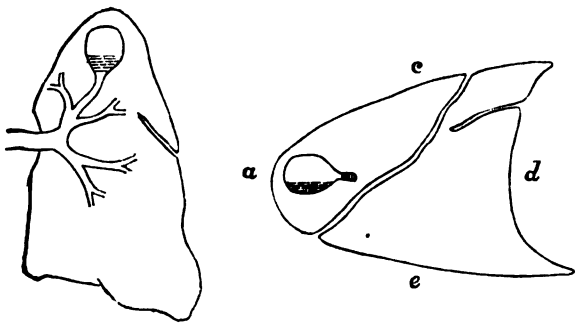
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rule, in consequence probably of the existence of consolidation around the cavity, it is increased.

The percussion note over a cavity varies remarkably, since so much depends upon the position of the cavity, its size, and the condition of the surrounding lung. If you look at these two preparations you will have little difficulty in understanding the difference which is met with as a result of percussion over cavities. In the one preparation we have a cavity situated at some distance from the pleural surface, and surrounded by consolidated lung tissue. In such a case you can readily understand that dulness on percussion would be the most probable result. In the other preparation you see a large cavity situated immediately beneath the pleura, and can imagine that a probable result of percussion would be not dulness, as in the former case, but hyper-resonance, the note being of a more or less marked tympanitic quality. In many cases of cavities of the lung, probably in the majority of instances, we find only dulness on percussion over the seat of the cavity. This is seen where the cavity is small, and where, even if it is of considerable size, it is surrounded by consolidated lung tissue. On the other hand, some variety of tympanitic resonance is not unfrequently met with as a result of percussion over a cavity. The superficial position of a cavity is favourable to the development of such a percussion note. According to the size and position of a cavity, the note may be distinctly tympanitic, or of only a shallow tympanitic quality. Rarely is a cavity sufficiently large and favourably placed to give rise to an amphoric note. Such resonance is far more frequently associated with pneumothorax than with pulmonary excavation.

A cavity which under one set of conditions gives rise to a tympanitic note may, under different conditions, give

FIG. 1.

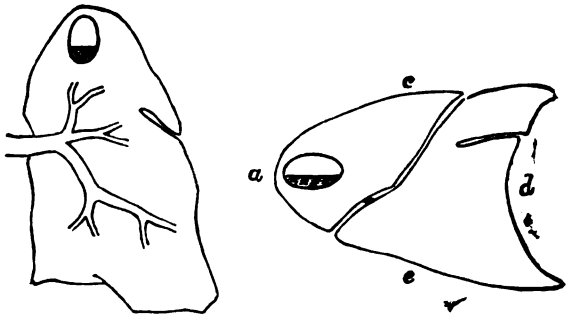


A, Vertical lateral section of the lung. B, Vertical antero-posterior section of the lung:—*a*, Apex. *d*, Diaphragmatic surface. *c*, Anterior border. *e*, Posterior.

rise to some alteration in the pitch of that note. One such change is that first pointed out by Wintrich. That observer noticed that the percussion note over a cavity was frequently altered in pitch according as the patient kept the mouth open or closed. He observed that the note became lower pitched when the mouth was closed, and sometimes lower still when the nostrils as well as the mouth were closed. This change in pitch cannot be demonstrated in all cases, since for its production it is necessary that the cavity is in free communication with the bronchi. Where a cavity exists which does not communicate with the neighbouring bronchi, the pitch of the percussion note is the same whether the patient has the mouth open or closed. In some cases the alteration in pitch is only manifest when the patient is lying down, whilst it is not evident when he is sitting up; or it may be detected when he is sitting up, but not when he is in the recumbent posture. This difference, as pointed out by Moritz and Gerhardt, probably depends upon the position in which the cavity communicates with the bronchi and upon the presence of fluid contents in the cavity, which contents are able in one position to occlude temporarily the orifices of the bronchi, but, with an alteration of position of the patient, the contents change position and leave the orifices of the tubes free. Let us suppose that in the case of a cavity in the apex the communication with the bronchi was at the lowermost part of the cavity, as represented diagrammatically in the illustration. (Fig. 1.) If the cavity contained some liquid contents the communication between the cavity and the bronchi would be shut off in the erect posture (A), but there would be a free communication between those parts in the recumbent posture (B) in consequence of the alteration in the position of the fluid contents of the cavity. Consequently, in such a case we should expect no alteration of the pitch of the percussion note when the patient opened and closed the mouth whilst he was in the erect posture, but such an alteration ought to ensue when he assumed the recumbent one. If, on the other hand, the bronchi opened into the cavity on its posterior aspect, instead of below, the condition of affairs would be the exact reverse of the above, and we should expect a change of pitch when the patient was in the erect, but not when he was in the recumbent, posture.

In exceptional instances the tympanitic percussion note over a cavity may be replaced by a toneless note where the space becomes filled with secretion, and that dull note may give place again to a tympanitic one when the secretion is expectorated. In still rarer cases of a large cavity with much secretion simple change of position alters the percussion note, so that a part of the chest which, for instance, was tympanitic in the recumbent, becomes dull when the patient assumes the erect posture. Eichhorst[2] states that in some cases the tympanitic note detected over a cavity becomes higher pitched on a deep inspiration, and lower with expiration. The effect of a deep inspiration may not merely raise the pitch of the tympanitic note, but cause the tympanitic note to be replaced by a dull one (Wintrich). Another sign, which was pointed out by Gerhardt, is in rare cases detected over a cavity. This is the alteration of the pitch of the percussion note by simply changing the posture of the patient, such alteration being a consequence

FIG. 2.



A, Vertical lateral section of the lung. B, Vertical antero-posterior section of the lung:—*a*, Apex. *d*, Diaphragmatic surface. *c*, Anterior border. *e*, Posterior.

of the shape of the cavity becoming altered by the different position, which the fluid contents of the cavity assumes. You are aware probably that we obtain the same pitch in the tympanitic note by percussing over a cylindrical vessel as over one of an ovoid shape, provided that the orifice of the two vessels is of the same size, and also the length of the column of air contained in them is the same. But if the column of air is shortened in either vessel, then the pitch of the percussion note which can be obtained by percussing over the orifice of that vessel is raised. A similar condition has been found by percussing over cavities. If there is an oval-shaped cavity in the apex of a lung, the long axis of the cavity corresponding to the long axis of the lung, and if that cavity contains a medium quantity of fluid contents, the length of the column of air, which has an influence on the pitch of the percussion note, will be greater in the recumbent (Fig. 2, B) than in the erect posture (Fig. 2, A). And consequently the pitch of the note will be higher when the patient is in the erect than when in the recumbent posture. If, on the other hand, the oval-shaped cavity has its long axis running in an antero-posterior direction, and not corresponding to the long axis of the lung, then the pitch of the tympanitic percussion note, which may be elicited over it, will be higher when the patient is in the

[2] Lehrbuch der Physikal. Untersuchungsmeth. innerer Krankheiten.

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recumbent (Fig. 2, it thus when he is in the erect or sitting bronchial type) or complete closure over a cavity, even of position. Now, this percussion over a cavity may reveal considerable size, may be rendered impossible by the accumulation of the pleural effusion, by the presence of a large number of clots. The same is true of the auscultatory phenomena. Under ordinary circumstances, when the cavity is empty, it is emptied by coughing, and is filled with air at each inspiration, we have the typical amphoric breathing, with or without metallic tinkling, a phenomenon which is rarely met with over a solid lung, and which is therefore of great importance in the diagnosis of pyo-pneumothorax. Instead of such an obscured condition of the percussion note, we have a tympanitic note, and the auscultatory phenomena are those of large cavity with a free communication with the bronchi, and of a cavity filled with air and of gurgling character. The large bronchial tubes, the cavities, the lung space, were so large that the cough could not produce sufficient force to empty the cavities even of blowing and loose breathing. The cavities arise from of blowing and loose breathing. The cavities arise from the breaking down of the pneumonic exudation, and the breath sound of the pneumonic cavity rather than the cavernous breathing, or the amphoric breathing, or the bronchial, tubular, cavernous, etc., is more any case of pneumonic consolidation, and the presence of a cavity rather than the presence of the consolidation is proved by the existence of a pneumothorax, which is rarely met with over a solid lung. Now, however, they do, and we have had a case in which we were almost certain by case of pulmonary tuberculosis, and over other portions over the upper lobe of the lung, but we also found that the auscultatory phenomena were those of a cavity, and that the cavity was filled with air at each inspiration. Under ordinary circumstances, with or without metallic tinkling, a cavity is not easily made sure a pulmonary cavity, but in this case there was a pneumothorax, which made it almost certain that the cavity was a pulmonary one. Such a case I may add, is enough to show that the presence of a pneumothorax does not always indicate the presence of a cavity, it has been described as being present in cases

to these signs. They are more frequently audible over hydro-pneumothorax or pyo-pneumothorax than over large excavations in the lung substance.

It will be thus seen that there are but few signs which when present are conclusive evidence of the presence of pulmonary cavities, and also that very frequently pulmonary cavities exist without giving rise to signs which are pathognomonic of their existence. We need to carefully bear in mind that simple consolidation of the lung often gives rise to signs which are mistaken for those associated with the existence of cavities. As a rule, however, although the diagnosis of the presence of a cavity is difficult, we are able to say whether the destructive changes in the lung in a particular case are advanced or not; but in some cases we are unable to be certain even on this point, because very extensive destruction of the lungs may be present, and yet give rise to very insignificant physical signs. Another point of considerable importance bearing on this same subject is the fact that in advanced cases of phthisis we may have the physical signs much more marked at the base than at the apex, and yet when we have an opportunity of examining such cases after death we find that the disease is much more advanced at the apex than at the base. Such cases are very apt to be mistaken for cases of primary basal phthisis; but in reality they are only cases where the signs of the cavities in the upper parts of the lungs are few and indefinite, whilst the signs of those existing at the base and of the softening which is taking place there are more evident. Cases of basal tubercular phthisis—i.e., phthisis commencing at the lower part of a lung—do occur, but they are probably more rare even than is supposed.

ABSTRACT OF

The Harveian Lectures

ON THE

SURGERY OF THE KIDNEYS.

Delivered before the Harveian Society of London,

By J. KNOWSLEY THORNTON, M.C.,

SURGEON TO THE SAMARITAN FREE HOSPITAL.

LECTURE III.

MR. PRESIDENT AND GENTLEMEN,—I have now arrived at a very important branch of my subject—renal tumours. Of osteomata and hæmatangiomata I have nothing to say; the very occurrence of true bone tumours is doubtful, and the small vascular tumours, which resemble telangiectasis of the liver, have never been seen of sufficient size to render them surgically important. The simple fibroma often attains a great size, and so do the mixed forms. The fibro-cyst, which furnishes the largest specimens, is probably always a degenerative form of the simple fibroma, the cavities being the result of breaking down of central portions of the growth. The tumours in which there is an admixture of muscular tissue also attain an enormous size (myo- or rhabdo-fibroma). Those in which fat is present are, like the cystic tumours, products of degenerative change in the simple fibroma; they often also attain a very great size. Fatty transformation of the kidney, as recorded by various pathological observers, is a totally different condition, due to increase of fat in the adipose-areolar tissue, which pushes its way into the kidney through the hilum; it is usually the result of suppurative disease in one kidney. Its only surgical importance arises in a case in which the other kidney becoming the seat of some disease, curable by surgery, the patient practically only has one kidney, and the surgeon should be able to recognise the fatty transformation of the opposite organ by abdominal exploration. Nothing is known as to the causes, and but little as to the symptoms, of these simple tumours; they probably produce no symptoms till their size becomes a source of discomfort, or a cause of damage to the affected or to neighbouring organs, by their weight and pressure. Their recognition must chiefly depend upon their evident connexion with the kidney, their slow growth, and the absence of symptoms above referred to. When they attain a sufficient size to make them a serious inconvenience, a source of danger to the kidney they are attached to, or to other organs, they may be removed by abdominal section, either with or without the kidney from which they grow, according to the closeness of their connexion with the organ.

Adenomata are of two kinds, the papillary and the glandular; the former commonly projects from the lining membrane of the tubules and Malpighian capsules; the latter is more common in the cortex. It is very rare for either to attain a size to call for surgical interference. I have put them in a group by themselves, because their minute structure closely resembles that of the ovarian adenomata, and these latter growths are certainly on the borderland of malignancy. I have operated successfully in a case of hydronephrosis, associated with calculus, both lesions being produced by a papilloma growing at the pelvic end of the ureter. Sarcomata are not only among the commonest of renal tumours, but also the most varied in their clinical characters, some being so malignant that they should never be touched, while others are so slow in growth, so slow in invading neighbouring parts, and so slow in recurring, if they ever do recur, that they present the most favourable cases for successful surgery. Renal sarcoma is commoner in children than in adults, and is also usually in them of a very malignant type. I have never myself operated upon a child for renal sarcoma. I have refused to do so several times, and I have seen several such operations, and each has impressed strongly upon my mind the uselessness of the procedure. With adults the exact reverse seems to be the case; in them renal sarcoma is often of slow growth, is slow in invading neighbouring tissues, and is also slow in recurrence. The difference is to be sought, first, in the varieties of sarcoma most common in early life and in the adult; and, secondly, in the portion of the organ first invaded by the disease. In children the cell element predominates, while in adults there is a large amount of dense intercellular substance. In children the whole organ is much more often infiltrated, while in the adult the disease commonly attacks the capsule, leaving often the secreting structure uninvaded. Of the five adults I have operated upon for sarcoma three recovered and two died. Four of the patients were females, aged respectively fifty-three, twenty-five, forty-two, and thirty-six, and the fifth was a male aged twenty-two. In one of the cases the tumour was large, and had not involved the kidney at all; it had been suggested that it originated in the supra-renal capsule, but against this was the fact that the capsule of the kidney was continued over the surface of the tumour. My first fatal case was a cysto-sarcoma, weighing ten pounds, of mixed kind, containing round cells, myxomatous tissue, and many bloodvessels, occurring in a woman aged twenty-five; it had penetrated the diaphragm and pleura. The second was that of a married woman, aged forty-two, and the growth was a spindle-celled sarcoma commencing in the capsule near the hilum, and invading the interior of the pelvis. The history of the first of these cases is sufficiently long to make it probable that an early operation might have saved her. In the last case the slow growth, with no sign of infection of other organs, in spite of the early hæmorrhage, shows, I think, clearly, that a successful result would have attended operation, at any time before the kidney became fixed by extension of the growth into the surrounding structures, and the health broken down by repeated hæmorrhages and constant suffering.

If we now attempt to summarise our imperfect knowledge of renal sarcoma, we find that it is most common in children, is in them often congenital, in this case going on to a rapidly fatal termination, from quick increase in size, involvement of neighbouring tissues and organs, and general marasmus; that when it makes its appearance later, but still in childhood, it runs a much more rapid course than in the adult, more speedily involves surrounding tissues, and is therefore rarely seen at a time when operation can be undertaken with any reasonable chance of completely eradicating the disease; that even when detected quite early, and before there is any sign of its having involved the other tissues, its removal is commonly followed by such speedy recurrence that the operation is barely justifiable. Such recurrence, moreover, is very extensive in its outbreak, and usually leads to an amount of suffering altogether beyond that which is seen when the disease is allowed to run its natural course in the kidney. Turning now to the adult, we find that the disease is most common in the

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middle period of life, is usually slow and insidious in its early course, and frequently progresses slowly, and often painlessly, for years, before it spreads beyond the kidney; a certain amount of aching and pain in the situation of the affected kidney, occasional attacks of hæmaturia, and a hard swelling in the renal region, which is from its weight apt to become more mobile than a normal kidney, and is therefore likely to be regarded as an innocent condition, being the only symptoms which are at all common. It is worthy of special note that with two large tumours of the capsule (or of the supra-renal capsule) there was no hæmorrhage; indeed, the only symptom in each case was the tumour, till its size caused indigestion, nausea, &c. There was never any urinary symptom in either case to direct attention to the kidney. The tumours most likely to be mistaken for renal tumours are retro-peritoneal cysts, often quite impossible to diagnose from hydronephrosis, omental cysts, distended gall-bladder surrounded by adhesions, enlarged spleen, ovarian tumour, subperitoneal fibro-myoma and solid sarcoma of mesentery, and retro-peritoneal tissue. Lymphadenomata, though not uncommon in the kidneys, are always a part of a general disease, and, except in the matter of differential diagnosis, quite outside the province of surgery. Of carcinoma, the encephaloid variety is most common, then the scirrhous, then the colloid. Epithelioma and cylindroma are so rare as to be almost curiosities. We have, of course, nothing to do with the secondary forms of the disease, which attack both organs, but only with primary cancer affecting one kidney. This is not nearly so common as sarcoma, and is essentially a disease of the adult, and occurs chiefly in people past middle life. The causes appear to be heredity, the long-continued irritation of calculus, accidental blows, and injuries. The symptoms are a combination of those of calculus, of those of the early stage of tubercle, and of those of sarcoma. I think Newman puts it well when he says, "The differences in the symptoms of sarcoma and those of cancer will be found to be one of degree rather than of kind." Renal carcinoma frequently infiltrates the whole organ, but it also occurs with the appearance of a capsule; this is, however, deceptive, for microscopic examination shows that there is a gradual transition from the cancer to the healthy renal epithelium, extending through the apparent limiting capsule. This was well seen in the only case of primary cancer that I have met with, in a widow aged fifty-three, from whom I removed a kidney affected with encephaloid cancer. Adding this case to the sarcoma cases, I have six operations for malignant disease, with four recoveries and two deaths. Lumbar nephrectomy is essentially the same operation as lumbar nephrotomy, but with the addition of the enucleation and removal of the kidney through the lumbar incision. The objections to it are: 1. The small space available for incision in most cases. 2. The danger of wounding a pleura with a low insertion. 3. The danger of wounding the colon or the peritoneum, and of fouling the latter without being aware of the accident. 4. The possibility of not being able to find the kidney at all, an accident which has happened in a large number of cases, and to experienced London surgeons. 5. The possibility of removing a single kidney, without knowing that the patient has only the one. 6. The impossibility of noting the condition of the other kidney and ureter. 7. The fact that it is only suitable for a limited number of cases, it being impossible to remove much-enlarged kidneys, through any incision that can be confined to the loin. I have only once performed the operation, and then under peculiar circumstances. I had made a median abdominal incision to explore the pelvic contents, and found a disorganised kidney. It was impossible to remove it through this median incision without extending it to a great length, and so, having opened the kidney through the loin to explore its interior, I extended this into the usual lumbar incision, and thus removed the kidney.

The great point advanced in favour of lumbar nephrectomy is that up to the present time it has been more successful than the abdominal method; but this is because the latter has usually been a last resource in cases too bad to be operated on by the lumbar method. There are, however, some conditions in which the lumbar operation may properly be performed, notably cases in which a lumbar incision and drainage having failed, the extirpation has to be undertaken with a fetid sinus, already extending from the loin into the interior of the kidney; also in some cases of wound of the kidney, to which I shall refer later. For the performance of lumbar nephrectomy various operators advise various incisions, but each case must really be dealt with on its own merits, according to the size of the kidney, the absence or presence of adhesions, and the configuration of the individual. When the kidney is thoroughly exposed, it must be enucleated from its adipose areolar capsule, or from its true capsule, according to circumstances. When reached the vessels should be tied as close to the kidney as possible, *en masse* if they are normal, and separately if they are more numerous. The ureter should, whenever possible, be loosened from its bed, secured with forceps close to the kidney, and then ligatured further off, a sponge being placed under it when it is divided between the forceps and ligature, in case a few drops of its contents should foul the wound. Its free end should be fixed in the lips of the external wound by a suture, or safety pin, a rubber drainage-tube or two being placed alongside of it, and the wound closed round their mouths by a few points of interrupted suture, each including all the divided tissues. Before the sutures are introduced, the wound should be well dried with carbolised sponges, and then flushed with some warm antiseptic solution. If the adhesions round the vessels are very dense—sometimes they are like cartilage,—they must be carefully snipped through, bit by bit, with scissors, and the vessels tied together with some of the adherent tissue, rather than risk wounding the aorta or cava by too carefully dissecting them out. A large, thick, absorbent, antiseptic dressing, secured by broad adhesive straps, or by a many-tailed flannel bandage, is then applied. The vertical incision which I suggested in 1883, so as to avoid opening the peritoneum, I have found in practice not to answer.

Abdominal nephrectomy should be performed by the lateral incision introduced by Langenbuch, and made along the outer border of the right or left rectus, according to the kidney to be removed, as it not only gives a more easy command of the renal vessels and ureter; but it avoids almost entirely exposure of the intestines and general cavity of the peritoneum during the operation, and it gives easier access to the outer layer of the mesocolon, through which the kidney should be approached in order to avoid the vessels, which lie chiefly in the inner layer; thus by operating through the outer layer hæmorrhage is avoided, and the vascular supply of the colon is less liable to injury. The incision should begin just below the ribs, a narrow hand's-breadth from the middle line, and be carried down for about four inches, so as to admit the operator's hand without bruising the parietes. As soon as the peritoneum is open, the hand should be introduced and passed over to the opposite side of the abdomen, for the examination of the opposite kidney and ureter. A flat carbolised sponge is then introduced, to keep back and cover the intestines; a small opening is made in the outer layer of the mesocolon, and enlarged by tearing, and through this opening the size and condition as to adhesions of the kidney are estimated. When it is found that the tissues lying above the kidney are normal, the fingers can be gradually insinuated under the peritoneal covering till the aorta is reached; from it the renal artery can be traced, and then the vessels can be ligatured before the kidney is enucleated, but when, on the other hand, there is much inflammatory thickening of the tissues and adhesion, the kidney must be enucleated before the vessels can be reached and cleared. In old-standing cases of pyelitis or pyonephrosis the adhesions about the vessels and hilum are often extremely dense and thick, so that the renal vessels can only be discovered when they are cut across and bleed, and can only be secured by running a needle armed with silk under their mouths in this dense tissue. When I can I transfix and tie the vein and artery separately; in other cases I pass the silk through some part of the tissues above the vessels and tie *en masse*. I usually apply a separate fine ligature around the whole pedicle before dropping it. During enucleation each bleeding vessel should be secured by a pair of small pressure forceps, and well wrung sponges should be pushed down between the kidney and the capsule as successive portions are enucleated. The last part to separate is the ureter, and before separation its renal end should be secured by pressure forceps, then a ligature tied a little way from the forceps, and a sponge placed under it before it is divided. Whenever it is possible I enucleate it for some distance from the kidney before dividing it, so that its cut end, with the sponge under it, may be at once drawn outside the abdomen; and I afterwards fix it in the lower angle or most convenient part of the abdominal incision with a cleansed safety pin. The vessels having been secured, the sac should be carefully


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sponged out. If a well-wrung sponge, pressed to the bottom of the sac, comes out fairly dry and but little blood-stained, and if the operator is absolutely certain that no fouling of the sac has occurred with the kidney contents, its edges may be allowed to drop together, and the abdomen closed without drainage. It is not advisable to suture the edges of the sac. If there is fear of oozing, or the least doubt as to the perfect asepticity of the operation, it is better to drain with a Keith's glass tube, projecting from the abdominal incision with sponge dressing, and clearance every twelve hours under the spray. If a loin opening has also been made, a rubber tube should be placed there. I treat the cases after operation exactly as I treat all other abdominal operation cases, except that I allow no opium in any form, and I avoid stimulants also. When a sedative is absolutely necessary, I give bromide of potassium and chloral, in rectal injections. Sickness I treat at first with fifteen-grain doses of oxalate of cerium in mucilage, frequently repeated; but if it continue beyond the third day, I give a few doses of white mixture, and aid its action by a small enema, and this is generally efficacious. In the absence of vomiting, I keep the bowels quiet for a week, as any disturbance in the colon must affect the intra-peritoneal wound injuriously. I now treat the ureter with tincture of iodine, then with strong corrosive sublimate lotion, and in some of the cases it has after this remained sweet, and healed quickly. The occasional absence of a second kidney, the knowledge that in one case at least (Polk's) a single kidney has been removed, the error only being discovered after the death of the patient, the importance of knowing exactly the condition of the other kidney and ureter, and the greater convenience and precision of the abdominal method, seem to me to indicate its use in all but some exceptional cases, to which I have already referred. I do not advocate the performance of abdominal nephrectomy by every tyro in surgery, neither do I recommend such to undertake any serious abdominal operation; but I do unhesitatingly affirm that, as a precise and scientific operation, there is no comparison between the abdominal operation and its lumbar rival.

In reference to the examination of the urine, I do not attach so much importance to the secreting power of the other kidney as is done by most writers on renal surgery. Still, it is well to have the urea estimated several times before operation, taking the whole quantity of urine passed in each twenty-four hours. Low specific gravity, constant presence of albumen to any amount, and, worse still, the presence of casts, are indications not to be neglected. With regard to the contrivances for obtaining the urine from one ureter, I believe they are all nearly, if not quite, as dangerous as a properly performed abdominal nephrectomy, and I leave it to those who believe in these aids to surgery to learn their use from other sources.

Injuries of the kidney and of the ureter only require to be treated on sound surgical principles to yield a very large proportion of success. The kidneys are liable to be bruised, shaken from their normal seat, crushed, ruptured, torn, cut, and penetrated by shot or bullet. The ureters are liable to be violently stretched, torn across, or to have holes made in them by knife, shot, or bullet. They are also liable to be damaged by the surgeon, in the performance of abdominal operations, and by the accoucheur, in delivery by the forceps. Most of these injuries may occur, both to the kidney and to the ureter, without external wound; others, such as those inflicted by stab or gunshot, always have an external wound, to guide us to the seat, and as to the probable extent of the injury. The mortality from traumatic lesions corresponds very closely to that following surgical procedures for the various diseases we have been considering. Let us hope that, as my results in abdominal nephrectomy show a reduction of mortality to 20 per cent., so in the new era which has dawned upon abdominal surgery a like reduction may occur in the mortality from traumatic lesions. Bruises of the kidney may lead to abscess, but the presence of organisms is necessary to the development of the latter. Peri-nephric suppuration may originate in the same way. Crush of the kidney is one of the more common traumatic lesions, from the frequency of cart or carriage-wheel accidents; in this case the kidney may be merely bruised or contused, or, it may be seriously lacerated; in either case blood may appear in the urine. Or it may be altogether separated from its vessels and ureter, a condition which would be indicated by much more severe and complete collapse, by evidences of internal hæmorrhage, by diminution of the quantity of urine, but not necessarily by the presence of blood in it, as the torn ureter quickly contracting and curling over, no urine or blood may pass down it, from the moment of the accident. If such a condition were suspected, the abdomen should at once be opened and searched. If, on the other hand, only the parenchyma of the organ is injured, there is every probability that, with rest, cold applications, and proper care, the patient will recover. The bleeding tends to cease spontaneously; and if the kidney is healthy at the time of the accident, the urine will not necessarily trouble the peritoneum. Of course, if an accident should happen to a kidney already diseased, and pyoid or putrid urine flow either into the cellular tissue or peritoneum, the results would be immediately disastrous; in the latter case probably the most speedy surgery, and flushing out and drainage of the peritoneum, would hardly save the patient. If in rupture of the kidney healthy urine escape backwards into the cellular tissue, the condition known as acute hydronephrosis is produced. Sympathetic suppression of urine may result from any of these renal injuries, but more commonly follows bilateral than unilateral injury. When it is present, the surgeon has to consider the possibility of both ureters being torn across. If a clot of blood obstruct the ureter after injury to the kidney, renal colic may be added to other symptoms. Collapse, vomiting, hæmaturia, retraction of testicle, fulness and tenderness in the flank, ecchymosis of the skin over the kidney, and possibly suppression of urine, are the symptoms of serious injury.

Penetrating wounds of the kidney, from loin stab, have not been uncommon, and the literature of the subject shows that the kidney, or a portion of it, is apt to prolapse through the wound, and that the patients are very likely to recover when left to nature, or treated on the rough principles of the past. If there is the least reason to conclude from the symptoms that adjacent organs are implicated, the abdomen should be at once opened, the site of the injury thoroughly explored, the peritoneum cleansed, and any other necessary procedure adopted. In deciding on the proper treatment to follow in any given case of renal injury, the chief points to attend to are the evidences of injury of other organs, the evidences of internal hæmorrhage, the evidences of internal escape of urine, and the possibilities of recovery, as evidenced by the general condition of the patient, if simple rest and care be the treatment. Wound of the ureter may lead to acute hydronephrosis, and may be treated by immediate incision and drainage, and by more remote nephrectomy if a fistula result; or if there be reason to suppose that the wound is small, it may be exposed and sutured, or the injured part of the ureter may be resected, and the healthy parts of the tube sutured together.

In gunshot wounds each case must be treated solely on its own merits. It must never be forgotten that in any renal injury the accumulation of blood and urine in the cellular tissue around the ureter may, by its pressure, obstruct that passage, and the possibility of obstruction to the flow of urine, by accumulation of blood-clot in the bladder, must also be borne in mind.

Gentlemen, with this hurried sketch of the nature and treatment of the traumatic lesions of the kidneys and ureters I close my lectures. No one is more conscious of their imperfections than myself. The subject has grown, and is growing so rapidly with increased experience, that it already requires at least a dozen lectures to do it justice. I have endeavoured to make these lectures as practical as possible, illustrating by my own cases, and stating frankly my own opinions, rather than searching for those of others, and giving you a compilation. I can only say, in conclusion, that if you, who have so kindly and patiently listened to me, have learnt one-half as much, or derived one-half the pleasure from listening, as I have found in the preparation, I am amply repaid for my labour.

WOLVERHAMPTON HOSPITAL SUNDAY FUND.—Alderman Wm. Edwards presided at the annual meeting of clergymen and ministers held at the Town Hall on the 12th inst. for the purpose of forming a Hospital Sunday Committee for the ensuing year. A committee was appointed. The total Hospital Sunday collections for 1889 were stated to be £624 14*s.* 9*d.*, a decrease of £14 on the year.

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CHOREA AND RHEUMATISM.

BY H. WALTER SYERS, M.A., M.D. CANTAB., M.R.C.P.,
PHYSICIAN TO OUT-PATIENTS, GREAT NORTHERN CENTRAL HOSPITAL.

THE wide divergence of opinion concerning the relationship between acute rheumatism and chorea as cause and effect is well known. While, on the one hand, many observers maintain the existence of the closest connexion between the two maladies, asserting, indeed, that of all the causes of chorea rheumatism is most efficient; others, on the contrary, hold that this connexion has been greatly over-estimated, and that the cases of chorea which can be properly attributed to acute rheumatism as their cause are comparatively few in number. This being the case, it may be of some interest to record the result of an analysis of 146 cases of chorea observed at the Westminster Hospital during seven years (1881-87), in which series the actual relationship of the chorea to acute rheumatism (along with other matters) was accurately noted. The cases are given in detail in the Westminster Hospital Reports for the years mentioned, and from the summary which I prepared for the last report the following figures are largely drawn.

I have analysed these 146 cases of chorea with the object of ascertaining the percentage of cases which could be fairly ascribed to acute rheumatism as their cause. All these cases have been taken with great care and the facts most thoroughly sifted. Of the 146 cases only 9 (6·16 per cent.) could by any possibility be attributed to acute rheumatism as their cause. That is to say, rheumatism immediately preceded the attack, or the latter occurred during convalescence from acute rheumatism; whilst all other possible causes of chorea were entirely absent in only 9 cases. In 11 cases the attack of rheumatism occurred during the course of the chorea; in 15 cases acute rheumatism had occurred at some more or less distant period, the interval varying from six years to one month. Thus, some sort of relationship other than causal existed between the attack of chorea and the acute rheumatism in 26 cases, the total number of cases having any rheumatic antecedent being 35, or 23·97 per cent. A rheumatic inheritance existed in 47 cases, 32·19 per cent. The causes assigned by the friends in 94 cases (64·38 per cent.) was nervous strain (fright, distress, and school overpressure). As regards the condition of the heart, in 20 cases a persistent systolic murmur was audible at the apex, and of these 20 cases 11 had suffered from acute rheumatism previously. A murmur, constant neither in force nor rhythm, was audible over the region of the apex in 64 cases, this murmur entirely disappearing as the patient recovered. The number of cases having a neurotic inheritance was a trifle larger than that owning a rheumatic inheritance, the former being 49, the latter 47. There was an inheritance of phthisis in 14 cases and of gout in 4. As regards age, only 3 cases were under eight; between five and ten, 34 cases; between ten and twenty, 96 cases; between twenty and thirty, 10 cases; between thirty and forty, 1 case; between forty and fifty, 1 case; between fifty and sixty, 1 case. As regards the relationship as cause and effect between acute rheumatism and chorea, the figures given above agree with the results obtained by Dr. Sturges, who gives from 5 to 8 per cent. as the average of cases of chorea arising directly from acute rheumatism. In only twenty cases (13·69 per cent.) was there evidence of damage to the endocardium, yet I find from analysis of cases of acute rheumatism that between the ages of ten and thirty 27·7 is the percentage of cases having cardiac disease due to acute rheumatism. Should the ordinary teaching on the subject be correct, it is surely strange that acute rheumatism at the very age when the heart is most liable to be affected should in the case of chorea cause such affection in barely half the number of cases. It is still commonly stated in the text-books that rheumatism is one of the most efficient causes of chorea, yet several recent observations tend to results opposed to this view. No doubt the frequent presence of a cardiac murmur has led to the assumption of valvular disease, and of previous acute rheumatism, without care having been taken to ascertain whether the murmur was constant and invariable. As stated above, a fleeting murmur was audible in 64 of the cases analysed; but in every one of these cases it had disappeared at the time of the discharge of the patient, and there was no reason whatever to believe that in any one of the cases the heart was damaged. Probably, were sufficient pains taken to investigate thoroughly the history of a series of cases of chorea, similar results would be obtained; but so long as vague pains in the limbs are admitted as evidence of rheumatism, and the mere presence of a murmur is considered satisfactory evidence of cardiac disease of rheumatic origin, for just so long will the ordinary views as to the intimate connexion between chorea and acute rheumatism be maintained. The number of cases having neurotic inheritance—49, or 33·57 per cent.—is greater than that having any other traceable inheritance. The large number of cases—94, or 64·38 per cent.—in which the disorder originated in some nervous disturbance (overwork at school, distress, shock), very significantly points to nervous stress of some sort as the most efficient cause. With regard to the other points brought out in the analysis (sex and age) comment seems unnecessary, as the results agree with facts already sufficiently well known.

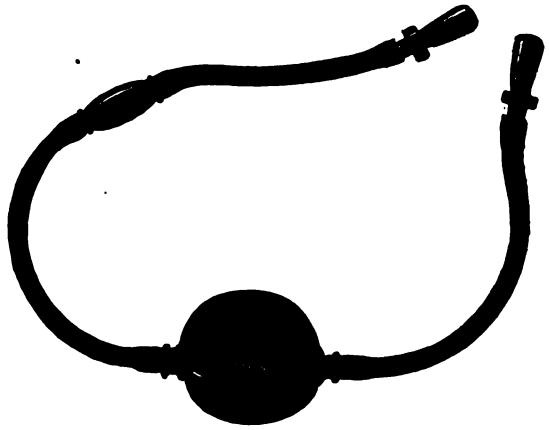
The following results were obtained:—146 cases of chorea: Acute rheumatism, as cause, 6·16 per cent.; rheumatic antecedents, not causal, 23·97 per cent.; nervous disturbance, as cause, 64·38 per cent.; rheumatic inheritance, 32·19 per cent.; neurotic inheritance, 33·56 per cent. Heart: Structural heart disease, 13·69 per cent.; heart affection other than structural, 43·8 per cent.

NEW AURAL INJECTOR AND EXCAVATOR, WITH A FLEXIBLE EUSTACHIAN CATHETER.

BY JOHN WARD COUSINS, M.D. LOND., F.R.C.S.,
SENIOR SURGEON TO THE ROYAL PORTSMOUTH HOSPITAL, AND PORTSMOUTH AND SOUTH HANTS EYE AND EAR INFIRMARY.

SINCE the publication of my paper on Tinnitus Aurium, and its Treatment by a New Method of Alternate Injection and Evacuation of Air, I have considerably modified my apparatus, and have now adapted it for self-application. It consists of one hand-ball fitted with a recoil spring, which increases the force and rapidity of its expansion. (Fig. 1.) The injecting and evacuating tubes both terminate

FIG. 1.

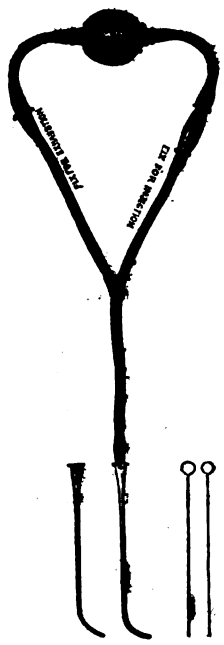


in a vulcanite joint, to which a nasal piece of soft rubber can be attached. The nasal pieces are made in different sizes, and several of them are supplied with each instrument. When medicated air is to be used, the volatile substance must be dropped upon a pledget of cotton-wool, placed in the vulcanite box, which is fixed on the injecting tube. In this way I use choloroform, ether, creasote, pinol, and many other remedies. For the successful application of the treatment, it is essential that the patient should be instructed to practise injection and evacuation of the tympanum in the following manner: The nasal orifices must first of all be carefully wiped dry, and the nose pieces adjusted, *so as to securely and completely plug the nostrils.* The nasal tubes are now held in position by the forefinger and thumb of the left hand, and the hand-ball

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is elevated and compressed by the right, and then allowed to expand by its own elasticity. During the steady performance of these movements the patient should take a full inspiration, and while holding the breath and pressing the lips together, he should make an expiratory effort, just as if he were in the act of blowing through a tube. With many patients the entrance of air into the tympanic cavity is rendered easy by the act of deglutition, for the muscular movements of the pharynx act directly upon the open ends of the Eustachian tubes. As a general rule, my patients require very little instruction, and soon become very skilful with the instrument. The alternate method presents many advantages over other forms of tubal inflation. It promotes the drainage of the tympanum and the discharge of pent-up fluid into the pharynx. It also proves of material assistance in cases of collapsed and adherent membrane. Its daily application is especially useful in the treatment of tinnitus aurium caused by abnormal tension, and also in other forms of chronic middle-ear disease. The apparatus for alternate injection and evacuation with the Eustachian catheter is represented in Fig. 2. The tubes are joined together, and near their junction a vulcanite terminal is fixed for the insertion of the catheter. The flexible catheter is a flattened tube of soft metal, and it can be readily bent to any shape by protecting the bore with the stilette. (Fig. 2.) For the successful application of the Eustachian catheter, it is often necessary to adapt the instrument to the curvatures of the nose and pharynx. Sometimes the nasal passages are by conformation irregular, or they become tortuous and obstructed by morbid changes in the bone or lining membrane; in other cases the position of the tubal orifices and mucous folds of the pharynx require a special flexion of the beak. For some patients I keep a catheter always bent and ready. The instrument must be carefully washed and deodorised after each operation. In performing the operation of alternate injection and evacuation of the tympanic cavity, the hand-ball must always be attached to the catheter after its introduction. The surgeon should elevate and compress the hand-ball with the right hand, and hold the catheter and close the nostrils with the left. At the same time he must direct the patient to practise the movements already described. During the expansion of the hand-ball the catheter should be drawn outwards for half an inch, for by this manœuvre the evacuating power will be increased. Special care must be taken to prevent twisting or kinking of the indiarubber tubes. Sometimes the point of the catheter gets lodged in the folds of the pharynx, so that the injection of air is obstructed. When this occurs, the instrument should be rotated a little, and then replaced over the Eustachian orifice. If from any cause considerable difficulty is experienced in passing the flexible metallic catheter through the nasal meatus, I substitute for it a fine vulcanite instrument, which can be bent to any curve by gentle heat.

FIG. 2.



In conclusion, I desire to mention that all the instruments described in this paper have been made for me by Messrs. Maw, Son, and Thompson, of London.

Southsea.

DEATH FROM AN OVERDOSE OF MORPHIA.—The death is announced of Mr. Harwood Casson, physician and surgeon, of Worksop, Notts, under painful circumstances. The coroner's jury returned a verdict of "Death by misadventure from an overdose of morphia, taken to relieve neuralgic pains." The evidence showed that Mr. Casson had been a martyr to neuralgia, and could not obtain sleep without morphia. He also suffered from Bright's disease. The foreman, on behalf of the jury, expressed a feeling of deep sympathy with the widow and family.

FRACTURE OF SKULL THROUGH ANTERIOR FOSSA (?); SYMPTOMS OF COMPRESSION; TREPHINING; RECOVERY.

BY F. H. WIGMORE, M.B. CANTAB.

W. W——, about thirty years of age, a tailor by trade and not a sober man, fell down a flight of stairs backwards on the night of April 23rd. I did not see him until May 6th, fourteen days after the injury. The history I obtained was as follows:—The scalp was slightly cut and bruised (scar seen on shaving the head) on the left side about half an inch above the superior curved line. His nose bled, and he was stupid like one suffering from concussion of the brain. From the date of the injury he became gradually unconscious, his articulation imperfect, and he spoke for the last time on May 4th. On May 5th urine and fæces passed incontinently. On the 6th he had two slight "fits" in the morning. When I saw him that night he was in a state of stupor, not so deep but that he could be made to open his eyes and mouth, though not to protrude the tongue. He had a slight fit while I was with him; the left arm and hand alone affected and drawn towards the middle line of the body. The pupils were natural and reacted to light. Temperature normal; pulse 100. Ten grains of bromide and iodide of potassium every four hours and a sinapism to the back of the neck were ordered.—May 7th: Had a good night. No fit until 9 A.M., and then several fits in succession. The right side of the face and neck involved; head drawn to the shoulder of same side; angle of mouth depressed; and platysma working violently. Both arms involved; the right more than the left. Breathing rapid and thick. Could still be roused, but with increasing difficulty. Pupils dilated. Temperature 100°; pulse 100.—8th: Has had a fit every ten minutes throughout the night (statement of woman who sat up with him). He was comatose and breathing stertorously. Cold sweat was thick upon his brow. It was evident that he must die in a few hours unless relieved by operation. Dr. Somerville, to whose advice and assistance I am much indebted, met me in consultation, and we agreed to trephine. The man being placed under chloroform and trephined at the seat of injury, the dura mater bulging into the wound, there appeared some roughness, as though the internal table had broken inwards below the opening, and another circle of bone was removed, but nothing to account for the symptoms was discovered. The needle of a hypodermic syringe was thrust through the dura mater into the brain in several directions, without result. Finally, I passed a fine aspirating needle across to the right side, and thus explored the other hemisphere and dura mater without result. Ptosis and internal squint of the right eye appeared. I loosely sewed up the wound, introduced a moderate drainage-tube, and dressed with antiseptic tow, first well dusting the parts with iodoform. At night I found him breathing quietly. Temperature normal; pulse 100. No recurrence of fits.—9th: No more fits. Has slept throughout the night. Takes food well. Can be roused, but soon falls asleep again. All his movements coördinate. Pulse quiet. Temperature normal. Breathes quite easily; has not micturated. The ptosis and squint have disappeared.—10th: Got out of bed and voided urine naturally. Put out his tongue on being asked; spoke. Recognised his child; temperature normal; pulse quiet. Wound healed at upper part.—11th: Went downstairs to watercloset; returned to bed. Recognised his family; would not keep the bandage on his head. The progress of the case from this point was characterised by complete return of speech and muscular power, with control over sphincters. Unfortunately he was obstinate, would walk out, having removed the bandage; became irritable when opposed; wished to go to work on Sunday, and went to bed in his clothes. The wound broke down and suppurated. At this point I advised his removal to the workhouse infirmary. I hear from his wife that he has almost completely recovered (June 25th), the wound having healed. He is rather simple in manner, but quiet and self-possessed.

Remarks.—There is very little doubt that this man suffered from fracture through the anterior fossa by contre-coup, and that subsequent increasing hæmorrhage produced the severe symptoms of progressing compression from which he would have died. The hæmorrhage, I should say, was

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located in the upper part of the ascending frontal convolution on the right side, and on the posterior end of the second frontal convolution of the same side. Probably the other side of the brain was also affected, and this will account for the cross symptoms the case presented. The friends stated to me that he fell on the right side of the head, but shaving the scalp disclosed the recent scar on the left side. It was the crossed condition which determined us to trephine at the seat of injury rather than at the point of physiological disturbance; and I was the more inclined to do this because I remembered to have seen cases of supposed occipital concussion productive of considerable mental confusion and irregular, almost choreic, movements. The relief afforded by the operation was too full to admit of doubt that it played the only part in the recovery, although nothing was found under the bone. The object of the operation did was manifestly to relieve tension, and thus the compression. In future, unless the apparent seat of injury corresponds with the symptoms produced, I shall trephine over the centres involved rather than the neighbourhood of the wound. Had I followed this physiological law instead of the old surgical axiom the result from an operative point of view would have been satisfactory, whereas now it is only interesting and negative.

Since writing the above I have seen the patient, who is quite well in every respect.

Macclesfield.

PUERPERAL FEVER: A POSSIBLE SOURCE OF CONTAGION.

By R. D. PEDLEY, F.R.C.S. ED. AND L.D.S.,

DENTAL SURGEON TO THE ROYAL HOSPITAL FOR SICK CHILDREN, SOUTH WALES; ASSISTANT DENTAL SURGEON TO THE NATIONAL DENTAL HOSPITAL.

Is it possible for a medical practitioner or a nurse whose mouth is in an unhealthy condition to be the means of developing in a patient puerperal fever or any of the local manifestations of septic poisoning, such as pelvic cellulitis or pelvic peritonitis? This question has many times presented itself since reading as a student a case mentioned by Dr. Playfair in vol. ii. of "The Science and Practice of Midwifery," of a medical man who, suffering from chronic caries, had to relinquish practice on account of the numerous deaths from puerperal fever among his patients. I have not been able to answer the above question in the affirmative, but I consider there is sufficient evidence to justify me in my doubts regarding the matter before those who are better qualified than myself to form a correct judgment. Some light may be thrown on the question of "Puerperal Contagion" by making mention of a case recently reported in the daily press of an inquest held on the body of a woman who had died from puerperal fever. The mother of the patient—an uncertified midwife—had been the means of spreading this terrible disease. Dr. Talbot, in evidence, stated that "he had attended her for a piece of dead bone in the mouth, and if she had been fingering it that might account for the outbreak." This, of course, is an extreme case. Probably the woman was suffering from syphilitic necrosis, and that her mouth was in a very bad condition, also that her acquaintance with antiseptics was practically *nil*. Most mouths are rendered foul by carious teeth, and there can be very little doubt that medical men and nurses are as liable to suffer from carious teeth as their patients, and find, as a rule, far less opportunity of seeking advice.

The condition I refer to is generally brought about as follows. A tooth is attacked by caries. If neglected this makes its way into the tooth until the pulp chamber is reached, and the nerve is exposed. After a variable amount of pain the nerve dies, and becomes putrid right up to the apex of the fang. A small amount of septic matter escapes through the apical foramen, and sets up an acute alveolar abscess. At this stage if the tooth is extracted the trouble is ended; but if the pus is let out beneath the lip, or makes its way through the thin alveolar plate, the swelling disappears after a day or two and a sinus remains from which matter is constantly discharged in small quantities. In dental language it becomes a chronic alveolar abscess. The tooth is practically a piece of dead bone; with this difference, that through its centre is a narrow channel in which rests the remains of a putrid nerve. It is quite common to find several teeth in a similar condition, sometimes cut down level with the gum, having received no further treatment than careful concealment by artificial teeth. Beyond the fact that an occasional swelling takes place in the alveolar plate, and a very disagreeable taste is present, the owner may go on for years with very little discomfort. Is it unreasonable to suppose that a very intelligent nurse (having several teeth such as we have described) may seek to relieve the pain of an aching stump by pressure of the fingers; and, not being aware of any danger, convey septic matter to the body of the patient in the ordinary discharge of her duties?

In May and September of 1886 two cases came under my care, in which I had reason to suspect this cause.

CASE 1.—Miss ——, a nurse, said she should have been before, but had been attending a case of puerperal fever. Her mouth was in an unwholesome condition. Front teeth good. Not a single molar sound; all the back teeth carious. Had two alveolar abscesses in connexion with upper bicuspid teeth on the right side, and one in connexion with a lower molar tooth on the left side.

CASE 2.—Dr. ——, suffering from an acute alveolar abscess over left lateral incisor tooth in the upper jaw. Face considerably swollen. Tooth had been sore for some time; he could scarcely bite anything with comfort. Teeth generally in a bad condition. Several stumps in the lower jaw on the right side and in the upper jaw on the left side. Had suffered for years; of late the stumps had given considerable trouble. Several abscess, from which pus oozed. Would have sought advice before, but just after tooth became troublesome had a puerperal fever case to attend to, and had been much worried. No reason to be assigned for puerperal fever; surroundings good and healthy. Good confinement.

That pus from an alveolar abscess is necessarily septic we cannot be sure; but there are three facts worthy of notice: 1. Pus from an alveolar abscess is often of foul odour. 2. As a consequence of alveolar abscess, necrosis of a portion of the jaw-bone is not at all uncommon. 3. There are cases recorded of patients who have died from pyæmia and septicæmia as the result of alveolar abscess, *vide* Tomes' "Dental Surgery," Salter's "Dental Pathology and Surgery."

It may be urged that the medical practitioner is constantly brought in contact with septic matter, and that the adoption of the necessary antiseptic precautions would exclude all possibility of such direct communication as I have suggested. This is quite likely; also think, if a source of danger is pointed out, the medical man may be trusted to do his best to avoid it. I would, however, be sure of the nurse, the patient's safety being dependent, as it is for the most part, on the nurse, and who, after the first few hours, has the wellbeing of the patient in her own hands. No medical man can be held responsible should the nurse fail to carry out his instructions; but he can, in most cases, ascertain beforehand that the nurse is not the subject of a malady, be it local or constitutional, which is likely to be a source of danger to his patient. In conclusion, I would offer this brief suggestion. It is desirable that midwives and nurses should be subjected to medical inspection before attending obstetric cases.

Railway Approach, London Bridge, S.E.

TRANSVERSE SEPTUM IN THE VAGINA TREATED BY OPERATION.

By CHAS. E. PRANCE, M.D., F.R.C.P.I.,

SURGEON PRESENTEE TO THE SOUTH DEVON AND EAST CORNWALL HOSPITAL.

IN THE LANCET of April 13th, Dr. C. J. Cullingworth reported on cases of transverse septum in the vagina which he had treated successfully. I was rather surprised to see in the bibliography appended to that paper how comparatively few cases had been recorded, and yet many such must occur, and it may be well to add to the record. It so happened that within one week in March last two such cases came under my care, and others, though not quite of the same kind, at various periods before. Of the two



lately occurring, in one—a young unmarried lady of twenty-five—I was actually consulted by her mother about her as suffering from menorrhagia and dysmenorrhœa; and yet, on digital examination, the septum (or diaphragm, which I think is a more accurate term) was so complete that I could with the finger detect no aperture in it, though doubtless there was some minute orifice, but so minute as to render the process of evacuation of the menstrual fluid a long-continued affair. I regret that in consequence of the removal of this patient with her family at that time from the town to a distance, I was unable to follow up the case for more careful investigation and further treatment.

The other case was that of a lady, aged thirty-two, who had been married nearly three years, and who was said to menstruate regularly and without any noticeable difficulty; there had been no pregnancy. The occasion of my being consulted was for general debility and various nervous symptoms and depression. In the absence of impregnation, and from her answers to questions suggested by that, the doubt occurred to my mind whether, notwithstanding the menstruation, there might not exist some mechanical obstacle to efficient intercourse. Digital examination revealed such an obstacle; one felt—as in the case mentioned before—only a sort of thimble-shaped cavity with a sufficiently wide opening, but apparently absolutely closed top; and per rectum I could feel higher up that the cervix and body of the uterus were of ordinary size. This being the case, I suggested an operation, and the surgical assistance of Mr. Connell Whipple, of this town, was called in. We together carefully examined her in a good light. The diaphragm was a fleshy one, of the same reddish colour as the parts around, with rather roughish surface, having some small fleshy papillary projections. We failed to detect any aperture, and the problem as to whether she really menstruated, or had some vicarious discharge which took its place, could only be solved by waiting until the next menstrual period. In rather less than three weeks we received notice that this had come on, when we met again. On examination, there was no menstrual fluid to be seen, and the only apparent change was that the thimble-cavity was much shallower and the top slightly bulged down. She was then directed to strain downwards; there was at once seen a small oozing of the menstrual fluid from the anterior part of the membrane, about one-third of an inch behind the urethral orifice—much as when one pricks with a pin an artist's bladder of oil paint,—the minute aperture was at the base of and hidden by one of the afore-mentioned papillæ. Mr. Whipple barely succeeded in passing a fine eye probe through it; an ordinary silver probe would not pass. This fine probe was then felt to move freely in the cavity of an ample vagina beyond, its point could also be felt by the finger per rectum, and the uterus above. The diagnosis being now clear, and operative interference justified, we waited six or seven days until the discharge had quite ceased. We then met again, and Mr. Whipple proceeded to operate. The patient being under methylene and placed in the lithotomy position, and the pinhole orifice having with a little difficulty been again found, it was dilated enough to allow the passage of a director, and on that a bistoury, with which the fleshy membrane was incised crucially; then the quarters were removed by means of scissors back to the level of the vaginal wall, so as to leave no projection. The hæmorrhage was trifling. The vagina was then well syringed out with a carbolised injection, which process was repeated daily thereafter by the nurse during healing. The vagina was now fully patent, would admit two fingers easily its whole length, and the os, cervix, and uterus felt normally developed. The patency was secured by the daily introduction, until healing was complete, of a good-sized finger-shaped wad of compressed cotton wool, smeared with vaseline, and the patient was kept in bed. In a few days she was quite well, and restored to her husband with a patent vagina, and I may add soon became pregnant. This is a different kind of case from that of an absolutely imperforate diaphragm, which I have also met with, and which is more common, and also other cases which I have encountered of circular dense hymen with a comparatively small central opening. The former reveals itself by entire absence of menstruation, and the suprapubic tumour is formed by gradual accumulation; but in such a case as the one detailed above, a fruitless married life may go on, uncomplained of obstruction, however strange it may seem, and menstruation go on regularly; so that there is no suspicion of the real state of malformation, until it may so happen that, the woman consulting a medical man, but not for that special purpose, circumstances suggesting suspicion may fortunately lead to an examination, and the state of affairs is revealed and safely remedied. One can hardly think of any malformation possibly involving momentous issues in family history, yet so readily set right, and with such satisfactory results. A caution, however, with regard to operative procedure in these cases suggests itself from my remembrance of another very different, though outwardly similar, kind of case, which occurred to me some years ago. I was consulted about a well-grown handsome young lady of marriageable age, who had never menstruated. On examination I found the same short, thimble-shaped cul-de-sac vagina, but on the most careful examination per rectum and above the pubes I could detect no uterus, and gave my opinion that there was none, and that no operation was advisable or feasible. She was afterwards taken by her parents to consult a specialist in London, who absolutely confirmed my opinion of the melancholy fact as one incapable of remedy.

Plymouth.

A CASE IN WHICH PERITONITIS WAS CAUSED BY VAGINAL SYRINGING AFTER TWO SUCCESSIVE CONFINEMENTS.

BY CHARLES SCOTT WATSON, M.D.

MRS. A. B——, a healthy primipara, was confined on Aug. 18th, 1886, after an easy and natural labour. Vaginal syringing night and morning with dilute Condy's fluid was ordered, and a Higginson's syringe was used for the purpose. All went well—pulse and temperature keeping below normal—for thirty-six hours—i.e., till 6 P.M. on the 19th, when, immediately after being syringed, the patient turned on her left side and was at once seized with severe pain in the left iliac fossa, soon spreading across the lower abdomen. Shortly afterwards she had a rigor, and the temperature rose to 103·4°, the pulse to 110. At my visit about 7 P.M. she was lying on her back in great distress, complaining of intense constant pain and of tenderness over the lower half of the abdomen. Both pain and tenderness were most severe in the left iliac region. Abdominal examination, as far as it could be carried out for the tenderness and resistance, disclosed nothing abnormal, and no vaginal examination was then made. About midnight the pain began to abate a little, but did not disappear till the 21st, when also the temperature fell to normal. On that date there was still abdominal tenderness, and on vaginal examination the uterus and vaginal roof were found to be tender, the uterus not freely movable, but not displaced. On the 22nd a dose of castor oil was given, apparently a mistake in the management of the case; for on the following day there was a gradual return of pain and tenderness (rather more diffused than in the first attack) and of fever, the temperature rising to 101° and the pulse to 100 on the evening of the 23rd. Under opium and poultices these symptoms again yielded, and on the 25th there was neither pain, tenderness, nor fever. From the 29th to the 31st the temperature ranged between 100° and 104°, in association with pain and tenderness in different areas of the breasts. On the latter date the uterus was well reduced in size, movable, not tender, the vagina everywhere soft and painless. Thereafter the patient did well. Her second confinement, again in every respect natural, took place on April 5th, 1888. Vaginal syringing (1 in 3000 sublimate) was again carried out twice daily with a Higginson's syringe. The patient made satisfactory progress up to the morning of the 17th, the highest temperature registered being 98·4°, the highest pulse 72. She got up on the eleventh day, and again on the twelfth. On the morning of the 17th—i.e., twelve days and a half after confinement—when syringing was being carried out the same accident again occurred. The patient was on her back, and had passed the vaginal tube herself without any pain or unusual feeling. After two syringefuls had been gently delivered, and while the fluid was returning clear, and apparently as freely as usual, she felt pain in the left iliac fossa. The pain rapidly increased, and after five or six syringefuls the patient felt very sick, and syringing was stopped. She then turned on her left side, when

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10th.—A draught of air on face, back, or chest produces marked general spasm, but the pharynx and throat muscles do not seem to be chiefly involved. As far as could be ascertained, the spasm affected the trunk (erector, back [opisthotonos?]) and to kick up her legs from the knee, but perhaps a slight tendency for the limbs to cross. The whole part of the movement seemed almost purposive, but at each subsequent attack the same thing happened. There is occasional spasmodic contraction of the muscles acting on the left side of the mouth, drawing it strongly over to the left side. Temperature 101·6°; pulse 140. Chloroform was administered and the throat examined. It was generally red, and a few strings of *rapy* mucus could be seen. Half a pint of egg, milk, and brandy mixture was introduced into the stomach. She slept ten minutes after the anæsthetic, and was then very restless all the morning. There is a fairly constant dribble of watery saliva. She takes liquid nourishment with very little spasm. The temperature rose in the evening to 102°.

11th.—Patient slept a couple of hours after two doses consisting of five minims of tincture of opium and ten grains of chloral hydrate. On waking she complained of pain in the back of the head, and would not attempt to stop in bed. Legs seem weaker; speech indistinct, and she appears to have delusions. The face has an exceedingly wild, haggard look. There is some conjunctivitis, especially of the right eye, with muco-purulent discharge. Three drachms of succus comi given every two hours. During the day she continued to take nourishment in small quantities, with but little discomfort and no real pain or agony. She was again put under chloroform and fed by catheter in œsophagus, as before. She was not nearly so violent. In the afternoon she rambled incessantly, did not recognise her mother, rather rapidly lost strength in the latter part of the day, and the temperature rose to 103°. She lay in bed with a vacant stare on the face; eyes half closed. The legs and arms are occasionally jerked about; but there is no painful spasm, no screaming, and no paralysis. At 7 P.M. she became unconscious. Pulse over 200; respiration 36; and she remained practically in this state up to the time of her death, at 3.30 A.M. on the 12th. The temperature at 2 A.M. was 104·6°; pulse 160.

Necropsy eight hours after death.—Rigor mortis well marked. On opening the spinal canal there was found great engorgement of the vessels, especially at the sides of the canal, giving an almost uniform dark blue-black appearance. This appearance was especially well marked in the neck, where a very considerable quantity of very dark blood was present and escaped. A fair quantity of arachnoid fluid was present, but apparently not beyond the limits of health. No capillary congestion or any trace of inflammation of the membranes. Sections of the cord seemed extremely vascular, and the grey matter perhaps looked very pink, especially at the upper and lower extremities of the cord. The vessels in the substance of the cord were much distended, giving rise to the appearance of hæmorrhages. The vessels bled under observation, and the blood could in all cases be wiped off. The superior longitudinal sinus of the brain was filled with dark clot. Nothing noteworthy was seen in the naked eye in any part, perhaps the vessels in the fourth ventricle and the substance of the brain generally were a little more noticeable than usual. The other organs were healthy. The larynx was a little red and contained some tough mucus.

Microscopic examination of the brain and spinal cord, after careful hardening, revealed the following: In the cervical region of the cord the capillaries and bloodvessels were uniformly injected with blood. This was very evident in the grey matter, the posterior and anterior roots, and wherever the vascular supply was greatest. In the lower part of the medulla the lymphatic sheaths were swollen, and higher up, in the floor of the fourth ventricle, these were everywhere distended with leucocytes. The injection of the finer vessels was everywhere very manifest. In the cerebrum portions of the cortex in the frontal region were hardened, and, under the microscope, sections showed very well marked general congestion, the capillaries and blood-vessels being everywhere greatly distended with blood. No actual hæmorrhages were seen, and there was no obvious change in the nerve-cells or nerve-fibres generally.

Remarks by DR. ADAMS.—Several points are worth noting in this well-marked case of hydrophobia, to all of which, however, attention has previously been called. In the first place, the incubation period was rather short (five weeks)—within six weeks,—due doubtless to the youth of the patient, and the seat of the bite being on the face. The behaviour of the dog appears to have been very characteristic. It was a stray dog, was hiding in a dark cellar, and when disturbed showed the strong tendency to bite. The initial symptoms were also very characteristic. The pain typical and the course of the disease characteristic, thirstiness, malaise, loss of appetite, &c., were soon followed by the spasm stage, which later, although well marked, was never very distressing, the mental disturbance, which was very pronounced throughout, being a much more prominent symptom. The mania was intermittent, and subject to the sudden variations so characteristic of the disease, the child at one moment fighting and the next embracing the nurses in charge of her. As the case went on, the spasm almost entirely disappeared, concurrently with a loss of the deep reflexes and paralysis of the vagal centre, accompanied by hyperpyrexia and cardiac failure, terminated the case on the eighth day. With regard to the treatment adopted, inoculations were of course out of the question, the disease being fully developed when the patient came under observation, and with no beneficial effect. The administration of nourishment was difficult enough, life being prolonged to almost the maximum duration obtained in such cases. Owing to the throat, large doses of conium, and occasionally chloroform inhalations, certainly enabled her to have nourishment without discomfort, and during the whole course of the illness she appeared to have no suffering whatever. The great predominance of the mental disturbance over the other symptoms is not an uncommon variation in cases of hydrophobia; but whether from the fact of the vascular lesions affecting the cortex more than the medulla, or possibly from the treatment adopted in this case, it is difficult to make out. Mercury, which is said to have done good in one case, was powerless here, although the patient was rapidly salivated, and the case is another instance of how little can be done remedially in dealing with the established disease by means of drugs.

HOLBORN UNION WORKHOUSE, MITCHAM.

A CASE OF EXTENSIVE SUBCUTANEOUS EMPHYSEMA FOLLOWING THE RUPTURE OF A VOMICA; REMARKS.

(Under the care of Mr. OSCAR B. SHELSWELL.)

THIS case illustrates the occurrence of a somewhat rare complication of phthisis—the escape of air from a cavity of the lung into the subcutaneous tissue of the body, and its general diffusion. The account is full, and the pathology shown in the description of the post-mortem examination. Emphysema, as the result of a wound in the lung, is commonly met with in surgical practice: but as accompanying any form of disease of the air passages it hardly receive attention in works on medicine, a large number of which do not mention in the index subcutaneous emphysema. It has been described frequently as following excessive straining during parturition, also in cases of whooping-cough, and has been due to the perforation of an ulcer of the trachea or bronchi.

A. M——, aged sixty, was admitted into the infirmary on August 13th, 1889, suffering from phthisis. He stated that he was quite well till last April, when he coughed up half a pint of blood in two nights in "flakes," and has coughed more or less ever since, the phlegm at first being scanty, but gradually increasing in quantity. He has been losing flesh. There was no history of fractured rib or of any injury to the chest, and none of sudden pain after coughing at any time. Mr. W. A. Shelswell (who was at this time acting for Mr. Oscar Shelswell) states that the emphysema was first noticed about the right clavicle on August 22nd. It slowly progressed to the right shoulder, arm, hand, right side of face, right thigh, scrotum, leg, and ankle; the right eye was almost occluded. The left side was also affected, but much less than the right. On August 30th the emphysema was universal. There was no pain, but a feeling of tightness with his cough. Percussion note was hyper-resonant. Auscultation was impossible owing to the crepitations of the emphysema. He generally lay and slept on his left side. There was some dyspnœa; no pyrexia or albuminuria. He did not

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notice his condition concerning the emphysema till it was pointed out to him. When Mr. Oscar Shelswell saw him again on the evening of Sept. 8th his condition was as follows. He was lying on his left side, and said he could not lie in any other position on account of his breathing freely more on the left side. Respiration was 36, temperature 101·6°, and pulse 120. His face was swollen, especially the right cheek, which was much distended. There was also distension of the tissues of the neck, thorax, abdomen, back, arms to hands, and legs to knees, and of the right leg a little below the knee. There was more on the right side, especially above the right clavicle, and about the upper right intercostal spaces than elsewhere. On pressure there was a dry crackling felt and heard. It was impossible to distinguish pulmonary sounds with the stethoscope on account of the displaced air causing a crepitating noise. There was hyper-resonance all over the chest. The sputum was abundant, thick, mucopurulent, and of a greenish colour. The tongue was moist and coated with white fur. He said he was in no pain at any time, but felt very weak. The swelling became much diminished by Sept. 12th. There was diarrhœa on the 12th and 13th. He gradually became weaker, but lingered till the twenty-first day from the first appearance of the emphysema, some of the swelling of which was apparently still considering his dangerous condition, which had been diagnosed as phthisis with ruptured vomica. He died quietly on the morning of the 15th, without any special increase of dyspnœa.

At the post-mortem examination, made twelve hours after death, the following condition was found: There was much emaciation, the body was quite warm, rigor mortis slightly marked. The connective tissue in many situations was much distended with air, principally on the right side of the body, the chief seats being at the upper part of the thorax on the right side and in the right supra-clavicular region. It existed also on each side of the neck and all over the thorax, abdomen, perinæum, scrotum, right thigh, right arm to the back of hand, and all over the back as far as the buttocks, to a slight extent in the left arm and less so in the left thigh. It was absent from the face (where it existed to a very great extent, causing a much bloated appearance), scalp, ears, legs, below the knees, and the left side of the thorax, abdomen, and back over the clavicle; parts a sensation was conveyed as of cotton wadding, and the sound resembled the same. The skin, loose and wrinkled in places, was dry and harsh. The air was easily displaced, producing a dry crackling sound and sensation, the indentation remaining. The right arm above the elbow measured in circumference three-quarters of an inch more than the left, owing to the air in the tissues. On the removal of the skin the subcutaneous tissue was seen to be very pale and silvery and streaked with very little fat; small vesicles of air were also seen, and their characteristic sound and feeling were produced by pressure. In the tissues outside the second right rib in the axillary line was a vesicle of air about the size of a small grape, but the vesicles generally were very much smaller than those described. The subcutaneous tissues on the left side of the thorax and neck contained a quantity of air, but very much less than on the right side. On carefully separating the right lung from the chest wall, a hole in the lung leading to a cavity was seen opening in the second intercostal space, and three inches from the middle of the sternum. Careful separation was effected by means of a probe, there being no intervening pleura apparent. The opening would admit the tip of the little finger; radiating inwards from its edge to about one-eighth of an inch was a very thin membrane. A similar but smaller opening in the lung was seen, corresponding to the first intercostal space; and a smaller one still between the two, this last being perhaps caused by the thin anterior wall of the cavity giving way a little on the separation from the chest wall. The right pulmonary and costal pleuræ were adherent and detached from the chest wall together, air outside the costal pleura rendering this easy, except at the upper lobe at the side and the back, where adhesions difficult to separate appeared to have been freely used, and in the removal the cavity was torn at its posterior part, showing the thinness of its wall. The combined pleuræ were thickened and of flesh-coloured tint, and numerous air vesicles were seen on the outside. The left pleura was free from adhesions except at the apex; on its anterior surface was a whitened streak of thickened pleura extending longitudinally in front of the upper lobe. There was no evidence of air either between the layers of the pleura or in the tissues immediately external on the left side. There was pus in the trachea and bronchi. The left lung was darkly mottled externally, greyish on section, frothy mucus, pus, and blood-stained fluid escaping copiously from the bronchi. Besides and communicating cavities were grey and portions of the lung sank in water. There was some emphysema of this lung at the edge of its base; its weight was 21b. 2oz. The right lung presented a cavity in its upper lobe about the size of a turkey's egg and its anterior wall, measuring 3 × 2 inches, was extremely thin, in several places being thinner than note paper; externally its anterior wall was rather dark, and presented none of the thickened flesh-coloured pleura seen over the rest of the lung. The cavity extended quite to the posterior part of the lobe; its contents consisted of greyish-yellow pus. A ridge of condensed pulmonary substance partially subdivided the cavity, extending transversely across the anterior wall, separating the upper from the lower openings above referred to, but not sufficiently to prevent the finger in the cavity passing from one to the other. On section numerous grey and yellow tubercles were seen, and several smaller cavities were present. Portions of this lung sank on section in water, and crepitated on the left lung. There was a considerable quantity of air in the anterior mediastinum, but none in the posterior. In the intestines were several ulcers. The other organs were wasted, but otherwise appeared healthy. There was much air in the tissues at the back of the abdomen outside the peritoneal cavity, also some in the tissues external to the pelvic peritoneum.

Remarks by Mr. OSCAR SHELSWELL.—This case seems of special interest on account of its rarity, a vomica seldom giving way as above described, owing to the fact that the wall is so generally composed of condensed pulmonary tissue, and having the pleura over it much thickened. On referring to the cases brought before the medical societies and other reports in THE LANCET for the last ten years, I find numerous references to subcutaneous emphysema resulting from injuries to the chest wall or other part of the air passages, from whooping-cough, and from parturition (said to occur once in two thousand cases), but no mention of a case similar to the above. None of the text-books do more than refer to it. Thus Quain's "Dictionary of Medicine and Practice of Medicine" is the following: "A very rare effect of excavation of the lungs is the production of subcutaneous emphysema. A case in point occurred in Guy's Hospital in 1852. The patient had been slowly sinking for weeks, and shortly before his death there was a slight crackling below the clavicle and at the root of the neck. Frantzel, in 'Ziemssen's Handbuch,' alludes to similar instances. As pneumothorax is not present, it must be assumed that ulceration extends through both layers of the pleura, the space between having been previously closed by adhesions." Frantzel, in "Ziemssen's Cyclopædia of the Practice of Medicine," in the article on Pneumothorax, writes: "This cutaneous emphysema is sometimes observed in caseous pneumonia without pneumothorax, in the case of a vomica reaching as far as the pleura pulmonalis, causing adhesions between this and the pleura costalis, and perforating both pleural folds at once."

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Cysts of Cerebellum.—Cerebellar Tumour.—Cancer of Breast following Eczema.—Paronychia.

AN ordinary meeting of this Society was held on Dec. 17th, Dr. Dickinson, President, in the chair.

DR. HADDEN exhibited a simple Serous Cyst involving the right lobe of the cerebellum. It was enclosed in the white matter, and there was no sign of growth, hydatid membrane, staining, or softening of the surrounding tissue. The cyst measured an inch and a half from side to side, and was filled with a clear serous fluid. The symptoms were those of cerebellar tumour. Two cases were reported in the Society's Transactions, one by Dr. Sharkey in vol. xxxii., and the other by Dr. Pye-Smith in vol. xxxvi. The exhibitor referred to another case which he had pub-

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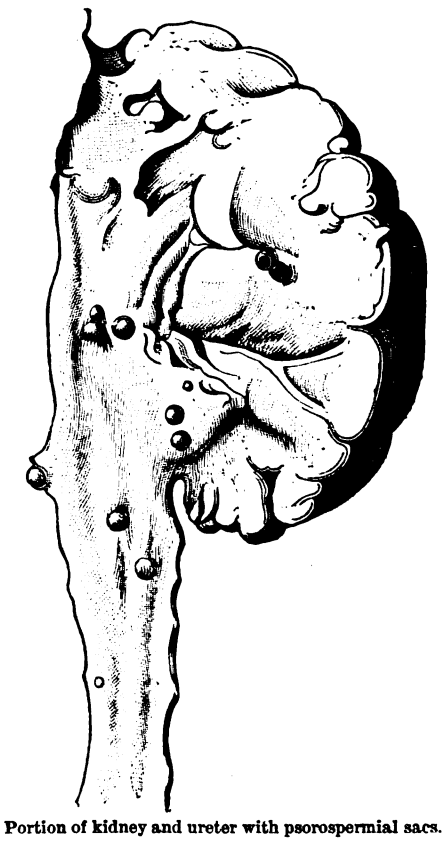
ished, and to one recently described by Dr. Mayor at the Bradford Medico-Chirurgical Society. The origin of these cysts was obscure; possibly they were due to the dilatation of lymph spaces. The explanation given by Mr. Althorp of Dr. Mayor's case was very doubtful. This gentleman suggested that the cyst might be a fœtal remnant, and alluded to the presence of a ventricle in the cerebellum of some birds.—Dr. GULLIVER showed an almost precisely similar case. The tumour was a central smooth-lined cyst in the right lobe of the cerebellum; it contained a fluid which was rather thick and colloidal in nature. There was no evidence of malignant disease.—Mr. BOWLBY asked if the cyst wall was examined microscopically in either case.—Dr. DICKINSON inquired into the condition of the lower extremities. In cases of one-sided cerebellar lesion loss of power but not of sensation in one or both lower extremities had been observed.—Dr. HALE WHITE referred to some investigations conducted by Dr. Savage and himself with regard to the pathology of holes in the brain. In two lunatics colloidal cysts were found in nearly all the organs of the body, and this was certainly against the congenital theory of their origin.—Dr. HADDEN, in reply, said that there was no paralysis and no staggering; he did not regard the cysts as of congenital origin. The cyst walls of these cases had not been microscoped, but in others examination had given negative results.

Dr. W. S. COLMAN showed a specimen of Simple Cyst of the Cerebellum, involving the middle lobe, and also excavating the white matter of the left lateral lobe. The symptoms had existed for two years: paroxysmal left occipital headache; reeling gait, with tendency to fall to left; occasional vertigo, with sensation of falling backwards; slowly progressive impairment of power in right arm and leg; prominence of both eyes, sluggish pupils, slight nystagmus, and double optic neuritis. Great improvement took place for a month or two, but death occurred suddenly from paralysis of respiration. On microscopic examination the wall of the cyst was found to be composed of layers of neuroglia. There was no trace of malignant disease, nor were there any other cysts in the cerebellum.

Mr. GILBERT BARLING showed a case of Alveolar Carcinoma of the Breast following Eczema (chronic papillary dermatitis) of the Nipple. The specimen was removed from a lady aged fifty-eight, who had suffered from the so-called eczema for six months. The nipple only was involved, and from it an indurated cord extended inwards on the equator of the breast for an inch and a half to a firm nodule the size of a horse-bean. The skin over the whole breast was movable and free from puckering, and the axillary glands were free from enlargement. Only the middle third of the breast was removed, including the skin over it and the pectoral fascia and muscle beneath. The patient remained well twenty months after the operation. A series of sections from the nipple through the indurated cord and the little tumour showed overgrowth of the rete mucosum with abundant small-celled infiltration. The lacteal ducts could be traced from the nipple to the growth, enlarged and distended with epithelium, whilst in places they were surrounded by small-celled growth. The small tumour was made up chiefly of alveolar carcinoma with traces here and there of duct carcinoma. He commented on the short time intervening between the origin of the eczema and the development of the carcinoma, and upon the general absence of squamous-celled carcinoma in these cases.—Mr. BOWLBY referred to Dr. Thin's observations, which had not been confirmed by subsequent observers. Dr. Thin held that the cancer was the primary lesion, and was the cause and not the result of the eczema. He had examined five cases, and in two there was eczema of the nipple without tumour, and this went to show that the disease of the nipple might precede the growth in the breast. In duct cancer of the breast he had not observed eczematous appearances. The cancer associated with eczema was usually spheroidal-celled carcinoma, and in most of the cases he had examined there was a distinct interposition of normal breast tissue between the cancer and the diseased nipple. The patients had remained well after removal of the nipple when that was alone diseased, and also in some cases after the removal of the cancerous breast. One case was well for five years and another for four years afterwards. In one case, after removal of a diseased breast eczema developed in the opposite nipple; this was also removed, but the patient died of a recurrence in the median line. In all the cases of diseased nipple the breasts showed retrogressive changes because the patients had passed middle life.—Mr. R. W. PARKER had examined one case of eczema of the nipple unassociated with tumour, but there was abundant evidence of abnormality of the breast tissue. He laid open the ducts and found that the disease extended directly from the nipple to the breast. He inquired if in Mr. Barling's case the nipple ducts were examined. He agreed with Dr. Thin that the eczema was due to irritation caused by fluid secreted by the diseased breast.—Mr. BARLING, in reply, said that the nipple ducts were not healthy, for they were distended, and there was a small-celled infiltration round them. In duct cancer a slight discharge was usually present, and the woman could squeeze from the breasts a fluid something like milk, though not lactating. He found hyaline material round the ducts, but no fresh development of elastic tissue such as Dr. Thin had described.

Mr. BLAND SUTTON described a kidney and ureter which had been preserved in the museum of the Middlesex Hospital for many years as an example of mucous cysts in the ureter. The characters of the supposed cysts strongly suggested the notion that they were of a parasitic nature.

FIG. 1.



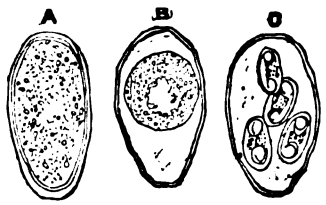
Portion of kidney and ureter with psorospermial sacs.

Recently portions of the ureter containing the small rounded bodies were prepared by the celluloidin process, and found to contain the so-called psorospermial bodies. These were oval-shaped capsule 0·037 minim in length and 0·02 minim in diameter, and identical in microscopical characters with the coccidium oviforme, the parasite which was the cause of the destructive liver disease of the rabbit. In the specimen exhibited (Fig. 1) the psorosperm sacs were immediately beneath the mucous membrane of the ureter, and did not invade the muscular coat. No saccules or coccidia could be detected in the renal tissue. The relation of the coccidia to the ureters was investigated with care, because Leuckart, the greatest living authority on this disease, stated that in the bile ducts of the rabbit the coccidia developed in the epithelial cells. This was certainly not the case in the ureter, and required confirmation in the case of the bile ducts. The subject had attracted but little attention in this country. The Transactions contained only two specimens: one by Dr. Hadden, published under the misleading title of "Disseminated Sarcoma"; the other in the Kidney, by Mr. Eve, last

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year. It was curious that the disease was not more frequent in man, for it was extremely common in rabbits: for instance, quite recently 500 rabbits were imported from Holland for examination purposes; of these, 60 to 66 per cent. had well-marked psorospermial disease of the liver. It was comforting to reflect that eating rabbits thus affected would not infect the eater, and that man and rabbits probably got coccidia from the same source, whatever that might be. Our knowledge of the life-history of this parasite amounted to this: In the young coccidium the granular protoplasm entirely filled the capsule; later it became concentrated in the middle, as shown in Fig. 2 (A and B). This change was but merely accidental or due to methods of preparation, as the stage A stained with

FIG. 2.



Coccidium oviforme. A, B, Stages found in rabbits and man. C, Stage occurs outside the body. (After Leuckart.)

methyl violet, but stage B stained best with fuchsin. It seemed that, however long the parasite remained in the body, it underwent no further change. After leaving the host the protoplasm gradually gave rise to four spores, as at C. No one, so far as he knew, had seen the stage C whilst the parasite had been lodged in the tissues of its host. The history and development of the coccidia in man and rabbits, as well as the symptoms to which they gave rise, were identical. Unfortunately, the source of infection and the condition of the coccidium, when introduced into men and rabbits, were unfortunately unknown. Darier had recently attempted to show that some skin affections, such as molluscum contagiosum, chronic eczema of the nipple, and the like, were cases of psorospermia. The evidence, however, was far from being conclusive.

Mr. SILCOCK related a case of Parasiticism by Psorospermia. The patient, a woman aged fifty-three, was admitted to St. Mary's Hospital seven days before death. She was thought to be possibly suffering from typhoid fever. The illness dated from a chill taken seven weeks before death. The symptoms consisted in pains in the limbs, nausea, and occasional sickness, tenderness over the liver and spleen, fever of remittent type, the temperature reaching 103°, and slight diarrhœa. The urine was albuminous; the splenic and liver dulness increased; the tongue coated with brown fur, becoming dry; the breath foul. Death resulted from cardiac failure. The necropsy was made eighteen hours after death in the middle of July. The liver was much enlarged, weighing eighty-three ounces. In its substance were a number of aggregations of caseous foci, for the most part near the surface, there being generally a well-marked red ring of congestion or capillary hæmorrhage around each caseous area. The spleen was enlarged, weighing sixteen ounces, and exhibited similar caseous foci varying in size from a pin's head to that of a pea, arranged in aggregations, and with a red inflammatory zone around each nodule. In the ileum were found six papule-like elevations, with red bases and circumferential inflammatory zone; also in the large intestine, as well as in the ileum, were red patches of infected mucous membrane, from one to three inches square. A small pneumonic area existed in the anterior border of the left lung; the other organs and tissues presented no noteworthy change, except those associated with fever. The naked-eye post-mortem appearances to a certain extent resembled those of tuberculosis, but different in the character, situation, and limited generalisation of the lesions. On examination of the caseous nodules, coccidia were found which corresponded in every respect with those described by Leuckart. The psorospermia did not appear to develop within the body, a fact noticed by this author; but they were obtained by keeping the coccidia in water and at an equable temperature in a warm room or incubator. It was a very remarkable fact that the development of the psorospermia went on in a weak solution of bichromate of potassium such as is used for hardening purposes. The resistance and toughness of the coccidium capsule probably explained this occurrence, as also the difficulty experienced in getting the organisms to stain with any of the reagents in ordinary use. The histological characters of the liver and splenic lesions were admirably given by Leuckart, and to his description there was at present nothing to add; that the coccidia were present in the bile ducts, and that their topographical distribution was regulated by the latter, were also obvious from an inspection of the specimens; but it was noteworthy that the only intestinal lesions found were far away from the duodenum. Their presence in the spleen could only be accounted for on the supposition that they had been carried there in the blood stream. This was the first case of the kind which, so far as he knew, had come under his notice, but from the marked *primâ-facie* resemblance of the disease to tuberculosis he could not doubt that it was much more common than was generally imagined. Mr. Silcock was very much indebted to Mr. Rogers, of St. Mary's Hospital, for the excellent specimens which were before the Society, and for the working out of the case generally.

Dr. DELÉPINE said that the presence of psorospermia in the liver of rabbits was a fact of such common occurrence that it hardly attracted the notice of the histologist, notwithstanding the use which was made of rabbits for experimental purposes. He had had lately to examine a large number of rabbits for special purposes, and, wishing to avoid as much as possible serious errors, he had made a point to note carefully the amount of psorospermic nodules found in each case. This was done chiefly with the view of discovering whether the diseased livers would react to various agents as well as those which were little or not diseased, and whether the presence of psorospermia diminished in any marked degree the vitality—a serious pathological state as to render them unfit for the carrying out of comparative experiments. Out of fifty rabbits of which the necropsy had been made during the last few months, only four were found apparently, and two certainly, free from the lesions produced by psorospermia. Thus 92 per cent. were certainly affected, and possibly 96. Some of these rabbits were obtained in London; the greater number was, however, of Swiss origin, and obtained from various farms. (Psorospermia were apparently more abundant in Swiss than in English rabbits.) All these animals were young, but varied considerably in size, the smallest weighing 688 grammes, the largest 1675 grammes. He had the occasion to examine in Geneva a large litter of young rabbits, and found that the animals were of different sizes. But, contrary to his expectations, he found that some of the small rabbits had very few psorospermia in their liver, whilst some large individuals were infested to a considerable extent. However, these animals having all been submitted at the same time to a rather long preliminary fast, two of them died, and these were very small. In one of them the liver was almost entirely replaced by psorospermial nodules. In the other the gall-bladder was distended with a clot, resulting from hæmorrhage caused by ulceration of the roof of the gall-bladder; the rest of the organ was comparatively free from lesions. Of those that remained, one other got very ill, and psorospermia were also extremely abundant. But of the six that remained, it was found on opening the body that the largest, and the one that had been the most active, was also the one in which psorospermia were most abundant. From this it would seem that in a very young rabbit psorospermia may multiply to such an extent as to be a serious dange. to the life of the animal, but that after the first few months the presence of even a large number of psorospermia did not interfere much with the nutrition of the animal. He continued the investigation on another line. He weighed carefully the whole body and the liver of all the rabbits which he had to dissect; 32 rabbits were thus examined. Out of that number, 2 were found free from psorsopermia; in 9 a psorospermium could be found here and there in the liver; in 8 the parasites were scattered all through the substance; in 10 the psorospermia were abundant; in 3 they were so abundant that it was almost impossible to find a single cubic centimetre of liver tissue free from them. The average weight of the animals belonging to these various groups was as follows:—Psorospermia: absent or nearly absent, 979 grammes; pretty abundant, 871 grammes; abundant, 1010 grammes; very abundant, 790 grammes. Thus it appeared that so long as the psorospermia were not very

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abundant the nutrition of the body was not much interfered with (it must be remembered that the three rabbits representing the last group were all very young). The average weight of the liver in these various groups gave more interesting results. In order to render that weight comparable, the average weight, having been found, had been reduced to what it would be in rabbits weighing 1000 grammes in each case. The liver would, when so reduced, weigh: In animals in which the psorosperms are few or absent, 29 grammes; pretty abundant, 35 grammes; abundant, 33 grammes; extremely abundant, 35 grammes. Thus it appears that although the general nutrition was not much affected, yet the liver was distinctly diseased, as its weight showed. The nature of the changes found next attracted his attention, and he found, like previous observers, that the parasites must creep in by the bile ducts. Sections showed that the cells contained all of very large highly refracting bodies, escaped from their envelope. The granules now probably penetrated into the protoplasma of the epithelial cells, and in this way a large number of these cells was invaded at the same time. The small mass then developed into a larger protoplasmic mass, which at first was nucleated and nucleolated, then very granular, and finally escaped from the cell: it might become encapsuled or not. In some of these cells a long coiled filament was produced, the nature of which he could not determine. It might be the pseudo-filaria of Van Beneden, in which case there could remain no doubt as to the relation between gregarinæ and psorosperms. The lesions produced were at first limited to the infected epithelium, remarkably fine specimens of papilliferous cysts being thus produced; then the connective tissue was involved, and a certain proliferation of connective tissue took place. Ultimately a kind of biliary cirrhosis was produced.—Dr. HADDEN referred to the clinical history and pathology of his case, which had been before described.[1] The psorosperms were found in the heart, pericardium, pleura, peritoneum, liver, and spleen, being subscapular in the latter organs.—Mr. TARGETT had found one specimen in the museum at Guy's. It was a kidney from a young man aged thirty, who had been under Dr. Richard Bright's care fifty-three years ago; in the pelvis and ureter were found small cysts. Five varieties of psorosperms had been described, and probably only the smaller species affected man.—Mr. SPENCER related his experience at the Brown Institution. When the parasites were numerous they affected the health of the animal. He had found them in rats, mice, dogs, and cats; he had not discovered them in the sea-fish. They acted as irritants, and caused epithelial proliferation and connective tissue formation.—Mr. REVNOLDS had found one instance in the dissecting room at Middlesex Hospital, and referred to a fatal epidemic of the disease amongst rabbits.—Dr. PAYNE had not seen this disease in the human being. Bollinger of Munich had described a similar parasite in human skin as the cause of molluscum contagiosum. He himself did not know how to distinguish psorosperms when he saw them; if the structureless masses of colloid found were stated to be animals, it might be difficult to contradict, but he would like some better evidence. He asked if any parasite of definite structure had been found in the skin.—Mr. SHATTOCK asked for a description of the intestinal lesions in the cases. He thought the parasites might not have passed up the liver along the bile ducts, but might have escaped from the intestine and subsequently have entered the ducts.—Mr. W. L. SIBLEY gave almost a case in a carp which was erroneously described as one of multiple sarcoma. In molluscum contagiosum he had seen appearances like those described in the papers. He pointed out that these structures shrank rapidly in hardening agents.—Dr. PRINGLE had seen the specimens of Darier and Wickham, which appeared to him convincing, but inoculation experiments had not at present been performed.—Mr. SUTTON, in reply, alluded to Cohnheim's observation that psorosperms of the floor of the fourth ventricle failed to produce diabetes in rabbits whose livers were infested with psorosperms. Investigations into this disease in animals should be cautiously made, for in the monkey he had found what he at first regarded as psorosperms were really cases of sclerosis.—Dr. HADDEN, in reply, thought that the finding of these bodies in the spleen proved that they entered by the blood; besides which the liver many were found outside the ducts. The intestinal lesions in his case were limited to the lower ileum and the first part of the colon.—Dr. DELEPINE, in reply, said they produced in the rabbit a disease like biliary cirrhosis. The proliferation of the epithelium under the stimulus of their presence could not be doubted. Blake, previously to Müller, had described these structures; various continental authorities had shown that the organism was one of the protozoa, though possibly an immature form of some higher animal.

[1] Trans. Path. Soc., vol. xxxix.

The following card specimens were shown:—

Dr. HADDEN: Cast of Œsophagus expelled during life.

Mr. SPENCER: (1) Cystic Kidney from a horse; (2) Sebaceous Horn on a Mouse.

Mr. JACKSON: Subdural Hæmatoma.

CLINICAL SOCIETY OF LONDON.

Acromegaly.—Charcot's Disease of Shoulder-joint with Suppuration.—Inflamed Nerves of Leg.—Tumour of Frontal Bone.—Rheumatic Nodules.—Thyroid Adenomata.—Diffuse Aneurysm of Calf.

AN ordinary meeting of this Society was held on Dec. 13th, Mr. Christopher Heath being in the chair.

Mr. A. Q. SILCOCK brought forward a case of Acromegaly in a female aged fifty-three. Her fingers began to grow larger six years ago, her features had increased in size, and the lower jaw was massive and projecting. The cartilages of the nose and the tongue were much bigger than normal. The feet were likewise enlarged, but not to such a degree as the hands.

Cases of acromegaly were also shown by Dr. PEAKE FLEMING and Mr. K. CAMPBELL which illustrated various points in the clinical history of the affection.

Mr. CHARTERS SYMONDS introduced two cases from which he had removed thyroid cysts: one of the patients showed ocular sympathetic paralysis.

Mr. SPENCER showed a case of Charcot's Disease of the Shoulder-joint which was at first a simple serous effusion, but later underwent suppuration.

Mr. J. H. MORGAN showed an infant with a condition of the leg which he described as Inflamed Nævus associated with Multiple Subcutaneous Hæmorrhages.

Mr. MORGAN also exhibited a boy aged eleven who had a Tumour of the Frontal Bone, which commenced five years ago, and had gradually attained to the middle of the forehead. He suffered from frequent headache.

Dr. ANGEL MONEY showed a boy aged ten, who had Symmetrical Indurations in the spaces in front of each elbow. Mitral disease, erythema multiforme, erythema nodosum, motor instability, and rheumatic subcutaneous nodules showed that the girl was rheumatic. Dr. Money thought that the indurations were bony, but whether part exostoses, or exostoses *plus* periostitis, or periostitis simply, or whether originating in the bursa beneath the bicipital tendon, he could not say. The mother declared that the hardenings varied in size; schlags and shootings were experienced both in the affected parts and away from them, in harmony with changes of weather.

Mr. CHARTERS SYMONDS read the notes of eight cases of Cysts and Adenomata of the Thyroid treated by extirpation of the growth, six in women and two in men; one of these died. The ages ranged from twenty-two to sixty-three. He sketched the other methods of treatment by injection and incision, and the method used by Professor Hahn, who ligatured masses of fascia and gland as he removed the cyst. In one of the cases recorded the entire thyroid was removed with a tumour that lay partly beneath the sternum. The lobes were empty, and Mr. Symonds regretted that he had removed them. The operation was undertaken early in 1883, before the cachexia following removal of the whole gland was generally known, and the wide oozing surface left after removal of the growth seemed to promise hæmorrhage. In the next case there was a solid tumour behind the right lobe, causing dysphagia so complete that the patient had to be fed with a tube. The lobe and tumour were removed by an incision to one side of the tumour and over the growth. Hæmorrhage was considerable, maintaining pressure, and this was two to the incision being made. On dissecting this tumour, it was found to be encapsuled and to be situated behind, and might easily have been enucleated. Consequently, in subsequent operations Mr. Symonds decided to first search for the capsule and then enucleate. In four subsequent cases this was done, and the growths, in one case solid, in the others partly cystic, were

removed without the loss of any blood, and with great facility. As a rule, at most these small vessels required ligature. In one the lobe had to be raised up before the cyst could be reached. In the remaining case the lobe was removed because it appeared to be blended with the cyst; it turned out subsequently not to be the case. All the patients recovered with primary union, and most required but one dressing subsequently to that made at the operation. Then the method employed was detailed, and may be thus summarised: To make in every case, no matter where the tumour be situated, a median incision; it gave more room and left less scar, and when the deep fascia was opened the largest growth could be brought to the median line. To expose certainly and definitely the cyst or adenoma—i.e., its fibrous wall—and then to dissect off the gland. If the wall be followed closely no bleeding or trouble was encountered. If the white glistening wall of a solid tumour or the bluish wall of a cystic one was not seen at once, then the edge of the gland must be sought and raised up till the capsule was seen. If a dissection were commenced outside this, severe bleeding would be encountered. In the case of a cyst, Mr. Symonds advocated opening it early, after sufficient of the wall had been exposed to secure with forceps, and dissecting back the thyroid just as in ovariotomy. By this means the operation could be performed through a smaller opening, and the resulting scar was slight. The similarity in anatomy between these cysts and adenomata and those of the breast was pointed out, to explain why it was that the growths could so easily be turned out. All the cysts contained in the wall a variable amount of gelatinous glandular material, which showed the usual veins lined by cortical or columnar epithelium, and this structure was exactly the same as in the solid forms. As to diagnosis, it was pointed out that the cases suitable for operation were those in which the growth was localised, well defined, and limited to one side. In no case were there two tumours, though multiplicity was not considered to negative operation, there being no reason why two or more localised encapsuled growths should not be extirpated at the same time. It was impossible to decide between cystic and solid forms without exploration. It was held that excision gave more speedy recovery, and was freer from danger than any other method, while the small scar resulting from injection seemed to the author to be counterbalanced by the prolonged treatment and the often severe hectic that followed. Mr. Symonds also pointed out the necessity of the strictest antiseptic precautions in these cases. He had employed the spray except in four cases, where the wound was kept full of sublimate solution. But more particularly he called attention to the necessity of surrounding the neighbourhood of the wound with towels wrung out of lotion, and of operating with the arms of the assistant as well as the surgeon bare, and of wearing a clean linen apron or a towel pinned over the waistcoat from the neck downwards. These subsidiary precautions he considered of far more importance than the spray. He further added that in all the cases except one there were symptoms sufficiently important to demand operation. The exception was that of a lady who requested that the growth might be removed. He deprecated operation where symptoms were absent. Two patients were exhibited: one, from whom an adeno-cystoma measuring three inches by two inches was removed through an incision one inch and a half long, presented only a very small scar. The other still exhibited the ocular symptoms of sympathetic paralysis, which had antedated the operation performed nearly three years ago.—Mr. HEATH said he had treated a fair number of cases by injection, and though some of them had had afterwards a high temperature, he had not seen that great constitutional disturbance which Mr. Symonds had spoken of.—Mr. SILCOCK showed a Cyst of the Thyroid which he had recently removed. He was unable to delimit the cyst from the gland substance; he made, therefore, a median incision and removed the whole lobe without the least hæmorrhage; he dissected it from the middle line, tying the vessels as he came to them. In one case after injection he had seen diffuse suppuration of the neck, and an abscess in the anterior mediastinum.—Mr. SPENCER inquired what happened to the rest of the gland after division of the isthmus. In one case where he had done this the two lateral lobes had since slightly shrunken.—Mr. PARKER had observed a considerable diminution in the size of the thyroid after division of the isthmus.—Mr. BATTLE said that Mr. Sydney Jones divided the isthmus for dyspnœa, and he did it to obtain atrophy of the gland afterwards. He asked Mr. Symonds whether he had come across cases in which there was communication of large vessels with the interior of the cyst. In one case he had to pack a cyst with gauze to arrest hæmorrhage.—Mr. BERRY said the common course was that when one lobe was removed the other diminished at first in size, and then afterwards re-enlarged. The hæmorrhage came mainly from the vessels along the upper and lower borders of the isthmus. Socin of Basle had successfully enucleated forty-seven tumours from the gland, and his results had been published in a small pamphlet by Dr. Keser.—Mr. GODLEE said that for the removal of small parts of the thyroid body he made a small incision and scooped out the contents of the gland. The only hæmorrhage came from the capsular veins, the pulp not bleeding at all. He had known of disasters from the injection of perchloride of iron.—Mr. SYMONDS, in reply, said that he had not encountered any hæmorrhagic cysts. If one kept free of the capsule, there would be but little bleeding.

Mr. BATTLE then related a case of Diffuse Aneurysm of the Calf of the Leg which simulated Abscess. The patient was a labourer aged twenty-eight, who was admitted into St. Thomas's Hospital in December, 1887. The history was that five weeks before admission the man was descending a ladder when his foot slipped off the last rung. Next day the left leg was painful, and there was slight swelling of the calf. He consulted a medical man, who gave him some liniment. He was then able to get about and do his work for a few days, but at the end of a fortnight the swelling began to increase rapidly, and the pain became very acute, preventing rest. The family and previous history of the patient were good. The leg was swollen, painful, and tender, and measured one-third more than the right. There were fluctuation and œdema five inches above the ankle-joint; the swelling did not pulsate, and there was no pulsation in the arteries below. The temperature was 102·8°, with a furred tongue and full pulse. An antiseptic incision revealed a cavity containing blood, and at the operation next day an opening was found in the posterior tibial artery just below the origin of the anterior tibial. As a small branch artery from the popliteal to the inner head of the gastrocnemius had been divided earlier close to its origin, and the opening in the posterior tibial was so close to the bifurcation, it was necessary to ligature above and below those points respectively, and also the anterior tibial at its commencement, after which the artery between the ligatures was dissected out and removed. The opening from which the blood had escaped was situated on the posterior aspect of the vessel, the margin of which showed five granulations, but no atheromatous change, nor was any formed in the part removed. There was no sac other than that formed by the condensed tissues, the surface of which was shreddy, whilst the interosseous membrane had lost its firmness, and could be made to bulge forwards under slight pressure, restoring the rounded aspect of the anterior part of the limb, which had been so marked when the patient was admitted. Antiseptic dressing was applied and three drainage-tubes inserted, the wound, which was about eight inches long, being closed with interrupted sutures, and the limb enveloped in cotton wool and again placed in the splint. Further examination of the patient showed no evidence of disease of the heart, arteries, kidneys, or any of the internal organs. The foot was at first cold and waxy, but the circulation gradually improved, notwithstanding the fact that many sloughs came away. Later, a sharp attack of erysipelas, with suppuration in the knee-joint, retarded the healing of the wound, and before ultimate cicatrisation occurred the newly formed scar tissue broke down on several occasions. Mr. Battle then alluded to the difficulty in diagnosing some cases in which blood had been effused into the tissues of a limb after subcutaneous rupture of an artery, and added as an appendix a short record of cases of a similar kind. Guthrie had a patient under his care who had a rapid swelling of the calf of the leg, with a history of a swollen pulsating swelling preceding it. There had been a rupture of a posterior tibial aneurysm. In the *British Medical Journal* for 1878 was recorded a case of aneurysm of the posterior tibial, resulting from a wound of the calf of the leg seven months previously. It was proposed to try Esmarch's bandage, but the result was not given. Gross recorded (*Philadelphia Medical Times*, vol. ii., p. 374, 1871) a case of aneurysm of the posterior tibial artery, which formed a

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pulsating tumour in the middle of the calf. There was a well-marked bruit. The swelling dated from six months before, and was noticed directly after the patient, a man of thirty-four, had jumped a fence. He felt something give way at the time. There was a curious history in this case. It was said that nineteen years earlier he had received a wound in the calf of the leg, whilst bathing, from the spine of a stingaree fish (Trachinus draco), and Gross inclined to the opinion that the aneurysm was the result of the rupture of a cicatrix of the artery which formed then. He ligatured the posterior tibial through an incision four inches in length, and the patient recovered. A postman, under the care of Spence, had received a wound from a knife in the upper and inner part of the left leg, five weeks before admission (*Med. Times and Gaz.*, 1872). That surgeon made an incision about eight inches in length through the gastrocnemius and soleus muscles, and evacuated pus and clot. The posterior tibial had been injured close to the popliteal, and also one of the venæ comites. A ligature was applied above and below the wound in both artery and vein, and another upon the anterior tibial, just below the bifurcation of the popliteal. These ligatures were left hanging out, the part covered with cotton wool and slightly elevated; the ligature separated in eight days, and the man recovered.—The PRESIDENT referred to the great difficulty in diagnosing these cases, and mentioned an instance which he recently saw which was hard to tell from tumour.—Mr. BERRY referred to the case of a boy aged twelve from whom he had removed a sarcomatous growth from the upper end of the fibula as large as an egg. He was obliged to tie the anterior and posterior tibial and the peroneal arteries. It was seven days since the operation, but no gangrene had at present supervened.—Mr. BATTLE, in reply, said he was surprised that his own case did not proceed to gangrene.

OPHTHALMOLOGICAL SOCIETY.

Hereditary Tendency to Cataract in early Childhood.—Operative Treatment of Cicatricial Ectropion.—Operative Treatment of Symblepharon.—Primary Tuberculosis of Iris.—Tea-leaf Conjunctivitis.

AN ordinary meeting of the above Society was held on Dec. 12th, the President, Dr. J. Hughlings Jackson, in the chair.

Dr. TATHAM THOMPSON (Cardiff) gave a description of well-marked Heredity of Cataract through four generations. The cataract developed when the individuals were from three to five years of age, and in all the cases quoted, except one, affected both eyes. There was at first a finely granular opacity of the entire lens, which rapidly increased in density till vision was reduced to mere light-perception. The cataracts were much harder than those of the ordinary congenital or the lamellar type. One peculiar feature was that the tendency was transmitted in two generations only through the male line, thus differing from the somewhat similar cases recorded by Mr. Berry in the *Ophthalmic Review* for January, 1888, but agreeing with the observations of Hosch and others. The heredity was more marked in the early childbearing period; this was also noted by Mr. Berry in his patients. In reply to questions by the President, Mr. Rockliffe, Mr. Gunn, and Mr. S. J. Taylor, Dr. Thompson said that his patients were in all other respects healthy, and there was no evidence of further disease of the eyes. No information was obtainable enabling him to explain the curious inheritance. No consanguinity existed in the parents of the affected children.

Mr. TWEEDY described a method of operative treatment for Cicatricial Ectropion of the Lower Eyelid, by which he had obtained very satisfactory results. He showed a patient upon whom he had operated, and a drawing of the same patient previously to operation. He made a doubly curved incision from the outer canthus downwards and outwards over the malar prominence, and a second parallel incision about six to eight millimetres to its inner side, carried through the whole thickness of the everted lid. The flap thus formed was dissected up, remaining attached only at the lower end. He then made a single straight incision obliquely across the cicatrix, nearly parallel to the lid margin; the outer end of this reached to the innermost of the two curved incisions. The lid and adjoining skin were then separated from the subjacent tissues. This allowed the cut surfaces at the sides of the flap to be brought closely together and united by sutures, and the eversion of the lid was thus corrected. The gap left by the drawing up of the lower lid was filled by the flap previously made, which was turned inwards towards the nose, and secured in position by a few stitches.—Mr. MACKINLAY asked if the depressed cicatrix, usual in such cases, was filled up by this method of operating. In the case shown there still remained a rather deep depression.—Mr. SPENCER WATSON fully appreciated the ingenuity of Mr. Tweedy's method, but thought that for most cases a simpler operation would suffice.—Mr. TWEEDY, in reply, said that the operation he had described was designed for the cure of the ectropion. In the particular case exhibited there was a large osteophytic mass at the lower margin of the orbit, covered by a very thin cicatrix, and that little could be done to remedy the depression at the site of the scar.

Mr. TWEEDY also gave a description of a procedure he had adopted in cases of extensive Symblepharon following Burns. It was most suitable for those instances in which there was a prolongation of the cicatrix into the cornea. His plan was to freely separate the lid from the cornea and globe, making a sulcus rather deeper than that of the normal conjunctiva; then, having attached two or three fine doubled silk threads to what had been the uppermost margin of the symblepharon, to pass these by means of curved needles through the lid from the bottom of the sulcus, bringing them out on the skin surface as near the lower orbital margin as possible. These threads were then tied over a piece of drainage-tube, and allowed to remain in position for four or five days. By this means the cutaneous surface of the corneal portion of the symblepharon was folded inwards and became the lining membrane of the lid. The patient should be kept under observation during the process of repair, so that any adhesions which formed between the lid and the globe could be broken down. If the lower lid were much incurved by the folding of the flap, its position could be restored by buttonholing the flap near the margin of the lid.

Dr. HILL GRIFFITH related particulars and showed specimens and drawings from a case of Tubercle of Iris, which occurred in a female child aged seven months. The eye had been affected for one month, and the child subject for three months to attacks of bronchitis and diarrhœa; there was an enlarged gland in the neck on the same side, but there were no other physical signs of tubercle. The parents were healthy, and there was no family history of phthisis. A yellowish nodule grew from the periphery of the iris of the right eye, and numerous millet-seed bodies from its surface; the pupil was closed, but there was no acute inflammation. The nodule grew rapidly, and the smaller deposits multiplied day by day. The eye was enucleated after three weeks' treatment. The disease was found to be confined to the iris and ciliary body. The new growth exhibited the histological characters of tubercle; but Professor Dreschfeld failed to detect the bacillus tuberculosis. In thirty-two recorded cases in which microscopic and other tests left no doubt as to the tubercular nature of the disease, one eye only was affected in twenty-nine; the average age of the patients was twelve, youngest four months, oldest fifty-one years. In ten cases bacilli were searched for, but only found in four; in one of the remaining six cases, however the inoculation test was successful. Three cases in which no operation was undertaken terminated fatally from tuberculosis. Of the twenty-seven cases in which enucleation was performed, two died with brain symptoms, but several others showed signs of tubercle subsequently to the operation. Dr. Griffith thought enucleation was on the whole satisfactory, cases being reported well five or more years afterwards. Iridectomy could not be recommended. In view of the fact that it was impossible to be quite certain if the disease were primary, and that some of the milder cases got well, he would enucleate only if the sight was destroyed or the eye becoming rapidly disorganised in spite of treatment, as in his own case.—Mr. LAWFORD quoted two cases of supposed primary tubercle of the iris in young children. In both enucleation was performed, and the general condition of the patients improved considerably; one was known to be alive and well three years afterwards. In these and in many of the recorded cases there was strong tubercular heredity. His own feeling was in favour of enucleating in cases of intra-ocular tubercle, as soon as there was moderate certainty that the eye was irremediably damaged; he thought the after-history of published cases justified this opinion, for in a fair

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proportion the disease seemed to have been eradicated.—Mr. MCHARDY referred to a case of localised choroidal tubercle which he had brought before the Society last session, and in which he had removed the globe. The child, though delicate, was still in fair health. In cases of tubercular disease of the cornea, recovery sometimes occurred even when the affection was very severe. In localised choroidal tubercle, enucleation should, in his opinion, be performed; but in cases of tubercle of the iris he was often doubtful what treatment to adopt.—Mr. TWEEDY spoke of a young man who had been under his care at Moorfields for a year or eighteen months, in whom both irides were studded with little tubercular bodies. The eyes were slowly degenerating, in spite of all treatment. There was no personal or family history of either tubercle or syphilis.—Dr. TATHAM THOMPSON referred to a case of tuberculosis of the eye in which enucleation was followed by tubercular meningitis and death.

Mr. CHARLES WRAY (introduced) read a paper describing a form of Conjunctivitis observed by him after the application of Tea-leaf Poultices to the Eyelids. In a typical case there were swelling and congestion of the lid margins, congestion of the palpebral and ocular conjunctiva, especially in the line of the palpebral fissure. The caruncle and plica semilunaris were swollen, and presented a peculiar glistening translucent appearance. There was some sero-purulent discharge. Mr. Wray considered it most probable that the affection was due to micro-organisms.

The following patients and card specimens were shown:—

Mr. TREACHER COLLINS: Microscopic Section of Human Lens with Epithelium on the inner surface of the Posterior Capsule, and showing other structural peculiarities.

Mr. JESSOP: (1) Case of Aniridia with Dislocation of Lenses; (2) Case exhibiting a Punctate appearance of the Anterior Capsule of the Lens.

Mr. SILCOCK: Case of Symblepharon treated by Snellen's Operation (modified).

Mr. SPENCER WATSON: Osteoma of Infra-superciliary Region.

MEDICAL SOCIETY OF LONDON.

Adjourned discussion on Aortic Aneurysm.

A CLINICAL EVENING of the Medical Society took place on Dec. 16th, the President, Dr. Theodore Williams, being in the chair. A large number of cases of aneurysm were shown.

The PRESIDENT, in resuming the adjourned discussion on the Diagnosis and Treatment of Aortic Aneurysm, congratulated Dr. R. Douglas Powell on the practical character of his propositions, and especially on his attaching more importance to the pressure phenomena than to the cardio-vascular signs in the diagnosis of aneurysm. With reference to the relation which fusiform aneurysm bore to saccular, it must be remembered that both sometimes coexisted in the same patient. He had never heard the diastolic "shock-sound" except in cases of aortic aneurysm, but it was not always to be detected in these, and as for murmurs, they were quite as often absent as present. The relative importance of auscultatory phenomena and pressure signs depended principally on the portion of the aortic arch involved, aneurysm of the first portion usually presenting some physical signs in the shape of pulsation, dulness, shock, or murmur, and it was generally with this form that cases of aortic regurgitant disease with retracted lung were confused, but he thought that the position of the heart, the presence or absence of cardiac hypertrophy and the results of measuring the two sides of the chest were generally distinguishing features. In many cases of aneurysm of the transverse and descending portions of the arch the evidence of auscultation was often wanting, and that of pressure signs most important; the variations in this pressure in aneurysm from changes in the size of the vascular swelling often proved of assistance in the diagnosis. In these cases the presence of stridor, of metallic cough, and dysphagia with fixation of the left vocal cord, dilatation of the left pupil, and weakening of the left pulse generally signified aortic aneurysm, but he had published a case in the Proceedings where all these phenomena were present, and were after death proved to have been due to a sympho-sarcomatous tumour in the mediastinum, which was detected during life by the rapid extension of the dulness in more than one direction. Syphilitic glands might give rise to nearly all the characteristic pressure signs of aneurysm, for in one well-marked syphilitic patient of his, with enlarged cervical and axillary glands, stridor of voice and breath were present, with fixing of the left vocal cord, and tubular sounds were heard above both scapulæ, with sternal dulness and accentuation of the second sound of the heart. Under large doses of iodide of potassium the symptoms entirely disappeared, which was the result in a similar case, where in addition dilatation of the left pupil was noted. Nevertheless, stridor was of great diagnostic value, and sometimes the only means of detecting the presence of aneurysm. A man aged thirty-two was admitted into the Brompton Hospital with a history of emphysema and asthma, and during one of the asthmatic attacks stridor was noted. The spasms subsided under chloroform and he was free for weeks, but he died suddenly in an attack of syncope, and post-mortem examination revealed an aneurysm the size of a Seville orange springing from the back of the transverse portion of the aorta and involving the posterior pulmonary plexus. The presence of markedly tubular breathing above one or both the scapulæ was one of the most valuable signs in obscure cases, but no signs or symptoms could be absolutely relied on. We should only trust to a combination of the various phenomena to guide us to the right conclusion. He (the President) often experienced great difficulty in persuading the patient to adopt Tufnell's method long enough for a complete trial, but he obtained excellent results from the iodide of potassium treatment, while restricting the patient's liquids and confining him to one floor of his house or to the gallery of the hospital; in other words, limiting his exertions without keeping him in bed, and he thought this sufficient for many cases of aneurysm. Consolidation of aneurysms sometimes took place under conditions the very reverse of those of rest, as he witnessed in a shoemaker suffering from aneurysm of the ascending aorta, apparently pointing in the second intercostal space on the right side, and who, in spite of rest being enjoined, pursued his heavy labours at his last, with the result that six months later the tumour had sufficiently consolidated to withstand a blow from the patient's hand apparently without injury. The man died later of a posterior extension of the aneurysm. With regard to abdominal aortic aneurysms, many cases of vaso-motor paresis of the aorta were mistaken for it; and he well remembered one instance where what had been described as saccular aneurysm of the abdominal aorta disappeared after the removal of an ill-fitting truss which had compressed both iliac arteries.

Dr. QUAIN said that the cases which gave difficulty in diagnosis were the tumours which produced pressure signs and the cases of aneurysm which did not. He referred to the case of Mr. Liston, who died forty years ago. Though seen by many distinguished physicians, none could diagnose his lesion, which turned out to be an aneurysmal tumour pressing on the trachea and the adjoining parts. Since then, however, our methods of diagnosis had improved. He had seen iodide of potassium combined with rest do much good; at any rate, it made the lives of many patients tolerable. He related a case which showed the value of stridor as an early symptom of aneurysm.

Dr. SEMON referred especially to the value of pressure symptoms as revealed by laryngoscopic examination. He said that nine years ago he laid down a law to the following effect: that whilst the adductors showed a great proclivity to be affected in various kinds of functional disease, the abductors were usually first affected, in all cases of gradually progressive organic lesion of the laryngeal motor nerves. If the abductor twigs only were affected, there would be no symptoms whatever, and the vocal cords would be found to stand a little nearer the middle line, and on phonation would come properly together. But gradually the opposing muscles underwent paralytic contracture, and the vocal cords became fixed in the middle line; this would produce no clinical sign, but would be found on laryngoscopic examination. Later, the internal thyro-arytenoid muscle became also affected, and then the voice was somewhat impure.

Dr. DE H. HALL said that pulsating empyemata were most difficult to diagnose from aneurysms, as were also malignant growths, but the latter could sometimes be told from the steadily downward course which they pursued. He was enabled to diagnose dyspnœa from direct pressure on the trachea from that produced by paralysis of the crico-arytenoidei postici by the entire absence of respiratory

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excursion of the cords in the former instance. In administering iodide of potassium he thought Balfour's rule a good one—to diminish the dose at once when the pulse commenced to rise in frequency. In one case he found great benefit follow the application of an ice-bag to the chest in aortic aneurysm. He preferred aconite to digitalis as a quieter of the heart's action. In 96 per cent. of the cases of aneurysm Moore's treatment by introduction of wire would be injurious or useless. Aneurysm, from its tendency to impoverish the blood, increased the liability of patients to phthisis. In treatment it should be remembered that, as the original sac was filling with fibrin, another aneurysm occasionally developed further on. He exhibited two cases, both under the care of Dr. Sturges, at the Westminster Hospital. One, a man aged forty-nine, a smith's fitter, had been in the hospital since August, 1886, and the aneurysm commenced to develop eight months before that. There was pulsation in the second right interspace. The treatment was rest, but the diet was not particularly restricted; iodide of potassium was administered. He had been allowed to get up since March, 1888, and was since free from pain, though there was still a pulsating swelling. The second case was a waiter aged fifty-nine. He was admitted in October, 1889, with the history of a year's illness. In the left infra-clavicular region there was loss of resonance, with pulsation and well-marked diastolic shock. Laryngoscopic examination showed the left vocal cord in the cadaveric position.

Dr. MITCHELL BRUCE in his remarks devoted himself to treatment. He referred especially to five cases in which he had employed a combination of Tufnell's method with iodide of potassium. In the first case, that of a man aged forty-two, an aneurysm presented in the third left interspace. He was kept on his back for 207 days; given sixteen ounces of solid food and twenty-one of fluid daily; and sixty grains of iodide of potassium were administered in the twenty-four hours. At the end of that time he was comparatively well. He died about a year later after free living. In the second case, that of a woman aged fifty-six, an aneurysm lay behind the left sterno-clavicular joint. Strict rest was enjoined for 130 days, with seven ounces of solid food and twelve of fluid, and sixty grains of iodide of potassium. The patient was much better three years after the treatment, the tumour having disappeared. The third case was that of a woman, aged forty-eight, who had an aneurysm at the junction of the ascending and transverse arch, with double aortic disease. She was kept in bed for two months, and given forty grains of iodide daily, which effected considerable improvement. The fourth case, in a man of forty-seven, was much like the second, and, like it, did well. He was kept in bed for 105 days, given twelve ounces of solid food and twelve of fluid, with forty-five to sixty grains of iodide. The fifth case occurred in a woman aged forty-eight, who had an aneurysm of the ascending arch, and also one of the left common carotid. She was kept at rest for thirteen weeks, given ten ounces of solid food, with eight of fluid, with forty grains of iodide of potassium. At the end of six weeks the carotid aneurysm had consolidated, and at the twelfth week the aortic aneurysm was partly solid. The patient died suddenly two years later of aortic disease. Dr. Bruce was strongly impressed as to the value of the rest and iodide of potassium treatment, but said that the cases must be carefully selected. The treatment should be thoroughly carried out in every detail, and such adjuncts as morphine, antipyrin, &c., used when necessary. He showed an aortic aneurysm into which a short length of steel wire had been introduced and electrolysis applied. The wire was surrounded by a layer of decolourised fibrin, and there was evidence of commencing consolidation on the walls of the sac.

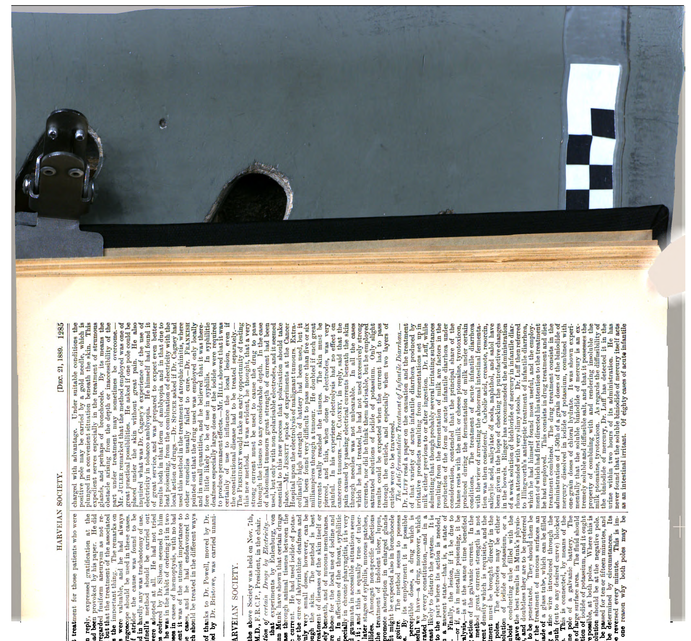
Dr. KINGSTON FOWLER said that though Dr. Powell had divided these cases into two classes, yet he had not implied that they could not be combined. A fusiform aneurysm was often associated with regurgitant aortic disease, but an aortic diastolic murmur was rare with sacculated aneurysms. Pain was a valuable symptom, and aneurysms were often overlooked through not paying attention to this. The prognosis of aneurysm with regard to duration of life was rather better than was usually supposed. One case he had watched to complete consolidation for eight years and a half, while another died of aortic regurgitant disease after an aneurysm had existed seven years and a half. He showed a case which he first saw in 1882; the patient was a musician, and blew a wind instrument. He was treated for four months with rest and diet combined with iodide of potassium, and he had been watched ever since. He had been at work since 1886. He was not clear as to which of the two parts of the Tufnell treatment—the rest or the diet—did the good, but he thought that the rest was of the greatest possible importance. It ought to be seriously considered whether patients should be compelled to be put to the intense suffering caused by the restriction of food, and especially of liquids in summer. He thought that there were certain contra-indications to the Tufnell treatment, such as the coexistence of aortic regurgitation, for the compensation of the left ventricle should be maintained, which could not be done under the Tufnell treatment. He was in favour of rest and iodide of potassium, and thought that diet was not of so much importance; he certainly would not make the patient excessively hungry or thirsty. Though he had deprecated wiring in one case in which it was adopted, yet he thought that in that instance it had prolonged life. He considered that life in most cases of aneurysm was shortened rather than lengthened by surgical procedures.

Dr. SEYMOUR TAYLOR said that the diagnosis of aneurysm presented some anomalies. There were only five physical signs proper to aneurysm—namely, abnormal dulness, pulsation over the dulness, bulge, thrill, and "diastolic jog," or shock. He thought that thrill was commoner than Dr. Powell seemed to infer; it was a common sign in saccular aneurysm near the surface. He looked upon the diastolic jog as a systole of the sac, aided by the recoil of the distended surrounding tissues; for its production it was necessary that the aortic valve should be fairly competent. He had seen it in abdominal aneurysm, and the sphygmogram of the femoral arteries would exhibit in such cases a marked "waterhammer" type. He had been in the habit of speaking of aneurysm of the first part of the arch as causing principally venous obstruction, of the second part as causing pressure on the respiratory tract and on nerves, whilst a sac in the third part most frequently impinged on the œsophagus and on the vertebræ. Syphilis he regarded as an unduly magnified cause of aneurysm, while heredity had been overlooked. He was glad to hear Dr. Bristowe speak against prolonged rest in bed, but in considering this question he would divide the poor from the rich; in the latter the effect of a prolonged rest, with the administration of iodide, should certainly be tried. He had seen ergot do good in the way of arresting pain, but the effect of alcohol, especially of ardent spirits, was baneful. He unhesitatingly condemned the intrusion of wires or of other foreign bodies into the sac.

Dr. ROBERT MAGUIRE showed five patients suffering from aortic aneurysm. One was a diver in the Chatham Dockyard, and it was probable that the atmospheric and other conditions of his employment had contributed greatly to the development of his disease. This patient, in addition to other signs of aneurysm, showed also bilateral paralysis of the abductors of the cords, with inspiratory stridor. This was a most valuable sign, occurring as it did when other symptoms were little marked. A second patient showed an aneurysm of the first portion of the aorta, illustrating the fact that such a position caused the appearance of physical signs, and not pressure symptoms. This patient showed well-marked signs of aortic regurgitation, and the sphygmograph indicated inequality of the radial pulses. As a rule the sphygmograph was not so valuable as the well-trained finger, but an exception must be made to this rule for aneurysm cases. Here the tracing, which showed a rounded summit, a gradual descent, obliteration of the secondary waves, and which also was obtained by pressing hard on the artery, was a very valuable indication. The third case showed pressure on the left bronchus; the fourth how an assemblage of slight symptoms would establish the diagnosis, when each alone would be useless; while the fifth case was one of aneurysm of the aorta involving the innominate artery. Dr. Maguire also referred to a sixth case, where the patient, given greatly to athletic exercises, had engaged to run a race one week after he was first seen. He had a most extensive aneurysm, and was quite unconscious that anything serious was the matter with him.

Dr. EWART exhibited two cases, one of simple dilatation of veins of the chest without other sign of aneurysm; it was relieved by treatment with iodide of potassium. In the second case there was protrusion of a tumour in the second interspace, and Tufnell's method of treatment, combined with iodide of potassium, had been adopted for a year and a half with great benefit; but fluid pulsation was still perceptible in the sac. He looked upon the combined

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diarrhœa treated by this method, the diarrhœa ceased within two days in seventy-two of the cases; in five of the remaining eight cases it ceased within four days, and in no case did it last more than seven days.

Exposed Child with Spina Bifida.—Mr. J. J. CLARKE showed the body of a female child which died a few hours after birth at full term. Hydrocephalus, spina bifida, and double talipes were present. The spina bifida was a myelocele. When the head was pressed there was a flow of fluid from the aperture of the central canal at the upper end of the myelocele, which at the same time was lifted up by the increase of pressure in the cerebro-spinal fluid behind it. At birth both hips and knees were fully flexed. The feet were crossed and fixed by four turns of the umbilical cord. The right foot showed marked equino-varus; the left had similar characters, but was also flattened. Dissection of the right side showed that the anterior ligament of the hip and the posterior ligament of the knee were short, and prevented extension. The ligaments on the inner side of the foot were similarly shortened, and the bones were considerably altered in shape. The deformity appeared to be fully accounted for by the mechanical conditions. The microscopical appearances of the nerves and muscles were normal.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

Malaria v. More Recognisable Causes of Disease.

AT the meeting of the Society on Dec. 11th, Sir WILLIAM MOORE read a paper on Malaria. He observed that the diseases which malaria had been accused of causing comprised nearly the whole nomenclature; in fact, it put him in mind of the 122nd proposition of the Brunonian system, which declared debility to be the cause of intermittent as well as of every other kind of fever. But this direful agent malaria had not been discovered by chemical or any other means. All we knew of it has been deduced by inference from previous consequences. Sir W. Moore then mentioned the various theories which had been propounded as to the nature of malaria, the last being that of Crudeli and Klebs. After reviewing what had been advanced with regard to the bacillus malariæ, the speaker observed that various authors had stated fever might be induced in half an hour after exposure, so that malaria might kill at once; were we, therefore, to suppose that the bacillus entered the system, took up its habitat in the spleen and marrow of the bones which it is said to affect as retired residences, multiplied, issued forth, and excited fever all in half an hour? Moreover, the bacillus malariæ has not been found everywhere where ague-ish disorders occur. It was said to require moist earth on which to germinate, but malarious fevers occurred on dry sand and on rock, where there was not the required moist earth. Further, either would it be reasonable to suppose that every kind of earth surface would produce the same bacillus. Reasoning on analogy, because a particular appearance is found in the blood of persons living in a particular locality, that such is the cause of the disease. The filaria sanguinis hominis, which Manson theorised as the cause of elephantiasis, is found in the blood of many persons apparently quite healthy. Similarly with the spirillum, presumed to be distinctive of relapsing fever. Then what becomes of the bacilli? They must leave the patient or he would not recover. But they do not infect the atmosphere or clothes, or the disease would spread through them. If after passing through the human body they are incapable of reproducing themselves, they must exist independently wherever malarious diseases occur, which, as above stated, it is not reasonable to presume. Again, everyone admits that secondary attacks of ague may occur months or years after the primary attack. Are we to suppose that the bacilli remain in the system for months or years seeking for an opportunity to manifest their presence? But it has been stated that inoculations of the bacillus have produced ague. Not everyone can be placed on this. In a malarious country nearly everyone suffers from fever at some time or other. The very fact of inoculation proved it were known what it was for, would excite an attack in a nervous subject even without the hypnotic sleep and "suggestion," of which we have heard so much recently. With reference to the existence of fever on sandy soils, where there is not the moist earth of the Roman maremma for the bacillus to vegetate in, Sir William Moore vividly portrayed the semi-desert district of western India as compared with the southerly district, such as the Deccan, where on the latter, with rich soil and abundance of moisture, the climate, the ground, was black alluvial earth. In the one water was 300 or 400 feet from the surface, in the other 3 or 4 feet. In the one there was not more than 5, 6, or 7 inches of rain annually; in the other 80 or 90 inches. In the one vegetation was of the most scanty description; in the other most profuse. In the one there were no swamps; in the other the whole country was intersected by tidal rivers, and was more or less swampy. The one country was exposed to the fierce hot winds of the desert; the other to the sea breeze. Yet in these districts, so different, malarious disease in proportion to population prevailed to about the same extent. The only resemblance was rapid alternation of temperature, with at some seasons excess of humidity. Then as regarded the prevalence of malarious fevers on rock, the same alternation of temperature was the case. A rock under a tropical sun in the daytime might be hot enough almost to cook a mutton chop, and at night fall almost to a cold and freezing point, the change accompanied by profuse dew. Of course, the neglect of this was a characteristic of malarious disease, there was no periodicity in a large spleen. Agues even were often so irregular as to lose all claim to periodicity, which implies regularity. Hectic fever, relapsing fever, and syphilitic fever were all periodic, but no one attributed them to malaria. There was periodicity in enteric, and even in continued fever. In fact, periodicity was a law of nature. When epidemics of so-called malarious disease presented among troops, or among civil populations, there were always other causes of disease recognisable. Instances of this were given, and of individual cases of fever there were few which could not be traced to a chill contracted in some way or other. We were formerly taught that congestions and inflammations were originated by the rush of blood to internal organs consequent on a chilled surface, and probably this teaching was not incorrect. It is more recently advanced that chill indicates disturbance of protoplasmic action, so-called cooling down in a climate of change, and that "bodies" are formed in the secretions which may be veritable poisons. Why one person should get a liver abscess and another a fever from a chill might perhaps be explained by predisposition on the part of the organs affected. If this existed, fever would probably not be the first consequence. Exposure to prolonged heat caused first excessive action and then debility of the skin, which resulted in great liability to chill in tropical climates, a very slight reduction of temperature being there excessively felt. And most tropical climates are noted for great seasonal and diurnal changes. A person in the sun may experience 120° of heat, and at night a temperature of almost freezing point; such changes excite opposite physiological processes, and may be repeated in a spasmodic form, exactly as was the case with M. Brachet, who, after bathing several times at a certain hour in the cold river, experienced an attack of ague the first night he did not so. The intensity of so-called malarious disease may be estimated by the degree of change. Thus, the greatest agues occur in the equator, they are rarely found in insanitary localities, and they occur in the autumn, when changes of temperature are greatest, damp being added to cold; for damp cold has a greater power of abstracting heat than dry cold. The prevention of so-called malarious fever did not consist in stopping the formation of malaria, but in protection from sudden changes of temperature, from damp, from night exposure, especially when asleep, and in maintaining the vigour of the system by suitable diet. His position was briefly this. That so-called malarious fevers are caused by sudden abstraction of heat, or chill, under the influence of cold, and more especially of damp cold; that these effects of chill are more marked in hot climates, because of the antecedent exposure to great solar heat, the anæmia and skin debility resulting from heat, and the disregard of suitable precautions; that the individual malady will be of a febrile character in the absence of predisposed or diseased conditions of organs, but that it will assume other forms if these exist, or not according as temperament, heredity, habit, mental condition, anæmia, recurring chill, one or more, favour such repetition; that so-called malarious cachexia or anæmia is the result of the operation of heat on the system.

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SOCIETY OF MEDICAL OFFICERS OF HEALTH.

A MEETING of this Society was held on Dec. 13th, Mr. Armstrong, President, in the chair.

Dr. REGINALD DUDFIELD read "Some Suggestions for a Revision of the Tables of Causes of Deaths." The need for such a revision, and the desirability of having it completed before the next census, were, he said, strongly felt by statisticians and sanitarians, and he thought that a conference of representatives of societies interested in the question, with others of the Royal Colleges, should be convened for the purpose. He exhibited in parallel columns the tables drawn up by the Society in 1874 with a view to secure uniformity in the reports of medical officers of health, those adopted by the Registrar-General in 1881, and his own. Any such classification should consist of a minor and a major scheme, for the use respectively of medical officers of health and of the Registrar-General, as well as of county authorities, differing only in the minuteness of the subdivisions. The conditions of the population as regarded number, distribution, and density, the relative proportions of the sexes at different age periods, the increase or decrease in the last decennium &c. were necessary to give real value to mere numerical statements; but a most important consideration was the calculation of the death-rates of infants under one year, and of children under five years of age on the numbers living at those ages. The common practice of calculating these deaths on the total population or on the deaths from all causes at all ages was utterly useless, since the proportion of infants and children to adults differed greatly in different communities. The local meteorology should be recording according to Mr. Glaisher's tables. The selection of the cause of death from among two or more diseases certified as occurring together or consecutively called for more precise instructions to superintendent registrars, and uniformity in the returns of medical officers was much to be desired.—In the discussion that followed, the necessity for breaking up the first class was pointed out by Dr. Newsholm, since some diseases, as measles and whooping-cough, had no relation to the sanitary conditions of a community of which the gross zymotic death-rate gave no true indication; while, as Drs. Corfield and Sykes observed, the medical officer of health was really concerned only with such diseases as were more or less preventable. and might well throw together as from "other causes" the majority of local diseases.

Mr. ST. CLAIR SHADWELL then read a short paper on the Need for Infectious Hospitals in the Extra-Metropolitan Suburban Districts, the populations of which were increasing with extraordinary rapidity, and in many places fearfully overcrowded. The public should be taught that such hospitals were not foci of contagion, but afforded the only means of isolating infectious cases occurring among the poor. He believed that in most instances the expense was the sole obstacle to their erection, and pointed out that, while Section 131 of the Public Health Act permitted the combination of districts for this purpose, Section 139 empowered the Local Government Board to compel such combination—a power which, he urged, ought at once to be put in force, although, in his opinion, the charge would be better laid on the county rate, as was that of lunatic asylums. To illustrate the urgent need for these hospitals, he stated that to his knowledge two cases of scarlatina on a farm had led to an outbreak in his own district with several deaths, and probably to many more in London, where the milk was consigned.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

THE opening meeting of the Surgical Section was held on Nov. 8th.

The PRESIDENT (Mr. Meldon) delivered an address on general subjects of surgical practice, giving scope for progress.

Operative Treatment of Tubercular Disease of the Knee-joint.—Mr. THOMSON read a paper on the Operative Treatment of Tubercular Disease of the Knee-joint. Having referred specially to the infective character of tuberculosis, he pointed out that where the condition of the synovial membrane demanded operation the disease was rarely so limited as to be moved by simple erasion. In some cases where the cartilages were apparently quite healthy the bone was found on section to be diseased, and yet this was the sort of case which the thoroughgoing eraser would regard as typical for his treatment. The securing of movement after erasion was being abandoned, and that being so, anchylosis could be more surely and quickly secured between two level bone surfaces, as in excision, than by the opposition of two irregular cartilage-covered surfaces. Shortening sometimes occurred where no operation was done, so that this objection could not be fairly argued as a result of excision. If the disease was extensive enough to lead them to the epiphysial line, they must go there even at the risk of shortening. He maintaind that excision was safer and more satisfactory than erasion. He had excised the knee seventeen times without a death; but in two of his cases, before adopting the combined methods of fixing by Thornley Stoker's dowels, and the use of his own hoop-iron splint, he had to amputate. In his hospital in fifty successive cases of excision of the knee-joint there had only been one death—a result which left little to be desired.—Mr. TOBIN thought that Mr. Thomson had not indicated clearly what cases ought to be submitted to operation, nor had he suggested an answer to the difficult question—"Shall I operate at once, or wait, and if I wait, how long?" It was important to determine whether an operation should be performed at once in every case diagnosed as tubercular synovitis, or whether it would be desirable to wait until the bones were attacked, or still longer till suppuration had set in. For his own part, he would wait longer than Mr. Thomson seemed to approve, having regard to the fact that by the use of Thomas's splint, complete rest and change of air, he had seen great cures effected. Moreover, he did not see that a resected knee had much advantage over an amputated leg supported by the modern improved artificial appliances. However, as regards the method of excision, he could not speak too highly of Mr. Thomson's operations, but he differed from Mr. Thomson on the advisability of early operation. He had tried Mr. Stoker's pegs, but in the cases in which he used them they gave little or no fixation. He sometimes found that while a straight limb was obtained for three or four years it afterwards became crooked.—Sir WM. STOKES endorsed Mr. Thomson's views as to the superiority of excision of the knee over the operation of erasion or arthrectomy. As to the time for operation, it was impossible to lay down a rule; but, speaking from his own tolerably large experience of the operation, he held that as soon as the surgeon satisfied himself he had to deal with tuberculous disease of the joint, the earlier the operation was performed the better was likely to be the result. He repudiated the statement put forward in more than one handbook of operative surgery, that knee-joint resection would soon be an operation merely of history. On the contrary, the operation never enjoyed a greater reputation than at present, and he believed its reputation was likely to increase. He did not at all agree with Mr. Tobin's estimate of amputation. The results from excision achieved both by his former colleagues and himself in the Richmond Hospital had been eminently satisfactory. He preferred a splint which he himself had devised to Mr. Thomson's, as ensuring absolute fixation and rigidity of the limb, and also as rendering unnecessary the dowelling as recommended by Mr. Thornley Stoker.—Mr. J. K. BARTON, referring to the question raised by Mr. Tobin, of the general advisability of the operation, said the real point was as to the procedure, and he had no doubt there were cases of disease of the synovial membrane in which erasion might be profitably performed instead of excision; but erasion could not be favourably compared with, or take the place of, excision in cases of tubercular disease. He did not sympathise with Mr. Thomson's advocacy of the removal of sound bone, but otherwise he agreed in the main with Mr. Thomson's views. Instead of Mr. Stoker's pegs he used strong antiseptic catgut, which did not yield until danger had passed away.—Mr. LENTAIGNE concurred with Sir William Stokes that excision was the best treatment for tubercular disease of the knee-joint, and ought to be performed as soon as the disease was recognised; and if the limb became crooked afterwards, it was the fault either of the surgeon or the patient, and very often of both.—Mr. BENNETT questioned the dictum that excision was the proper and right treatment once the diagnosis was tubercular disease. The vast majority of such cases in the upper classes were treated without excision. Patients had recovered from white


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swelling of the knee with all the due care and rest that could be given in private practice. But where tubercular disease was running riot there was no longer the alternative of palliative treatment, and it then became a choice between excision and amputation. At the same time he had seen cases of recovery take place even after suppuration had set in.—Mr. SWAN observed that the spontaneous cure alluded to by Mr. Bennett was the established practice of a great many eminent London surgeons, including Howard Marsh and Owen, the latter of whom had extensive practice with children, and believed in letting the joint suppurate; but the average period of cure was three years—a longer time than could be afforded for hospital patients.—Mr. FRANKS said he had himself operated by excision for tubercular disease of the joint, in the case of a female patient, with success, as Mr. Swan and Mr. Barton could testify.—Mr. THORNLEY STOKER held that whereas excision was an operation of established repute, yet that of erasion was on its trial, and accordingly no decisive opinion could be expressed about it. As regards the time to operate, he had frequently had cause to regret delay, but he had never had cause to regret the premature performance of the operation.—Mr. CORLEY submitted that when the surgeon recognised pulpy thickening of the knee-joint, as it was called in the nomenclature of Sir Benjamin Brodie's day, palliative or medical treatment was worthless, and the sooner the patient got the chance of a good limb by operative procedure the better.—Mr. WHEELER held that where excision was necessary it should be done early.—Mr. THOMSON, in replying, said he had advisedly narrowed the scope of his communication by omitting conditions anterior or preliminary to the question of excision *versus* erasion, two operations which he found pitted against each other. As to the time to operate, the sooner the better, once the surgeon saw distinct pulpy degeneration of the synovial membrane. It was impossible to lay down a fixed rule as to the particular moment in a particular case. Every surgeon must be guided by his own experience. He did not think that Mr. Tobin was serious in comparing the results of resection and amputation. He regarded his observations as jocular. As to erasion, he could understand the procedure where there was perfectly localised tuberculosis that could be fixed and taken away; but the moment it became necessary to open the knee-joint and erase the synovial membrane as a whole, it was much better surgery to make a section, and excise the knee in the ordinary way. No doubt there were cases that got well, even though suppuration had set in, but the surgeon who had faith in expectant treatment must remember that he was running the cure of the knee against the patient's life; that he was running the risk of losing the limb altogether, and setting up the seeds of mischief which would ultimately carry off the patient.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, DEC. 5TH.

DR. GWYNNE, PRESIDENT, IN THE CHAIR.

Aneurysms.—Dr. HARGREAVES showed a specimen of Aneurysm of the Abdominal Aorta, just above the bifurcation. The sac was posterior, resting on the vertebræ, and of the size of a small orange. The patient, a man aged thirty, was a grinder, and the probable cause of the aneurysm was a strain in lifting a grinding stone. The cause of death was rupture of the sac into the abdominal cavity.—The PRESIDENT showed a specimen of Aneurysm of the first part of the Descending Thoracic Aorta. The patient was a healthy woman, aged thirty-six; married; no family. There was no history of gout, rheumatism, or syphilis, or of any injury. She complained chiefly of acute neuralgic pains shooting from the spine to the left infra-mammary region. She died about a year after the symptoms appeared. There were no other pressure symptoms. Post mortem an enormous aneurysmal sac was found filling up the entire cavity of the left chest. The necks of three ribs were eaten into, and the bodies of the corresponding vertebræ were eroded so as almost to expose the cord. The patient's only business was looking after a small baker's shop.—Dr. PORTER showed a specimen of Aneurysm of the Ascending and Transverse Aortic Arch. The symptoms had been those due to pressure on the trachea at its bifurcation, and on the root of the right lung. The patient, a man aged forty-eight, died of asphyxia.

Epithelial Cancer of the Vulva and Vagina.—Dr. KEELING showed this specimen, removed from an elderly single woman at the Jessop Hospital. An operation had been performed on the same patient twelve years before, the disease at that time occupying the clitoris and fore part of the vulva. The old cicatrix and neighbouring tissue had remained sound, the return of the disease being in the posterior half of the vulva, extending from this point up the vagina.

Strangulated Hernia.—Dr. KEELING also read a paper on two unusual cases of strangulated hernia, operated on in the Public Hospital and Dispensary.

Dislocation.—Mr. GARRARD read notes of two cases of joint dislocation. In one, a man aged forty-four had sustained a dislocation of the right femur on to the dorsum ilii, and of the left femur into the thyroid foramen, with other injuries, including fractured ribs and arm. The other case was one of subcoracoid dislocation of the humerus in a young man of five weeks' duration, which he reduced with difficulty by Kocher's method, after other means had failed. He asked the question whether it would not be justifiable in the case of a young man with a comparatively recent irreducible subcoracoid dislocation to open the joint, with the minimum of damage to the circumflex nerve and deltoid muscle, between the two heads of the biceps, clear out the glenoid fossa, and restore the head of the bone to its correct position, rather than leave the case to nature. He thought that a movable joint ought to be secured.

CARDIFF MEDICAL SOCIETY.

THURSDAY, DEC. 5TH.

MR. A. P. FIDDIAN, M.B., IN THE CHAIR.

Periostitis as a Cause of Death in Children.—Mr. A. P. FIDDIAN, M.B., read a paper on this subject. Two cases were described, in one of which the symptoms came on shortly after an accident, and ran so acutely that the whole leg became swollen from the foot upwards as far as the hip, and death ensued in six days. Post mortem, the tibia was found lying quite loose, bathed in pus, and the tissues of the thigh infiltrated with serum. In the other, a child of three, the illness began with convulsions, high temperature, and pain and swelling in the leg. It lived only fifty-six hours from the commencement of the seizure, and after death the shaft of the tibia was discovered to be bare, with a watery fluid around it.

Case of Extra-uterine Fœtation.—Dr. CAMPBELL gave the history of this case. Sixteen years ago the patient, thinking herself pregnant for the third time (eighteen years having elapsed since the last), engaged a nurse to attend her. Labour pains came on, but no progress was made, although a medical man who saw her pronounced her pregnant. After a week in bed she got up, but continued ill more or less for the next three years, and when Dr. Campbell saw her then for the first time the signs of a large abdominal abscess pointing near the umbilicus were present. This discharged for a few months, but after the sinuses had been closed for some time a large ventral hernia made its appearance. A binder supported this efficiently, but she used at intervals to suffer from abdominal symptoms, and finally died in October of intestinal obstruction at the age of fifty-eight. At the necropsy there was found in the pelvis a mass of stony hardness about the size of a child's head, occupying the seat of the uterus and right broad ligament. It was freely movable in all directions. On section with a saw, it contained an almost complete set of fœtal bones enclosed in a calcareous capsule. The immediate cause of death was the constriction of a knuckle of small intestine by a band of omentum.

TAUNTON AND SOMERSET HOSPITAL.—The annual report of the Taunton and Somerset Hospital and Victoria Jubilee Nursing Institute for 1889 shows that the total general income was £3765, and the total general expenditure £4448. A long-felt want in the working of the institution has been supplied by the provision of a casualty ward near the principal entrance, thus obviating the necessity of taking casual patients at once into the general wards. Important improvements have also been made in the sanitary arrangements of the hospital. Funds are urgently needed to carry out other important improvements and additions recommended by the medical staff.

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Notices of Books.

A Manual of Pathology. By JOSEPH COATS, M.D. Second Edition. London: Longmans, Green, and Co. 1889.—The author of this valuable text-book has evidently spared no pains to render the second edition more complete than the first, besides submitting the book to a thorough revision. He has added chapters upon the nature and causation of disease in general, and upon teratology in the General Part; and in the Special Part, chapters upon the thymus and thyroid, and upon the eye and ear. A reperusal of the book confirms the favourable impression originally formed of it as an excellent, clearly-written, and comprehensive treatise, which occupies ground not so fully covered by any other English text-book. The opening chapter on Causation is suggestive in the statements put forward to show that almost all disease is due to the lack of resistance on the part of the tissues and cells to external agencies; such susceptibility being enhanced by congenital or inherited peculiarities, as well as by the circumstances of the individual life. The wide subject of teratology is briefly dealt with and systematically arranged, but the lack of illustrations to this part somewhat impairs its value. Under Thrombosis we fail to find any reference to the remarkable researches of Wooldridge, which, if substantiated, considerably modify the doctrine of coagulation enunciated by Schmidt and A. Buchanan, which is adopted here. The description of the Inflammatory Process and the sections upon Syphilis and Tuberculosis are very clearly written. As to the section on Tumours, the subject of cysts, always a difficult one, might with advantage have been more fully treated, particularly in connexion with the recent suggestive statements of Bland Sutton. Bacteriology, which has added so much to the labours of all writers on pathology, is dealt with succinctly and with critical acumen. We note that the author regards both Fränkel's and Friedländer's "pneumococci" as belonging rather to the group bacillus than to that of micrococcus, and he suggests, what is highly probable, that pneumonia may possibly have relations to other bacteria besides these two forms. The extensive *rôle* assigned to Fränkel's "diplococcus" as a cause of other inflammatory affections than pneumonia should also be borne in mind. The subject of pyrexia is introduced by physiological considerations on normal heat-production and its regulation, and the various theories of fever are impartially discussed. The morbid anatomy of the various organs, which forms the Special Part, and occupies about two-thirds of the volume, is notable for its systematic and methodical descriptions. We might particularise the sections upon diseases of the heart and bloodvessels, the nervous system, lungs, and female generative organs as samples of the thoroughness with which Dr. Coats has undertaken his task; but, indeed, the whole is complete and well-proportioned. The illustrations are very numerous and excellent, and the book has been produced in a manner highly creditable to the publishers. We have no doubt that it will continue to be widely read and consulted by teachers as well as by students.

Cancer and its Complications. By CHARLES EGERTON JENNINGS, F.R.C.S., M.S., M.B. London: Baillière, Tindall, and Cox. 1889.—We confess to some disappointment on a perusal of this work, for we not unnaturally looked for some new light to be thrown either upon the nature or treatment of cancer. On the other hand, the work can hardly be regarded as other than a fairly careful compilation of well-established facts, intended to emphasize the local origin of malignant disease, and the need for its early and entire extirpation. Although embracing under the term "cancer" all varieties of sarcoma, as well as of carcinomata, it will be found that the author deals more especially with the latter in his subsequent chapters. He reproduces at considerable length the debate on cancer before the Pathological Society in 1874, and includes in the book statistics of amputations furnished by Mr. Page of Newcastle, besides freely citing cases published by other authors. It may be noted that he believes Chian turpentine to have "a specific action of some sort" upon cancer (p. 66), and thinks there are undoubted cases of cure by its use. Whilst giving Mr. Jennings every credit for his object in writing such a book—and in our view the doctrine he enforces is the most reasonable and hopeful one to be taken of this class of disease,—we cannot help thinking that he has been too ambitious. The subject of cancer in all its bearings has grown to vast proportions, and those who would advance our knowledge of it must be prepared to devote many years to its study. There is room for such a treatise in medical literature, but it must be comprehensive and exhaustive, pathologically and clinically complete.

L'Œuvre de C. J. Davaine. Paris: J. B. Baillière et Fils. 1889.—*Traité des Entozoaires.* Par C. DAVAINE. Deuxième Édition. Paris: J. B. Baillière et Fils. 1877.—The name of Davaine, who died in 1882, will always be linked with the history of the pathology of septic disease. To him is owing the discovery in 1850 of the bacillus anthracis, which he termed *bacteridium*, and numerous experiments upon the true significance of this micro-organism in that disease. To him also we owe much concerning the interpretation of septicæmia. Davaine may, indeed, be said to have been the forerunner of Pasteur and Koch in those departments of inquiry with which their names are associated. Besides this work, he pursued during his industrious life many other scientific investigations. His classical monograph upon the entozoa, for instance, will bear comparison with the perhaps better known works of Cobbold and Leuckart. This is the second of the two books named above, which has been courteously sent to us by M. A. Davaine, who has edited the first-named volume, containing the collected writings of his father upon anthrax, septicæmia, bacteria, parasites, teratology, &c.—many of the articles being reproduced from the "Dictionnaire Encyclopédique des Sciences Médicales." The volume is prefaced by a memoir of the author, from the pen of Professor Laboulbène—a memoir read before the Société de Biologie, of which Davaine was one of the first members, and at which so many of his researches were presented.

The Asclepiad. No. 24, Vol. VI. By BENJAMIN WARD RICHARDSON, M.D., F.R.S. Longmans, Green, and Co. 1889. Dr. Richardson has selected for the subject of his memoir in this issue of his interesting journal Sir Francis Bacon, as a master of physic, and, as usual, presents his readers with an admirable autotype portrait. Bacon occupies so prominent a position in science that the inclusion of his name in the list of those already given by Dr. Richardson is fully justified. Needless to add, the memoir is written *con amore*, and is full of the wise precepts of Bacon upon matters pertaining to physic. In "The Medical Pilgrim's Progress" Dr. Richardson reproduces an introductory address he delivered thirty-two years ago at the Grosvenor School of Medicine, and the present generation will be glad to hear the hopeful and helpful words addressed to their precursors, and will benefit by them. Continuing his studies on the synthesis of disease, Dr. Richardson deals with melancholia, dreams, and delirium, as influenced or induced by the action of sulphur compounds (especially mercaptan), and he also summarises his views upon zymosis. There is much in his suggestive thoughts worthy of reflection, and it may be recalled that, to a certain extent, Bouchard has followed similar lines in his main pathological inquiries. Another paper, "Medicine

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and the Alcohol Controversy," is, as may be expected from its author, thorough and uncompromising. No doubt a considerable and beneficial change has taken place in the attitude of the profession on this subject, but not to the extreme limits advanced by this earnest temperance reformer.

Manuel Pratique de la Garde-Malade et de l'Infirmière. Publié par le Dr. Bourneville, aux Bureaux du *Progrès Médical*. 4me Edition, revue et augmentée. Paris, 1889.—There are few more indefatigable in the cause of medical relief than the able editor of the *Progrès Médical*, Dr. Bourneville, who is also director of the municipal schools of nursing; and amongst his numerous useful undertakings none have been more appreciated than the courses of instruction for nurses which he organised in the latter capacity. In connexion with this scheme he published a series of handy volumes, containing the text of the lectures delivered to the nurses by competent teachers. The series has now reached its fourth edition and embraces five volumes, treating of all branches of knowledge required by the trained nurse, so that the publication may be held to constitute a veritable manual of the art and science of sick nursing. The instruction appears to us to be admirably adapted for the purpose in view, being conveyed in simple language and not overburdened with detail or theory. Prefixed to the first volume will be found the full syllabus of the courses as carried on at the Bicêtre, Salpêtrière, and la Pitié Hospitals. These volumes comprise—1. Anatomy and Physiology. 2. Hospital Administration and Management, &c., which embraces an interesting descriptive account of the foundation and maintenance of the Paris hospitals, and of the nursing profession, in which is to be found a defence of the action taken to replace the religious orders of nurses by lay bodies, an action diversely viewed in many quarters. 3. Dressings, which, by itself, forms an excellent manual of surgical nursing. 4. A volume devoted to various topics, such as lying-in, the care of the insane, the administration of drugs and the forms in which they are given, besides a vocabulary of medical terms. 5. Hygiene, in which M. Sollier in twelve lectures, four of which are devoted to the important subject of diet, has succeeded in imparting a large amount of useful information. Whatever may be thought of the wisdom of the measures taken in Paris to reorganise the system of hospital nursing, there can be no two opinions upon the desirability of imparting to nurses such an amount of scientific information as may increase their competence and awaken their intelligence. Over and above all such knowledge there must always be the essential attributes of patience, kindness, gentleness, and devotion, without which no one can claim to be a thoroughly efficient nurse.

Irish Medical Practitioner's Guide. By Professor R. J. KINKEAD, M.D. Dublin, with a preface by A. H. JACOB, M.D., &c. Dublin: John Falconer, 1889.—This substantial work, which contains specially valuable information for medical practitioners in Ireland, and particularly for those holding public appointments, such as poor law, infirmary, prison, lunacy, Admiralty, military, police, medical officers of health, and public vaccinators, is published by and with the authority of the Irish Medical Association. The care of the sick population in Ireland devolves to a very great extent upon State-supported functionaries; accordingly his responsibilities are so much the greater, and it is with a view to explain those responsibilities and how best they may be fulfilled that this book has been written. The third portion of the volume before us is devoted to epitomising the law by which the practice of the profession at large is governed, without special reference to the Irish medical services. A chapter on "malpraxis" serves a good purpose by enabling the medical practitioner to avoid the many pitfalls which the exigencies of practice place in his way. We can recommend this book for perusal and study.

The Victoria Cross: by whom, where, and how won. By T. E. TOOMEY, late Colour Sergeant, 1st Battalion, the Royal Irish. Pp. 67. London: Boot and Son. 1889.—This little volume gives a nominal return of all who have gained the Victoria Cross, with the acts for which in each instance it has been awarded. The Order was instituted in 1856, but a considerable number of officers and men were decorated for acts of valour done in the Crimean War. It has been conferred on 404 persons, the first having been Mr. (now Rear-Admiral) Lucas, and the last, Surgeon Crimmin of the Bombay Medical Service (since the issue of the book Surgeon Le Quesne has also obtained the Victoria Cross). Of the total number, 178 were commissioned officers, 3 in the Indian Civil Service, ranking as officers, and 223 warrant officers, non-commissioned officers, and men. Of the commissioned, 15 were medical officers and one an army chaplain; of the non-commissioned, one was lance-corporal, Army Hospital Corps, and one, hospital apprentice, Indian Medical Service. With the exception of one, who was decorated for rescuing twenty-five men from drowning, at Andaman Islands, the medical officers all had the Cross conferred on them for services connected with the wounded in the field. The proportion of medical to the other officers is one in twelve. Of the 404 who gained the Cross, 211 are believed to be still alive, and 64 to be still serving. Of the medical officers, the names of 13 still appear in the Army List, but only one of them is now on the effective list. The book appears to have been carefully compiled, and is interesting as a record of deeds of valour.

Guide Médical à l'Exposition Universelle Internationale de 1889 à Paris. Par MARCEL BANDOUIN. Premier Fascicule. Paris: Aux Bureaux du *Progrès Médical*, et R. Lecrosnier et Babé. 1889.—Those who visited the Paris Exhibition, and others, will be glad to have in permanent form some record of the exhibits in the wonderful collection now being dispersed. M. Bandouin deserves thanks for editing this "medical guide," of which this first fasciculus contains descriptions (amply illustrated) of all the novelties in surgical and scientific instruments exhibited by various makers of European reputation. The utility of so carefully edited a catalogue need hardly be pointed out, and its publication should be much appreciated.

By Pike and Dyke: a Tale of the Rise of the Dutch Republic. By G. A. HENTY. With Page Illustrations. London: Blackie and Son, Old Bailey.—*Grettir the Outlaw: a Story of Iceland.* By S. BARING-GOULD. With 20 Page Illustrations and Map. Blackie and Son.—*The Hermit Hunter of the Wilds.* By GORDON STABLES. With 4 Illustrations. Blackie and Son.—*Down the Snow Stairs.* By ALICE COCKRAN. With 60 Illustrations. New Edition. Blackie and Son.—*Laugh and Learn: the Easiest Book of Nursery Lessons and Nursery Games.* By JENNETT HUMPHREYS. Profusely Illustrated. Blackie and Son.—Messrs. Blackie and Son have effectively contributed to the illustrated literature of the season by the issue of the above enumerated handsome volumes. They do not make special claim to our notice as medical journalists, but none the less are they worthy of mention here, not alone on account of the value of their literary contents, but also for their pictorial wealth and the taste with which they are got up. The first three of the above-mentioned books are tales of adventure, and that of a wholesome and instructive kind, either of them being eminently suitable as a present for boys, who cannot fail to be delighted with the stirring narratives of personal prowess exhibited by the heroes of the stories. The fourth on the list is intended for the delectation of the youth of both sexes, but more especially

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for girls, and presents, under the guise of a fairy tale, much information of a useful character in a form easily assimilable by the juvenile mind. The last-named is addressed to very young readers, to whom it will be welcome as combining unlimited amusement with pleasant means of instruction.

Love of Money the Root of all Evil. By ALEC FEARON. London: Swan Sonnenschein and Co. — This is a cheerless book, in which the worst side of human nature is portrayed with a relentless fulness and realistic detail. Its moral, coming when it does, appears to be that it is quite possible for a prisoner falsely accused of poisoning to be convicted on inconclusive evidence. That this is so one would hardly venture in general terms to deny; but the sad fate of Nellie Parsons was brought about not only by the most extraordinary sequence of untoward events, but also by singular supineness and precipitation on the part of those whose province it was to be her friends. The plot, though interesting, is not strong enough to prove much; but in truth we suspect that the writer's ambition is rather to be vivid than convincing. Vivid he is; and if his subject were less distressing, his portrayal of it would be delightful. As it is, there are many readers who will find fascination, and even charm, in its dense shadows and lurid lights. We, for our part, prefer to read for amusement less melancholy books.

Medical Diaries &c. for 1890.—We have received a large assortment of medical diaries and pocket-books for 1890, all of which appear to be at least equal to their predecessors in completeness and finish. The specimens forwarded by Lette's Diaries Company, Royal Exchange, E.C. (Publishers: Cassell and Co., Limited, London, Paris, New York, and Melbourne), are accompanied by an interesting little pamphlet, entitled "Notes on Celebrated Diarists and their Diaries." Amongst others, accounts are given of the diaries kept by that prince of diarists, Mr. Samuel Pepys, who for ten years entered up his journal with exemplary regularity, filling six volumes closely written *in shorthand*; of General Gordon, to whose diary, written, in the absence of a pocket-book, on the backs of telegram forms, we are indebted for the only reliable narrative obtainable of the events which led to his death; of Dr. Livingstone, who in his notes, written on old newspapers, has handed down to posterity an invaluable record of the habits of men, animals, birds, and fishes in Africa; and of Charles Dickens, who was a habitual diary keeper. Whilst endorsing Captain Cuttle's excellent advice, "When found make a note of," we think it hardly necessary to carry the practice out with the scrupulous exactitude of the worthy Mr. Pepys, in whose diary we find the following amongst many similar entries:—"Mar. 13th, 1664-5: 'This day my wife begun to wear light-coloured locks, quite white almost, which, though it makes her look very pretty, yet, not being natural, vexes me, that I will not have her wear them.' Sept. 17th, 1666: 'Up betimes and shaved myself after a week's growth; but, Lord! how ugly I was yesterday, and how fine to-day.'" As a complete pocket companion for medical practitioners, we can recommend Lette's "Ideal Medical Diary;" but, indeed, the variety of pocket-books and diaries issued by this firm is so extensive that the most exacting requirements can be suited.—A handsomely got up pocket-book is "Smith's Visiting List, Physicians' and Surgeons' Diary, Almanack and Book of Engagements" (forty-fourth year), published by Hazell, Watson, and Viney, Long-acre, W.C. In addition to the ruled pages for the visiting list and journal, this pocket-book contains much useful printed matter, including tables of the principal poisons and their antidotes, of fees legally claimable by medical men, a pharmacopœial companion, a table of eruptive fevers, and other information indispensable to the busy practitioner.—Pettitt's Diaries, published in over fifty different sizes and varieties (Griffith, Farran, and Co., Newbery House, London, and Sydney), include convenient descriptions for the office or pocket, and are published at extremely low prices.—We have also received from Mr. Henry Frowde, of the Oxford University Press Warehouse, samples of the "Finger" Prayer Book. This miniature book, containing 670 pages, weighs in limp binding about three-quarters of an ounce, and is only one inch in breadth, three inches and a half in length, and one-third of an inch in thickness. The volume is beautifully got up, and excellently printed on Oxford India paper. It is a pretty and curious example of the bookbinder's and printer's art; but we question whether we could advise the habitual use of such very small type, clear and legible though it be. An edition is also issued which omits the calendar and the occasional services, thus reducing the thickness by one-third, and bringing the weight to hardly more than half an ounce.—*The Law Almanack* for 1890 (published at 1, Warwick-court, Holborn) has been considerably enlarged, carefully revised, and corrected to date, and a new feature introduced—viz., historical and chronological information.

The Charities' Register and Digest, 1890. Third Edition. London: Longmans, Green, and Co.—This is a classified Register of Charities in or available for the metropolis, together with a digest of information respecting the legal, voluntary, and other means for the prevention and relief of distress, and the improvement of the condition of the poor. The work, which is elaborately indexed, contains an introduction by C. S. Loch, Esq., Secretary to the Council of the Charity Organisation Society, London. There is also an appendix containing full information as to benevolent institutions, friendly societies, trade societies, registry offices, and savings banks.

Blackie's Modern Cyclopædia (*Fir–Ilo*).—Vol. IV. of this useful series commences with the word "Fire," which is described briefly and clearly, together with its compounds, such as fire-brigade, fire-damp, &c., and ends with "Ilorin," an important trading town in the Western Soudan. The maps, illustrations, and portraits are numerous and excellent, whilst the information given under the various headings appears to be full and accurate.

New Inventions.

APPLIANCE FOR THE TREATMENT OF PROLAPSUS RECTI.

As relaxation of the lower bowel, leading to its extrusion and prolapse, is of very common occurrence, more especially in the young, and is attended with so much inconvenience, and, if neglected, by such untoward results, a means of obviating recurrent prolapse without undergoing an operation of any kind—nearly always so strenuously opposed by both parents and patients—should be accorded extended trial. I have almost always found that liquid, solid, or semi-solid applications *per se* were comparatively useless, having also the disadvantage of being more or less painful, and in some cases even producing evacuation followed by extrusion of bowel. The foregoing refers more particularly to prolapse resulting from costiveness, natural delicacy with straining, and threadworms. However, the appliance I have devised will, I believe, meet the requirements of every case, whether arising from vesical stone, urethral stricture, piles, prostatic and rectal disease, or the other causes before mentioned, by giving support when and where needed—viz., at the time of going to stool, and at the junction of skin and mucous membrane. I now append a brief description of my recto-perineal pad. It consists of a

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strap, which is buckled round the waist, having an india-rubber band passing down between the legs from the middle of the back, where it is attached to the waistband. Before reaching the median raphe, this perineal band divides into two, and the ends are brought out in front and hooked up to the waistband on either side, permitting of any degree of tension or laxity, as they are provided with a regular series of holes. There is a sliding air pad or cushion, having a hole in its centre and provided with an easily dilatable flange surrounding the hole; the flange permits of the passage of fæces, but keeps the bowel in position. The pad can be removed at will for cleansing

FIG. 1.



FIG. 2.



purposes by simply unhooking the ends of the perineal band and sliding it off; it is kept in position by buttoning to the under surface of the rubber band. The mouthpiece of the inflating tube is covered with a reversible chamois bood, and lies comfortably in the hollow of the back. This appliance has the advantages of (1) facility and simplicity of application, (2) comfort in wear, (3) cleanliness, and (4) efficiency, and was made for me by Messrs. Arnold of West Smithfield. The woodcuts show it in position, and the pad separated from bands.

G. E. J. GREENE,
Medical Officer, Ferns District, County Wexford.

MODIFICATION OF O'DWYER'S INTRODUCER FOR INTUBATION.

THE instrument here figured was made for me by Messrs. Mayer and Meltzer, and its use has materially facilitated the operation of intubation, both to myself and others. The original instrument appeared to me to have the following drawbacks:—1. The spring claws for pushing off the tube into the larynx almost invariably failed in my hands, and, by projecting over the top, made it a difficult matter to push the tube home with the forefinger of the left hand. 2. When the tube had been oiled and placed on the pilot, it frequently slipped off just as it was being introduced into the larynx.



The modifications and advantages are as follows:—1. A small ring placed at the end of the stem on the right side. The string, having been threaded through the hole in the shoulder of the tube, is passed through the ring and held against the handle with the forefinger of the right hand. This effectually prevents the tube from slipping off the pilot, keeps the string close against the stem, and, being on the right side, does not interfere with the manipulations of the left hand. 2. The spring claws are dispensed with altogether, and the tube can readily and with certainty be pushed off the pilot, when introduced into the larynx, with the left forefinger. This makes the instrument a much cheaper one, and more easy to clean. This is an important point if there is only one set of instruments, which may have to be used both for cases of diphtheria and other emergencies.

W. H. C. STAVELEY.
Victoria Hospital, Chelsea, S.W.

THE DENTOILETTA, OR DENTAL TOILET MIRROR.

THIS is a simple and ingenious arrangement for enabling all persons to examine their own teeth. As will be seen from the illustration, it consists of a small hand mirror and a mouth mirror, both mounted on a ball-and-socket joints, and attached to the same handle, the distance



between the two mirrors being such that the light is focused upon the small one. It should be of value as directing attention to the teeth, and is not meant to supersede periodical professional examination. It is a well-made, handsome, and useful adjunct to the toilet table. The patentee is Mr. E. A. Tice, 12, Cumberland-park, Kensal-green, W.

THE DWELLINGS OF THE POOR.

A DEPUTATION from the Housing of the Working Classes Committee of the London County Council waited upon Mr. Matthews at the Home Office on Monday afternoon in connexion with the Acts bearing upon the subject of the dwellings of the poor. The deputation (which included amongst its members Dr. G. B. Longstaff and Mr. Shirley Murphy, medical officer of health to the London County Council) was introduced by Earl Compton, who said that the points which he had to put before the Home Secretary were five: (1) That the medical officer of the Council shall have equal authority with the local officer: or, failing that, (2) the Council should have the same powers of compulsory purchase as the existing Acts give in regard to obstructive dwellings; (3) that where premises are required to be purchased the owner should not have the option of retaining the site; (4) that the term "obstructive" should be defined in the Act of Parliament; and (5) that in lieu of the optional appeal to the High Court given by Section 9 of the Act of 1868 such optional appeal should be to the Local Government Board. He suggested that these amendments might be effected by a few short clauses introduced into a Bill.

The Home Secretary, in his reply, said that the Government hoped during the approaching session of Parliament to pass an Act consolidating the existing legislation regarding workmen's dwellings. He was afraid, however, that they would imperil the chance of its passing, and run a great risk of wrecking the whole thing, if they were to try to make it also an Amending Act, which by touching vested interests would be certain to provoke serious opposition from some quarter or another. The Government would give the whole matter their most careful consideration.

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THE LANCET.

LONDON: SATURDAY, DECEMBER 21, 1889.

THE remarkable epidemic malady which is just now attracting so much attention is one of those diseases the records of which go far back in the history of medicine, and yet it is one concerning which there is a singular lack of precise knowledge. Not, indeed, as regards the mode of its occurrence and spread, for literature abounds in careful and complete descriptions by many trustworthy observers[1] nor yet as regards its symptomatology and its course, for here, too, there is ample material supplied by the physicians of the past. But it is as to its nature, its etiology, that we are so much in the dark—just in that field, in fact, in which the science of the nineteenth century has made so much advance with respect to disease in general. In its mode of diffusion influenza, in more than one feature, stands almost alone among epidemic diseases. In the first place, it spreads with remarkable rapidity once it is established in a centre—as witness the recent accounts of its progress in St. Petersburg, Vienna, and Berlin. Secondly, it tends more or less rapidly to become pandemic, for although minor and comparatively limited outbreaks are often recorded, yet its liability to diffusion over whole continents, and indeed from one hemisphere to the other, is one of the best-known facts concerning it. The disease has therefore no geographical limitation; it is apparently uninfluenced by season or climate, and its virus travels over sea and land in a manner so baffling and contradictory to the ordinary conceptions of the transmission of infection as to render any simple explanation of its nature almost impossible. It has been compared with cholera in the manner of its diffusion; but the analogy is by no means exact, for influenza, unlike cholera, is not apparently confined to the lines of human intercourse, although there are not wanting some who claim both for cholera and influenza a propagation by contagion. But in the case of influenza, the rapidity with which a whole population may be smitten appears to exclude contagion, which otherwise would seem so obvious an explanation of its spread; and a further point in disproof of this is the almost simultaneous outbreak of the epidemic at different parts of the same country. It is not surprising, therefore, to read of telluric and atmospheric influences as being accountable for the pandemic spread of influenza; yet it is clear that such a view is purely hypothetical. Influenza has not yet been studied in respect to its etiology so profoundly as have many other epidemic diseases. There is, for instance, hardly any record of bacteriological research into this disease, owing partly to the difficulties of such an inquiry, but mainly perhaps to the fact that well-marked and widespread outbreaks have not occurred within recent years. There are not many physicians now in London who had to deal personally with the great epidemic of 1847–48, of which the late Dr. PRACOCK has left us so interesting a study; and since that time no notable outbreak has occurred in this country. And here we would remark that there is, and from the nature of the case must necessarily be, some difficulty in identifying influenza. There are epidemic and seasonal catarrhs, with which the English people are specially afflicted, which are often termed "influenza," which seem to be contagious, and which, indeed, run a course similar to, if less severe than, the affection that is now engaging attention. Yet there are essential differences between cases of the one class and those of the other—differences in the severity of fever, the occurrence of complications, the mortality, as well as in the main fact of all—viz., the wide distribution of influenza proper to which we have just alluded.

It is more than probable that we shall be visited by this epidemic. *Already* we hear of an unusual prevalence of catarrh in the metropolis; but, in view of the season, one must be cautious in admitting that the disease which has made so many victims on the Continent has really arrived here. When it does come it will speedily make its presence felt, and the difference between an ordinary or even an unusual prevalence of catarrh and of true epidemic influenza will be soon appreciated. The population of London has more than doubled itself since 1847, when it was calculated that at least a quarter of a million were attacked by the complaint; so if it really comes we may expect colossal figures and an epidemic which will "beat the record" in that respect. Let us hope, however, that its type will be mild; for, although in proportion to other epidemic diseases, the mortality from influenza is very low (2 per cent. or less), yet experience shows that to the very young and the aged, to the debilitated from disease or impoverishment, its effects are, directly or indirectly, very serious. In 1847 the mortality in London during the prevalence of the epidemic rose in proportion to the previous mortality in the observed districts. Our want of complete knowledge of the nature of the disease renders it difficult to suggest measures of prophylaxis other than the uniform observance of general hygienic rules. The treatment of the attack itself, marked as it is by high fever, catarrh of the respiratory and gastro-intestinal tracts, must be mainly restorative, directed to the relief of symptoms. The use of quinine will doubtless be largely replaced by antipyrin and antifebrin, which are reported as having been freely prescribed in Berlin with benefit. The opportunity for exact clinical records which may arise will, we trust, be largely embraced, and thus our knowledge of one of the most interesting affections to which mankind is liable be materially increased. In the matter of thermometric observation alone there is ample scope for enriching literature with interesting studies. Should we be visited by the disease, we doubt not that full advantage will be taken by the practitioners of this country of the ample material that will fall to them; and we would further suggest, in the interests of scientific medicine, that, as nearly half a century has elapsed since the last outbreak of the disease in England, no means should be left untried to

[1] M. Ch. Eloy, in Rev. Gén. de Clin. et Therap. (Dec. 1889), points out that the recorded epidemics increase with the progress of the centuries—viz., from 1 in the eleventh century to 41 (now 46) in the nineteenth. But this is hardly more than can be expected, with growth of literature, for there are countries—e.g., France—where the disease is singularly frequent in its recurrences. It is the pandemics which are seemingly rarer than they used to be.

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ensure a full record of the occurrence of cases if it should again appear in an epidemic form in the British isles.[2]

THE extreme difficulty and the urgent importance of a definite diagnosis of phthisis at the earliest possible period are universally acknowledged. Both with a view to either calming or confirming the patient's fears, and of insisting upon such an alteration of the mode of life and such remedial measures as offer the best prospect of arresting the tubercular process, an early and confident diagnosis is eminently desirable. Hence Dr. HARRIS'S recent contribution to the subject in our columns has no doubt received the careful attention of our readers. On some of his points there will be general agreement. That a history of hæmoptysis, especially of repeated slight hæmorrhages, is of great significance no one will question. If we can certainly exclude the spurious forms of hæmoptysis, such as those from the gums and pharynx, and if the patient be not a "bleeder," the fact that he has repeatedly spat blood raises a very strong presumption that he is the subject of tuberculosis. That family history is also very important most authorities, in this country at least, will allow. There is at present a tendency among continental writers, who are usually adherents of the bacillary and contagionist view of phthisis, to minimise the hereditary factor in its causation; but this is probably only a temporary swing of the pendulum, the clinical evidence that phthisis is strongly transmitted being apparently irrefragable.

It is when we come to define the earliest positive physical signs of phthisis that we find it difficult to lay down any rules that do not admit of large exceptions. Dr. HARRIS attaches weight to impaired movement at one or both apices, and no doubt when present this is very important. It may be best recognised, not by simple inspection, but by the examiner standing behind the patient, placing his hands upon the sub-clavicular region of each side, and noting whether both sides rise equally and readily during inspiration, or whether there is, as it were, a delayed rise on one side. Dr. HARRIS points out another sign which, he says, has not received in this country the attention which it deserves. This sign is the lower limit of pulmonary resonance in the supra-clavicular and supra-scapular regions on the affected, as compared with the sound, side, which may be detected in cases where no dulness is present. This sign may, however, be obliterated by the presence of emphysema in the neighbourhood of the diseased patch of lung. Any dulness or tonelessness on percussion at one apex must, in a doubtful case, be regarded as of great significance.

The auscultatory signs present at a very early stage of phthisis offer great variety, and need a very careful estimate to determine their true significance. In some cases where, on general grounds, the diagnosis of phthisis seems practically certain, the most careful and diligent auscultation fails to detect any abnormality. This is by no means so surprising as at first sight it appears to be. We know that it is not very rare for all auscultatory signs to be absent during the first two or three days of pneumonia, although we feel certain that consolidation is going on. This is very probably explained by the hypothesis that in such cases the process is deep-seated in the lung, and that the sounds produced by the consolidation are masked by the normal vesicular murmur. In like manner, early phthisis may be attended by a scanty deposit of tubercles, not sufficiently superficial to produce auscultatory signs which can be heard above the normal breath sounds.

Great importance must be attached to the character of the breathing in these cases. If the vesicular murmur be feeble, or somewhat harsh or bronchial in quality, or if expiration be much prolonged, we are justified, in the absence of any other cause adequate to produce these signs, in regarding them as probably tubercular in origin. It is of the first importance, however, to make certain that these signs are present, either solely, or at least in a more marked degree, on one side. The puerile breathing of children and the somewhat bronchial breathing normally present under the right clavicle are fruitful sources of error with beginners. Dr. HARRIS utters a caution against relying too much upon prolonged expiration, if no other sign be present; and no doubt it is insufficient of itself to warrant any safe inference. That peculiar form of interrupted breathing, called by French writers *respiration saccadée*, was formerly generally relied upon as a sign of some value in early phthisis, but probably most authorities will now admit that this phenomenon is often of neuro-muscular origin, and cannot therefore be depended upon to give us any satisfactory indications of the condition of the lungs.

Adventitious sounds form the last group of the physical signs of early phthisis. There can be no doubt that they vary much from day to day, which is not surprising when we reflect that they owe their origin to the varying degree of bronchial catarrh present in the neighbourhood of the tubercular deposit. The supra-scapular region should be as carefully investigated as the sub-clavicular, as many observers are of opinion that it is on the average the earliest seat of the deposit. The most characteristic adventitious sign of the earliest stage is the presence of a few dry crepitations, which do not disappear on taking deep breaths and are rather accentuated by coughing. There are cases, however, in which the earliest adventitious sign is a musical râle or rhonchus, identical acoustically with that heard in bronchitis, but deriving its grave significance from its distribution. Pleuritic friction may also be one of the earliest signs of phthisis, and if apical in distribution should excite our suspicion. As regards the diagnostic value of the presence of the bacillus in the sputum, we are in this position. Its presence is pathognomonic of tubercle, but failure to find it is of very little value, as the bacilli may be few in number and may escape detection, even at the hands of a careful observer.

On the whole, while the ear diagnosis of phthisis is admittedly difficult, few mistakes will be made by the practitioner who balances signs, symptoms, and history (personal and family) carefully and guardedly, and who does not allow himself to be led astray by any single indication

[2] One of the best accounts of influenza is that by the late Dr. Parkes in Reynolds' Syst. Med., vol. i., 1870. See also Wilson; Pepper's Syst. Med., vol. i., 1885; Biermer; Virchow's Handbuch, v., 1854; Dr. Peacock, "Influenza," 1848; and Quain's Dictionary. The history of the disease down to quite recent periods is to be found in Hirsch's Hist. and Geog. Pathology (New Syd. Soc. Trans.), vol. i.

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Needless to say, finally, the use of the thermometer is imperative, and may serve to clear up many doubtful cases.

A CHARGE of libel was tried on Dec. 3rd in the Queen's Bench Division, before Mr. Justice CAVE and a special jury. The plaintiff was Mr. WILLIAM INGLIS MASON, L.R.C.P. Ed., M.R.C.S. Eng., of Sudbury, Suffolk, and the defendant was Mr. CHARLES HENRY CHEVENS, proprietor and conductor of the *South-West Suffolk Echo*. Sudbury is a borough with a population of some 6580 people; and Mr. MASON, succeeding his father (who practised for about fifty years), has himself practised there for about twenty years—a pretty fair record of father and son, involving that element of continuity and permanence which is always a presumption of honest work and character. The *South-West Suffolk Echo*, owned and conducted by Mr. CHEVENS, has had an existence of about eighteen months. Mr. LOCKWOOD and Mr. LAWSON WALTON were retained for the plaintiff, and the Solicitor-General, Sir EDWARD CLARKE, Q.C., M.P., for the defendant. The report of the proceedings occupies nine columns of small type of the *Suffolk and Essex Free Press*, which will be some excuse for a slight delay on our part in commenting on the case. We are, however, grateful to our contemporary for a very admirable report, involving questions and judgments of great interest to the profession and the public. There were three libels complained of by Mr. MASON; but two completely broke down, and we shall describe briefly only the chief one, which was after this manner. On Jan. 6th, 1889, a Sunday morning, a woman named SUSANNAH SHARMAN came to Mr. MASON'S surgery and asked him to visit her child. He was parish surgeon for Sudbury, as well as a private practitioner with a large club connexion, as we shall presently see. He asked her if she had a parish order. She replied, "No." He then said, "You must procure me a parish order or pay me the usual fee of 5*s*." The relieving officer lived two miles off. On the woman raising this objection, he explained that the relieving officer would be at the neighbouring church at half-past ten, and that, if he wished it, he would attend the case. He explained to the Court the alternative method by which the woman was to pay 5*s*. In his father's time a great Sick Fund was formed to meet the case of those who did not wish to be attended as paupers. To adults in health the charge was 1*s*. a quarter, to children 6*d*. a quarter. This fund has in the town and surrounding district a membership of about 10,000, but the remuneration is estimated at £250. The woman left and did not return till the following day, only to announce the death of the child and ask for a certificate, which Mr. MASON, of course, refused, referring the parent to the superintendent of police, with a view to an inquest, at which Mr. MASON gave evidence, and the jury returned a verdict of "Death from natural causes." On Jan. 12th, the *South-West Suffolk Echo* came down heavily on Mr. MASON, and declared "that such heartless conduct as his could hardly be capped," &c., and expressing surprise that the jury and coroner did not pass a vote of censure on the doctor for "such parsimonious, such heartless conduct." This is very fine writing for a young journalist living at a distance from Sudbury, at the expense of a man who had a local habitation and a name there such as we have described, and whom the journalist did not know. On the 19th the *South-West Suffolk Echo* had another libellous article and several little echoes in this style: "Was there ever a more flagrant instance of tutored barbarity before recorded?" &c. We cannot unfortunately give all the particulars of this case, in which many questions of much interest were raised as to the necessity for an order before a Poor-law medical officer was compelled to attend. The woman denied that Mr. MASON had told her that she could see the relieving officer at the church on the morning in question. But Mr. MASON was confirmed in this by his assistant. He further gave his reasons for doubting the fitness of the woman for parish relief—viz., that she was a weaver, and living with a man both at work and in receipt of a pension. The relieving officer, in his evidence, said that he would not have assumed the responsibility of giving an order to people in the position of the applicants, who said they had not a penny, but who were shown to have received, with the pension, within a short time of the period of application, £3 10*s*. The judge distinctly laid down that a doctor could not be burdened with the duty of deciding who was a pauper, saying that the relieving officer was much more fitted to do so. He also expressed himself strongly in favour of the sick fund, and argued that the large membership showed how much it was appreciated. He very strongly laid down that journalists who published newspapers for their own pecuniary benefit had no privileges of censure or criticism which did not belong to the people. The jury gave a verdict for the plaintiff, with damages for £20. We heartily congratulate Mr. MASON on the result of this most proper action of his. Medical men are the easy targets for those who write sublime articles in ignorance of the facts of medical life and labour, and it is very gratifying to see judges and juries agreed in vindicating, as in this case, the conduct and the character of members of the profession.

THE details of the new scheme for reforming the University of London have been forwarded from the Senate to University and King's Colleges, the Royal Colleges of Physicians and Surgeons, the Council of Legal Education, and the Incorporated Law Society, but we cannot see how they can be fully considered and reported on by these bodies before the meeting of Convocation in January next. They have already been referred to the Committee of Delegates of the Royal College of Surgeons and to special committees by some of the other bodies. The constitution of the Senate follows in the main the lines laid down by the Royal Commissioners, and it is only in the definition of constituent colleges that the first serious departure from their recommendations is to be found. The Commissioners say that constituent colleges should be such colleges as University College and King's College, which give academical instruction upon a complete system and an adequate scale in all the faculties, whilst institutions limited to the studies of a single faculty may be "associated" with the University in respect of that faculty, but they should not be called "constituent colleges." As the faculties are to consist of representatives of constituent colleges, and are, in each faculty of Arts, Laws, Science, and Medicine, to elect three members of the Senate, as well as members of a Board of Studies, and to advise on the admission of any

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constituent college, it is obvious that great importance will be attached to the precise definition of a constituent college. This is much widened in the proposed new scheme of the Senate of the University, by including institutions in or near London which not only give academical instruction upon a complete system and an adequate scale in all the faculties, but those which give instruction upon an adequate scale in one or more, even though not in all, the faculties. Every metropolitan institution formerly affiliated to the University of London will thus be brought into the rank of constituent colleges, and this altogether alters the character of the Commissioners' suggestions. We question if the constituent colleges will be satisfied with such modifications in the examinations as are proposed in the following clause, which is the only concession to those who ask for an insistence on regular attendance at a course of systematic lectures and systematic practical training: Matriculated students may be admitted, without passing the matriculation examination of the University, from among such students of the constituent colleges as have completed their eighteenth year, and who shall produce evidence satisfactory to the Senate of their diligent attendance during an academical year in a constituent college at lectures on the general subjects of the matriculation examination, or such of these subjects as the Senate may from time to time appoint, and of their proficiency in the general subjects of the said examination, as tested by examination within the said constituent college. The extra-metropolitan institutions are to have no voice in the management, but their students are to be admitted to similar privileges as those from constituent colleges. The professional clauses are the following:—"To accept, in lieu of the passing of the preliminary scientific examination in medicine, certificates that the students have passed at the Royal Colleges examinations which are to the satisfaction of the Senate a sufficient test of competent knowledge in the subjects of the said preliminary scientific examination.—In the event of the establishment of a second examination for the degree of M.D. not requiring the attainment of so high a standard as the present examination, to confer on all existing M.D.'s of the University, and all who may hereafter pass the examination which will require the attainment of the higher standard, the right to describe themselves as M.D. with honours (M.D. Lond. honours), and on all existing M.B.'s the degree of M.D." Honorary degrees may be conferred, and professorships and lectureships, whether attached or not to any particular college, may be established. We doubt whether these concessions will be sufficient for the teaching colleges, and the last paragraph, although suggested by the Royal Commissioners, will lead to considerable friction and heart-burning among existing graduates. As it is almost impossible for the Senate to declare themselves satisfied with the present examination in Physics and Chemistry at the Conjoint Examining Board, considering their own excessively high standard at present in these subjects, that clause must be looked on as practically inoperative.

WE regret to hear that Professor Bergmann is suffering from pneumonia, contracted apparently in going to Halle to attend Professor Volkmann's funeral.

Annotations.

"Ne quid nimis."

HOSPITAL MONOPOLIES FOR CERTAIN QUALIFICATIONS.

IT seems not a little inconsistent that, while we are blaming France, Switzerland, and other countries for being ungenerous in the recognition of British diplomas, we have monopolies for certain hospital appointments in our own country in favour of certain colleges. It is felt to be a hardship by Bachelors of Medicine of the Universities of Scotland and Ireland, Licentiates of the Royal College of Physicians of Edinburgh, as well as by Fellows, Members, or Licentiates of the King and Queen's College of Physicians in Ireland, that they are not eligible to the office of physician in many English hospitals, and, similarly, that Licentiates in Surgery of the Scottish and Irish Colleges of Surgeons are, in many hospitals, not eligible to the office of surgeon, as Fellows or Members of the Royal College of Surgeons of England are. This question has often been discussed of late, and within the last few weeks has been recpened at Derby with reference to the rules relating to the qualification of physicians and surgeons in the Derbyshire General Infirmary. The present rules have the exclusive effect above indicated, and at the annual meeting of the governors it was sought, on the motion of Dr. Murray Lindsay, to revise the rules and give them a more liberal form. But the attempt failed completely, under the influence of certainly some very loose statements, such as the following by Mr. E. C. Green, ophthalmic surgeon and junior member of the staff, who explained to his audience that students could go to Edinburgh and get a University degree very easily. This is certainly inaccurate and undesirable language in one holding the three ordinary English qualifications. We do not mean to endorse all the reasoning by which Dr. Murray Lindsay argued for a broader recognition of diplomas—as, e.g., where he maintained that the larger proportion of rejections at the examination for the licences of Edinburgh College showed a severer examination than in the London College. The proportion of rejections is no criterion apart from other proofs of the standard of examinations, and it has long been known that at some of the lowest examinations there was the highest proportion of rejections. The fact is that we want accurate and impartial information on the equivalence of corresponding examinations. We are of opinion that all mere territorial distinctions of medical qualification for high office in public institutions are unseemly and inconsistent alike with the Medical Act and the spirit of the age. Still it is not right to forget that until at least a very recent period similar qualifications in different divisions of the kingdom did mean very different degrees of education. For example, the Fellowship of certain Scottish colleges, if not Irish ones, could practically be obtained without examination. This we believe is no longer the case. But we are still without any impartial and judicial report as to the comparative strictness of the respective examinations for the Fellowship—say, of the English, Scottish, and Irish Colleges. Until this is forthcoming it is vain to expect a complete admission of the equivalence of what ought to be corresponding qualifications. All that the Inspectors of the General Medical Council have to ascertain, even as regards the highest examinations, is that they are a test of bare competence to practise. Much more than this is wanted for the high posts of the profession, and the Scotch and Irish Colleges will best contribute to a liberal recognition of their Fellowships and qualifications by demonstrating the equivalence of the examinations by

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which they are gained to those passed by the candidates for corresponding qualifications in England. If this were done, the mere territorial distinctions of qualification could not last a day.

A NEW SOURCE OF HYOSCYAMINE.

A RHIZOME which has recently been offered in the drug market as a substitute for belladonna root under the name of "belladonna scopolia" has been very fully investigated in the research laboratory of the Pharmaceutical Society. At the last meeting of the Pharmaceutical Society Professor Dunstan communicated the results of a chemical examination of the drug, which shows that it contains ·5 per cent. of hyoscyamine. With the possible exception of a mere trace of hyoscine, no other mydriatic alkaloid was found in the plant, which would seem by this circumstance to be distinguished from other plants belonging to the same natural order—viz., belladonna, hyoscyamus, stramonium, &c.—from which different proportions of atropine or hyoscine are present in addition to hyoscyamine. Professor Dunstan points out, however, that this difference may possibly be due to the methods employed by previous workers in extracting the alkaloids from these plants, which may have led to the decomposition of the hyoscyamine by heat or by fixed alkalies. Among the other compounds isolated from the new drug were a crystalline sugar resembling dextrose, a fluorescent substance, and cholesterin. The latter substance is present to the extent of ·1 per cent., and it was subsequently found to be contained in the root of Atropa belladonna. The resemblance between the two plants is borne out by a comparison of the structures of the roots which has been made by Mr. Greenish. The rhizome was referred to Mr. Holmes for identification, and he states that it is derived from Scopola carniolica, a plant which grows, apparently abundantly, in Austro-Hungary and in other parts of Europe. The pharmacy of the drug is fully described in a paper by Mr. Ransom. The therapeutic action of preparations made from the rhizome was the subject of a communication from Sir Dyce Duckworth, who shows that the drug may be used with success as a substitute for belladonna, apparently with the advantage that it does not give rise to the dryness of the throat which is produced by belladonna. Further trials of its therapeutic action are being made. Since Scopola carniolica contains more alkaloid than belladonna, is easily obtainable, and is at present cheaper than that drug, and, moreover, furnishes a valuable source of hyoscyamine, it is probable that more will be heard of its employment in medicine. The papers to which we have referred are printed in the *Pharmaceutical Journal* of Dec. 14th.

THE HIGH DEATH-RATE IN NEWCASTLE-UPON-TYNE.

AN influential deputation, representing the clergy, ministers, and ratepayers of Newcastle-upon-Tyne, was received by the Mayor and City Council at a meeting held on the afternoon of the 4th inst., when a memorial was presented requesting the serious consideration of the Council for the abnormally high death-rate that has recently prevailed in the city. In the memorial especial attention was directed to the fact that the causes of the high death-rate in Newcastle were fully set out in the special report of the medical officer of health presented in 1883, but that since that date comparatively little has been done to remove the most serious of the sanitary defects to which the high death-rate was therein referred. The memorial avers that the drainage and sewerage of the town are still undoubtedly defective; that slaughterhouses, cowhouses, and cattle fairs exist in close proximity to dwelling-houses; that the city still contains 20,000 middens; that many of the dwellings are quite unfit for habitation, being indeed mere "fever dens"; that the water-supply to tenement property is very insufficient; and that serious overcrowding is permitted in dwellings. Such is the indictment against the sanitary condition of the city contained in the memorial signed by upwards of fifty of the clergy and ministers of the city, and presented to the Mayor by the recent deputation. Whatever may be the degree of justification for so sweeping a condemnation of the health condition of the city, the presentation of such a memorial should materially strengthen the hands of the sanitary authority in carrying out the radical reforms which undoubtedly appear to be necessary. The unfailing key to the health condition of all urban aggregations is the improvement of the house accommodation of the poorer of the working classes, and, after due allowance for possible exaggeration, there can be no question that this is a subject demanding the earnest attention of the sanitary authority of Newcastle-upon-Tyne. Much has been said, with regard to the recent high death-rate of this city, respecting a possible under-estimate of its population, upon which the death-rate is calculated. Judged by the birth-rate, such an under-estimate, especially during the years 1886–7, appeared probable; but it must be borne in mind that the annual number of registered births in the city during the four years 1886–9 has been practically stationary, while the population is estimated to have increased at the rate of 2000 per annum. It follows, therefore, that if the population was under-estimated a few years ago, such under-estimate has now decreased, if it has not disappeared. Moreover, any idea that the high death-rate in the present year is to any considerable extent explained by such under-estimate of the population may at once be dismissed as fallacious. Putting the population question entirely aside, the undue proportion of the deaths due to the principal zymotic diseases and the terribly high rate of infant mortality afford conclusive evidence of insanitary condition, justifying the action of the memorialists at the recent deputation to the Corporation of Newcastle-upon-Tyne as the sanitary authority of the city. The memorial was referred to the Sanitary Committee of the Council for consideration and report, the result of which will be anxiously awaited by all who have the welfare of the city at heart. We are glad to observe that the action of the deputation is already bearing fruit, as at the last meeting of the vestry an animated debate took place upon a resolution in favour of a rigid inquiry being made into the sanitary condition of the city, the discussion being eventually adjourned for a fortnight.

A SIXPENNY INFIRMARY!

THE medical profession in Bradford is considerably agitated at present by the extraordinary proposal to convert the infirmary of that town into a great sixpenny dispensary, without the essential condition of such institutions, that the medical attendants should be paid for their services. The proposal is all the more surprising and painful in that it has emanated from one member of the medical staff. In brief, his proposition is that every patient in the out-patient department shall pay sixpence per visit for advice and medicine. Even assuming that the object in view is to diminish the evil of an excessive attendance in that department, and that the means proposed would be successful, it must appear evident to everyone that the end does not justify the means. The co-operative principle, whereby a number of persons, under proper regulations, by small individual contributions make up a sufficiency to pay for medical attendance for the contributors, is one which must meet with general approval. But that the skilled professional services of the infirmary staff at

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Bradford should be gratuitously dispensed for sixpence a visit (as the staff would receive no pay), including medicine, bears no resemblance to co-operation. We understand that the members of the profession in Bradford have already held a preliminary meeting, at which an opinion strongly adverse to the proposal was unanimously expressed, and it has been arranged to summon a general meeting of the whole profession in the town and neighbourhood to discuss and, it is to be hoped, give the *coup de grâce* to any such proposal. The fact that the board of the infirmary is exceeding its income is no justification for such a course, especially when there have long been loud complaints that the excessive expenditure is in directions which are not charitable, which unfairly tax the honorary staff, and are objected to by the general practitioner as offering unfair inducements to persons who can pay for private medical attendants to become recipients of gratuitous medical relief at the infirmary.

THE TREATMENT OF INFLUENZA.

M. H. HUCHARD, writing in the *Revue Gén. de Clin. et de Thérap.* (Dec. 12th), speaks of nervous prostration as being a chief clinical characteristic of severe cases of influenza, requiring for its treatment quinine, alcohol, and, in bad cases, even injections of caffein and ether. Quinine, he says, is indicated on account of the markedly remittent type of fever, and to moderate the evening exacerbation it suffices to give a full dose (5 to 15 grains) of the sulphate or hydrobromate in the morning. Smaller doses more frequently taken are useful for their tonic rather than antipyretic effect. In the neuralgic or rheumatoid form of influenza antipyrin (15 grains) combined with bicarbonate of soda (7½ grains) is recommended by M. Huchard, to be taken every four hours, or instead of antipyrin, phenacetin or salol (7 grains). Influenza often assumes a broncho-pulmonary form, and in certain cases is very grave. In the epidemic of "la grippe" in 1886, recorded by M. Menetrier, the pneumonic forms were very asthenic. In such cases, tonics, milk, alcohol, and, in fact, general restorative measures are indicated rather than local applications to the chest. If the dyspnœa became severe, and the condition termed by Graves "pulmonary paralysis" ensues, then strychnia is of value; or in case of impending asphyxia or renal asthma, venesection; but when the asthenia itself threatens life, there should be no hesitation at resorting to hypodermic injections of ether, and especially of caffein. For the gastro-intestinal form, mild aperients, ipecacuanha, and the use of salicylates of bismuth or of magnesia, naphthol, or iodoform to promote intestinal antisepsis, are indicated.

BOXING THE EARS AND ITS RESULTS.

WE would fain hope that, in deference to repeated warnings from various quarters, the injurious practice of boxing the ears, once common in schools, is fast and surely becoming obsolete. It is too much to say that this desirable end has yet been realised. Certainly the recent observations of Mr. W. H. R. Stewart do not give colour to any such view. In a pamphlet on "Boxing the Ears and its Results," lately published, and illustrated by appropriate cases, he briefly summarises his own experience in the matter. He reminds us that, notwithstanding the toughness of the aural drumhead, its tense expanse will rupture only too readily under the sudden impact of air driven inward along the meatus, as it is in the act of cuffing; and he shows that in one instance at least this injury resulted from a very slight though sudden blow. Given early and skilled attention the wound may heal very kindly, but if the beginning of mischief be overlooked, as it often has been, further signs of inflammation soon follow, and a deaf and suppurating tympanum is the usual result. There is practical wisdom in the statement that this consequence most readily follows in the case of the poorly developed and underfed children who abound in every Board school. In them an earache would probably receive no very strict attention, and disease might for a time work havoc unimpeded. Where chronic suppuration exists already, and it is only too common, a random knock on the ear may result, as in a case related in THE LANCET in a fresh otitis, with fatal brain complications. Schoolmasters and others, who may at times be tempted to apply the correcting hand somewhat too carelessly, might read the few pages of this little work with equal interest and advantage. The close connexion between ear and brain should never be forgotten, and the reflection that injury to the former organ most easily terminates in total deafness, and in suppuration which may any day take a fatal course, should assist in the preservation of a sometimes difficult patience.

THE LATE SURGEON-MAJOR SHIRLEY DEAKIN.

WE regret to learn of the death of Surgeon-Major Shirley Deakin of the Bengal Army, which took place at Jhelum from enteric fever. He was well-known as an energetic and enlightened surgeon, and had been editor of the *Indian Medical Journal* since its foundation. A correspondent writes:—"I heard with much pain last week of the death from typhoid of my old college friend Shirley Deakin at the early age of forty years. I have a vivid recollection of him as a student of University College between the years 1867 and 1871, for he was then marked out from his fellows for liberality in thinking, enthusiasm for humanity, and frank outspokenness. Shirley Deakin's was a fine character, chivalrous almost to a fault, and keen to redress injustice. Many of his fellow students may recall the prominent part he took in the meetings of the College Medical Society, and the interest he showed in social questions. He was a warm advocate of legislation for contagious diseases—an advocacy based as much on the cause of the unfortunate victims of vice as on grounds of political economy,—and he read a paper on the subject before the Society, in which he proved how thoroughly he had mastered all its bearings. On leaving college he held for a year or two the office of house surgeon to the Male Lock Hospital, and about 1875 entered the Indian Medical Service. Since then he has paid a few visits to his mother country, but he threw himself into the duties of his office with the same energy that characterised him in old days. His old friends have noted with pleasure how in the midst of officialism Shirley Deakin has continued to champion the cause of the oppressed and to denounce injustice and wrong. Nor did he neglect the pursuit of scientific medicine, often contributing papers to the Indian and home medical journals. Indeed, I think that he was the chief promoter of a journal which he edited. I must, however, leave to others who are better acquainted with his Indian career to speak of his work there. I am sure that none who knew him can think without sorrow of the premature close of a useful life."

ENGLISH PRACTITIONERS IN FRANCE.

THE *Nice Gazette* makes a very lame attempt to justify the illiberal action of the French Government in refusing to grant permission to English medical men to practise in places resorted to by the English. It states that, a French examination having to be passed, English residents may feel sure of the competence of those who henceforth seek to practise there. This is a poor compliment to English examining bodies, and not an argument likely to weigh with English people, who will certainly be apt to try home resorts more freely.

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CAUSE OF DEATH FROM ELECTRIC DISCHARGE.

THE deaths which have recently occurred in New York from electric discharge, and the post-mortem examinations made on those fatally stricken, have led to the conclusion that in the course of the electric current through the body the blood is the chief conductor. This is precisely what has been known in this country since the year 1869, when Dr. B. W. Richardson conducted his series of experiments on death by electric shock with the large electric coil set up by Mr. Apps at the Royal Polytechnic Institution. In those researches the experimenter, by passing electric currents of high tension through sets of glass tubes charged with different conducting animal substances, made the fact demonstrable that of all the animal structures blood was, preferentially, by far the best conductor. In the same researches it was also demonstrated (*a*) that discharges which by their intensity kill most rapidly leave least mark of distortion or of external injury; (*b*) that on complete prostration from the shock the heart may continue in action for several minutes after what appears to be actual death; (*c*) that the injuries inflicted on a living body by the shock are superficial burns and ecchymosed spots on the outer surface of the body, darkening of the colour of the blood within the body, congestion of the heart and venous system generally, and injection, in some instances, of the mucous surface of the alimentary canal. The conclusion arrived at from these observations in regard to the cause of death from the electric shock was that the cause is a sudden expansion of the gases of the blood, with liberation of free gases from instant decomposition of the blood and the other fluids. Under the tension produced from the internal gaseous pressure, distension occurred in the venous canals, and the escape of bubbles of gas from the cavity of the cranium, on laying it open, was a frequent phenomenon. In one instance the right side of the heart of a sheep was ruptured from the cause named on the administration of the shock. But it was also observed in other instances that the whole of the discharge seemed to be conducted solely by the external surface of the body, under which condition there was extreme shock and prostration without death. It was this last observation that led Dr. Richardson to discard the idea of utilising the electric shock for the painless extinction of the lives of the inferior animals, and to substitute the lethal chamber for that humane purpose.

ROARING IN HORSES.

WE have received a copy of the "Report of a Committee appointed by the Midland Counties Veterinary Medical Association to examine and report on three horses operated on for roaring by the intra-laryngeal operation on May 24th by Professor Axe." The committee, consisting of one Fellow and four Members of the Royal College of Veterinary Surgeons, reports that in none of the cases did any benefit follow the operation; on the contrary, in its opinion, "the animals exhibit more distress under exertion than do roarers of about the same degree under ordinary circumstances." There is an important omission in the report: the date of operation is stated to have been May 24th, but no indication is given of the date on which the committee examined the horses. Time, however, is an important element in judging the effect of the operation. But the most remarkable thing connected with the report is the reason assigned for its publication. "The public have been led to form such sanguine anticipations of the success of these experiments that it is right they should know they are not always successful or unattended with risk." We are not aware that it has ever been stated that the operation is likely to be always successful. On the contrary, Dr. Fleming, in his last report on the Army Veterinary Department, states that of fifty-nine horses operated on, thirty-eight were cured, nine improved, and twelve not improved. We do not know of any other statistics of the operation having been published. These, so far as they go, certainly do not justify the expectation of the public as enunciated by the Midlands Association, but they show an amount of success which cannot be gainsaid by the failure of three cases. What is required for the elucidation of the subject is a report of all the cases—not merely the successful or the unsuccessful—when a sufficient period has elapsed after the operation to permit of an accurate opinion being formed of its results. We trust that in his next annual report Dr. Fleming will be able to give the statistics of a sufficient number to justify at least an approximate estimate of its value being formed, as in his last report he noticed a considerable number of cases in which more time was required before arriving at a definite conclusion as to the benefit derived. We cannot compliment the Association on the course it has adopted in publishing a report framed on so very unsatisfactory a basis as the results of only three cases.

A MORSEL OF CHRISTMAS LITERATURE.

WITHIN a few days most of our readers may hope to enjoy a time at least of partial relaxation from the daily round and task. Already the season's literary flood flows towards them with its varied contributions. Among such we may here mention one which those interested in folk-lore will read with pleasure. This is a short paper by Dr. W. Northrup in *Scribner's Magazine* for the current month on "The Pardon of Ste. Anne d'Auray." This article, as its name indicates, is occupied with a description of the chief religious festival of Brittany. Other sketches illustrate the customs observed on similar occasions in Finisterre and elsewhere. One and all they exhibit the native Breton in a light at once critical and appreciative. He is, according to the author, laborious, thrifty, and steady, but withal devout overmuch, and not very intelligently so. Of Druid-revering ancestry, he remains, with a change of instruction and of teachers, a born and loyal pagan, sanctioning a reference to rocking stones for the cure of sterility, and to holy water and Ste. Anne for other healing virtues. Notwithstanding the rites of shrines and holy seasons, however, he retains a Celtic shrewdness in matters of worldly profit, and naturally enough contrives to combine with his "duties" quite enough of the festival spirit and practice to make his high days yield their due of profit and enjoyment. A fluent style, careful description lightened by frequent incidents of travel, and, as usual in this magazine, an abundance of excellent illustrations combine to render Dr. Northrup's contribution to Christmas literature as interesting as it is instructive.

VOLVULUS AND ITS TREATMENT.

THE following conclusions are arrived at by Dr. N. Senn at the close of an interesting paper upon the Surgical Treatment of Volvulus (*Medical News*, Nov. 30), in the course of which he deprecates the resort to any such attempts at taxis as those advised by Mr. Hutchinson, and recently published in his "Archives of Surgery." Dr. Senn gives a successful case of volvulus of the sigmoid treated by laparotomy: "1. The predisposing causes of volvulus are either congenital or acquired, and consist in elongation of certain segments of the intestine, abnormal length of mesentery, and adhesions. 2. Irregular distribution of intestinal contents and violent peristalsis are the most important exciting causes. 3. Volvulus is most frequently met at the sigmoid flexure and the lower portion of the ileum. 4. Secondary



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volvulus on the proximal side of other forms of intestinal obstruction is not a rare occurrence; it is also frequently developed during an attack of peritonitis. 5. As a rule, the symptoms are more acute and intense if the volvulus is located above the ileo-cæcal region. 6. Vomiting in cases of volvulus of the sigmoid flexure is not a constant symptom. 7. The most important physical sign of volvulus is a circumscribed area of tympanites which corresponds to the location of the volvulus, but this sign is only of value before general tympanites has set in, and therefore enables the surgeon in many cases to make an early and positive diagnosis. 8. All cases of volvulus should be treated by laparotomy if reposition cannot be accomplished by rectal insufflation of hydrogen gas. 9. Reposition should not be attempted without evisceration. 10. Evacuation of intestinal contents by a free incision should be practised in every case where general distension of the intestines is present. 11. Enterectomy becomes necessary if any considerable portion of the intestinal wall has become gangrenous. 12. Irreducible volvulus should be treated by establishing intestinal anastomosis with permanent exclusion of the seat of obstruction from the active fæcal circulation. 13. Recurrence of volvulus can and should be guarded against by shortening the mesentery by folding it upon itself parallel to the long axis of the bowel and suturing the apex of the fold to the root of the mesentery."

A "STRIKE" AMONG MEDICAL MEN.

MEDICAL MEN are generally so "easy to be entreated," and so ready to yield to any call of urgency, that the public has come to think itself entitled to their services as if they were under some compulsion to be at everybody's beck and call. But in these days of strikes this notion may have to be reconsidered. At Rodez, in France, the medical men, backed by the Medical Association, refused to make a post-mortem examination of the body of a young woman found in a field, on the ground that the fee allowed was too small. For more than a week the body remained unexamined, and some suspected prisoners had to be released in the absence of confirmatory medical evidence. Some of the doctors have been fined for their behaviour, but are appealing to the Cour de Cassation. The question has been discussed in the French Senate, who find they have no more power over doctors than over pitmen, if they use no violence and break no law. No body of men have such good reason for combining as medical men, and none could inflict more effective vengeance on those who underrate their services. But it ought to be possible to bring the public to a better appreciation of our deserts without the arbitrament of a "strike."

MICRO-ORGANISMS IN WATER.

THERE is a difference of opinion amongst many chemists as to whether the presence of a large quantity of bacteria or a considerable amount of organic matter in drinking water justifies as such its condemnation. Waters containing few bacteria and little organic matter have been known to produce distinctly injurious results, while some waters containing much of both appear to be comparatively harmless in their action. Of course, very much depends upon the source of the water and the nature of its surroundings. The fact, however, that organisms believed to be agents in bringing about certain diseases exist in water for a long time, during which their activity is preserved, makes their absence distinctly desirable. Certain operations in nature would seem to indicate this. Investigations have shown that more bacteria are usually present in rivers than in lakes, in spite of the fact that lakes themselves in many cases are more or less polluted by rivers passing through populous towns. In a very interesting paper in the *Zeitschrift für Hygiene*, 1889, 86, B. Krüger considers that this rapid decrease in the number of organisms may very possibly be due in part to the action of direct sunlight, but in the main to the tendency of water in a comparatively undisturbed state to deposit and precipitate. He therefore carried out a number of experiments with a view to determine how far the removal of organisms was brought about by the mere mechanical deposition of inert matter and also by precipitation as a result of chemical action. The mechanical precipitants employed, all in a state of fine powder and sterilised, were alumina, brickdust, clay, chalk, sand, coke, and charcoal. Water obtained from an ordinary service pipe was impregnated with a liquid containing bacillus growth of a species incident to tap water. This was divided into two portions—one for precipitation with the inert substance and the other untreated for the sake of comparison. Experiments were similarly carried out in which precipitation was obtained as the result of chemical action such as is brought about by the addition to the water containing naturally lime, magnesia, &c., substances like wood ash, sulphate of alumina, and slaked lime. The general conclusion come to by the author from the results obtained is that undoubtedly large numbers of bacteria are carried down by inert substances merely sinking in water, but that the action is very considerably increased when, in addition to mechanical deposition, a chemical precipitation also takes place. The corollary is evident—inert substances do mechanically assist in the precipitation of micro-organisms, but preference should be given to chemical treatment.

SECRET JUDICIAL INQUIRIES IN RELATION TO PUBLIC MORALS.

IN a libel action which was recently brought to trial, Mr. Justice Denman, having before him the pleadings in the case and gathering therefrom that the evidence which would be tendered was such as it was not desirable in the public interest to receive in open court, decided to exclude the general public during the hearing. It happened that among the number so excluded was a member of the bar, who has challenged the right of the Judge to take the step, and has submitted the question for the opinion of the Attorney-General. The opinion expressed by that authority is that the Judge exceeded his powers, and that there is no precedent for the exclusion of the public at the hearing of libel actions. This of course is only a dictum, but it suffices to detract from the authority of the precedent which Mr. Justice Denman created when he assumed the other day to clear his court upon the grounds already indicated. It may well be therefore that in future judges will hesitate to follow that example, and it should perhaps be considered whether it is not for the public advantage that a judge of the Supreme Court should be invested with the power, conferred if necessary by legislation to that effect, to hear in private any cause which seems to him calculated to bring forward evidence not fit for publication. The question is undoubtedly a very involved and difficult one. The publicity of judicial proceedings has very rightly been regarded time out of mind as one of the best safeguards which the constitution provides against the perpetration of injustice by judicial means. The free right of access to the courts is therefore a right which should be jealously guarded. But this right is not seriously imperilled by excluding a certain class of cases from its operation. Indeed, that is done already, and the only question now open to discussion is the question whether the existing custom should be extended at all. In cases where it appears that the evidence will bring out the details of practices which are better not described,

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and where it must be fraught with evil suggestions, we think some discretion might usefully be confided to the presiding judge, especially when the issues before the tribunal are not those of a criminal proceeding where a prisoner's liberty is at stake, but only those of a civil trial where the question to be determined is simply the liability of one party to perform a duty or forfeit a penalty for the benefit of the other.

PSOROSPERMIA (COCCIDIA) IN MAN.

As will be seen from the report on another page, a large part of the time of the last meeting of the Pathological Society was occupied by the description of certain parasites which, although remarkably prevalent in some of the lower animals, notably the rabbit, have not been much recognised in the human subject. Indeed, the specimen shown by Mr. Bland Sutton suggested the notion that possibly its presence has been overlooked in many cases. For his specimen was obtained from the Middlesex Hospital Museum, where it had been mounted as an example of mucous cysts of the ureter. Mr. Sutton, however, correctly surmised the parasitic nature of this curious specimen, for on recently submitting the "cysts" to microscopical examination, he found that they were really occasioned by the presence of psorospermia or coccidia, of which Leuckart has written so able an account. Of equal interest were the communications by Mr. Silcock and Dr. Delépine, the former dealing with a case in the human subject, where these parasites were found in the liver and spleen, and to the presence of which it was supposed that the obscure febrile symptoms were due; whilst the latter gave a most careful account of the disease in the rabbit. Dr. Payne's remarks deserve consideration, for, referring especially to the peculiar bodies characteristic of molluscum contagiosum, and lately alleged to be psorospermial in nature, he pointed out the difficulty of distinguishing them from colloidal masses derived from cell degeneration. Moreover, Mr. Sutton admitted that it was possible to mistake the ova of some entozoal worms for psorospermia. Nevertheless the attention thus given to the subject is sure to bear fruit, and without admitting it to be conclusively proved that these minute animal parasites are responsible for eczema of the nipple or molluscum contagiosum, the question of their gaining entrance into the human body, and being there a source of danger to health and even of life, is too important to be lost sight of. The "gregarinidæ' are perhaps the most widely diffused of all animal parasites, since they infest insects and other invertebrates, and their occurrence in man has hardly hitherto been seriously regarded. But they at once assume a most important position if they are to become responsible for tissue changes of a grave kind. The subject, however, from this point of view, is still in its infancy, and no good result will accrue from premature generalisation on the few data at present forthcoming.

PAUPER INEBRIATES AND THEIR COMPULSORY TREATMENT.

DR. W. M. DUNLOP, medical officer of the St. Pancras Workhouse, in a letter addressed to the Workhouse Visiting Committee, has expressed himself strongly in favour of the suggestion of Dr. Norman Kerr—that the guardians of the poor should be invested with a discretionary power of paying for the detention of pauper inebriates, either in the workhouse or in some special institution for the treatment of inebriety. He divides inebriate inmates into two classes:—1. Those placed in the insane wards suffering from acute alcoholism, and those suffering from dementia from chronic alcoholism; these cases comprise over 25 per cent. of the total admissions into the insane ward. They are at present dismissed as soon as the symptoms disappear. 2. The ordinary inmate of the workhouse, who takes his discharge habitually or occasionally, and who as frequently returns intoxicated. Such powers of detention could only be conferred by special legislation. Dr. Dunlop does not make clear whether the pauper is in the first instance to be a consenting party to this detention, as in the case of other habitual drunkards, or whether he has to be favoured by deprivation of liberty without being consulted. His frequent dependence on the rates, and the fact that otherwise he is likely to be a constant charge, make the gift of these compulsory powers not unreasonable from the ratepayer's point of view. From the pauper's point of view they are his only chance. It lets in light, both on pauperism and insanity, to learn from Dr. Dunlop that 25 per cent. of the insane cases in workhouses are of alcoholic causation.

CLINICAL TEACHING ON FEVERS IN GLASGOW.

IT will be lamentable if the establishment of St. Mungo's School in any degree curtails the range of clinical teaching, especially in the matter of fevers. The letters in the daily papers on questions in dispute between rival schools are not seemly or satisfactory. We had much pleasure some time since in noticing Dr. Allan's efforts to give clinical instruction in fevers, and in holding his example up for imitation by other schools and teachers. We have recognised the attempt to utilise to the full the splendid clinical field of the Royal Infirmary. So that we claim to be in full sympathy with all teachers in Glasgow, whether extra- or intra-mural, who wish to make medical education real. Dr. Gairdner, in a letter to the *Glasgow Herald*, takes, and apparently quite justly, credit for having been among the first to induce Dr. Allan to commence his teachings in fever, which have been so successful, and he is concerned to think that between the fires of the two schools Dr. Allan threatens to withdraw from both. Dr. Gairdner disclaims all university jealousy, and seems only anxious that, in any new teaching arrangements into which Dr. Allan may enter, he may not compromise the interests of the university students. Surely the Fever Hospital of Glasgow and its lessons should be neutral ground on which both university and extra-mural schools might agree to meet. We congratulate Dr. Allan on being so appreciated by both sides, and urge upon him to continue the teaching which has been so successful. We doubt if in any other school in the country a clinical teacher of fevers could boast of forty pupils.

CABS AND INFECTION.

IN the absence of anything like a public service of ambulance carriages it frequently happens that a cab is found to be the most convenient means of conveying patients suffering from infectious disease from their homes to the nearest fever hospital. The disinfection of these vehicles is of course a matter of much importance, and the question how and where this may best be carried out has lately given rise to some discussion. A contemporary suggests that in the case of hospitals under the control of the Metropolitan Asylums Board this body should be responsible for the disinfection and not the Local Board of Works, whose offices may be placed at some distance. In point of convenience there is doubtless an appreciable difference between the two methods of procedure. The danger of allowing a cab to traverse the public streets after depositing its infectious occupant is a further consideration. While we cannot regard this risk as of great practical importance in itself, inasmuch as it is much qualified by that best of purifiers, fresh air, there are conceivable circumstances in which it might excuse a natural feeling of alarm. Such,


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for example, are afforded by the delay consequent on blockage of traffic, by the importunity of foot-weary or hurried wayfarers, or the regardless cupidity of the driver should a tempting fare prove too much for his scruples as to infection. It is probable, however, that in the great majority of cases such causes of alarm have little foundation, and the proposed interchange of authority would, after all, exert no very extensive alteration in present usage. In these circumstances we are disposed to wait for proof of the mischievous consequences attributed to the present system before advocating a change, which might not, after all, be wholly free from objection. Of much more serious import is it that disinfection, by whatever authority it is carried out, should be of the most thorough character.

VENESECTION IN CHLOROSIS.

THE practice of venesection in chlorosis would not at first sight appear likely to yield good results, but that it is capable of acting most beneficially is vouched for by Dr. Wilhelmi, who has for some time past employed it with great success in typical cases of chlorosis (not of lead poisoning, as was by an error printed in last week's issue). About three or four ounces of blood only should be taken, the patient being in bed and being covered up with blankets and plied with hot drinks until sweating comes on. It would appear that the severer the case the more benefit may be expected from the bleeding, but that this treatment is of little use in mere hysterical or symptomatic anæmia.

THE SELBY OAK CASE.

WE need not comment at any length on this case—unfortunately another illustration of the fact that a medical man is daily at the mercy of unprincipled or insane women. We congratulate Mr. Cuthbert on his complete vindication. The case is also another illustration of the use of the Medical Defence Union. Nevertheless, the frequency of these cases only serves to show the necessity for medical men multiplying the securities by which their conduct when exposed may be vindicated.

CAROTID ANEURYSM.

THE operation of ligature of the common carotid below the omo-hyoid for aneurysm of that vessel was performed by Mr. James Hardie, of Manchester, on the 4th inst., in the case of a gentleman aged forty-five. Up to the present time he has progressed favourably in every respect. We hope to give a full report of the case in due course.

BETHNAL-GREEN POOR'S LAND FOR SALE.

THE question respecting the disposal of Bethnal-green Poor's Land, as our readers may have learned elsewhere, is, after all, one of money. At present the land is let to the Bethnal House Asylum, and yields an annual income of £120. If it were thrown open to the public this rental would of course be lost. If, as was lately proposed, half the ground were utilised for building various municipal offices, a considerable sum by way of compensation would be paid out of the local rates to the Charity Commissioners on behalf of the poor. Naturally the Commissioners, supported as they are by a bare majority of the trustees, feel disposed to close with an offer so advantageous, notwithstanding that it is directly opposed to the terms of the bequest under which the land is now held. The readiest way out of the difficulty is by having recourse to public subscription. It has therefore been proposed to raise in this way £5000, no great price for six acres and a half of ground, but a sum which will at the same time satisfy the claims of the local poor, and will save another open space—not one too many—in one of the most populous metropolitan districts. With this object an appeal, strongly supported by local and external influence, has just been issued, and payments will be gladly received by Messrs. Barclay, Bevan, Ransom, and Co. In adding our testimony to the importance of this movement, we feel that we are simply discharging a double duty to the destitute poor and the overcrowded population of East London.

MEDICAL ITEMS FROM FIJI.

MR. B. G. CORNEY, chief medical officer of Fiji, has been appointed an official member of the Legislative Council of the colony. The health of the Europeans has been excellent. In Suva, with a population of about 700 Europeans, there have been but six deaths. Of these three were of infants, one was a sailor and non-resident, and of the two deaths which were of *bonâ-fide* adult residents one was from old age. A cottage hospital has been opened in Levaka (Fiji), and is being supported by private subscriptions, the only contributions from public funds being in the shape of the gratuitous services of the district medical officer.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. Bramann has been promoted to the rank of Extraordinary Professor of Surgery.

Bologna.—Dr. Pellacani, Extraordinary Professor of Pharmacology in Genoa, has been appointed, after open competition, Professor of Forensic Medicine.

Cadiz.—Señor Löhr has been selected, after competition, for the chair of Hygiene, and Señor Guedea y Calvo for that of Clinical Surgery.

Palermo.—Dr. Marcacci has been appointed Professor Extraordinary of Physiology.

Prague (Bohemian University).—Dr. C. Schwing has been promoted to the rank of Extraordinary Professor of Midwifery and Gynæcology.

St. Petersburg.—Dr. Hoyer, Professor of Embryology and Histology, has been reappointed for a further term of five years, although he has completed thirty years of service. Ninety-five students have passed their final examination this term; of these, thirty-five obtained the note "very good" in more than one-half of the subjects, thus gaining the right to remain at the Academy for further study.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. Grigoroff, Ordinator of one of the Moscow Hospitals, and author of works on Syphilis; Dr. R. Hüber, of the Maria Magdalen Hospital, St. Petersburg; Dr. Ernst von Kade, who acted as assistant to Pirogoff during the Crimean War.

DR. GAIRDNER of Glasgow has lately delivered an address to the Midland Medical Society, in Birmingham, on Drunkenness and Dipsomania: Medical and Legal Preventives and Remedies. He strongly supported more stringent measures for the compulsory detention of habitual drunkards, and on the same lines as those for the treatment of the insane. No medical practitioner of experience can fail to see the absurdity of making the detention of habitual drunkards turn on their own consent.

MR. T. H. OPENSHAW has been elected Surgical Registrar at the London Hospital, in the place of Mr. J. Hutchinson, jun.

PROFESSOR LEYDEN has been summoned from Berlin to a consultation with the Czar's physicians.

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WE learn that Mr. William Anderson, whose nomination as one of the three candidates for selection for the Challis Chair of Anatomy in the University of Sydney we reported in a previous issue, has withdrawn his application for the post.

THE Council of King's College has appointed John Phillips, M.A., M.D., Assistant Physician Accoucheur and Assistant Physician for Diseases of Women and Children, F. F. Burghard, M.D., M.S., Assistant Surgeon, and G. L. Cheatle, M.R.C.S., Sambrooke Surgical Registrar.

THE proposal of the Brighton Sanitary Committee for the Council to hold a meeting early in the ensuing year to adopt the Notification of Infectious Diseases Act at that town has been overwhelmingly rejected by the Council.

IMPROVED FACILITIES FOR INVALID TRAVELLING BY RAIL AND SEA.

CALAIS AND THE NEW HARBOUR.

(FROM OUR SPECIAL CORRESPONDENT.)

The Old Town and the New.—The Increase of Population.—The Registration of Foreigners.—Travellers and Port Improvements.—The Water-supply and Drainage of Calais.

THE old town and fortress of Calais, which for so long were associated with the varied fortunes of English history and English arms, and which, in the main, were built by Englishmen, are now but a memory of the past. The grey and stout city wall the English built has been destroyed, the protecting moat is filled over, and contains now a modern egg-shaped sewer of recent construction. Here and there an old gateway with its drawbridge remains, and is preserved as a historical monument. Then the fine old belfry, with its harmonious silver-toned chimes, which the English also built, still stands erect and majestic, and is likely to be for many a long year the chief architectural attraction Calais can offer to its foreign visitors. All these things are but vestiges of the past. Calais, even as a municipal entirety, has also ceased to exist. The old and quaint Town Hall is empty, the Council Chamber is silent. The antique and historical town of Calais is now merged into, and almost swallowed up by, the very modern, but more prosperous and larger, suburban and manufacturing commune of St. Pierre. At the Town Hall of St. Pierre the Municipal Councillors of Calais now sit and deliberate, and all public questions either relating to health matters or other interests must be treated in common. Yet, so recently as 1885, these two communities were absolutely separate. Now they are both firmly bound together by the iron link of a most extensive circle of fortifications. Those whose experience of military matters does not extend beyond our pacific island home, can have no conception of the magnitude of the Calais fortifications; and when we complain of the neglect of sanitary works in France, and vaunt their greater development in England, we should bear in mind that, as we have not been compelled to squander public wealth on such extensive military defences, we are better able to afford the cost of sanitary improvements. The new fortifications of Calais now embrace both St. Pierre and Calais, and thus no scheme of drainage, water-supply, hospital accommodation, &c., can be entertained which does not deal with the two communities. As the population of Calais is estimated at 14,000 and that of St. Pierre at 44,000, it will be seen at once how completely the position of affairs has been altered. At Calais the houses are very old, and often closely cramped together. At St. Pierre the houses are all quite new. The population of Calais has increased, but in a very slow ratio when compared with that of St. Pierre. Thus in 1827 there were 9459 inhabitants at Calais and 4957 at St. Pierre—total, 14,416. In 1857 St. Pierre was ahead, the figures being: Calais, 11,979; St. Pierre, 12,422—total, 24,391. Ten years later, in 1867, while the population of Calais remained almost stationary—i.e., 12,723—St. Pierre rose to 17,294—total, 30,021. Now, as already remarked, out of a total of 58,000, 44,000 belong to St. Pierre.

All these facts must be taken into consideration in order to understand how great the transition has been; and, without such general knowledge of the situation, it would be impossible to deal with sanitary problems involved. These, it must be confessed, have been strangely neglected; but I would not wish to complain of the neglect in this respect without acknowledging how great is the progress effected in other matters. To the traveller from England the enlargement of the port is the first thing noticed. By the constant use of dredgers and two powerful sluicing basins the depth of the channel will be maintained with 13 ft. of water at the lowest spring tides, giving at the pier-head at high water from 29 ft. 6 in. to 37 ft. 9 in. of water. The largest sluicing basin is not, however, yet completed. Nevertheless, the service of the Channel packets between France and England can be carried out at the North Quay at all hours and under all conditions of tide. I saw one of the largest steamers swing round within the port just an hour before low tide. This saves the passengers a very unpleasant experience. Formerly such a ship would have had to back out of the harbour and turn round when once at sea. Most extensive tidal docks have been constructed, some with 26 ft. 3 in. of water, others with 23 ft. 6 in. of water. These docks are connected with eight lines of railway. Steam and hydraulic cranes exist for the use of the ships, and there are admirably built store-houses for merchandise. The canal communication with the port has also been improved, so that now the largest barges can come to Calais. No one can contemplate these vast ameliorations without being impressed by the gigantic character of the works and the immense change which has been effected. Needless to say that this opens out a new and a most urgent sanitary problem. It has already been seen how rapidly the joint populations of St. Pierre and Calais have increased of late years and before the new port was built. What, however, will be the increase now that great works are terminated, and what interest have we in England in such development? Our interest is clearly defined, and it is twofold. First, there is no other foreign port through which so many Englishmen pass in the course of the year. Secondly, there has been a great augmentation in the resident English population of Calais and St. Pierre.

When inquiring into the sweating system in various English towns I was constantly met with the suggestion that a pole tax should be inflicted on foreign workmen, or that the importation into England of foreign pauper labour should be prohibited. Without seeking to discuss in detail, in this place, the economic problem involved in such proposals, it struck me as a somewhat narrow view to take, as it seemed like the policy of the politicians who, on this subject, did not see beyond their back yards. Public health undoubtedly is compromised by the dirty habits of some of the foreigners who settle in our great towns. Their presence does occasion overcrowding, and contributes to so lower the rate of wages in certain and special trades that the workers cannot earn enough to keep themselves in health and strength. But how much greater would be the overcrowding and fatal the fall in wages if all the English workers who now earn their living abroad were sent back to England, or even if foreign countries refused to admit any more strangers. The main industry at St. Pierre-les-Calais is the manufacture of tulle, and this delicate material is made to some extent with English machinery and to a large extent with the aid of English workmen. The French Government, also troubled by the presence of so many foreigners in France—their number in proportion is far greater than the number of foreigners who live in England,—recently issued a decree to the effect that all foreigners resident in the country must register their names. No less than 1700 foreigners have thus been registered in Calais. As it is only the head of the family who makes the declaration this represents probably a population of some 5000 people. It may be said therefore that from 8 to 10 per cent. of the resident population of Calais are foreigners registered as such. The details concerning the 1700 persons now registered have not yet been fully drawn up; but I have an analysis of the 1512 declarations first made. Naturally, being the closest neighbours and natives of a country where wages are not so high as in


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France, the Belgians stand first on the list. Out of the 1512 foreigners registered 651 are Belgians, and this number represents 531 men, 401 women, and 768 children; a total therefore of 1700 Belgians. Next on the list are the English, who have made 552 declarations, which represent 379 men, 374 women, and 726 children; total 1479 British subjects. The remaining 309 declarations comprise a variety of other nationalities. As the total of the 1203 Belgian and English registered families represents a population of 3179 men, women, and children, it is probable that the 1700 foreigners now registered constitute with their families, as I said before, a total population of 5000 persons. The great majority of the English come from Nottingham, and I am not aware that the rate of wages at Nottingham is so very high as to support easily the return of these workers to their native town. Yet, if we drive foreigners away from England, it is only natural to expect that Englishmen will be sent back to us from abroad; and the method of registration adopted—the figures I have just given—show that the French have already taken measures to do so at any moment if they think fit.

Naturally, with the development of the Port of Calais, the number of English and foreign residents is likely to still further increase; while the augmentation of the passenger traffic is quite fabulous, and altogether out of proportion to the other French ports. The following table, giving the yearly number of passengers between England and France by the three principal routes, sets forth this fact in a conclusive manner:—

	Calais.	Boulogne.	Dieppe.
1880	197,916	147,606	69,565
1881	204,591	157,034	78,831
1882	223,391	144,310	81,090
1883	210,199	126,635	85,084
1884	183,433	97,050	67,156
1885	190,595	96,077	62,604
1886	215,984	118,877	67,419
1887	235,695	113,007	65,835
1888	247,870	106,678	68,970
1889	332,230	106,427	179,099

The figures for 1889 are only given for the eleven months and conclude on Nov. 30th.

These figures set forth in eloquent terms the extraordinary success achieved by the Calais route in comparison with its rivals. They also show that the sanitary condition of Calais is a matter of international importance. Yet sanitary matters have, unfortunately, been neglected, and this is probably the reason why the death-rate is high. Many other French towns, however, are not better off in this respect than Calais. During the last five years the death-rate seems to have varied from 24 to 27 per 1000 per annum. It would, doubtless, have been higher still but for the fact that Calais at least possesses a good water-supply. This is derived, at a distance of about eight miles, from Guines, the place celebrated in history as the Field of the Cloth of Gold. Here the soil consists of sand and small stones with an under-stratum of clay and sandy soil. The water comes from below the clay. It is gathered by a system of subsoil drainage, and is pumped up into reservoirs at a height of fifty-five metres, assuring to the town of Calais a pressure of forty metres. The water, after filtration, is delivered in iron pipes, and is thus protected from accidental contamination. The supply should amount to seventy-five litres per head per day; but the tulle factories take more than their share and thus reduce the general supply. The water is pure, though it has the very general defect of being too calcareous. Also there is the more important objection that the supply is not compulsory and private wells are still tolerated. In the better class of houses, of course, they have been abolished, and the town engineer assured me that nothing but the town water-supply was drunk at the hotels and cafés. Still, wherever the use of private wells is allowed there is always some danger. In a town like Calais wells are all the more dangerous as the cesspool system is still enforced. Indeed, the idea of abolishing cesspools has not yet dawned on the authorities. They acknowledge that the construction of sewers would be a good thing, but this only on the old French model—that is, sewers destined to receive the rain and slop water, and not the soil. Perhaps, however, when the progress accomplished in Paris in this respect is better known, the authorities may change their opinion. In any case, the drainage of Calais, and especially of St. Pierre, is especially difficult, for the simple reason that there is no fall. A great number of places are actually below the level of the sea; and if it were necessary, for the sake of resisting an invading army, the whole of the surrounding district could be flooded. Most of the streets have no sewers; there is surface drainage for slop water, and the rest goes into the cesspools. There are, however, two large sewers and some minor sewers. Several of these have their outfall in the inner basin of the old port, which faces the old and abandoned railway station of Calais town. Many travellers will remember the abominable odours that prevailed at this spot when the tide was out and the fishing-smacks lay softly in the mud. This little basin is called the Basin du Paradis, a name which might have been given satirically. Strange to say, those who make the greatest use of the basin object to its being cleansed. The town has several times tried to dredge it out, but the shipowners staunchly objected, on the ground that their ships would be injured if they did not have plenty of soft mud to rest upon when the tide went out. The town engineer (M. A. Dagniault) has drawn up an entire plan for the draining of the whole town, and, in spite of the unfavourable topography, contrives to give a fall of 2 in 1000 to his sewers. But there seems no prospect of this scheme being adopted at present, as public opinion is not yet alive to the importance of the subject. A new sewer has, however, been constructed of late. It runs along the Rue Bertoire, and thence pursues the course of the moat that was in front of the old rampart, falling into the Basin du Paradis. It is an egg-shaped sewer, eighty centimetres broad, and receives about two-thirds of the drainage of the old town, or of Calais proper.

All these facts show how much behind the town of Calais is in matters of sanitation; but the worst still remains to be related. There is a small district at the foot of the lighthouse of closely built fishermen's dwellings, where the houses are utterly devoid of any sort of sanitary accommodation. Not only are there no closets, but the inhabitants strongly object to the presence of them. Also, the houses have often several owners, and if one consents to the construction of a closet, the other and joint owner will probably object. The authorities have sought to solve the difficulty by building a shaft, which is placed unpleasantly near the fish market. Here, every morning, the inhabitants of this little district come and empty their vases containing the night soil. Of course this is not thrown down the shaft with very great accuracy of aim, so that those who arrive late cannot approach the opening, and content themselves with throwing their filth on the sides and the ground. Thus every day, and till the scavengers come to clear up and flush the place, a fearful nuisance is created. The district which rejoices in this primitive method of draining is called the Courgain, and, at a distance, seems one of the most picturesque parts of Calais. The time has surely arrived when public attention should be called to such a state of things. The existence of these grievances is not known and not realised by the public at large; but now that Calais is flooded by passengers from all parts of the world, it is urgent that these defects should be brought to the notice of the public and the authorities. Fortunately the houses are low in Calais, and the town, quite unsheltered, is exposed to the four winds. This doubtless contributes powerfully to purify the atmosphere.

Calais, December, 1889.

MEDICAL TRIAL.

LEESON *v.* THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION AND MARSHALL.

THIS was a motion brought in the High Court of Justice, Chancery Division, before Mr. Justice North, on Friday, the 13th inst., on the part of Mr. Joseph Frederick Leeson, a physician, to restrain the General Council of Medical Education and Registration from removing his name from their Register of general practitioners until the trial of the action, and from publishing resolutions passed by them on Nov. 28th, 1889, to the effect that he, Mr. Leeson, had been guilty of infamous conduct in a professional respect, or their direction to their registrar to erase his name.

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Mr. Cozens-Hardy, Q.C., and Mr. George Henderson, for the plaintiff, in support of the motion, said they could not, on the authorities, ask his lordship to go behind the finding of the Council if it was a matter within their jurisdiction regularly and *bonâ-fide* conducted. They contended, however, that the inquiry was bad for several reasons—that their own rules had not been complied with; that the inquiry was (as they said) as to whether Mr. Leeson had covered Mr. Harness in acting as medical electrician, a matter he had a right to do; that it was directed against Harness while professedly made into the conduct of Leeson; and that two of the judges were incapacitated so as to vitiate the whole inquiry, because they were members of the Medical Defence Union.

Mr. Everitt, Q.C., and Mr. Muir Mackenzie, for the Council, contended that the proceedings had been honestly and regularly conducted, and the court could not go behind the finding of the Council.

Mr. Justice North, on the question of the construction of the letter formulating the charge against Mr. Leeson, which he observed had not been very happily expressed, came to the conclusion that the plain meaning of the charge was that Mr. Leeson had been acting as cover for Mr. Harness, not merely as a medical electrician, but as a person acting as a registered practitioner; and so it had been understood and acted upon by all persons who had anything to do with the inquiry. Had it been otherwise it would have been in his power, and would have been his duty, to interfere. It being, however, an inquiry as to whether Mr. Leeson had acted as cover for an unqualified person to act as a registered practitioner, it was a matter in which, in his lordship's opinion, the Medical Council were alone the judges, and which he ought not and could not judge of subject to their acting regularly and *bonâ fide*. Upon this part of the case it was said that a standing order or rule had been made on the very day of the inquiry for the mode of conducting such inquiries, and at first sight that did look strange; but, on looking at what was actually done, he was convinced that the rules were only what ought to have been made, and the inquiry would have been conducted in the same way if the rules had not been made. Another matter of complaint dealt with by his lordship was that the mode of conducting the inquiry laid down by the Council's standing orders had been departed from by allowing the solicitor of the Medical Defence Union to take it up at a certain point. That, his lordship thought, was within their power, and was not prejudicial or unfair to the person accused. Another point taken on the part of the applicant was that certain matters had been before the Council in the inquiry that were not evidence. The Council, he pointed out, were not in a position to administer oaths, and could not be guided only by what would be strict evidence in a court of law. He did not consider that the proceedings were in any way invalidated by such a cause as that. There was another point on which he had some hesitation, it being a point of law, as to whether, the parties having a right to have it decided at the hearing, he ought not to postpone it, and there was a question for the trial whether the injunction ought not to go; but being satisfied, as he felt, that on other grounds there was no case for an injunction, he took upon himself the decision of what was a point of law at this stage. The point was whether the judicial proceedings of the Council were invalidated by reason of two members out of some thirty who sat on the investigation being interested parties. If they were interested, it was clear law that the proceedings would be invalidated; but was it necessary that their interest should be a pecuniary interest for that result to follow? In this case the two members of the Council were subscribers to the Medical Defence Union of 10*s.* a year, and were under a guarantee to that society, the society being, in fact, the prosecutors. To consider the effect of this argument his lordship looked at the objects of the Union, which comprised not only the prosecution of unregistered practitioners and the removal of persons guilty of unprofessional conduct, but the protection of practitioners. They were perfectly impartial; their duty as members of the Union was as much for the protection of Mr. Leeson as a qualified practitioner as to have him removed if he ought to be removed. This point of law, therefore, his lordship decided in favour of the defendants There was one other point his lordship dealt with. It was argued that the inquiry was not *bonâ fide* because the acts and conduct of Harness had been gone into, and it was said the inquiry was not really into Leeson's conduct so much as into Harness's. That was so in a sense; but it was necessary and proper to inquire into Harness's acts for the purpose of seeing what it was that the accused was acting as a cover of; and that being so, he could not say the inquiry was not *bonâ fide*. His lordship therefore refused the motion.

This decision of Mr. Justice North was appealed against by the plaintiff on Wednesday the 18th inst., in the Court of Appeal, before Lords Justices Cotton, Bowen, and Fry.

Mr. Rigby, Q.C., Mr. Cozens-Hardy, Q.C., and Mr. George Henderson appeared for the appellant; Mr. Everitt, Q.C., and Mr. Muir Mackenzie for the General Medical Council; and Mr. Sebastian watched the case for the company, who were not parties to the action.

The arguments were concluded on the following day, when their lordships announced that it was their intention to reserve judgment, and expressed a hope that they might be able to deliver it on Saturday, the 21st inst.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Typhoid Fever at Longton, by Mr. SPEAR.[1]—Longton is one of the southernmost of the pottery towns in Staffordshire, and after certain regular occurrences of fever amongst its 35,000 inhabitants for a number of years past, 16 deaths from typhoid fever occurred in 1888, and 13 more in the five months January–May of the present year. In all, during this latter period of seventeen months Mr. Spear heard of 66 household invasions, representing 155 attacks, and as he was able to regard these as the total occurrences of the disease that had taken place he sets the mortality rate at nearly 19 per cent., which must be regarded as an unusually high one. Considerable details are given in the report as to the incidence of the disease, in the respective months, on age, and on sex; and it is pointed out that in no less than 35 houses multiple attacks took place; these, in some instances, amounting to seven and eight in a single house. Only 14 second attacks took place within a fortnight of the first one, and having regard to dates and to the circumstances of household attacks which are set forth in some detail, Mr. Spear feels justified in regarding defective local sanitation, and especially the faulty methods for the disposal of excremental refuse about dwellings, as having afforded the necessary means by which the poison of typhoid fever, when once introduced, had opportunity for spreading itself. But there still remain a number of primary invasions in families to account for, and all the various causes usually associated with typhoid fever are considered in this connexion, the result being that milk and food supplies, sewerage and drainage are set aside. The question of water-supply is dealt with at considerable length. The service is in the hands of the North Staffordshire Water Company, and details are given as to all the various sources from which the supply is derived, and as to the methods in which mingling of waters derived from different sources takes place before the supply reaches the different towns and places within the area of the company's service. Some suspicion did seem to attach to one of the sources in question, and this was, to some extent, endorsed by the result of chemical analysis. The question of possible pollution during transit from the company's works along mains and pipes to the several households and localities is also entered into; but the whole service was found to be very complicated, and in the end Mr. Spear was unable to go beyond expressing a fear that, as regards the medium by which the several scattered initial cases which appeared as independent foci had arisen, the water-supply was not free from suspicion; and he states that one supply especially—namely, the Normacot service—appeared to demand close attention. This view is maintained in certain recommendations appended to the report; and especial reference is there also made to the need for effecting improvement in the closet accommodation of the district by

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means either of waterclosets or of privies of such capacity that storage of excremental refuse in the vicinity of houses shall be limited to accumulations of not more than one week's duration.

Diphtheria and Enteric Fever in the Penistone District, by Mr. SPEAR.[1]—The diphtheria in this district followed on a somewhat similar prevalence during 1881–82, and sporadic cases of diphtheritic sore-throat have since been by no means uncommon. This is an important fact as bearing on the subsequent prevalence in 1888–89, when fifty-seven households and 103 persons were attacked in Penistone and Thurlestone, and the mere circumstance that the connecting link between the occurrences could not be actually traced in no way detracts from the significance in sequence of the several events. There have also been two occurrences of enteric fever—one in the Penistone rural and the other in the Thurlestone urban district. The former had a Board school for its centre, and there appears but little doubt that water-pollution was associated with it; and this notwithstanding the fact that the results of chemical analysis could not satisfactorily decide as to this. The occurrence at Thurlestone could not easily be traced to its source, but the conditions of excremental pollution which were found to be associated with it were precisely those so commonly identified with the appearance and spread of this disease. Unfortunately, as regards the Penistone urban district, advice given in 1887 by Dr. Gresswell has hardly been acted on. Much sanitary amendment is also called for in the Penistone rural sanitary area.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5646 births and 4235 deaths were registered during the week ending Dec. 14th. The annual rate of mortality in these towns, which had been 18·2, 19·0, and 21·5 per 1000 in the preceding three weeks, further rose last week to 23·1. During the first eleven weeks of the current quarter the death-rate in these towns averaged 18·8 per 1000, and was 2·1 below the mean rate in the corresponding periods of the ten years 1879–88. The lowest rates in these towns last week were 17·1 in Norwich, 18·0 in Brighton, 18·0 in Derby, and 19·2 in Birmingham. The rates in the other towns ranged upwards to 31·1 in Manchester, 31·9 in Oldham, 32·3 in Blackburn, and 34·7 in Plymouth. The deaths referred to the principal zymotic diseases, which had been 343 and 383 in the preceding two weeks, were last week 378; they included 105 from whooping-cough, 74 from measles, 63 from scarlet fever, 59 from diphtheria, 40 from "fever" (principally enteric), 37 from diarrhœa, and not one from small-pox. These zymotic diseases caused the lowest death-rates during the week in Leicester and Huddersfield, and the highest rates in Bolton and Plymouth. The greatest mortality from whooping-cough occurred in Portsmouth, Bolton, Hull, Wolverhampton, and Bristol; measles in Derby, Nottingham, Bradford, and Sunderland; scarlet fever in Liverpool, Wolverhampton, Bolton, and Plymouth; and "fever" in Birkenhead. The 59 deaths from diphtheria in the twenty-eight towns included 35 in London, 5 in Salford, 3 in Plymouth, 2 in Liverpool, and 2 in Oldham. Small-pox caused no death in any of the twenty-eight great towns. Only one small-pox patient was under treatment at the end of the week in the Metropolitan Asylum Hospitals, and one in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and London Fever Hospitals at the end of the week was 1667, against numbers increasing in the preceding twenty-four weeks from 559 to 1663; 144 cases were admitted to these hospitals during the week, against 132 and 154 in the preceding two weeks. The deaths referred to diseases of the respiratory organs, which had increased in the previous seven weeks from 281 to 432, further rose last week to 552, and exceeded the corrected average by 31. The causes of 103, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Leicester, Sunderland, Blackburn, and Birkenhead; the largest proportions of uncertified deaths were registered in Oldham, Hull, Liverpool, and Huddersfield.

[1] Eyre & Spottiswoode, East Harding-street, E.C.; Adam & Charles Black, Edinburgh; Hodges, Figgis, & Co., Dublin. Price 6*d*.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the preceding five weeks from 19·8 to 23·9 per 1000, was 23·6 in the week ending Dec. 14th; this rate exceeded by 0·5 the rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 16·3 and 17·4 in Leith and Perth, to 25·7 in Aberdeen and 26·6 in Glasgow. The 604 deaths in the eight towns showed a decline of 8 from the number in the previous week, and included 20 which were referred to measles, 20 to diphtheria, 16 to whooping-cough, 14 to diarrhœa, 8 to scarlet fever, 7 to "fever" (typhus, enteric, or ill-defined), and not one to small-pox; in all, 85 deaths resulted from these principal zymotic diseases, against 81 and 67 in the preceding two weeks. These 85 deaths were equal to an annual rate of 3·3 per 1000, which exceeded by 1·2 the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of measles, which had been, 7, 18, and 11 in the preceding three weeks, rose last week to 20, of which 11 occurred in Glasgow and 8 in Edinburgh. The deaths from diphtheria, which had been 9 in each of the previous two weeks, rose last week to 20, and included 5 in Glasgow, 4 in Edinburgh, 3 in Dundee, and 3 in Leith. The fatal cases of whooping-cough, which had been 21 and 20 in the previous two weeks, further declined, on the other hand, to 16, of which 9 were returned in Glasgow, 3 in Dundee, 2 in Edinburgh, and 2 in Greenock. The 14 deaths attributed to diarrhœa exceeded the numbers in recent weeks, and included 7 in Glasgow and 3 in Dundee. The fatal cases of scarlet fever were fewer by 5 than the number in either of the preceding two weeks; 3 were returned in Glasgow and 3 in Leith. Six of the 7 deaths from "fever" occurred in Glasgow. The deaths referred to diseases of the respiratory organs in the eight towns, which had been 121 and 166 in the preceding two weeks, further rose last week to 167, and exceeded the number in the corresponding week of last year by 64. The causes of 78, or nearly 13 per cent., of the deaths registered in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 28·7 and 27·8 per 1000 in the preceding two weeks, rose to 32·2 in the week ending Dec. 14th. During the first eleven weeks of the current quarter the death-rate in the city averaged 26·2 per 1000, the mean rate during the same period being 17·2 in London and 19·6 in Edinburgh. The 218 deaths in Dublin exceeded the number in the previous week by 30; they included 6 which were referred to "fever" (typhus, enteric, or ill-defined), 3 to whooping-cough, 2 to measles, 2 to diarrhœa, and not one either to small-pox, scarlet fever, or diphtheria. Thus the deaths from these principal zymotic diseases, which had been 9, 26, and 21 in the preceding three weeks, declined again last week to 13; they were equal to an annual rate of 1·9 per 1000, the rate from the same diseases being 1·9 in London and 3·1 in Edinburgh. The deaths referred to "fever," which had been 6, 11, and 12 in the previous three weeks, declined again last week to 6; while the fatal cases of whooping-cough, measles, and diarrhœa were almost identical in number with those returned in the previous week. The deaths both of infants and of elderly persons exceeded the numbers in the previous week. Seven inquest cases and 5 deaths from violence were registered; and 68, or nearly a third, of the deaths occurred in public institutions. The causes of 25, or nearly 11 per cent., of the deaths in the city were not certified.

THE BULGARIAN CENSUS.

The last Bulgarian census was taken on Jan. 1st, 1888. the results thereof having only recently been finally published. The population of North and South Bulgaria, as Bulgaria proper and Eastern Roumelia are now styled, had at the beginning of last year a population of 3,154,375 persons. The population of Bulgaria proper was 2,193,434, and of Eastern Roumelia 960,941. The previous census was taken in 1881, at which time the enumerated population of Bulgaria proper was 2,007,919; the increase of population in this portion of the Bulgarian principality in the seven years was 185,515, or rather more than 9 per cent. The

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movement of population varied very greatly in the different prefectures, owing partly to changes of boundaries; for instance, the population of Sistova appears to have more than doubled itself in the ten years, and that of Lofcha and Varna to have largely increased, while, on the other hand, an actual decrease of population is shown in five of the prefectures, the largest proportional decrease occurring in Vratza and Tirnovo. With regard to the nationality of the population enumerated at the recent census, it is stated that of the population of the entire municipality 2,326,224 were Bulgarians, 607,372 Turkish-speaking Mussulmans, and 58,326 Greeks, leaving a balance of 162,453 described as "various," which included Roumanians, Jews, Gipsies, Slavs of non-Bulgarian race, and Europeans of various nationalities. With reference to these nationality figures it should be pointed out that the Bulgarian population is shown to have increased no less than 16 per cent. during the seven years, while the Mussulman population is said to have decreased by 9 per cent. It may be doubtful whether these figures may have been influenced to some extent by political aspirations; but there would appear to have been, without doubt, a considerable Mussulman emigration in recent years, especially from the prefectures of Tirnovo, Shoumla, Rasgrad, and Plevna. According to the census report the principality contained at the beginning of 1888 six towns having populations exceeding twenty thousand persons; the two largest towns being Philippopolis with 33,032, and Sophia with 30,428. A further list of fourteen towns is given, showing populations ranging between five thousand and twenty thousand persons. The increase of the population of Sophia between the last two censuses in 1881 and 1888 was very nearly equal to 50 per cent. These figures afford evidence of the vigorous vitality of this comparatively new people. It is moreover satisfactory to know that the Bulgarians recognise the value of vital statistics, as evidenced not only by their census report, but by an elaborate report upon the "movement of the population" in the principality during the year 1881, which occupies 1349 pages, but which has only just been issued.

THE SERVICES.

ARMY MEDICAL STAFF.—Brigade Surgeon Saml. Archer to be Deputy Surgeon-General, ranking as Colonel, vice William Cattell, placed on retired pay (dated Nov. 23rd, 1889); Surgeon-Major John Peter Hamilton Boileau, M.D., F.R.C.S. Irel., to be Brigade Surgeon, ranking as Lieutenant-Colonel, vice Samuel Archer (dated Nov. 23rd, 1889); Surgeon Whitley Bland Stokes, M.B., has retired upon temporary half-pay (dated Dec. 1st, 1889); Brigade Surgeon T. Walsh has been appointed Principal Medical Officer on the Staff of the North-Eastern Military District; Deputy Surgeon-General J. Landale has been appointed Principal Medical Officer on the Staff at Cork.

YEOMANRY CAVALRY.—Herts: Lovell Drage, M.B., to be Surgeon (dated Dec. 14th, 1889).

VOLUNTEER CORPS.—*Rifle:* 6th Volunteer Battalion, the King's (Liverpool Regiment): Ernest Wykeham Barnes, Gent., to be Acting Surgeon (dated Dec. 14th, 1889).

VOLUNTEER MEDICAL STAFF CORPS.—The Manchester Division: Surgeon G. H. Darwin resigns his commission (dated Dec. 14th, 1889).—*Infantry:* East London Brigade: Surgeon O. M. White, 1st Tower Hamlets Rifle Volunteer Corps (the Tower Hamlets Rifle Volunteer Brigade), to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Dec. 14th, 1889).—North London Brigade: Surgeon G. D. P. Thomas, 18th Middlesex Rifle Volunteer Corps, to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Dec. 14th, 1889).—South London Brigade: Surgeon-Major A. Clark, 4th Middlesex (West London) Rifle Volunteer Corps, to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Dec. 14th, 1889).—West London Brigade: Surgeon-Major S. P. Smith, 1st Volunteer Battalion, the Royal Fusiliers (City of London Regiment), to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Dec. 14th, 1889).—Surrey Brigade: Surgeon-Major W. R. Brunton, 1st Surrey (South London) Rifle Volunteer Corps, to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Dec. 14th, 1889.—Home Counties Brigade: Surgeon-Major W. J. Shone, 1st Bucks Rifle Volunteer Corps, to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Dec. 14th, 1889).

Correspondence.

"Audi alteram partem."

ACUTE HÆMORRHAGIC NEPHRITIS.

To the Editors of THE LANCET.

SIRS,—I have read with interest the original article in THE LANCET of Dec. 14th by Dr. Crooke and Dr. Nason "On the Occurrence of Acute Hæmorrhagic Nephritis in Suppurative Meningitis," as I have lately had under observation three cases of hæmorrhagic nephritis occurring suddenly in patients suffering from recent acute myelitis, and I have been hitherto seeking an explanation of the phenomenon.

With regard to my first case, I speak from memory, as I have not the notes by me, but I believe Dr. Galloway, the then house-physician, kept a full record of the case. The patient was a middle-aged man, who had been admitted into the hospital about a fortnight before with paraplegia, the result of recent transverse myelitis, when Dr. Galloway drew my attention to the great increase of diuresis that had suddenly occurred (100 ounces per diem), together with hæmaturia. This was very excessive, and the patient soon died. On post-mortem the kidneys were found to be intensely hyperæmic, the medullary portion being almost black.

The second case occurred shortly after in the same ward, and from the notes of Dr. Skyrme, house-physician, I abstract briefly as follows:—W. C——, aged thirty-one, admitted on Oct. 23rd, 1888, with symptoms of transverse myelitis of one week's duration. In this case the state of the urine was noted on admission; it was found normal, reaction acid, quantity about forty ounces in the twenty-four hours. The day after admission 110 ounces were passed. On Nov. 8th a large quantity of blood appeared in the urine; from this date up to Nov. 16th the quantity of urine passed was between seventy and ninety ounces. He lived till Dec. 27th, when he died comatose. The kidneys were enlarged, very hyperæmic, and gave evidence of severe parenchymatous inflammation.

The third case, according to the notes of Dr. Skyrme, house-physician, was a female aged twenty-seven, admitted on Nov. 28th into Rachel ward, suffering from acute ascending myelitis of one week's duration. Urine on admission was about 60 oz. daily, and contained a trace of blood; by daily increases it reached 88 oz. on Dec. 21st, when it gradually diminished till the day of death, Dec. 31st. The amount of blood also increased in amount after admission. The kidneys were similar in appearance to those found in the two other cases. With respect to the causation of the nephritis, I was at first inclined to attribute it to extension upwards of an inflammation of the bladder; but as in the second case the urine was normal up to the onset of the renal symptoms; whilst in the third case—although the hæmorrhage had commenced at the time of admission, I was satisfied there was no cystitis—some other explanation must be sought for. And this I am inclined to think will be found, as Dr. Crooke and Dr. Nason suggest, in disturbance of the vaso-motor system. As an additional support to this view I would point to the remarkable increase in diuresis that occurred in the three cases I have related during the onset of the nephritis.—I am, Sirs, yours faithfully,

Queen Anne-street, Dec. 14th, 1889. CHARLES HY. RALFE.

THE TREATMENT OF CANCER BY ELECTRICITY.

To the Editors of THE LANCET.

SIRS,—Many authorities might be quoted to show that the interruption of strong galvanic currents arrests the heart's action in diastole through the inhibitory action of the stimulated pneumogastric nerve. I am also aware that Ziemssen, by direct stimulation of the heart by strong galvanic currents, increased the frequency of the pulsations, "but to cause a diminution very considerable strength of current is necessary, at least in normal hearts, although it may be different under pathological conditions. It is unnecessary to say that great caution must be used in such experiments."[1] The strength of the currents used to produce these results is not given, but I should think a current of 600 milliampères, as used by Dr. Parsons in the

[1] Erb's "Electro-Therapeutics," translated by Dr. de Watteville, p. 684.

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treatment of cancer, might be called one of "very considerable strength." "Further than this, it has been ascertained by experiments on animals that even moderate voltaic currents suddenly interrupted could, when applied to the nervous system, cause death; while very much stronger currents applied to other parts of the body were found to be quite harmless in their action."[2] The above paragraph appears in Dr. Parsons' paper in April last[3], but is omitted from the almost identical paper that appeared in a recent number of THE LANCET, probably in consequence of his having since "passed 600 milliampères across the pneumogastric in the neck in a case of Dr. Burton's, and the circulation, if anything, improved." The chief object of my letter, which appeared a fortnight ago, was to try to deter others from attempting Dr. Parsons' mode of treatment, for I still think (and not purely on theoretical grounds) that the operation "is not free from danger to the patients." I cannot acknowledge that the experiment with a solution of iodide of potassium redescribed by Dr. Parsons in his paper in THE LANCET of Nov. 30th "demonstrates in a conclusive way that the passage of a constant current does not cause any decomposition between the poles, although there must of necessity be an exchange of atoms between the molecules," when applied to animal tissue. I do not question the accuracy of his experiment, but in my opinion it does not warrant the conclusion he draws from it. "The exchange of atoms between the molecules" is a theory—the theory of Grotthüss—and may or may not be true. That no permanent and visible decomposition takes place in the interpolar region when a simple electrolyte is experimented on is well demonstrated by Dr. Parsons' experiment, but in my opinion it is not applicable to the human body, which is a mixed electrolyte. The third experiment mentioned in my letter of Dec. 3rd shows that a change can be demonstrated in the interpolar region when a current is made to traverse several heterogeneous electrolytes. The change to which I refer is a decomposition of molecules and recombination of atoms. In the middle cup, in the experiment I have quoted, the sulphuric acid is decomposed and sulphate of barium formed, and that is in consequence of the passage of an electric current and the transportation of ions. The physical questions involved in electrolysis are still so undecided, and are such subjects of controversy among scientific men, and so many different theories have been propounded to explain what takes place in a simple electrolyte, that it would be fruitless at present to try to arrive at a conclusion by any amount of argument as to what does and what does not take place in the passage of an electric current through the human body. From such experiments as I have brought forward showing some of the reactions which actually do take place when an electric current is passed through mixed electrolytes, I have been led to the opinion that probably some interpolar action does take place during the passage of a current through animal tissue.—I am, Sirs, yours faithfully,

Dec. 16th, 1889. W. E. STEAVENSON.

To the Editors of THE LANCET.

SIRS,—In your issue of Dec. 7th Dr. Steavenson takes exception to a statement made by Dr. Inglis Parsons, to the effect that "a constant current does not cause any decomposition between *the poles*." May I venture to suggest that the word "*poles*" is apt to be most misleading, unless one definite and distinct meaning is attached to it when speaking of electro-chemical decomposition. Faraday, who gave to this process the name of electrolysis, also invested it with a suitable nomenclature. He called the substance to be acted on an electrolyte, and the vessel which contains the electrolyte an electrolytic cell. The free ends of the conducting wires of a battery, usually then called respectively positive and negative poles, he termed electrodes, distinguishing them as anode, that by which the current left the battery to enter an electrolyte; and kathode, that by which the current left an electrolyte on its return to the battery. To prevent any confusion of terms, he called the two poles of a battery respectively anelectrode and kathelectrode. Such being the case, I would venture to ask if it would not be advisable to use these names given by Faraday instead of such a vague term as poles, now that the question of the part that electrolysis plays in electro-therapeutics is opening up a large field for discussion. At present we seem to use the term *poles* as signifying either: (1) the terminals of a battery, or (2) the anode and kathode of an electrolyte. Included with the first meaning, we might also enumerate the wires which connect the apparatus applied to the patient, or to the apparatus itself. Now owing to these two different interpretations of the term *poles*, we might be apt to think those in error who use it in a sense different from ourselves. If we refer to the two experiments described in Dr. Steavenson's letter, as performed by Dr. Inglis Parsons and himself, they will help to illustrate my contention. First, I will recall Dr. Inglis Parson's experiment. As an electrolyte, he used a standard solution of iodide of potash, contained in three vessels; the contents of the two outer vessels being made continuous with that of the middle one, by means of the same solution of iodide of potash supported and contained in the interstices of lamp-wick. I would particularly call attention to this fact, as it seems to have been overlooked, and it is of considerable importance in interpreting the experiment. Though the electrolyte was contained in three vessels, yet owing to the way their contents were connected these three vessels and lamp-wick media formed but one electrolytic cell, containing one homogeneous continuous electrolyte, and might be regarded as a curious-shaped cell having three enlarged portions (corresponding to the vessels) and two constricted portions (corresponding to the lamp-wicks) joining them. Such being the case, Dr. Inglis Parsons' statement that decomposition does not take place *between the poles*, is, when applied to his experiment, absolutely accurate, no matter which interpretation we give to the word poles, since there is only one electrolytic cell between the battery terminals, and it is in strict conformity with the law laid down by Faraday, that the liberated ions resulting from electrolysis appear at the electrodes only. But when we come to Dr. Steavenson's experiment, we find then that it makes a great difference as to which interpretation we follow. In his experiment Dr. Steavenson used three vessels, each of which contained a similar standard solution of iodide of potash, but the contents of the three cells were connected by copper wires—that is to say, the homogeneous solution did not form one continuous electrolyte between the battery terminals. Herein lies the difference, for by this means of connecting, Dr. Steavenson created in his experiment three separate and distinct electrolytic cells. A *sine quâ non* for a substance to be an electrolyte is that it be in a fluid form, hence the copper wires form breaks of continuity in the electrolyte. Electrolysis takes place in each vessel, that is to say, in each electrolytic cell, and to quote Dr. Steavenson "free iodine appeared at the positive ends of the pieces of copper wire and a large quantity of gas (hydrogen) at the negative ends." Precisely so. But none appeared at any other parts of his three electrolytic cells. The ions appeared as in Dr. Inglis Parsons' experiment at the electrodes only and not elsewhere. The centre glass vessel in Dr. Parsons' experiment corresponded to the centre of his electrolytic cell; the centre cell in Dr. Steavenson's experiment was a separate electrolytic cell, and in its centre, as in that of Dr. Parsons' single electrolytic cell, no ions were set free.

When now we, looking at Dr. Steavenson's experiment, recall the two interpretations of the term *poles*, I venture to think my contention about this usage becomes plain. If we adopt the first interpretation, that by poles we mean the terminals of the battery or their direct prolongations to the electrolyte, it becomes ridiculous to assert that in his experiment no decomposition took place between the poles. If, however, we use it in the second sense, as meaning the anode and kathode of an electrolyte, then the statement that no decomposition takes place between the poles is in conformity with all known laws of electrolysis. If we used the nomenclature I ventured to suggest, we should, in making our deductions from his experiment, say that electro-chemical decomposition does not occur between anode and kathode, though it does between anelectrode and kathelectrode. These terms may seem clumsy, and therefore not find favour with those accustomed to interpolar as a term; but if interpolar is to be retained when speaking of electrolytical effects, it ought to be qualified so as to definitely show whether it is meant to signify between the poles of a battery or those of an electrolyte between the battery poles. Before concluding, I would like to point out that Faraday noted one liquid could act as anode or kathode to another liquid in contact with it.

[2] Brit. Med. Jour., April 27th, 1889, p. 937. [3] Loc. cit.

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By floating distilled water on a strong solution of sulphate of magnesia, and passing a continuous current upwards through the two liquids, he found that a layer of magnesia formed at the upper surface of the lower liquid where it touched the water, showing that the water acted as kathode. Since his time Dr. Gore, F.R.S., made a series of experiments, the descriptions of which and his deductions therefrom were published in the Proceedings of the Royal Society for 1881. In these, he states, "that every inequality of composition or of internal structure of the liquid in the path of the current must act to some extent as an electrode."

I venture to think that this should be kept well in mind by those who are studying the place that electrolysis takes in electro-therapeutics. In the animal body, fluids, having inequality of composition or of internal structure, and in contact with one another, exist, and we may reasonably expect them to act as anode and kathode to one another, in the same way that distilled water acted as kathode to the strong solution of sulphate of magnesia. Such being the case when a continuous current passes through an animal tissue, we should surely expect inter (battery) polar decomposition, and know, if we follow the laws of electrolysis, that no inter (electrolyte) polar decomposition can possibly take place. To use the old nomenclature suggested by Faraday: Decomposition may occur between anelectrode and kathelectrode, provided that more than one electrolyte or electrolytic cell be included in the external portion of the battery circuit; but it can take place *only* at the anodes and kathodes and the resulting ions are liberated only there. I am, Sirs, yours sincerely,

Austin Friars, E.C., December, 1889. H. W. D. CARDEW.

COLOTOMY FOR CANCER OF THE RECTUM.

To the Editors of THE LANCET.

SIRS,—This subject has of late attracted so much attention that I think it will interest your readers if I give a brief account of recent experience at the Middlesex Hospital.

Of the inguinal operation I have nothing to say, because it has only lately been performed in one or two cases.

Of 64 cases of cancer of the rectum (males 32, females 32) consecutively under treatment during the seven years from 1882 to 1888, 38 of both sexes were submitted to left lumbar colotomy; of these, 10 died—a mortality of 26·4 per cent. Excision of the rectum was performed in only 4 of these cases, and in 2 cases of cancer of the anus.

Of 18 males who underwent colotomy, 5 died—a mortality of 28 per cent. The causes of death were as follows:—(1) Pyæmia on the twenty-second day after the operation; (2) shock on the day after the operation (in this case the rectum had been excised as well); (3, 4) exhaustion on the seventeenth and twenty-sixth days after the operation; (5) syncope from incessant vomiting, with hæmatemesis, sixteen hours after operation, under chloroform. In 15 cases colotomy was performed to relieve the local disease from irritation by contact with fæcal matter; in the cases that recovered the benefit was very marked, the burning pain and tenesmus previously complained of being in almost every instance completely relieved. Of those who recovered, the average duration of their stay in hospital was thirty-eight days.

Of 14 cases in which colotomy had been performed, the average duration of life, dating from the time when symptoms of the disease were first noticed, was 19·7 months, the longest thirty-nine months: 4 lived from nine to twelve months; 1 from twelve to fifteen months; 3 from fifteen to eighteen months; 1 from eighteen to twenty-one months; 2 from twenty-one to twenty-four months; 2 from thirty-three to thirty-six months; 1 from thirty-six to thirty-nine months.

Of 4 cases in which no operation had been performed, the average duration of life was only 10·9 months, the longest, 24·7 months; 2 lived from three to six months; 1 from nine to twelve months; 1 from twenty-seven to thirty months.

The duration of life subsequently to colotomy in 14 cases averaged 6·5 months, the longest period being twenty-four months; 5 died under one month after the operation; 2 from one to three months; 3 from six to nine months; 1 from nine to twelve months; 2 from twelve to fifteen months; 1 from twenty-one to twenty-four months.

Of 20 females who underwent colotomy, 5 died—a mortality of 25 per cent. The causes of death in these cases were as follows: (1) Syncope under ether during the performance of the operation; (2) shock on the day after the operation; (3) peritonitis on the seventh day after the operation; (4, 5) exhaustion on the tenth and seventeenth days after the operation.

In 15 cases the operation was done to relieve the local disease; here also the benefit as to relief of pain and tenesmus was most marked.

In 5 cases the operation was needed to relieve symptoms of intestinal obstruction. Of those who recovered, the average duration of their stay in hospital was sixty days.

Of 10 cases in which colotomy had been performed, the average duration of life was 29·7 months, the longest period 76·4 months: 1 lived from three to six months; 1 from nine to twelve months; 3 from twelve to fifteen months; 1 from twenty-four to twenty-seven months; 1 from thirty to thirty-three months; 1 from fifty-one to fifty-four months; 1 from fifty-seven to sixty months; 1 from seventy-five to seventy-eight months.

Of 6 cases in which no operation had been performed, the average duration of life was 23·7 months, the longest 39·5 months: 1 lived from nine to twelve months; 1 from twelve to fifteen months; 1 from twenty-one to twenty-four months; 1 from twenty-four to twenty-seven months; 1 from thirty to thirty-three months; 1 from thirty-nine to forty-two months.

The duration of life subsequently to colotomy in 10 cases averaged 6 2 months, the longest period being 33 3 months: 5 died under one month after operation; 1 from one to two months; 2 from six to nine months; 1 from nine to twelve months; 1 from thirty-three to thirty-six months.

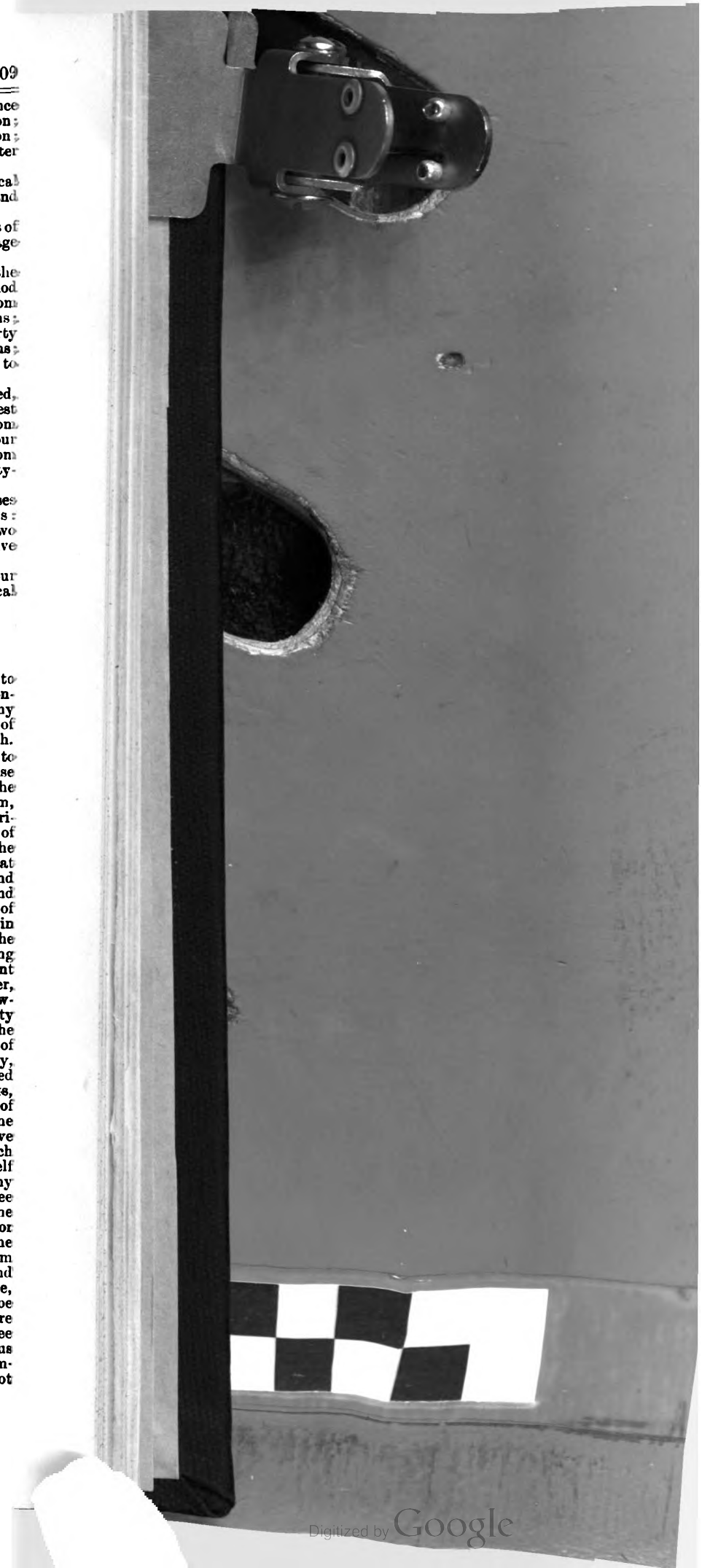
For further information on this subject I must refer your readers to the recently published Middlesex Hospital Surgical Report for 1888. I am, Sirs, yours truly,

December, 1889. W. ROGER WILLIAMS.

To the Editors of THE LANCET.

SIRS,—Will you be good enough to allow me space to reply to the criticisms of my colleague, Mr. Jessett, contained in his letter in THE LANCET of Dec. 7th, on my operation for inguinal colotomy for malignant disease of the rectum, which you published in your issue of Nov. 30th.

I accord the "novel method," in contradistinction to "my operation," to my colleague, and again emphasise that I do not wish in any way to detract from him the credit that the idea of this operation emanated from him, and was the outcome of his experience, gained in his experimental work in intestinal surgery on dogs, the report of which he published. With his assistance I performed the operation I described on the three cases "I reported" at the Cancer Hospital on March 2nd, July 30th, and Aug. 6th of this year respectively; two of these cases and the photos of their openings I had the opportunity of showing at the clinical evening of the Medical Society, in conjunction with the one case Mr. Jessett showed. The "novel method" Mr. Jessett described at that meeting and now in his letter differs, he says, in many important particulars from that described by me in my original paper, and he proceeds to mention the points of difference. However, in the one case he brought before the Medical Society he performed the operation (Sept. 28th last) in which the proximal end was cut long and occluded by a piece of rubber band, and the spur removed on the third day, and a remarkably good artificial anus was formed. Aided by the support of a truss he devised to fit the parts, no mucous membrane whatever protruded. The spur of invaginated intestine that Mr. Jessett showed at the same meeting was not removed from the man above alluded to, but from a female, a subsequent case on which he operated (Nov. 8th last), the operation was in itself successful. The report, however, of this case I hope my colleague may give on some future occasion. I quite agree in the dicta laid down by my colleague—viz., "that the bowels should be kept well opened for some three or four days by castor oil or some saline aperient, and the rectum washed out as far as possible once a day with warm water enemata"—a proceeding I thoroughly endorse and always endeavour to have carried out. But if it is possible, and the rectum capable of being relieved, what need be there "yet" for performing inguinal colotomy? More usually, and what actually was the condition in my three cases (reported), the rectum was occluded and impervious by reason of a mass of malignant growth causing complete obstruction of the bowels. Nothing could be got



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to pass either up or down. Here, then, the operation was urgently called for. In my three cases each were *in extremis;* there were nausea and vomiting, absolute constipation, tongue coated, all appetite lost, and pulse enfeebled, and extreme emaciation; great torture endured in any attempt to obtain an evacuation, which became impossible. The three patients were actually on the point of death. I submit that in these cases the urgency for relief was so great—for, as is usually found, any proposal of operation at an early stage is put off by patients, and their sanction is not obtained until all hopes are given up—that to carry out my colleague's "novel method," and to await a further "four or five" days before an evacuation could be induced or the passing of flatus possible, and little or no food administered, would, in my small experience, jeopardise any chance of recovery for the patient. Although these cases were *in extremis* at the time of operation, all made a good and rapid recovery and increased in flesh, and two now present an admirable appearance; one has since died. I therefore demur that the "novel method" is at all times applicable in advanced cases of malignant disease of the rectum.

I am, Sirs, yours faithfully,

F. A. PURCELL, M.D., M.Ch.

Manchester-square, Dec. 8th, 1889.

DEFECTS IN THE MANCHESTER SYSTEM OF CHECKING OUT-PATIENT HOSPITAL ABUSE.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Dec. 7th you kindly notice the letter of Dr. Harris. You will observe that, as far as checking the abuse of the out-patient department at the Royal Infirmary, Manchester, is concerned, the patients may practically be divided into four classes; (*a*) urgency and accident cases, which are admitted at once without any inquiry; (*b*) those making under the "wage limit," who are also admitted; (*c*) those making *slightly over* the wage limit; and (*d*) those making a considerable wage over it. The latter class *may* be refused first treatment by the surgeon or physician on duty that day. Thus, practically all receive *first* treatment. But there are two very vital errors in the above scheme—first, those who are making slightly over the "wage limit" are allowed to attend at the infirmary for one month, on giving an understanding that they are going to, or have joined, the provident dispensary. Now the entrance-fee to the provident dispensary is sixpence, and the weekly subscription one penny, and benefits are not given until membership has existed for four weeks. Therefore by the above rule, if a man pay a little over sevenpence to the provident dispensary he has the power of demanding relief at the infirmary for four weeks, and can at the end of that time cease payments. Such a rule must be expunged. If the provident dispensary had a *cash* department, then the above condition of affairs could be easily met. But as it now is, the four weeks must elapse before he can participate in benefits. It is therefore to be hoped that not only will the committee of the infirmary allow the above rule to lapse, but that the provident dispensary will not only work the provident but a cash department as well. The second vital error is that a doctor of a provident dispensary has a *right* to send a provident dispensary patient to the infirmary for treatment, and that the infirmary must not ask any questions. Now, the chief objection to such an absurd rule is that the provident dispeusary has most unfortunately dropped its "wage limit," and with the result that many of the provident members are in receipt of wages up to 40*s.* per week. Therefore, although the infirmary "wage limit" is 12*s.* and 18*s.*, the provident member making, say, 40*s.* can compel the infirmary doctors to treat him. It is to be hoped the infirmary committee will rescind this rule. It is a great pity that the provident dispensary ceased working its wage limit of 30*s.* I wish the doctors of the provident dispensaries there would meet together and not only insist on the "wage limit" being reintroduced, but would draw up a scale of fees for cash payments, and for surgical, dental, and obstetric work, and for certificates. It seems to be, though, that in Manchester the abuse of hospitals has only been shifted on to the provident dispensaries, and that no real good can be effected until the provident dispensaries are reformed. As we look to Manchester to show the way, I trust this will soon be brought about. It is well known that a great number of club doctors send their sick members to the charities so as to get rid of them. Is it not to be feared that the doctors of the provident dispensaries do likewise? It is very gratifying to see how this question of hospital reform is coming prominently to the front. It is to be hoped that as a profession we shall soon be able to provide the eight and a quarter millions of the industrial classes of this country with other means of providing themselves with efficient medical treatment than the present medical charities and poor law. That we must have a medical service with two departments—one giving treatment for *cash* payments (such plan as adopted by consultants and advised by the College of Physicians), and the other supplying it on the provident or insurance system—is recognised. The prescribing chemist, unqualified assistant, and that land shark of the medical profession, the bogus club doctor, as well as the one who visits for a *1s.* or *6d.*, and charges *2s. 6d.* for the bottle of medicine—a cross between a chemist and a doctor—have been with us long enough. If we can sink petty trade jealousies and professional rivalry we shall succeed, but if the principle of the majority—"Never mind you, I'm all right"—be adopted, then it must be left to the lay public to legislate for us.

I am, Sirs, yours faithfully,

Liverpool. ROBERT R. RENTOUL, M.D.

THE PREVENTION OF RABIES.

To the Editors of THE LANCET.

SIRS,—The considerable importance of a portion of the subject matter of your leader on the prevention of rabies, which appeared in THE LANCET of Dec. 14th, is undeniable. And it is because of this very importance that I venture to hope that you will allow me to express an opinion contrary to one contained therein. The question of muzzling or not muzzling has unfortunately developed into a duel between the devout Pasteurian and the pseudo-zoophilist, and, more unfortunately still, the stronger adversary is, as I believe, supporting the wrong cause. The supporter of muzzling undoubtedly takes up a strong position. On the one hand, he has a sure and safe therapeusis for the disease; on the other, an unfailing system of prophylaxis. The question of therapeusis it would not become me to discuss, but against the suggested prophylaxis I must enter a strong protest. It is claimed that by a universal muzzling, applied for a limited time and followed by a strict quarantine, rabies would be stamped out for ever, so far as these islands are concerned. In the first place, and allowing that a universal muzzling is practicable, this doctrine assumes that rabies is a specific, an unalterable disease; that it always was rabies and will be rabies for evermore, or at any rate until eradicated by the muzzling process; and, further, that if all the *materies morbi* of rabies now in existence could be destroyed, the disease would never appear again. Against this view of the matter Pasteur's system of treatment affords a strong argument. It is claimed that by successive cultivations the *materies morbi* undergoes certain changes—in other words, that it obeys certain laws of evolution. If it obeys these laws in the laboratory, it must be allowed to obey them outside. That being so, rabies cannot be said to be a specific disease—at least not in the sense in which the word "specific" is generally used. It follows, then, that if it were possible to eradicate all the *materies morbi* of rabies which existed at a given time, we should have no guarantee that the disease would not appear again in the future, as it must have done in some time past. Leaving, however, this somewhat abstract view of the matter out of the question, there is a nearer and more practical point to be considered: that is, Is muzzling likely to lower to any appreciable extent the present annual mortality from hydrophobia? At the outset it is noticeable that, whilst the muzzling order now in force in certain localities carefully provides for the muzzling of dogs which have not got rabies, it affords a remarkably inefficient protection against those which have; for under the order the dog is only muzzled for the hour or two out of the twenty-four during which he happens to be out of doors. Hence the chances are about twelve to one that the dog will not have his muzzle on when the disease first manifests itself, and he certainly will not wait then to have the muzzle applied before he starts on his rabid career. It seems to have been overlooked, too, that a far sterner and more scientific method of prophylaxis against rabies has long been in force: that is, as soon as a dog shows signs of rabies it is promptly killed. What more thorough system of prophylaxis could possibly be adopted? Take the human

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subject, for instance. The most thorough sanitarian would probably look forward hopefully to the result if every person who had contracted, say, syphilis were at once treated with euthanasia. Yet, on the face of the fact that every dog who shows signs of rabies is killed at once, we are told that the number of cases of hydrophobia in the human subject is on the increase. It seems, then, absurd to suppose that the desired result is likely to be attained by the simple process of muzzling for a few hours of the day those dogs which have not yet had the disease.

I am, Sirs, yours obediently,

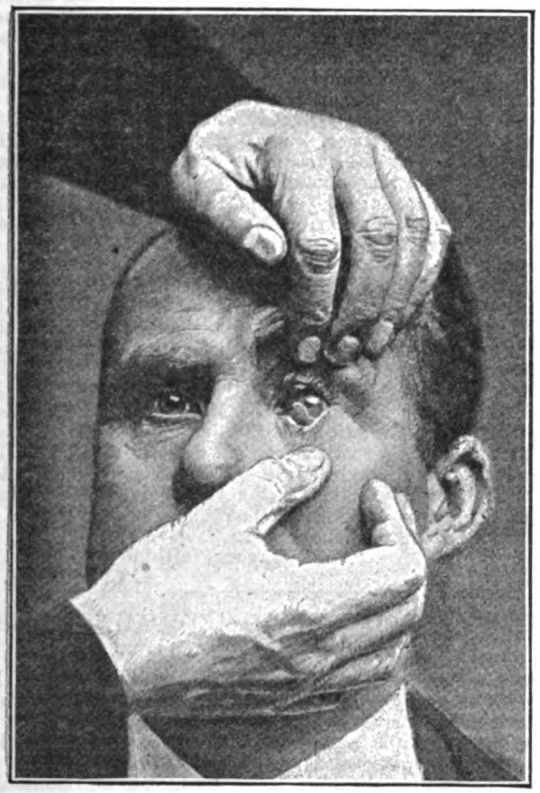
Chatham, Dec. 18th. ALEX. G. R FOULERTON.

*** Our correspondent has overlooked the fact that in certain countries where "muzzling" is generally enforced, rabies is practically absent—e. g., Germany.—ED. L.

THE TREATMENT OF SYMBLEPHARON.

To the Editors of THE LANCET.

SIRS,—*Apropos* Professor Snellen's (Utrecht) paper on symblepharon recorded in your recent report of the proceedings of the Ophthalmological Society, will you allow me to remark that the best method of dealing with such cases of extensive destruction of ocular and palpebral conjunctiva is by the transplantation of skin *en masse* without pedicle on to the surface of the eyeball itself? I have spoken of this operation elsewhere, and the accompanying photograph of a very bad case, occasioned by the impact of a piece of molten metal, treated in this way may be taken as evidence of the very pleasing results it is possible to attain. The patient, whose left lower lid was firmly adherent to the



globe when I first saw him, was injured while working at the Codnor-park Ironworks in this neighbourhood, and as there was no conjunctiva which could be utilised, I transplanted a piece of cuticle (two inches by one inch) from the upper lid of the right eye on to the surface of the left globe, where it may be seen in white outline in the photograph. The upper lid of the left injured eye, which was strongly incurved owing to excoriation of its under surface at the time of the accident, was treated by a method of skin transplantation (shown in the photograph) with pedicle, which I have already illustrated in your pages, and the eye is now quite free, the sight perfect, and the patient naturally very pleased at his unexpected and complete recovery.

With regard to the method described by my friend, Professor Snellen, I may remark that it has been said that "there is nothing new but that which has been forgotten," and it is certain that I devised and frequently practised precisely the same method of skin transplantation with pedicle through a button-hole in the lid at least ten years ago. Indeed, it is upwards of that time since I introduced a patient who had been treated in this way to the notice of the members of the Clinical Society of London, and those of your readers who care to do so will find a report of the case in the Transactions published by that association. It is obvious, however, that, when the vitality of the flap can be preserved (and my experience has demonstrated that there is little or no difficulty in doing so), my more recent method of transplantation of skin *en masse* without pedicle is vastly more convenient and efficacious.

I am, Sirs, your obedient servant,

CHARLES BELL TAYLOR, M.D.,

Nottingham, Dec. 9th, 1889. Surgeon to the Eye Infirmary.

THE LATE PROFESSOR BOYES SMITH, M.D., F.R.C.P.: AN APPEAL.

To the Editors of THE LANCET.

SIRS,—It is seldom that an appeal for help is called for on behalf of the widow of a medical officer of H.M. Indian Army. A painful exception to this rule has now to be brought to the notice of the retired brother-officers of the late Dr. Boyes Smith, of the Bengal Army. They will be surprised and grieved to learn that his widow and little girl, six years of age, have been left, to put it plainly, with £60 a year. Dr. Smith, as a single man, indulged a generous disposition in helping others who were in reduced circumstances, and sustained pecuniary losses in other ways. He married after retirement from the service, and could not by the rules of the Military Pension Fund become a subscriber to that fund on behalf of his wife and child. After a distinguished career in India, both in the military and civil branches of the medical service, Dr. Smith was appointed to the chair of Military Medicine in the Army Medical School, and was cut off by cerebral disease before he could "redeem the time" and make something like an adequate provision for wife and child. The case has been warmly taken up by the *Indian Medical Gazette*, and a subscription list has been opened in its pages. It is hoped that the retired brother-officers of the late Dr. Smith will assist their old friends in India to rescue his widow and child from a condition, considering their former position, little short of want.

Messrs. Grindlay and Co., 55, Parliament-street, S.W., are authorised to receive subscriptions and give acknowledgments.—I am, Sirs, yours faithfully,

W. CAMPBELL MACLEAN, M.D., LL.D.,

Surgeon-General, late Professor of Military Medicine,

December, 1889. Army Medical School.

INFLUENZA.

To the Editors of THE LANCET.

SIRS,—For some months there has been an epidemic of influenza, which has not, however, been confined to this neighbourhood, as I have had patients from places so far apart as Edinburgh, Bournemouth, Southampton, and from the more central parts of London. The symptoms have varied in intensity, the temperature rising in four cases as high as 105°, but falling within times varying from twenty-four to sixty hours to normal or sub-normal. In most of the cases of any severity there has been marked cerebral disturbance, the patients expressing a fear that they were "going mad." In the milder cases there were depression of spirits, anxiety, fear of some calamity, in nearly all nausea or vomiting, and in many violent diarrhœa, sore-throat with extreme muscular weakness, and cardiac pain and depression, and severe aching of the limbs and muscles of the back, about complete the catalogue of symptoms. One of the worst attacks (temperature 105·4°) occurred in a woman three days after parturition, and I should have expected she was going to have puerperal fever; but, having seen so many of these cases, I thought it would prove to be influenza, and she is now convalescent. I have, after considering the symptoms and histories of the various patients, come to the conclusion that it has been caused by the very high temperature which

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has prevailed since the fall of the leaf this year, which has caused rapid decay of the soft part of the leaves, which usually takes place slowly in the low temperature of autumn, and has caused an unusual development of the malarial poison which causes ague in temperate climates, and the tropical fevers which attack those living in the influence of tropical forests, like the jungle fever of India and the fever of which Stanley and Livingstone give us such graphic accounts. I have found antipyrin and salicylate of soda the most useful remedies.—I am, Sirs, yours truly,

South Tottenham, Dec. 1889. GEO. B. BEALE.

To the Editors of THE LANCET.

SIRS,—It may be of advantage to some practitioners to know that there is a substance perfectly harmless in use, which has the effect of *immediately* lessening, if not altogether putting an end to, the most pronounced *nasal* symptoms of acute febrile catarrh. One application is generally sufficient for an ordinary "cold in the head." Powdered "periodate crystals" (Weaver's) forcibly blown into the nostrils, or simply dropped in, if the patient is lying flat on his back, and then sniffed up, will cut short an attack, if administered *at the very beginning*. The combination of bismuth, morphia, and gum-powder, in the form of "snuff," once commonly used, is valueless when compared with "periodate," which is, as far as is at present known, the most powerful antiseptic ever used. It can be swallowed in almost any quantity without the least risk.

I am, Sirs, yours truly,

Dec. 11th, 1889. BERNARD O'CONNOR, M.D.

OPERATIVE TREATMENT OF FLAT-FOOT.

To the Editors of THE LANCET.

SIRS,—Mr. Hare pronounces my plan of treatment to be unsuited to *extreme* cases—whatever I may think, I did not say that it was,—but he ignores my objection to osteotomy as not justifiable in his reported case, as to which I had said that I did not regard it as *extreme*. It was so headed in the paper, but I hold that the description proved it to be not even a case of *complete* flat-foot. It is impossible that the great toe can be held flat on the ground, as shown, unless the short muscles of the sole be in active condition. These, in complete flat-foot, are paralysed by pressure. The footprint, too, shows that the cuneiform bone had not fallen, and that the astragalus did not project beyond a line drawn from the inner margin of the heel to that of the metatarso-phalangeal joint. The whole case, as it seems to me, is described with striking fidelity to life although wrongly titled. A lad, of previously "active habits," during ten months was subjected to unduly prolonged standing. He wore "canoe-shaped" boots, whose fault was, not that they were "pliable, giving no support to the arch," but that they distorted the great toe. By this the second was so persistently elevated that it remained so, giving no mark in the footprint. The great toe, unable to move in its natural plane (downwards and inwards), suffered irritation at the metatarsal joint and so ceased to move. The bow-string or tie-rod action of the long flexor was thus lost and the arch gave way. The right foot was most affected because on it the body rested in the stand at-ease position. The joint mentioned was painful also because (being the anterior pillar of the arch) the weight of the body came plump upon it every time the heel was raised. In healthful activity it is relieved by the action of the long flexor causing it to dance (as I express it in "The Human Foot") on the tight-rope, formed by the tendon. This happens as the heel, every time of raising, is drawn towards the great toe as a fixed point.

The best treatment of such a case as Mr. Hare's is to let the patient, for a time, live with bare feet, moving freely his feet and toes without the weight of the body on them. He should then, always with bare feet, and in the four-square position, move freely to and from tiptoe as much as he can. Had Mr. Hare's patient done this I am confident that he would have recovered functional activity in less time than it took him to recover from the operation. That the bone surfaces had been in ten months so "profoundly altered in shape" as to justify destruction of the most important joint in the tarsus I cannot believe. My first protest against such a proceeding was recorded in THE LANCET of Feb. 9th, 1884, in support of the editorial opinion that Professor Ogston's operation could only rarely be warranted. I ask leave to emphatically repeat it now. The principles which, as I think, should guide the treatment of flat-foot are set out at length in the forthcoming number of the *Edinburgh Medical Journal*.

I am, Sirs, yours faithfully,

Gloucester, Dec. 14th, 1889. T. S. ELLIS.

"MEAN DURATION OF LIFE."

To the Editors of THE LANCET.

SIRS,—The subject matter of actuaries' inquiries is the present value of sums of money payable at death or at intervals during life, and for this purpose the figures of the Life Table (the sum of which shows the "mean duration of life") are combined by them with the figures of a Discount Table previously to summation; and further, the Life Table generally used by actuaries commences at ten years of age, and thus gives no information as to mean duration of life. These are sufficient reasons why actuaries should not affect the expression "mean duration of life." Parkes's formula, quoted by Dr. Lyon, aims at ascertaining the mean duration of life by a correction applied to the reciprocal of the death-rate; whereas the class of formulas to which I alluded in my previous letter aim at ascertaining the reciprocal of the mean duration of life by a correction applied to the death-rate itself. I think Dr. Lyon will find that the following formula fits Dr. Corfield's figures pretty closely:—

Death-rate × ·5634, *plus* birth-rate × (1 − ·5634) = C,
1000 ÷ C is taken as the "mean duration of life."

As to the reason why the particular constant ·5634 has been chosen, or the grounds on which the result should be taken as an approximation to the mean duration of life, I can make no suggestion; I merely indicate the method which has apparently been used. Dr. Lyon's assertion, that "the expression 'mean duration of life' applied to any particular year is scientifically meaningless and misleading to the public," is somewhat sweeping. It must be admitted that social orators have too often misled the public by a misuse of the expression; but, for all that, it has a definite scientific meaning, and, moreover, the mean duration of life is the best measure of health conditions that has yet been devised in the form of a single number; provided only that such a period is chosen that the years of life shall be sufficient to give fairly trustworthy death-rates at the various ages. The difficulty in the way of its general use is the labour of calculating it.

I am unable to follow Dr. Lyon's objection that this number is "essentially yearless, and quite unfit to be employed as a test of health in a particular year." On the contrary, I should say that the mean duration of life, deduced from the rates of mortality in any year, belongs essentially to that year, and is simply and only fit to measure the state of health in that year. If Dr. Lyon's objection applies only to the term itself, an explanatory form, such as follows, may possibly recommend itself to him:—The mean duration of life which *would be attained* if the rates of age-mortality observed in the year remained constant. Surely it cannot be disputed that this is a fair measure of the combined effect of those rates.

I am, Sirs, yours faithfully,

Dec. 14th, 1889. A. C. WATERS.

THE PROPOSED "PUBLIC MEDICAL SERVICE."

To the Editors of THE LANCET.

SIRS,—I am sorry that my reply last week to Dr. F. Taylor and Dr. Hugh Woods was too long for publication, and was afraid it might be so when I wrote it.

On the 12th inst. a meeting of the Metropolitan Counties Branch of the British Medical Association was held in Jermyn-street for the purpose of discussing Dr. Rentoul's scheme. Dr. Ord presided, and Mr. John Page Hentsch, a non-member of the Association, after addressing the meeting, requested a member to propose for him his resolution: "That this meeting considers Dr. Rentoul's scheme to be impracticable, and that, even if practicable, it would be disadvantageous to the great bulk of the general practitioners." Mr. Campbell Boyd proposed and Dr. Richard Paramore seconded this resolution, and it was carried by an overwhelming majority. I am informed upon good authority that, although so many branches of the Association have rejected Dr. Rentoul's scheme, a certain number of the officials of the Association, some of whom are on the Council

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of the Metropolitan Provident Medical Aid Association, with the general practitioners, and would therefore suggest that the Association should take the matter up, and endeavour to correct this injustice, for the purpose of giving the scheme a fair trial.

Stockwell-road, S.W., Dec. 16th, 1889. H. E. CARPENTER.

PRIMARY TUBERCLE OF THE KIDNEY.

To the Editors of THE LANCET.

SIRS,—Mr. J. Knowsley Thornton, in his lecture delivered at the Royal College of Surgeons, on Dec. 12th, 1889, and published in a lately issued number of THE LANCET, has drawn attention to the fact that primary tubercle of the kidney is sometimes overlooked, and that the symptoms are attributed to other causes, such as stone in the bladder, to stone in the ureter, to calculous disease, to malignant disease of the kidney, to cystitis, to pyelitis, to pyelo-nephritis, to nephritis, to nephritis with suppuration, to nephritis with calculus, to tubercle of the bladder, to tubercle of the kidney, to tubercle of the kidney and bladder, to tubercle of the kidney and ureter, to tubercle of the kidney, ureter, and bladder, to tubercle of the kidney, ureter, bladder, and prostate, to tubercle of the kidney, ureter, bladder, prostate, and testicle, to tubercle of the kidney, ureter, bladder, and testicle, to tubercle of the kidney, ureter, and testicle, to tubercle of the kidney and testicle, to tubercle of 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vessels, 362 foreign steamers, and 348 foreign sailing vessels. On the principle that prevention is better than cure, much good was done in inspecting the ships and insisting on necessary alterations, which were all complied with, with the exception of six vessels, which went away before they could be revisited.

University of Durham.

At the Convocation of the University of Durham, held last week, the papers report that the restrictions as to the admittance of undergraduates having been removed, they mustered in strong force, and with the outside flank of the medical men from Newcastle succeeded by their enthusiasm in restoring a good deal of the humour and good nature which has for many years been introduced to academic meetings of this kind.

Death of Dr. E. P. Mead of Whitby.

I regret to notice the death on the 7th inst., of Dr. E. P. Mead, at his residence in Whitby, Yorkshire, where he was a well-known and active practitioner for about thirty-five years. Dr. Mead, who was a native of Whitby, studied and graduated in Edinburgh, and, commencing practice in Whitby at a very opportune period, soon attained a large measure of success, which amidst many changes he never lost. His manners were attractive to patients, while he was extremely kind and considerate. He never tried to do more work than he was able to do well—that is, he never burthened himself with public or professional appointments, and thus no doubt had often more time to do himself and his patients justice. Dr. Mead, whose age was fifty-nine, began to fail in health about twelve years ago. After some rest and continental travel he returned home much improved, though afterwards he began to suffer from asthma and the painful passage of gall-stones. On Wednesday, the 4th, he was seized with one of these attacks, which returned on the following day and on the Friday, producing syncope, when death soon followed. He was attended by his son, who is in the profession at Whitby, and by Dr. Stewart and Mr. Stonehouse. Dr. Mead has left a large family. Another son, Dr. Rivis Mead, is practising in Australia; and a few months ago I recorded the distressing death of Dr. Mead's second son, a fine young man, who was mate on board a Tyne steamer, but who, in the delirium of fever, escaped from his attendants, and leaping overboard was drowned. Dr. Mead's funeral was largely attended, as he was a favourite with all classes; indeed, the town might be said on that day to be in mourning.

Darlington.

A dentist here met with a rather curious accident the other day. He was asked to go to the infirmary to reduce a dislocated jaw, but in the reduction, the teeth snapping on his fingers, he received some very unpleasant wounds, followed by blood poisoning. Fortunately he was insured in an accident company, who met the claim.

Newcastle-on-Tyne, Dec. 17th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

EDINBURGH.

The Universities Commission.

IN anticipation of the meeting of the Universities Commissioners in January next, there seems to be a very general flutter and activity in the "cots" of those who think that they will be in any way affected by the decisions. One hears of very little else just now; it is the sole topic of conversation in medical teaching circles, and all the arrangements and appointments in the colleges and in the schools are made with a view to what has to be brought up before the Commission. The Colleges of Surgeons and Physicians have both appointed committees and sub-committees, whose duty it is to prepare evidence, examine past legislation, and recommend what action shall be taken by the Colleges. The University authorities have also been asked, or will be asked, to prepare statements and offer suggestions or evidence for the consideration of the Commission, so that all these bodies will be adequately represented. The lecturers in the Extra-mural Medical School are also conferring amongst themselves, and, from what has leaked out as to the results of their deliberations, there seems to be a strong leaning on the part of the majority of the extra-mural teachers towards free trade in both teaching and examining. It is probable that some of these matters will be spoken of at the College of Physicians' annual dinner, which takes place on Thursday, so that if any of the Fellows of the London College are present they may hear in private what is never reported to the public. Those first in the field with any public reports of their proceedings are the students' Representative Councils of Edinburgh and Glasgow. The Edinburgh committee report that they are prepared to advise that the following, amongst other points, be raised and pressed before the Commission: that a Faculty of Science should be created in Edinburgh University; that the course in medicine extend over a curriculum of five years; that there should be a short preliminary course in medicine and surgery before the courses usually taken; that there should be short compulsory courses on diseases of the eye and ear, for which the fee should not be more than one guinea; that there should be a matriculation examination for all students entering the University with a view to graduation, and that at least four compulsory subjects in that examination be passed at one time. If the other bodies go to work in the same business-like fashion as the Students' Representative Council has done, it may be anticipated that the work of the Commissioners will be very much less arduous than they could at one time hope to be the case. There are many other matters that the students might take up, but they prefer to rest content with indicating the general lines on which they think that reform should take place.

The Royal Asylum at Morningside.

It is a matter for some congratulation that the Craiglockhart Hills question has at length been satisfactorily and amicably settled. It was pointed out in the columns of THE LANCET at the early part of this year that it would be a great boon to the asylum and its patients, and very little, if any, loss to the community, if certain lands were taken in exchange for part of Easter Craiglockhart Hill. This opinion was maintained and endorsed by Professor Sir Douglas Maclagan, Dr. Sibbald, and others. It has now been decided by the Parochial Board authorities to hand over ten acres and a quarter of the Easter Hill, "which from its contour and situation is of no great value for recreative purposes," and to take in return from the asylum trustees nine acres and a quarter of valuable arable land, which will in all probability become more and more valuable as the city boundaries extend. The splendid asylum buildings, of which a short account appeared at the time the plans were submitted, can now be completed.

The Royal Society.

At the meeting of the Royal Society held last night, Sir Arthur Mitchell, M.D., presiding, two papers of considerable medical interest were read: the first, by Dr. Ashdown, "On the presence of certain Substances in the Urine that reduce Oxide of Copper in the presence of an Alkali"; the second, by Dr. G. E. Cartwright Wood, "On Enzyme Action in the Lower Organisms."

The Health of the City.

In presenting the monthly reports of the medical officer of health of the city, Baillie Dr. Russell called attention to the fact that the death-rate for the past month was slightly higher than that for November of last year, and than the average for the last five years. This was accounted for chiefly by an outbreak of measles in the Old Town, and was confined mainly to children under five years of age. There were at present 204 patients in the City Hospital.

New Entries in the University of Edinburgh.

Up to Dec. 2nd 340 first-year medical students had entered in the University of Edinburgh, of whom 140 began their studies last summer session.

Edinburgh, Dec. 17th.

GLASGOW.

Social Problems in Glasgow: Housing of the Poor.

On Nov. 6th last, Dr. J. B. Russell, on retiring from the Presidentship of the Glasgow Philosophical Society, gave another of those addresses which have perhaps done more than anything else to stir up in the people of this city a sense of their responsibility with regard to the wretched condition of the very poor in our midst. There are few who have access to such sources of accurate statistical

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information as are open to Dr. Russell, and fewer still are they who have the ability to interpret such masses of figures in a way which will appeal with any force to the conscience or rouse the sympathies of the community. It is not easy to epitomise such an address, so full is it of facts, and throughout of such interest. It is "an object lesson in sanitation and social economics." Premising that the notorious District 14 of Glasgow is not now worse than it has long been—that, in fact, it has been "the heartbreak of successive generations of Glasgow philanthropists,"—Dr. Russell gives a number of very startling facts regarding it for the year 1888. It embraces an area of thirty-five acres, in which there are 1308 houses, inhabited by 7150 persons. This is ·57 per cent. of the total area, inhabited by 1·29 per cent. of the total population of the city. Contrasting this with the healthiest district of Glasgow, District 17, we find that the latter embraces 10·24 per cent. of the area and only 5·62 per cent. of the population. Fifty-one per cent. of the houses are "ticketed," and are thus subject to night inspection for the prevention of overcrowding. In 1888 there were 232 deaths and 218 births, so that this district produced 14 fewer lives than it consumed. Reduced to rates per 1000 of the population, its birth-rate was 30·49, its death-rate 32·45; of children under one year the death-rate was 239 per 1000. As regards illegitimacy, 25 per cent. of the children were born out of wedlock; or, to put it otherwise, 1·29 per cent. of the population of the city contributes 3·7 per cent. of the total illegitimacy of the city. The details of the mortality are interesting:—Zymotic diseases (including diarrhœa), 4·76 per 1000; nervous diseases and diseases of nutrition in children, 3·36; acute diseases of the lungs and consumption, 14·68; miscellaneous unclassified diseases, 9·65—total, 32·45. It is thus obvious that infectious diseases and diseases of the lungs are the two scourges of District 14. The death-rate here from diseases of the lungs alone is greater than the death-rate from all causes in District 17. In District 14, 41 per 1000 of the children born died because they were born prematurely—a fact which furnishes a good gauge of the deadly influences to which children are exposed both after birth and during intra-uterine life; 18·5 per cent. of all the deaths in District 14 were uncertified. In 15·5 per cent. of the fatal cases it was alleged to the Registrar that there had been absolutely no medical attendance during the last illness. Forty per cent. of those who died were enrolled in friendly societies; in the Springburn district, a good working-class locality, 70 per cent. are so enrolled. District 14 is therefore not distinguished for providence. Of the 232 deaths, 18·5 per cent. were uncertified, 29·7 per cent. died in public institutions, and 51·8 per cent. at home. Of those who died in public institutions, the cost of treatment of 25·4 per cent. fell on the public rates; that of the remainder, 4·3 per cent. of the whole, fell on the various charitable institutions. Basing his opinion on these and other facts, Dr. Russell thinks that "the probability is that very little medical aid is obtained in this district except what the public pay for or the profession bestow for nothing." Of those who died in this district, the cost of interment was borne by the ratepayers in 37 per cent. of the cases. Of the children born, 55 per cent. began their lives either at the cost of charity or of the rates; 50 per cent. of the children born were vaccinated gratuitously. Such a district must inevitably make enormous demands upon the services of the sanitary department; in 1888 no fewer than 16,529 separate visitations and inspections were made in it, and behind all this there was a proportionate amount of office work and money expenditure. With regard to the work of the Police Department in District 14, this district is still "the Alsatia of Glasgow"; it furnishes the greater part of the work of the Central Police Court. The privy system in the district is abominable, and such as to encourage filthy habits. Though there are 1308 houses and 7150 people, there are only 105 w.c.'s in the whole district. The last bit of information given by Dr. Russell is curious and very instructive—namely, a return of the rental of the licensed premises in District 14, as compared with the rental of premises where food alone is sold: the former amounts to £5167 2*s.*, the latter to £4944 12*s.* It is to be noted, as making this statement still more striking, that the rental of the Public Fish Market (£1000), which supplies the whole city and surrounding parts, is thrown in with the rental of houses where food but no "drink" is sold. District 14 thus spends as much in the luxury of drink as in necessary food. "I think, as honest business men, apart from all views as to total abstinence or the association of crime, immorality, and disease with excess in the use of alcohol, you will agree with me in thinking that people who do not pay their rates, who throw themselves on the legal and charitable resources of the public in their sickness, their birth, death, and burial, simply take from the pockets of the public every sixpence which they spend on drink." Dr. Russell mentions the first step necessary to remedy the evil—to get rid of the unwholesome tenements. He does not think it necessary to have such places for such people; no improvement need be looked for while the houses are allowed to remain as they are. In the main, it is not want of money that keeps people in such houses; they pay in small sums what amounts in a year to an extravagant rent for such accommodation. Dr. Russell closes by commending the work of Miss Octavia Hill, who seems to have solved, in London, some of the problems connected with the housing of the poor; and by advocating the adoption in Glasgow of certain recommendations carried out in Edinburgh with reference to St. Giles's Ward there.—The subject of the better housing of the poor was under consideration again last week in the Philosophical Society, when an excellent paper was read by Mr. William Smart, M.A. He described the state of matters in Glasgow, fully enough detailed above, and concluded by giving an account of various philanthropic companies which are now providing in London habitable houses on remunerative commercial principles.—The question of the "housing of the poor" has been taken up also by the Church of Scotland. The first public meeting of the Commission appointed by the Presbytery of Glasgow was held a few days ago, when Dr. J. B. Russell was the only witness examined. He showed the relation which exists between house accommodation and death-rate in the eight principal towns in Scotland. It may be mentioned that the scope of this Commission is to inquire into the housing, the social surroundings, and the moral condition of the poor, and to suggest remedial measures if these seem urgently required. The term "poor" is used to designate those whose wages run from 3*s.* to 20*s.* per week.

Glasgow, Dec. 17th.

ABERDEEN.

The Medico-Chirurgical Society.

One hundred years ago, on Dec. 14th, 1789, the first meeting of the Aberdeen Medico-Chirurgical Society was held; and on Saturday, the 14th inst., the present members celebrated the centenary by holding a dinner in their hall, 29, King-street. Dr. Smith-Shand, the President, was in the chair, and the croupiers were Dr. Garden, the Vice-president, and Dr. Edmond, the Secretary of the Society. Among the guests were Dr. Tyler, the Gifford Lecturer; Dr. Macalister, the Thomson Lecturer; Principal Geddes; Lord-Provost Stewart; and Mr. Peter Esslemont, M.P. Fifty years ago the jubilee of the Society was celebrated, and of the members then present three are still living—viz., Mr. Jamieson of the Aberdeen Lunatic Asylum, Dr. James Will, and Dr. Francis Edmond, the Society's legal adviser. After the loyal toasts, the President proposed "The Aberdeen Medico-Chirurgical Society," and in his speech gave an interesting account of the history and progress of the Society. The first secretary, he said, was a certain James McGrigor, who hailed from Strathspey. He afterwards became Sir James McGrigor, and was ultimately appointed Director-General of the Army Medical Department. The first treasurer was a George Kerr, who afterwards was a medical practitioner in the city. The portraits of these gentlemen hang on the walls of the hall where the Society dined. The Society at present consists of fifty-one members; its funds are divided into the ordinary fund, the buildings fund, the library fund, and the widows' fund; and they all show balances on the right side. To the widows' fund the late Dr. Robert Beveridge left a handsome legacy; and by another legacy the Society has at its disposal a medical bursary of £20. Mr. Jamieson (Peterhead) proposed "The President of the Medico-Chirurgical Society." Dr. Garden proposed "The Founders of our Society," and in doing so gave several interesting and amusing extracts from the old minute book of the Society. At first the Society was composed entirely of medical students. They met once a week, at first at their own residences, but this being found inconvenient, a class-room in Marischal College was placed at their disposal. Each meeting had its own president, and each member was obliged to take the presidentship in turn. Regular attendance at the meetings was enforced by fines.


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A record was kept of the subjects discussed or, "as it is quaintly phrased in the minute book, 'agitated.'" The following are some of them: "How far is a knowledge of Mathematics consistent with, and useful to, Medicine?" "Is an accurate knowledge of Anatomy absolutely necessary to Medicine?" "Are Hysteria and Hypochondriasis the same thing?" Convulsions or inward fits were thought to be due to redundant bile and superabundance of acidity in the stomach. The Society, composed as it was at that time of students, seems to have been the working part of the Medical School, and we find that the members met for "Lessons in Anatomy," when one of their number had to give his fellows an anatomical demonstration. Dr. Garden said they evidently believed in the maxim that "all work and no play makes Jack a dull boy," for the minute of one meeting at which office-bearers had been appointed ends thus: "We then proceeded to the tavern, where we spent the greater part of the meeting in mirth and jollity." In little more than a year after the formation of the Society qualified medical practitioners were admitted as extraordinary members, and from that date up to 1863 there were junior members or students, and senior members or practitioners. Since 1863, however, there had been no student members. Dr. Macalister proposed "The University of Aberdeen," which was responded to by Principal Geddes. On rising to reply to the toast of "The Aberdeen Medical School," proposed by Sheriff Dove Wilson, Dr. Struthers received quite an ovation. Other toasts followed, and in every respect the centenary dinner was a great success, and evidently enjoyed by everyone.

Aberdeen, Dec. 18th.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Royal College of Surgeons in Ireland.

AT a meeting of the Council held last week, the honorary Fellowship of the College was unanimously conferred upon Mr. Thomas Heazle Parke, A.M.D., a Licentiate of the College, in recognition of his distinguished services in the expedition of Stanley across Africa. At the same meeting, the President, Mr. Meldon, was congratulated by the Council on having been appointed a deputy lieutenant for the city of Dublin.

Accident to Sir Charles Cameron, M.D.

I regret to state that an unfortunate accident on Friday last has incapacitated the genial and well-known medical officer of health for Dublin. It appears that shortly after leaving his house on Friday evening he tripped over a heap of stones and fell, breaking three of his ribs on the left side.

The late Mr. Jameson Dwyer.

The following resolution was unanimously adopted at a recent meeting of the Cork Town Council: "That we, the Corporation of Cork, tender to the family of Dr. Dwyer, late resident medical superintendent of the Cork District Lunatic Asylum, our sincere sympathy on his demise, and express our great regret at the loss they have sustained by the death of such an amiable gentleman and fond father."

City of Dublin Hospital.

Dr. W. J. Smyly, having been appointed Master of the Rotunda Lying-in Hospital, has resigned his position on the staff as gynæcologist to this institution. The governors have passed a resolution expressing their sense of the value of his services and their appreciation of his skill and attention whilst holding the office of gynæcologist.

The Lord-Lieutenant has appointed Dr. Oscar Woods, resident medical superintendent of Killarney Lunatic Asylum, to be resident medical superintendent of the Cork District Lunatic Asylum, in the vacancy caused by the death of Mr. Dwyer. The Cork Asylum is one of the best-paid asylums in Ireland, and the post was the object of much competition. Mr. L. T. Griffin, visiting physician to the Killarney Asylum, succeeds Dr. Woods as resident medical superintendent.

The Public Health Committee of the Corporation of Cork have strongly recommended the adoption of the provisions of the Infectious Diseases Notification Act for that city.

The bazaar lately held in the Town Hall, Kingstown, for the Monkstown Hospital, has realised a sum of £464. This amount will be placed to the credit of the building fund.

Dublin, Dec. 17th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Prophylaxis of Tuberculosis.

WITH reference to the report of Professor Villemin on the prophylaxis of tuberculosis, Professor Hardy, who opened the discussion at a recent meeting of the Academy of Medicine, summed up his opinion as follows: As regards the measures by the aid of which one might hope to restrain the development of phthisis, the first place belongs to general hygiene, which aims at fortifying the offspring of those affected with tuberculosis and other debilitated subjects. M. Hardy protested against the publication of details relative to the contagion of tuberculosis, and in the name of humanity he would not have tuberculous subjects looked upon as pariahs or outcasts who should not be approached. If the counsels of certain ultra-contagionists be followed, it would be feared that the patients would be abandoned, or at least that they would not receive the physical and moral care which they require. It is particularly on account of these latter considerations that M. Hardy refused his vote in favour of the propositions of the Commission, but only as far as concerns their being addressed to the public. M. Trasbot, professor of clinical medicine at the veterinary school at Alfort, declared that he could only consider one side of the question. He stated that the bovine origin of tuberculosis is not proved in an irrefutable manner, and, in any case, it is far from being so frequent as is generally supposed. There does not exist any example of the experimental transmission of tuberculosis from the ox to man. Even clinically this has not been demonstrated, although it is affirmed without reserve that bovine tuberculosis is transmitted to man by meat, blood, and milk, and this on the grounds of experiments performed with divers animals. If, moreover, this transmission is effected, it is infinitely less frequent than is thought, and can have no share whatever in the incessant augmentation of the malady in man. That which proves this last proposition is that whereas tuberculosis is becoming more and more common in the human species, it is being diminished amongst cattle in considerable proportions. In 1888, according to the report of M. Alexandre, Chief of the Sanitary Service of the Seine, of 24,724 animals from different parts, which appeared in bad condition, 125 only were found, at the necropsy, to be tuberculous. This is a very small proportion relatively to the number of animals annually killed in Paris. It is therefore impossible to attribute the numerous cases of human tuberculosis to infection produced by meat. The hypothesis of contamination by blood is not worthy of discussion. As regards that by milk, it must be very limited, if it does exist, as tuberculosis is becoming excessively rare in the milch cows kept in Paris and its environs. In presence of the possible danger resulting from the consumption of tuberculous meat, the authorities have prohibited the sale of such meat; this of course is a rational measure. The Congress on tuberculosis, by exaggerating the fear of contagion by tuberculous meat and milk, has spread a kind of panic among the public. To a remark made by M. Necard, M. Trasbot observed that he never had the idea of disputing the identity of bovine and human tuberculosis, but that there was no certainty of the transmission of tuberculosis from the ox to man through the ingestion of the flesh of this animal. Professor Cornil, who is a confirmed contagionist, approves the instructions of the Congress, which, he thought, should be widely published. According to this authority, there is no doubt of the contagiousness of this malady, and in support of his thesis he cited that the Fuegians did not know what phthisis was before the installation of the English mission. The wife of the pastor, who was phthisical, had collected in a school a certain number of children. These young Fuegians were lodged, clothed, and placed under apparently better hygienic conditions than those who still lived in a savage state. Notwithstanding this, a terrible mortality occurred among the former. There was a veritable epidemic of acute phthisis.

Lunatics at Liberty.

In resuming his clinical lectures at the Sainte Anne Asylum, Professor Ball delivered a very interesting lecture on Lunatics at Liberty, a subject he had selected *à propos* of the following remarkable case. A very intelligent man,

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occupying a respectable position in the world, married rather late in life, and without knowing the antecedents of his intended wife, whose father had for a long time been insane. This woman was before long seized with the delusion that she was the object of the animosity of her neighbours. The husband at first endeavoured to show his wife her error, but he ended by finding himself drawn into the same delusion. This, the learned Professor observed, was one of those curious cases of dual insanity, or *folie à deux*, which are far from being rare. This man one day went into the street with a revolver in his hand, and, imagining that his honour was impeached, he sought in vain the other lodgers in the house, who, as he supposed, wished to seek a quarrel with him. Of course nobody regarded his challenge. One day he heard a voice provoking him to a duel, and, satisfied that he had found an antagonist, he went at four o'clock in the morning to the place appointed for the combat, outside the fortifications, but found no adversary. Disappointed, he went to the Commissary of Police of his quarter to lodge a complaint. The Commissary advised him in a friendly manner to go and see the Procureur of the Republic, to whom he was conducted. This judicial functionary happened to be a physician, by whom the patient was sent to the Sainte Anne Asylum, where he has been for four years. The man is still in the asylum, but he is stated to be perfectly cured.

La Grippe.

The epidemic of influenza, or *la grippe*, which has been raging in Paris for the last fortnight, is on the decline. No deaths from the disease have been recorded.

Paris, Dec. 17th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Richard von Volkmann.

BEFORE beginning his lecture in the Surgical Hospital here on the day after Volkmann's death, Professor von Bergmann addressed his hearers as follows: "About twenty-five years have elapsed since Volkmann began his academic career. He was one of the first surgeons who "domesticated" Lister's antiseptic method in Germany, and the brilliant successes which he gained by it went far to confirm it and to gain its acceptance. Another part of his work was the study of cancerous tumours, and it occupied him till the last days of his life. His great excellence as a clinical teacher and as a military surgeon during the last campaigns is sufficiently known. But it is not only in his capacity as a scientist and an operator, but also as a man, that we owe him our admiration, for he was in every respect so true a character, so sincere a man, ever mindful of his great and serious duties. He was a poet too, and a fresh breeze blows through his 'Songs from the Vale of the Sarle'; but especially his widely known and popular 'Reveries at French Firesides' are a proof of his poetic endowment, and a memorial of that time of the great war of 1870-71 which was so glorious for Germany. In him a man has departed who succeeded in gaining a name such as few possess, and who in full measure deserves that his memory be warmly cherished by men of science and by the nation." Dr. von Coler, Physician-General to the Prussian Army, has published the following tribute to Volkmann's memory: "Professor Richard von Volkmann, Surgeon-General *à la suite* of the ambulance corps, head of the surgical hospital of the University of Halle, Privy Councillor in Medical Affairs, and knight of high orders, died on the 28th inst. at Jena. The officers of the Ambulance Corps deeply and sorrowfully mourn the departure of one of its most eminent members, a master of German surgery and of the treatment of the sick and wounded in war. As in the campaigns of 1866 and 1870–71, inspired by high patriotism and genuinely philanthropic feeling, friendly to all good and noble things, he devoted his great knowledge and skill to the service of the army, and was a helper and life-saver to thousands. He remained also after the wars as the honoured deliverer of advanced courses of lectures for military surgeons, and as an active adviser, and an indefatigable promoter of the interests of the medical and surgical department of the army. The gratitude we owe the deceased lives on with his memory, which will for long be kept fresh by the rich fruits of his blessed work." On his death-bed Volkmann contributed 150 marks to the fund for the erection of a monument of the Emperor Frederick on the battle-field of Wörth. In the letter which accompanied the gift he wrote with a trembling hand: "I think, too, that the only suitable place for the chief national monument of the Emperor Frederick is Wörth." He added that, if his health permitted, he would do all that in him lay for the realisation of the scheme. The streets through which his funeral passed in Halle were crowded with spectators.

Leprosy.

Government Counsellor Dr. Wernich draws attention to the circumstance that cases of leprosy have recently been observed very frequently in France and Russia. Considering the large traffic between Germany and those countries, this fact is of serious importance to the Germans, for there is no longer any doubt that leprosy is contagious. This fact was rendered probable by Hansen's discovery that leprosy is caused by a bacillus nearly related to the tubercle bacillus, and further by an experiment which Dr. Arning of Hamburg, who studied leprosy in the Sandwich Islands, carried out there. He wished to find out whether leprosy could be produced in a human being by inoculation. Experiments on animals had either failed or yielded ambiguous results. Dr. Arning, supported by the authorities, induced a criminal condemned to death to let himself be inoculated with leprous tissue, and the symptoms of leprosy became distinctly visible in him within a few months. The results of recent investigations are directly opposed to the opinions which formerly prevailed as to the manner in which leprosy spreads. Heredity used to be regarded as the main factor. Statistical inquiries, however, have shown that this is not the case. In Europe leprosy is still endemic in Finland, the Baltic provinces of Russia, some parts of Sweden, and especially in Norway, and those who wished to study it used to go thither. Now, however, the disease can be very conveniently studied in Paris and St. Petersburg.

The Influenza Epidemic in Germany.

Yesterday's telegrams from various German districts give some idea of the dimensions which the influenza epidemic has attained. In Dantzic so many teachers and schoolboys are ill that only some of the usual lessons are being given in the High School, and several other schools are closed altogether. Work is partially paralysed, too, in the offices, especially in printing offices. In Hamburg several schools have had to be closed. At Wandsbeck, near Hamburg, 3000 cases are announced, and three elementary schools are closed. Professor Leyden, of the Charité, spoke to his students on this subject the other day. He emphasised that influenza is a disease of specific character, by no means deserving the disregard with which it is frequently treated. It must not be placed in the same category as common colds. Its special character was indicated by the suddenness and severity of all its symptoms, especially fever, and above all by its pandemic character. He declared that more than a third of the population were ill at present. He also pointed out that this complaint was very often accompanied by deep mental depression, the patient feeling intensely ill all over in a much higher degree than was usual in common colds. For this reason the treatment of the mind and feelings of the patient deserved the special attention of the physician. He discussed the points of resemblance between influenza and the dengue fever, which has been raging of late in Constantinople, Smyrna, and other Turkish cities, and favoured the theory that the former has sprung from the latter, which generally spread from east to west and from south to north. The *Berliner Klinische Wochenschrift* (Berlin Clinical Weekly) writes: "It can no longer be denied that Berlin too has been attacked by the epidemic, though it is difficult to ascertain how widely it has spread, for most of the cases which go by the name of influenza among the laity are really merely imaginary. Anyone who should reckon every slight attack of bronchial catarrh with fever, such as the season brings with it, all colds in the head and headaches, under this rubric, would have to state a very high percentage of cases in Berlin too. Whoever, on the other hand, demands a stricter diagnosis, especially whoever requires a distinct appearance of the nervous symptoms, along with the varying and complex objective symptoms, with the partly catarrhal, partly gastric, disturbances, will be more cautious with his statistics. All trustworthy observers lay special stress on the fact that there is a striking and charac-


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teristic disproportion between the objective symptoms, including even the often high but very transient fever, and the subjective feeling of illness, the weariness and depression. Real cases, however, have also been observed—in the Charité for instance—with absolute certainty, and it has been pointed out that the complaints which are notoriously wont to accompany influenzâ epidemics—viz., catarrhal and croupous pneumonias—have unmistakably increased. In these cases antipyrin or antifebrin seem to have been universally prescribed, with the effect that the subjective state very rapidly improved." A committee of eminent men, including several of the most highly reputed physicians, has been formed for the purpose of tabulating statistics of the epidemic in Berlin, and the assistance of the Statistics Office of the city has been secured.

Professor Rudolf Virchow.

On the 11th inst., the Berlin Anthropological Society presented its President, Professor Rudolf Virchow, with a bronze medallion portrait of himself by Anton Scharff, in remembrance of the foundation of the Society twenty years ago. It held its first public sitting on Dec. 11th, 1869, with Virchow in the chair, and he has been the soul of it ever since.

Berlin, Dec. 17th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

The Influenza Epidemic.

THE number of cases of influenza rapidly increased last week. Most of the lectures and courses at the hospital had to be suspended on account of the illness of the respective lecturers. The hospital wards, which are filled with patients every year at this season, are now so overcrowded that many patients have to lie on the floor, and numbers of people applying for admission have to be refused. Besides the civil, the military portion of the population is also suffering greatly from the disease, and in some regiments here 30 per cent. had to be sent to the military hospitals from that cause. There are, in addition, many thousands of the population under private treatment; but, as there is no compulsory notification, the number cannot be stated even approximately. The weather has been somewhat foggy during the last few days, with a rising temperature. The cases which came under observation were altogether of a mild character, the fever lasting only from twenty-four to thirty-six hours, and the patients recovering after two days. Complications were rare, only two cases of catarrhal pneumonia having been observed as a result of influenza up to the present at the General Hospital; but several cases of relapse in patients who had already recovered from the first attack have been reported to me. Accounts of the outbreak of the disease in several provincial towns of Austria have also been received here. The majority of the physicians in Vienna consider the disease to be non-contagious, and in the course of a lecture delivered last week Professor Nothnagel called attention to the miasmatic character of the disease, which does not spread along the usual lines of traffic.

Demonstrations against a Professor.

At the Gratz University the Professor of Anatomy, Dr. Holl, had, by a recent order of the Minister of Public Instruction, to suspend his examinations on account of demonstrations made by the students.

Vienna, Dec. 16th.

ROYAL COLLEGE OF PHYSICIANS.

A COMITIA of the College of Physicians was held on the 19th inst., Sir Andrew Clark, Bart., President, in the chair. The gift of a portrait of Dr. Chowne, a late Fellow of the College, was announced by the treasurer.

The President stated that he had appointed Dr. Andrew to be the Harveian Orator for 1890, and Dr. Saundby to be Bradshaw Lecturer.

The names of the gentlemen who had recently passed the examination for the diploma of Public Health were submitted, and the diplomas directed to be issued.

Reports upon the subject of Leprosy, furnished by the Colonial Office, from Cyprus and the Cape of Good Hope, were received. Each report expressed belief in the communicability of the disease and the need for measures of isolation. These reports were referred to the Standing Committee on Leprosy.

A communication from the University of London, enclosing a draft scheme of the Senate for reconstituting the University, was next considered, and, after some discussion, was referred to the committee which had been appointed to report on this question.

A communication from the Royal College of Surgeons notifying the appointment of Messrs. Marshall, Hulke, and Bowlby upon the Laboratories Committee, was read; also communications from the Metropolitan Asylums Board respecting the ambulances of the Board, and the question of clinical work in the fever hospitals.

In response to an invitation from the Pharmacopœia Committee of the General Medical Council, the following Fellows were nominated to form a committee to suggest any new remedies it might be desirable to add to the Pharmacopœia:—Sir A. Garrod, Drs. Broadbent, Ord, C. T. Williams, J. M. Bruce, B. Yeo, F. Taylor, Biss, Lees, Murrell, F. T. Roberts, Stone, Warner, and L. Brunton.

The subject of the Regulations for the Diploma of Public Health was referred to the Council to discuss and report to the Committee of Management, with the object of bringing these regulations into harmony with the requirements of the General Medical Council.

On the recommendation of the Council, it was resolved, for the first time, to abrogate the Bye-law (xliii.) relating to vice-presidents, and it was referred to the Council to consider how the duties of vice-president might in future be carried out.

It was also resolved, on the recommendation of the Council, "That the substance of the official communication from the Government, in reference to the terms on which in future English medical men will be allowed to practise in France, be communicated to the medical journals and to the chief daily papers, with the intimation that the Royal College of Physicians has been requested by the Government to make the matter known to the profession in England. And that a subcommittee, composed of the Senior Censor (Dr. Bristowe), Sir William Roberts, M.D., Dr. Pavy, Dr. Pye-Smith, and the Registrar, be appointed to consider the communication from the Foreign Office, and to report thereupon to a future meeting of the Council."

Respecting the extension of the curriculum, the following resolution was passed and directed to be transmitted to the General Medical Council: "That while admitting that the extension of the medical curriculum to five years would conduce to the better education of medical students, and is desirable, they are not prepared at present to make any recommendation on the subject."

It was also resolved to rescind the resolution of the College transferring the nomination of Examiners on the subject of Hygiene to the Committee of Management, and that two Examiners be nominated, as in other subjects, by the Council.

Reports from the Committees upon the Fittings for the new Laboratories, and the Regulations respecting them, were received and adopted; and on the nomination of the President, the following three Fellows were elected as representatives of the College on the Laboratories Committee—Sir W. Roberts, Dr. Pye-Smith, and Dr. Payne. These gentlemen, together with the three nominated by the Royal College of Surgeons (*vide supra*), are empowered to appoint the Director of the Laboratories.

Medical News.

UNIVERSITY OF LONDON: M.D. EXAMINATION.—The following is a list of candidates who have passed the respective examinations mentioned below:—

Medicine.—John Hill Abram, University College, Liverpool; Evelyn Oliver Ashe, London Hospital; Percy Ashworth, B.S., B.Sc., Owens College and Manchester Royal Infirmary; James Thomas Bays, St. Mary's Hospital; Robt. Bird, B.S., St. Bartholomew's Hospital; J. R. Bradford, D.Sc. (Gold Medal), and Weldon Cragg Carter, University College; Wayland Charles Chaffey, St. Bartholomew's Hospital; Wm. Fredk. Clarke, B.S., and Herbert Evelyn Crook, B.S., Guy's Hospital; Hilarn. M. Fernando, B.Sc., and John Lacy Firth, University College; Theodore Fisher, Guy's Hospital; Leonard

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Maurice Gabriel, St. Bartholomew's Hospital; John Edwin Gould, University College; George William Hill, B.Sc., and Arthur Pearson Luff, B.S., St. Mary's Hospital; H. Grabham Lys, London Hospital; Henry John Macevoy, B.Sc., St. Thomas's Hospital; Alfred Alex. Mumford, Manchester Medical School and Royal Infirmary; C. Drummond Muspratt, B.S., Guy's and Sussex County Hospitals; *John Porter Parkinson and Wm. Bramwell Ransom, B.Sc., University College; William Newt Risdon, B.S., Guy's Hospital; Harry Arthur Sansom, St. Thomas's Hospital; Hugh Smith, London Hospital; *Edgar Herbert Thane and Edward Francis Willoughby, University College; William George Willoughby, St. Bartholomew's Hospital.

State Medicine.—Charles Edwd. Baddeley, King's College; F. François Burghard, M.S., Guy's Hospital; William Barltrop Featherstone, Birmingham School.

M.S. Examination.—Henry Percy Dean, B.Sc., University College; Alfred Parkin, Guy's Hospital.

B.S. Examination.—First Division: Alfred George Francis, St. Bartholomew's Hospital; Charles Arthur Kent, B.Sc., University College; Charles MacGowan Kitching and Robert Devereux Mothersole, Guy's Hospital; Berkeley Geo. A. Moynihan, Yorkshire College; Gilbert Benjn. Mower White, University College.—*Second Division:* George Black, Guy's Hospital; Wm. Soltau Fenwick, London Hospital and Strasburg and Berlin; Alfred Downing Fripp, Guy's Hospital; Francis Horatio Napier, St. Bartholomew's Hospital.

* Obtained the number of marks qualifying for the Gold Medal.

COLLEGE OF PHYSICIANS IN IRELAND.—The following gentleman has been admitted a Member of the College:

Albert Croly.

The diploma in Sanitary Science has been obtained by

James H. Poland.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—FELLOWSHIP EXAMINATIONS.—The following gentlemen, having passed the necessary examination, were admitted Fellows of the College:—

Louis Aloysius Byrne, L.R.C.S.I. 1885, L.K.Q.C.P.I. 1886, and Edmund Rundle, L.R.C.S.I. 1878, L.K.Q.C.P.I.

NEW MUZZLING ORDER.—A new muzzling order is published in a supplement to the *London Gazette* of Wednesday, extending the regulations at present in force, and making them applicable to various boroughs and counties throughout England, which is to take effect from and after Dec. 31st until further notice.

RABIES.—The number of dogs in England officially reported during the week ending Dec. 7th as affected with rabies was six against three in the previous week. All were killed. The distribution was as follows:—Kent, Middlesex, and Surrey (all exclusive of London) one each; York (West Riding) three.

SOCIETY FOR THE STUDY OF INEBRIETY.—A quarterly meeting will be held on Jan. 7th, 1890, in the rooms of the Medical Society of London, Chandos-street, Cavendish-square, at 4 o'clock, the President, Dr. Norman Kerr, in the chair. Paper: "The Law relating to Drunkenness and Inebriety," by J. R. McIlraith, Esq., M.A., LL.B., of the Middle Temple, barrister-at-law, Associate.

INFECTIOUS HOSPITAL, SURREY.—Last week, the deputations from the Sutton and Carshalton Local Boards met the members of the Epsom Board in committee to consider the advisability of erecting a joint fever hospital for the parishes of Epsom, Carshalton, and Sutton. It was unanimously decided that such a hospital was desirable for the combined districts. The plans &c. are to be the subject of further discussion.

THE COUNTESS OF DUFFERIN'S FUND.—The first annual report of the United Kingdom Branch of the National Association for Supplying Female Medical Aid to the Women of India is of an encouraging character. Since the fund opened in England in March last £1239 9*s.* has been received in subscriptions and donations; of this amount £310 19*s.* 5*d.* has been expended, leaving a balance on Nov. 30th of £1481 10*s.* 6*d.* When in full operation it is estimated that the United Kingdom Branch will require at least £1000 annually, and this sum the committee would like to make up by a thousand annual subscriptions of £1 each from as many ladies in Great Britain and Ireland. A good many requests have from time to time been received for information regarding the position and prospects in India of lady doctors, midwives, and nurses; these have been promptly complied with, and the applications for employment have been registered to meet the demands of the central committee; but it is not expected that any but fully qualified lady doctors will be required from home, the Indian Schools of Medicine being able to supply the nurses, compounders and dressers, &c.

THE NOTIFICATION ACT.—At the usual meeting of the Metropolitan Asylums Board on Saturday last the chairman stated that under the new Act the notification of all infectious diseases fortnightly in the metropolis during the last two months had been successively 925, 756, 657, 638, and 632.

THE INFLUENZA EPIDEMIC IN DUNDEE.—The steamer *Moravia*, at Dundee from Riga, had three of her crew suffering from the influenza epidemic, contracted by them while at Riga. Almost all the crew were ailing during the voyage, some getting better in a couple of days, whilst others suffered for ten days. They first chilled, then fever supervened, followed by an irritating cough, and then the malady subsided. Every precaution was taken to prevent the contagion spreading from the vessel.

DUNDEE FEVER HOSPITAL.—This new hospital, for the treatment of fever and other infectious diseases, erected by the Police Commissioners at King's Cross, in the northern suburbs of the city, was formally opened by Provost Hunter on the 11th inst. At present only one administrative block and two pavilion wards, each of which contains eighteen beds, have been erected, but the completed plan will comprise five additional pavilions. The present outlay amounts to between £15,000 and £16,000.

GREAT NORTHERN CENTRAL HOSPITAL.—A Loan Exhibition of pictures and other works of art in aid of the building fund of the Great Northern Central Hospital is to be opened by the Marchioness of Lorne, on Monday, Jan. 6th, 1890, in the gallery of the Camden School of Art, 4, St. Bartholomew-road, Camden-road, N. The exhibition will consist of a large number of interesting and valuable works by some of our most distinguished artists and sculptors, and will remain open for ten days.

THE AYR COUNTY HOSPITAL.—At the annual meeting of the supporters of this hospital, on the 9th inst., the report, which was adopted, showed that the total income for the year had been £1528, and the expenditure £1773, showing an excess of expenditure over income of £245. The total amount of debt still on the institution was £2900. The chairman intimated that the Marquis of Bute, the Earl of Stair, and thirteen other gentlemen, had agreed to each subscribe £100 towards clearing off the debt of the hospital—total, £1500.

A MORTUARY FOR GODALMING.—At a recent inquest held at the Charterhouse Arms, the jury, on viewing the corpse, which was lying in a stable of the inn, were greatly shocked at the wet condition of the body through the dilapidated state of the building. Subsequently the coroner expressed the necessity of providing a mortuary for the district of Godalming, urging the jury to take the necessary steps for that purpose with the proper authority. This has been done, and the question will be brought before the Burial Board at the next meeting.

VICTORIA UNIVERSITY.—The following appointments to vacant examinerships were made by the Council at a meeting held on Dec. 12th:—External Examiner in Medicine: Sir Dyce Duckworth, M.D., F.R.C.P. Edin., Lecturer on Clinical Medicine, St. Bartholomew's Hospital, London. External Examiner in Materia Medica and Pharmacy: J. Mitchell Bruce, M.D., F.R.C.P., Lecturer on Therapeutics, Charing-cros Hospital, London. External Examiner in Botany: G. R. M. Murray, F.L.S., senior assistant, Department of Botany, British Museum.

THE POLLUTION OF YORKSHIRE RIVERS.—At an important meeting of the Conservators of Yorkshire Fisheries, held at York last week, a report was presented by the committee appointed to consider the York sewage scheme, and a letter was read from the Local Government Board stating that they were not satisfied that the effluent resulting from the proposed chemical treatment would be properly purified unless it were passed over and through land, and that they would not be prepared to sanction the proposed sewage scheme unless it included satisfactory provision for that purpose. A letter was read from the Ilkley Angling Club, complaining of the pollution of the River Wharfe and the destruction of fish. The pollution of the Swale, at Ripon, the Skell, and the Aire was referred to, and a committee was appointed to communicate with the County Councils with reference to the pollution of the rivers of Yorkshire. The meeting con-


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sidered other questions of public interest, including the Wharfe navigation improvement scheme, the protection of grayling, and the illicit traffic in salmon.

SAVAGE ATTACK ON A PRISON DOCTOR.—At Usk Prison recently, while Mr. D. F. Boulton, the medical officer, was going his round, he was attacked by a prisoner named Williams. The door of the prisoner's cell was opened by an attendant warder for the doctor to enter, and the latter was immediately afterwards felled by Williams, who struck Mr. Boulton on the head with a heavy roller. The doctor fell insensible, but the warder prevented any further injury. Williams was immediately taken before the visiting justices, and was sentenced to thirty-six strokes with the cat.

INCREASED ACCOMMODATION FOR LUNATICS IN SOMERSET.—On the 5th inst. a conference of the Asylum Committee of the Somerset County Council and the representatives of Boards of Guardians of the county was held at the Town Hall, Highbridge, to consider the question of accommodation for lunatics, idiots, and imbeciles. The meeting was arranged consequent upon a report from the committee that there were few vacant beds in the institution at Wells. After a prolonged discussion it was resolved that a second asylum be built in the western part of the county.

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION. The official inspection and examination took place this week at the headquarters of the London Scottish R.V. The examiners were Surgeons Barnes and Gubbin, Medical Staff. Forty-four men were sent up and all passed. After being taken through a course of stretcher drill, each man had a searching *vivâ-voce* examination. At the conclusion Surgeon Barnes congratulated Surgeon Pearce on the result, and told the men that the class was by far the best he had ever inspected. The next class will be held at the Artists' headquarters, commencing Thursday, Feb. 6th, 1890.

HOSPITAL SUNDAY IN MELBOURNE: A GOOD EXAMPLE.—Oct. 27th was Hospital Sunday in Melbourne. The church that occupies the pride of place in the list is St. John's Church of England, in Toorak, a fashionable suburb. St. John's is credited with a total collection of £1017 12*s.* 6*d.*, but half of this goodly sum is the gift of a wealthy parishioner, the Hon. M. H. Davies, Speaker of the Legislative Assembly. Mr. Davies regularly places a cheque for £500 in the plate every Hospital Sunday. Not long ago he distributed £10,000 amongst the Melbourne charities.

SUICIDE OF A LONDON PRACTITIONER. — Mr. Edward Sandwell, L.R.C.P. Edin., M.R.C.S. Eng., of 10, Soho-street, Soho-square, aged fifty-one, made an attempt to commit suicide on the 12th inst. by inflicting severe wounds with a knife in his throat, and was conveyed to the Middlesex Hospital, where death supervened on Saturday last. The evidence at the inquest was to the effect that the deceased had been very depressed since August last. His memory was impaired, and he was feeble and childish, but attended patients until the day previously to the attempt. His mind lately was somewhat deranged, and steps had been taken to place him under restraint.

ST. ANDREW'S AMBULANCE ASSOCIATION, CRIEFF.—On Saturday, the 14th, Dr. Thom's second course of lectures was brought to a conclusion, when Dr. John Dunlop of Glasgow examined the pupils, both ladies and gentlemen, for certificates and medallions. There were fifty-two on the roll, and of these thirty-eight presented themselves for examination. The examination was, as usual, largely practical, and at the close Dr. Dunlop said that, though he was not permitted to state anything definitely as to the result, since his report had first to go to headquarters, he would simply remark that he was well satisfied, and that Dr. Thom had evidently spared no pains to bring them to a high state of efficiency. He inculcated prudence and modesty in the application of their knowledge. Dr. Thom's first course of lectures was delivered nearly four years ago, when there were over a hundred on the roll, and nearly seventy passed the examination. Besides these lectures, Dr. Thom has during the last five years conducted two courses of instruction for Volunteers, of whom over twenty have passed the War Office examination, wear the Geneva Cross, and constitute the stretcher-bearers of the 4th Volunteer Battalion of the Royal Highlanders (Black Watch), in which corps Dr. Thom holds the rank of surgeon.

METROPOLITAN AND PROVINCIAL HOSPITAL SUNDAY COLLECTIONS.—The committee of the Pimlico United Temperance, Friendly, and other Societies' Sunday demonstration, which took place a short time since in aid of the funds of the Belgrave Hospital for Sick Children, last week handed over to the Hospital authorities £130 17*s.*—The net result of the current year's Hospital Sunday collections at Hull amounted to £610, which is to be divided thus: Hull Royal Infirmary, £480; Dispensary, £62; Children's Hospital, £51; and Homœopathic Dispensary, £17.

EMIN PASHA'S CONDITION. — A telegram from Zanzibar dated the 12th inst. gives the following bulletin respecting Emin Pasha's condition received from Bagamoyo: "Emin Pasha suffered severely on the evening of the 9th inst. from a distressing cough and difficulty in expectoration, but was somewhat better yesterday. All signs of blood in the sputa have gone, and the injured eye is almost completely restored. Serum still continues to ooze from the right ear. The patient requires assistance in every movement, owing to the severe contusions, the discoloration of which is, however, gradually going. He is in good spirits. (Signed) PARKE, Surgeon."

BEQUESTS AND DONATIONS TO HOSPITALS.—The Corporation of London has granted 100 guineas to the Royal Maternity Charity, Finsbury-square, and 200 guineas to the Royal General Dispensary, Bartholomew Close.—The late Mr. Charles William Stoughton, of Grosvenor-place, Belgrave-square, London, has bequeathed £300 to the St. George's Hospital, Hyde Park Corner.—Mr. William Westgarth, late of Bolton-gardens, London, has left by his will £500 to the Edinburgh Infirmary.—The City of Dublin Hospital has received £300 under the will of Mrs. McDowell, and a similar amount from the executors of the late Mr. J. R. Berwick.

THE SANITARY DEPOT, HORNSEY.—Mr. R. D. M. Littler, Q.C., chairman of the Middlesex County Council, formally opened on the 13th inst. a new sanitary depôt for Hornsey, erected in the High Street by the Local Board of Health. The prominent features of the depôt are a mortuary with coroner's court and necessary accessories, and a dust destructor for destroying the house and road refuse of the parish. In the first instance the Board erected the mortuary. Subsequently, a steam laundry, disinfector, fumigator, ambulance sheds with stabling, and finally the building for the treatment of house &c. refuse. The cost of the whole works has been about £13,000.

NEUROTIC SCHOOL BOARD CHILDREN.—On Thursday afternoon at the meeting of the School Board for London, Dr. Savage, on behalf of a deputation from the Council of the British Medical Association, presented a memorial pointing out that many children were nervously unfitted for the ordinary course of instruction, but might receive a useful education if it were conducted on special lines. There were children of so peculiar a brain construction that unless the defect were early detected and specially treated, they would develop into criminals and vagabonds. On the motion of Dr. Gladstone, the request for permission to examine all Board school children was referred to the management committee.

THE VICTORIA INFIRMARY OF GLASGOW.—At the second annual meeting of the Court of Contributors held on Thursday, the 5th inst., the governors in their report regretted their inability to announce the completion of the section of the buildings at present in course of construction, and the opening of them for the reception of patients, owing to the strikes and other causes. The completion and opening may, however, be expected some time next month (January, 1890). The principal wards, corridors, and staircases will be lighted by electricity, which, with the heating and ventilating improvements adopted, will conduce to the health and comfort of the patients. Dr. Donald Mackintosh, formerly resident assistant in the Eye Infirmary, and subsequently senior assistant in Belvidere Hospital, has been appointed resident medical superintendent of the Victoria Infirmary out of many applicants for the post. The report acknowledges the great practical ability brought to bear by the governors specially elected by the representatives of workmen contributing to the funds of the institution on many of the matters connected with the erection of the buildings, and which has been of eminent service to the board

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Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ASHE, E. OLIVER, M.D. Lond., late House Physician, has been appointed House Surgeon to the London Hospital.

BIRKENHEAD, HAROLD, L.R.C.P. Lond., M.R.C.S., has been appointed Junior House Surgeon to the Royal Albert Edward Infirmary and Dispensary, Wigan, vice E. C. Lomas, M.B. Vict., M.R.C.S., promoted to be Senior House Surgeon.

BOSWELL, J. J., M.D. & L.R.C.P. Lond., has been reappointed Medical Officer to the Port and Union District, Faversham.

BROWN, JOHN, M.D. Vict., B.S., D.S.Sci., &c., has been reappointed Medical Officer of Health to the Borough of Bacup, and Physician to the Sourhall Fever Hospital.

BURGHARD, FRÉDÉRIC F., M.D., M.S. Lond., F.R.C.S., late Surgical Registrar to Guy's Hospital, has been appointed Assistant Surgeon to King's College Hospital, vice Mr. Watson Cheyne, F.R.C.S., appointed Surgeon.

BURKITT, J. C. S., M.D., M.Ch. Irel., has been reappointed Medical Officer for the Whitwick Union District.

DAVISON, JAMES, M.D., M.R.C.P., has been appointed Honorary Physician to the National Sanatorium for Consumption and Diseases of the Chest, Bournemouth, vice Dr. Falls, deceased.

DEAN, THOS., M.D. St. And., M.R.C.S., has been reappointed Medical Officer to the Burnley Union and Rural Districts.

DUCKET, C. ALEX., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Great Yarmouth Hospital.

FRY, J. FARRANT, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of the Shepton Mallet District Hospital.

HARRISON, A. J., M.B. Lond., M.R.C.S., L.S.A., has been reappointed Physician to the Bristol General Hospital.

HICKS, PHILIP, B.A., M.B. & B.S. Cantab., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Warneford Hospital, Leamington, vice Bernard Rice, M.D. Lond., resigned.

HINGSTON, ANDREW, M.R.C.S., L.S.A., has been reappointed Medical Officer of Liskeard Union District.

IDESON, J. J., L.S.A., has been reappointed Medical Officer for the Colne District of the Burnley Union.

JOLLY, S. BLAKE, M.B. Cantab., M.R.C.S., L.S.A., has been appointed Medical Officer of Health to the Lewisham District.

LAWSON, SAMUEL, L.F.P.S., L.M. Glas., has been reappointed Medical Officer for the Marsden District of the Burnley Union.

MACLEOD, CHARLES G., M.A., M.B., C.M. Edin., L.R.C.P., has been appointed Junior Assistant Medical Officer to the Saint Andrew's Hospital, Northampton, vice A. L. F. Robertson-Fullerton, M.B., C.M., resigned.

MARSH, N. P., M.B. Lond., M.R.C.S., has been appointed Physician to the Children's Infirmary, Myrtle-street, Liverpool.

PEARSON, A. E., M.R.C.S., L.R.C.P. Edin., has been appointed Resident Medical Officer to the Leeds Borough Hospitals, vice J. Hick, M.R.C.S., L.R.C.P. Edin., resigned.

RHODES, JAMES, M.R.C.S., L.S.A., has been reappointed Medical Officer to the Glossop Union and Rural Districts.

STIRLING, ALEX. WILLIAMSON, M.D. Edin., has been appointed Medical Officer of Health for Grays, Essex, vice S. J. J. Kirby, M.D., resigned.

TEED, F. L., has been appointed Public Analyst for Camberwell.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BIRMINGHAM AND MIDLAND SKIN AND LOCK HOSPITAL.—A Third Officer on the Acting Medical Staff.

CHELMSFORD UNION, Chelmsford.—Medical Officer, including the office of Public Vaccinator, for the Eighth District of this Union. Salary £140 per annum (which includes all medicines and appliances), together with the extra fees allowed by the Orders of the Local Government Board, and a sum of 12s. 6d. for each Midwifery case. The Vaccination Fees are 2s. 6d. at the surgery or within a mile from the Vaccinator's residence, 3s. up to two miles, and 4s. over that distance.

CHELTENHAM GENERAL HOSPITAL.—House Surgeon. Salary £80 per annum, with board and apartments.

DERBYSHIRE GENERAL INFIRMARY.—Resident Assistant House Surgeon, for six months. No salary, but a bonus of £10 is given.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—Surgeon to the Out-patients of this hospital.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—Surgical Registrar for one year. Honorarium of £40 at the end of the term.

LEEDS GENERAL INFIRMARY.—Resident Ophthalmic Officer, for six months. Board &c. will be provided, and an honorarium of £50 given at the expiration of the six months, if the officer's conduct is satisfactory.

LIVERPOOL NORTHERN HOSPITAL.—House Surgeon and Assistant House Surgeon. Salaries £100 and £70 per annum respectively, with residence and maintenance in the house.

MERCER'S HOSPITAL, Mercer-street, Dublin.—Physician.

NORTHAMPTON GENERAL INFIRMARY.—House Surgeon. Salary £125 per annum, with furnished apartments, board, attendance, and washing.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House Surgeon for six months, Board, lodging and washing, no salary.

ROYAL BERKS HOSPITAL, Reading.—House Surgeon. Salary £80 per annum, with board and lodging.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Physician, and a House Surgeon, for six months. Board and lodging are provided.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Two Honorary Gynæcologists.

Births, Marriages, and Deaths.

BIRTHS.

BREACH.—On Dec. 11th, at The Cottage, Yattendon, Berks, the wife of J. H. Breach, M.R.C.S., of a daughter.

COOKE.—On Dec. 9th, at Warrior-square, St. Leonards-on-Sea, the wife of John Cooke, M.B. Lond., of a son.

DAVENPORT.—On Dec. 6th, at St. Kilda, Melbourne, the wife of Dr. Arthur F. Davenport, of a daughter.

DISMORR.—On Dec. 12th, at Tudor Lodge, Lewisham, the wife of Henry Dismorr, M.R.C.S., of a daughter.

HILL.—On Dec. 9th, at Southsea, the wife of Surgeon C. B. Hill, Medical Staff, of a daughter.

PECHELL.—On Dec. 11th, at Curragh Camp, Ireland, the wife of Surgeon A. A. Pechell, M.B., Medical Staff, of a son.

RITCHIE.—On Dec. 4th, at Tranent, N.B., the wife of D. Ritchie, M.D., of a son.

RYLE.—On Dec. 12th, at Northland, Hadley-green, Barnet, the wife of Dr. R. J. Ryle, of a son.

TAYLOR.—On Dec. 16th, at Kennington-park-road, S.E., the wife of Herbert Taylor, M.B., of a son.

MARRIAGES.

BATEMAN—GARROD.—On Dec. 11th, at St. Mary's, Bath, by the Rev. Prebendary Coleman, assisted by the Rev. J. S. Barrett, Frederic John Brownfield Bateman, L.R.C.P., L.R.C.S. Ed., eldest son of Dr. Bateman, F.R.C.P., J.P., of Norwich, and of Burlingham Lodge, Alburgh, Norfolk, to Mary Stuart, daughter of the late C. W. Garrod, Esq., solicitor, Wells, Somerset.

ELKINGTON—OMMANNEY.—On Nov. 20th, at St. John's Church, Peshâwur, Henry Percival George Elkington, Surgeon Medical Staff, to Helen Violet, third daughter of Coll. E. L. Ommanney, C.S.I., B.S.C., Commissioner, Peshâwur.

FROSSARD—MARTIN.—On Dec. 17th, at St. Mark's, Lewisham, Emilien Edward Frossard, M.R.C.S., L.R.C.P., of Bishop's Lydeard, Somersetshire, son of the Rev. Emilien S. Frossard, M.A., late Chaplain of the British Consulate, Bordeaux, to Margaret Rosina, daughter of David Martin, formerly of Croydon, granddaughter of the late Rev. Francis Martin, of London and Bordeaux.

HARDING—ROBERTS.—On Dec. 11th, at Holy Trinity Church, Eastbourne, Charles O'Brien Harding, M.R.C.S., L.R.C.P. Lond., of Highbury, third son of the late J. F. Harding, Esq., of Highbury New Park, to Amy Persis, third daughter of Bransby Roberts, M.D., of Badlesmere, Eastbourne.

LAING—LEITH.—On Dec. 10th, at St. John's Church, Hollington, Alfred William Laing, M.R.C.S., L.R.C.P., of Wellington Lodge, Hastings (late of Summerfield, Putney), to Laura Leighton Leith, youngest daughter of the late R. W. J. Leith, of Castelnau, Barnes, and goddaughter of the late W. Leighton Nutter and Mrs. W. L. Nutter, of Brookwood.

LESLIE—CHANDLER.—On Nov. 7th, at St. Andrew's Church, Calcutta, Surgeon J. T. W. Leslie, M.B., L.M.S., to Eleanor, daughter of the late E. G. Chandler, Esq.

SWEETNAM—HARBORD.—On Dec. 14th, at St. George's, Bloomsbury, J. L. Sweetnam, Staff Surgeon Royal Navy, to Rosalie Harriet, widow of the Rev. C. H. Harbord, R.N., and daughter of the late Major-General R. R. Ricketts, H.M. Indian Army.

WALES—ASTON.—On Dec. 11th, by licence, at Ingoldmells Church, Lincolnshire, A. Wellesley Wales, L.R.C.P.E., L.R.C.S.E., L.A.H.D., Church View, Burringham, Doncaster, late Resident Surgeon, County Antrim Infirmary, Ireland, son of George F. Wales, Esq., M.D., F.R.C.S.E., Landscape, Greenisland, Belfast, to Clara E. Aston, daughter of the late Joseph Aston, Esq., M.R.C.S.E., L.A.C., &c., Barnetby, Ulceby, Lincolnshire.

DEATHS.

HOYLAND.—On Dec. 13th, at Whitworth-road, South Norwood, Charles William Hoyland F.R.C.S., aged 82.

IRVING.—On Dec. 12th, at The Terrace, Tunbridge, Charles Irving, surgeon, aged 44.

TODD.—On Dec. 17th, at 51, Earlham-grove, Forest-gate, John Waterloo Todd, M.R.C.S., L.S.A., formerly of 301, Mile-end-road, E., aged 74.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, December 19th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Dec. 13	29·84	S.	46	45	53	48	30	·01	Raining
,, 14	30·17	N.	37	37	..	42	35	·16	Foggy
,, 15	30·43	W.	37	36	..	47	35	..	Foggy
,, 16	30·43	W.	47	46	..	51	36	·02	Overcast
,, 17	30·46	S.W.	51	50	..	55	46	·05	Overcast
,, 18	30·30	S.W.	52	50	..	53	49	·01	Overcast
,, 19	30·36	W.	39	39	49	42	38	·03	Foggy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

POOR PAY FOR APPOINTMENTS TO COLLIERIES, &c.

A Subscriber sends us a form of contract required by a colliery company to be signed by any medical man undertaking to attend their *employés* and their families—say 3600 for £300 a year, or 1*s.* 8*d.* per head per annum, or a farthing and a half per member per week. But even these terms are further complicated and reduced by his undertaking to provide medicines, &c.—which "&c." is a very large order—and by a peculiarly shabby provision that when an additional opinion is required, even in the view of the company, the unfortunate medical man is to provide it at his own expense! Our correspondent thinks we should put our readers on their guard against such engagements, binding for five years on the practitioner, who, on the other hand, may be dismissed by the company at six months' notice. But it would be a poor compliment to our readers to think that they have not sense enough to guard themselves against such illiberal terms.

M.D.—1. The *Medical Record* (New York).—For replies to the other questions we would advise application to Sell's, Fleet-street, London.

Dr. Bell Taylor.—The reports have been received.

THE MASON DEFENCE FUND.

To the Editors of THE LANCET.

SIRS,—The readers of your widely circulated journal are already made acquainted with the trial at law of Mason *v.* Chevens, and it is unnecessary to give further particulars of it, unless to state that it was a professional rather than a personal action, affecting as it mainly does Poor-law medical officers. The Colchester Medical Society, of which Mr. Mason is a member, has already collected at its first meeting the sum of £7 17*s.* 6*d.* towards a fund for defraying the amount of £150, of which Mr. Mason is out of pocket. May I ask you to have the kindness to receive contributions towards this fund? and I shall be happy to act as local treasurer for this district and forward to you a list of such contributions as I may receive.

I am, Sirs, yours faithfully,

GEORGE BROWN, M.D.,
Hon. Sec. to Colchester Medical Society.

Headgate, Colchester, Dec. 18th, 1889.

*** We shall be happy to receive subscriptions on behalf of the Fund.—ED. L.

ENGLISH DOCTORS IN FRANCE.

Fairplay.—A French physician does not require to pass the examination of the English Colleges. He might practise in England without interference.

Mr. Quinby (Liverpool).—The paper will be published in an early number.

"THE COMPARATIVE SAFETY OF ANÆSTHETICS."

Sir Walter Simpson, Bart., writes to us upon the above much-vexed question. He says he is "surprised" how doctors discuss the question, as if it were of any "practical importance." Why our correspondent regards it as trivial is because, "statistically speaking, the percentage of deaths under anæsthetics is so small as to be practically *nil*." He institutes a comparison between deaths due to railway accidents and those arising from anæsthetics; but the parallelism is too strained for persons who, like ourselves, are not mere statisticians to grasp. As far as we are able to understand Sir Walter Simpson, he regards chloroform as a fitting toy for children to play with, and dubs the ordinary precautions taken by skilled chloroformists as superstition. Sir James Y. Simpson, when first experimenting with chloroform, certainly regarded it as a perfectly safe agent; but, unfortunately, the experience which has accrued during the past forty years has shown his belief to have been too sanguine. To a person who looks upon human beings as mere units, useful in making up statistics, a loss of one life in every 2000 or 3000 may seem a bagatelle; but to the medical man, who has to deal with the individual, and, what is more, with the individual's friends, the case is otherwise, and he asks himself, "Could I by any means in my power have saved that life?" If the answer is "Yes," that medical man is—and, we think, rightly—self-condemned, even though the fatality is as a grain of sand in the view of the statistician.

Mr. H. E. H. Matthews.—So far as we can tell, the only apparently suitable place for the case would be one of the undermentioned institutions:—Cripples' Nursery, 15, Park-place, Clarence-gate, Regent's-park; Home for Crippled Children, 17, White Ladies-road, Clifton, Bristol.

W. W.—1. B should be guided by the rule of the place, of which A will inform him. The rule varies in different places.—2. The confusion of names must be met by each practitioner being particular in the description of his own Christian names and professional titles.

C. M. F. and *M.B.* have not enclosed their cards.

HOW DISINFECTION SHOULD BE CARRIED OUT.

To the Editors of THE LANCET.

SIRS,—I shall feel obliged if you will kindly favour me with a reply to the following questions.

In my experience the manner of disinfecting infected premises, as carried out by the sanitary authorities, appears unsatisfactory. The bedding and bed linen are carried from the sick room through the house to their vans, thereby spreading through the house the contagion which up to that time had been confined, as far as possible, to the one room—the room itself being *afterwards* disinfected. In a case of scarlet fever, which only remained in a house a few hours after its development, and in which the attending practitioner fumigated the room for two hours with specially prepared sulphur, the officers of the sanitary authority persisted in carrying out their own process of disinfection. As these matters closely concern medical men in the approaching compulsory notification of infectious disease, I should like to know—(1) Whether their method is a safe one, and if it is the usual one? (2) Whether the authorities have power to enforce their own measures in a case like the one referred to? And (3) Whether a private practitioner would render himself liable by refusing to permit further interference in such cases.

I am sorry to have troubled you with such a matter, but, as I believe it is one upon which we should clearly understand our position, I trust you will favour me. I am, Sirs, yours obediently,

Dec. 11th, 1889. M.R.C.S.

*** 1. We feel convinced that the risk of removing such articles as bedding from an infected room, through the same house as that room is situated in, to a van with a view to disinfection at a properly fitted station, is not to be compared with the much greater risk of professing to disinfect bedding in the infected room. No bedding can be properly disinfected unless it is thoroughly penetrated by a high temperature, unless it is entirely taken to pieces, and each part—as in the case of feathers—exposed to an efficient disinfectant in detail. Hence, attempts to disinfect bedding in private houses must be regarded as most untrustworthy.—2. The sanitary authority has power to enforce "disinfection," and mere exposure of bedding and similar articles to fumes of sulphur or chlorine is certainly not "disinfection" in the proper sense of that term.—3. A private practitioner has no right to interfere with the officers of the sanitary authority in such cases. The owner of the bedding might do so, but, if summoned for obstructing the officers in the performance of their duty, the decision of the magistrates would depend on the evidence submitted to them as to the efficiency or otherwise of the fumigation process; and we doubt whether anyone having skilled knowledge as to disinfecting processes would venture to assert that articles such as bedding, which are so difficult of penetration, could be efficiently disinfected by the exposure of their surfaces to sulphur fumes.—ED. L.

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Medical Practice in the Bible.

M. A. asks what prospects for practice a British-educated and registered medical man would have in Jerusalem, and what would be the cost of a Hebrew Bible in the Greek would be most likely to afford him some chance for practice.

C. F. L.—There can be little doubt, we think, of the liability of F. R.—to the Employers' Liability Act, and we recommend him to submit the correspondence to his Solicitor.

A.—The grievance has been repeatedly commented on in THE LANCET. If each person reports to the Registrar-General the number of births he attends, the returns will be complete and perfect.

A. S.—The anæsthetic referred to may be one of the substances sold for the purpose of producing local anæsthesia. The anæsthetics in compliance on the medical man.

Charles pen.—We do not prescribe.

PERIODICAL WORD IN ACUTE RHEUMATISM.

To the Editors of THE LANCET.

SIRS,—Having read with interest, in your issue of Nov. 26th, the case reported by our late fellow-student, Dr. Arthur L. Marshall, of Bristol, I should like to add my testimony to the value of the periodical word in acute rheumatism. I have had a considerable number of cases under my care during the last few years, and have always found that the periodical word has given relief in a very short time. I have also found it of great service in the treatment of sciatica, and in one case of lumbago. The periodical word is, I believe, a combination of salicylic acid and quinine. The case under my care at present is one of acute rheumatism, and I find that the periodical word has given relief in a very short time. I have also found it of great service in the treatment of sciatica, and in one case of lumbago. The periodical word is, I believe, a combination of salicylic acid and quinine. The case under my care at present is one of acute rheumatism, and I find that the periodical word has given relief in a very short time.

I am, Sirs, yours faithfully,

F.R.C.P.

THE RATING OF CHEMISTS' SHOPS.

To the Editors of THE LANCET.

SIRS,—I should be very grateful if [illegible] of your readers who [illegible] of such assessments, in which case I am interested. A certain chemist [illegible] has been assessed at £40, and I am informed that the assessment [illegible] is the highest of any [illegible] in the district. Is this correct? Is [illegible] the highest? Is [illegible] the highest? Is [illegible] the highest?

I am, Sirs, yours faithfully,

Dec. 19th, 1898. F.R.C.P.

THE SANITARY CONDITION OF SCHOOLS.

To the Editors of THE LANCET.

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We are, Sirs, yours faithfully,

The Sanitary Office, Dec. 19th, 1898. ALEX. C. ROBERTS, Sec.

Marine-parade, Dec. 19th, 1898.

A Physician's Estate of Experience in a pronouncements come at

ADVANCE PAYMENT.

A. F. D. There is no doubt that the [illegible] statements made are that our correspondents could have been justified in supplying [illegible] public competition. Much consideration to due to the partner of a [illegible] who have the responsibility of this gift to their hands.

A.—The grievance has been repeatedly commented on in THE LANCET. The Registrar of the University.—A. Parker or Wilson Hayden, Chester's Health Acts.

A. S.—The anæsthetic referred to may be one of the substances sold for the purpose of producing local anæsthesia. The anæsthetics in compliance on the medical man.

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I am, Sirs, yours faithfully,

Chipping-Norton, Dec. 6th, 1898. ARTHUR L. MARSHALL.

HUMANE RULES FOR BOOTMAKERS.

To the Editors of THE LANCET.

SIRS,—Gladness such as I am still now recently read for bootmakers should [illegible] of [illegible] to [illegible] the [illegible] of [illegible] [illegible] [illegible]

and Co., London; Mr. J. F. Horne, Barnsley; Messrs. Fairbridge and Son, London; Surgeon-General Maclean, Southampton; Mr. Erskine Hill, London; Mr. A. G. R. Foulerton, Chatham; Messrs. Back and Co., London; Mr. W. B. Cousens, Taunton; Dr. J. Phillips, London; Mr. Boobbyer, Nottingham; Dr. Thom, Crieff; Messrs. Hughes and Morris, London; Dr. Milson, Finchley; Mrs. Hartland; Messrs. Lee and Nightingale, Liverpool; Mr. F. Bramwell, London; Messrs. Fry and Sons, Bristol; Dr. M. Mackintosh, London; Messrs. Benson and Co., London; Mr. Merlin, Sutton; Dr. Gason, Rome; Messrs. W. and A. K. Johnstone, Edinburgh; Dr. Rutherfoord; Messrs. Waterloo and Sons, London; Mr. H. Lee; Dr. Barnard, Paris; Mr. Leonard Mark, London; Dr. Warden, Birmingham; Mr. R. Williams, London; Dr. Bontor, Berkhampstead; Dr. Sheen, Cardiff; Dr. R. H. Lloyd, London; Mr. W. Marriott, London; Mr. H. Case, Watford; Dr. G. Brown, Colchester; Mr. Diggens, Devonport; Dr. Glassier, Southport; Mr. Rimmer, London; Mr. H. Sell, London; Mr. Round, Southwark; Dr. Lindsay, U.S.A.; Mrs. Campbell, London; Dr. Gangitano, Naples; Mr. Ford, Devonport; Mr. Hubbersty, Stamford; Mr. J. B. Browne, London; Mr. Jenkins, Dresden; Dr. Skrimshire, Norfolk; Mr. Vickers, London; Mr. Frowde, London; Messrs. Kilner Bros., London; M. Berthier, Paris; Mr. Hugo, Reading; Mr. Williams, Cardiff; Dr. MacLean, Herts; Mr. Pentland, Edinburgh; Mr. Stern, London; Mr. Cornish, Bloomsbury; Dr. Carley, Dublin; Dr. Dulles, Philadelphia; Mr. Hatchard, Piccadilly; Mr. Sutton, Crewe; Mr. T. Cooke, London; Dr. McLauchlan, Edgbaston; J. C. R.; An Invalid; L.R.C.P.; B.S.Lond., F.R.C.S.Eng.; R. & D.; G. P. L.; Jeyes' Sanitary Compound Co., London; P. Q. R.; A. B.; Secretary, Royal Albert Asylum, Lancaster; Alpha, Dublin; University, London; Another G.P.; Yorkshire, London; Gwalia, Swansea; G. N., Birmingham; An Unqualified Assistant.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Tully, Hastings; Mr. Eyre, Pontypool; Dr. Fausset, Tamworth; Mr. Tyte, Minchinhampton; Dr. Monckton, Marden; Mrs. Nicholl, Cowbridge; Dr. Poole, Lancashire; Mr. G. Beal, Brighton; Mr. Savage, South Africa; Mr. Shelly, Bilston; Mr. Wyley, Coventry; Messrs. Reed and Co., Bristol; Mr. Lindsay, Enniscorthy; Messrs. Marshall and Co., Stoke Newington; Mr. Purland, Woolwich; Messrs. Seabury and Johnson, London; Dr. Carlo, Napoli; Mr. Rowe, Dover; Dr. Deas, Exeter; Dr. Bateman, Norwich; Dr. Guest, Manchester; Dr. Davies, Glamorgan; Mr. Bonar, Bristol; Mr. Martyn, Cornwall; Mr. Welch, Westmoreland; Mr. Birchall, Liverpool; Mr. Blatchley, London; Mrs. Löhr, Cambridge; Mr. Rauschke, Leeds; Major Pead, East Dulwich; Dr. Weld, Victoria; Mr. Wells, Clifton; Dr. Ritchie, East Lothian; Mr. Hensley, Bath; Dr. Gibson, Kent; Dr. Crew, Higham Ferrers; Mr. Hamilton, Yorks; Mr. Copeman, Lambeth; Dr. Barnes, Axminster; Mr. Heywood, Manchester; Rain, London; Ebor, London; Sanitas, London; A. P. T., London; B.A., London; Secretary, Wigan Infirmary; C. F. T., London; J. W. D., London; Manager, Victoria Carriage Works, London; W. A., London; Matron, Kidderminster Infirmary; P. B. D., London; M.D., Wood-green; Secretary, Coventry Hospital; Scapula, Borough; D. S., London; Secretary, Hospital for Consumption, Manchester; Alpha, London; P. S., Liverpool; Lady Superintendent, Bournemouth; Assistant, Hanley; M. O. S.; Sister Katherine, Plaistow; Omega, London; M.D., Accrington; Surgeon, Pontypridd; Alpha, Clifton; Sigma, Tamworth; Medicus, Aberdeen; Medicus, Manchester; T. V. F., London; R. W., Liverpool; A. B., York; Secretary, Notts. General Hospital; Miss L., London; B. S., York; St. Hilda's, Walthamstow; Surgeon, Bethnal-green; Alpha, Huddersfield.

City Press, *Seafaring*, *Reading Mercury*, *Glasgow Herald*, *Weekly Free Press and Aberdeen Herald*, *Liverpool Daily Post*, *Mining Journal*, *Hertfordshire Mercury*, *Western Gazette*, *Surrey Advertiser*, *Chester Courant*, *Trade*, *Finance*, *and Recreation*, *&c.*, have been received.

Medical Diary for the ensuing Week.

Monday, December 23.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Sansom: Mitral Stenosis in Children.—Mr. Watson Cheyne: Case of Abscess in Left Temporo-sphenoidal Lobe after old-standing Ear Disease; trephining; recovery.

Tuesday, December 24.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

Wednesday, December 25.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, December 26.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, December 27.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, December 28.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
ROYAL INSTITUTION.—3 P.M. Prof. A. W. Rücker: Electricity. (To a Juvenile Auditory.)

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Remarks

ŒSOPHAGOTOMY FOR THE REMOVAL OF FOREIGN BODIES.

WITH NOTES OF TWO SUCCESSFUL CASES.

By T. A. SOUTTAR, M.S. Lond., F.R.C.S.,

ASSISTANT TO THE RADCLIFFE PROFESSOR OF ROYAL SURGERY.



through it. On the forty-sixth day he left the hospital, being able to swallow both fluids and solids without any pain or difficulty, the external wound being almost healed. It is worthy of note that, a few days after the operation, the patient's voice was observed to be somewhat hoarse, and my colleague, Dr. Harris, who examined the larynx shortly before he left the hospital, reported that the left vocal cord was completely paralysed. This would indicate that the left recurrent laryngeal nerve was either injured during the operation or it afterwards became involved in the inflammatory exudation which would be poured out, probably in considerable quantity, in the neighbourhood of the wound in the gullet. When the patient was last seen, some weeks subsequently, the wound was firmly cicatrised, deglutition was perfect, and his voice was gradually improving.

The following remarks have been suggested by a consideration of the foregoing cases:—

1. *Question of operative interference.*—When the foreign body is of considerable size and irregular in shape, as in the case of a tooth-plate, and when it is so firmly fixed in the gullet that it resists all attempts at extraction through the mouth, œsophagotomy should at once be performed. If left in the hope that it may make its way onwards and be subsequently passed by the bowel, very serious results are liable to ensue, as Church has shown in a valuable paper published in the St. Bartholomew's Hospital Reports, vol. xix. The foreign body frequently causes ulceration of the œsophagus, and this complication is often followed by suppuration in the surrounding tissues or by fatal hæmorrhage, owing to the ulceration opening one of the adjacent large bloodvessels. The sooner recourse is had to operative interference, the more favourable will be the result; for if œsophagotomy is performed early—i.e., before inflammation and suppuration have supervened,—the operation is attended by much less risk than if some interval has been allowed to elapse. According to Fische,[1] the mortality is only 15 per cent. when œsophagotomy is performed within the first two days after the introduction of the foreign body; while, if delayed until the third or fourth day, it reaches 30 per cent.

2. *The operation.*—The operation is much easier of performance when the foreign body is situated in the cervical portion of the œsophagus (as in Case 1), and when it can be felt through the walls of the canal, as it forms a projection which can be cut down upon without the necessity of introducing any guide from the mouth. When impacted in the thoracic portion of the canal, and when the opening has to be made as low down as possible (as in Case 2), the exposure and opening of the œsophagus are much more difficult, especially if the neck is thick. Under these circumstances a full-sized bougie introduced through the mouth will probably be found a better guide than a pair of curved forceps or a sound, as usually recommended.

3. *Suture of œsophagus.*—As regards the question of suturing the opening in the œsophagus, this must be decided by the condition of the wound in its walls. If the margins of the wound are clean cut and free from bruising, it may be attempted, fine catgut sutures being employed; and under these circumstances there is a possibility of union at once taking place. If this happens, the wound in the overlying parts will more quickly heal, for the tissues to the neck will be kept free from the irritation of the saliva, which, as it is swallowed, tends to continually escape through the œsophageal opening when the latter is left unclosed. Care must be taken not to include the mucous membrane in the sutures, which should only pass through the muscular coat, for we know that in other parts of the body the divided mucous membrane does not readily unite, and if it becomes everted so as to fall in between the margins of the wound, its presence will interfere with repair. In most cases, however, it will be found that the œsophageal walls at the point of impaction will have become somewhat bruised and inflamed, the mucous membrane especially being lacerated, in consequence of the foreign body tearing and dragging upon it during the attempts previously made at extraction. Moreover, the actual removal of the body itself, if it is large and irregular, and when effected through a small opening, will be likely to conduce towards the same result. Under these circumstances the œsophageal wound is not likely to heal by primary union, and it was for these reasons that in neither of the preceding cases was suture attempted. This view is supported by a consideration of seven recorded cases where the œsophagus was sutured. In four cases[2] where the foreign body was removed through the wound, it proved unsuccessful. In three cases[3] primary union appears to have taken place, but in only one of these (Wright's) was the foreign body extracted; in Lediard's, it was not found at the time of operation, and in Lange's it was pushed onwards into the stomach, so that presumably in both these patients the margins of the opening in the œsophagus would escape the bruising and laceration which usually accompany the extraction of the foreign body, when of considerable size, and especially if sharp and irregular, as in the case of a tooth-plate.

4. *After-treatment.*—Owing to the difficulty of obtaining primary union, even if the œsophagus is sutured, and also of maintaining an aseptic condition of the wound in consequence of the escape of saliva through it, free drainage should be provided for by leaving the superficial wound partly open, and by inserting a tube, which should reach down to the opening in the œsophagus. When there is a copious discharge, as in both my patients, the wound should be syringed out with some antiseptic lotion (e.g., boracic), and the dressings changed frequently. The plan adopted of allowing the patients to frequently swallow small quantities of boracic mixture is, I think, also useful, for the greater part of the fluid at first escapes through the wound, and in this way thoroughly irrigates it from the bottom; at the same time it relieves the thirst from which the patients suffer, when no liquid food is being given by the mouth. By these means, though the discharge, which consisted of a mixture of frothy saliva and muco-pus, was somewhat profuse, the wound was in both cases kept in a fairly sweet condition, and there was never any tendency to the development of cervical cellulitis, a frequent complication of this operation, and one which is always liable to be attended by serious results.

5. *Administration of food.*—Inasmuch as it is not desirable to give any food by the mouth for some days, the feeding of the patient after œsophagotomy is always a difficult matter. It may be carried out in two ways—viz., nutrient enemata or suppositories may be administered, or food may be introduced directly into the stomach by means of a soft tube passed through the mouth, nose, or wound in the neck. If enemata can be retained by the patient, this method is preferable, for by keeping the wound free from the irritation caused by the passage of a tube, as well as from contact with any food regurgitated by the stomach, the parts are placed in the best condition for healing. In both cases the patients were fed entirely in this way for the first fortnight, the enemata, which were adminstered every four hours, being well retained, nothing being given by the mouth except boracic mixture and ice, as already mentioned. At the end of this period a tube was passed by the mouth (after the second day by the patients themselves), and at the end of three weeks, when the wound was nearly closed, the tube was discontinued, and the patients were allowed to swallow liquid food. It was then found that very little fluid escaped through the wound, the greater part passing onwards into the stomach; what did escape appeared to cause no irritation, probably owing to the fact that by this time the opening in the neck was converted into a fistulous track lined with a layer of healthy granulation tissue. If the enemata are not retained, food must of course be introduced much earlier into the stomach, and under these circumstances the passage of a soft tube through the mouth is, I think, for obvious reasons preferable to the method recommended by Markoe[4] of introducing it directly through the wound in the neck.

6. *Results of operation.*—According to Gross,[5] the number of cases of œsophagotomy recorded up to 1886 is 82; of these, 63 were successful and 19 terminated fatally. Since that date I have found reported in the different journals 14 additional cases, of which 10 were successful and 4 were followed by death. If the two cases above described are included, this will give a total of 98 cases, of which 75 were successful and 23 unsuccessful—that is to say, the operation of œsophagotomy is attended by a mortality of a little less than 25 per cent.

[1] Deutsche Zeitschrift. Chir. Bd. xxv., Hft 6.

[2] Barton, Ann. of Surg. 1887, July; MacCormac, THE LANCET, 1886, May 29th; Clutton, THE LANCET, 1888, July 7th; Flew, Ann. of Surg., 1886.

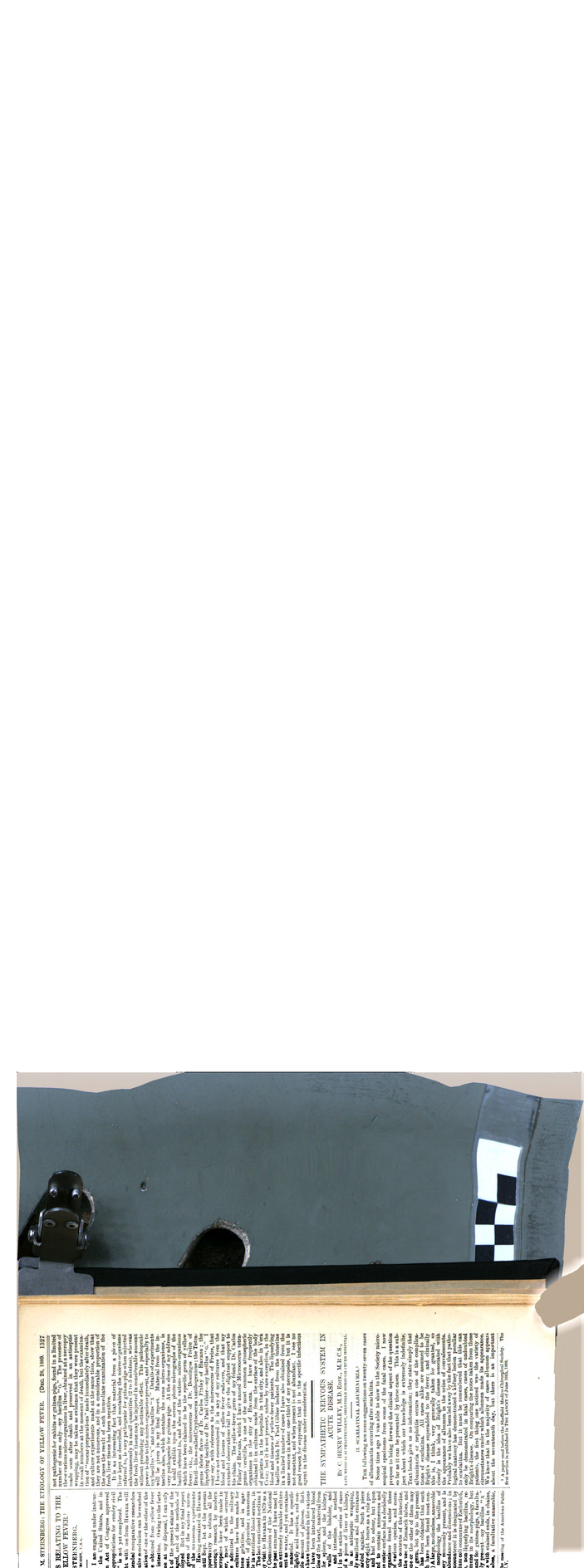
[3] Lange, New York Med. Journal, 1886, p. 503; Lediard, Clin. Soc. Trans., vol. xviii., p. 297; Wright, Med. Chron., Dec., 1887.

[4] Ann. of Surg., Sept. 1886.

[5] New York Med. Jour., 1886, vol. i., p. 484.

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RECENT RESEARCHES RELATING TO THE ETIOLOGY OF YELLOW FEVER.

By GEO. M. STERNBERG,
SURGEON, U.S.A.

THE prerequisites to which I have engaged under instructions from the President of the United States, and in pursuance of authority of an Act of Congress approved March 3rd, 1887, "to enable the Secretary of the Treasury to investigate the subject of yellow fever, and to expend such sum as may be necessary for the expenses of the investigation," is not completed. The primary object of the investigation was to discover the specific exciting factor solely, and extended comparative researches as to the specific etiological relations of one or the other of the various micro-organisms found in the blood and tissues of yellow fever patients, to other diseases, principally from the intestines. Owing to the late period at which the investigation was undertaken, and the great field and many lines of research which it was necessary to cover, much of the time of the commission has been occupied in the preliminary work of collecting material, and in the study of the various micro-organisms associated with the intestinal disturbances which are so prominent a feature of the disease. The commission left Washington for Havana on the 15th of March last, and returned from the middle of March until May 1st of the present year, a period of about six weeks, during which time the material necessary for a thorough research by modern methods was collected. Of the 109 cases of yellow fever, typical cases of yellow fever, most of which occurred in the practice of Dr. Carlos Finlay, of Havana, and others in the city of Matanzas, 80 cases were made the subject of bacteriological examination, and in addition to these 29 cases of non-specific intestinal disturbances were examined. Before leaving this city, my colleagues and myself were indebted to the kindness of Dr. Finlay, the health officer of Havana, for the privilege of examining the bodies of patients in the hospitals in that city, and also in Matanzas, and for many courtesies and facilities in the prosecution of our work. Dr. Finlay has also contributed to the commission a valuable collection of cases of yellow fever patients. The blood-drawing and post-mortem examinations were made by myself and in a limited number of cases I have also obtained from the blood and tissues

minority which differ from these in very important particulars. They differ, indeed, so much as to have suggested our main question, Does albuminuria after scarlatina always represent one condition? I think, after considering a number of such cases and comparing them, it will be agreed that hitherto the idea of an inflammatory lesion of the kidney has been much too closely associated with the appearance of albumen in the urine; that is to say, there are many cases of scarlatinal albuminuria (I believe the majority of them) which are not accompanied by true Bright's disease. It has been during the last few years only that this has been shown to be true of the so-called functional albuminuria occuring independently of scarlatina. One of the most striking differences among these patients which a cursory examination presents is what one may call the albumen course—that is to say, the mode of commencement of this symptom, and the variation in the quantity of albumen from day to day. It is seen, for instance, that in one set albumen commences in large quantity, and then at once diminishes to *nil* with scarcely an interruption. In another set it commences with but a trace, and rapidly increases to a maximum, which is maintained until the death of the patient. It may be said, of course, that the nature of all these cases is the same: some get well and others go to the bad, just as in all diseases. But there is a difference in the time and mode of its incidence and also a difference in the course taken by the disease, which makes it more probable that there is a fundamental distinction between them. Classifying them according to these distinctions, the cases fall into three main groups; and in order to make more clear the remainder of these observations, I may say at once that the first group I take to own nervous and vascular causes; the second group causes even of a more general character, for they are accompanied either by a general collapse during the process of dying, or occurring in some curious relation to other phenomena, which are also probably due to vaso-motor changes. The third group are undoubted cases of inflammation of the kidney.

Group 1 is the largest, and contains twenty-one cases of the class with which we are most familiar. Albuminuria commenced from the thirteenth to the seventeenth day. At the onset the patients complained of malaise, and refused their food for twenty-four hours or so, but this was markedly of a temporary nature; as a rule, they felt quite well after the second day. It is important to note, as distinguishing them from those of the other groups, that the albumen commenced, as a rule, in large quantity, but that it had no sooner appeared than it forthwith began to diminish. This condition occurs, moreover, when the primary effect of the fever has passed off. Its onset is not accompanied by any other unfavourable symptom—i.e., there is no general condition of the system recognisable which may be suspected of having any important relation to it—a point which again distinguishes this group from the next. These cases (roughly three-fourths of the total) all recovered.

Group 2 contains four cases in which the albuminuria is more obviously due to general causes independent of nephritis than it is in the first group. Its onset is peculiar in three important respects: firstly, in the time of its appearance; secondly, in the albumen course—i.e., the initial quantity and its variation from day to day; and thirdly, in its relation to the general bodily condition. Instead of commencing in large quantity and at a period tolerably constant within a few days' limit, as in those of the first group, it appears in medium quantity and at no fixed time. The albumen course, instead of showing a gradual decrease as in the first group, or a gradual increase as in the cases of true inflammation of the kidney in the third group, varies very little from day to day, its quantity remaining steady from first to last. But the most significant circumstance which suggest for this group a class of its own is the relation which the albuminuria bears to the general bodily condition. There seems not the slightest doubt that the appearance of albumen depends upon general nervous and vascular conditions, and not upon nephritis. For instance, in the first case a trace of albumen appears simultaneously with copious effusion into an inflamed pleura; it remained but a trace, and disappeared permanently in three days. One and the same nervous disturbance in all probability was the cause of both these conditions; and further, if this is true, we have some light shed upon the nature of serous effusions. The second case is similar. Albuminuria commenced in the fourth week simultaneously with pulmonary œdema; it ran concurrently with this symptom, and terminated with it exactly. Both symptoms I believe to be associated with a low arterial tension caused by a protracted recovery of nervous tone. Group 2 contains also two fatal cases. In these we have patients dying in the fourth and fifth week respectively, exhausted by the violence of the fever. A few days before death, when the vital powers are rapidly waning, albumen appears in their urine. The quantity was small, and remained the same during the few days the patient lived. Does anyone suppose these were cases of Bright's disease? At the same time, too, there is copious watery diarrhœa and a low feeble delirium.

Is there not some connecting-link between these phenomena when they occur under these circumstances? I think they are all the consequences of a rapidly failing vitality. In the same way in regard to the first two cases of this group. Is there no physiological relation between the appearance of albumen, on the one hand, and the simultaneous onset of pleural effusion in the one case and pulmonary œdema on the other. I think it very probable that all these symptoms, including albuminuria when it occurs under these circumstances, are caused by a fall in the arterial blood-pressure below a certain standard. In many quarters it is too easily assumed that the passage from the blood of albumen in the case of the kidney, or of serous fluid in the case of the pleura, or of œdematous fluid in the case of the lung, or of the watery fluid in the case of the bowels, it is too easily assumed that the passage of these fluids through the vessel wall is brought about by a mechanical straining effected under an increased arterial tension. Is the process a vital or a purely physical one? I believe these phenomena most commonly occur with a diminished arterial tension. For instance, it is not in the congested state of the pulmonary circulation in mitral disease, when the pulmonary blood-pressure is increased, that we get œdema of the lungs so much as in conditions of systemic collapse and in cases where the tension in those vessels is diminished by a weak right heart; or when there is a mechanical blocking of its right chambers by thrombosis, such as we find after death in cases of malignant scarlatina or small-pox. Again, it is in the collapse of cholera that we get the copious watery stools simultaneously with failure of the urinary secretion, which physiolgically depends upon a proper blood-tension.

Summarising now the chief points which have guided our classification, we have in Group 1 the albumen appearing early when the patient is otherwise well. It is at first in large quantity, but at once diminishes, and the natural tendency is towards recovery. In Group 2 we find albuminuria due to general causes; either it is part of a general tendency to serous effusion or the like, or it is a symptom of failing vitality before death. In each case it probably depends upon a diminished arterial tension. In Group 3, in which it occurs in connexion with acute nephritis, the albumen commences as a trace and steadily increases. This classification can, of course, be only a temporary and imperfect classification, but I think the clinical differences between the groups warrant us in thus separating them. There is still other evidence in abundance that the influence of the nervous system in the majority of cases is of the first importance. The amount of albumen was always increased by any influence tending to lower the tone of the nervous system, and it invariably remained longest in those of a phlegmatic temperament or of a strumous diathesis. Passing disturbances of the system had a most instructive effect, always temporarily increasing the quantity of albumen, but not in the long run prolonging the symptom. One case I will mention in particular. I vaccinated a boy during the eighth week of albuminuria, whilst the amount of albumen remained steady at one-tenth. On the second day after there was nausea and anorexia, and the albumen had risen to one-fifth. Next day he was the same, with one-fourth of albumen. This relapse only altered the regular decline of the albumen course temporarily. Four days afterwards the amount was one-twelfth—i.e., probably, exactly what it would have been on this day had the patient not been vaccinated. Another coincidence of exactly the same kind occurred in the case of a convalescent patient who had an attack of quinsy during the course of albuminuria. Changes in the weather, too, have a constant and marked effect. I have noticed that a falling barometer with rain repeatedly caused a temporary increase in the amount of albumen, and took off the edge of the patient's appetite. Now the portion

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MR. G. S. POPE ON PERSISTENT HÆMATURIA.

of the nervous system when disturbance or mentally constitution to its passage of albumen, and which is at the same time a symptom of disease of the kidneys, and probably also nervous system, of the kidneys alone, or of the nervous system alone, or of the kidneys and nervous system conjointly, is not always easy to answer. Of course, if the kidneys are primarily affected, but not attended by any other or those symptoms which we usually associate with Bright's disease, then the question is very easily answered.

Passing now to the practical aspect of the question, one of the first things to be done is to ascertain whether the albumen is that large set of the greatest use in the prognosis—namely, whether it is of renal origin or not. Now, as I have already said, I believe, in regard to the differentiation as a very large proportion of cases, that the microscope is of very little use. Of course, if we find casts, we may be pretty certain that the albumen is of renal origin; but, as I have already pointed out, we cannot always find casts, even when the albumen is undoubtedly of renal origin. Then, as to albumoses or deuteroalbumen, we have no certain test for them. Heat and nitric acid will not precipitate them, and the only test we have is the biuret test, which is not to be relied upon. Then, as to albumoses or deuteroalbumen in any way connected with the kidneys, I am not aware that any one has ever examined a case of renal disease for them. Moreover, I am not aware that any one has ever examined a case of renal disease for albumoses or deuteroalbumen in any way connected with the kidneys, I am not aware that any one has ever examined a case of renal disease for them. Moreover, I am not aware that any one has ever examined a case of renal disease for them. Moreover, I am not aware that any one has ever examined a case of renal disease for them. Moreover

was ordered for the constipation. This, while regulating the bowels, caused an improvement in the urine, which was maintained, but never got beyond a certain degree.—20th: Taking into consideration the marked ill effect of liquid extract of ergot, coupled with the fact that in summer the patient was somewhat improved, I now concluded that here there was some altered condition of blood-pressure, in all probability marked increase, which caused the red blood cells to be forced through the minute vessel walls into the secreting tubes, thence to be excreted, and therefore an effort was made to diminish this increased pressure. The bowels being regulated relieved the general congestion of the abdominal viscera, and now the patient was ordered two vapour baths a week. These were regularly taken.—27th: Patient feels better, and says he has more life in him. Urine much improved.—June 1st: The improvement in health and general spirits is marked. Urine clear, but in the lower one-fifth of the vessel there is a pinkish, flocculent mucous deposit. With the tincture of guaiacum and ozonic ether test the presence of blood can be demonstrated.—8th: Specific gravity of urine 1020; acid; no visible deposits; no indication of blood either chemically or microscopically. This is the first time since the present attack.—15th: Urine normal.—22nd: Urine normal; phosphatic deposits. The duration of hæmaturia from first to last has been a little over two years, seven months, and ten days.—August 14th: I saw the patient to-day. Says he never felt better in his life; is in excellent health and spirits. There has been no relapse, and his urine is still normal.

THE PHYSIOLOGY OF DREAMS.

BY FRANCIS E. CANE, L.R.C.P. & L.R.C.S. EDIN.

THE physiology of dreams is a subject of great importance, from its close relation to the pathological conditions of delirium and brain disease. But the many explanations of the cause of dreams which are found in the writings of physiologists and psychologists are all more or less unsatisfactory. A good *résumé* of these explanations may be found in the works of Sully, Carpenter, and others. Plato considered dreams as the dominant mental impulses or habits resulting from our daily feelings and thoughts. Aristotle wrote a treatise on dreams, and supposed that they are the impressions left on the mind and body by the objects of outward sense. He noticed that it seemed to thunder when a slight sound was produced within the ears, and that phlegm slipping down the throat of the sleeper suggested the idea of swallowing honey. Hippocrates and Galen made no advance on these theories. Nearer our own times, Descartes, Leibnitz, Kant, and Sir William Hamilton taught that we think and dream continually through sleep, although we frequently forget we have done so. Other authorities hold that dreams are not always present during sleep. Hobbes says that dreams all proceed from "the agitation of the inward parts of a man's body," which results in keeping the brain active. Schopenhauer considered that the impressions received from the internal regions of the organism are conveyed to the mind through the sympathetic system of nerves, and there worked into quasi-realities. Professor McKendrick calls dreaming a kind of physiological delirium. Dreams are frequently defined as revivals of former sensory impressions resulting from the action of an untrammelled or uncontrolled imagination, or as an undue excitability of the brain with a suspension of the will. These explanations, however, are all unsatisfactory in one or more aspects. They do not rationally account for the great rapidity of dream thought and for the sometimes orderly yet frequently incoherent arrangement and succession of events. They do not account for the variegated, grotesque, blended, and extravagant pictures upon which we gaze with a total want of surprise, impassively viewing scenes which would puzzle, bewilder, and shock us in our waking moments. They do not explain the great confusion in the order of time and space wherein widely remote events and places are brought together, and persons set in new relations to each other. They do not explain somnambulism and talking in the sleep, or why we sometimes dream the same dreams again and are frequently conscious that we are dreaming; the way in which the whole dream is often dominated by feelings of joy or terror; the way in which the various aspects of an object are exaggerated, so that the seemingly large, beautiful, or horrible becomes strikingly so. In these ways dreams take a firmer hold on us for the time being than waking realities, for although when awake we may consider dreams as unsubstantial and unreal, yet to the dreamer at the moment his imagined surroundings absorb his whole attention, and are consequently very real. Above all, the theories hitherto advanced fail to account for the light and colour or simulation of visual perception which form the main or striking feature of all or most dreams.

In order to form a more correct idea of what dreams are, we must remember that the human body is a complicated machine made up of numerous secondary machines in themselves composed of a most intricate molecular machinery. This organism is unified and controlled by the sensory and motor nerve filaments which communicate in leashes with the intellegism in the great central nervous "exchange" of the brain. It is ever changing from minute to minute in its molecular constitution, and these changes result in countless chemical reactions and physical transformations of energy. It is most delicately responsive to all its surroundings, and is presided over by the intelligism which has never been seen or analysed. This intelligism has impressed on itself what I may call a sensographic record of all that it has learned from the moment when the deep sleep of its embryonic existence was first broken by its birth into the external world of matter and of sense. This sensographic record is the only criterion by which the intelligism can judge of objects which are presented to it in the condition of sleep, because in that condition it is deprived of the physiological instruments for measuring size, form, intensity, distance, direction, position, and many-sided aspects. Sleep is a state of repairing time, in which the nervous system does not so easily convey messages either to or from the intellectual presiding principle, but requires a stronger external stimulus or greater mental effort to properly communicate along the full length of the nerve.

I wish here to show that all the phenomena of dreams are fully accounted for by the auto-sensations physiologically developed within the body, and which are sometimes increased by pathological or semi-pathological conditions, and modified by external impressions or stimuli. These auto-sensations are so numerous and so frequently developed that a large volume might be written to discuss them. Briefly considering what takes place in the human body while asleep, we find that there are actual and innumerable sounds, sights, and feelings which get partially conveyed to the intelligism, while that intelligism is deprived of its full means to test their nature. We have twitchings or spasms of muscular fibres, of muscles, and of groups of muscles. We have extensions and contractions of limbs, with the sensations of impediment likely to accrue from tight or overmuch bedclothing. We have painful conditions of muscles, nerves, and blood-vessels from awkward positions of the sleeper. We have the movements of the breathing apparatus; heart movements and sensations of beating arteries and distended veins; conditions of the sexual apparatus and states of different organs, such as distended bladder, overloaded stomach, and feeling of flatus in the bowels; sensation caused by entozoa. Sounds innumerable are developed by the heart and arteries and veins; by the mouth and nose, as in snoring, grinding of teeth, and working of saliva; by the whole breathing system; by the muscular susurrus all over the body; by the creaking of joints and clicking of tendons and ligaments; by flatus in the stomach and intestines, and many mechanical noises in the ears themselves. There are, besides, a host of molecular sounds which must be present, although usually not perceived. In the eye we have those extra-retinal entoptic phenomena due to opaque particles in the transparent media which, in our waking moments, frequently appear projected into space as drops, striæ, lines, twisted bodies, forms of grotesque shape, and black dancing spots, often mistaken by the ignorant or inexperienced for natural objects, such as flies, worms, or birds. As an intra-retinal appearance I may mention the way in which we can see the branches of vessels in our own retinæ under the form of "Purkinje's Spectre." Tastes and smells may also be originated and perceived during sleep. The external influences which are well known to affect the sleeper are noises, voices, touches, lights, and changes of temperature. We have here

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matters of common experience which Mosso has scientifically confirmed with the plethysograph. To these may be added the electrical, barometrical, and hygrometric states of the atmosphere, which all contribute to cause moods, sensations, and feelings. Moreover, there are the numerous pathological conditions, such as hyperæsthesia or dysæsthesia of one or more nerves, sets of nerves, or branches. In the optic nerve these conditions cause photopsia or flashes of light, flames, sparks, and stars. Photophobia may be present in the blind eye. In the auditory nerve we have humming, buzzing, singing, ringing of bells, violent explosions, and even words or conversations. In the olfactory nerve and nerves of taste we have odours and flavours. Many of these pathological phenomena are simply the hyperæsthesic nerves picking up the physiogical sights, sounds, and sensations. The action, interaction, and varied modifying, physiological, or pathological impressions are sufficient to account for all that we experience in our dreams. The visual aspect of dreams, or how we see light, colour, and form, is thus, to my mind, made quite clear when we come to study the lights existing or developed in the organism. From the nature and composition of the body it is physically certain that they must be present. Phosphorus emits light; so do calcic sulphide, boric sulphide, chalk, silk, teeth, and other substances. The emission of light is one of the properties of protoplasm. Phosphorus enters largely into the composition of the human body, being present as phosphates in the bones and other tissues. It exists in muscle as a combination of phosphoric acid. It exists as a phosphuretted fat in the lecithin of blood-corpuscles and of nerve and brain tissue. As oxygen is being constantly conveyed to these phosphuretted tissues, light will certainly be generated. It would be interesting to know if a micro-photograph of the circulation could be taken after long exposure in darkness with a very sensitive plate. Pressure on the globe of the eye, even in the dark, will produce "phosgenes," which appear as flashes of light or pale luminous centres, with circles of one or more colours. These are also produced by electrical currents. In a dark room with our eyes closed, we see that area of dim light called "the proper field of the retina," and across which many people see dim moving figures and shades of colour, which blend and dissolve fantastically. This field gets gradually brighter the longer we abstain from viewing actual light. We have numerous examples in nature of organisms developing light within themselves. Many plants, including some cryptogams, are luminous. A large portion of animal nature is phosphorescent, of which we have familiar examples in the glow-worms and fire-flies. Mr. Hoyle, of the *Challenger* expeditions has written some interesting matter on this subject. The general phosphorescence of the sea is due to pyrocystis, peridinium, noctiluca miliaris, and other low microscopic forms in their countless millions. Certain animalcules found in the tropics give off phosphorescent particles so diffusive that a tumbler of water containing one will become completely illuminated. The bright spots we see at the sides and in the wakes of vessels are due to salpæ, medusæ, and copepods, or surface crustaceans. Other crustaceans, several families of annelids, some beetles, and many fishes are phosphorescent. The luminous round shining bodies found on certain fish contain in their interior little lenticular bodies like eyes, and are considered by some naturalists as true organs of vision, or accessory eyes. Some crustaceans have also these eye-like organs. The light given out by phosphorescent animals is usually pale bluish in colour, but red, green, and purple are noticed in some animals. A form of apendicularia has the power to change its light from red to green, and finally blue. The intensity of the light is not very great, that of the sea at its brightest being obliterated by very little moonlight. The nature of the light is always monochromatic. The causes of phosphorescence are probably various. Some animals get luminous from feeding on putrid phosphorescent matter. Dead and putrescent animals are frequently phosphorescent. This is well known in the examples of fish and molluscs. The human cadaver is occasionally phosphorescent, and Phipson in his work on "Phosphorescence," records instances where human beings have been phosphorescent while alive. This is the case in the rare condition of phosphoridrosis or luminous sweat, which is sometimes seen in the last stages of phthisis, in miliaria, and in persons who have eaten putrid fish. I have examined numerous records of phosphorus and fish poisoning, but find nothing about the character of the dreams except that delirium was sometimes present. Therefore, from the chemical reactions involved, from biological analogy, and from physiological and pathological facts, we have good reason to believe that there is actual light produced within the body itself. We know that heat in varying intensity is produced, and that electricity is also developed by muscular activity. The production of electricity is another of the properties of protoplasm. The galvanometer proves that there are electric currents in plants. In fruits with pips the current is from the stem to the bud; in stone fruits it is in the opposite direction. The gymnotus, the torpedo, and the silurus possess the power of giving strong electric discharges.

The physiological facts here reviewed go to prove that sleep is not a condition of the intelligism, but that the intelligism is ever ready to receive any impression conveyed to it, and has a power of being aware that objects resemble each other. In the sleeping condition it is presented with an ever-varying procession of complex impressions, any one of which may dominate the aspect of the others. These are imperfectly supplied by the nerves of hearing, sight, touch, taste, and smell. They are judged to be things which they resemble or suggest, and, with the changing material supplied, are continuously construed into a record of misinterpreted objects and events. In fact, the intelligism is doing what we sometimes half-knowingly experience when, in fog, or dusk, or darkness, we mistake objects for others which they seem like. We also sometimes do this with our full knowledge when we imagine picture forms in the glowing embers, or amid fantastic rock and mountain scenery, or in the clouds that float across the sky. We know, too, that long-forgotten names and persons and places will come to memory at the odour of a flower, the sound of a voice, or a strain of music such as we experienced long ago. When a great city is wrapped in the quiet of night, we begin to perceive many strange sounds and sights which escaped us in the busy hum and glare of day. When the body is wrapped in sleep, the intelligism is then free to notice the auto-sensations which come modified by partially transmitted external stimuli, and perhaps changed by pathological conditions. In sleep the mind is not engaged with thoughts, but with molecular processes, and these processes are the great factors in the etiology of dreams, delirium, and mental diseases.

Liverpool.

TOOTH EXTRACTION AND ITS ALTERNATIVES FOR THE RELIEF OF PAIN.

BY H. C. QUINBY, L.D.S.I.,
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THE following remarks are intended as an earnest remonstrance against the practice of extracting teeth for the mere relief from pain, a practice which those country surgeons who are, by reason of distance from special dental aid, compelled to pay attention to the teeth of their patients seem to think is the only possible form of treatment, and therefore perfectly justifiable. I am aware that many who call themselves dentists are guilty of a still more extravagant waste of human teeth; often, I fear, prompted by a motive of self-interest, which ought to be a sufficient reason for striking their names off the register; but, while an appeal to these men—if, indeed, any appeal would influence them—would be more in place in the pages of the dental journals, those special journals do not, as a rule, come into the hands of general practitioners in medicine and surgery, and no country surgeon can do without his LANCET. I constantly hear of cases like this. "I got toothache while I was staying at such or such a place, and, as there was no dentist near, I went to the doctor, and he took the tooth out." There is never any mention of an effort to save the tooth, and in these days, when surgery is making such rapid advancement in every direction, it is time that such empiricism should come to an end. I doubt if there is any other organ possessing a tithe of the functional importance to the maintenance of human health and strength that rightfully belongs to a grinding tooth which would not receive far more consideration if it were a

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source of pain than any surgeon ever thinks of giving to a tooth.

When a tooth aches, the first suggestion is to have it out. But I do not hesitate to say, after many years of experience, that it is never necessary to extract a tooth merely for the relief of pain. That there may be, and are, many other reasons of sufficient importance to justify extraction I of course admit, and these should have proper consideration in cases of toothache: but what I mean to say is simply this: there are two forms of pain arising from teeth, which will include at least 90 per cent. of all the cases that will come to a dentist in good practice; we will call these primary and secondary toothache, and I contend that in neither of these is extraction ever the remedy to be chosen without careful deliberation.

Primary toothache is congestion of the tooth pulp; the unyielding walls of the pulp cavity permitting no expansion, there is intense pressure on the nerve tissue, and consequent pain, which finally terminates by strangulation of the pulp. This is true toothache, arising in the tooth, but it may be felt in the terminals of any of the branches of the fifth nerve on the corresponding side of the face, and is rarely felt in the tooth where it originates, unless there is suppuration in the pulp, in which case the peridental membrane will be affected. It will be obvious that many cases of so called neuralgia in the face are simply toothache, and a careful search will generally reveal the offender, but there will be no occasion for extraction. Careful excavation, sufficient to allow an escape of blood from the pulp, will at once relieve the pain, and an arsenical dressing will devitalize the pulp, and there need not be anything like the pain of extraction. To complete the operation, the pulp must be removed from the root canals, and these filled to the apex; but this will call for special skill, and no harm will be done if there should be three or four weeks of delay. Nothing in a dentist's experience is more melancholy than to look into a mouth and see six or eight detached grinding teeth without an antagonising tooth in the opposite jaw.

The secondary form of toothache is usually admitted by the sufferer to be toothache, because the pain appears to be intensified by occlusion with an opposite tooth and by pressure of any kind. In reality the pain is caused by gangrene of the pulp, and I am quite aware that this is considered so serious a matter that most surgeons would order immediate extraction, but it is not at all a necessity. It is a matter of every-day practice with me and with thousands of other dentists to treat alveolar abscess successfully and make the teeth useful and comfortable. There are failures of course, as in everything else, but they are not more than one in ten, and of these half at least are failures only so far as this, that the abscess has established a sinus, and that for some time after the tooth has been filled there is an occasional discharge of pus from this sinus; but the cause of the diseased condition is removed, there is little if any pain, and the discharge ceases after a time. The first treatment is a very simple matter. Percussion indicates a diseased condition outside the tooth—that is, in the peridental membrane, and the cause is a decomposing pulp or some other putrescent matter in the pulp cavity. The tooth is generally decayed, so that a very slight excavation will open the pulp cavity and give vent to the poisonous gases and pus which are confined there, and when these find an outlet the pain ceases. Recognising the fact that alveolar abscess does not, and cannot, arise from a tooth which has a healthy pulp, it is obvious that an opening into the pulp cavity will be a painless operation, which, of course, extraction would not be, nor will extraction give relief so quickly as the simple treatment I have suggested. I do not mean to say that the soreness which was felt on pressure will immediately disappear; it will take time for that; but the intensity of the pain will be mitigated, the contents of the abscess will be evacuated through the roots of the tooth, and very quickly the tooth will be in a condition for further treatment, which will in most cases result in a radical cure of the tendency to abscess, and the tooth will be made useful and comfortable. The course of treatment is a series of antiseptic dressings in the roots to cleanse them from all putrescent matter, and then, as in the other case, filling them to the apex, for while abscess is first caused by toxic matter from the decomposing pulp, it is maintained and renewed by the filling up of the pulp cavity with pus and lymph, which in their turn pass through the same process of decomposition. This root treatment, however, is not available in temporary teeth after the sixth year, as the process of absorption which is going on in the roots of these teeth will have so widened the apical foramina that a solid filling cannot be made, and is therefore worse than useless; but it is better to open the pulp cavity freely and leave it open, so as to allow free evacuation into the mouth and allow the tooth to decay gradually, as it will of course do, until nothing but the roots remain, than to deprive the child of a masticator at once.

The child needs masticators quite as much as the adult; but, more than this, I am certain that it is almost an impossibility to extract the temporary molar when it is in anything like full development without more or less displacement of the partially developed bicuspid which lies between the roots of the temporary molar. I am well aware that it has been said over and over again by writers who are recognised as authorities that the development of the alveolus of the bicuspids does not depend on the retention of the temporary teeth; but what does that matter if the partially calcified crown of the bicuspid is so displaced that the further development goes on with the tooth in a transverse or a horizontal position? I have in my possession models of the upper and lower jaws of a boy of ten years and a half of age, whose temporary molars and two canines were all taken out while in almost perfect development, and the gums are shrunken like those of an old man, with not the slightest indication of a bicuspid appearing for the next five years. I often see cases where some of the temporary molars have been removed, but I confess I do not often see cases of such wholesale premature extraction.

Alveolar abscess may arise from a putrescent pulp in a tooth which is not decayed at all, but which has some time been displaced by accident so as to sever the nerve and bloodvessels at the apical foramen. This happens, especially with front teeth, from a fall, from a blow, from many chances in athletic games; and often enough the tooth may be comfortable for months after the accident, so that no one thinks of connecting the present pain with what happened so long ago, but by drilling into the pulp cavity the poisonous gases and the pus are evacuated, and the tooth can be made as useful as the others. In all cases after a front tooth has been loosened by an accident it should be watched carefully for a few months to see if any change of colour takes place, and if so the pulp cavity should be opened at once.

Pyorrhœa alveolaris may cause something very like alveolar abscess, and yet the pulp of the tooth will retain its vitality; but in this case the disease commences at the neck of the tooth and proceeds towards the apex of the root, which is exactly the reverse of what happens when there is a putrescent pulp. In these cases, although relief will be given by a thorough cleansing of the root, by scraping, and by one or two applications of aromatic sulphuric acid, followed by soothing dressings, there is little chance of saving the tooth for more than a year or two.

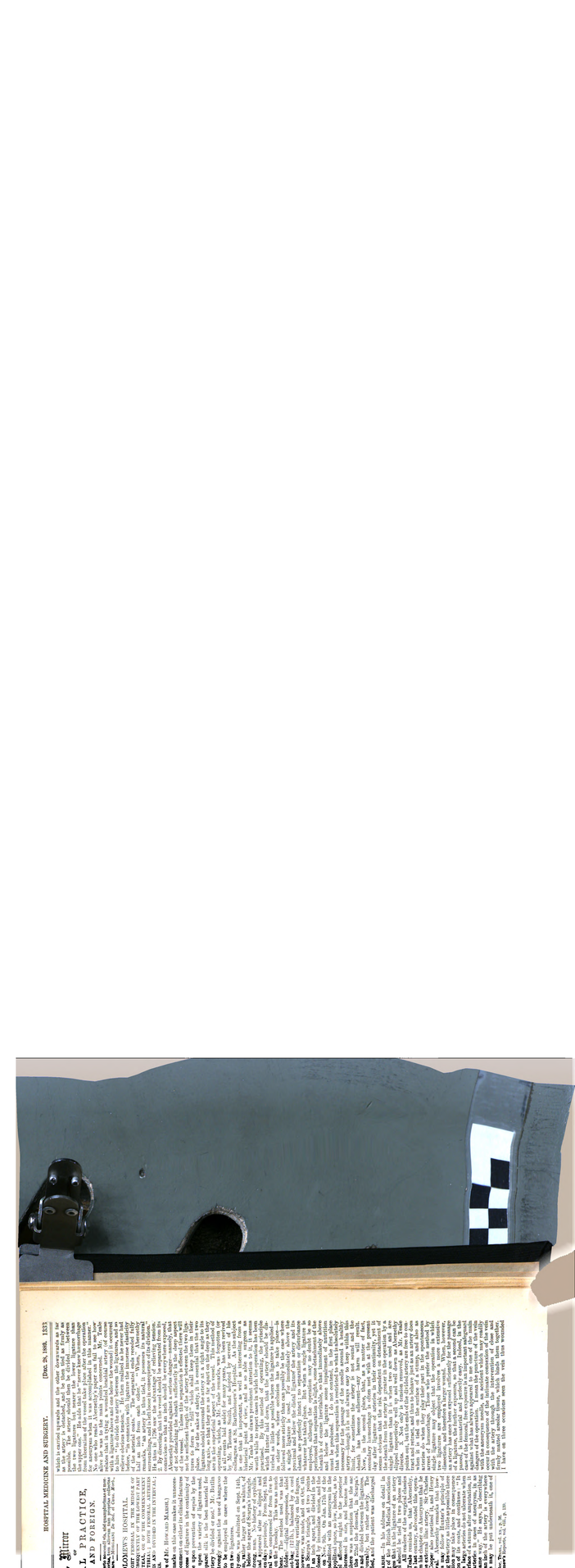
In this paper I have only meant to indicate that there are means of relieving the ordinary forms of toothache, which will be far more merciful than extraction, to the patient, and which are so simple that any surgeon can make use of them, and at least, if he cannot complete the operation, he will have relieved present suffering, and left the tooth to be treated by hands which have had more practice. But I do not by any means pretend to have exhausted the subject, or to have presented anything which will be new to dentists. I am told that surgeons do not learn these things from their text-books, and I hope I have shown them that there is something more interesting about teeth than extracting them.

Liverpool.

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Col. George Tomline, of Carlton House Terrace, London, and Orwell Park, Ipswich, bequeathed £100 each to the East Suffolk Hospital and the Convalescent Home at Mablethorpe. The City of London Common Council has granted 100 guineas each to the Royal Sea Bathing Hospital, Margate, and the Metropolitan Provident Medical Association. The late Earl of Leven bequeathed £2000 to Convalescent Homes, and £2000 to the British Orphan Asylum (Slough), and the Hospital for Sick Children; also £1000 to the Hospital for Consumption, Brompton. The Mercers' Company has granted donations to the following London hospitals—Guy's, £1000; Middlesex, £1000; London, £1000; and St. Mary's, £1000; King's College, £500; and Westminster, £500.

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Hunter HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Ligature of Arteries in Continuity.

Under the care of Mr. HOWARD MARSH.

Ligature of the Femoral Artery in the Middle of Scarpa's Triangle.

Under the care of Mr. BARTHOLOMEW'S HOSPITAL.

Aneurism of the Right Femoral in the Middle of Scarpa's Triangle; Ligature of the Artery in Two Places; Gangrene of the Leg; Operation; Death.

Under the care of Mr. HOWARD MARSH.

(Reported by Mr. MAYO.)

The two cases of ligature of arteries in continuity recently performed at St. Bartholomew's Hospital, and recorded in our last number, have naturally excited much interest in the profession, and have led to a discussion of the question in the Medical Society of London. As the cases are of great importance, and as the operations are likely to be frequently performed hereafter, we have thought it desirable to give a full account of them, and of the discussion which followed the reading of the papers. We have, therefore, obtained from Mr. Howard Marsh and Mr. Mayo, the surgeons who performed the operations, full reports of the cases, and from Mr. Holmes, the President of the Society, a report of the discussion. We have also had the advantage of hearing Mr. Holmes's remarks on the subject of ligature of arteries in continuity, and of seeing the specimens which he exhibited to the Society. We have also had the opportunity of examining the specimens which were removed from the patients who were operated upon at St. Bartholomew's Hospital, and which are now in the museum of that institution. We have also had the opportunity of examining the specimens which were removed from the patients who were operated upon at St. Bartholomew's Hospital, and which are now in the museum of that institution.

The first case was that of a woman, aged 45, who was admitted into the hospital on Sept. 14th, 1868, with an aneurism of the right femoral artery in the middle of Scarpa's triangle. The tumour had been present for about three months, and had increased rapidly in size during the last few weeks. The patient was a stout, healthy woman, and there was no evidence of any disease of the heart or arteries. The tumour was pulsating, and a distinct bruit could be heard over it. The limb was cold, and the pulse at the ankle could not be felt. The patient was placed under the influence of chloroform, and Mr. Howard Marsh proceeded to tie the femoral artery in two places, and to divide it between the ligatures. The first ligature was applied about two inches above the upper end of the tumour, and the second about two inches below the lower end of the tumour. The artery was then divided between the ligatures, and the wound was closed with sutures and collodion. The patient was then removed to bed, and the limb was wrapped in cotton wool. The patient recovered from the operation without any untoward symptoms, and the wound healed by the first intention. On the fifth day after the operation, however, the patient complained of pain in the limb, and it was found that the foot was cold and the pulse could not be felt. On the following day the pain had increased, and the foot was still colder. On the seventh day after the operation the patient died.

On examining the limb after death, it was found that the femoral artery had been tied in two places, and that the portion of artery between the ligatures had been divided. The ligatures were found to be firmly fixed in the artery, and the ends of the vessel were closed by coagula. The tumour was found to be filled with clot, and the sac was ruptured at its upper part. The vessels of the limb were found to be healthy, with the exception of the femoral artery. The popliteal artery was found to be pervious, and the anterior and posterior tibial arteries were also found to be pervious. The veins of the limb were found to be healthy, with the exception of the femoral vein, which was found to be thrombosed. The muscles of the limb were found to be pale and flabby, and the nerves were found to be healthy.

The second case was that of a woman, aged 50, who was admitted into the hospital on Sept. 14th, 1868, with an aneurism of the right femoral artery in the middle of Scarpa's triangle. The tumour had been present for about three months, and had increased rapidly in size during the last few weeks. The patient was a stout, healthy woman, and there was no evidence of any disease of the heart or arteries. The tumour was pulsating, and a distinct bruit could be heard over it. The limb was cold, and the pulse at the ankle could not be felt. The patient was placed under the influence of chloroform, and Mr. Howard Marsh proceeded to tie the femoral artery in two places, and to divide it between the ligatures. The first ligature was applied about two inches above the upper end of the tumour, and the second about two inches below the lower end of the tumour. The artery was then divided between the ligatures, and the wound was closed with sutures and collodion. The patient was then removed to bed, and the limb was wrapped in cotton wool. The patient recovered from the operation without any untoward symptoms, and the wound healed by the first intention. On the fifth day after the operation, however, the patient complained of pain in the limb, and it was found that the foot was cold and the pulse could not be felt. On the following day the pain had increased, and the foot was still colder. On the seventh day after the operation the patient died.

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during the operation for ligature of the femoral artery. The method by double ligature and division may, I believe, be employed with advantage in the case of all the arteries which can be exposed for a sufficient length. The subclavian, however, in some instances is so deeply placed that the proceeding could not be safely carried out. But in any case in which, rising fairly into the root of the neck, the vessel could be cleared for three-quarters of an inch, there appears no ground for refraining from dividing it between two ligatures. While, since it is this artery above all others which is liable to secondary hæmorrhage after ligature, it seems incumbent on the surgeon to adopt, in tying it, any measure by which this highly dangerous accident may be rendered less frequent. Many may shrink from dividing the artery through the fear that the ligature may slip. Here is a danger which, of course, must be most carefully guarded against. Yet it is difficult to see how the ligature is more likely to slip in the case of this vessel than it is in the case of the femoral or the external iliac. This danger is to be obviated, first, by the use of a ligature which, when it is tied, will have a firm "bite" on the vessel. The ligature employed in the cases related above was a carefully selected kangaroo tendon of medium size. I should also consider either carbolised silk or a large-sized chromicised catgut ligature suitable and trustworthy. The wide ox-aorta ligature should not be used, for it cannot be drawn tightly enough to obtain the necessary "bite." Secondly, the ligatures must be placed at a distance of three-quarters of an inch from each other, and great care must be taken that this space is secured behind as well as in front of the vessel. If, when the artery has been divided and the relations of the ligatures examined, there is any doubt about the security with which the ends of the artery are closed, another ligature ought to be applied, just as it might be in the case of an artery tied on the face of a stump. So far as I have been able to ascertain all the cases in which this method has been employed (including two instances besides those related above in which I have tied the femoral) at St. Bartholomew's Hospital since Mr. Smith revived it have been satisfactory, with two exceptions. In one of these the ligature slipped from the subclavian.[3] In the other the carotid was tied in the receiving room by one of the house-surgeons under circumstances of considerable difficulty. Here also the ligature slipped. I regard these cases as warnings rather than as evidence against the principle of the operations of double ligature and division. In the subclavian case a kangaroo tendon was employed, and the operator remarks that this form of ligature exerts a less secure hold on the vessel than would be the case with silk. There seems no objection to the use of carbolised silk; but there are now so many cases in which kangaroo tendon has been used without accident that it is the material which I should be inclined to select.

KASHMIR MISSION HOSPITAL.

A CASE OF FRACTURE INTO THE KNEE-JOINT; ARTHRECTOMY; NECROSIS; RECOVERY; REMARKS.

(Under the care of Mr. A. NEVE.)

THIS case presents many features of interest, not the least of which is its resemblance to that of an acute epiphysitis of the lower end of the femur, with secondary involvement and disorganisation of the knee-joint. In carrying out the principle of conservatism which should guide all surgeons, the operation of arthrectomy undoubtedly aided greatly in saving the limb; but it is not surprising that it was found impossible to render the part fully aseptic when the condition of the parts on admission is considered. Although the operation of arthrectomy is most successful in a joint the subject of synovial disease without sinuses, this case is a good example of its ultimate success under somewhat unfavourable circumstances.

A Kashmiri girl aged two years and a half fell and fractured the right femur above the condyles; she was brought to the hospital twenty-two days later, at which time the region of the knee was much swollen and inflamed, and there was a large sinus behind, leading to the edge of the fractured bone. This sinus was large enough to admit the finger, which felt bare bone, and a probe could be passed into the knee-joint. The discharge was considerable.

[3] Clin. Soc. Trans., vol. xx., p. 34.

First operation.—On Aug. 26th, 1889, the joint was freely opened by a curved incision, all the pulpy synovial membrane removed, and a thin slice taken from the cartilaginous surfaces. At the seat of fracture a bared projection of the upper fragment was clipped off. Drainage was arranged through the old sinus, the joint closed, and immobilised with an iron splint and plaster-of-Paris. In a few days there was great discharge of pus, and the anterior wound began to open. Within twelve days the whole line of union broke down and the condition of the part looked very bad.

Second operation.—On Sept. 7th the patient was placed under chloroform and the wound examined, a sequestrum the size of the kernel of a walnut was removed from behind the condyles. Opening up the whole knee-joint, it was found that the lowest portion of the external condyle was separated—an almond-shaped piece of cartilage, with one surface concave. There were several small scales of necrosed cartilage on other parts of the condyles, but the tibia was covered with healthy granulations. The flap was reapplied with deep wire sutures, and a posterior splint fastened on. After this healing proceeded rapidly. The flap united at once, and the sinus behind granulated up, with daily decreasing discharge. On Oct. 1st the patient left the hospital cured.

Remarks by Mr. NEVE.—It is noticeable with what rapidity this little patient ran through the successive phases of suppuration, sequestration, and granulation. It certainly appeared as if the arthrectomy determined the necrosis. If so, the separation was complete within the incredibly short period of twelve days. The result was fortunate; but if the mother had declined a second operation it would have been disastrous. On the other hand, an expectant method of treatment, or treatment by simple joint drainage, had little chance of success, and the patient would have been taken away before the disease had been cured. In European private practice the indications might have been different; but if a similar case presented itself here I should be impelled to the same method of treatment.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

Mitral Stenosis in Children.—Cerebral Abscess after Middle Ear Disease.

AN ordinary meeting of this Society was held on Dec. 23rd, the President, Dr. C. Theodore Williams, being in the chair.

Dr. A. E. SANSOM read a paper on the Pathological Anatomy and the Mode of Development of Mitral Stenosis in Children. The paper was founded on forty cases clinically observed and nineteen post-mortem examinations, all in children of twelve years of age and under. In regard to *morbid anatomy*, mitral stenosis in its least pronounced degree was evidenced by a ring of granulations around the mitral aperture on its auricular aspect; these vegetations might be friable and fibrin-covered, or fibrous and firmly fixed. The subjacent structures were firmer than normal, and formed a thickened ring. The thickening might further involve the curtains, cords, and columns of the mitral valve. In the more pronounced stenoses the mitral curtains were fused to form a funnel, the ventricular aperture of which might be of varying degrees of patency to the dimensions of a crowquill. In the child funnel-mitral was to buttonhole in the proportion of 8 to 1, while the buttonhole form was the most frequently observed form in adults. The left auricle was often greatly hypertrophied or dilated; its wall might be a quarter of an inch in thickness, or it might be dilated extremely and its wall very thin. The left ventricle was usually of normal or subnormal dimensions; when enlarged it was usually in association with general hypertrophy of the heart and pericarditis. The right chambers were almost invariably dilated. Mitral stenosis was *not a congenital malformation*. It was observed in one case of congenital anomaly, but then it was distinctly the result of fœtal endocarditis. It was extremely rare under the age of five years, and might be considered as invariably the result of endocarditis. In every case examined post mortem there was an association with endocarditis, pericarditis, or both these affections combined. In regard to etiology, the cases showed a very strong associa-

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The abscess arose probably from infection by way of the lymphatics, though some of these cases might perhaps be looked upon as instances of cerebral lesion by sympathy.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Hospital Operative Practice.—Bladder Growth.

A MEETING of the above Society was held on Friday, Dec. 6th, Dr. H. Campbell Pope, President, in the chair.

Mr. BRUCE CLARKE read a paper on Nine Years' Experience of his Operative Practice at the West London Hospital. He exhibited a table of 296 operations of various kinds, most of them so-called major operations, with a mortality of ten cases, only four of which were to be ascribed to the operation. The six which, as he explained, died of the disease rather than the operation included cases of hernia and intestinal obstruction, which were practically moribund on admission, whilst the four which died from the operation were—a tumour of the bladder, a tumour of the prostate, a nephro-lithotomy, and a case of radical cure of hernia. The table was divided into sixteen sections, beginning with thirty-nine tumours, without a death. Then came amputations: eighteen with two deaths, both due to gangrene, for which they were performed, and which returned in the stump and terminated their existence some few hours after operation. Twenty-eight cases of opening of joints were recorded, in which all but one recovered with good movement, and some sixty cases in which the peritoneal cavity was explored, in which, if the acute cases before referred to as being moribund on admission were excluded, only one death had taken place, and that was the case of radical cure of hernia. Amongst the cases of great interest were over a dozen kidney operations, seven lithotrities, and thirteen cases of cystotomy, two large stones from which were exhibited. A large series of pathological specimens illustrative of the cases were exhibited from the museum of the hospital by Mr. Dunn. Mr. Bruce Clarke said, in conclusion, that he recorded in the paper all the cases of operation which had been under his care except a few of the slighter cases, and in these no deaths had occurred. Amongst other points to which he drew attention was the fact that in no single instance had he amputated a limb in consequence of a joint lesion, acute or chronic. Perhaps nothing revealed so clearly what a vast difference there was between the surgery of to-day and that of five-and-twenty years ago as the progress that surgeons had made in the treatment of joints.—The PRESIDENT thought that Mr. Bruce Clarke's mortality of 3½ per cent. after operations was a very low one.—Mr. EDWARDS remarked on the large percentage of cases of urethrotomy (4 out of 21), and said that in his experience it was rare that means could not be found to introduce a very fine bougie.—Mr. BRUCE CLARKE replied.

Mr. HURRY FENWICK described an Unusual Recurrent Bladder Growth. He showed wax models of growths in the bladder of a lady aged forty-three. The patient had come under the care of Dr. Oldfield, suffering from hæmaturia of two years' duration. On introducing the electric cystoscope a hazel-nut-sized cancerous growth was seen overlapping the mouth of the left ureter, the rest of the bladder being perfectly healthy. A model was made of its appearance. The urethra was dilated, and the tumour, which was found to possess a long pedicle, was snared and cut off with scissors. Microscopically it proved to be a villous-covered carcinoma. After six months' complete rest the symptoms recurred, and two months later the cystoscope was introduced. The scar of the operation was seen to be perfectly healthy, and the cause of the bleeding was found to be another tumour on the opposite side of the bladder behind the right ureteral opening. There were two small satellite splashes of growth in the neighbourhood of the principal tumour. All three were carefully dissected off the bladder-wall, and the patient made a good and rapid recovery. The second growth was shown to be benign. The unusual features of the case consisted in (1) a bladder cancer being pedunculated; (2) a bladder which had already developed a cancer, subsequently forming an innocent growth; (3) the formation of satellite villous growths in the neighbourhood of the benign tumour. It was contended that this little group of irritative growths demonstrated the existence of some permanent irritation in the bladder.—Mr. BRUCE CLARKE thought that the second tumour must already have begun growing before the first was removed.—Mr. KEETLEY referred to the numerous small warts on some persons in whom only one would sometimes take on malignant growth.—Mr. FENWICK, in reply, dwelt on the coexistence of benign and malignant growths in the same individual.

Mr. PERCY DUNN exhibited specimens of Impacted Calculi in the Urinary Bladder and a Tumour of the Thyroid.

Mr. EDWARDS showed a case of Distension of the Abdominal Veins.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

THE opening meeting of the Medical Section was held on Nov. 15th, when the PRESIDENT (Dr. Atthill) made some appropriate remarks.

Morphinism.—Dr. FOOT read a paper on this subject, and drew attention to the increasing prevalence of the use of the hypodermic syringe as a medium for the vicious introduction of morphine into the system. Morphinism (a word introduced by Levinstein) was, in some parts of Europe, at present almost a matter of fashion: gifts of handsome syringes in silver cases were exchanged on festive occasions, and reciprocal injections of morphine made on favourable opportunities. The subject was one of special interest to medical men, because of the number of their colleagues who had fallen victims to it. Some said this was a just retribution upon those who were responsible for the practice. Dr. Foot thought it more charitable to attribute the habit to (1) the relief of pain, (2) insomnia, (3) melancholia, (4) curiosity, or (5) imitation. A receptivity for morphine was not possessed by everyone; all its effects were unpleasant to many. Few morphinists were satisfied with less than three grains in the twenty-four hours; many used more than ten times that amount. The diagnosis or detection of the morphine habit was discussed, and stress laid upon the peculiar untrustworthiness of the patient's own statements as to the amount or frequency of the dose. The prognosis in morphinism was not at all favourable; the probability of a cure might be estimated by attention to the following points: the duration of the habit, the persistence or not of the exciting cause, and the physical and nervous constitution of the patient. Relapses were very frequent; successful treatment, unless under the most favourable circumstance, was hardly possible in the patient's home. As to the treatment, emancipation from morphine slavery was unattainable by voluntary effort. The process of cure, or of demorphinisation, required more moral and physical courage than was at the disposal of a morphine *habitué*. The treatment was considered under the heads of the deceptive plan, the substitution plan, the tapering-off plan, and the abrupt withdrawal plan. The first two methods were not to be seriously considered in the treatment of confirmed morphinism. The tapering-off plan involved prolonged misery during the weaning process. The abrupt plan was frequently followed by a dangerous group of symptoms. A modification of the latter two methods might be adopted—the complete withdrawal of the morphine, not abruptly, but in from six to twelve days.—Dr. FALKINER mentioned the case of a school teacher whom he saw take five ounces of laudanum at a draught, and afterwards gave up the habit.—Dr. EUSTACE advocated the abrupt and sudden total withdrawal of the drug in morphinism, and of the spirits in alcoholism, as the best and most scientific treatment. As a rule, only a partial cure was effected, for sooner or later temptation led to a relapse.—The PRESIDENT'S experience led him to advocate gradually diminishing doses. He knew a medical man who took one-sixth of a grain four or five times in the twenty-four hours, and who had the firmness not to exceed that dose.—Dr. WALTER G. SMITH said it was difficult, in regarding the action of drugs of a certain class on the higher parts of our nervous system, to restrict consideration to any particular drug, such as morphine, without taking into account also the effects of other drugs of allied action. Thus there were two groups which might be arranged in the ascending scale of action—one the alkaloids, and the other the members of the fatty series, including chloral, ether, alcohol, &c. Dr. Foot had adverted to this class distinction, indicating that the prolonged use of one of the

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members of the fatty series was liable to induce general tissue change and lead to death, whereas members of the alkaloid series affected chiefly the higher or psychical, emotional, and intellectual nerve centres, causing death by their action on the respiratory and cardiac centres. It was puzzling to reflect how some could take with impunity hundreds of times more morphia than would kill an ordinary person. There was a difficulty in this question, to which unsatisfactory answers could yet be given beyond the region of vague speculation. With regard to the question of how much or which any amount of discomfort or suffering could be excluded on the patient's part was a good reason for objecting to the sudden total withdrawal of the drug,—Dr. JAMES LITTLE did not believe in dis regarding the horrible torture, the intolerable suffering, produced by sudden total withdrawal, on the contrary, he thought the nervous system of the patient never recovered entirely from the wreck of misery and wretched ness produced by such treatment. For his own part, he had seen patients get on very well by gradually stopping the drug. The plan Dr. Foot had mentioned was the one which he had always adopted—namely, the gradual diminution of the drug. With regard to limitations, if a man was otherwise in perfect health, alcohol, and perhaps morphia too, might be stopped altogether; but in the case of the patient had chronic illness, even a catarrh, or anything else, however trifling, the smallest thing, he would be exposed to terrible risk by suddenly stopping either alcohol or morphia.—Dr. Sir. FOOT, in replying, said he thought Dr. Eustace had given the keynote to the discussion. There were two classes of cases to be considered. Thus Claudius drew a distinction between what he called morphinism and morphinomania—the former being the state of a person who had recently acquired a taste for morphia, whether from temptation, emulation, curiosity, or for relief of pain; and the latter the condition of mental deterioration only known to exist in those with such a craving, insufferable hunger that destroyed body and soul. The morphinomaniac in his periods of satisfaction would be in his condition, but would otherwise have no real desire to be cured, and would not know the first opportunity of getting rid of his craving, being practically insane and treated as a lunatic. On the other hand, the morphinist wished to be cured, and would assist in carrying out the graduated or tapering-off plan, which was the advisable treatment in such a case; for experience showed that total withdrawal was followed by what the Germans called *abstinenz symptome*, or reactionary efforts, which had sometimes proved fatal.

Notices of Books.

The Immediate and General Treatment of Accidents and Injuries. By Sir W. MOORE, K.C.I.E., M.D. Published under the authority of the Government of Bombay. Pp. 94. London: Churchill. 1889.—This work is of the nature of the somewhat numerous handbooks which treat of "First Aid to the Injured," but differs from these in an important point, that it has been prepared by the officer who held lately the appointment of Surgeon-General with the Government of Bombay, for use in India, and translation into the vernacular. It appears well adapted for the purpose, the instructions being generally clear and easily understood. On one point, however, in connection with the transport in cases of accidents and injuries, he differs entirely from the best authorities on the subject. After stating that a hurdle, shutter, door, or charpoy may be converted into a litter, he says: "The shutter or hurdle should be carried by the hand, and the bearers should 'keep step' to avoid shaking." But on this point Surgeon-General Sir T. Longmore in his excellent 'Treatise on the Transport of Sick and Wounded Troops,' lays down the rule that "The front and rear bearers of the conveyance must start with opposite feet. They must not move 'in step,' but, on the contrary, must march out of step, or, as the ordinary expression is, must 'break step.' . . . it becomes one of the first lessons in the instruction of men whose duty it is to carry sick and wounded. . . . The reason which dictates the rule I have named is readily apparent on examination. . . . There is no lateral movement giving the patient a tendency to roll from side to side." This is the rule laid down in all the books on ambulance work with which we are acquainted. We think that the author does not give sufficient prominence to the importance of promptly obtaining skilled medical or surgical aid in all cases of serious injury or illness. There is a great tendency to rely entirely on the assistance afforded in the first instance by ambulance pupils and others who have been instructed in the "first aid" to be given in accidents. Much valuable time is consequently often lost in serious cases, and, need we add, with unfortunately irremediable consequences. It may be that in many places such assistance is not within reach or could only be obtained with much difficulty and delay, but it is none the less desirable that the importance of procuring it, when possible, should be clearly indicated.

Clinical Lectures on Varicose Veins of the Lower Extremities. By WILLIAM H. BENNETT, F.R.C.S., Surgeon to St. George's Hospital; Lecturer on Clinical Surgery and on Anatomy in St. George's Hospital Medical School; Member of the Board of Examiners, Royal College of Surgeons of England. With Three Plates. London: Longmans, Green, and Co. 1889.—These lectures are already familiar to our readers, as they originally appeared in our columns. We are not, therefore, called upon to do more than refer to their publication in book form, and to indicate their general purport. The lectures are founded upon an analysis of a series of cases, which are arranged in two tables of males and females, in a way to indicate several important features. Mr. Bennett adopts the view, now held by many, that in a large proportion of cases varicose veins must be regarded as a primary overgrowth of veins, and not as a result of increased intravenous pressure. This view rests upon even wider grounds than Mr. Bennett here enters upon, and its general adoption will do much to promote a more rational and successful treatment of the affection. The value and safety of operation upon varicose veins are laid stress upon in our opinion not unwisely; and, in addition, many other valuable suggestions are given. It is a useful contribution on a subject of great importance to all surgeons.

Madère, Station Médicale pour Climat des Phthisies, Climat des Diathèses. Par le Dr. C. A. M. PITTA. Pp. 103. Paris: Félix Alcan. 1889. The author, who has been many years in practice in Funchal, states that while hundreds of English and German and many Russian visitors go to Madeira, it is rarely visited by French, probably from ignorance of the means of reaching it and the advantages to be derived from its mild climate. He has written this book, therefore, with a view to afford information on these points, and on the mode of life in the island and the expense involved in residence there. He comes to consider the climate likely to prove useful in all cases of incipient or chronic lung disease, but does not give any indication of the diseases, or stages of disease, for which it might be expected to prove unsuitable. In a chapter on the meteorology of Funchal he gives a considerable amount of information as to the temperature, rainfall, winds, and amount of ozone, based on the observations of twenty years, 1865–85, which may be found useful. He has also furnished a fair description of the island, with all the necessary information as to the means of reaching it and of obtaining suitable accommodation. The book will doubtless prove useful to Frenchmen who feel disposed to try Madeira as a health resort in preference to their own sunny South; but we cannot say that it affords much information which we did not already possess.

The American Armamentarium Chirurgicum. New York: George Tiemann and Co.—This is a large quarto volume of over 800 pages and containing 1414 illustrations of surgical instruments and appliances. It differs from the general run of instrument makers' catalogues in having descriptions of the anatomy of such parts as the rectum, and in containing accounts of the proper mode of using all the instruments. These descriptions are all taken at first hand or from standard works.

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THE LANCET.

LONDON: SATURDAY, DECEMBER 28, 1889.

THE ANNUS MEDICUS 1889.

THE year 1889 will be memorable in domestic history as the year of the election of County Councils under the Local Government Act of the previous year carried through Parliament by Mr. RITCHIE. This is the first step in a great development of local as distinguished from central government. The medical bearings of this great development of local government are not the least of its features. It is too soon yet to judge of the wisdom or the efficiency of County Councils for securing the best ends of government. It must not be forgotten that enormous improvements have been effected in public health under a comparatively centralised system. Perhaps the most important illustration of this is the marked and continuous decline in the mortality from phthisis during the past fifty years of civil registration, a decline which has continued at an increased rate since 1880. One good thing has been done by the London County Council in the election of Mr. SHIRLEY MURPHY to the office of Medical Officer of Health. We may hope for a greater completeness of co-operation between the different parts and parishes of London, and for many other improvements in sanitary administration, from this appointment. We proceed without formal introduction to notice under a few leading heads the progress of medicine in all its branches in 1889.

Anatomy and Physiology.

Perhaps the most interesting event that has occurred in general Physiology has been the appearance of the treatise entitled "Darwinism," by ALFRED RUSSEL WALLACE, since it presents the form which Darwinism would have assumed had it been introduced to the world by the author instead of by DARWIN himself. Mr. WALLACE writes, of course, with the knowledge which he has gained from the perusal of DARWIN'S works; but it is clear from the mode in which he deals with the subject that he would have followed nearly the same lines in dealing with natural selection as did DARWIN himself. Instead, however, of basing his theory primarily on the evidence of variation in domestic animals and cultivated plants, he commences at once with the struggle for existence, which he considers to be the fundamental phenomenon on which natural selection depends, and he adduces, like DARWIN, an infinite number of instances which are either well authenticated by competent observers, or which he has himself noticed in the course of his long career as a naturalist. The whole work reads as though it had been written by DARWIN himself, and is full of the most interesting facts, all tending to demonstrate the general truth of the doctrine inculcated by this great philosopher. In the course of the year there has been a large and well-attended International Congress at Basle, where questions of the greatest scientific interest have been ably discussed by the most capable investigators. Dr. GASKELL has continued his extremely interesting work on the Nervous System, his most important paper perhaps being that which is published in the Journal of Physiology, entitled "The Relation between the Structure, Function, Distribution, and Origin of the Cranial Nerves; together with a Theory of the Origin of the Nervous System of Vertebrata." For his valuable work in connexion with the Anatomy and Physiology of the Nervous System the Council of the Royal Society have felt themselves justified in awarding him one of their gold medals—a high but well-deserved honour, which fitly crowns the recognition of his merit by the Royal Medical and Chirurgical Society, who last year awarded him the Marshall Hall prize for original investigation. The death of Dr. LEONARD WOOLDRIDGE has removed at an early age one of the most active of physiologists, and the interests of science suffer severely owing to his premature decease. The College of Surgeons is deserving of great credit for affording the younger workers, like LOCKWOOD, COLLIER, and HUNTER, the opportunity of presenting to the profession the results of their investigations in short courses of two or three lectures each, some of which are likely to become classical. Amongst the physiological works which have been issued during the year, the first place must be given to the second part of Professor FOSTER'S Text-book of Physiology. The subjects of which he treats in this part—viz., Digestion, Respiration, the Kidneys, and Nutrition—are so much enlarged as to be practically rewritten. At the same time this amplification has enabled Professor FOSTER to simplify many matters which were before obscure from the necessity of condensation. A third edition of LANDOIS and STIRLING'S excellent Physiology has also appeared, whilst Dr. MCKENDRICK has been able to complete his most useful and important Text-book on the same subject. In France one of the most noteworthy new works that has appeared is the Traité Élémentaire de Physiologie, by F. VIAULT and F. JOLYET. In the anatomical world the most interesting event of the year, next to the phenomenally small supply of subjects to the various dissecting-rooms attached to the Metropolitan Schools of Medicine, has been the formation of a committee of the Anatomical Society for the collective investigation of anatomical details, especially in regard to abnormalities. Dr. BOWLES and Dr. SYMINGTON have each contributed important papers to the same Society upon the Structure and Development of the Epiglottis. The work of 1888 in the École Pratique des Hautes Études has been published by M. RANVIER, and will be found to contain an excellent memoir by VIGNAL on the development of the elements of the Cortical Layers of the Cerebrum and Cerebellum in Man and Mammals.

Pathology.

In the brief account of pathological progress recorded in these columns last year the first place was given to Tuberculosis, as having obtained perhaps the largest share of attention. The same is true of the year that is now closing. Doubtless this is in some measure due to the impetus given to the study of this subject by the Congress held in Paris in 1888, the Transactions of which have appeared this year. Not that much more light has been thrown on the pathology of the disease or its manifestations, but rather that the views of its probable contagious nature have been more pro-

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nounced, and have even led to public legal decisions. We refer particularly to the question of the identity between human and bovine tuberculosis and the liability to the transmission of the affection by the consumption of the flesh of tuberculous animals. The whole subject was very fully entered into in an inquiry that took place at Glasgow respecting the condemnation of meat from tuberculous cattle, and much of the evidence which guided the decision was based on the bacillary doctrine of the disease. The publication early in the year of Dr. CORNET'S investigations upon the dissemination of tubercular bacilli outside the body gave rise to the suggestion of measures for the disinfection of phthisical sputa &c., whilst the promulgation by the Paris Congress of a code of regulations bearing on the same subject has brought the question of infection into still further prominence. As we write, these regulations are being discussed by the Academy of Medicine, which has been asked to give them the sanction of its authority. Similar reports have been made in the United States, and everywhere there seems to be much eagerness to base prophylactic rules upon the results of pathological research. Mention should also be made of the reports upon bovine tuberculosis furnished by Professor CROOKSHANK to the Agricultural Department of the Privy Council. The somewhat allied but far rarer disease of actinomycosis has also been much studied both in animals and in man; cases have been recorded by Dr. POWELL and Mr. GODLEE, whilst some foreign observers have given instances of human pulmonary actinomycosis diagnosed during life. On this subject also much interesting detail was given by Professor CROOKSHANK in the reports referred to. The parasitic nature of malaria has been studied by CELLI and others. Drs. MACLEOD and MILLES have given considerable support to KOCH'S view of the pathogenic importance of the comma bacillus in Asiatic cholera. Although both hydrophobia and leprosy have engaged much attention, no material additions to the pathology of these diseases can be said to have been made. Dr. STERNBERG has controverted the views of Dr. DOMINGOS FREIRE upon yellow fever, but the latter has declared his inability to accept the statement that the microbe he discovered in this disease is not the pathogenic agent. Dr. STERNBERG has also furnished an able review of the etiology of croupous pneumonia, published in our pages, in which he showed the identity of the diplococcus pneumoniæ with the organism originally discovered by PASTEUR and himself in saliva. Indeed, pneumonia continues to be the subject of much bacteriological research, and the diplococcus has been found in association with many other inflammatory affections. WEICHSELBAUM has made an extended investigation into the bacterial relationships of various forms of endocarditis, and there would seem to be no diminution in the vigour with which the fascinating pursuit of bacteriology has been carried on in all centres. Cancer has been treated by Professor MARSHALL in his suggestive Bradshaw Lecture, but we still seem far off the solution of the problem of its true nature. Little has been heard, for example, of the microbic theory of cancer advanced two years ago, and so clearly disproved by Messrs. SHATTOCK and BALLANCE, although HANAU has recorded the successful implantation of cancerous growths by grafting on the rat. Some attention has been given to the subject of the transmission of infective disease from the maternal to the fœtal organism, and also to the subject of the inheritance of acquired defects. Amongst special subjects may be mentioned Fœtal Rickets studied by STILLING, KIRCHBERG, and MARCHAND; Cirrhosis by ACKERMANN; Suppuration by GRAWITZ; Pneumonia by FOA; Acromegaly by MARIE, VIRCHOW, and others; and the invaluable report upon Myxœdema issued by a Committee of the Clinical Society. Dr. TOOTH added materially to our knowledge of the pathological anatomy of chronic changes in the spinal cord in his Goulstonian Lectures. There has been a considerable addition to the literature of Pathology during the year. We have to note the appearance of the reports from the Laboratory of the Edinburgh Royal College of Physicians, the publication by Professor HAMILTON of the first volume of his exhaustive and original Text-book of Pathology, and the issue of new editions of such well-known works as Professor ZIEGLER'S Allgemeine Pathologische Anatomie, of Dr. COATS' Manual of Pathology, and of Dr. GREEN'S Morbid Anatomy, which is now edited by Mr. STANLEY BOYD. Amongst the new books in this department are the second volume of Professor KLEBS' large treatise upon General Pathology, the Guide to Practical Pathology by ISRAEL, and the Manual by Dr. NORMAN MOORE. To the New Sydenham Society we are indebted for the publication of a translation of COHNHEIM'S famous Lectures on General Pathology, and also of RAYNAUD'S Memoirs on Symmetrical Gangrene. Mr. BLAND SUTTON has published an attractive monograph on Dermoids. Of the work done by the Pathological Society in the advancement of pathological science it is needless to speak, but no one can follow the record of its proceedings without being convinced of the material aid it gives to this cause and the interest of the discussions that arise at its meetings.

Progress of Therapeutics.

Notwithstanding the numerous public gatherings of the year at which Pharmaceutical and Therapeutical progress is currently reported, some of the best work is to be found in scattered papers which have been published independently of congresses and associations. It might, indeed, be said that knowledge cannot afford to wait for public meetings, any more than it can be specially manufactured for them. An observer who feels he has something to say, hastens into print in the hope of submitting his views to the experience and criticism of a wider public. On the other hand, the work brought before public gatherings is not infrequently of a somewhat sketchy description, and hence challenges, and sometimes finds, contradiction with increasing experience. Of all the meetings of the year, perhaps that held in Paris was the most disappointing in the material set forth. Still the year has introduced many new remedies and many valuable contributions to the progress of therapeutics. Some of the new remedies, after being mentioned once or twice, seem to have speedily fallen into obscurity. The ardent accounts of early observers sink into silence which is eloquent. Pyrodine and exalgine are thus in the clouds; the former shrouded in many rumours of danger, the latter in great uncertainty as to its chemical composition. Strophanthus, however, has been attacked with great

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vigour, and however little is therapeutic position is be-yond, there is no doubt that Dr. Pavay's researches upon its composition will hold a deservedly high place. This extraordinary opened slaughter-house, and a possible explanation appeared to lie in the different varieties with which the market was flooded: so soon as it seemed to bear any particular commercial value. Very early in the year the Pavian Academy of Medicine opened fire upon the use of the various chemical preparations of horse flesh, which, while it also mentioned as "calyptus colonia" although a very recent introduction, has already undoubtedly the power of the comparative disinfectants given by Dr. Lancet, the Academy declared that the "calyptus colonia" was a new name, and that it appears to be the identical remedy which has been in use for many years by Pavian doctors under a new name. Perhaps the issue

work that is going on now consists in "levelling up." And this "levelling up" is of two kinds—it affects surgeons and surgery. The success of one becomes the experience of many, and methods of examination or of treatment of one disease or organ are applied more widely to other diseases or other organs. Our columns during the year have borne ample testimony to the enterprise and the success of surgeons in all departments. There has been no new development of intracranial surgery to record, but a very good case of trephining for extra-meningeal hæmorrhage was reported in THE LANCET early in the year, one feature of interest in the case being the absence of fracture of the bone. The removal of the superior cervical ganglion of the sympathetic nerve for epilepsy is a new operation, and it has met with such a fair measure of success that a careful study of it, and its repetition in well-selected cases, seem to be called for. In the surgery of the chest some excellent results have been obtained by injecting emulsion of iodoform into the pleural cavity after evacuating the pus of empyema. The abdominal cavity has so long been the favourite field of many surgeons that it is difficult to add to their trophies. The work initiated by SENN of Milwaukee has borne some good fruit, and there is no doubt that his methods and modifications will form a very valuable addition to the surgeon's means of dealing with many varieties of intestinal obstruction, perforation, and wounds. Electric endoscopy is making way, and in some surgeons' hands the electrolytic treatment of urethral stricture seems to have given good results. In the surgery of the limbs there has not been much to call for special notice. The treatment of obstinate or incurable lesions of the soft parts by removal of portions of the bone or bones is a novel procedure that has been practised with success in Scotland. The injection of a solution of iodoform in cases of tubercular disease of bones and joints has given good results, and promises to be a useful procedure when carefully carried out. Arthrectomy has certainly gained in favour with many surgeons, and the formal excision of diseased and injured joints is becoming a less frequent operation. The treatment of old unreduced dislocations of the shoulder by direct operation has recently been described by Sir JOSEPH LISTER, and his two cases of this operation were so successful that other surgeons who have confidence in their aseptic methods of treatment will no doubt follow his example. From such brilliant illustrations of the value of the aseptic treatment of wounds, it is natural to pass to a review of the recent changes in wound treatment. A few years ago a cry was raised "*Fort mit dem Spray*," and to-day the familiar hiss is rarely heard. The most recent improvement has been in response to the cry of "Away with drainage-tubes!" And, although these admirable adjuncts to surgical dressings promise to hold their own in many cases, their field of usefulness has been greatly narrowed of late. Many surgeons rarely use them for recent wounds and in many operations, and thereby obtain a more simple, rapid, and complete healing of such wounds. This result has been obtained partly by the free use of corrosive sublimate solution for irrigation of wounds, and partly by a more careful application of equable, firm, and yet elastic, compression of wounded parts. This latter is no new method of treating wounds, and was successfully practised and eloquently advocated for many years by, among others, the late SAMPSON GAMGEE. This year has also witnessed the introduction to the profession of a new antiseptic dressing in the form of the double cyanide gauze of Sir JOSEPH LISTER. The remarkable series of experiments, giving most unlooked-for and beautiful chemical and physical results, which have led up to the production of this gauze in its latest form, will always make an interesting chapter in the history of the development of aseptic surgery and dressings. They admirably illustrate Sir JOSEPH LISTER'S caution and true scientific spirit, as well as his thorough knowledge and keen insight, although the final verdict on the gauze has yet to be pronounced.

Obstetric Medicine.

The past year has shown considerable activity in this department. To the Obstetrical Society of London the following communications have been made:—On Methods of Craniotomy, by Dr. ARCHIBALD DONALD, containing a plea for turning and perforation of the after-coming head as an operation of choice in certain cases; a Successful Porro's Operation for Contracted Pelvis, by Dr. GALABIN; a Successful Cæsarean Section for Contracted Pelvis, by Dr. CHAMPNEYS; a paper on Acute Non-septic Pulmonary Disorders, by Dr. JOHN PHILLIPS; another by Dr. HERBERT SPENCER, on the Possibility of Feeling the Placenta by Abdominal Palpation; a paper on Certain Peculiar Vaginal Lacerations, by Dr. MATTHEWS DUNCAN; Contributions to the Anatomy of the Pelvic Floor, by Dr. HERMAN; and a paper on Closure of the Ostium of the Fallopian Tube, by Mr. ALBAN DORAN. The Edinburgh Society are still largely occupied by the Anatomy of the Pelvis, as the following contributions to their Transactions show: — Note on SAEXINGER'S and WINTER'S Sections, by Dr. BARBOUR; Contribution to the Normal Anatomy of the Pelvic Floor, by Dr. SYMINGTON; the Nature and Aim of Investigations on the Structural Anatomy of the Female Pelvic Floor, by Dr. BERRY HART; On the Light which Sectional Anatomy will Throw upon the Mechanism of Labour, by Dr. BARBOUR. The Physiology of the Third Stage of Labour is discussed by Dr. HELME; Adherent Placenta and Expulsion of the Placenta before the Birth of the Child, by Dr. BERRY HART; Mitral Stenosis and Labour, by the same author; and the use of Nitrite of Amyl in Heart Disease Complicating Labour, by Dr. FRASER WRIGHT.

Ophthalmology.

In this branch of science the two most elaborate treatises that have been published in the course of the year are those of Mr. BERRY of Edinburgh and Dr. ERNEST FUCHS of Vienna, both of which have been written by men of considerable experience, and are well adapted for the use of the student working in the ophthalmic wards or for the practitioner. Mr. BERRY'S volume presents the novelty of having coloured drawings introduced into the text, which will certainly prove of much assistance to the learner. Amongst minor works are: "Errors of Refraction," by VALK, a carefully written work. Mr. J. HUTCHINSON, the son of the President of the College of Surgeons, has published a convenient manual entitled "Hints on Ophthalmic Practice for the use of Practitioners";

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whilst Dr. MADDOX deserves credit for having written a small but serviceable treatise on "Clinical Use of Prisms and the Decentring of Lenses," a subject of much interest, and one which, though of great importance, has received but little attention in England. Another small work of value is by Dr. EDRIDGE-GREEN, who has pointed out the great improvements required to be made in the mode now adopted by the different railway companies for testing the colour vision of their officials, if the safety of the public is to be completely guarded. In the Ophthalmological Section of the British Medical Association, Mr. CRITCHETT discussed the subject of the Artificial Maturation of Cataract, and the same subject has been the theme of a short paper by Dr. PARISOTTI. Several writers have published notes of 100 cases of cataract extraction performed without iridectomy, the results being in many cases excellent, and in some, as in those of Dr. BULL, first-rate. The curious suggestion has been made by M. EMILE MARTIN that a suture should be used to unite the edge of the wound after the extraction of cataract, a proceeding that appears to be wholly unnecessary, and, even with the most careful antisepsis, fraught with danger to the eye. The circumstances under which such a method could be adopted are probably of the most exceptional nature. The Bowman Lecture was delivered by Professor HANSEN GRÜT of Copenhagen, before a full meeting of the Ophthalmological Society.

The Progress of Dental Surgery in 1889.

Probably no one subject has received the amount of attention, or has been discussed so fully, during the current year as the question of anæsthetics for use in dental surgery. The view so long held, that nitrous oxide was an asphyxiating agent, and thus produced narcosis, is now conclusively proved to be an error, mainly through the careful and prolonged experiments and researches of Dr. DUDLEY BUXTON, a short account of which he read at the annual meeting of the British Dental Association at Brighton. At the same meeting, Dr. FREDERICK HEWITT gave an account of 200 cases of anæsthesia with a mixture of oxygen and nitrous oxide, which he claims to be even a safer anæsthetic than nitrous oxide alone, and he gave practical demonstrations of this method. Cocaine as a local anæsthetic in dental surgery has not quite come up to the first expectations. Injected into the gum for tooth extraction, its anæsthetic action is not certain, and a number of cases of its toxic effects have been recorded, fortunately with no fatal results; but in many other dental operations, such as its application to irritable gums, it is a most valuable adjunct to the Dental Pharmacopœia. The implantation of a natural tooth into a socket drilled in the alveolus has not found general favour in this country, although it has one or two powerful advocates; and a case was shown recently by Mr. GEORGE CUNNINGHAM of a bicuspid implanted two years before, which had the appearance of having grown in its situation. The operation has lately been severely criticised in the land of its birth—America,—where some have gone so far as to implant artificial teeth with platinum wire roots. That bugbear of the dental surgeon, pyorrhœa alveolaris, or Rigg's disease, has come under the clinical observation of Mr. JONATHAN HUTCHINSON, who believes it to be a local contagious inflammation, and therefore to be attacked locally by antiseptics; but at present the results of treatment are far from encouraging, that by sulphate of copper perhaps, being the best. Of antiseptics generally, bichloride of mercury has become a special favourite, notwithstanding the great objection of its eroding effect on fine dental instruments, and peroxide of hydrogen is spoken most highly of by those who have tried it. Electricity (as supplied from a primary battery) has long been utilised to run the electric mallet for gold plugging, and is now laid under contribution for the electric mouth mirror, cautery, and dental engine. Mr. KIRBY, who has made many experiments with regard to the electric motor, has a dental engine which works well from a series of "Smee" cells; but the electric current, as supplied to houses, is looked forward to as the motor source of the future, whether supplied by high or low tension, or alternating currents. The application of gold crowns, with or without a facing of porcelain, to teeth which are broken down is gradually gaining ground, and bridge-work, or the attaching of several teeth to two or three standing teeth or roots, is a distinct advance when not abused. HOW'S method of inlaying a carious tooth with porcelain in certain cases, instead of inserting a gold filling, which is so conspicuous, has been alluded to and demonstrated by Mr. WILLIAM HERN. The British Dental Association has been continuing its warfare against illicit practitioners, and that most successfully, sweeping away many names from the Dental Register. Guy's Hospital has established a regular school for Dental Surgery and a special department for dental training, which we hear is a success.

Public Health and Sanitary Legislation.

The improved condition of the public health, as indicated by the lowered mortality-rate, which had been a marked feature of 1888, was continued into the first quarter of the present year, when the general death-rate was lower than in any corresponding quarter since the commencement of civil registration, except the first quarter of 1884. The zymotic rate was also below the mean; indeed, diphtheria was the only disease coming directly within the control of sanitary administration in which the mean was exceeded. During the second quarter of the year a similarly satisfactory general rate and zymotic rate was maintained; and it is noteworthy that during both the first and second quarters the mortality from small-pox was lower than during any corresponding period for which statistics are available. During the third quarter a rise in mortality was observed, when compared with the unprecedentedly low rate experienced in the corresponding quarter of 1888, but the general rate was still below the mean for the preceding ten years. To some extent the rise which had taken place was due to an excess of diarrhœa when compared with the extremely low rate which had obtained during the cold and wet summer of the preceding year. During the current year the rainfall for the third quarter had been below the average for the corresponding periods in seventy-four years; and the mean temperature, which was 58·9° F., was only 0·8° below that for the corresponding quarters of the previous 118 years. So also, whilst the zymotic rate, taken as a whole, was below the mean, fever somewhat exceeded the average rate in the ten preceding quarters, and the diphtheria rate considerably

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exceeded that in any previous third quarter on record, a number of local epidemics of this disease having occurred. Some of these were in large towns, such as Manchester, Preston, Salford, Plymouth, and London; and this feature of the extension of diphtheria from rural to urban districts, to which we have before adverted, would seem to be becoming more and more accentuated. Foreign epidemics have formed no special danger to England during the year, and it is only just at its close that any such risk occurs. We refer to a prospect of an invasion of the epidemic of influenza, which, having apparently commenced in Russia, where it has occasioned great distress, has travelled westwards across the continent of Europe. But the epidemic has seemed to become milder as it has progressed towards the west, and probably the most that we need anticipate are discomfort and inconvenience from an affection which, apart from meteorological changes, which we hope to avoid at this season of the year, is not usually one which occasions much loss of life. One of the most important features of the year in regard to public health has been the appointment of a Royal Commission to inquire into the subject of Vaccination and of the administration of the Vaccination Acts in this country. We have already commented at length on the first report issued by the Royal Commission. It dealt exclusively with the case in favour of vaccination as a preventive of small-pox, and pending the publication of evidence on other aspects of the system of public vaccination as practised in England and Wales, we would limit ourselves to saying that, so far as it goes, the evidence tending to show that the prevention of small-pox has been due essentially to vaccination, and not to any such other improvements as have conduced to the lowering of many of the other zymotic diseases, seems to us so overwhelming that it can hardly be gainsaid. The legislation of last session included the Act for the Notification of Infectious Diseases; and although we deemed it our duty to object to the precise method by which the notification was to be carried out, we felt all along that, for the protection of the public, it was of the greatest importance that sanitary authorities should be in possession of information as to the prevalence, apart from the fatality, of infectious diseases in their midst. The public, as represented by sanitary bodies, have shown their appreciation of the Act in a manner that almost savours of impulsiveness; for whereas the adoption of the provisions of the Act is voluntary except in the metropolis, we learn that several hundred provincial authorities have already decided to carry out the system of compulsory notification for their several districts. In one sense this is a satisfactory result of a piece of legislation which was regarded as tentative only; but, on the other hand, we know that many of the sanitary authorities about to put the Act in force are without the means of isolating the cases of disease with which they will become acquainted, and we cannot but fear that, in this essential respect, their action may turn out to be premature. But if the newly acquired information as to the extent to which infectious diseases are spreading amongst the public leads to the provision of hospitals for the isolation of the first cases heard of, and so to the checking of disease in the future, a great indirect good will have been attained. Another Act was passed during the session which tends to put our general sanitary administration on a firmer and more permanent footing. We refer to "An Act to remove doubts as to the power of the Local Government Board to make Regulations respecting Cholera." Unfortunately our system for dealing with imported foreign diseases is complicated by the fact that whilst the Local Government Board has been constituted the Central Sanitary Authority for England and Wales, the quarantine functions which the Privy Council has possessed from a somewhat antiquated period still remain in the hands of the latter body; and hence whilst the Local Government Board have long since decided that it is undesirable to use quarantine for the purposes of cholera, the Privy Council had retained their power to order that ancient restriction to be put into force against that disease whenever they chose. It is quite true that they have hardly any machinery for properly putting their powers into operation; but for all that they have clung to their former functions in the matter. And, this being the case, doubt arose as to the legality of the modern and more reasonable action embodied by the Local Government Board in their Cholera Order. This doubt has now been set at rest, in favour of the Local Government Board, by the Act referred to, and it is to be hoped that this constitutes a first step towards the complete concentration of the powers for the promotion and protection of the public health in one Government department instead of leaving them scattered amongst a number of offices, which have neither the advantage of machinery for putting them in motion, nor a skilled staff to advise when and how action should be taken.

Medical Jurisprudence and Toxicology.

The year which is now closing will not have passed without its full complement of cases ranging themselves under the head of Legal Medicine. There have been perhaps fewer sensational incidents than usual. The most notorious have been those of homicidal arsenical poisoning, in which the culprits were women. FLORENCE MAYBRICK was convicted of having killed her husband by administering to him repeated doses of arsenic. The death sentence was commuted to penal servitude for life after a prolonged investigation of the medical evidence by the Home Secretary. We see no reason to alter the opinion we formed, after an exhaustive analysis of the evidence, that death resulted from arsenical poisoning, although it was a doubt on this point felt by the Home Secretary that led to the convict's reprieve. The wholesale poisoning by arsenic at Deptford by a woman named WINTERS recalls to mind a similar series of atrocities enacted in Liverpool a few years since. In each case the motive was the same—the gain of a few pounds, for which the lives of the victims were insured. It is evident that the existing law is too lax both as regards life assurance and the sale of poisons. We have recorded suicidal deaths from prussic acid on two occasions. A woman at Hammersmith committed the fatal deed impelled by jealousy at the alleged faithlessness of her lover. Had medical aid been obtained, the event might have been averted, as death did not ensue until forty minutes after the poison was swallowed. A medical practitioner took his own life by hydrocyanic acid whilst suffering from temporary insanity induced by insomnia and mental strain. There have been several instances of

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poisoning from inhalation of carbonic oxide. In Wales four persons were found in a state of insensibility from breathing charcoal fumes emitted from a fire-grate. Fortunately they all recovered. The death of a gentleman in a bath led us to comment on the danger attending the use of geysers when not fitted with a ventilating pipe to carry off the products of combustion and any escaped gas. It should be generally known that a gas flame playing on a metal surface cooled by water circulating in the geyser tends to prevent full combustion of the gas, some of which may escape unburnt, whilst incomplete oxidation will account for the evolution of a dangerous quantity of carbon monoxide. At Leeds last week a coroner's jury returned a verdict of death from carbonic oxide poisoning in the case of two men who were killed, as alleged, by breathing "water-gas." M. MAGNAN has drawn attention to the subject of *chronic* cocaine poisoning. The symptoms most commonly noticed he found to be mental and sensory disturbance, illusions of sight and hearing, with neuro-muscular irritability. Criminal abortion has called for comment on several occasions. At Dundee, HENRY BURY committed the atrocious crime of killing his wife and cutting up her body with a view of getting rid of the evidence of his guilt. The "Arran murder," in which LAURIE was accused, tried, and convicted for having killed Mr. ROSE by throwing him down a precipice, aroused considerable attention and discussion both by the public and the profession. We had occasion to point to the possible errors that might be committed in estimating the probable means by which certain injuries were inflicted.

Royal College of Physicians.

The proceedings of the College of Physicians during the year have not been very eventful. The rejection of the scheme of a medical faculty empowered to grant degrees to London students has been followed by the projected reconstitution of the University of London, on the Senate of which it is proposed that the Royal Colleges should be represented. This proposal is now under consideration; but it is hardly likely to be acceded to unless the examinations conducted by the Colleges obtain due recognition at the hands of the University. Owing to this period of suspense in the agitation for a reasonable medical degree for London students, which has followed on the report of the Royal Commission, there has been no further action taken by the College. But it has not been wholly unmindful of its important educational functions, and has been engaged in negotiating with the Local Government Board for the admission of students to the Fever Asylums, a step highly necessary, and one calculated to remove the reproach that many men leave the schools and embark in practice without having had any opportunities of seeing cases of infectious disease. The College, by its action, secured some important modifications in the Lunacy Act Amendment Bill, which passed through Parliament last session. A Committee of the College reported on the subject of leprosy, and urged the renewed scientific investigation of the disease before insisting on segregation. This subject received a fresh impetus by the formation of an influential committee in memory of the heroic Father DAMIEN, and should the programme of that committee be carried out in its entirety, the wishes of the College will be fulfilled. Another matter upon which the College has expressed an opinion during the past year has been the vexed question of quarantine. It declared that, inasmuch as the period of incubation in yellow fever and cholera is uncertain, it is undesirable to enforce quarantine in those diseases; but on the ground that the incubation of small-pox was nearly fourteen days, that period would suffice for quarantine in its case. The recent regulation of the French Government respecting the admission of foreign practitioners to practise in France has naturally led to steps being taken by the College to endeavour to obtain some relief from the proposed restrictions which must press hardly on its members, and the matter is receiving consideration by a committee. On the recommendation of the Council, the College has declined to advise the extension of the curriculum to five years. Considerable progress has been made with the laboratories erected by the two Royal Colleges, and in a short time the office of director will be filled up. The foundation of such an institute certainly fills a hitherto lamentable gap in scientific London, whilst it proves that in more ways than one the conjunction of the Colleges is likely to be of great advantage to the cause of scientific medicine and surgery. The record of the proceedings of the year would be incomplete without a passing reference to the censure which the College felt bound to pass upon one who, whilst a member of the College, had in the opinion of the College transgressed the unwritten law of professional ethics. In the re-election of Sir ANDREW CLARK to the office of President, the College showed that it appreciated the zeal and devotion which he gave to its affairs during his first year of office. The resignation of Sir HENRY PITMAN of the office of Registrar, which he had held for thirty years, was received with much regret, that gentleman entering on his well-earned retirement with the good wishes of all. Dr. E. LIVEING was appointed to the vacancy thus created, whilst, in recognition of his long services, Sir HENRY PITMAN was made Emeritus Registrar. The Baly Medal was awarded to Professor HEIDENHAIN of Breslau, and the Swiney Prize to Dr. C. M. TIDY. The Harveian Oration was delivered by Dr. J. E. POLLOCK, and on the evening of the same day the Fellows dined in the College. The Milroy Lectures were given by Dr. ARLIDGE, who took for his subject Occupations and Trades in relation to Public Health. The Goulstonian Lectures were given by Dr. HOWARD TOOTH, on Secondary Degenerations of the Spinal Cord; the Lumleian by Dr. JOHN HARLEY, on Enteric Fever; and the Croonian by Dr. LAUDER BRUNTON, on the Relationship between Chemical Structure and Physiological Action. Dr. NORMAN MOORE was the Bradshaw lecturer, his subject being Visceral Growths. At a Comitia held on Jan. 9th the College unanimously approved of its President assuming the position of almoner of THE LANCET Relief Fund.

Royal College of Surgeons.

At the Royal College of Surgeons the year which has passed has not been uneventful; indeed, some of the changes which have taken place will occupy an important place in its history. The new bye-laws were officially sanctioned and came into operation before the annual election of Fellows

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to vacancies on the Council held in July. By one of these bye-laws voting by means of proxy papers is permitted, and the result proved the advantages of this plan, the number of votes recorded being 600 (as against 180 last year, and an average of 270 for recent elections); of these, 462 voted by the papers sent through the post, only a few of which were invalid, and 176 recorded their votes personally. At this election Mr. HOWSE took the vacancy caused by the resignation of Sir JAMES PAGET, and Messrs. HULKE and HEATH were re-elected. Mr. JONATHAN HUTCHINSON succeeded Mr. SAVORY as President of the College, and in that capacity presided at the yearly meeting of Fellows and Members on Nov. 7th. At that meeting he departed from the customary method of procedure, and in presenting the report of the Council gave an able summary of the proceedings of that body. Various regulations with regard to the improvement of the examinations were discussed during the year. The question of making operative surgery a part of the final examination for the Membership received careful consideration, but its introduction was not deemed practicable. It was resolved, however, that a candidate should produce a certificate of having performed operations on the dead subject. He must also produce evidence "of having discharged, after having passed the second examination, the duties of a medical clinical clerk during six months, and of a surgical dresser during other six months, of which, in each case, not less than three months shall have been in the wards." Further attendance in an obstetric department is also required should he be referred at the final examination. The Council approved a recommendation of the Committee of Management that the period of professional study should be extended from four to five years, and new regulations relating to the diploma in Dental Surgery were passed; these apply to those registering as dental students on and after Jan. 1st of next year. In order that candidates for the Membership may become acquainted with the bye-laws *before* they are asked to sign them, it has been arranged that a copy be given to each candidate before admission to the examination, at such time as may be considered convenient. In the Court of Examiners in Surgery changes have occurred by the resignations of Mr. JOHN WOOD and Mr. HULKE; Messrs. MCCARTHY and EDMUND OWEN have been elected in their stead. In future years the annual election of Examiners in Elementary Anatomy, Elementary Physiology, Anatomy, Physiology, and Midwifery for the diplomas of Fellow and Member will take place at the ordinary meeting in June. The Hunterian Oration was delivered by Mr. HENRY POWER, the Morton Lecture by Professor MARSHALL, and the Bradshaw Lecture by Mr. BRYANT. Extensive alterations and improvements have been, or are about to be, made in the College premises, and an important addition to the museum department is the formation of a collection of sketches and photographs illustrating rare diseases. The library is much improved, fitted with the electric light, and at the present time is one of the best in the United Kingdom. The extension of hours, by which it is open to readers until nine o'clock in the evening, which has been tried during the last three months, will probably not be continued, as few take advantage of it after half-past seven. A memorable date in the College year was Feb. 28th, for on that day the gates of the College were closed against the Members, who had, without the consent of the President or the Council, convened a meeting to take place within the College premises; and not only were the gates closed, but police were present within the walls of the building to resist any attempt to enter. The question as to the right of Members to meet in the College without permission of the Council being *sub judice*, we shall not now further refer to it. The Council unanimously consented that the President for the time being should be *ex officio* one of the almoners of THE LANCET Relief Fund; joining in this office the President of the Royal College of Physicians and the President of the General Medical Council. In the exercise of its right to punish those guilty of infamous conduct in a professional respect &c., two Members were deprived of their diplomas. Representatives of the Council were appointed to join the Committee on the Pay, Status, and Conditions of Service of the Medical Officers of the Army and Navy; a Committee of the Board of Trade; another to consider the proposed additions to the British Pharmacopœia; and a standing committee on the Father Damien Memorial Fund. For the first time the conversazione was given by the Council of the College instead of by the President. It was a success, and the attendance was very large. The Jacksonian prize was awarded to Mr. JONATHAN HUTCHINSON, jun.

Army, Navy, and Indian Medical Services.

During the past year several important modifications have been introduced into the Army Medical Service. Early in the year a Royal Warrant was issued regulating the service of the Household Brigade. In future, and subject to the rights of the existing medical officers, the brigade surgeon and the surgeon-major of each regiment alone will be borne on the establishment; the other medical officers will be furnished by the Army Medical Staff, and will be attached to the Household troops for the term of their service at home, and subject to the regulations which apply to officers of the Medical Staff generally. An important change was made in the mode of conducting the examination of surgeons before promotion to the rank of surgeon-major, and of the latter to brigade surgeon. It is in future to be done entirely by means of printed questions, the answers to which are to be submitted to a board of experienced officers, who will report upon the competence of the officer examined. The exemption from examination of surgeons-major was also extended in some degree. In September a Royal Warrant introduced an important modification respecting the retired pay of the higher grades when the officer retires at his own request. In future, all officers above the rank of surgeon-major who retire voluntarily before they have served three years in the grade from which they retire shall only be entitled to the retired pay of the next lower rank. In March a committee was appointed to inquire into the pay, status, and conditions of service of medical officers of the Army and Navy, which, after examining a number of witnesses, reported to the Secretary of State for War in the end of July. It recommended that no change should be made in the pay of medical officers, or in the right to retire after twenty years' service, but that in case of voluntary



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retirement surgeons-general and deputy surgeons-general should be required to serve two years, and brigade surgeons three years, in the rank before being entitled to the higher rate of retired pay. It may be noted that in September the War Office introduced a rule to this effect, but exacting three years' service in the rank instead of two in the case of surgeons-general and deputy surgeons-general. The Committee also recommended a change in the titles of the various grades of medical officers, and a distinct definition of their Army rank; a restriction of the term of continuous foreign service to five years; an extension to India of the advantages in pay and allowances granted to them at home and in the colonies under recent Warrants; that the commissions of medical officers entering the service should be dated from the time of entering the Medical School at Netley instead of, as at present, from that of leaving it; the abolition of the examination of surgeons-major for promotion, and a modification in that of surgeon to surgeon-major. The Committee was not by any means unanimous in these recommendations, six of the eight members having signed dissents from one or more of them. The Government has not yet given any indication of its intentions with regard to the recommendations of the Committee, except that it seems to have anticipated that which referred to service after promotion to the higher grades, but it is probable that considerable changes may be introduced into the service in the course of the coming year. In May the Naval authorities published some regulations respecting the entry of medical officers for temporary service in the department. So far as we know no steps have been taken to bring them into operation, and it seems probable that they were made with reference to any sudden call for an increase in the number of officers in case of a war. In the Indian Medical Service a rule has been recently made by which if a medical officer holding a civil appointment should decline military promotion when it comes to his turn, he must retire from the service. This has not hitherto been the rule, or at least it has not been enforced, and the promulgation of it has given rise to considerable excitement in the department.

The General Medical Council.

The General Medical Council held two meetings in 1889, each lasting five days. The first meeting began on May 28th. The President, in his opening address, announced that he had, subject to the Council's approval (which was subsequently readily granted), in common with the President of the Royal College of Physicians and the President of the Royal College of Surgeons, accepted the office and duties of almoner of THE LANCET Relief Fund. A question of precedence, he intimated, had arisen out of this co-operation of the three Presidents in a benevolent function, which up to the time of the November meeting had not yet been finally settled. Fortunately the non-settlement of it does not interfere with the hearty help and sympathy of the almoners. Among other subjects touched on by the President was the persistent frequency of indications in the Final Examination of defective preliminary education. Perhaps the most important piece of work done by the Council at its May meeting was to lay down regulations for the education and examination of candidates for diplomas in Public Health. Sir JOHN SIMON seemed pleased to think that the Council had power under Section 21 of the Medical Act, 1866, to make and enforce such regulations (though this is disputed by the Royal College of Surgeons) and to revel in the work of securing for all future time in medical officers of health a "distinctively high proficiency." At both the May and the November meetings discussions were raised with a view to lessening the expenses of the General Medical Council, which last year, chiefly owing to the cost of inspections of examinations (£1196 7*s.*), exceeded the income by £1040. Another costly item was that of printing; the compilation and printing of the General Index alone cost £595. The fees to members of Council, on the other hand, were less in 1888 by £2093 than in the previous year. The only result was an expression of opinion by the Executive Committee to the effect that the increasing delegation of work to committees might be expected so to curtail the duration of meetings as to bring the expenditure well within the income of the Council. The meetings of late have been shorter. This advantage certainly is acquired at the cost of postponing unsettled questions, as, for example, the extension of the time of medical education and the increase of clinical and practical teaching. But time itself is favourable for the right solution of such difficult problems. The Inspectors' reports on examinations and their bearing on the practical element in medical education were, on the motion of Dr. GLOVER, discussed and referred to the Education Committee, which gave in an *ad interim* report in November and promises to complete its report by May. At the second meeting, which began on Nov. 26th, the Medical Council was, as usual in November, chiefly occupied with the consideration of cases involving charges of misconduct. It is pleasant to record that the Council was more occupied in considering petitions for restoration to the Register by those whose names had been erased than in removing others. Several names were so restored. In one case, that of Mr. J. F. LEESON, for "acting as cover of, or by his presence, advice, and assistance, enabling CORNELIUS BENNETT HARNESS, an unqualified person, to carry on the business or profession of a medical electrician and to practise as if he were duly qualified," the Registrar was directed to erase the name. This decision has since been challenged in the Court of Chancery, and, this failing, in the Court of Appeal. In the latter Court two judges out of three supported the finding of the Council and the third dissented on a side issue affecting the constitution of the Council. On several motions the question of the education and registration of midwives was raised, and the Council agreed to represent to the Government that it was one which called urgently for legislation. Towards the end of the November session Sir WILLIAM TURNER, Dr. ATTHILL, Dr. CAMERON, and other members tried hard to procure some mitigation of the severity of the resolutions passed in June for the obtaining of diplomas in State Medicine by practitioners registered after January, 1890, but without further success than the giving a power, in special cases, to the Executive Committee, to allow exceptions, and that the Resolution requiring six months' practical study of the duties of out-door sanitary work under a medical officer of health of high position be not at present insisted on.

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Higher Medical Education in London.

The important features in medical education in London during the past year are the publication of the Report of the Royal Commissioners on Higher Education in London and of the evidence laid before them, and the circulation of the basis of a scheme for the reconstitution of the University of London on the lines suggested by the Commissioners. The question of extending the curriculum of medical education and of filling up some of the gaps in the "practical teaching of to-day" have also attracted much attention; and, although at present postponed, must be fully considered by the General Medical Council and the various examining boards during next year. Certificates of having performed systematic operative surgery on the dead subject, in deference to the report of the inspector of surgery appointed by the General Medical Council, are now required from every candidate for the qualifications of the Conjoint Examining Board in England, and there are many complaints among anatomical teachers and students as to the insufficiency of the present supply of subjects for dissection in the London medical schools as being in part due to this recent regulation. The Royal Commissioners have unanimously rejected the petition of the Royal Colleges of Physicians and Surgeons, who asked for powers to grant degrees in Medicine and Surgery, whilst allowing that a great demand exists for medical degrees attainable in London more easily than at present, and that it is desirable to provide for that want in some proper manner. They have therefore recommended a reconstitution of the University of London, in deference to the views of the legal members of the Council, Lord SELBORNE, Sir JAMES HANNEN, and Vice Chancellor BALL; although those Commissioners who have had practical experience in education—namely, Sir W. THOMSON, Sir G. G. STOKES, and Mr. WELLDON—preferred the establishment of a new Teaching University in London, leaving it to the London University to continue to discharge its present functions. This division of opinion is distinctly unfortunate, for it has prevented the Association for promoting a Teaching University in London from making any progress since the publication of the report in May last; whilst the University of London, not without great difference of opinion in the Senate, has only now circulated a scheme for the reconstitution of the University, as a basis for conference with University and King's Colleges, the Royal Colleges of Physicians and Surgeons, the Council of Legal Education, and the Incorporated Law Society. As these latter bodies are merely asked to allow their presidents or chairmen to take seats on the new Senate, the scheme will not affect them much, and will probably be accepted by them. The teaching colleges—University and King's Colleges—are to have similar privileges; but the whole scheme concerns them much more seriously, as those colleges prayed Her Majesty to grant them a Charter to be a University in and for the London district, with power to grant degrees in the faculties of Arts, Science, and Medicine, and with power also to add other faculties. In their petition, the other medical schools in London were added to their own for the formation of a medical faculty, but they practically formed the whole body of the faculty in Arts, and the greater portion of that in Science. If, therefore, the University of London in their new scheme are in full accord with the recommendations of the Royal Commissioners, University and King's Colleges will be most seriously checked in their movement to become a Teaching University for London, for in such a case, the Commissioners recommend that the prayer of the petition of University College and King's College be not granted. These teaching colleges are strengthened in their position by the statement of Sir WILLIAM THOMSON, Sir G. G. STOKES, and Mr. WELLDON, that they "doubt the possibility of effectually combining the functions of an examining and of a teaching as well as examining University in the University of London," and this is what the new scheme confessedly attempts to do. University and King's Colleges are scarcely likely to agree to a scheme which in its definition of constituent colleges makes them of no more importance in each faculty than any institution in the metropolitan district that gives instruction on an adequate scale in that faculty, especially as a distinct position as constituent colleges is recommended by the Royal Commission, and as the recognition of their courses of study is not nearly so adequate as is laid down in their report. The exemption of students of constituent colleges from the matriculation examination under certain conditions was not passed by the Senate without being contested by an important minority of the Fellows, although both matriculation and intermediate examinations are expressly referred to by the Commissioners as being unnecessary in the case of students who have undergone regular training in constituent colleges and teaching institutions associated with the University. The whole scheme shows the difficulty of any attempt to reform the University of London, with its traditions as an open examining board and its high tests of proficiency, and to convert it into a local University, such as should be founded in the metropolis, to supply the fair wants and aspirations of a London student, who wishes to carry on his studies under the supervision of the authorities of a University, and to gain the reward which such a course of study when honestly pursued should lead to. The needs of the average medical student in London, and the question as to how he is to secure degrees on terms similar to those which obtain at every other centre of medical education in Great Britain, have evidently never troubled the members of the Senate, and the only reference to them is the illusory proviso that candidates may be excused passing the Preliminary Scientific Examination if they have passed at the Royal Colleges examinations which are, to the satisfaction of the Senate, a sufficient test of competent knowledge in the subjects of the said Preliminary Scientific Examination. Considering the character of the existing examination at the University, it is obviously impossible for the Senate to accept the Chemistry and Physics at the Conjoint Board as a sufficient test, for otherwise it would be a practical admission that their examination in Science had been unnecessarily severe from the date of its institution to the present time. The Education Committee of the General Medical Council has followed in the steps of the Committee of Management of the Conjoint Examining Board of England by recommending in a general way a five years' curriculum. "The committee report that they are



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unanimous in thinking it desirable that steps should be taken by the Council to fix the period of study required to obtain a registrable qualification at five years." The discussion of this report was deferred until May next, and as it will contain the first official contribution towards the solution of the problem how to remedy the grave deficiencies in the practical education of the medical student, which were so ably pointed out by Dr. GLOVER in his address to the Council in May last, its appearance will be looked for and its recommendations studied with much interest by every student and teacher.

Medical Societies.

The zeal and energy displayed by the various Medical Societies during previous years have been more than maintained during that just passed; especially have the "clinical evenings" proved very successful. There seems to have been no difficulty in procuring good cases for exhibition, and these have been fully criticised, the friendly consultations often bringing to light new facts and opinions. Our record for the year begins with a careful account by Mr. MITCHELL BANKS of Non-strangulated Hernia, and some observations by Mr. C. H. COOPER, on Scarlatina in its relation to Cow's Milk. Then follow contributions by Mr. EVAN POWELL, Dr. W. P. HERRINGHAM, and Dr. A. E. GARROD, on Chorea; Dr. NEWMAN and Dr. FELIX SEMON, on Laryngeal Carcinoma; Mr. HERBERT ALLINGHAM, on Inguinal Colotomy; Dr. ISAMBARD OWEN, on the Geographical Distribution of Disease; Professor HUMPHRY, on Back Knee; Dr. PERCY KIDD, on Laryngeal Tuberculosis; Dr. J. E. SQUIRE, on the Prevention of Phthisis; Dr. R. G. PATTESON, on Epithelioma in the Horse; Mr. ROGER WILLIAMS, on Neoplastic Growths; Mr. WILLIAM ADAMS, on Congenital Dislocations of the Hip-joints; Mr. BLAND SUTTON, on Cutaneous Horns, and Psorospermia of Kidney; Mr. MAYO ROBSON, on Nerve-grafting and the Treatment of Transverse Fracture of Patella and Cholecystotomy; Dr. HANDFORD, on Carcinoma of the Lung; Dr. ORMEROD, on Tumour of the Brain; Mr. GOLDING-BIRD, on Tubercular Teno-synovitis; Dr. G. N. PITT, on Malignant Pemphigus; Mr. GRIFFITHS, on Hydronephrosis; Mr. RAYMOND JOHNSON, on Cancer of the Large Intestine; Mr. JONATHAN HUTCHINSON, on Some Exceptional Forms of Choroiditis; Dr. DOUGLAS POWELL, on Actinomycosis Hominis; Dr. R. CATON, on Narcolepsy; Dr. SAVILL, on Hystero-epilepsy; Dr. SAMUEL WEST, on Raynaud's Disease; Professor ANNANDALE, on Excision of Bone in order to promote the Healing of Certain Wounds or Ulcers; Mr. JESSETT, on Securing the Lingual Artery during Excision of the Tongue with Scissors, and on a Novel Method of Operating on the Intestine. Dr. A. W. FOOT reviewed the subject of Chromidrosis; Dr. SAINSBURY wrote on Meningeal Tuberculosis; Mr. W. G. SPENCER, on the Formation of Mucous Cysts in the Mouth and on Bone Disease in Goats; Mr. D'ARCY POWER, on Ossifying Sarcoma; Dr. LEONARD WYLDE, on Dermoid Cyst; Mr. LEOPOLD HUDSON, on Congenital Abnormalities of the Ileum; Dr. HUGHLINGS JACKSON and Dr. BEEVOR, on Epilepsy with Olfactory Aura; Dr. B. W. RICHARDSON, on Surgical Interference in Acute Intestinal Obstruction; Mr. MALCOLM MORRIS, on Local Eczemas; Dr. KENDAL FRANKS, on Colectomy; Dr. D. W. FINLAY, on the Diagnostic Value of Temperature in Tubercular Disease; Dr. RALFE and Mr. GODLEE, on Suppression of Urine from Impaction of Calculi in the Ureters; Dr. ANGEL MONEY, on Microcephalus and Lipomatosis Neurotica; Mr. SHEILD, on the Treatment of Ulceration of the Tongue and Mouth by Opium; Mr. LENNOX BROWNE, on Papilloma of the Larynx; Mr. J. F. BRISCOE, on Cranial Osteoporosis; Mr. WHITEHEAD, on the Treatment of Confirmed Catheter Life; Dr. SIDNEY PHILLIPS, on Arterial Murmurs; Dr. RADCLIFFE CROCKER, on Pemphigus Vegetans; Dr. WHIPHAM and Dr. DELÉPINE, on Tubercular Lupus of the Larynx; Dr. PAYNE, on Molluscum Fibrosum; Dr. BURNEY YEO, on Personal Experiences of Quinine Rash; Mr. C. B. KEETLEY with Dr. HERRINGHAM, on Primary Cancer of the Pancreas; Mr. HURRY FENWICK, on Electric Illumination of the Bladder; Professor CUNNINGHAM, Observations on Brain Growth; Dr. NORMAN MOORE, on Melanotic Sarcoma; Dr. W. STEPHENSON, on the Relation between Chlorosis and Menstruation; Dr. T. J. WALKER, on the Clinical Significance of Clay-coloured Stools; Mr. BARWELL, on Lateral Curvature of the Spine; Mr. BUTLER-SMYTHE and Mr. W. H. A. JACOBSON, on Nephro-lithotomy; Dr. EDRIDGE-GREEN, on Colour-blindness; Mr. JONATHAN HUTCHINSON, jun., on Arterial Aneurysm pressing on the Optic Commissure; Messrs. EDMUNDS and LAWFORD, on Retinal Changes in Chronic Alcoholism; Mr. BUCKSTON BROWNE, on Sources of Error in Sounding for Stone; Mr. BUTLIN, on Pre-cancerous Conditions of the Tongue; Mr. M'ARDLE, on the Treatment of Local Tuberculosis; Mr. TOBIN, on Urethral Stricture; Dr. MOTT, on Aneurysm followed by Embolism; Mr. DAVY, on Excision of the Scaphoid Bone in Confirmed Flat-foot; Mr. ARBUTHNOT LANE, on the Pathology of Lateral Spinal Curvature; Mr. KNOWSLEY THORNTON, on Abdominal Nephrectomy; Sir JOSEPH FAYRER, on Tropical Diarrhœa; Mr. J. R. LUNN, on Empyema treated by Resection of Rib; Mr. TARGETT, on Diffuse Calcification of the Liver; Mr. BOWLBY, on Bilharzia Hæmatobia; Dr. GOODHART, on Cancer of Stomach following Ulcer; Mr. SHATTOCK, on the Histology of Eburnation in Osteo-arthritis; Dr. CROOKE, on Unilateral Interstitial Nephritis; Dr. D. B. LEES and Mr. H. PAGE, on Traumatic Epilepsy; Dr. STEPHEN MACKENZIE, on the Treatment of Chronic Uræmia by Morphine; Dr. WALTER FOWLER, on Laryngeal Phthisis; Mr. O'CALLAGHAN, on the Treatment of Tubercular Peritonitis by Abdominal Section; Mr. GODLEE, on Thoracic Dermoid Cyst; Mr. W. H. BENNETT, on Spinal Nerve Section for Pain; Mr. JOHN HOLM, on Medico-Gymnastic Treatment; Dr. GREVILLE MACDONALD and Mr. CHARTERS SYMONDS, on Total Extirpation of the Larynx for Epithelioma; Dr. BRISTOWE and Dr. COPEMAN, on Paroxysmal Hæmoglobinuria; Mr. HARRISON CRIPPS, on Colotomy; Mr. H. B. ROBINSON, on Cysticercus Cellulosæ from Human Muscle; Dr. DICKINSON, on Hereditary Albuminuria; Mr. ARTHUR BENSON, on Transparent Cyst of the Iris; Mr. SIMEON SNELL, on Adenoma of the Lacrymal Gland; Mr. W. A. MORRIS, on Beri-Beri; Dr. HOPE, on Meat Inspection and the Supervision of Meat-supply; Mr. CROFT, on Plastic Operations after Burns; Mr. W. ANDERSON, on Suprapubic Cystotomy; Mr. G. H. MAKINS, on Intussusception of the Small Intes-

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tine; Dr. W. NEWMAN, on Inversion of the Uterus; Mr. BATTLE, on Ectopion of the Cæcum; Dr. GAMGEE, on Actinomycosis; Mr. TREVES, on the Treatment of Scrofulous Glands; Dr. H. T. GRIFFITHS, on Floating Kidney; Laparotomy for Ruptured Tubal Gestation, by Dr. THORNLEY STOKER and Mr. SUTTON; Dr. ARNOLD SCHETELIG, on the Presence of Free Uric Acid in the Urine as a Test of the Existence of the Gouty State; Dr. HAIG, on the Influence of Phosphate of Soda on the Excretion of Uric Acid; Dr. R. L. BOWLES, on the Resuscitation of the Apparently Drowned; Dr. GRAVES, on Pernicious Anæmia; Sir DYCE DUCKWORTH and Mr. JOHN LANGTON, on Removal of a Gangrenous Vermiform Appendix; Mr. BRYANT, on Partial Obstruction of a Bronchus by a Foreign Body; Dr. BEEVOR, on Apparent Movement of Objects Associated with Giddiness; Dr. BRONNER, on Keratalgia; Dr. Collins, on Penetrating Wound of the Eyeball; Dr. P. S. ABRAHAM, on Leprosy; Dr. BALLARD, on Epidemic Diarrhœa. Papers by Mr. COLLEY on Removal of the Thyroid Gland and Mr. HEUSTON on Arthrectomy brought to an end the work for the first half of the year. In July Dr. ROCKLIFFE brought forward the subject of Monocular Suppurative Iritis; Dr. M. HANDFIELD-JONES, that of Chorea in Pregnancy. The advent of autumn brought with it the removal of the Royal Medical and Chirurgical Society to their new quarters in Hanover-square, and the admirable arrangements made by the Council rendered it probable that the alterations found necessary would be completed in time for the winter session. But the occurrence of the Dock strike so retarded the progress of the works in the Society's new home, that even at present we are unable to report the completion of the buildings. With the Medical and Chirurgical Society have migrated the Pathological, Clinical, and Obstetrical Societies, and, thanks to the assiduity of Mr. J. Y. A. MACALISTER, the resident Librarian, temporary accommodation has been provided for these during the commencement of the session. Dr. HERMAN wrote on the Changes in the Pelvic Floor which accompany the slighter degrees of prolapse; Dr. THOMAS OLIVER, on Acute Lead Poisoning; Sir ANDREW CLARK, on the Hæmoptysis of Elderly Persons; Dr. THOMAS REID, on the Pathology of Trachoma; Dr. ORD, on Glycosuria; Dr. LEES, on the Treatment of Pneumonia by the Ice-bag; Dr. F. J. SMITH, on Hypertrophic Cirrhosis of the Liver; Dr. WEST, on Diabetes Mellitus associated with Addison's Disease; Dr. TURNER, on Forced Feeding in Children; Mr. RIVINGTON, on Pott's Fracture complicated with Tetanus; Mr. BARTON, on Paroxysmal Methæmoglobinuria; Dr. EWART, on the Treatment of Pneumothorax by Aspiration; Mr. F. R. HUMPHREYS, on the Clinical Examination of the Colour of the Urine; Dr. HALE WHITE, on Symmetrical Intra-cranial Aneurysms; Mr. HASLAM, on Rupture of the Gall-bladder; Dr. DE HAVILLAND HALL, on Acute Catarrhal Laryngitis; Mr. DOYNE, on Hemianopsia; Mr. PRIESTLEY SMITH, on the Size of the Cornea in relation to Age, Sex, Refraction, and Primary Glaucoma; Dr. RASCH, on Chylous Cyst of the Mesentery; Dr. CULLINGWORTH, on Vesico-utero-vaginal Fistula; Dr. LEWERS, on Lupus of the Vulva; Dr. SIDNEY MARTIN, on Pyloric Gastric Ulcer associated with Thrill; Drs. COUTTS and GARROD, on Periosteal Nodes; Dr. S. WATSON, on a Case of Ptomaine-poisoning; Dr. ORMEROD, on Gummata of the Pons Varolii; Mr. BRUCE CLARKE, on Electrolysis in Urethral Stricture; Mr. A. E. NEVINS, on the Association of Cardiac Disease with Lesion of the Female Pelvic Organs; Mr. EDWARD ROUGHTON, on Blood Tumours of Bone; Dr. BRAXTON HICKS, on Uterine Inversion; Dr. TURNER, on Post-scarlatinal Paralysis; Dr. HADDEN, Cyst of Cerebellum; Mr. GILBERT BARLING, Cancer of Breast following Eczema of the Nipple; Dr. TATHAM THOMPSON, on the Heredity of Cataract; Mr. TWEEDY, on the Treatment of Symblepharon; Dr. HILL GRIFFITH, on Tubercle of the Iris; Dr. CAGNEY, on the Administration of Drugs by Electricity; Dr. LUFF, on the Anti-Fermentative Treatment of Infantile Diarrhœa; Sir WILLIAM MOORE, on Malaria; Mr. W. THOMSON, on the Operative Treatment of Tubercular Disease of the Knee-joint. Two debates have been undertaken during the year: that on Chronic Alcoholism at the Pathological Society was concluded, and was aptly described by Sir JAMES PAGET as a "most temperate discussion on the subject of intemperance." Recently at the Medical Society of London a debate on Aortic Aneurysm was initiated by Dr. DOUGLAS POWELL in a most able speech, and interesting contributions to it were made by Dr. BROADBENT, Dr. ORD, Dr. BRISTOWE, Dr. QUAIN, Dr. SEMON, Dr. DE HAVILLAND HALL, Dr. MITCHELL BRUCE, Dr. KINGSTON FOWLER, Dr. SEYMOUR TAYLOR, Dr. MAGUIRE, and Dr. EWART. At the last Medical meeting Dr. SANSOM read a learned paper on Mitral Stenosis in Children, and Mr. WATSON CHEYNE related a case of Successful Trephining for Cerebral Abscess following Ear Disease. We conclude this short review of the work of the societies for the year by hearty congratulations to the profession on the substantial additions to scientific knowledge which have accrued to it from this source.

Association Meetings.

The meeting of the British Medical Association at Leeds, though inconveniently late, was a success. It was presided over by Mr. WHEELHOUSE, who delivered a speech on the Practical Element in Medical Education, which has given additional strength to the demand now so general for more reality in medical education. The meeting was well attended, and, whether judged by the more formal addresses or the sectional work, will bear a creditable comparison with those of previous years. No branch of medicine seemed to be neglected, and every subject was freshly handled. It would be difficult, without being invidious, to single out particular communications, but the following may be instanced as illustrations of the high and yet useful order of the work brought before the Association. Dr. DOUGLAS POWELL, on Chronic Tubercular Disease of Serous Membranes; Dr. PAVY, on Prognosis in Cases of Albuminuria; Dr. ARMAND RUFFER, on PASTEUR'S Method in Hydrophobia; Sir WILLIAM ROBERTS, on some Practical Points in the use of Antacids in Dyspepsia and Gravel; Mr. TEALE, on Details in Surgery; Mr. JESSOP, on the Treatment of Cancer of the Rectum; Mr. HENRY MORRIS, on the Surgery of the Kidneys; Mr. MAYO ROBSON, on 200 Consecutive Abdominal Sections; Dr. MOTT, on the Pathology of Cardiac Failure; Dr. BRAXTON HICKS, on the Treatment of Placenta Prævia; Dr. BALLARD, on the Training of



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Medical Officers of Health; and Dr. PARSONS, on the Control of Epidemics.

The fifty-ninth annual meeting of the British Association commenced at Newcastle-on-Tyne on Sept. 11th. Sir FREDERICK BRAMWELL was succeeded in the chair by Professor FLOWER, F.R.S., who gave an opening address on the Practical Organisation of Museums. The attendance was good. Among the communications of interest to us was one by Professor SANDERSON, in the Section of Biology, on the Nature of Life, more interesting for the expression of Dr. SANDERSON'S opinion that knowledge of the essential difference between a living and a non-living body is approachable than that it has been yet gained; and we may also note one by Sir WILLIAM TURNER, in the Anthropological Section, on Heredity. The Sanitary Congress met at Worcester on Sept. 24th under the Presidency of Mr. G. W. HASTINGS, M.P.

Hospital Mirror.

During the past year the cases which have appeared in the Mirror of Hospital Practice have been published, as heretofore, on account of some special feature of interest to the profession. Although chiefly illustrating the work done in the general departments of medicine, some have represented that of special departments, and they have come from hospitals in various parts of the world. Some are important from their rarity; others from the presence of unusual symptoms, unusual complications, or pathological changes. Others show the effect of drugs, or the experience of new methods of operating—not necessarily successful, for very often more is taught by the record of an unsuccessful than by that of a successful operation. We have resumed an old custom of making editorial comments on the cases as they have been brought forward from week to week, and this has been a marked feature of the department. In many instances, these have necessarily been limited, the case having been fully commented upon in the remarks appended to it, but when it has appeared to us that a statement as to the more recent knowledge on any subject would be of interest, we have spared no pains to bring it in a concise form before our readers. This has been favourably received, and we propose to continue the custom during the coming year. There is not space to mention all the cases which have been brought forward, but a brief review of the more interesting will be advantageous. The most important contribution to toxicology was a case of recovery after poisoning by fousel oil, a large quantity having been taken. The symptoms were severe. The patient, a man aged sixty-four, accustomed to drink freely, resumed work after drinking the poison, and four hours afterwards suddenly became unconscious. The effect on respiration was very marked, and for some time artificial respiration was required, and there was much collapse. The fumes given off from the body produced severe frontal headache, giddiness, and malaise in those in attendance. The death of Father DAMIEN, whose life-devotion to the lepers attracted so much admiration throughout the country, drew attention to cases of this disease which had been under treatment in the London hospitals, and we published two illustrative of its progress. In one, the son of European parents, the disease developed in boyhood, and proved fatal at the age of twenty-two. Pyæmia was the ultimate cause of death, having developed after tracheotomy for laryngeal obstruction; in the other, also an English boy, the disease developed in India at the age of sixteen, and proved fatal from pneumothorax secondary to tubercle of the lungs at the age of twenty-five. A case of pernicious anæmia, in which recovery followed the use of arsenic, was a good example of the successful treatment of a most serious disease; the attack was very severe, but yielded to frequent small doses of the medicine. Two cases of traumatic tetanus of unusual interest are recorded: in one, part of the second digital nerve of the foot was excised, and chloral hydrate administered internally; in the other, although chloral hydrate and bromide of potassium were employed, the greatest relief appeared to be given by the subcutaneous injection of salicylate of eserine; the symptoms in both were subacute, and recovery followed. We recorded three cases of intussusception successfully treated, one by inflation of the bowel, a second by the injection of warm water, and a third by manipulation of the affected part after abdominal section. A rare complication of acquired inguinal hernia, reduction *en bloc*, the result of the patient's violent efforts to reduce his hernia, was successfully treated by operation. A most unusual condition of varix of the veins in the mucous membrane of the stomach, leading to death as a consequence of hæmorrhage from an opening due to giving way in a thinned part, is recorded. The operation for the removal of stone from the bladder of children by crushing is described in five cases, the ages varying from two years and a half to thirteen years, and the size of the stones from 9 to 370 grains; also, vaginal lithotomy in a woman six months and a half pregnant, followed by primary union. PORRO'S operation performed in a case of extreme rachitic deformity of the pelvis was successful in saving the life of both mother and child. A curious feature was the severity of the symptoms produced by tympanitic distension of the abdomen on the third day, relieved by the passage of a long tube into the rectum. An important contribution to the literature of tubercle is afforded by a case of congenital tubercle of the face, showing as it does the occasional development of the disease in utero. Few examples of tubercle of the breast are on record in English surgical ligature, although Sir ASTLEY COOPER drew attention to the condition. In the case we published the disease was noticed six years before removal in an otherwise healthy woman of twenty-one years of age. It was localised in the axillary margin of the breast, and was continuous with diseased glands by means of a thickened band of lymphatics. Excision was practised. A case of successful trephining for coma and left-sided paralysis, due to extravasation of blood between the dura mater and the bone in consequence of injury, without fracture, was of great interest. The hæmorrhage appeared to have come from the posterior branches of the middle meningeal; the diagnosis was rendered difficult at first, as the patient had been drinking. An operation for relief of paraplegia in a case of angular curvature in the lower cervical spine, due to caries, by removal of laminæ, was thoroughly successful. A new operation for the relief of extreme flat-foot by the adaptation of specially prepared surfaces of the astragalus and scaphoid bones was fully illustrated. As examples of the removal of large tumours,

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we may allude to the following: Excision of the rectus abdominis muscle with the underlying peritoneum for sarcoma, in a woman aged twenty-four; excision of the clavicle for sarcoma of six weeks' growth, in a man aged twenty-nine; removal of lympho-sarcoma of tonsil and later of cervical glands without evidence of recurrence two years later; and the removal of a similar tumour from Scarpa's triangle, when it was necessary to ligature both femoral artery and vein, also another artery of large size, the patient making a good recovery.

Special Sanitary Commission and other Reports.

Early in the year the reports, which we commenced in 1888, on the British Emigration Services seemed likely to result in some practical improvement of the sanitary condition under which the great tide of emigration flows from our shores. Shortly after the publication of our Special Report on Hull, a conference was held at Liverpool by the representatives of several philanthropic societies engaged in promoting emigration. One of our Sanitary Commissioners was specially invited to attend, and the important bodies represented showed themselves most desirous of exerting their influence to obtain the application of the sanitary reforms on which we had insisted. The conference was met by the representatives of the great Canadian companies, and the friendly relations then established will not fail to bear fruit. In respect of the separation of the sexes on board, of better accommodation for the ship surgeons, and of more ample provision for the isolation of cases of infectious diseases that may occur during the passage, there is much room for improvement. The action of the emigration societies, in supporting our report, may have some effect, and this we hope to be able to verify at no distant date. The greatest difficulty arises from the filthy habits of the Russian-Polish Jews, who are as much a nuisance in the steerage cabins as in the sweating dens which were described at great length the previous year. As forming part of the great sweating question, the condition of the chain and nailmakers at Cradley Heath and in the neighbourhood became this year the subject of our special investigation, and the reports we published resulted in the Commissioner who inquired into the matter being requested to give evidence before the House of Lords Commission on Sweating. It was then very clearly established that the women were employed at blacksmith's work. They make nails and chains of a thickness and weight altogether beyond their strength, and receive wages that do not suffice to purchase the necessary amount of food for the maintenance of health. The result is frequent false presentation in childbirth and excessive infant mortality. The sweating system and the truck system both seem in full force in this unfortunate district. The suffering due to dire poverty is accentuated by an extraordinary neglect of the most elementary sanitary precautions. Surface drainage and leaking cesspools contaminate the wells that supply the water drunk by many families, and typhoid fever was prevalent in several of the districts visited by our Commissioner. After the conclusion of the Paris Exhibition, where our Sanitary Commissioners attended many of the congresses, our campaign in favour of sanitary reform was reopened by a first report on Bread-making and Bakeries, which, appearing just at the time of the bakers' strike, attracted considerable attention. The report showed how defective is the condition of the underground bakeries in London, and that these defects are not confined to poor quarters, the worst shop visited belonging to one of the most expensive and fashionable bakers of the West-end.

Previously to the bakers' strike all London had been much exercised, morally and materially, by the dockers' strike. This remarkable labour movement evoked an amount of middle-class sympathy for labour interests which may certainly be in part attributed to the articles published in THE LANCET and reproduced by the press at large, on the prevalence of accidents among dock labourers. These accidents, due to dangers inherent to the work, but more especially to over-straining and to weakness resulting from want of food, are so general that very few dockers escape serious injury. Under these circumstances the demand for shorter hours and better pay was endorsed by the public at large; and undoubtedly these benefits, if permanently secured, will help to reduce the number of accidents that formerly so frequently occurred in the docks. On the Paris Exhibition and the International Congresses held in connexion with the Exhibition we published weekly for more than six months a series of special articles extending over a hundred columns. This work was recently summarised in an article printed both in English and French. It is therefore not necessary to go over the same ground again. We need here only recall that our correspondent dealt at great length with the sanitary improvements of Paris as demonstrated by the Exhibition, and with those sections of it most likely to interest members of the profession. He also took a very active part in, and described very fully, the International Congresses on Physical Exercise and Education, on the Housing of the Poor, on Factory Acts, &c.; the Workers' Congress, the International Congresses of Hygiene, of Forensic Medicine, of Accidents to Workmen, of Free Education, and of Climatology. The French authorities and the French press have cordially recognised our endeavours to assist in bringing about that success which has made of the International Exhibition of 1889 the greatest gathering of the sort ever held in the world's history. To still further strengthen the cause of international amity among nations, we have concluded the year by some special articles on Sanitation at Brussels, and on the increased facilities now afforded to travellers in general, and invalids in particular, who have to cross the British Channel.

THE LANCET *and the Hyderabad Commission.*

Not the least interesting event of the year is the acute challenge from India of views widely held in England as to the action of chloroform in cases where it acts fatally. This challenge was thrown down in the conclusion arrived at by a Commission appointed by the Nizam of Hyderabad, of which the leading spirit was Surgeon-Major LAWRIE, M.B., M.R.C.S., of the Bengal Medical Service. The result of the experiments, made for the most part on pariah dogs, seemed to show that death was caused by respiratory failure, and that in no case did cardiac syncope occur. We felt compelled to say that such bare statements, made, by the way, at a meeting of the Hyderabad Medical School



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the Duke of CONNAUGHT presiding, could not be taken as upsetting the conclusions of an English committee and of other independent authorities. This demur called forth a further statement from Dr. LAWRIE, but yet one which we could not accept as satisfactory or complete. The result was that in a letter dated Hyderabad, Aug. 18th, Dr. LAWRIE stated that he was directed by his Highness the Nizam to offer THE LANCET, as the leading medical journal, the sum of one thousand pounds to send out a representative to repeat the experiments of the Hyderabad Chloroform Commission. We could not decline an offer showing such commendable interest in a matter of enormous human and scientific importance. We therefore proposed to Dr. LAUDER BRUNTON that he should represent us in this matter. He accepted the offer, and, as our readers know, has been deeply engaged in experiment and research on this great question under conditions which do not obtain in this country, though human life depends on a right knowledge of the subject. The Commission has been entertained at a banquet, and the Minister of the Nizam took credit to the Mohammedans for being the first originators of that experimental research which in Europe has led to such magnificent results. Dr. BRUNTON expressed just praise of the Nizam's Government for having been the first Government to appoint a Commission to investigate the action of chloroform. It would be premature to form a definite opinion of the bearing of the results arrived at by the Commission, but meantime European Governments, and especially our own, should take shame to themselves that Dr. BRUNTON should have to say that in none of the laboratories of London, Edinburgh, Leipsic, Vienna, Berlin, Amsterdam, or Paris has he found the same facilities for work as at Hyderabad. Our readers may have the satisfaction of knowing that they will be put in possession of the earliest possible information on this subject.

Benevolent Societies.

In the British Medical Benevolent Fund there are two departments — immediate grant and annuity. In the grant department, which gives amounts varying from £5 to £20, either in monthly or weekly instalments, or in one sum when the committee consider that timely assistance may obviate a second appeal, the sum of £1594 has been distributed amongst 149 applicants, a full average. These grants are only given after careful inquiry and the guarantee of a subscriber's signature, and there is no publicity, canvassing of governors, or expense attending an appeal. Annuitants are selected on their merits from those who have been accepted as worthy of grants. They must be upwards of sixty years of age, and possessed of little or no income. At present they number 65; of these, 58 receive £1 13*s.* 4*d.* monthly, and 7 medical men by the operation of a special fund have £26 a year, or 10*s.* a week. Besides these there are two DUNLAP gift annuitants of £15 each, elected under the conditions of the will of Mrs. DUNLAP. This fund may be recommended on account of the large amount of good done at very little expense, all the offices being honorary with the exception of the collector. The secretary for finance, Dr. SIDNEY PHILLIPS, will be glad to receive subscriptions, and the secretary for cases, Mr. EDWARD EAST, contributions of old clothes of any sort for redistribution. Sir JAMES PAGET has succeeded Sir GEORGE BURROWS in the Presidency. We must not fail either to observe that 1888 has seen the centenary of the Society for Relieving Widows and Orphans of Medical Men in London and its neighbourhood, which has for its president Sir JAMES PAGET, who has spared neither time nor trouble to promote its interests. The beneficiaries of the fund were voted an extra grant in honour of the centenary, and the Council were entertained to a most hospitable banquet by the President at his residence. The conditions of membership of this Society are so easy, and the advantages so great, that there is little excuse for medical men within the area leaving their families destitute. With respect to that Fund with which we are more immediately connected, we hope shortly to publish the first annual report, which will afford an indication of the benefits that have resulted from its administration.

Honours.

The honours to medical men, though we venture to say still short of the merits of the case, and inferior to those granted by most other European States, must not be passed over. The following honours were announced in connexion with the birthday of Her Majesty, and have given general satisfaction in the profession:—To be a Baronet of the United Kingdom: Sir GEORGE HORNIDGE PORTER, F.R.C.S.I., Surgeon in Ordinary to Her Majesty in Ireland. To be an Ordinary Member of the Civil Division of the First Class, or Knight Grand Cross of the Most Honourable Order of the Bath: Sir WILLIAM JENNER, Bart., K.C.B., M.D., one of the Physicians in Ordinary to Her Majesty. To be an Ordinary Member of the Civil Division of the Third Class, or Companion of the Most Honourable Order of the Bath: Dr. JAMES REID, Physician Extraordinary to Her Majesty. To be a Companion of the Most Eminent Order of the Indian Empire: Brigade-Surgeon ISIDORE BERNADOTTE LYON, Bombay Medical Establishment. To be an Ordinary Member of the Second Class, or Knight Commander of St. Michael and St. George: WILLIAM MACGREGOR, M.D., C.M.G., Administrator of the Possession of British New Guinea. To be an Ordinary Member of the Third Class, or Companion of the Most Distinguished Order of St. Michael and St. George: CHARLES GAGE BROWN, M.D., Medical Adviser to the Colonial Office. Another gracious act on the part of Her Majesty on her birthday was to appoint JAMES REID, M.D., Physician Extraordinary, to be one of the Physicians to Her Majesty. Dr. BANKS, Regius Professor of Physic in the University of Dublin, has received a K.C.B. — an honour enjoyed by the Regius Professors of Physic in Oxford and Cambridge. The distinction of the Victoria Cross was conferred on Surgeon JOHN CRIMMIN, L.K.Q.C.P.I., L.R.C.S.I., of the Bombay Medical Service, for great personal bravery in an action near Zwekaw, Eastern Karenzi, on Jan. 1st last. This rare and coveted distinction was also given to Surgeon FERDINAND SIMEON LE QUESNE for conspicuous bravery and devotion to duty displayed during the attack on the village of Tartan, Upper Burmah, by a column of the Chin Field Force. Surgeon LE QUESNE was himself severely wounded later on while attending to a wounded officer. The University of Oxford conferred its honorary degree of

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D.C.L. on Dr. J. S. BILLINGS of the American Army, for his accomplishments in medical literature and other important services. The *London Gazette* of Sept. 6th contained the official account by Sir F. GRENFELL, K.C.B., of the battle of Toski and the total defeat of the dervishes. He spoke in the highest terms of Surgeon-Major HAYES and the following officers of his department:—Surgeon MORSE, 1st Column; Surgeon LEWIS, Extemporised Bearer Column; Surgeon PINCHING, Second Column. He reports that Surgeon-Major HAYES had arranged for a large number of dervish sick and wounded, and had worked night and day to alleviate their sufferings, and adds that he is a most able, active, and energetic officer. Major-General Sir GEORGE WHITE, K.C.B., V.C., late commanding the Upper Burmah force, in despatches published in the *London Gazette* of Nov. 15th, highly eulogised Surgeon IGNATIUS PURCELL DOYLE, who was subsequently made a Companion of the Distinguished Service Order. Though wounded twice on Dec. 9th, 1888, he again distinguished himself on Jan. 1st, 1889. The following officers, too, he said, had well-earned mention for service in the Chin Hills: Surgeon-Major A. B. STRAHAN, 44th Gurka Light Infantry; Surgeon F. A. ROGERS, 42nd Gurka Light Infantry; Surgeon W. H. ROBINSON, Indian Medical Service, Bengal, for specially valuable service with the Mogaung Field Force; Surgeon C. S. CRONIN, Medical Staff. Surgeon-Major AYLMER ELLIS HAYES has been gazetted Companion of the Distinguished Service Order. So far it has been left to the Royal College of Surgeons of Ireland to practically recognise the merits of Surgeon T. H. PARKE, the intrepid medical companion of the unrivalled African explorer STANLEY, by making him an Honorary Fellow of the College. The professional skill, the endurance, and the bravery of Surgeon PARKE are, however, certainly worthy of a recognition of a wider and more public character—one in harmony with the importance of the services he has rendered in connexion with one of the most remarkable enterprises recorded in the history of the world. Foreign honours have also been conferred. The Emperor of Germany conferred the Red Eagle on Dr. FELIX SEMON of St. Thomas's Hospital; the King of Greece, the Grand Cross of the Saviour on M. PASTEUR; and Dr. MAX VON PETTENKOFER, Professor of Hygiene and State Medicine of Munich, has been made Commendatore della Corona d'Italia (Knight of the Crown of Italy).

Obituary.

The obituary of the profession finds only partial record in our columns. Many a practitioner dies in the midst of his labours and is missed by the community which he served without that formal biography which we are able to give in regard to some, and which is often full of interest in the case of the quietest lives spent in country districts or amid lonely hills and moors. The medical profession is in its nature a quiet and domestic one, admitting of much "fame" that is not

> "Set off to the world, nor in broad rumour lies,
> But lives and spreads aloft, by those pure eyes,
> And perfect witness of all-judging Jove."

But the names which have appeared in our obituary and which we record below are fairly representative of all that is good in our profession and record qualities of every kind and degree—from those of busy and honoured practitioners to those of pioneers in medical thought and method, innovators in medical practice. They include lives that were as complete as lives can be, and some that were just giving promise of the brightest genius. We must leave our readers to their own reflections over this list. They will be differently affected as they read it, but none will read it without sorrow; indeed, nor yet without feeling proud of names that have so creditably represented the great calling which is still left in our hands. T. KING CHAMBERS, M.D., F.R.C.P.; G. OSBORNE HABERSHON, M.D., F.R.C.P.; WALTER COULSON, F.R.C.S.; Dr. H. A. PAGENSTECHER; Professor JOHANN WAGNER, M.D.; GEORGE DUFF, M.D. Edin.; ARTHUR ROSS, M.D.; GIUSEPPE MENEGHINI; SYDNEY HOLDER, M.D.; ALEX. J. SINCLAIR, M.D., F.R.C.P.Ed.; HUNTER JACKSON BARRON, M.D.; GEORGE JOHNSTON, M.D.; Dr. ISIDOR SOYKA; Dr. O'DWYER; WESTON PEEL DAVIS, M.D. Paris, L.R.C.P.I., &c.; WM. POWELL KEALL, M.R.C.S., L.R.C.P.Ed.; C. J. B. WILLIAMS, M.D., F.R.S., F.R.C.P.; JAMES MACLAREN, F.R.C.S.E.; JOSEPH ROGERS, M.D.; FRANZ CORNELIUS DONDERS; Dr. VON LAUER; CHAS. T. CARTER, M.R.C.S.; JOHN RUTHERFORD KIRKPATRICK, M.D.; GEORGE WOODS, F.R.C.S.; ALEX. HARVEY, M.D., L.R.C.S.Edin.; JAMES BARRON, M.R.C.S., L.S.A.; ROBERT MCDONNELL, M.D., F.R.C.S.I., F.R.S.; Surg.-Major F. A. TURTON; JAMES LATTEY, M.R.C.S., L.R.C.P.; Professor E. ALBANESE; Surgeon MARTIN GAISFORD, I.M.S.; Surgeon-General JOHN SHORTT, M.D.; ALEXANDER FAIRBROTHER, M.D. Edin.; Mr. JOHN BADCOCK; LEONARD CHARLES WOOLDRIDGE, M.D., D.Sc.; G. OWEN REES, M.D.Glas., F.R.C.P. Lond., F.R.S.; CHARLES BLAND RADCLIFFE, M.D., F.R.C.P.L.; JOHN PERCY, M.D.Edin.

Conclusion.

We must now leave the year behind us with many regrets, but with more hopes—sure that it has added largely to the efficiency and renown of medicine, and with best wishes to our readers. To the future we look confidently forward in the assurance of the sympathy and support of the profession.

Annotations.

"Ne quid nimis."

DENGUE OR INFLUENZA?

AN interesting feature of the prevailing "Russian epidemic" which has attracted some attention, especially at the hands of the Paris physicians, to whom the characters of influenza, or *la grippe*, are so familiar, is the variation its symptoms have exhibited from those ordinarily present in the disease. Thus it is asserted that catarrhal characters have been notably slight, the predominant features of the few days' fever being muscular pains, prostration, headache, and in some cases a scarlatiniform eruption. Now, it is pointed out that dengue, an affection hitherto almost confined to tropical climates, prevailed extensively in Syria last spring, has since occurred widely in Constantinople, and even been observed elsewhere in the south of Europe. This fact, added to the unusual features of the present epidemic, has given rise to the notion that perhaps it is really dengue, and not influenza, which has invaded the temperate zone and been modified by subjection to altered climatic conditions. At the Academy of Medicine on the 17th inst. M. Proust, in discussing two papers on the

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Syrian outbreak of dengue, contributed by M. De Brun, declared that the present epidemic in Paris, although having some features in common with dengue, could not be regarded as being that disease, but that it is really influenza with pronounced nervous symptoms. He stated that dengue has never passed beyond the limits of 45° N. and 25° S. latitude. M. Rochard added that the characteristic eruption and articular pains of dengue were not exhibited by the sufferers from the prevailing epidemic, and M. Colin said that it resembled other epidemics of *la grippe*. M. Dujardin Beaumetz, however, thought there were several points of resemblance between the two affections, and that a hasty conclusion was to be deprecated; on the other hand, M. Brouardel held that dengue and influenza were as specifically distinct as typhoid and typhus. M. Bucquoy pointed to the analogies between the two, and seemed inclined to the view that the present epidemic is dengue modified by climatic conditions. The patients he had seen complained of muscular or articular pains, and presented redness of the palate and a scarlatiniform eruption on the chest. M. Bouchardt said that dengue is contagious, *la grippe* is not; and that the latter did not extend along the lines of commercial intercourse, but was apparently influenced by atmospheric conditions. M. Proust reasserted his opinion that the epidemic was not dengue, which at Constantinople was not modified by the cold season. He also said that the eruptions noted by M. Bucquoy had not been observed by others. At the Medical Society of the Hospitals on the 18th M. Legroux introduced the topic of the epidemic, and pointed out how it differed from classical influenza, catarrhal manifestations being exceptional, headache, ocular pain, nausea, colic, and fever chiefly marking it, and recovery following after two or three days in bed. He had seen some grave cases, and cited one of a lady in whom the pains in the head were so severe, with nausea, delirium, rapid pulse, and temperature of 102·2° F., that meningitis was feared. The symptoms disappeared in forty-eight hours under treatment by antipyrin. In children he had observed coryza or bronchitis, or more often gastro-intestinal catarrh. In every case the duration was shorter than ordinary influenza. M. Sevestre had noticed two types. In some, the minority, there were the features of ordinary influenza. Others were marked by the absence of catarrh of the respiratory passages, by intense pains in the head, eyes, and loins, and by fever. In one-third of his cases there was an eruption on the face resembling either scarlatina or measles, and recalling dengue. In terming such cases *la grippe* the usual meaning of the term was altered. The speakers concurred as to the value of antipyrin. A writer in *Le Progrès Médical* (Dec. 21st), under the heading "Grippe ou Dengue," in which the outbreak among the *employés* at the Louvre at the end of November is stated to be the starting-point of the epidemic that rapidly spread through many large establishments in Paris, refers to the descriptions given by Dr. Le Brun of the Beyrout epidemic of dengue, and suggests that both influenza and dengue are now prevailing in Paris. In particular the characters of an outbreak observed in a large scholastic institution in Paris are noted as closely approximating to the latter affection—sudden onset with frontal headache or orbital pain, difficulty in walking, pain in the limbs, &c; rarely cough, but slight tickling in the throat; many having constipation, nausea, or even vomiting. The throat was congested, tongue dry, pyrexia high (102·2° to 104°), and by the end of the first day a scarlatiniform rash, which became more like that of measles on the second day, when the fever slightly abated. The rash faded on the third or fourth day, when the patients were nearly recovered. In some cases, where the patients got up too soon, there were relapses of fever, with rigors and headache, but no fresh eruption. Desquamation was not observed in any case. In the *Gazette Médical* (Dec. 21st), Dr. de Ranse points to the discussions at the above-named Paris societies as justifying the hesitation at first expressed by the Russian physicians before concluding that the epidemic at St. Petersburg was influenza. He propounds three questions, which, shortly put, are: 1. Are influenza and dengue distinct diseases or only the same disease modified by climate? 2. May they develop simultaneously in epidemic state in the same region and combine to form a hybrid affection? 3. If entirely distinct, is the present epidemic influenza or dengue? In answering these questions, and concluding in favour of influenza, he rightly says that the exceptional occurrence of some cases showing a rash is not enough to ally it with dengue, and believes that some of the earlier recorded epidemics of influenza would show as marked an absence of pulmonary catarrh as is now presented.

AN UNKNOWN MUMMY.

MR. ERICHSEN, Mr. Wallis Budge, and the other learned men who met in the Botanical Theatre of University College on the 18th of this month to perform the ceremony of unrolling an Egyptian mummy, seem to have been a little perplexed because they could not trace out the time or manner in which this curious specimen of humanity found its way into the museum of the College. It had been in the College, Mr. Erichsen said, fifty years, so that we assume it to be the oldest resident student there, but without a history. A certain degree of obscurity also surrounded the original history of this relic; for although the mummy was declared to be of male kind, and his name seems to have been made out, his age was left in doubt, the dynasty in which he lived was not discovered, and the social rank, though rather shrewdly guessed at by Mr. Budge, was not actually defined. The mummy, after being divested of the immense length of bandages in which it had been encased, was found to be in good preservation. The skin of the body was of brownish-black colour, the face dark, and the orbits charged with eyes of glass. The heart and other viscera were found between the legs, and there was no scarabæus present, nor any ornament indicating social distinction. The inference, therefore, was that the body was that of a person of the middle class of the community to which it belonged, probably about 800 years B C. In unrolling the bandages, the operator came upon a fringed slip on which the name of the person was marked—viz., "Bek-Reneth"; on another slip was written what would read as "To Osiris"; and on a third the word corresponding to our "Year," the date being absent or lost by accidental destruction. In saying that the mummy had been in the museum of University College fifty years, Mr. Erichsen gave, incidentally, a clue to its entrance there. Between the years 1829 and 1834 there was quite a season of mummy unrolling, in which the late Mr. Thomas Pettigrew, F.R.S. and F.S.A., took the leading part. Pettigrew was a man of great learning and mark in his day. He was surgeon to the Duchess of Kent; he vaccinated the Princess Victoria, our present Queen, and enjoyed considerable repute in medical circles. But he was more than a practitioner of medicine; he was a writer of many essays of general scientific interest, a valued contributor to our own columns, and, above all, a most laborious antiquarian. In this last-named branch mummies were his hobby, and one of the first and best *jeux d'esprit* of *Mr. Punch* was the play upon a Latin proverb, in which the well-known line relating to love of money—

"Crescit amor nummi, quantum ipsa pecunia crescit"—

was cleverly turned into

"Crescit amor mummi, quantum ipse Pettigrew crescit."

Pettigrew's art in unrolling mummies became, in fact, a series of events in that line. He unrolled one at the

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chambers of the late Dr. Lee of Hartwell, another at the Royal Institution, a third at the Royal College of Surgeons, and a fourth at Charing-cross Hospital. Curiously, too, he records having been present about 1834 at the unrolling of a mummy in the museum of the London University (University College), which mummy had been presented to the museum of the College by James Morrison, Esq., M.P. In this instance the body had not been embalmed according to the richest method of embalming, but sufficient attention had been paid to its preservation to display the form and features of the individual. From the hieroglyphics on and within the case in which the body was contained it appeared to have been the mummy of Kannopos or Cannopus, the son of Osiri—Paaht, and Tatiosri, or Tattiosiri or Tattosiri, Cannopus signifying strength, power, or victory. The bandages of this mummy were in good preservation, but presented nothing remarkable, with the exception of the name of the individual, which was repeated in five or six places in various ways, and giving a date of the seventeenth year, which date Pettigrew was inclined to think referred to the sovereign during whose reign the embalming took place, rather than to the age of the body itself, at the time of death. It is curious to observe, in regard to this mummy unrolled fifty-five years ago in the museum of University College, that, as in the late instance, the intestines and viscera had not been returned into the abdomen nor yet placed in jars, but were found enclosed within the enveloping bandages upon the legs and thighs. The orbits were filled, not with glass eyes, but with linen, and in one of them the transparent part of the eye was attempted to be represented. It is also to be noted that no amulet, necklace, or ornament of any kind was discovered, nor were there any marks by which the social position of the deceased could be ascertained. The body measured five feet two inches. The probability is that the mummy opened the other day might have been the gift also of Mr. Morrison to the museum, and that it might have come originally from the same place of interment, or temple, where bodies of the less affluent members of an Egyptian community had been preserved. The facts disclosed in the process of unrolling a mummy present, in striking contrast, the difference of the mode of embalming pursued by the ancient Egyptian and that carried out in modern times. Now the embalmer can conduct in minutes a preserving process which cost the Egyptian as many days, and if after his process is completed he should take pains to seal up the preserved body with all the skill possible to modern art, he might leave a human body so perfect in regard to natural form and colour that after 3000 years not a lineament need be wanting for its identification that would not have satisfied even a contemporary of the dead person. We are inclined now to experience regret that in Egyptian times the art was not advanced enough to leave the embalmed in such likeness of life. But whether it is worth the trouble in these days to revive the art, in the more perfect type of it, for the edification and satisfaction of the men and women of thirty centuries hence is a wide question. Cremation is at this moment becoming the fashion, but possibly some persons would rather be so immortalised and preserved for scientific study, like William Gilbert's flies in amber, "shining in eternal sepulchres."

RECENT OBSERVATIONS ON THE MOTOR PATH.

AT the meeting of the Royal Society on the 12th inst., Dr. Beevor and Mr. Horsley read a joint paper giving an account of their recent experiments on the brain of the bonnet monkey (Macacus sinicus). The present paper is a continuation of those presented to the Society in 1887 and 1888, containing a minute analysis of the effects produced by stimulating the "motor region" of the cortex in the same species of monkey. In the present paper similar observations have been made on the excitable fibres of the internal capsule. The animals were etherised, and the internal capsule exposed by a horizontal section through the hemisphere. By means of compasses the outline of the basal ganglia was transferred to paper ruled into millimetre squares. Each corresponding square on the cut surface was then stimulated by a minimum secondary induced current. The movements were carefully recorded. Forty-eight animals were experimented on, in eight groups, representing eight levels, reaching from the corpus striatum to the crus cerebri. In addition to mapping out accurately the position of the motor path in the capsule of these animals, Dr. Beevor and Mr. Horsley analysed the tract itself, and found that the fibres had much the same relative position as the excitable areas in the cortex. Most anteriorly are the fibres connected with movements (1) of the eyes; then follow in order those (2) of the head, (3) tongue, (4) mouth, (5) upper limb—the shoulder preceding the hand, (6) trunk, and (7) lower limb—the hip preceding the foot. Further, as shown by the authors in their previous experiments on the cortex, the fibres connected with extension are, in the case of the upper limb, placed in front of those connected with flexion, while in that of the lower limb they are situated posteriorly in the capsule. Another observation of great interest in connexion with modern theories of representation of movements in each hemisphere is that, in stimulating the internal capsule in the manner described, bilateral movements of trunk muscles were extremely rare. When the recti abdominis were exposed and the corresponding fibres stimulated in the capsule of either side, contraction of one rectus only followed. It is desirable that careful clinical observations should be made in cases of unilateral convulsions &c. in man, to see how far this arrangement obtains in the human species.

DISTRIBUTION OF HYDROPHOBIA IN ENGLAND AND WALES.

THE Registrar-General, in his Annual Report for 1888, just issued, supplies some interesting and suggestive statistics concerning the distribution of the fatal cases of hydrophobia registered in England and Wales during the twenty years 1869-88. The recorded deaths from this disease in England and Wales last year were 14, and fewer than in any year since 1868, while the aggregate number in the twenty years ending with last year was 780, equal to an annual rate of 1·50 per million living. It is pointed out in the report that the statistics of mortality from this disease were dealt with in considerable detail in the Forty-eighth Annual Report of the Registrar-General, but that the question of its geographical distribution was not there discussed. As the number of deaths from this disease are not sufficiently numerous for the calculation of trustworthy rates of mortality for the separate counties, the counties are, in the report just issued, grouped together for the purpose of showing the fatal distribution of the disease. The calculated average annual death-rates from hydrophobia in the twenty years in the groups of counties ranged from 0·32 per million in Suffolk and Norfolk, and in Cumberland and Westmoreland, to 1·59 in London and its suburbs, 2·41 in Cheshire, 2·43 in the West Riding of York, and 3·39 in Lancashire. It is noticed in the Registrar-General's Report that fatal hydrophobia appears to have two centres in this country, from which it radiates into the surrounding districts. The most fatal of these centres is the county of Lancashire, where the annual mortality in the twenty years 1869-88 averaged 3·39 per million, while in the neighbouring counties of Cheshire and the West Riding the rate was not very much lower; in

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Derbyshire and Nottinghamshire lower but still high rates prevailed, while further outside this centre the rate from the disease fell below the mean rate for the whole country. The other centre of infection is London, where the rate was 1·59 per million, and higher than in any of the southern counties. From London it is suggested that the disease spreads into the extra-metropolitan portions of the counties of Middlesex, Surrey, and Kent, in which the mean rate was 1·45. The fatality in this metropolitan area is, however, less than half that which prevailed in the area of which Lancashire is the centre. The Registrar-General calls attention to the fact that the geographical distribution of hydrophobia in man corresponds very closely, as might be expected, with the distribution of rabies in animals, in support of which assertion he quotes from the last report of the Agricultural Department of the Privy Council, that there are "two groups of counties or districts in which this malady is chiefly localised, and where it may be said to be enzootic. The first comprises the counties of Chester, Lancaster, York (West Riding), Stafford, and Derby; and the second includes the Metropolis and the adjoining counties of Middlesex, Essex, Kent, Surrey, and Sussex." With regard to these centres it would undoubtedly be interesting to know, as the Registrar-General suggests, whether these two centres of rabies and hydrophobia are distinguished from the rest of the country in the number or character of the dogs that are kept therein. It ought not (although it probably is through the want of uniformity in the territorial sub-divisions used for various State purposes) to be difficult to ascertain at any rate the relative numbers of dog licences issued in the various counties of England.

THE PROGRESS OF THE INFLUENZA EPIDEMIC.

ACCOUNTS daily received from the Continent show a rapid extension of the area involved in the prevailing epidemic. Indeed, it has truly become pandemic, but it is not absolutely certain that the prevalence of influenza reported from Boston and New York is due to the same source as that which has traversed the whole of Europe within the space of two months. The march of the disease has been almost steadily from east to west, and yet it has shown a certain capriciousness in visiting certain cities in the west (e.g., Paris) before appearing in some that are situated further east. Having almost died out in St. Petersburg, it is still very prevalent at Vienna, where it shows no signs of abatement. In Berlin also it has continued to prevail, and has appeared in all parts of Germany, from Hanover in the north to Saxony in the south. The garrisons in many important centres have been especially attacked, whilst in Frankfort it was reported last Monday that there "is scarcely a house here free from it." It has appeared in Belgium at Brussels and Antwerp, and in Holland at the Hague. It has invaded Italy, cases being noted at Verona; whilst in Spain and Portugal, Barcelona, Madrid, and Lisbon have become centres of the epidemic. From Paris, the disease which appeared at the close of November, and which rapidly spread through many large institutions, schools, and places of business there, come reports of some severe cases, and some deaths (from pneumonia) have been attributed to it. President Carnot has had a bad attack. But from most centres the accounts agree generally as to the comparative mildness of the attacks.

Our Berlin correspondent writes:—"The influenza epidemic has gained much ground during the last week or ten days. Professor Senator declares that it has also assumed a somewhat severer character. In one case the symptoms were so alarming that one might have taken it at first sight for a severe case of typhus. The symptoms were deep stupor, pains in the limbs, general morbid irritability, pain in the eyeballs when pressed, and in the frontal sinus (according to Senator one of the most constant symptoms of influenza), diffuse bronchial catarrh, indicated by whistling and humming sounds in the chest, and a temperature of more than 40° centigrade. It was easy, however, to distinguish the case from one of abdominal typhus, for there were no typhus spots on the abdomen and no swelling of the spleen. Senator regards antipyrin as the best remedy, though one not to be used without caution, as it easily produces weakness of the heart. It is a striking peculiarity of this epidemic that it attacks especially people who are much out of doors. None of the patients, for instance, who were in the great Charité Hospital before the epidemic broke out have been attacked, which is the exact contrary of what happens in other epidemics. Bacteriologists are searching diligently for the influenza microbe. It is stated on good authority that about ten per cent. of the population of Berlin have been attacked, but that no deaths have occurred, and that the complications (pneumonia &c.) are not more frequent than in previous epidemics. Professor August Hirsch, a very distinguished authority on the history of diseases, finds the first recorded influenza epidemic in the year 1173, when it raged in Italy, Germany, and France. In the fourteenth century four such epidemics are on record, in the fifteenth also four, in the sixteenth and seventeenth seven each, in the eighteenth eighteen, and in the nineteenth fifty-four. This unenviable distinction of our century, however, is probably due solely to the superior recording apparatus at its disposal."

CONVICTION FOR MURDER BY ARSENIC POISONING IN IRELAND.

ON the 14th inst., at the Munster Winter Assizes held in Nenagh, the trial of Michael O'Brien for the wilful murder of John Manning by giving him arsenic was concluded before Mr. Justice Murphy. The trial lasted two entire days. The verdict was one of wilful murder, and the prisoner was sentenced to be hanged on Jan. 14th. The case was clearly made out, the facts being very simple, indicating what may be called a typical case of poisoning. The deceased was the father-in-law of the prisoner, was eighty years old, and lived on his own small farm at Mangret, near Limerick. The prisoner had been a coachman in different families, including that of Mr. Murphy, a medical practitioner, but for six months previously to Manning's death he had been in very poor circumstances, and, with his wife and family, lived with the deceased. Two years ago the prisoner effected a burial policy for £18 on Manning's life, but found considerable difficulty in paying the premium of 1*s.* per week, and paid 8*s.* of arrears on the very day of Manning's death, May 2nd. No medical man was called in until the previous evening, when the deceased was in a state of collapse and nothing could be done; he was told that the deceased suffered from cramps and vomiting. The death took place at 7 A.M., and on that same day the prisoner endeavoured to ensure his speedy burial. But the district inspector called at the house, and on hearing that the deceased had suffered from cramps and vomiting, very properly reported the death to the coroner, in spite of the prisoner's protest. An inquest was held on May 4th; a post-mortem examination was made, and the viscera were forwarded to Mr. Richard J. Moss, analytical chemist, of Dublin. That gentleman found twenty-three grains of arsenic in the contents of the stomach, six grains and a half in the small intestines, two grains and a half in the large intestines, two grains and a quarter in the liver, four-tenths of a grain in the kidneys, &c., and traces in the bladder. The prisoner had procured a quantity of arsenic from different chemists in Limerick, representing himself as

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still in Mr. Murphy's employ—which was untrue,—and stating that the arsenic was wanted to kill a dog belonging to Mr. Murphy's son, which was killing the sheep—another falsehood, as the dog was a most quiet and inoffensive one. Immediately after the death of the deceased the prisoner claimed the insurance money, even before he had procured a certificate of the cause of death. The agent refused to pay him the whole amount, but advanced him £2 in cash and orders for £2 16*s.* 2*d.* for funeral requisites. There were thus the motive for the crime—a very sordid one, it is true, but one which has been unhappily too frequent of late; the sudden fatal illness; the attempt to hurry the burial; the objection to an inquest; and the discovery of sufficient arsenic to kill ten persons. There was virtually no defence at all beyond the prisoner's reiterated assertion of innocence, which his own conduct throughout disproved. In pronouncing sentence, Justice Murphy (who also tried the notorious poisoner Cross) made some very strong remarks on what he termed "that odious policy called a burial policy, which in many cases appeared to be only for the purpose of trading in death and crime." This year will be ever memorable for its many poisoning cases, and it is to be observed that the well-known poisons, arsenic, strychnine, and laudanum, still continue to be used, proving that greater restrictions upon their sale to the general public are still required.

THE NEW RESEARCH LABORATORIES.

THE arrangements connected with the fitting up of the new laboratories erected by the two Royal Colleges behind the Examination Hall in the Savoy are proceeding rapidly. It has been decided to dispose of the rooms as follows:—Lower floor: 1. Motor room, to contain a water motor and fittings for combustions, &c. 2, 3. Chemical laboratory. 4. Balance room, which will also be fitted with a dark chamber for spectroscopic examinations. Upper floor: 5. Experimental workroom. 6. Microscope room. 7. Bacteriological cultivation room. On this floor will also be the director's room. It is also decided to divide the room in the east wing on the level of the lower gallery into four small rooms—viz., a workshop, mercury room, photographic room and galvanometer room, and to place the proposed library or reading room in the west wing. Finally, a room is to be set apart for use by members of the medical profession holding a diploma from either of the Colleges—subject to the permission of the director—for the purpose of short clinical investigations. The newly-formed Laboratories Committee consists of Professor J. Marshall, Mr. J. W. Hulke, Mr. Bowlby, Sir W. Roberts, Dr. Pye-Smith, and Dr. Payne, and their first duty will be to appoint a director to the laboratories.

A SIXPENNY INFIRMARY.

UNDER the above heading we referred last week in terms of disapproval to a proposal, emanating from a member of the honorary medical staff of the Bradford Infirmary, that a charge of sixpence should be made in the out-patient department of that institution for the skilled advice of the honorary physician and surgeon, the charge to include medicines. Since the meeting of the Medico-Ethical Society of Bradford was held, at which the proposal was condemned, another and, if possible, more important meeting has been held there, all the members of the profession in the district being invited by the Medico-Ethical Society to meet and consider the proposal in question. At this meeting a resolution was carried expressing "the strongest disapproval" of any proposal to accept pecuniary payment for the services of the medical staff in the out-patient department, or for the medicines they prescribe, the services of the staff being gratuitous. The local press have taken the matter up in an excellent spirit, and the *Bradford Observer* of Saturday last devotes an able leader to its condemnation, maintaining that the attitude of the general medical practitioners in opposing it is not only justifiable but highly commendable. The spirited action of the profession in so promptly meeting and condemning this proposal is deserving of praise, and will, we hope, prove an incentive to medical practitioners in other towns to let their voice be heard in similar questions.

THE DWELLINGS OF THE POOR.

WE mentioned recently the proposals of the London County Council for the amendment of Torrens' Acts, and stated briefly their nature. The Council, as the successors to the Metropolitan Board of Works, not unnaturally look for some simpler method than now exists for clearing the metropolis of the many courts and alleys which remain, an object which cannot now be accomplished in any other way than by the application of Cross's Acts. The Council hope to attain this result mainly by enlarging the definition of "obstructive buildings" and by depriving the owner of the right to retain the site. It may be expected that all vestries and district boards will not willingly take advantage of this extension of their powers, seeing that it would cast upon them the duty of administering an Act in its effects akin to those of Cross's Acts, the expense of which now falls upon the London County Council. It is probable, however, that some attempt would be made to distinguish between the small area which could be cleared by a vestry or district board under the proposed amendments, and the large area which should be cleared under Cross's Acts by the Council. The local sanitary authorities have, moreover, their remedy in Section 5 of the Act of 1885, which gives them the right of appeal to the Secretary of State, who may determine the amount which the Council shall contribute to a local improvement of this sort, and this may serve as sufficient encouragement. Mr. Matthews expressed his sympathy with the objects of the Council, and we may anticipate that he will by an amendment of Torrens' or Cross's Acts give effect to their views. The need for further legislation is obvious, for Torrens' Acts have often been found to be unworkable where demolition is needed, and Cross's Acts are cumbersome for the removal of a small number of houses such as are to be found in a single court or alley. It is to be hoped, if the vestries and district boards should obtain the powers with which the Council wish to see them endowed, they will not hesitate to use them.

THE RECENT PRIZE FIGHT.

IF aught were wanting to stamp prize-fighting with public obloquy, it would be found in the disgraceful scenes witnessed on the 23rd inst. near Bruges. From the reports to hand it appears that the supporters of Smith, the so-called English champion, finding their man likely to be beaten by Slavin, invaded the ring and made a cowardly onslaught on the latter pugilist with knuckle-dusters and sticks. The latest exhibition of the "noble art" will perhaps be not altogether an unmixed evil, for it will surely tend to emphasise the cool brutality and hideousness of men battering each other's bodies for sordid gain, and the hollow mockery of so-called prowess and valour. Some years since Lord Esher, then Sir Baliol Brett, took occasion to favourably compare a conflict with man's natural weapons—his fists—with attacks made by the means of deadly weapons, such as knives and firearms. But then his lordship referred to a phase of combativeness totally unlike the subject of this notice. The incident then under judicial consideration was a case of manslaughter, which attended

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a fight without the cold-blooded predetermination which marked the Smith-Slavin encounter. The upholders of "English fair play" must have felt a rude shock to their cherished boastings. We would fain hope that it may be long ere the national character is again sullied by such a stain as it received near Bruges on Monday last.

SCHOOL BOARD PROBLEMS.

MENTAL training and instruction are so nearly identical in their mode of action that we are apt to forget their true relation as distinct, though connected, parts of one whole. Yet for purposes of education the training is as much to be considered as the learning. It was in evident recognition of this principle that a deputation from the British Medical Association lately advised the members of the London School Board that many children were mentally or otherwise unfit for the ordinary course of study, but might be usefully taught on special lines. They contended that some children of defective brain construction would, unless their deficiency were thus particularly recognised and treated, grow up idle or vicious as a natural consequence. There is a good deal to be said for their suggestion. The Board must consider as to how far and how best it can be practically carried out. For our own part, while we entirely concur in the view that thorough efficiency in teaching requires a due recognition of individual character and capacity, we should oppose any system which aimed at less than the cultivation of every available mental quality. Cram and overpressure must of course be avoided, especially in the case of poorly fed children. At the same time, it must not be forgotten that a partially trained intellect is essentially narrow in its views, and unlikely to compete successfully or honestly with another whose every faculty has been judiciously matched against the varying possibilities of after life.

A PUBLIC MORTUARY FOR MANCHESTER.

AT an adjourned meeting of the Manchester City Council held on Wednesday, the 18th inst., a resolution was passed declaring that the condition of the building at present doing duty as a coroner's court was calculated to cause serious injury to the health of those who attended it, and asking the Town Hall Committee to endeavour to provide adequate accommodation elsewhere. A letter was read from Dr. Tatham, the medical officer of health, suggesting the provision of a public mortuary in convenient proximity to the proposed new coroner's court, and fitted up with conveniences for the holding of post-mortem examinations. Dr. Tatham felt it his duty "to impress upon the Council at the present time the desirability of putting an end to the revolting system, now unavoidably adopted in many instances, of conducting post-mortem examinations in the very homes of the deceased, and of retaining corpses for that purpose often for days together in dwellings which are frequently overcrowded by the surviving relatives." We think, under all the circumstances, that the city of Manchester would do well to carry out as speedily as possible the suggestions contained in Dr. Tatham's letter.

PARTRIDGE v. THE GENERAL MEDICAL COUNCIL.

IN the Court of Queen's Bench on Friday, the 20th inst., Mr. H. F. Partridge, Dentist, Old Brompton-road, sought to recover damages from the Medical Council for erasing his name from the Dentists' Register in June, 1886, till restored by *mandamus* in September, 1887. The plaintiff failed to show malice, and Baron Huddleston gave judgment for the defendants. Our readers will remember that the *mandamus* was granted in consequence only of a technical error of procedure on the part of the Council.

DEATH FROM CARBONIC OXIDE POISONING.

AFTER a prolonged inquiry before the Leeds Borough coroner, into the cause of death of two men named Henry Tennick and Richmond French, which occurred at the Leeds forge, the jury returned a verdict of accidental death from carbonic oxide contained in water gas, which, in their opinion, was not sufficiently odorised at the time to enable the deceased to detect its escape from a stove used for the purpose of heating the cabin occupied by them. On a future occasion we intend to discuss in detail the accident above referred to.

FOREIGN UNIVERSITY INTELLIGENCE.

Brussels.—The Professorship of Pathological Anatomy, vacant by the death of Professor Wehenkel, has been given to Professor Stiénon, who has hitherto taught the pharmacology. This subject will now be entrusted to M. Jacques, *professeur agrégé*.

Greifswald.—An offer of an Extraordinary Professorship has been sent to Dr. Hoffa of Würzburg.

Halle.—The Medical Faculty has selected the name of Dr. Küster of Berlin to be recommended as successor to the late Professor Volkmann in the chair of Surgery. Dr. F. Krause, assistant surgeon in the surgical clinic, has been promoted to the rank of Extraordinary Professor.

Munich.—Prince Carl Theodor proposes to establish an ophthalmic clinic similar to that which he organised at Tegernsee. There is available accommodation in the hospital at Schwabing.

THE death of George Gordon Robertson, M.D., Deputy Inspector-General of Hospitals, took place on the 20th inst., at Melville-street, Edinburgh. He was appointed an assistant surgeon in the army in 1834. After twenty-six years' service he retired on half-pay, with the rank of Deputy Inspector-General, having been for twenty years assistant surgeon and surgeon to the Royal Scots, and first-class surgeon from 1854 till 1888.

DR. THEODORE WILLIAMS has handed to the committee of the Hospital for Consumption and Diseases of the Chest, Brompton, a donation of 500 guineas, in memory of his father, the late Dr. C. J. B. Williams, who had been connected with the hospital from its foundation, and after whom it is proposed to name a ward.

DR. HEYMANN, Professor of Hygiene in the Carolina Institute, Stockholm, and Editor of the Swedish medical journal *Hygiea*, died suddenly during a lecture he was giving in Stockholm, from cardiac disease.

WE regret to hear that Professor Botkin, physician to the Czar, and one of the leading medical men in Russia, has just died at Mentone, at the age of fifty-eight years.

DR. JULIUS ALTHAUS has been elected an Honorary Member of the Medical Society of the County of New York.

HOSPITAL SATURDAY FUND AWARDS.—At a special meeting of the Board of Delegates of the Hospital Saturday Fund, held on the 21st inst., at the central office, 5, Mitre-court, Temple, Mr. H. N. Hamilton-Hoare, the honorary treasurer, presiding, it was decided to distribute £12,000, or £2000 more than last year, among the different hospitals, dispensaries, convalescent homes, and other charities of London and the country which supplied the Fund with letters admitting subscribers to the benefits which those institutions conferred. The main bases of the grants were efficiency, usefulness, and economy of administration.

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THE MEDICAL OFFICERS OF THE MERCANTILE MARINE.

To those who have to make a sea voyage, or who are interested in friends or patients who for business, pleasure, or health have to pass many weeks on board an ocean steamer, the question of the skill and capability of the medical officer in charge is often one of great moment. Yet the general experience is that a great difference is to be found not only in different lines, but also in vessels of the same company. In one ship the passenger may be fortunate to meet with a highly qualified practitioner, voyaging for his pleasure and information; in another some medical man who has taken to the service as a last refuge, broken in health or in habits, and who has obtained his berth through the interest of some director. As an evidence of the last, we call to mind an incident that occurred not long since in one of our leading lines of steamships, in which a patient who had acquired and had just been broken of the morphia habit, was placed on board by his London physician, and strict orders given to the ship's surgeon to watch over him. Before the voyage was half over this custodian was himself found dead, having taken an overdose of the drug, to which it was discovered he was habituated. Yet to this man was entrusted the care of at least seventy first-class passengers, some of them persons of eminence, to say nothing of a large number of emigrants and the crew. The question, moreover, of filling the berth of ship's surgeon with highly qualified and efficient men has become of greater importance, since so many persons now take an ocean voyage for the sake of health, and the leading companies are little aware how much the decision is determined by the character of the ship's surgeon. But beyond attending on the sick passengers the medical officer has other important duties to perform—viz., attending to the sanitation of the ship, under the instructions of the Board of Trade. Here, however, the present unsatisfactory arrangement with regard to the appointment of the ship's surgeon comes prominently forward. Should he in the course of his duty report any breach of the orders of the Board of Trade, say, for instance, the encroachment on the cubic space of the hospital quarters by stowing luggage there, he runs the risk of being dismissed his ship, and a black mark is set against his name, which renders it impossible for him to obtain employment in other companies. Such a fate seems to have befallen Mr. Leet, F.R.C.S., whose pamphlet, "The Ship's Surgeon of To-day," throws a lurid light on the discomforts and petty insolence a surgeon who attempts to do his duty by his employers, the passengers, and the crew, is exposed to from the officer in command, unless he is content to close his eyes to all abuses. No wonder that few men remain long in such a service, and as soon as the novelty wears off, or they have acquired a little money, seek other employment. And yet under proper management no service would seem more attractive: comfortable quarters, a liberal table, fair pay, the opportunity of forming many valuable friendships, and making a start in life, ought to attract some of the best of our younger men; and no doubt it would be so if they felt sure of their position.

MEDICAL TRIALS.

COURT OF APPEAL.

Leeson v. General Council of Medical Education and Registration.

JUDGMENT was delivered at the Court of Appeal on Saturday last in the appeal by Mr. Leeson from a decision of Mr. Justice North, who refused to restrain the defendant Council from removing the plaintiff's name from the Register of General Practitioners until the trial of the action, and from publishing resolutions passed by them on Nov. 28th, 1889, to the effect that he had been guilty of infamous conduct in a professional respect, or directing their registrar to erase his name.

The hearing of the arguments occupied the attention of the Court of Appeal for two days, and judgment, which had been reserved, was now pronounced.

Lord Justice COTTON reviewed the history of the case at some length, and continued:—It was said during the arguments that the Medical Council were not justified in exercising the powers given them by Section 29 of the Medical Act, 1858, and there was a good deal of verbal criticism conferred upon us in support of that contention. It was said that Mr. Harness was not acting as a duly qualified medical man, that the charge did not say so, and that Mr. Leeson only assisted Mr. Harness as if he were a medical electrician. I cannot read it in that way We know what a duly qualified medical man is. A person is duly qualified if he is on the Register, and he gets the benefit of the Act, as far as the privileges are concerned, of those who are on the Register, the Register setting forth the qualifications of those who can be put upon it. I have no doubt that the charge as stated was such as to justify the Medical Council in arriving at the decision that Mr. Leeson had been guilty of infamous conduct in a professional respect. That, in my opinion, is the true construction of the charge made against him. When it was found that he had been guilty of the acts charged against him, then there was a direction to erase his name from the Register. There has been a good deal of discussion as to what actually took place, and we have had the evidence given before the Medical Council brought before us. In my opinion it would be wrong to consider whether the Medical Council arrived at a right conclusion upon the evidence that was brought before them. That is not for us to say. The Medical Council cannot take evidence upon oath; they cannot take evidence in the same manner that we as lawyers can take it. They have statements made before them both in support of a complaint made, and on the other side by the medical man against whom the complaint is made; and if it is once established that the complaint made before them does involve matters in respect of which they can exercise the jurisdiction given by Section 29, then we ought not to consider whether the Council has or has not arrived at a right decision. If those who appeal to us say that the Council have acted corruptly, and have not proved that by showing that there was no statement made before them on which they could arrive at the conclusion at which they did arrive, then I think we ought to consider whether there was such evidence to lead us to the conclusion that they had not acted honestly on the charge brought before them. In my opinion there is no such evidence, and although there were some statements to the effect that there was prejudice against Mr. Leeson, that was not pressed upon us by counsel nor supported by anything brought before us. Mr. Leeson seems to have had the most perfect consideration given to his case by the General Council. He was present at the inquiry, he was represented by his solicitor, and he brought his own witnesses to make statements in support of his contention that he had not been guilty of infamous conduct in a professional respect. Everything was most fully heard and considered, and then the Council arrived at a conclusion. In my opinion, we cannot consider whether the Council were right or wrong in the conclusion at which they arrived. If the Council acted honestly, gave Mr. Leeson every opportunity of being heard, and fairly conducted the inquiry in question, then, according to my view, we ought not to enter into the question, because if we once do that we assume to judge whether, in our opinion, they came to a right conclusion upon the statements before them. In my opinion, the first ground that was taken in support of this application fails. I think there were grounds which would justify the Council in coming to the conclusion at which they arrived under Section 29, and there is no reason for saying that the proceedings were improperly conducted by the Medical Council. Then there was another point raised as to which there is a little more doubt. It was suggested as a second point that this order made by the Council must be considered as bad, as having been made by a non-competent tribunal, and it is said that the Medical Council was in such a position and so constituted on this occasion that any order made by them was a wrong one. It turns out that the complaint was made against Mr. Leeson by the Medical Defence Union, and that two of the members of the Council who were present when the case of Mr. Leeson was considered were members of and subscribers to the Medical Defence Union, and it was said that, that being so, they must be considered as prosecutors, and that therefore any decision arrived at by the Medical Council when these



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two subscribers to the Medical Defence Union were present, and who were not competent to act, was a wrong one. To my mind, it is clear that the Medical Council, in respect to the complaint against Mr. Leeson, were acting judicially; they had to decide judicially whether a complaint against Mr. Leeson was well founded, and then, if they found it was well founded, to make an order which would be of great importance to him, and deprive him of the right of being upon the Register. One has to consider this: were either of these two gentlemen to be considered as prosecutors or complainants in this case? We must look a little at what the Medical Defence Union is in order to decide this question. This Union was a company, limited by guarantee under the Act of 1862, and one of its objects was to support and protect the character and interests of medical practitioners practising in the United Kingdom, and to promote honourable practice and to suppress or to prosecute unauthorised practitioners; further, to defend members of the Union in cases where proceedings are brought against them involving professional principle. So that it was formed not only for the purpose of prosecuting, but also for the purpose of defending those of its members against whom charges were brought. Then let us look at what the Articles of Association are. [His lordship having examined at some length the articles and objects of the Medical Defence Union, proceeded to say:] I do not consider that the Medical Council can be considered as prosecutors in a case of this kind. It must be remembered that it is only the Council of the Defence Union that has power to bring complaints of this nature before the General Council. The two gentlemen referred to were not members of the Defence Union Council, and they could not, as has been alleged, have exercised any control as to the manner in which the complaint was brought forward. In my opinion, therefore, this objection, which is a serious one, cannot prevail, and we ought to hold that Mr. Justice North was right in refusing to grant the injunction and the order asked for.

Lord Justice BOWEN, in the course of his judgment, said: As to the first point raised by the appeal, I should say very little in addition to what the Lord Justice has already stated. With respect to the charge of being guilty of infamous conduct in some professional respect, the particulars brought should be particulars of conduct which are capable of being viewed by honest persons as conduct which is infamous, and that is all that is required to be done. When we have seen that these conditions have been fulfilled, the functions of a Court of Law are at an end. It appears to me that we have no power whatever to review the evidence any more than we have the power to say whether the tribunal came to the right conclusion in this matter. If it could be shown that nothing was brought before the tribunal which would warrant the inference that infamous conduct was established, that might go to show that the inquiry had not been a proper one; but if there is nothing to show that, the decision which has been arrived at, it is plain, must be left untouched by the Courts of Law. It appears to me for these reasons that the view which Lord Justice Cotton has expressed is a sound one, and I entirely adhere to it. Next comes the question whether or not the tribunal which adjudicated with respect to the appellant's conduct was competent, or whether, in respect of two of its members, it was rendered incompetent by the fact that they had taken part in the decision arrived at as accusers. The fact is established that those interested in a decision cannot act as judges. I think it is to be regretted in the present case that when those two gentlemen found that a society to which they were subscribers, and of which they were members, was bringing a charge against a gentleman who was before the Council, they did not at once retire from the Council. I think that is much to be regretted, because justice, like Cæsar's wife, ought to be above suspicion. I trust that in future the Medical Council will think it reasonable to advise that those who sit upon these cases should cease to occupy the position of subscribers to the society. I think that, although they were members of the corporation whose Council brought this complaint before the Medical Council, they did not themselves take any part, and could not, in fact, take any part in the prosecution, and the prosecution was not conducted by the Council as their agents. The Council was supreme in the matter, and I think they stand cleared of all suspicion. For these reasons, I think that, as a matter of substance and of fact, these gentlemen were not accusers.

Lord Justice FRY, in the course of his judgment, said:—I cannot say that these gentlemen were not acting judicially. This must be held to be a judicial proceeding, because the result was to deprive Mr. Leeson of all rights that were vested in him. It is a matter of public importance that judicial proceedings should not only be free from actual bias and prejudice, but that they should be free from suspicion of bias and prejudice, and I do not think that subscribers to an association for the purpose of carrying on prosecutions can be said to be free from bias in prosecutions instituted by that association. If the matter, therefore, had rested with me, I should have held that the decision of the Council in this case was invalid, and that it was not competent to decide, and in so doing I think I should best have maintained the dignity, honour, and influence of the Council.

The appeal was therefore dismissed with costs.

Mr. RIGBY: As it is possible, my lords, that these proceedings may be carried further, do your lordships think that Mr. Leeson's name should be removed from the Register in the meantime?

Lord Justice COTTON: Yes; if the House of Lords comes to a different conclusion they can order the name to be restored.

Lord Justice BOWEN: We have no power, according to our judgment, to interfere in the matter. If you can quote to us any cases to show us that we have such power we shall be pleased to hear you.

Mr. RIGBY: If your lordships please.

QUEEN'S BENCH.

Partridge v. *the General Council of Medical Education and Registration of the United Kingdom.*

In this action the plaintiff sued the defendants, who are a quasi-judicial body taking their powers under the Medical Act (21 and 22 Vic., chap. 90), to recover damages, alleging that they had wrongfully and maliciously caused his name to be taken off the Register in June, 1886, and to remain off until ordered by writ of *mandamus* to reinstate it in September, 1887, and that during that period a number of his customers had refused to pay their accounts on the ground that under the Dentists Act, 1878 (41 and 42 Vict., c. 33), the plaintiff's name not being upon the Register, he could not at law recover his fees. The defence was in substance that the defendants, as a judicial body, had had certain matters connected with the plaintiff's professional conduct brought before them to decide, and that although the Court of Appeal had decided that their decision had been wrong, yet it was arrived at *bonâ fide* and without malice, and that therefore they were not liable in damages to the plaintiff for their mistake in exercising their discretion.

Mr. Waddy, Q.C., and Mr. Lyon were for the plaintiff; and Mr. R. T. Reid, Q.C., and Mr. Muir Mackenzie appeared for the defendants.

Mr. WADDY opened the case, and called the plaintiff, Mr. H. F. Partridge, who said he practised as a dentist at Sussex House, Sussex-place, Old Brompton-road, and had done so for twenty years. In 1878 the Dentists Act was passed compelling registration, and so he wished to become a Licentiate in Dental Surgery of the Royal College of Surgeons in Ireland. Witness went to Dublin, and passed the required examinations, and received a diploma, at the same time signing a declaration that while he held it he would not advertise in order to benefit his practice as a dentist, under the penalty of having the diploma cancelled. In February, 1882, he had gone to bed quite well in health, and awoke the next morning totally blind, and he had been so ever since. In order to obtain a living he had formed the South Kensington Ladies' Dental Institute. He had, in fact, advertised that institution. He had found it necessary to do so. He had received a copy of the resolution of the Council for Ireland in July, 1885, and a notification that they had again had under their consideration the fact of his advertising his institution, and that his diploma was cancelled. On July 11th, witness replied to that. On June 8th, 1886, he received a letter from the General Medical Council of Education in England informing him that a meeting of that Council, "after due and careful consideration, had decided that his name should be removed from the Register." Witness applied to the Court thereupon for a *mandamus* questioning that decision, and in the result the Court of Appeal ordered his name to be restored, and

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it was, in September, 1887. During the time that his name was off the Register, he had been unable to sue for or recover any fees. During that time a number of his patients refused to pay him his fees. His out-of-pocket expenses over the whole matter, including his solicitor's costs, had been £36 odd.

Cross-examined by Mr. R. T. REID, Q.C.: The institution was wholly his own business, and all its profits his. From 1882 until now witness had constantly and largely advertised, and had advertised himself as an "L.D.S.," as described in the certificate to his diploma. He meant by that to describe himself as connected with the Irish Royal College of Surgeons. He was aware that by his diploma he had undertaken not to advertise. In 1883 the Dublin College complained of his doing so, and in effect he had promised not to do so any longer. Nevertheless he continued to so advertise. He thought that he had a right to use the title of L.D.S. after his diploma had been cancelled. Since he had been struck off the Register he had still advertised as L.D.S. He could not help himself. He did put L.D.S. on his "plate," but with the word "late" before the L.D.S.

Mr. Baron HUDDLESTON: When was it you put the word "late" before the L.D.S.?

Witness: Oh, a few weeks ago.

Cross-examination continued.—During the period you were off the Register was it not a fact that your income had increased?—Yes, that is so, but I ascribe it to the fact that I largely advertised during that period.

Mr. WALTER OLDHAM said he was the plaintiff's secretary since June, 1886. There were only one or two cases where refusals to pay accounts were based on the fact that the plaintiff's name was off the Register.

Cross-examined.—The plaintiff's income increased during the time his name was off the Register.

Mr. R. T. REID then said that as there was no evidence of malice here, this action could not be maintained.

Mr. WADDY, for the plaintiff, argued that the defendants had gone entirely beyond the powers given them by the Legislature, and were therefore liable in damages, there being in fact legal or constructive malice.

Mr. Baron HUDDLESTON said he might say at once that he was prepared to decide that this action would not lie unless malice were proved, and he would therefore suggest that the jury should be discharged and it be left for his decision, in which event either party could go direct to the Court of Appeal.

Mr. WADDY said his client wished the matter to go to the jury.

Mr. Baron HUDDLESTON: But I will not permit it. I have told you I am going to decide the matter at once.

Mr. WADDY: Then I can say no more, my lord.

Mr. Baron HUDDLESTON then gave judgment for the defendants, holding that there was no evidence of malice on the part of the defendants, and that therefore the action did not lie. In reviewing the facts, the learned Baron observed that the defendants, when the matter of the plaintiff's conduct in respect of the violation of his agreement not to advertise was brought to their notice, had taken his name off the Register, and subsequently, by order of the Court of Appeal, they had had to reinstate it. But for this were the defendants liable to an action? He did not think it required authority to establish that where persons in a quasi-judicial capacity exercised their discretion wrongly no action could be maintained against them for such a decision unless it could be shown that they arrived at their decision maliciously. Here there was no evidence at all of malice, and the plaintiff must therefore be non-suited and judgment entered for the defendants.

PRESENTATIONS.—Dr. Crooke, physician to out-patients of Queen's Hospital, and late Pathologist to the General Hospital, Birmingham, was presented last week by the students connected with the Birmingham Medical School with an illuminated address and a collection of medical and scientific works, in recognition of his valuable services rendered to them.—On Saturday, Dec. 21st, the Rev. J. B. Medey, Mr. Gunning, and Mr. Bray presented Dr. Evans of Beckington, near Bath, with a handsomely illuminated address signed by fifty-eight residents of the parishes of Orchardleigh, and Lullington with a purse of sovereigns, as a recognition of his work among the sick during a recent epidemic of typhoid fever in those parishes.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

PORTS OF MEDICAL OFFICERS OF HEALTH.

West Sussex.—This important combination of sanitary districts has now for fifteen years been under the medical supervision of Dr. Charles Kelly, and perusal of his several annual reports shows that if progress has in some localities been slower than might have been hoped for, yet it has been of a sort that can only tend to the improvement of public health. Much the same may be said for the report on last year's work in the eleven districts under consideration. New and efficient bye-laws have in several places been put in force; excellent regulations for the connexion of drains with the public sewers have been adopted in the Horsham rural district; a system of drainage has been carried out in West Tarring village; and a beginning of good work as to the housing of the poorer classes in Worthing has been set on foot. But some important sanitary defects still remain to be dealt with, and amongst these Dr. Kelly strongly urges the case of the drainage of Midhurst, to which attention has been called before. The area of this combined district is about 524 square miles, with a population of 106,600 persons. The birth-rate has shown a tendency to decrease. Between 1879 and 1882 it was over 30 per 1000; during the last two years it has been only about 26. The death-rate, corrected so as to exclude visitors, was last year 13·3 per 1000, the variations being between 20 3 for Arundel and 8·0 for West Worthing. Speaking of the district as a whole, the general death-rate has steadily diminished during the past ten years; and it is impossible to dissociate this important result from the improvement in sanitary administration which has been in progress. This is significantly shown in the zymotic rate of 1·2 per 1000. For 1879–88 it was 1·45, or about one-half of that for England and Wales as a whole. The infectious diseases heading the list are whooping-cough, diarrhœa, and diphtheria, which are only followed by scarlet fever, measles, &c., thus reversing the order for the country generally in so far as diphtheria is concerned. Indeed, the increase as regards this disease is one to cause some anxiety, and we may feel confident that the study of the obscure conditions under which the poison of diphtheria is steadily acclimatising itself in our midst is one that is engaging attention in the West Sussex combination.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5493 births and 4304 deaths were registered during the week ending Dec. 21st. The annual rate of mortality in these towns, which had increased in the preceding four weeks from 18·2 to 23·1, further rose last week to 23·5. During the first twelve weeks of the current quarter the death-rate in these towns averaged 19·2 per 1000, and was 2·0 below the mean rate in the corresponding periods of the ten years 1879–88. The lowest rates in these towns last week were 14·1 in Brighton, 14·8 in Birkenhead, 17·0 in Leicester, and 18·9 in Nottingham. The rates in the other towns ranged upwards to 30·3 in Wolverhampton, 32·1 in Manchester, 33·2 in Bolton, and 33·6 in Blackburn. The deaths referred to the principal zymotic diseases, which had been 383 and 378 in the preceding two weeks, rose last week to 413; they included 128 from whooping-cough, 73 from measles, 73 from scarlet fever, 52 from "fever" (principally enteric), 52 from diphtheria, 35 from diarrhœa, and not one from small-pox. These zymotic diseases caused the lowest death-rates during the week in Cardiff, Huddersfield, and Halifax; and the highest rates in Salford, Wolverhampton, and Plymouth. The greatest mortality from whooping-cough occurred in Bolton, Leeds, Salford, Wolverhampton, and Bristol; from measles in Birmingham, Newcastle-upon-Tyne, and Bradford; from scarlet fever in Liverpool and Plymouth; and from "fever" in Sunderland and Wolverhampton. The 52 deaths from diphtheria in the twenty-eight towns included 27 in London, 5 in Manchester, 3 in Salford, 3 in Sheffield, 3 in Portsmouth, 2 in Plymouth, 2 in Birmingham, and 2 in Newcastle-upon

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Tyne. No death from small-pox was registered in any of the twenty-eight great towns. No case of this disease was under treatment at the end of the week in any of the Metropolitan Asylum Hospitals, and only 2 in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and London Fever Hospitals at the end of the week was 1594, while in the preceding twenty-five weeks the numbers had steadily increased from 559 to 1667; 115 cases were admitted to these hospitals during the week, against 154 and 144 in the preceding two weeks. The deaths referred to diseases of the respiratory organs, which had increased in the preceding eight weeks from 281 to 552, declined again last week to 518, but exceeded the corrected average by 16. The causes of 83, or 1·9 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Newcastle-upon-Tyne, Nottingham, Oldham, Portsmouth, and in six other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Cardiff, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 23·9 and 23·6 per 1000 in the preceding two weeks, rose to 26·1 in the week ending Dec. 21st; this rate exceeded by 2·6 that which prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 12·0 and 12·3 in Greenock and Paisley to 26·1 in Edinburgh, 26·4 in Dundee, and 29·9 in Glasgow. The 667 deaths in the eight towns showed an increase of 63 upon the number in the previous week, and included 27 which were referred to whooping-cough, 26 to measles, 12 to scarlet fever, 9 to diarrhœa, 8 to diphtheria, 6 to "fever," and not one to small-pox; in all, 88 deaths resulted from these principal zymotic diseases, against 67 and 85 in the preceding two weeks. These 88 deaths were equal to an annual rate of 3·3 per 1000, which exceeded by 1·0 the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 21, 20, and 16 in the preceding three weeks, rose last week to 27, of which 14 occurred in Glasgow, 7 in Edinburgh, and 3 in Dundee. The 26 deaths from measles showed a further increase upon recent weekly numbers, and included 14 in Edinburgh and 11 in Glasgow. The fatal cases of scarlet fever, which had been 13 and 8 in the previous two weeks, rose again last week to 12, of which 7 occurred in Leith and 2 in Perth. The 8 deaths from diphtheria, on the other hand, were fewer by 12 than the number in the previous week, and included 4 in Glasgow and 3 in Edinburgh. The 9 deaths attributed to diarrhœa also showed a decline from recent weekly numbers. Three of the 6 deaths referred to "fever" were returned in Glasgow. The deaths returned from diseases of the respiratory organs in the eight towns, which had been 121, 166, and 167 in the preceding three weeks, further rose last week to 181, and exceeded the number in the corresponding week of last year by 60. The causes of 79, or nearly 12 per cent., of the deaths registered in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 27·8 and 32·2 per 1000 in the preceding two weeks, further rose to 33·9 in the week ending Dec. 21st. During the first twelve weeks of the current quarter the death-rate in the city averaged 26·8 per 1000, the mean rate during the same period being 17·6 in London and 20·1 in Edinburgh. The 229 deaths in Dublin showed a further increase of 11 upon the numbers in recent weeks; they included 5 which were referred to "fever," 5 to measles, 4 to whooping-cough, 4 to diarrhœa, 1 to scarlet fever, and not one either to small-pox or diphtheria. Thus the deaths from these principal zymotic diseases, which had been 26, 21, and 13 in the preceding three weeks, rose again last week to 19; they were equal to an annual rate of 2·8 per 1000, the rate from the same diseases being 2·0 in London and 5·7 in Edinburgh. The 5 deaths from "fever" showed a further decline from the numbers in recent weeks; whereas those from measles, whooping-cough, and diarrhœa were more numerous. The deaths both of infants and of elderly persons showed a further increase upon recent weekly numbers. Five inquest cases and 8 deaths from violence were registered; and 81, or more than a third, of the deaths occurred in public institutions. The causes of 32, or nearly 14 per cent., of the deaths in the city were not certified.

Correspondence.

"Audi alteram partem."

THE INFLUENZA OF 1847.

To the Editors of THE LANCET.

SIRS,—I observe that influenza is spoken of as an epidemic catarrh, and descriptions of it refer especially to running of the nose and eyes, against which treatment is directed, with the hope of arresting the disease at its onset. Remembering well the epidemic of 1847, I should say that catarrh was by no means a constant symptom, very many persons presenting merely the condition, in a very severe degree, of what is called a feverish cold; and in cases which were fatal by inflammation of the chest-organs there was no initiatory catarrh. Referring to my notes, I find that the first cases which I saw were in November, 1847, in the house of a friend, where a little girl took to her bed with the usual symptoms of pyrexia: hot skin, furred tongue, great prostration, sore-throat, &c. Then all the other children were similarly affected; afterwards the servants, and then the master of the house, who died of acute pleurisy. These cases I thought were gastric fever, but I soon altered my opinion in favour of some specific fever when I found the disease spreading; for other cases soon occurred in the neighbourhood, and in a fortnight afterwards the whole metropolis was involved. The fatal cases were by bronchitis, pneumonia, pleurisy, and pericarditis. The occurrence of the latter was very remarkable, as there was apparently no rheumatic state to account for it. I lost a friend from pleurisy and pericarditis; and a very promising student who had just been examined at the London University died of the same complication. Others of the kind I saw at the hospital, amongst them being the sister of a ward, who, although ailing, had been at her duties in the morning, when, suddenly being seized with a pain at her side denoting an acute pleurisy, she died at night. In none of these cases was there any catarrh. Although the increase of mortality at this time was very great, the percentage of deaths in those attacked was small. It was said that in the epidemic of 1837 half London was attacked, and as regards 1847 I have a note saying it was conjectured that at least three-fourths of the population were affected. The whole of the medical staff at Guy's were in turns attacked, although their illness lasted only a few days, and I remember that on one occasion not a single member came to the hospital to go round the wards or to lecture, so universal was the epidemic. I think it was in 1840 that Henle published his papers suggesting that contagious diseases were due to parasitic life.—I am, Sirs, your obedient servant,

Grosvenor-street, Dec. 21st, 1889. SAMUEL WILKS.

A SIXPENNY INFIRMARY!

To the Editors of THE LANCET.

SIRS,—Referring to your annotation under this heading, and the extraordinary proposal from one member of the medical staff of the Bradford Infirmary that "every patient in the out-patient department shall pay sixpence per visit for advice and medicine," allow me to say that no such proposal has ever been made, or even mentioned, at any meeting of the medical staff or of the board of management. It is true that the out-patient department is overcrowded, and it has become necessary to do something to check those who are not justified in applying. It has therefore been suggested that an officer should be appointed to inquire into the circumstances of all applicants for treatment. This would shut out many who at present impose upon the charity. It has also been suggested that the weekly wage limit which would entitle persons to gratuitous treatment should be for a married couple 18*s.* a week, with 2*s.* additional for each child, and that those families whose incomes are between this—gratis limit—and the present wage

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limit of the infirmary, which is 18*s.* for parents, with 5*s.* added for each child, should contribute a small sum towards the cost of their treatment. If such patients cannot afford to pay the ordinary moderate fees charged by most medical practitioners, and are still able to contribute something to the funds of the infirmary, I know no sufficient reason why they should not be allowed to do so. These checks would diminish the abuses of the out-patient department without the necessity of creating greater evils, such as provident dispensaries, or the proposed "Public Medical Service." I am anxious to remove the shadow which at present rests upon my colleagues in consequence of such a gross misrepresentation of the above suggestions. If any still remains, it must be upon yours, &c.,

J. H. BELL, M.D.,
Hon. Med. Officer, Bradford Infirmary.

December, 1889.

ANTIFEBRIN IN INFLUENZA OF THE HORSE

To the Editors of THE LANCET.

SIRS,—It may interest your readers to know that the form of influenza now so prevalent amongst horses in London, and which appears very closely indeed to resemble the catarrhal epidemic on the Continent, has in my hands yielded very markedly to the use of antifebrin. I mention this because I observe that some continental physicians strongly recommend antipyrin. As far as I know, these agents have not previously been used in veterinary practice; they appear, however, in the horse to be most valuable febrifuges, being capable of reducing the temperature as much as five degrees in from sixteen to twenty-four hours. An opinion prevails amongst physicians that these medicines, if given freely, are attended with cardiac depression. So far as my observations have extended (and I have treated about 100 cases with antifebrin), in the horse, at all events, no ill effects follow provided that diffusible stimulants be given with the drug, and the latter be withheld on the temperature becoming normal. To show that antifebrin may be given liberally with safety, I may remark that in one extreme case I gave one drachm and a half every six hours for three days, although the pulse was at first very frequent (99) and weak (the standard in the horse being taken as 40). No unpleasant symptoms followed except very slight diarrhœa, which apparently afforded the animal some relief. I could give you a more complete account, but having forwarded an article with cases recorded to the *Veterinarian*, I refer you to this if the subject is of sufficient importance. I feel justified in asserting that antifebrin is one of the best remedies for influenza in horses, that it may in equine patients be given without fear, and that very few deaths will result if good nursing and hygienic conditions are likewise brought to bear upon the patient.

I am, Sirs, yours truly,
W. F. BARRETT, M.R.C.V.S.

New-cross-road, S.E., Dec. 23rd, 1889.

TOOGOOD *v.* WILKES.

To the Editors of THE LANCET.

SIRS,—Naturally, the above action in which I was the defendant, being the first in which the value of the 12th and 13th sections of the New Lunacy Amendment Act has been put to the test, has been commented on by the medical journals. I feel that it is but an instalment of what is due to us as a profession, if we are to do our duty fearlessly and honestly to society. Gradually for many years we have become increasingly a certificating profession. We have to give certificates of stillbirth, successful vaccination, of health to all the public services, public companies, schools, benefit clubs, attendances on juries, sanitation, infectious diseases, lunacy and death. In all, except lunacy, if our certificates are properly given, we hear no more about them. But in my case, although I had obeyed the lunacy laws, it is open to any litigious patient at his discharge from an asylum to accuse me of negligence and wrong in signing a certificate of lunacy, and this without any previous inquiry into the truth of it. The Commissioners of Lunacy, who are both barristers and physicians, appointed by the public to watch over the insane, are not appealed to, though every certificate goes before them for acceptance and confirmation when they visit the asylums. The visiting magistrates and their medical visitor, like the commissioners, are all bound to secrecy, and unless served with a subpœna to give evidence at the trial cannot and do not help you, and in my case, where affidavits only were in evidence, I could not get any assistance from those whose evidence as public officers should be available. It is the wish of every right-minded medical man that the public should be carefully protected, but it is equally a duty that the medical profession should be protected also, and we are not. Why should I have to go through the worry, annoyance, and, I expect, much expense, when I am helping society in its troubles to the best of my ability, spending, as I did, three hours from my home about the patient, being more than an hour with him, and receiving a guinea for my services? Salisbury, a city with about 18,000 inhabitants, has from early in the present century had two large private asylums. Patients are sent from many of the neighbouring counties, and now and then a patient may be brought urgently, with no certificates, or with one, and may be, as in my case, with one of the two, invalid. The medical men resident in Salisbury are thus often called upon to see and examine such patients, and thus experience more of lunacy in their practice than in many a larger city.

The practical bearing of this action will be that the seniors of our profession who have been careful during their lives for the day when they have to retire, and those who have other means, must decline to sign certificates, leaving the public to lose the benefit of their experience and practice.

I wish to express my gratitude to Mr. S. J. F. MacLeod, of the Western Circuit, the counsel, for his able advocacy, and to Mr. G. Smith, the solicitor, for his warm interest and care in conducting my defence in the action.

I am, Sirs, yours faithfully,
Salisbury, Dec. 9th, 1889. W. D. WILKES.

THE STATE OF THE BLACKWATER RIVER.

To the Editors of THE LANCET.

SIRS,—I have been requested by the Farnham Union Rural Sanitary Authority to forward to you for publication the enclosed copy of the report of a committee appointed by them to consider the article of Mr. Haviland in THE LANCET of October 12th last. I beg also to request you to be good enough to insert the accompanying letter, addressed by Mr. Manders, the medical officer of the parish of Frimley, to this authority.

I am, Sirs, yours faithfully,
Farnham, Surrey, Dec. 20th, 1889. G. V. KNIGHT, Chairman.

Farnham Rural Sanitary Authority.

The committee appointed by this authority to consider and report on the article of Dr. Haviland, which appeared in THE LANCET newspaper on the twelfth day of October, 1889, reflecting on the conduct of the authority with regard to the River Blackwater report as follows:—The committee having carefully considered the article of Dr. Haviland, the report of Dr. Lorimer (the medical officer of health of the district of this authority), and also the reports of Mr. R. D. R. Sweeting in 1885, Mr. W. H. Power in 1887, and Dr. Parsons in March last, experts sent down by the Local Government Board to report on the outbreaks of diphtheria, and in the latter case at the formal request of this authority, we beg to call the attention of the sanitary authority to the following extracts from those reports:—1. Mr. Sweeting makes no reference in his report, dated July, 1885, to the River Blackwater as a factor in the outbreak of diphtheria in 1884. 2. Mr. Power in his report dated, April, 1887, states:—

"4. *Emanations from recent deposits of river mud.*—Belief in the dependence of the diphtheria on a cause of this sort appears to have been based on a knowledge that the mud in question was in part (perhaps, indeed, largely) sewage sediment, that the river-cleansing operations and the related deposit of the mud on the river bank had been commenced near to Blackwater Bridge shortly before the outbreak of the diphtheria, and that on a former occasion similar river cleansing operations in this district were remembered to have been followed by an outbreak of diphtheria in their neighbourhood. Added to these facts was the consideration that persons in Yorktown and Camberley attacked by diphtheria must have had special opportunity of breathing this sewage-tainted atmosphere, offensive odours from the dredgings having certainly been wafted very considerable distances. The belief was plausible, and the possibility of such an explanation of the



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outbreak is not to be denied. But whether or not it furnishes a probable explanation of the facts of the recent diphtheria is another matter. No one advances more than the foregoing general considerations in support of the connexion, and certainly there are some other considerations which do not tell for it, as, for instance, the fact that the quarter of Yorktown nearest, and presumably most exposed, to these emanations by no means suffered most heavily from diphtheria. Thus, not a single cadet out of 300 resident in the Royal Military College (Berks), a few hundred yards distant, suffered from diphtheria, whereas there was a very heavy incidence of the disease upon a considerable number of better class dwellings situated one to two miles from the river, and shut off from Yorktown and Camberley proper by an elevated ridge of land crowned by fir trees."

"1. The outbreak of diphtheria has been found to have been due to milk, though the method of infection of the milk has not, in the present state of knowledge of this subject, been demonstrable."

Dr. Parsons states in his report, dated March, 1889:—

"*Cause undetermined.*—In looking for the cause of the outbreak of diphtheria in November, 1888, we seem to require, in order to explain the first dissemination of the disease, some condition or combination of circumstances first coming into operation about the beginning of November, and acting in a scattered fashion over a somewhat wide area, though exhibiting a preference for certain localities and confined in its operation to persons of the poorer or lower middle class. Such a condition I have not been able to find; possibly it may have escaped notice or have been of a nature as yet unsuspected, or possibly different causes may have been concerned in different cases."

"*Exhalations from river mud.*—Mr. Denny informs me that the bed of the River Blackwater was cleared out last autumn shortly before the diphtheria appeared, and a quantity of weeds and sludge removed. It had similarly been cleared shortly before the outbreak of diphtheria in October, 1886, and Mr. Power, in his report on this outbreak (page 4), mentions that on a former occasion similar river-cleansing operations were followed by an outbreak of diphtheria in their neighbourhood. Probably, however, the connexion is merely one of coincidence. The river is cleansed at the time of year when the water is lowest—i.e., at the end of summer, and outbreaks of diphtheria most frequently commence in autumn. In the present outbreak, as in that reported on by Mr. Power, there has been no special incidence of diphtheria upon houses nearest the river. In the houses in the lower part of Yorktown, near Blackwater Bridge, there was only one case of diphtheria (commencing Nov. 13th), whereas the greater number of houses invaded were at Camberley, a mile away from the river, with intervening rising ground."

We find that the deaths from diphtheria have not been unduly prevalent near the stream of the Blackwater, or on the low-lying lands adjoining. We find that the sanitary authority have carried out the recommendations of their medical officer and of the experts as regards the Blackwater stream. We find from the reports of the medical officer of health and the inspector of nuisances that the Blackwater is in a better sanitary state than it has been for many years past, owing principally to the fact that the adjoining urban sanitary authority of Aldershot have been prohibited from allowing their sewage to enter the stream, and that every effort has been made by the authority to minimise its pollution by combining with the Hartley Wintney Authority in cleaning out the stream, which must always be sluggish owing to its level course and to the soil through which it flows. We find that Dr. Haviland makes serious charges against the sanitary authority, which we consider are without foundation and reflect very unfairly on the authority, and is certainly a reflection on the experts sent down by the Local Government Board to inquire into the causes of the outbreaks of diphtheria.

To the Chairman of the Sanitary Committee of Farnham Union.

SIR,—As the parish of Frimley is bounded on the south-west by the River Blackwater, which has been called the "Foul Blackwater" in an article by Mr. Haviland in THE LANCET, and also forms for four miles and a half part of the valley through which it flows, which has been stigmatised as the "plague-stricken valley," I, as medical officer to the parish, felt it my duty to inquire closely into the sanitary state and general health of the parish for the past ten years, that being the time mentioned in Mr. Haviland's article, and the result of my inquiry as regards this parish is that instead of being plague-stricken, it is one of the most healthy districts in England. It is exceedingly difficult to understand from the article in question whether the middle Bagshot sands is responsible for the plague or the state of the Blackwater river, but the following facts speak well for the district: From August, 1878 (the date of my appointment), until October, 1886, a period of eight years, no death from diphtheria occurred among the paupers or private families under my care in Frimley parish only. For the last eleven years one case of measles, two of typhoid fever, and three of scarlet fever have proved fatal. The deaths have chiefly been due to pneumonia and old age. These figures are taken both from the sick pauper and private families in my practice in the parish. Since the drainage has been finally completed in Camberley and Yorktown only one case of typhoid fever has occurred, and that was proved to have been contracted elsewhere. There have been two outbreaks of diphtheria, the first in 1886, which seemed to have been introduced from Ash, as it first appeared at that end of the parish. In the month of October a great outbreak occurred, nearly eighty cases falling sick within three days; this was definitely proved to have been caused by a milk-supply, and, strange to say, due to one delivery only, that of the afternoon of Oct. 10th, though it was never discovered how that milk became contaminated. This outbreak was confined to the better class of houses, and never spread from the houses in which it first appeared; again speaking well for the sanitation of the district. The second outbreak occurred at the end of 1888, and was at an end early in the present year. This outbreak was entirely confined to the poorer classes, and was chiefly remarkable for the high percentage of mortality, for the number of persons attacked was not great. This attack was traced to infection from the direction of Sandhurst parish, and it should be remembered that at this time a wave of diphtheria passed over London and much of the south and west of England.

Mr. Haviland begins his article by saying that he spent a day in September in this district and found diarrhœa of a severe form prevalent in Frimley, and that the River Blackwater was in a frightfully polluted state. I have in vain turned to my parish register of sick paupers to find corroboration of prevalent diarrhœa—indeed, there is not a single case reported for that month, and only one for the previous month; and surely we should expect to find the complaint among the poorly fed and badly housed, but it was not so; neither was this the case among the better classes, to my knowledge.

The next paragraph states that in certain parishes contiguous to the Blackwater deaths from diphtheria averaged per annum 12·13 to every 10,000 persons living, *when it should have been nil*; but that in the subdistrict of Farnham, which is "out of the influence of the baneful Blackwater," the mortality from this disease was only 4·78. Now, of course it should have been *nil* here, but Mr. Haviland does not tell us the cause of the outbreak in that district. I am of opinion that the Farnham subdistrict being sparsely populated, the disease did not spread so easily, but in the Aldershot district the contagion was the more easily spread owing to the greater density of population.

The statistics of the succeeding paragraph I cannot enter into, as they deal with parishes with which I am not immediately concerned; but the paragraph which deals with the geological conditions of the district shows much want of knowledge of the neighbourhood. "Both diphtheria and diarrhœa can be clearly traced down the stream, their causes acquiring strength as they go, and the pestiferous emanations from its foul water and still fouler banks lie about and overflow into the houses which skirt the valley." So says the article; but if it were correct we should expect to find that the riparian population are the chief sufferers, but this is not the case; on the contrary, at Blackwater Bridge are houses built quite on the banks, whose gardens are frequently overflowed by winter floods, yet no case of diphtheria has been known to have happened in those houses. Any person not acquainted with this part of the county would imagine it to be, after reading this article, a valley closely shut in by heights on either side of the stream, so much so, indeed, that to quote Mr. Haviland, "free flushing by prevailing winds is hindered." This is sheer nonsense, for to the south-west of the stream, in the first four miles and a half of its course, the enclosing heights are nowhere forty feet above the stream; then comes a gap where the Cove brook joins the Blackwater between Farnborough and Hawley, a gap over a mile and a half wide, with not a fifty feet contour between the stream and the heights the farther side of the long valley six miles away. That the parish is protected by the Chobham ridges from the bitter north and east winds is regarded as an advantage by the inhabitants, who always thought themselves open to the genial breezes from the south-west, where the Surrey and Hampshire hills can be seen in the far distance, and lovely views are seen unobstructed by the enclosing heights, which have no real existence.

I have no reason to question the *bona fides* of the writer of this article, but I do wish that any gentleman who may have theories to air about geological formations would spend more than one day in collecting information about the sanitary condition of the neighbourhood before writing articles which carry dismay to everyone concerned in the district, and which may do mischief that can never be undone.

There is no doubt that a few years ago the Blackwater was much polluted. Since then it has been cleaned out. The Government inspectors have reported favourably on the drainage schemes contiguous to it, whose effluents flow into the stream. Since the cleaning out I have frequently seen fish playing about Blackwater Bridge, which would not be the case if it were in so foul a state as it is represented to be.

I have the honour to be, Sir, yours faithfully,

HORACE MANDERS, F.R.C.S.Eng.,
Medical Officer, Frimley Parish.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Notification of Scarlatina with a Vengeance.

AT the City Police Court on the 20th, during the hearing of a summons before Mr. Edward Whitley, M.P., against a boy named John William, living with his parents in the northern part of the city, for playing pitch and toss in the street, a sensation was created. The father, mother, and sister of the defendant were all also summoned for using obscene language to the officer, when he went to the house

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to get the boy's name. The sister, a married woman, with a child in her arms, who appeared, told the Bench that she had been obliged to leave at home a young child dying of scarlet fever, another child at home was ill, and the baby in her arms had the same disease. The witness became highly excited and fell down in a fit, causing a painful sensation in court. The police officer stated that when he went to the house nothing was said about scarlatina, or he would have reported it at once. The magistrate decided, under the circumstances, to dismiss the summons, and directed the officer at once to report the matter to the medical officer of health. This case shows the importance of prompt notification, the locality from which the cases came being most thickly populated.

A Coroner on the Feeding of Infants.

An inquest was held last week by Mr. Husband, the deputy county coroner, upon the body of an infant three months old, whose mother had died shortly after its birth. The young woman who had charge of it fed the hapless infant between 8 and 9 P.M. on the night of Monday, the 16th inst., with bread and milk "pobbies," and the following morning a little before nine it died, having nothing to eat in the meantime. Mr. Husband condemned this improper feeding, observing that infants of such tender age might just as well be fed on brickdust or sawdust as on strong milk or pobbies. He urged that they should be fed on the best substitute for the mother's milk—viz., condensed milk or cow's milk, weakened, and frequently—at intervals of two hours or so. The verdict was death from natural causes accelerated by improper feeding.

The Assizes.

Mr. Justice Grantham has only just concluded the criminal business of the Assizes here, the calendar having been a very heavy one. Fortunately no prisoner has been left for execution, but there have been several trials for murder and manslaughter, as well as many more for wounding with intent to murder and to inflict grievous bodily harm. Among them was the case of a man charged with the murder of his wife, a confirmed drunkard. In a moment of frenzy, he had cut her throat, inflicting a wound which almost severed her head from her body. The judge observed that the wife's habits could not be considered as a justification for murder, but left the question of this or manslaughter to the jury, who found the more lenient verdict. In another case, in which a man was charged with the murder of his little daughter, of whom he was very fond, it was shown by the evidence of Mr. Kelly; Mr. Cavanagh, surgeon to the Main Bridewell; Dr. Barr, surgeon to Kirkdale Gaol; Mr. Beamish, surgeon to Walton Gaol; and Dr. Joseph Wiglesworth, of the County Asylum, Rainhill, that the unfortunate prisoner was suffering from the milder form of epilepsy, or *petit mal*, at the time of the act. He was therefore found not guilty, and ordered to be detained during her Majesty's pleasure.

Liverpool, Dec. 24th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

University of Durham.

THE Senate of the University of Durham have received a deputation from the College of Medicine, Newcastle-on-Tyne, respecting the proposed connexion of the medical department of Queen's College, Birmingham, with the University, and the arguments were considered for and against the proposal that for degrees in medicine residence in Birmingham shall be counted as residence in the University of Durham. The further consideration of the subject was postponed till the meeting of the Senate in the Epiphany term.

Sunderland Infirmary.

It is stated that the opening of the James Hartley Memorial Wing is to take place on New Year's day. Although the cost of the new wing has been £14,000, it appears that the committee expect to have a clear balance of £700 over and above the cost; and it is intended to hand this over to the infirmary, to help the liquidation of a debt of £3000 which rests on that institution, mostly incurred for certain sanitary alterations. This is indeed a noble record of work done in Sunderland.

North Shields.

A movement is on foot in the borough of Tynemouth for presenting Dr. J. P. (now Councillor) Bates of Morpeth with a testimonial, expressive of the respect and esteem in which he is regarded by all classes as a medical man and a citizen. Dr. Bates was in full practice in North Shields for twenty-five years; and now he has retired to his native place, Morpeth, to rest and enjoy the fruits of his labours. The record of general practitioners thus retiring while yet in health, like Dr. Bates, is not too numerous.

Bedlington.

Dr. Parsons attended at the Local Government Board meeting last week at Bedlington on behalf of the London Board to inquire into the spread of zymotic diseases and the increase of the death-rate in the Bedlington district. He reported having visited several places in the neighbourhood, and recommended improved scavenging and a more improved method in disinfecting houses. He also recommended a trained and qualified nurse for the hospital, and other improvements for the better sanitation of the district, which he thought had improved very little since his last visit, ten years ago. I regret to write that the sanitary condition of Wallsend is also unsatisfactory at present, and an outbreak of typhoid fever is apprehended.

Newcastle-on-Tyne, Dec. 23rd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

EDINBURGH.

Edinburgh Health Society.

THE last two lectures of the course have been delivered: one by Dr. George Berry on "Popular Ideas and Errors about the Eye," and the other by Professor Chiene on the "Advantages of a Health Society to a Community." They were essentially different in scope and character, but each was admirable in its way. Dr. Berry's points were (1) to minimise the strain on the accommodating apparatus in abnormal eyes as much as possible by early and intelligent use of glasses; (2) not to use poultices, keep the eyes clean, and give them good light and pure air. He mentioned several popular errors in regard to cataract, and gave good advice as to what should be done to avoid injury to the eyes. Professor Chiene's lecture partook somewhat of the character of a *résumé* of the work that has been accomplished by the Society during its ten years' existence. He pointed out the extent to which the community had benefited by the information that had been disseminated by the lectures, reprints, and leaflets. He maintained that there was no law against overcrowding or that it was not sufficiently stringent. He dealt with the necessity of controlling the milk-supply, of inculcating the first principles of hygiene through the Board schools, of sanitary inspection and construction, of compulsory notification of infectious diseases, of precluding medical officers from practice, and of pressing upon the Government the necessity of passing at an early period the Public Health Act, which has been so long on the stocks. Any money spent on sanitation was always well spent. Prevention cost far less than cure, not only in the slums, but in every department in which the public health was involved.

The Influenza Epidemic.

Every person who has a cold in his or her head now feels convinced that at last the influenza epidemic has reached this country. As a rule the patients are so much interested that they are quite elated, and it is only when they learn that they ought to have a headache, no appetite, and very low spirits, or great nervous depression, that their spirits are damped. The weather has done all in its power to prepare matters for the advent of the dreaded epidemic, "exceeding changeableness," "heavy rains," "keen frost," "foggy and disagreeable," "white with snow," "wet and stormy," or "atmosphere thick and murky," "a drizzling rain fell throughout the entire day," follow one another in quick succession in all the weather reports, so that we are quite prepared to find that a few cases of influenza are reported from the hospital of Leith, and that at Burntisland, just across the Forth, several cases of illness,

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the symptoms of which resemble those peculiar to the Russian influenza, have occurred through the week. The cases were amongst the crews of vessels now in dock, and amongst the *employés* in a mill where oil cake made from cotton seed brought from Alexandria is manufactured. A few sporadic cases and three cases from Dundee are reported. In consequence of the changeable weather above referred to the death-rate in Edinburgh is very high, being at the rate of 23 per 1000, diseases of the chest accounting for no fewer than 50 out of 120 deaths, zymotic diseases being responsible for 24 of the remainder. There were notified during the week 2 cases of typhus fever, 8 of typhoid, 14 of diphtheria, 50 of scarlatina, and 366 of measles.

Christmas Vacation.

The classes rose on Friday, December 20th, and will meet again on Tuesday, Jan. 7th, 1890. During the last week there was no lack of evidence that Yuletide was at hand, the time-honoured kitchen concert in the infirmary, a smoking concert at the Students' Union, and other festive events giving forth that the class examinations were over, and that the last few days, or nights, of the session were to be devoted to good fellowship, after lectures had been attended and other routine work got through.

Edinburgh, Dec. 24th.

GLASGOW.

Election of University Assessors.

The result of the poll in connexion with the election of three assessors to represent the University Council on the University Court is now known. The figures were as follows: Dr. Hector C. Cameron, 1654; Sir John N. Cuthbertson, 1616; Mr. David Hannay, 1372; Mr. Vary Campball, 1038; Sheriff Guthrie, 1036; Dr. D. C. M'Vail, 894. It will thus be seen that the nominees of the University Club, supposed to represent chiefly the senatorial party, have been victorious, while the nominees of the University Council Association, who claim something like a monopoly of reform, are thrown out. A protest against the validity of the election has been lodged on behalf of the unsuccessful candidates, and it is not improbable that the matter will have to be settled in the Court of Session. The grounds of the protest are that the candidates were not properly designated in accordance with law and the commissioners' regulations, and that the registrar, in issuing the voting papers, had failed to state their academic degrees.

University Students' Union Bazaar.

This bazaar has been extremely successful; nearly £14,000 have been raised, while the sum aimed at was £10,000. The union will thus be suitably furnished and amply endowed, and the athletic club and gymnasium will also receive benefit to some extent.

Western Infirmary.

At the annual meeting of this institution held recently, it was stated that during the past year there had been under treatment 12,266 out-door patients, representing 32,743 consultations, as against 13,206 and 35,062 in the previous year. The in-door patients had numbered 4073, as against 3961 in the previous year. The average daily number of in-door patients was 371·17, the greatest number on any one day 404, the smallest 314. Average period of residence 36·61 days; deaths, 316, 8·54 per cent. of all cases treated to a termination. If 76 deaths which occurred within forty-eight hours of admission be deducted, the death-rate is reduced to 6·48 per cent. The infirmary has prospered during the past year financially, and carries a surplus of £6492 to stock account. The number of patients treated to a termination was 3700, as against the previous highest number, 3604. The cost of each bed fully occupied was £51 1*s.* 2*d.*, as against £47 16*s.* 10½*d.* in the previous year, and £49 0*s.* 3½*d.* for the year ending Oct. 31st, 1887. The average cost per patient was £5 2*s.* 5¼*d.*, as against £4 19*s.* 3½*d.* and £4 19*s.* 10*d.* in the preceding two years. The want of a suitable convalescent home at the service of the infirmary is still much felt.

Infantile Mortality in Greenock.

It was stated by an official at a recent meeting of the Greenock Police Board that during the months of October and November the deaths in Greenock had been 217, or 15 per 1000 of the population. Of these, 90, or about 41 per cent., occurred amongst children under the age of five years. The somewhat unusual information was given that scarcely any of these children died in houses of one apartment, but mostly in houses of two or three apartments. It was stated that this infantile mortality was due not so much to hardship of a general kind, as to a laxity on the part of many mothers in the performance of their duties to their children.

Glasgow, Dec. 24th.

Obituary.

DR. ANDREW GRAHAM.

THIS able and accomplished navy surgeon died early in the present month, at his chambers in the Albany, Piccadilly. He was in his seventy-third year.

He came of a family of medical practitioners. His grandfather, Dr. Andrew Graham, originally from Longton, in Cumberland, a scion of the Netherby stock, practised first at Coldstream, and then, at the instance of the Duke of Buccleuch, at Dalkeith, near Edinburgh. After forty years extensive practice in and around Dalkeith, he died in 1824, leaving five sons, four of whom were graduates in medicine in the Edinburgh school. Of these the eldest, Dr. Walter Graham, assisted his father for many years, and died of fever contracted in practice at Dalkeith in 1827. Another son, Dr. William Graham, was for many years consulting physician in Calcutta, and retired to Edinburgh, where he died. A third, Dr. Andrew Graham, practised in the West Indies till his death; and a fourth was Dr. Charles W. M. Scott Graham, who died on May 17th, 1877, after a long and honourable career, of which a narrative appeared in THE LANCET of June 16th of the same year. The subject of the present notice was a son of the eldest of these four physicians, Walter, and was yet a boy when his father died. His education was begun at the Grammar School of Dalkeith, under its able and scholarly rector the Rev. P. Steele, whence he passed, with more than the average share of classics and mathematics, to the University of Edinburgh. At the medical classes he was a diligent and successful student, and in 1837 took the licentiateship of the Royal College of Surgeons, and in the following year graduated as doctor of medicine.

After assisting his uncle, Dr. Charles W. M. Scott Graham, at Dalkeith, for a short time, he entered the navy, first serving in the Mediterranean squadron. He then proceeded to the West India command, and on the outbreak of the Crimean War he accompanied the fleet to the Baltic as surgeon in Admiral Sir Charles Napier's flag-ship. He distinguished himself, in all these waters, as a well-trained and efficient surgeon, admirably cool in danger, and attentive to all the sanitary interests of the crew whether in peace or war. Having served his time, he retired at once, to devote himself to the special studies in medicine which had always possessed a peculiar charm for him, while cultivating, in congenial society, those literary and artistic tastes to which in a quarter of a century's active service he had been able to do but scant justice. In Edinburgh, where his presence was almost as familiar as in London, he will be long remembered as the last and not the least worthy of a medical family which in its day and generation had served the country loyally and well.

Medical News.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen, having passed the necessary examinations, have been admitted by the two Colleges diplomates in Public Health:—

Bailey, Chas. F., M.D. Lond., M.R.C.P., M.R.C.S., St. Bartholomew's, Exminster.
Bampfylde, James, M.R.C.S., Guy's Hospital, Bexley.
Davar, F. Shavaksha, L.R.C.P., M.R.C.S., Bombay, Montague-place.
Harris, Arthur W., M.R.C.S., Charing-cr. Hospital, Holborn Infirm.
Holberton, Henry N., L.R.C.P., M.R.C.S., St. Thos.'s, East Molesey.
Hunter, Wm. Lovell, M.D.Dub., Dublin, Pudsey.
Kealy, John Wm. G., M.R.C.S., King's College Hospital, Forton.
Kempster, Wm. H., M.B.Dur., M.R.C.S., Westm. and Dur., Clapham.
Morgan, G. F. Elliot, L.R.C.P., M.R.C.S., Guy's, Hartlepool Hosp.
Morgan, Wm. Pringle, M.B.Dub., Dublin, Seaford.
Norman, Fredk., L.R.C.P., M.R.C.S., St. Bartholomew's, Brixton.
Paget, Chas. Edward, L.R.C.P., M.R.C.S., St. Barthol., Salford.
Poland, James Harry, M.R.C.S., Guy's Hospital, Littlehampton.

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Roberts, Arthur, M.D. St. And., M.R.C.S., Manchester, Keighley.
Sylvester, Geo. Holden, F.R.C.S., L.R.C.P., St. Barthol., Devonport.
Taylor, Lot A., L.R.C.P.Edin., M.R.C.S., Birmingham, Brierley-hill.

UNIVERSITY OF LONDON: B.S. EXAMINATION.—**The following gentlemen** have passed the examination for **Honours in Surgery:—**

First Class.—**A. G. Francis** (Scholarship and Gold Medal), St. Bartholomew's Hospital; **C.** McGn. Kitching (Gold Medal), Guy's Hospital; **Robert Devereux** Mothersole, Guy's Hospital; Berkeley **Geo. A. Moynihan, Yorkshire** College.
Second Class.—**Gilbert Benj.** Mower White, University College.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—**At the Dece**mber meetings of the Board of **Examiners for the qualific**ation in Public Health the follow**ing medical practitioners**, having passed the necessary ex**aminations, were admitted** as diplomates in Public Health:

Robert Banks, M.B., Rutherglen; Robt. Davidson, M.B., Shettleston; **Andrew J. Hall, M.A., M.D.**, Rothesay; John Hern, M.D., Darlington; **Robert P. Jack, M.B.**, Dunoon; C. J. King, M.B., Pollokshaws; **Jas. Maxwell, M.D.**, Tobermory; John Rowat, M.B., Kilmarnock; **J. Porter Tannock, M.B.**, Greenock; William Whitelaw, M.D., **Kirkintilloch.**

UNIVERSITY OF DUBLIN.—At a meeting of the **Senate held last week the** following degrees were conferred:

Bachelor in Obstetrics.—Robert W. H. Jackson.
Bachelor in Medicine, Surgery, and Obstetrics.—John Donald Alexander, **Wm. Player Kennedy,** Edward Litton Luther, Brendan McCarthy, **Richard McCraith,** Thomas North, Ludovic Perrin, Wm. Stewart **Ross, William Fox Russell,** William Webb Shackleton, Richard Smyth, Gerard William Tate, Robert Henry Woods.
Bachelor in Surgery.—John Simpson.
Master in Obstetrics.—**Charles** Malcolm Moore, H. G. O'Brien (Surg.-Major A.M.D.).
Doctor in Medicine.—**William** Hamilton Allen, Cecil Arthur Digby, **Henry Disney, John Beatty** Hopkins, Joseph Augustus Kane, Elias **William Kerr, John Freeman** Knott, John Agar Matson, Charles **Malcolm Moore.**

SOCIETY OF APOTHECARIES OF LONDON.—**The following candidates, having** passed the qualifying examination **in Medicine, Surgery**, and Midwifery, have received **certificates entitling them** to practise in the same, and were **admitted as Licentiates of** the Society on Dec. 13th:—

Blake, Hubert Elliot, University College Hospital.
Cutler, Lennard, St. George's Hospital.
Hildyard, Nathaniel, University College Hospital.

Passed on the 18th inst.:—

Barber, George Thos. Congreve, Queen's College, Birmingham.
Burton, Wm. Edward, Univ. Coll., Liverpool, Univ. Coll., London.
Du Cane, Edgar, Richmond Hosp., Dublin, Roy. Univ., Dublin.
Jones, Thomas Eyton, University College, Liverpool.
Whitehead, Elihu Theophilus, St. Thomas's Hospital.
Wolfe, Robt. Inglewood, Cork, Leeds, and London Hospital.

On the 19th inst.:—

Marris, William, Middlesex Hospital.
Trist, Hore Browse, St. Bartholomew's Hospital.

SANITARY WORKS, RANGOON.—On Monday Prince **Albert Victor performed** the ceremony of opening the **Rangoon Drainage and** High-pressure Water-supply Works, **which are being constructed** on the Shone system, and are **the first of the kind opened** in India.

DIPHTHERIA AT LAIRG.—The Public School at **Lairg, Sutherland, has** just been closed owing to an out**break of diphtheria at** the railway station and in the **village. The water-supply** of Lairg is suspected as having **something to do with the** outbreak.

NEW MORTUARY, CHESTER.—This long recognised **want has now been provided.** A mortuary has been erected **in Canal-street in the town,** and contains necessary accom**modation for post-mortem** examinations, with other modern **conveniences.**

FEVER HOSPITAL AND INFIRMARY, KILMARNOCK. **Provost McLellan presided** at the annual meeting of this **institution, held on the 19th** inst. The financial statement **showed a total income of** £2786 0*s.* 11*d.*, including a balance **from last year of £638 15***s.*; the expenditure amounted to **£2158 10***s.*, **and there was** a balance in the bank of **£255 2***s.* 1*d.* **after adding** £527 10*s.* to the capital fund. The **capital fund now amounts** to £16,632 10*s.* Four years ago the **total number of cases treated** was 469, while this year the **number is 643. As the a**verage cost of each patient may be **taken at £3 per head, the** annual expenditure in four years **has increased by over £500.** The directors regret to find **that the subscriptions of** the general public and of working **men have this year fallen off,** although trade has been **good; meanwhile the number** of patients has been annually **growing. They sincerely** hope that next year's report will **show increased collections** under all sections of income.

FOOTBALL ACCIDENTS.—Mr. Alfred Miskin, in a football match on the 14th instant, between the St. Albans, Herts, and Apsley End clubs, sustained a fracture of the collar bone. A man named McCormick, during a football match, on the 21st instant, between the Stoke and Burnley clubs, had his leg severely fractured.

SUNDERLAND INFIRMARY.—It has been arranged that the opening of the James Hartley wing shall take place on New Year's Day. Towards the £14,000 required to meet the cost of this addition to the infirmary, as much as £13,858 has been received, and there are promises of subscriptions which will more than make up the deficiency.

MEDICAL MAGISTRATES.—Mr. Henry John Hunt, L.R.C.P. Lond., M.R.C.S., of Sheen House, Harrogate, and Mr. George Banks, L.R.C.P., L.R.C.S. Edin., of Wick, Caithness-shire, have been placed on the Commission of the Peace for, respectively, the Borough of Harrogate and the County of Caithness.—Mr. W. Inglis Mason, L.R.C.P., M.R.C.S., &c., has been placed on the commission of the peace for the borough of Sudbury, Suffolk.

MEDICAL SOCIETY FOR THE NORTHERN COUNTIES. A well-attended meeting of medical practitioners in the North of England, chiefly in Manchester, Liverpool, and Leeds, was held on the 20th inst., at the Queen's Hotel, Manchester, to consider the advisability of forming an Obstetrical and Gynæcological Society for the Northern Counties. Professor J. Wallace (Liverpool) occupied the chair. It was unanimously resolved to establish such a society with centres in Manchester, Liverpool, and Leeds, and a provisional committee was appointed to carry the resolution into effect.

PROVINCIAL HOSPITAL SUNDAY AND SATURDAY COLLECTIONS.—The Norwich Hospital Sunday and Saturday collections for the current year, including the balance brought forward from 1888, amount to £855 4*s.* 10*d.*, against £935 8*s.* 10*d.* the previous year. The annual collection in the Sunday schools of Birmingham and district in aid of the Children's Hospital amounted to £244 14*s.* 11*d.*, which has been handed over to the treasurer of the hospital. The contributions during the past twelve months by workpeople employed at various places of business in the town of Bradford towards the Joint Hospital Fund has amounted to £2250, an excess of £400 on the previous year.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ALBERT, HENRY LOUIS, M.R.C.S., L.D.S., has been appointed Lecturer on Dental Surgery and Dental Surgeon to St. George's Hospital.
CALVERT, W. D., L.R.C.P. Lond., M.R.C.S., has been appointed House Physician to the Sussex County Hospital, Brighton, vice Hodgson, resigned.
COLMAN, WALTER STACY, M.B., M.R.C.P., has been appointed Assistant Physician to the North-West London Hospital, vice E. J. Edwardes, M.D., resigned.
DEANS, W., M.B. Aber., has been appointed Medical Officer for the Edenfield District, Haslingden Union.
FURNER, W., F.R.C.S., has been appointed Surgeon to the Sussex County Hospital, Brighton, vice Jowers, resigned.
GEDGE, A. J., L.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed House Physician to the London Hospital.
HODGSON, G. G., M.R.C.S., L.S.A., has been appointed House Surgeon to the Sussex County Hospital, Brighton, vice Paley, resigned.
JOWERS, REGINALD F., F.R.C.S., L.R.C.P. Lond., has been appointed Assistant Surgeon to the Sussex County Hospital, Brighton, vice Furner, resigned.
MACMAHON, E. J. R., L.K.Q.C.P., L.R.C.S. Irel., has been appointed Medical Officer for the Fourth District of the Northleach Union.
MELLER, CHARLES BOOTH, L.R.C.P., M.R.C.S., L.S.A. Lond., L.M., has been appointed Medical Officer of Health for the Cowbridge District of the Bridgend and Cowbridge Rural Sanitary Authority.
MONEY, ANGEL, M.D., F.R.C.P., has been appointed a Physician to the Guardian Insurance Company.
PHILLIPS, E. A., M.R.C.S., L.S.A., has been reappointed Medical Officer for the Dunham District of the Retford Union.
ROGERS, G. P., L.R.C.P. Edin., L.R.C.S. Irel., has been appointed Medical Officer for the Fourth District of the Greenwich Union.
SAVILE, G. T., M.D. St. And., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer for the Clarborough District of the Retford Union.
THOMSON, THEODORE, M.B. Lond., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the Borough of Sheffield.

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Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BEDFORD GENERAL INFIRMARY AND FEVER HOSPITAL.—Resident Surgeon. Salary £100 per annum, with apartments, board, and washing.

BIRMINGHAM AND MIDLAND SKIN AND LOCK HOSPITAL.—A Third Officer on the Acting Medical Staff.

DERBY BOROUGH ASYLUM.—Clinical Assistant. No salary, but board and residence provided.

DISTRICT INFIRMARY, Ashton-under-Lyne.—House Surgeon. Salary £80 per annum, with board and residence.

GERMAN HOSPITAL, Dalston.—Honorary Medical Officer to the Western Dispensary in connexion with this hospital.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—Surgical Registrar for one year. Honorarium of £40 at the end of the term.

NORTHUMBERLAND COUNTY ASYLUM, Morpeth.—Clinical Assistant. No salary, but board and residence provided.

PADDINGTON WORKHOUSE AND INFIRMARY, Offices, 289, Harrow-road.—Dispenser. Salary £100 per annum, rising by £10 after each year's approved services to £140, together with dinner and tea daily.

ROYAL BERKS HOSPITAL, Reading.—House Surgeon. Salary £80 per annum, with board and lodging.

Births, Marriages, and Deaths.

BIRTHS.

CARTER.—On Dec. 7th, at Broadview, N.W.T., Canada, the wife of Ernest Carter, surgeon, of a son.

CASSIDI.—On Dec. 20th, at Trinity-terrace, Derby, the wife of Francis Cassidi, M.D., of a son.

HUGHES.—On Dec. 17th, at Queen's-road, Wimbledon, the wife of Dr. R. Jaffray Hughes, of a son.

LEWERS.—On Dec. 21st, at Wimpole-street, Cavendish-square, the wife of Arthur H. N. Lewers, M.D. Lond., of a son.

LUCAS.—On Dec. 9th, at Linden Lodge, Gravesend, the wife of George John Lucas, L.D.S. Edin., of Northumberland Chambers, Northumberland-avenue, S.W., of a daughter.

PAGET.—On Dec. 22nd, at Wimpole-street, W., the wife of Stephen Paget, F.R.C.S., of a daughter.

PHILLIPS.—On Dec. 19th, the wife of Dr. Edward Phillips, of Coventry, of a son.

SILCOCK.—On Dec. 23rd, at 52, Harley-street, the wife of A. Quarry Silcock, M.D., B.S. Lond., F.R.C.S. Eng., of a son.

MARRIAGES.

DODD—BARNES.—On Dec. 21st, at St. Saviour's, Preston, Brighton, by the Rev. R. Court Gazeley, many years Rector of Wayford, father of the bride, Walter Harry Dodd, L.R.C.P. Lond., fourth son of Grantham Robert Dodd, solicitor, Highbury, to Emily Augusta, widow of the late Rev. Thomas Barnes, M.A., Rector of Loxton, Somerset, and granddaughter of the late John Alexander, Esq., of Newbury, Berks, and Uphaven, Wilts. No cards.

HUMPHRY—STOKES.—On Dec. 23rd, at Great St. Mary's Church, Cambridge, Laurence Humphry, M.A., M.B., of Trinity-street, Cambridge, to Isabella Lucy, daughter of Sir George Gabriel Stokes, Bart., M.P., P.R.S.

HUNTER—HINE.—On Dec. 19th, at St. Saviour's, Aberdeen-park, Highbury, London, Surgeon C. B. Hunter, 5th Panjab Cavalry, to Agnes Lily, second daughter of the late Henry Hine, of Southampton.

WILLIAMS—FOX.—On Dec. 19th, at the Parish Church, Clifton, by the Rev. Canon Ainger, assisted by the Rev. Talbot Greaves, M.A., and the Rev. Patrick Watson, Patrick Watson Williams, M.B. Lond., 14, Westbourne-place, Clifton, to Margaret Long, daughter of Edward Long Fox, M.D.

DEATHS.

COCKBURN.—On Dec. 15th, suddenly, at Ulverston, Jamieson Cockburn, M.B. Edin., C.M., fifth son of the late George Cockburn, Hope Villa, Alnwick, aged 39.

ROBERTSON.—On Dec. 20th, at 4, Melville-street, Edinburgh, George Gordon Robertson, M.D. Edin., L.R.C.S., aged 75.

ROSS.—On Dec. 24th, at 8, St. George's-place, Brighton, John Harris Ross, M.D., aged 47.

SANDWELL.—On Dec. 14th, Dr. Edward Sandwell, L.R.C.P., M.R.C.S., of Soho-street, Soho-square, aged 51.

SHAW.—On Dec. 21st, at Southsea, Lucy Shaw, for five and a half years a faithful and beloved worker of the North London Nursing Association, 413, Holloway-road.

SIMPSON.—On Dec. 17th, Dr. Harry Ernest Simpson, of City-road, aged 54.

WALTER.—On Dec. 22nd, at Chandos-place, Broadstairs, Odiarne Coates Walter, M.R.C.S., L.S.A., in his 81st year.

WHEELER.—On Dec. 21st, at Osborn House, Putney, Frederick William Wheeler, L.R.C.P., aged 44.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE PROPOSED "PUBLIC MEDICAL SERVICE."

Dr. Hugh Woods writes to state that "Mr. Carpenter is in error in saying that the resolution he quotes was passed at the late meeting of the Metropolitan Counties Branch of the British Medical Association. It was withdrawn, and a vote disapproving only of the section of Dr. Rentoul's resolutions which refers to a "Public Medical Service" was substituted. This was passed almost unanimously. Resolutions were also passed unanimously, asserting the existence of grave abuses in connexion with the hospitals, urging the adoption of a comprehensive scheme for remedying these throughout the country, and also recommending the use of infirmaries and fever hospitals for clinical teaching. The most gratifying feature of the above meeting was the fact that, in the end, differences on minor points were not allowed to prevent united action as regards the all-important questions on which we were agreed."

Mr. R. de B. Saunderson.—The differences in the conditions on which the degrees are granted are so great that they cannot be placed in order of precedence.

Dr. J. Adam (Malling-place).—Yes; it will appear in an early number.

UNQUALIFIED ASSISTANTS.

To the Editors of THE LANCET.

SIRS,—In your issue of the 14th inst. I notice a letter signed "A Young G. P.," in which the writer returns to the old attack upon that much-abused member of the community, the unqualified assistant. He, it appears, would root out the whole class without distinction; but there are many men at present earning a scanty and precarious living as unqualified assistants, who are, I venture to believe, far better fitted to perform their duties than the average "Young G. P." I am unfortunately a member of the abused class myself, and the reason is that I have never been able to procure sufficient means to enable me to pay the necessary expenses incidental to obtaining a diploma. After going through my curriculum and passing my first and second examinations, I got referred in the final (on a purely theoretical subject), and was obliged either to seek some other mode of earning my living, or to pursue the uncongenial vocation of an unqualified assistant. I chose the latter course, and during the eight years that I have been so employed, I have never been able, out of my very scanty earnings, to save sufficient to enable me to present myself again for examination, as, besides the necessary fees for the diploma, I require some time to read, and should either have to employ a coach or attend classes and demonstrations again. After spending much time and money in advancing to this stage of my medical education, it is very unlikely that I should care to relinquish all my future prospects of entering the profession, and consequently I am obliged to take unqualified assistantships; and I know many instances of men who are in much the same position as myself, many of whom will, in all probability, eventually qualify. Since I became fairly proficient in midwifery and the duties of my profession I have often been called in by young practitioners to assist them with some case with which, notwithstanding the dignity and status conferred by their degree or diploma), they had been utterly incompetent to cope, and I have frequently been told by principals that they prefer employing an experienced unqualified assistant to a newly-fledged graduate or diplomate, who knows absolutely nothing of the ordinary routine of practice. I quite agree that men who have never entered the wards of a hospital or received any medical training should be prohibited from practising as assistants, though I hardly see how such men are to be excluded; but to prevent all unqualified assistants from practice would be an injustice both to those already

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so employed and to their principals. There is too much competition in the profession, and incomes derived from practice are too small in most instances to permit the employment of qualified men, who naturally require a higher scale of remuneration than the unqualified; hence the general practitioner seeks the assistance of an experienced man *sine diploma*. Still I venture to assert that, as a class, unqualified assistants are becoming less numerous every year, and I believe that before long their existence will cease to be a constant source of trouble to their qualified brethren. Hoping that you will find space for my letter, in justice to the class attacked by "A Young G. P.,"

I am, Sirs, yours faithfully,

Dec. 15th, 1889. AN UNQUALIFIED ASSISTANT.

To the Editors of THE LANCET.

SIRS,—I was pleased to see "A Young G. P.'s" letter in THE LANCET of Dec. 14th, and am one with him concerning the too free employment of unqualified men as assistants. And I fail to see of what good the extension of the medical curriculum to five years can be to those who undergo the same and obtain their degrees under more stringent measures. These still will have to battle against the chronic refuse and indolent of the various medical schools, who, unable to obtain even the easiest of degrees through sheer laziness, set themselves up as medical practitioners with the aid of a few members of the profession who, for an easy life and a squaring fee, will do almost anything, no matter how dishonourable or lowering, either because they are wanting in the aptitude or lack the energy of acquiring a practice themselves. I know of one person who has absolutely passed no examination—not even in chemistry—who has a practice of between £600 and £700 per annum. In the same town a second unqualified person attends to cases in a similar manner, but he has an understanding with one of the local medical men, whose aid is sought for in cases about to prove fatal, so as to make sure of the certificate of death. The new Medical Act of 1887 distinctly lays it down that no person can practise unless qualified in the three subjects—Medicine, Midwifery, and Surgery; but still the Act is ignored. Surely the time is ripe to stay this improper practice. We boast a General Medical Council and the Medical Defence Union, yet such frauds are perpetrated on the public, and will be perpetrated so long as we have members in the profession helping the unqualified "Dr." to carry on his illegal trading. Times are hard enough with many of us who have gone to some expense and work to enter the profession, and are we to be shelved by those who have done nothing? The erasure of names from the Medical Register does not appear to act as a deterrent, for there seems to be no diminution, not only in the too free employment of the unqualified, but also in the vast amount of "covering," and I think the time has come for the imposition of a monetary penalty.—I am, Sirs, yours obediently,

Dec. 17th, 1889. ANOTHER G. P.

THE ORIGIN OF THE TERM "PIA MATER."

To the Editors of THE LANCET.

SIRS,—I have been troubled in trying to fathom whence "pia mater" has its original meaning. "Mundinus-Anothomia," printed at Papie, 1478, mentions it, but to account for its being named "pia" we must go further back. I find in Montaigne's Essays, Book II., chap. 12, where he mentions the parts of the body where the ancient writers differently placed the soul, Erasistratus, that celebrated Greek physician, who lived three centuries B.C., places it "adjoining the membrane of the epicranion," and I have not a doubt that it is from this ancient opinion the name has descended to us. I had not been able to discover anything pious about the membrane in question till coming across the opinion of Erasistratus, and should like you to impart the idea to your numerous readers. I am, Sirs, yours faithfully,

South Woodford. EDWIN LITCHFIELD.

THE COMMUNICABILITY OF PHTHISIS.

To the Editors of THE LANCET.

SIRS,—The following facts pointing to the communicability of phthisis may be of interest to your readers.

Fifteen years ago a man with commencing phthisis married a strong, healthy woman of a family free from chest complaints. Soon after this man's death, which occurred in two years after marriage, the woman began to show signs of commencing phthisis. She then married a strong, vigorous man, in whose family there had never been any phthisis, and after some years of married life, during which her chest trouble gradually increased, her second husband began to show the usual signs of incipient phthisis. This week the woman died, and her husband lies in this infirmary with the greater part of his left lung destroyed.

I am, Sirs, yours faithfully,

CHAS. H. TAYLOR, M.B.Lond.,

Infirmary, Derby, Dec. 4th, 1889. House Surgeon.

PERITONITIS AFTER VAGINAL SYRINGING.

To the Editors of THE LANCET.

SIRS,—Dr. Scott Watson relates two cases of the above in THE LANCET of Dec. 21st (p. 1274). In both cases Higginson's syringe was used. If an ordinary female glass syringe be employed, and only two syringefuls injected each time the diaper is changed, the danger of peritonitis from passage of fluid *vid* uterus and Fallopian tube will not be incurred. Condy's fluid, a tablespoonful to a tumbler of warm water, is safer for a nurse to use than corrosive sublimate.—I am, Sirs, yours truly,

Dec. 23rd, 1889. H. F. S.

CORNWALL AS A WINTER RESORT.

Mr. Henry C. Oakshott, F.E.S., in a letter on the above subject, says that much has recently been written in reference to Cornwall, and more especially Falmouth and its neighbourhood, as a winter health resort, and adds that in the interests of the medical profession it is most important that as many details as possible should be brought together with regard to the real winter climate of that county. He accordingly sends as his contribution to the literature upon the subject a list of over 130 plants, &c., being "a few of the more important specimens of wild and garden plants in flower and seed shown at an exhibition held at Falmouth on the 16th and 17th inst. by the Naturalists' Society there." The presence of some of the names in the list is in itself almost, if not quite, sufficient evidence of the extreme mildness of Cornish winters.

M.B.Glas.—The answer is clear that a medical man seeking to recover charges in a court of law, like any other suitor, must give details of his service, and particularly the number of visits paid.

W. E.—It is impossible for us to offer useful advice on the matter. Our correspondent had better be guided by the solicitor whom he has already consulted.

Mr. H. Ison.—We must decline to express an opinion on the nature of a case the complete facts of which are not before us.

Mr. Gerrard.—Next week.

STRANGE EFFECT OF ATROPINE.

To the Editors of THE LANCET.

SIRS,—The following may interest some of your readers. On Dec. 12th a patient aged twenty-one years, suffering from recurrent iritis of a rheumatic character, consulted me. I handed him a small bottle containing liquor atropiæ sulph. (B.P.), with the object of allowing him in my presence to put two drops into the affected eye. Directly he had done so a curious train of symptoms manifested themselves. He at once jumped from the chair on which he was sitting, grasped me tightly, and exclaimed "I am dying." He was unable to stand without support and was very giddy. On removing him outside he was seized with violent twitchings, more particularly in the right arm and leg and in the ligaments around the ankle-joint. The pulse was greatly accelerated. The pupil was slow in dilatation. The twitchings became less severe, and finally disappeared at the end of ten minutes. I may mention that the patient had occasionally used the drug during the past three years without experiencing any ill effects. Since then he has been using a weaker solution, which causes nausea and dryness of the mouth and fauces, but the twitchings have not reappeared.—I am, Sirs, yours faithfully,

EDWARD FRAZER, L.R.C.S.I. and L.K.Q.C.P.I.

Riverstown, Ballymote, co. Sligo, Dec. 20th, 1889.

IRISH PHARMACY AND IRISH FARMERS.

To the Editors of THE LANCET.

SIRS,—Permit me to bring under your notice the existence of a very great grievance under which Irish pharmacists and others labour. I refer to the notorious habit of many Irish dispensary physicians of supplying their private patients with medicines out of their respective dispensaries. Farmers are the chief gainers, while, it is unnecessary to add, more than one class is the loser. I have called the attention of the Local Government Board to the notorious existence of this practice. I hope the matter will be ventilated in Parliament. Their inspectors should ask those dispensary men—they are easily to be found—who supply their private patients with drugs to produce their private invoices, and thus some check would be put on the practice.

I am, Sirs, yours faithfully,

December, 1889. A. B.

THE DISCUSSION ON ANEURYSM AT THE MEDICAL SOCIETY.

To the Editors of THE LANCET.

SIRS,—In your report of the discussion on aneurysm at the Medical Society, in speaking of the differential diagnosis of dyspnœa due to direct pressure on the trachea from that produced by paralysis of the crico-arytenoidei postici, I am made to say that in the former instance there is an entire absence of the respiratory excursions of the cords; larynx should be substituted for cords, as it was to the absence of the respiratory movements of the larynx as seen externally to which I wished to direct attention.—I am, Sirs, yours faithfully,

Wimpole-street, W., Dec. 21st, 1889. F. DE HAVILLAND HALL.

A QUERY.

To the Editors of THE LANCET.

SIRS,—I am gradually getting blind, and am awaiting operation for cataract in both eyes. Do any of your numerous readers know of any place where I could be taken in as a paying patient, or of any private practitioner who would receive me on terms to be arranged? If so, perhaps they would kindly address me direct.

I am, Sirs, yours truly,

M. T. MACCORMACK, M.D., Surgeon-Major.

15, Pembridge-place, London, W., Dec. 23rd, 1889.



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COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Wilks, London; Dr. Althaus, London; Dr. Jamieson, Edinburgh; Mr. H. C. Fox, Hastings; Mr. Lamond, Glasgow; Mr. Williams, Manchester; Mr. A. Duke, Dublin; Col. Burney, London; Mr. Saunderson, New Ross; Dr. Neale, London; Mr. Ison, Shrewsbury; Messrs. Hooper and Co., London; Mr. G. N. Knight, Fareham; Messrs. Darnton and Co., Ashton-under-Lyne; Dr. Charteris, Glasgow; Messrs. Crossley and Co., London; Mr. Blakeley; Mr. F. Savery, Hull; Dr. Theodore Williams, London; Dr. Tatham, Manchester; Messrs. Baillière and Co., London; Dr. Shirtliff, Kingston-on-Thames; Messrs. Wheatley and Co., London; Mr. P. Thornton, Canterbury; Messrs. Bullock and Co., London; Dr. Elder, Nottingham; Dr. A. Miles, Edinburgh; Mr. Oakshott, Falmouth; Dr. Windle, Birmingham; Mr. E. Frazer, Ballymote; Dr. P. Gardiner, Antigua; Mr. Watt, London; Dr. Adam, Malling-place; Mr. Diggens, Lancaster; Mr. Watson, London; Mr. H. Sell, London; Mrs. Davies-Gilbert, Eastbourne; Dr. Davies, North Wales; Mr. Brown, Edinburgh; Mr. J. B. Browne; Messrs. E. and S. Livingstone, Edinburgh; Mr. Fairbank, Windsor; Messrs. Christy and Co., London; Mr. Boys, St. Albans; Mr. F. G. Cory, Buckhurst Hill; Mr. H. H. Taylor; Dr. H. Woods, Highgate; Messrs. Austin and Son, Clifton; Dr. M. T. Mac Cormack, London; Dr. De Havilland Hall, London; Dr. H. W. G. Mackenzie, London; Messrs. Blondeau et Cie., London; Mr. Quinby, Liverpool; Mr. Cockran; Dr. More Madden, Dublin; Mr. A. W. Hare, Manchester; Messrs. Cassell and Co., London; Mr. Eales, Torquay; Dr. Sisley, London; Mr. Greene, Ballycarney; Dr. Wolfe, Glasgow; Mr. Stretton, Leicester; Mr. L. Mark, London; Mr. Aveling, Paddington; Dr. J. H. Bell, Bradford; Mr. Barrett, New-cross; Dr. Sinclair, Manchester; Mr. Tierman, Newcastle; Surgeon Hall, Bombay; Mr. Stanford, London; Dr. Waters, Liverpool; Mr. Clark, Mortlake; Mr. Griffith, London; Mr. Wallace, Birmingham; Messrs. Quebell Bros., Newark; Messrs. Butterfield and Sons, Northampton; Mr. Fogarty, London; Messrs. J. Beal and Son, Brighton; Dr. Macphail, Derby; Dr. Rice, Derby; Messrs. Brady and Martin, Newcastle-on-Tyne; Dr. Santini, Venice; Messrs. W. and A. K. Johnston, Edinburgh; Mr. Day, Bournemouth; Messrs. Ridge and Sons, Wolverhampton; Mr. Hastings, Sidmouth; Mr. Cooke, New Zealand; Mrs. Marten, Wolverhampton; Secretary, German Hospital; A. C. S.; M.R.C.S.; H. F. S.; D. S., London; Secretary, Bedford General Infirmary; A. B.; W. L., Kensington; Secretary, Chelsea Hospital; Fales, London; M. M., London; Secretary, Birmingham Skin and Lock Hospital; S. L., London; Secretary, College of State Medicine, Bloomsbury; Secretary, Cheltenham General Hospital; W.E.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Swete, Worcester; Mr. Sutton, Cheshire; Dr. Dyer, Clifton; Dr. Gavitziano, Constantinople; Mr. Tyte, Minchinhampton; Messrs. Mottershead and Co., Manchester; Mr. Chubb, Devonport; Messrs. Reynolds and Branson, Leeds; Mr. Bonar, Bristol; Dr. Holmes, Kingston, South Australia; Dr. Bruce, Penang; Mr. Ungent, Wilts; Messrs. Purdon and Stoke, Birmingham; Dr. Marshall, Liverpool; Dr. Basu, Upper Burmah; Dr. Brewis, Tasmania; Mr. Deacon; Mr. Hutchinson, Fence Houses; Mr. Patten, Wolverhampton; Mr. Tully, Hastings; Dr. Finch, Salisbury; Mr. Lockhart, Dunstaple; Mr. Fleming, Tufnell-park; Dr. Murray, Dublin; Mr. Jeafferson, Ulverston; Mr. Watts, Christchurch; Mr. McMordie, Belfast; Mr. Finch, Hulme,; Miss Meyers, Holloway; Rev. Mr. Chichester, Sandwich; Mr. Heywood, Manchester; Mr. Pilkington, Lancashire; Dr. Robson, Leeds; Mr. Dodd, Bournemouth; Mr. Round, Southport; Dr. MacLauchlan, Warwickshire; Mr. Walter, London; Mr. Preston, Cambridge; Mr. Mallagh, Barrow-in-Furness; Mr. Gibson, Kent; Mr. Patten, Northampton; M.R.C.S., Manchester; Beta, Leeds; Cantab., London; Dispensary, Noel-park; Resorcin, London; Lady Superintendent, Hospital for Sick Children, Pendlebury; Alpha, London; M. M. B., London; Lady Superintendent, Bournemouth; H. C. M.; Sister-in-Charge, Nursing Institute, Hitchin; Beta, London; T. F., Oldham; Box W., Wallingford; Fides, Westminster; Practitioner, London; Alpha, Leeds; Secretary, Counties' Asylum, Carmarthen; A. P. T., London.

Thames Valley Times, Glasgow Herald, Weekly Free Press and Aberdeen Herald, Bradford Observer, Reading Mercury, The Englishman (Calcutta), Surrey Advertiser, Sunderland Herald, Guardian (Chester), Hertfordshire Mercury, Sheffield and Rotherham Independent, Sunderland Daily Echo, &c., have been received.

Medical Diary for the ensuing Week.

Monday, December 30.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M. Thursday, 9 A.M.

Tuesday, December 31.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. A. W. Rücker: Electricity. (To a Juvenile Auditory.)

Wednesday, January 1.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, January 2.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
ROYAL INSTITUTION.—3 P.M. Prof. A. W. Rücker: Electricity. (To a Juvenile Auditory.)

Friday, January 3.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, January 4.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
ROYAL INSTITUTION.—3 P.M. Prof. A. W. Rücker: Electricity. (To a Juvenile Auditory.)

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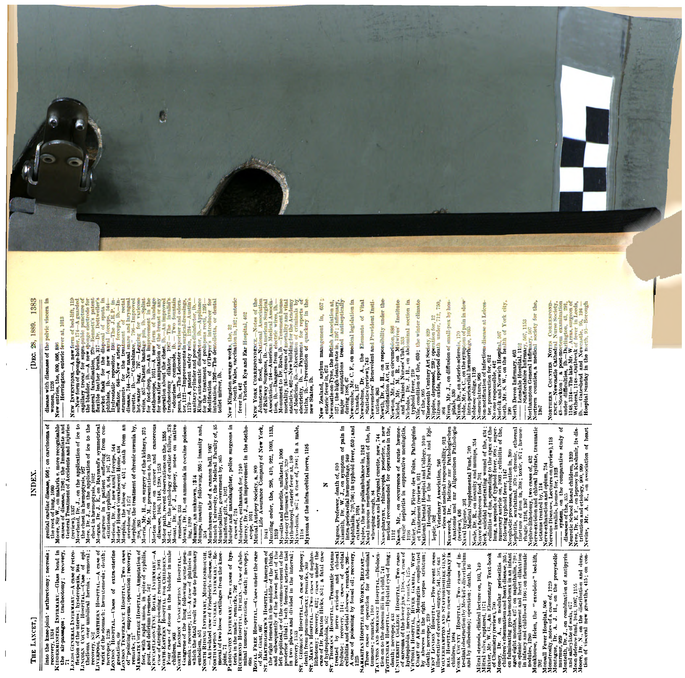
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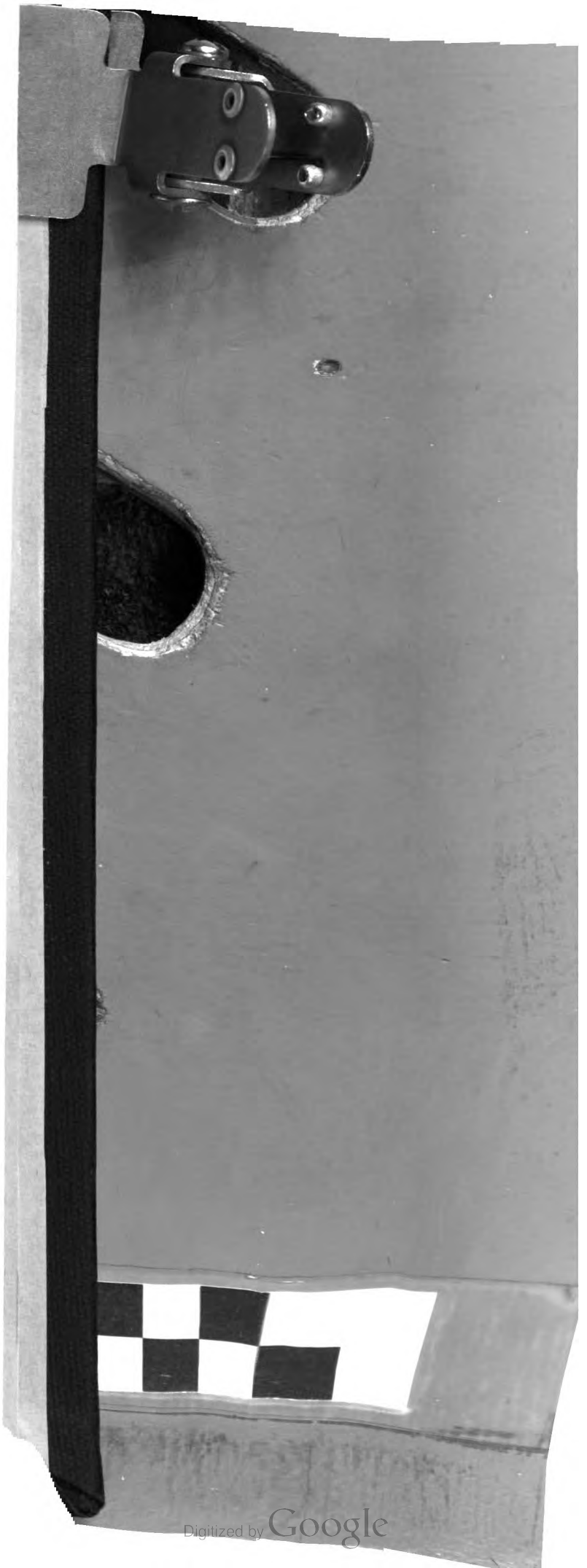
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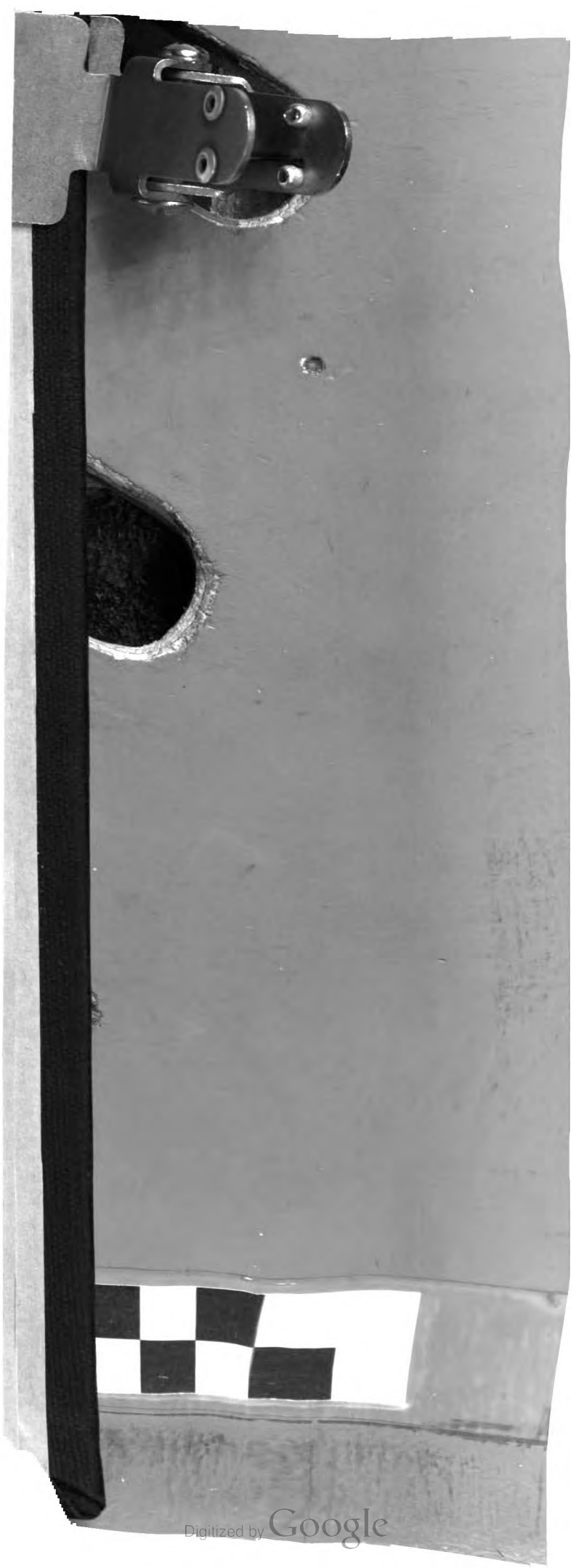
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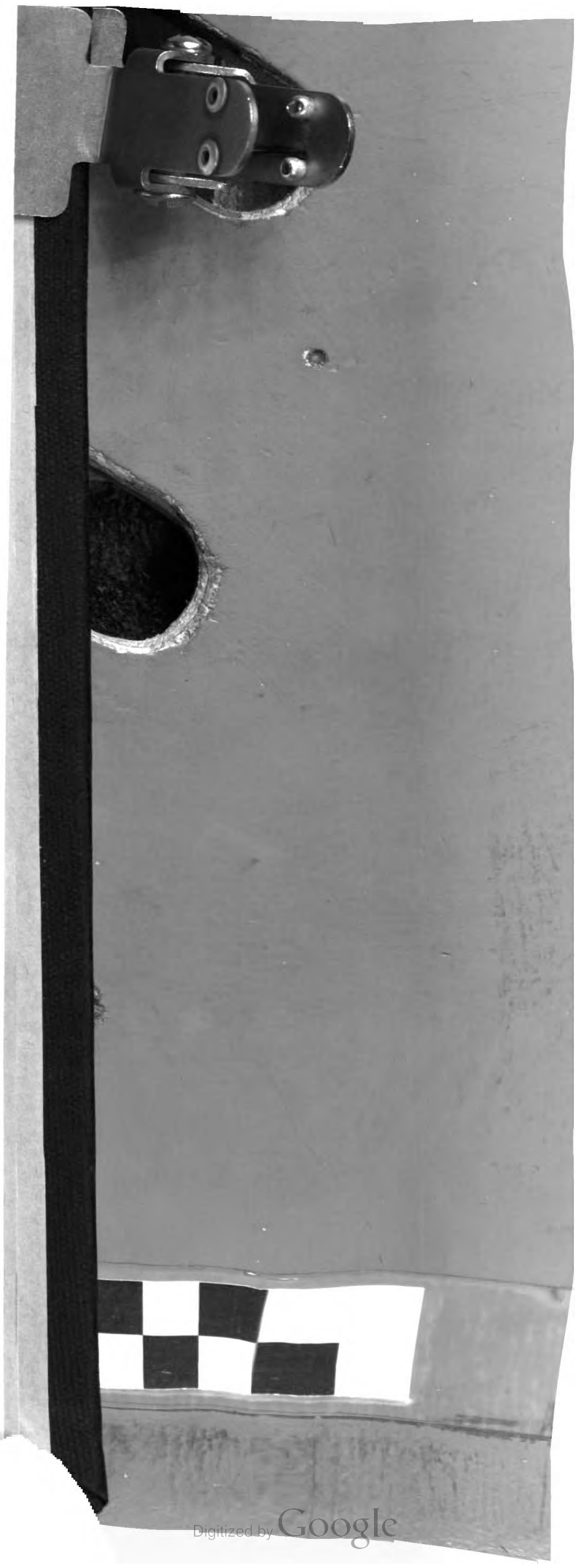
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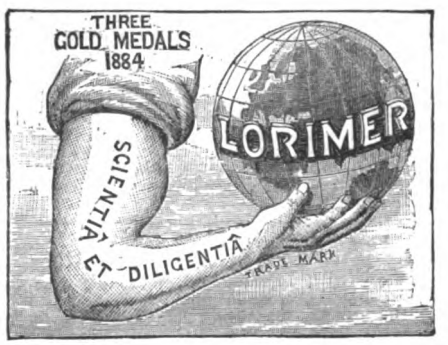
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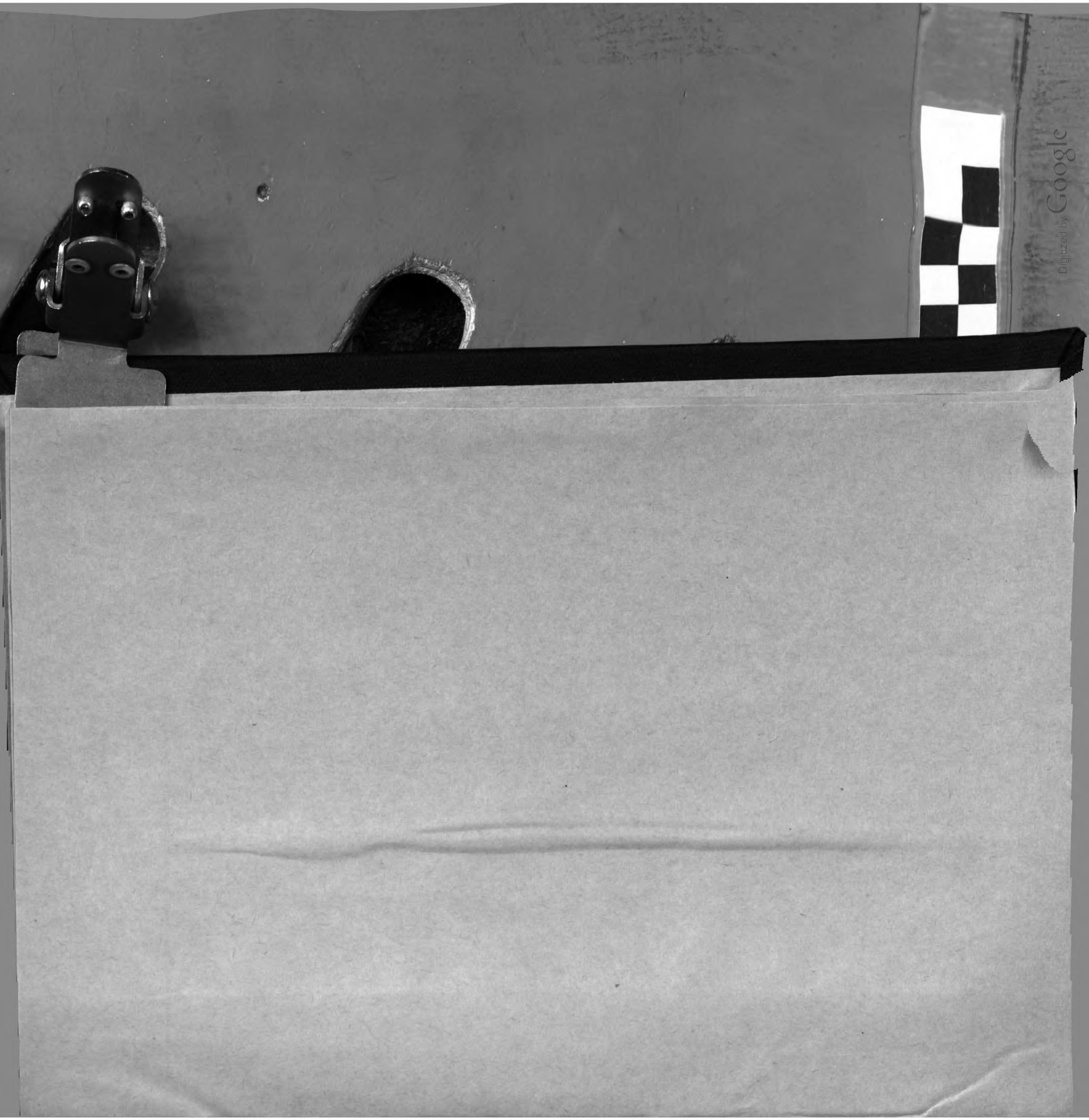
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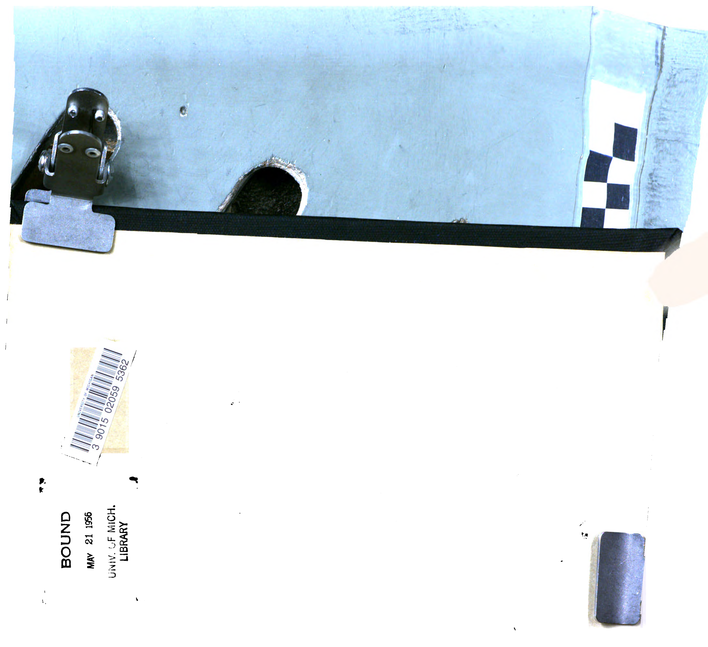
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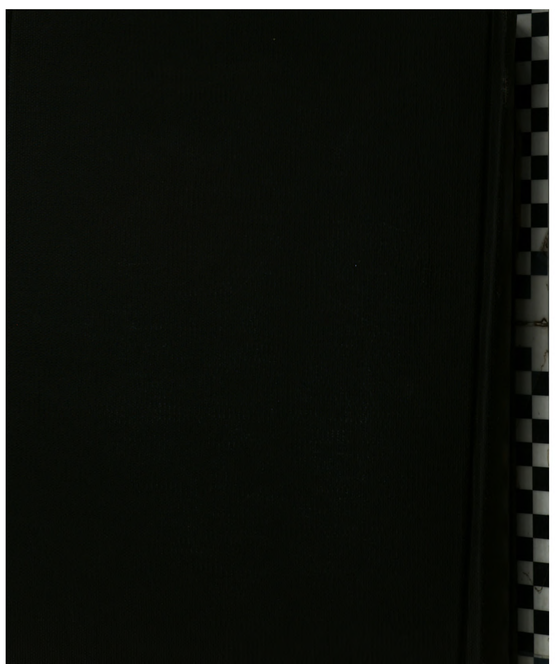
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